

Self-Study Report for Re-Accreditation

Part II: The Evaluative Report

A. Executive Summary

Envisaged by the zealous founding fathers as a humble abode of learning in response to the need of turbulent 1940s caught in the uncertain cusp of the II World War and Pre-Independence travails, Sacred Heart College, the pioneering educational initiative of the CMIs in Kerala, now stands tall in academic excellence and public esteem. The college, fondly nurtured and ably steered by visionary leadership, having evolved into a premier centre of higher education through its 7 decade-old fruitful academic journey, is now poised at a momentous threshold of growth, happily blending its rich past, rewarding present and optimistic future.

The college established in 1944 by the CMI missionary fathers – reputed educational pioneers managing successfully over 500 educational institutions across India and abroad - on the enchanting shores of Vembanadu backwaters on Thevara Island, surrounded by lush greenery and located away from urban bustle, the 3-storeyed majestic structure on the 11 acre campus, spacious in dimensions, simple and elegant in design, is an aesthetic treat. Ever since its origin, the college - fondly called ‘Thevara College’- has followed its core philosophy: holistic vision, i.e., harmony of the intellectual, physical and spiritual endeavours enshrined in its motto, *cor rectum inquirat scientiam* (a righteous heart seeks after wisdom). A First Grade college affiliated to MG University, Kottayam, it offers a variety of conventional and vocational programmes for diverse mix of students from urban, semi urban and rural milieux. Accolades, awards and honours have bolstered its morale in its triumphant march from the modest origin with 29 students in 1944 to the present strength of 1850, spread across 9 UG and 10 PG departments and 6 research

centres. The college has bagged the coveted **R. SANKAR AWARD** for the Best College in the state, instituted by the government of Kerala twice (1996 & 2004). Sacred Heart was also chosen as **College with Potential for Excellence** in 2004 by the UGC and the status was extended in 2010. In the national surveys, for the **Best Fifty Colleges**, undertaken by prestigious media agencies such as *OutLook* and *India Today*, SH was ranked 24th and 26th in 2006 and 2007 respectively, while notching up the commendable I rank consistently for 4 years since 2006, among colleges in Kerala. In the NAAC accreditation in 2000, the college was awarded the highest rating of **FIVE STAR** and in the 2007 re-accreditation, the feat was replicated with **A+ (91.7)**. Academically the college's record has been consistent and commendable, with top ranks and cent percent result almost a routine in many branches such as English, Commerce, Economics, Physics and Zoology. On the sporting arena, the college's credentials have been unrivalled maintaining I or II position in the MG University in games for the past many years, with many of our sportspersons representing the University, the State and the Country. In the cultural scene, our records have been quite impressive, consistently maintaining its position with in the first five places in the MG University Youth Festivals, besides winning many accolades in the prestigious inter-college and TV channel-based competitions across South India. In the period after the re-accreditation in 2006, the college has made rapid strides on many vital fronts. The faculty profile has climbed a few notches by 18 additional PhDs. The number of teachers with Ph.D now stands at 38, ie, 47% of the total strength, up from 29% in 2006. Teachers with MPhil are 21. Of the sanctioned strength of 95, 81 are regular faculty; 39 teachers serve as guest faculty. 15 members have availed the FIP in this period, 3 members are engaged in Post-Doctoral Research. In the period 2006-11, 77 international, 41 national publications of research papers and findings have been contributed by the faculty. The college has produced 34

PhDs in the given period under the guidance of 28 research guides in various departments. The publication of 2 research journals - Humanities and Sciences - with ISSN, 388 popular articles, 27 books, and contributions in anthologies also provide ample evidence for the creative vigour of the faculty in the given period. Some of the faculty, especially in Biosciences are researchers of renown, presenting papers and seminar in world fora held in Switzerland, USA, Germany, Spain, Taiwan and Poland. A faculty member awaits patent for his work in dye and its applications. The achievements in the field of Arachnology are indeed a praiseworthy instance.

The UGC has been especially munificent with its financial assistance in the period 2006-11. It has sanctioned funds to the tune of Rs.4,35,55,800/- over the last 5-year period for various projects and proposals undertaken by the college. A total of Rs. 1,91,81,210/- has been allocated for major and minor projects by the faculty. The FIST assistance availed by the Botany and Chemistry departments together is Rs. 87,60,000/-

On the strength and support of these financial awards, the college has managed to make many an infrastructural leap. The library assistance has been helpful in renovating and modernizing it with computerization, Network, DELNET and INFLIBNET facility. The significant digital make over of the campus with wi-fi, video conferencing facility, interactive boards, digital library, additional systems – not to mention the film studio with state-of-the-art Final Cut Pro - have effected a seachange in the academic environment with laudable benefits for the stakeholders. Apart from the academic infrastructure, the ladies hostel (capacity 90), the two new buses, the yachting club, the horse riding, the gym – all have contributed tremendously in responding to the multifarious needs/interests of the student community. The digitalization of the campus has had telling impact at various levels. The students themselves have made confident forays into the virtual world with web logs – *Heartbytes* - launching new horizons of

creativity and learning. Far from being passive receivers of information the students of the college run the whole gamut of campus life contributing and enriching themselves. The students' union, democratically elected, leads and ensures student participation and mobilizes the community in worthwhile enterprises such as youth festival and eco-drives. The college website - frequently updated – is a cyber window to the many-splendoured life of SH, apart from being an important facility for academic interface for the students. The website and its optimal use by the students, alumni and public have not only vindicated the digital initiatives but have facilitated the smooth delivery of learning via new technology, as suggested by the 2007 re-accreditation report.

The availability of expertise and infrastructure has enabled the college to play a pivotal role vis-à-vis linkage with Government of India and global Universities. In 2011, SH has been accorded the rare honour by the MHRD, Government of India, to host its pioneering venture to bring the treasure trove of the National Museum, Delhi to the campuses across the country. Another laudable initiative of the college was hosting **INSPIRE**, a programme of the DST in 2010, to draw Plus 1 students from across the nation to the basic sciences. Augsburg University, Germany and Nihon Fukushi University, Japan, have sent their students for semester-stay-in-study in the college. A batch of Japanese undergraduates will enroll in the college as part of academic link up in Feb, 2012. The college has initiated collaborative ventures with Auckland University of Technology, New Zealand and the Australian Catholic University for academic programmes.

SH is a green campus. Proactive measures for environmental protection are organized and executed passionately by the college. An abiding concern for environment in tune with the global concern, underscores the college's present ethos and culture. A part of its energy needs are met by nonconventional sources such as solar and wind power. Visible in every SH act, this concern further reinforces its holistic approach.

Now, at the cusp of completing 7 decades of noble academic pilgrimage, Sacred Heart justifiably feels proud of its unique status. The college has cleared many hurdles and progressed beyond the benchmarks set at the Five Star accreditation of 2000 and the A+ level in 2007. As the college at present hopes to translate its daunting prospects into reality, it feels hampered by the constraints of affiliation status. Therefore, it has been aspiring for autonomous status for a fuller and meaningful academic environment. With all its brilliant credentials on board, the college expects a welcome transition in the near future towards greater autonomy in administration and academics. Poised at a phase redolent with the fabulous possibilities offered by digital revolution to experiment and innovate, the institution continues to find sustenance in its noble legacy, reassurance from its beaming present and optimism from its buoyant future, enveloped as it always is with the flaming Heart of its benign Patron and consummate Guru - Jesus Christ.

A holistic vision in place, with a matching passion of the competent faculty and proactive management, SH hopes to redeem its pledge, and is eager to soar higher to the hallowed orbit of excellence in the days ahead.

B. Criterion - wise Evaluative Report

Criterion I: Curricular Aspects

1.1 Curriculum Design and Development

1.1.1 Sacred Heart College functions as an affiliated institution under the Mahatma Gandhi University, Kottayam, Kerala, delivering primarily, the curriculum set by the University. As an affiliated institution, the college has little leeway in the curricular side of its engagements. All the same, the college has constantly engaged in negotiating the confines set for affiliated colleges in formulating, customizing as well as delivering the curricula which embody the fundamental goals of the institution. Thus, while on the one

hand, the college rigorously follows the academic guidelines set by the university, it has constantly endeavored to further its vision by leveraging on the framework of university education.

Motto of the college

The college motto *cor rectum inquirat scientiam* – “a righteous heart seeks after wisdom” - symbolises the guiding principle of the college. For, true knowledge is a gift from the Omniscient, and moral uprightness and a humane disposition are a precondition to it.

As is symbolised in the hallowed insignia of the college, it is the profound love and unending compassion of the Sacred Heart of Jesus that has been the driving force behind the college all through its history. It is the belief of the institution that with a perceptive moulding of the head, heart and hand, a student should not only be able to sail safely through the troubled waters of the ocean of life - *samsara sagara* –with courage and confidence but also to make meaningful contributions to the progress of the nation and to the humanity as a whole.

The Vision: The college as a community, envisions a society that engages in a constant search of knowledge with a righteous heart. For, only an enlightened society founded on a relentless pursuit of excellence, a secular outlook on life, a thirst for moral values as well as an unflinching faith in God can usher in the millennium. It, therefore, envisages the creation of a social order which respects the dignity of the individual, fights unjust social structures, nurtures religious harmony and reaches out to the needy without discrimination of any kind.

The mission: The mission of the college is inextricably linked with the cardinal mission of the Carmelites of Mary Immaculate (CMI), which is the forming the youth on Gospel values as well as to initiate them into the profound humanness of Jesus. The CMI academic institutions, however, are founded on a more secular vision viz., the shaping of a society

that is founded on knowledge, righteousness and faith in God. Thus the college sets for itself the mission to provide an environment that facilitates – a) the holistic development of the individual; b) enables its students to play a vital role in the nation-building process and contribute to the progress of humanity; nourishes conscious discernment c) disseminates knowledge even beyond the academia d) instills in the students a feel for frontier disciplines and e) cultivates a concern for the environment - by setting lofty standards in the ever-evolving teacher-learner interface.

The stakeholders of the college are constantly reminded of the vision and mission through a variety of programmes and projects. The open policy with regard to admissions and recruitment of staff, constitution of PTA and other administrative bodies, the transparency in student services and support programmes affirm the secular credentials of the college. Its eco-friendly initiatives and thrust on sustainable lifestyle demonstrate its commitment towards preserving the environment. The investment on sports infrastructure, the budgetary outlay for cultural activities, programmes such as **INSPIRE** to draw school graduates towards basic sciences, the frequent skill development programmes, academic seminars, workshops, exhibitions and presentations act as billboards-in-action through which the college conveys its vision and mission to its stakeholders. Besides these, the orientation programmes for the students, induction programmes for the staff, publicity through the various media – handbook, website, prospectus, brochures and other publicity materials also help the college communicate its vision and mission to its stake holders.

1.1.2 At a time when education was accessible only to the privileged few, the founder fathers of the college came to the island of Thevara in the suburbs of the then Kochi and established the college with the primary objective of liberating the ordinary masses intellectually, spiritually as well as economically, through education. The goals of the

college do not, however, end in the unqualified dissemination of knowledge. It has, from the beginning, sought to qualify it with discernment on the one hand and the abiding Christian values of love and compassion, on the other. The legacy of upholding secular values, striving for excellence, social commitment and adherence to the Christian values of love and compassion is testimony to its vision and mission. From where it started 67 years ago, the college has gone on to take little deviation from its institutional goals. However, it has displayed sufficient dynamism in adopting newer attitudes and fresh approaches that the changing times have called for. While the relentless strides made by information technology, leaving virtually no human activity out of its domain and the phenomenon of globalisation have opened up newer opportunities, its corollaries such as the implosion of cultures, rampant consumerism, depletion of natural resources and environmental degradation have all laden upon the institution greater responsibilities. The situation has, on the one hand, necessitated greater emphasis on discernment and a tighter hold on the moral and spiritual values the college has stood for, on the other. Accordingly, the programmes and projects of the college hinge upon its core values such as holism, nation building, dialogue, respect for the other, social justice, care for the physical environment and above all, faith in the Divine Providence.

1.1.3 Pursuit of Knowledge: The programmes offered by the college embody the overarching vision of its founders, keeping the focus on the furtherance of knowledge, skill development, employability, social commitment and spiritual growth. As a centre for higher education, the college has kept in view the project of building up the edifice of knowledge. As such, the majority of the programmes offered by the college are in the area of fundamental sciences and humanities. At UG level, the college offers Mathematics, Physics, Chemistry, Botany, Zoology, English, Economics, Sociology, Commerce Taxation, Commerce Computer Application and Computer Application. At the

PG level, the college offers Mathematics, Physics, Chemistry (2), Botany, Zoology, English, Economics, Commerce and Aquaculture.

Research: Over the last five years, the college has established a sound research culture and has produced 34 Ph Ds and 118 research articles in both international and national journals. Apart from this, there are 14 major research projects and 38 minor research projects. 23 projects have been completed in the last 5 years. The total outlay of research projects during the last five years amounts to Rs. 1,91,81,210/-

Employability: Composed of a broad spectrum of the social strata as it is, the majority of the students belong to the semi-urban middle and backward groups. As such, the college has special responsibilities towards the economic and social uplift of the people of the region. Thus, it has been the endeavour of the college to provide them support in every possible way. The academic programmes equip them with skills and qualification to enter the job market with confidence. In spite of the rigid framework of the affiliation system under which the college functions, it has earned sanction to offer two undergraduate (Computer Science and English Copy Editor) and two postgraduate programmes (Aquaculture and Pharmaceutical Chemistry) in the job-oriented category. Besides offering vocational programmes, taking cognizance of the local and industry needs, the college offers numerous certificate/diploma/short term courses to promote employability in various fields. With the conviction that economic stability is a necessary condition for a self-reliant society, the college continues its efforts to obtain sanction for more job-oriented programmes which it began two decades ago.

Skill Development and Competitiveness: From the periodical interaction with the industry representatives and scientific community through the its DQACs, Career Guidance Cell and Placement Cell, the college takes stock, from time to time, of the effectiveness of its programmes and emerging industry expectations. In the light of the

feedback that the industry is looking beyond the certificates from universities for skilled personnel, the college has been providing training in skill development in a variety of areas across disciplinary boundaries. This includes training in communication skills, group discussion, presentation, interview skills, debates and so on. The department of Computer Science offers free training for all first year undergraduates in the use of ICT, enabling them to make use of the ICT facilities in the college. The department of Mathematics has been offering a programme called BMLP (Basic Mathematics Learning Programme) for students across all undergraduate programmes since 2005. Training for National Eligibility Test (NET) for those who wish to enter into academic profession is offered by the departments of Chemistry, Physics, English, Mathematics and Botany. The number of students from the college who have qualified NET in the last few years bears testimony to the effectiveness of this training programme. Taking into account the fact that the biggest barrier to success for the students from the lower economic strata is their inability to communicate in English, the department of English provides special remedial sessions for all first year undergraduate students. And to follow it up and prepare them for employment, the department has chosen to offer 'English for Careers' as the Open Course in the 5th semester of the undergraduate programme.

Civic Engagement: It is the philosophy of the college that it cannot remain an adytum wherein the public has no access to draw sustenance from the knowledge it produces and disseminates. Hence the college is constantly engaged in activities oriented towards public good and has added to its co-curricular activities a gamut of public interface programmes.

The physical, topographical and material circumstances surrounding the college – the aquatic wealth, the proximity of fisheries and marine institutes, fishing community in the neighbourhood etc., - repose on it both an opportunity and an obligation to extend academic knowledge in aquaculture. Thus the college started PG diploma programme in the discipline

in 1994, which was later upgraded as a full-fledged Master's degree programme. Considering the backwardness of the fishing community, as well as the benefit such an informed group of young men could bring to the practices in the field of fisheries, to ecology and thereby to the community as a whole, the college has made every effort to keep the fee for the programme nominal. The UG programme in Computer Science was started as a job-oriented programme to tap the opportunities in the ever-expanding horizon of ICT. The UG in Commerce is the result of the constant demand from the part of the stakeholders for more seats for B.Com. Since it was financially non-viable for the government to approve it as an aided programme, the college sought affiliation for the programme under the self-financing category. All the three programmes mentioned above follow the curriculum and syllabus approved by the MG University and the qualifying certificates are issued by the university.

1.1.4 ICT Revolution: In recent years, the college has had a leapfrogging in terms of the ICT infrastructure and its application in the delivery of courses. The training given at the commencement of the UG programme in computer literacy enables students to do much of the academic transactions online. A part of the assignments and project work are done online by the undergraduates. The general library is provided with internet facility for the students to refer to online sources. The PG classrooms have high speed internet connectivity and they are encouraged to use the same with no restrictions whatsoever. In addition to it, each PG department has its own computer lab which is open to the use of students. All departments are equipped with state-of-the-art interactive boards and a good many teachers make use of the technology. The library is digitally catalogued and systems are provided for search. The library has subscription to INFLIBNET, DELNET and YMCANET and the students as well as teachers are encouraged to access resources available online. In a sense, the college has entered the second phase of the application of ICT wherein it uses indigenously developed software for in-house applications.

Thanks to the efforts of the department of Computer Science, internal assessment software, teacher evaluation and library catalogue search software are on song. The new website of the college is a quantum leap in the use of ICT featuring a plethora of applications such as delivery of course material as well as submission of tasks for internal assessment, teacher evaluation, transaction of books in the library, registration for various internal courses and membership to clubs and associations etc. Although it is in its nascent stage, the college has on its anvil, more online courses as well as transforming the website into an online resource centre. Work is in progress on e-content development by teachers for web-based learning.

1.1.5 Curriculum Design: Due to its tall stature in the university, a good number of the teachers of the college are playing significant roles in the curriculum design at the university level. 11 of its faculty members are on the various UG and PG Boards of Studies (*appendix 1 & 2*) enriching the programmes through their suggestions and contributions. The periodical interactions that take place in the college with the representatives of the industry, civic bodies, former students as well as the existing ones help them shape their perspectives on academic programmes. The momentous transition of the undergraduate programme from the age old annual scheme into CBCSS by the MG University was amply supported and enriched by the faculty of the college. 25 teachers were directly involved in the course restructuring of the CBCSS of the University. Three faculty members were resource persons for the formulation of the curriculum and syllabus of various courses and in imparting training to teachers of various colleges on the CBCSS. In addition to this, a one-day workshop was conducted by the college to familiarise teachers with the CBCS System and the new pattern. The college ensures the rigorous pursuance of the new system with transparency.

The open courses under the CBCSS are a shot in the arm for the efforts of the college in offering interdisciplinary courses. While selecting courses under the open courses, the

college has taken into consideration the views of the students, alumni, prospective employers and experts in higher education besides its resource pool. The college has made pioneering efforts in introducing new and emerging areas such as Computer Applications and Aquaculture and has proven its native ability to design and execute its own curricula. Thus, recognising its resources, expertise as well as the social recognition to become an autonomous institution, as endorsed by the first NAAC peer team, the college has been continuing its efforts for academic autonomy.

Knowledge Enhancement: Apart from the contributions to the university in curriculum design and implementation, a variety of short term courses are designed and offered by the college aimed at value addition, enhancement of their knowledge in the domain besides allowing flexibility in knowledge acquisition. This is an off-shoot of the feedback received from the students, alumni, industry representatives and the civil society. The department of Computer Science offers a 1 year certificate course '*O' Level*', and a *Postgraduate Diploma in Computer Applications* and a 6-months certificate course in *e-commerce*. The department of English offers two certificate courses conceived and designed entirely by its members: an online certificate course in *Postcolonial Indian Writing in English* for international students and an 8-week certificate course in *Creative Writing*. Apart from these, a number of courses are offered as add-on courses by the various departments of the college, all of which are formulated and delivered by the respective departments. This includes the short term course in *Plant Tissue Culture* which the department of Botany has been offering since 2006; *Electrical and Electronic Instruments Maintenance* by the department of Physics; *Food Processing and Preservation* by the department of Chemistry and *Human Rights* by the department of Economics. In addition to these, the college offers training programmes aimed at improving the lives of the people in the locality besides that of the students. This includes training in mushroom cultivation, fish pickle making, paper bag making, embroidery and

surveying methods. Apart from these, in association with Kerala Sangeeth Natak Academy, the college offers diploma and certificate courses in classical dance and music.

1.2 Academic Flexibility

1.2.1 The college offers 11 UG programmes under the recently introduced CBCSS, 10 PG programmes, 2 diploma and 6 certificate courses including an online course. Within the UG programmes the students have the liberty to choose a course from a discipline other than their major in the 5th semester. Besides this, of the 10 PG and 11 UG programmes offered by the college, PG programme in Aquaculture and UG programmes in Computer Science and Commerce (with Computer Science as optional) are self-financed. The college has 6 research centres approved by the MG University offering PhD programmes.

1.2.2 The core academic programmes of the college are run in accordance with the norms of the MG University and hence it follows the university norms regarding the time frame and other aspects these programmes. Where flexibility is allowed, such as in open courses, add on courses, bridge courses etc., the college provides maximum flexibility.

PhD Programmes (Table 1)

Sl.	Programme	Discipline
1	PhD	Botany
2	PhD	Chemistry
3	PhD	Commerce
4	PhD	Economics
5	PhD	Physics
6	PhD	Zoology

Postgraduate Programmes (Table2)

Sl. No	Stream	Programme	Duration	Category
1	M.Sc.	Aquaculture	2 years	Self-financed
2	M.Sc.	Botany	2 Years	Govt. Aided
3	M.Sc.	Chemistry (Pure)	2 Years	Govt. Aided

4	M.Sc.	Chemistry (Applied)	2 Years	Govt. Aided
5	M.A.	English	2 Years	Govt. Aided
6	M.Sc.	Mathematics	2 Years	Govt. Aided
7	M.Sc.	Physics	2 Years	Govt. Aided
8	M.Sc.	Zoology	2 Years	Govt. Aided
9	M.A.	Economics	2 Years	Govt. Aided
10	M.Com	Commerce	2 Years	Govt. Aided

Undergraduate programmes offered by the college (Table 3)

Sl	Stream	Core subject	Electives	Duration	Category
1.	B.A	Economics	Politics, World History	6 Semesters	Aided
2.	B.A	English (Copy Editor)	Printing & Publishing	6 Semesters	Aided
3.	B.A	Sociology	Politics, World History	6 Semesters	Aided
4.	B.Com	Commerce (Taxation)	Taxation Law & Practice	6 Semesters	Aided
5.	B.Com	Commerce (Computer)	Computer. Aplns in Business	6 Semesters	Self-financed
6.	B.Sc.	Botany	Chemistry, Zoology	6 Semesters	Aided
7.	B.Sc.	Computer Science	Maths, Statistics	6 Semesters	Self-financed
8.	B.Sc.	Chemistry	Maths, Physics	6 Semesters	Aided
9.	B.Sc.	Mathematics	Statistics, Physics	6 Semesters	Aided
10	B.Sc.	Physics	Maths, Chemistry	6 Semesters	Aided
11	B.Sc.	Zoology	Chemistry, Botany	6 Semesters	Aided

PG Diploma Programmes (Table 4)

Sl.	Name	Subject	Duration	Category
1	PGDCA	Computer Applications	1 Year	Self-financed

Certificate Courses (Table 5)

Course	Type	Duration	Discipline	Objective
BEC	On campus	40 hours	English	Value addition
CPCIWE	Online	30 hours	English	Niche creation
Tissue Culture	On campus	3 months	Botany	Enrichment

Mushroom cultivation	On campus	3 weeks	Botany	Self-employment
Electrical & Electronic items Maintenance	On campus	3 weeks	Physics	Self-employment
Human Rights	On campus	3 months	Economics	Enrichment
Food Processing & Preservation	On campus	20 hour	Chemistry	Enrichment

Open courses offered by various departments for undergraduate students (Table 6)

Sl.	Name of the Course	Department
1.	English for Careers	English
2.	Environmental Economics	Economics
3.	Elements of Social Psychology	Sociology
4.	Agri-based Microenterprises	Botany
5.	Chemistry in everyday life	Chemistry
6.	Applicable Mathematics	Mathematics
7.	Energy and Environmental Studies	Physics
8.	Genetics, Nutrition, Community Health & Sanitation	Zoology
9.	Internet, Web designing and Cyber Laws	Computer Science
10.	Physical Health and Life skill Education	Physical Education

1.2.3 The college has had a 12-year long association with Notre Dame University, Indiana, USA for their *Semester around the World Programme*, in which the students of the university stayed on SH campus for 3 months to undergo their coursework. The college provided facility for them to stay on/next to the campus, and lecture sessions and assessment were done in the college itself. A tie-up is already underway with BAYIND (Bayern India) and Nihon Fukushi University, Japan. The college is now in talks with a cluster of universities in the US and New Zealand, Australia and Germany for offering similar courses. Apart from this, the department of English has launched an online course called *Postcolonial Literatures with Special focus on Indian Writing Literatures*. Course

materials and assessment reports are provided online for those who register for the programme.

1.2.4 The college offers 2 UG programmes, 1 PG programme and 7 add on/diploma courses under the self-financing scheme. The course structure, curriculum, admissions procedures for the UG and PG programmes follow the pattern set by the university. Since these programmes are full-time UG/PG programmes a team of qualified and experienced hands are appointed as faculty. They are also supported by visiting faculty consisting of experts in the respective fields. The college not only adheres strictly to the norms set by the university in faculty appointments but also looks for merit while selecting the faculty for the self-financing programmes. The college does not make any distinction between the staff of the self-financing and the aided streams as far as their inclusion in the corporate life of the institution. They have access to all the resources of the college and are included in the staff support schemes of the college. They also have representation in the college council, the apex advisory body of the college. The add-on courses/diploma courses are conducted outside the college hours and a nominal fee is charged for the same. The classes for the add-on/diploma/certificate courses are handled by the regular faculty of the college.

1.3 Feedback on Curriculum

1.3.1 a) The college has a mechanism in place to collect feedback from the stakeholders on the curriculum, its delivery, infrastructure, learning resources etc., on a periodical basis, and the data thus collected are analysed for updating and self-improvement. Besides the end-of-the-semester feed backs, collected by the faculty, the IQAC of the college collects feedbacks from students using structured formats (now computerised). The observations gathered through these feedbacks are discussed at various levels of the administration for necessary corrective measures. **b)** Another source

of feedback is the alumni. All the departments of the college have their alumni associations. Their annual meet to renew their bond to their ‘alma mater’ is also an opportunity to draw feedback on the programmes offered by the college, their effectiveness and the expectations of the industry, as well as sensing the trajectory of advanced research. The suggestions made by the alumni are forwarded to various academic bodies for further discussion and action. **c)** The periodical parent-teacher ‘open houses’ are a very effective means of collecting feedback on how the parents feel about the key areas of academic activities in the college. This heavily participated mutual feedback process is organised class-wise under the various disciplines. The two stages of these open houses are: a general interactive session for the parents and the faculty, and a session where the parents have the opportunity to have a one-on-one meeting with the faculty members. The outcome of these sessions are discussed at the department level and, if necessary, at the college level for further action.

d) The periodical recruitment campaigns organised by the placement cell gives ample opportunities for the institution to assess industry expectations and take steps to revisit the programmes and projects of the college. **e)** The college organises a number of seminars/lectures/discussions/workshops in which experts from various fields – scientific, technical, industry, commerce, literature, art, politics, public policy, education etc – are invited to share their knowledge, and views and recommendations are collected for making improvements in the system. A team of experts consisting of academic peers, industry representatives, and civil society representatives has been formed by each department under DQAC to take stock of the programmes and policies of the college. The observations of the expert committee act as a guiding light to the college for setting long-term as well as short-term goals. **f)** The college website has forums such as alumni, student corner, parents, and visitors to give feedback to the administration on the academic, co-curricular,

administrative engagements of the college. Apart from these the constant interaction of the college with the community through the various extension programmes give the college an opportunity to collect feedback from the community on the academic and co-curricular programmes of the college.

1.3.2 The suggestions collected from various sources are discussed at the appropriate forums in the college viz., the departments, meetings of the various committees, faculty meetings, PTA meetings, College Council meetings, and recommendations are forwarded to the college administration for appropriate action. The recommendations for institutional restructuring are promptly attended to by the college administration. The college administration leverages the presence of its faculty on the various academic and administrative bodies of the university to consider its views and suggestions on academic matters.

1.4 Curriculum Update

1.4.1 There has been a sea-change in the syllabus for the UG programmes with the introduction of CBCSS two years ago. Semesterization, formative assessments, project work and grading system have brought about a complete overhaul of the old system. New impetus is given to oral communication in the revised syllabus through the weighting given to seminars/paper presentation. Buttressing it, the English language paper contains a module for oral communication. Another feature is the two open courses – a course in an interdisciplinary subject and a course in a frontier area in one's own discipline. These multidimensional open courses provide flexibility on the one hand and specialisation on the other. The syllabus for the PG programmes is revised periodically by the university. Faculty from the department of Botany, Sociology, Zoology, Commerce and Mathematics who are members of the various boards of studies have contributed to the syllabus revision effected by the university.

1.4.2 The curricular and co-curricular programmes of the college clearly reflect the core values of the college such as holistic growth, quest for excellence, inculcation of values and skill development. Its efforts at excellence in academics and sports, nourishment of artistic talents through talent clubs such as Theatre Club, Music Club, Dance Club, Film Club, Computer Club, Entrepreneurship Club, Literary Club etc., skill development through Career Guidance Cell, Placement Cell as well as through the departmental initiatives, the insistence on values, the invitation to social sensitivity through awareness forums such as Speakers' Forum, Women's cell, Nature Club, AICUF, dedication to national service through the NSS and the NCC not only help the furtherance of the vision and mission but also are in tune with the core values adopted by the NAAC.

1.4.3 The college has utilised provisions by the Kerala State Higher Education Council for faculty updation in General Informatics. The Principal attended the state level consultative meeting organised by the KSHEC. The college follows the guidelines of UGC, KSHEC and NAAC Peer Team report when it applies for new courses. Accordingly, the foray of the college into frontier areas of academic programmes - Biotechnology and Forensic Science and Criminology, Communication (Animation and Graphic Design, Earth Sciences and Water Management, Business Administration, MSW (Community Development and Human Resource Development) - are still waiting for the nod from the authorities

1.4.4 As an affiliated institution, the college has very limited role in the designing/revision of the curricula for the undergraduate and postgraduate programmes. Yet, the presence of its faculty on the university boards gives it an opportunity to make its own contributions in the syllabus revision. In order to complement the University syllabi short term/add-on courses are offered by the college

1.5 Best Practices in Curricular Aspects

1.5.1 Taking cue from the previous Re-accreditation Report, the college has initiated numerous measures for quality enhancement in curricular aspects during the last five years.

a) New Courses: Introduction of new courses involves administrative sanction, as the prerogative to start new courses does not lie with the college. However, taking into account the relevance and need, the college continues its efforts for administrative sanction for the new programmes mentioned earlier.

b) In order to overcome the lack of flexibility in the affiliated programmes, the college offers a range of short term/add-on courses. This includes a diploma course in *Plant Tissue Culture* as an add-on course, certificate courses in *Food Processing and Preservation*, *Electrical and Electronic Instruments Maintenance*, *Human Rights*, *Creative Writing*, an online course in *Post Colonial Indian Writing in English*, and *e-commerce*.

c) The penetration of ICT in curriculum designing and delivery is another significant step. As a corollary of the training in ICT imparted to the teachers of the college as well as its students, the submission and evaluation of projects and assignments are moving towards a paperless regime. E-content development efforts of the college are beginning to bear fruits.

d) A new, dynamic website is on, featuring an integrated Learning Management System, online entry of internal assessment, online viewing of student performance, feedback mechanism, admission registration, course delivery, testing etc.

e) The teachers in the various boards of studies of the university have played a proactive role in the implementation of CBCSS at the undergraduate level. They have also contributed significantly to the new syllabus that was introduced alongside the CBCSS.

f) A well-structured feedback system has been introduced in the college and the Internal Quality Assurance Cell is coordinating the feedback mechanism. The latest innovation in this domain is the fully computerised student feedback system.

g) On-the-job learning has become a meaningful exercise with the launching of *Koppee* – the student journal contributed and edited by the Copy Editor students is a fully in-sourced project; and the Entrepreneurship Club under the aegis of the department of Commerce gives an opportunity for the students to have a hands-on experience of entrepreneurship.

1.5 2 The following are the major practices planned and implemented in ‘Curricular Aspects’:

- a. Remedial classes to slower learners and disadvantaged groups.
- b. Greater emphasis on skill development through structured training programmes.
- c. Special thrust on exposure to the students through academy-industry interface and invited talks by experts from the scientific community.
- d. Emphasis on interdisciplinary collaboration has resulted in a good number of interdisciplinary project works in the recent years.
- e. Pervasive use of ICT in curriculum delivery and assessment.
- f. A new website with advanced features including provision to offer online courses, access learning resources, online viewing of student performance etc
- g. A fully operational IQAC with a full time staff to support and document the activities of the college.
- h. Departmental Quality Assurance Cells (DQACs) giving feedback and expert advice on the curricular activities of the various departments.
- i. A rigorously structured and transparent internal evaluation system
- j. Application of fully-networked and indigenously developed internal assessment data processing software.
- k. An active departmental alumni providing support to the developmental initiatives as well as giving feedback on the programmes offered by it.
- l. A well-structured Grievance Redress mechanism which conducts its activities in the most transparent manner.
- m. Special modules/courses for fast learners as well as remedial programmes for slow learners.
- n. Structured tutorial sessions to ensure value orientation among students.
- o. Progressive research orientation in academic activities.
- p. Delnet, Infilbnet and 24 hour free internet facility
- q. Incentives for research and publication

Criterion II

Teaching-Learning and Evaluation

2.1 Admission process and Student Profile

2.1.1 SH College, a premier centre of higher education in Kerala has had a glorious 7 decade old journey, trailing clouds of academic aura with Best College Award in the state (twice), CPE status, highest accreditation ratings (Five Star in 2000, A+ in 2007), besides the numerous sporting and cultural accolades. In the recent past, the college has earned the coveted ranking - averaging 24th overall - in the National Ranking surveys of the Best fifty colleges in the country, conducted by various media agencies such as *OutLook* and *India Today*. The latter selected it as the best college in Kerala consecutively for four years. As a sought-after centre of higher education, producing commendable results in academics coupled with enviable record in arts and sports, the college usually receives applications 5 times the number of seats available in its UG and PG programmes. The college does not take recourse to over-the-top publicity for attracting students, for it is confident about the trust the stakeholders repose in it. All the same, at the admission season, the college supplies the prospectus to the potential stakeholders, highlighting the courses and facilities available, as well as the vision and ethos that vitalize the institution. The frequently updated college website (www.shcollege.ac.in) contains more elaborate data on the campus, with links and hyperlinks to the various specific departmental – research – cocurricular aspects, apart from providing a detailed account of its history and progress.

The frequent reports in the local dailies about the “happening Hearts” spare the college the need to publicize itself for attracting students, however, for the self-financing

courses-except commerce –ads are given. MG University has introduced the online registration for PG courses from 2010 (extended to UG Programmes in 2011), and therefore the admission process has undergone a significant revamp, simultaneously reducing the colleges' admission related formalities and attracting students from far and wide. The college has been getting tremendous response from high ranked students in the online registration in all disciplines. This heartening response, a reflection of the standing of the college in public esteem, reinforces its resolve to fulfill the stakeholders' aspirations. As the oldest Commerce Department in Kerala with a magnificent record of ranks and results, the Commerce stream attracts the most meritorious students. The merit cut-off for the discipline has been hovering between 94-95% for the past many years. Not to dilute the success rate in the academic performance, even the management quota merit cut-off has been fixed at 65%. For other disciplines too, the merit cut-off is between 86-90% for the qualifying examination, while the cut-off for SC/ST category has been as per the stipulations of the government. There are 3 vocational courses offered by the college: English Copy Editor, BSc Computer Science and MSc Aquaculture. The cut-off for the vocational course (English) was 80%, and for BSc Computer Science 70%.

2.1.2 As the admission process has turned online from 2010 onwards and the data regarding admissions are posted on a daily basis to the University, utmost transparency is scrupulously maintained. Even for the management quota application forms are supplied to those who have scored above the fixed cut-off, i.e., 65% (Humanities) and 70% (Science). There are sports and arts quotas as well. But here too, the candidates are chosen through a process of screening by the faculty, wherein not only the candidates' sporting or artistic talent is assessed, but also their academic merit. The deserving ones only make the cut, since absolute impartiality is maintained.

2.1.3 The lists of the merit, community and waiting categories are displayed on the notice board on the dates stipulated by the University. Anomalies are promptly addressed to by the office. The norms regarding admission for the SC/ST and persons with disability are strictly adhered to by the institution. The admission process is transparent and is in accordance with the norms of the university. The fee-structure too conforms to the university statute. There is no demand for capitation fee or compulsory contribution. However, financial support, with tax benefits (under 80 G), from the parents are accepted through a transparent mechanism for the developmental needs of the college.

2.1.4 The college has set a tradition of providing scholarships, fellowships and waiver of fees, for deserving students from financially backward sections. As a policy, no student is denied admission on account of his/her inability to pay the fees. There is direct management or PTA involvement in deserving cases, apart from the philanthropic agencies/organizations such as Vincent de Paul Society through which such humanitarian assistance is arranged. Many sportspersons from disadvantaged sections are supported financially by the college. There are scholarships for the children of the non-teaching staff as well as numerous other endowments and awards constituted in the name of former faculty.

2.2 Catering to Diverse Needs

2.2.1 Even though the college manages to enrol meritorious students, thanks to its stature, it ensures that they are sufficiently 'warmed up' before they get into the programmes of choice. Random tests and writing exercises are given to assess their standard. Bridge Courses are offered by every department. The orientation talks during their first days in the campus are meant to prepare them for the challenges ahead. The tutorials and remedial classes are steps in this direction. As English competency is a priority area, much thrust is given for the same. Even at the time of admission, an inventory is made

by the faculty of the talents and special skills of the students and they are directed to one or other of the clubs/organizations to nurture their interests. Our experience is that, the clubs have paved the way for many a talent to bloom and flourish, and make their mark in the chosen fields.

2.2.2 Tutorials, counselling sessions, open houses, classroom discussions - are all occasions for identifying the slow/advanced learners. The class teachers identify the slow learners through assessments, and many departments have the practice of the advanced learners helping the slow learners by tuition and special classes.

2.2.3 Tutorial sessions, conducted with a courseware prepared with special focus on relevant ethical/social/spiritual content, such as ragging is a regular monthly feature for the degree classes. These sessions are vibrant occasions where the teachers and students discuss/debate freely and openly on the content prepared by experts.

2.2.4 Regular tutorial sessions, talks by experts on career/personality development/women-centric issues, informative film shows, awareness programmes, study tours etc form part of non formal education with tremendous impact on the students' formation and perspectives. Every club and talent platform caters to the particular needs/skills of the members. Time slot is provided in the college calendar for each club to organize their meetings and programmes. Reports are duly collected by the general club co-ordinator. For University youth festival competition experts are invited from outside to prepare and coach contestants and teams. Tutorials are occasions for closer interaction with students, where their values, views, perceptions are aired freely for a frank teacher-student exchange and grooming.

2.2.5 The college has an Equal Opportunity Centre supported by the UGC which looks into the aspects of diversity. Ramps have been constructed to provide access to the differently-abled and the construction of a lift is on the anvil. The women constitute 70%

of the student community. There are 10 differently-abled students in the college. **2.3**

Teaching - Learning Process

2.3.1 The teaching-learning process is at the core of the activities in the college with every other activity being planned and executed without affecting it. An academic calendar/handbook is prepared at the beginning of the year, with provision for every academic and co-curricular activity for the year. The time schedule of the calendar is followed, with minimal changes necessitated by unforeseen circumstances. In the present semester system, as there is no room for laxity in completing the syllabus, teachers seldom miss their class assignments. Special classes are routine. Evaluating assignments, conducting internals and seminars etc are occasions for closer analysis and assessment of the students' progress. Tutorials, feedbacks, open houses are all occasions for evaluation of the teacher and the taught. Regular feedbacks are collected from students on standardized format and the same is perused by the Head of the institution.

2.3.2 The college has been making use of technology aids in the teaching-learning process as never before. LCDs, DVDs, computers, interactive boards etc have been incorporated in a big way in all departments. The PG classrooms have computers with net access and the entire campus is linked via wired and WiFi. 24X7 net access is provided to the faculty and under its supervision to the students. Film shows, lectures by experts, workshops and seminars keep the academic schedule busy and vibrant, as the students are exposed to manifold ways of exploring and enhancing their knowledge quest. The compulsory seminars, exhibitions, periodical tests, experiments, the open courses as well as other activities help overcome the tediousness of lecture method, though it continues to dominate especially in the Humanities departments.

2.2.3 The shift, from the teacher-centric to the student-centric learning method is not to be missed in the campus. There is strong awareness that the stakeholders hold the key, and that grooming and equipping them is of primary significance. The teacher, the college insists, has to transform into a facilitator in the process. As wide variety of avenues to garner information and knowledge are available to the students, the teacher has to concentrate on making the student learn for themselves. With added academic duties enjoined upon the students vis-à-vis CBCSS system, they empower themselves, through the routines of seminar presentations, assignments, on-the-job-training, etc.

2.3.4 The college has a calendar chock-a-block with academic and co-curricular activities. Activities could vary from purely academic seminars/workshops to life skills demos to IT software. Host of luminaries from science, medicine, politics, social sciences, culture frequent our campus leaving their imprint on young impressionable minds. All this, apart from the fests organized by departments individually, add up to the holistic formation of students. In 2010, for example, there was an experimental paddy farming undertaken by students in a plot of land, to familiarize them with the realities of farmers' life. There is daily telecast of particular events of the college, shot and edited in the college studio. The students are taught to prepare the text and edit the story for these monthly news bulletins – SH NEWS. It is an occasion to tackle the intricacies of filming. GDs, how-to-face interview sessions- are proving to be extremely beneficial as the increasing number of recruitments reflect. The students' union, departmental associations and clubs are bodies where leadership qualities of students emerge spontaneously. They organize a number of activities geared to empower the student community and give them opportunities to plan, organize and execute activities, taking a leaf from society out there. These are real life skills the students acquire via their responsibilities as student representatives. They organize many intra-mural, inter-

collegiate competitions and fests and they get the 'feel' of the whole concept of organizing that involves accounting, management, keeping time schedules, rallying students around the issue etc. The orientation talks at the beginning of the academic year, the two-day renewal programme, the extension talks and cultural workshops etc. provide occasions for nurturing the abiding values and principles of life, far and above the merely academic training they obtain in classrooms.

Certificate courses by the Computer centre, English department's BEC (Business English Certificate offered by Cambridge ESOL), the IGNOU courses – are all avenues for parallel academic enhancement for aspiring students. The students are always encouraged to make use of the IT-enabled knowledge acquisition. They can submit their assignments via the net. The new website of the college has provision for online learning. During recesses and free hours, students are encouraged to engage in useful activities such as visiting the library, VLC (Visual Learning Centre) watching educational CDs, films or volunteering for some campus service.

2.3.5 Updation of knowledge in the various areas is undertaken in a variety of ways. There are periodic workshops, seminars etc where experts and scholars give talks and lectures. Many exhibitions, demos also showcase the latest in various fields of academics. The PG students participate in a competition wherein the projects - the results of their research-are presented before an audience consisting of fellow students and faculty jury and prizes are given for the best presentation. The faculty participate in national, international, regional workshops, seminars and often share their experiences for the benefit of the students. The students are encouraged to visit other academic institutions to participate in seminars and workshops and update themselves. Vigorous research work is going on in the college in the form of research guideship in frontier

disciplines, publication of papers in national and international journals, presentation of papers in international and national seminars and numerous minor and major projects.

2.3.6 The college has a computerized general library which has over 80,000 books, 25 periodicals and 78 journals. Zoology, Commerce, English and Economics have departmental PG libraries with approximately 7500 books in each. The library is open from 8 am to 5 pm. Free hours are deemed library hours, though one hour every week is earmarked for library-seminar work. The faculty also makes good use of the library. Interactive board facility provided in departments is put to moderate use by the students too. The stock of books in the libraries is replenished frequently. Each department avails of approximately Rs. 50000/- every year for new books. The college departmental libraries have an excellent stock of books for the benefit of PG students as well as research fellows. Students frequent the library during weekends and holidays for academic purposes.

2.3.7 Feedback mechanisms such as SWOT analysis and open houses are in place to monitor and improve the teaching-learning enterprise. Regular (now computerized) feedback is collected from students by teachers and is pursued by the Head of the institution. Prompt corrective measures are adopted whenever necessary. Peer feedback, in the form of non-teaching staff giving feedback on teachers, and inter-departmental feedback are other practices for assessment. Open house is an occasion for feedback on and from students in the presence of their parents. Staff meetings (monthly) and council meetings are other occasions for analysis and cross checking on various decisions and their implementation.

Apart from these, the students can make use of the Grievance Redressal Cell, or approach the respective HoDs, the student advisor or the Principal for freely and frankly expressing their concerns and complaints. Also, there is a suggestion box where the students can

express their concerns and give suggestions, academic or otherwise. The Students' Union, the representative students' body also functions as a feedback instrument where they represent specific issues to the authorities. Alumni bodies in each department are in touch with parent department, and their views and opinions find their way in the annual alumni meets and informal gatherings. The college has a worldwide network of its alumni, who are its proud ambassadors who keep in constant touch with their alma mater and pitch in with suggestions. The college has a practice of inviting its retired faculty every year for the annual dinner. In the gatherings of Retired Teachers Forum, the former faculty share their insights and wealth of experience.

The constant feedbacks from varied sources also include the Principal's visit to every department at least once a semester, the manager's occasional meetings with the staff and SH community. The routine e-mails, from the Principal to the staff and vice-versa also plug whatever lacunae in communication may occur. With these feedbacks in place, a culture of vigilance is nurtured which serve readiness to eschew professional laxity and embrace challenges.

2.4 Teacher Quality

2.4.1 Right from its early history, the college has never been tainted by charge of 'donation' in appointments. The selection of faculty is based purely and entirely on merit adhering strictly to the norms set by the university and government. Any bias or influence from any quarter seldom gets entertained. Though as a minority institution, it is entitled to several community privileges in the selection process, merit and aptitude always prevails, and the management ensures a secular outlook and equity. At present the faculty is slightly short of the sanctioned strength. However, the services of the guest faculty to a large extent compensate it. The faculty profile of the college is quite impressive with 52% of the faculty

being PhD holders and 21 MPhils (*Fig 1*). This figure is up from 29% PhDs at the time of re-accreditation in 2006 (*Appendix 6*). The number of staff participating in national and international seminars, workshops, the faculty visiting foreign countries on academic mission, the researchers publishing articles in international journals, receiving patent - are all on the upswing in the recent times. The qualifications and the rich experience of these teachers naturally prove inspirational to the students.

2.4.2 Over the past five years the college has not introduced any new programmes on account of the policies of the government and the university. However, in order to supplement the needs of the niche areas the existing faculty attend crash courses or short term programmes and equip themselves. Visiting faculty and experts from outside fill in for excess academic work. In the last three years the college has availed the services of 12 visiting faculty/experts in fields such as IT, aquaculture, Tissue culture, bioinformatics and computer science.

2.4.3 The Management has been ever-supportive and encouraging the faculty to upgrade themselves. It takes initiatives to see that the faculty gets duly updated in their chosen fields, through their participation in seminars, workshops, lectures, refresher courses, orientation programmes etc. It is the policy of the management that every faculty attends a seminar/workshop at the national/international level each year. It provides seed money for research, registration and travel grants to attend training programmes, rewards for publications through SHRI, leave etc., besides instituting the Best Publishing Scholar Award.

In the last five years the faculty have participated in foreign academic assignments chairing sessions and presenting papers and attended 72 international, 140 national and 197 regional seminars (*Fig.2 & Appendix 3,4,5*). Apart from these, the college has

conducted 4 international seminars, 12 national seminars, 56 regional seminars 87 extension lectures (*Appendix 7*). Awards, honours in the form of invitation to chair sessions in international fora held in - Bulgaria, Poland, Germany, Switzerland and USA. Three patents have been acquired by Chemistry faculty member and one by a member of Aquaculture faculty. A Botany faculty member is awaiting a patent.

2.4.4 Awards/ Recognitions and Patents

Due recognitions have been received by the researchers of the college in the past years. Dr. P.A Sebastian of the department of Zoology has been selected National Collaborator for Spider Studies. Post-Doctoral Fellowships have been awarded to Dr. Philip Mathew of the department of Zoology and Dr. V.T Jose of the department of Economics, by the UGC. Research scholar under the department of Zoology, Dr. Sudhikumar A.V. has been awarded with the Encyclopaedia of Life (EOL) - Rubenstein Fellowship of Smithsonian Institute, Washington, USA for the study of the Spiders of Western Ghats. Mr. Sudhikumar, a research scholar of the department of Zoology was selected to a two year training programme in 'Molecular Taxonomy' in Ghent University, Belgium and he joined there in 2007. The Department of Botany has received financial support from DST under FIST scheme. Dr. MS Francis of the Department was awarded teacher fellowship (Rs. 4.0 lakhs) for the completion of his postdoctoral research project. He is a life member of the society of Marine Biologists' Association. Dr. C. M. Joy has served as UGC observer for NET/JRF exams and as chairman, technical group, total sanitation and health, Ernakulum district. Prof. Jacob Varghese of the department is a recognized resource person for floriculture training for the Department of Agriculture, Government of Kerala. Dr. George Joseph of the department of Botany has worked as resource person for Kerala State Higher Education Council. Several teachers are members of prestigious national and international academic bodies. The Head of the institution has been awarded

Green Golden Feather Environment Puraskar by *Team Solar*, a voluntary organization for sustainable development. National Environmental Awareness Award instituted by Khadhi and Village Industries Development Agency of India and Indian Institute of Ecology and Environment New Delhi was conferred on the college Nature Club and its director Prof. V.J. Dominic.

2.4.5 The college, in its enthusiastic drive towards digital makeover, has not only taken care of the infrastructure and new gadgets. It has initiated many steps to equip the faculty for the efficient execution of IT-enabled academics. The faculty is provided training in various advanced areas such as ICT on an average of twice a year. Training in interactive board was conducted for the faculty by experts from outside; a certificate course in ICT and online applications was provided with the support of the Kerala Higher Education Council. 24x7 internet access is provided in all departments; college website, web-blog, thanks to these, there is a tremendous churning taking place in the conventional teaching methods and there is a visible, slow-but-steady overhaul of the chalk-and-talk method to ICT-enabled teaching. To back up the ICT thrust, this year the management provided financial support to the faculty for purchasing laptops.

2.5 Evaluation Process and Reforms

2.5.1 Right at the outset of the academic journey the students are apprised of the evaluation process vis-à-vis CBCSS adopted by the University. Information on assignments, internals, attendance, grading are passed to the students at various fora by the teachers. Also, the handbook and the website provide adequate information on these. As the CBCSS has been in operation for the past 3 years, the teaching faculty is quite informed of the process, eventhough refresher talks, workshops, board meetings iron out the perceived lacunae in various areas of the same.

2.5.2 Open houses, PTA meetings, departmental gatherings (informal/formal) of students, alumni meets - are all occasions for monitoring the student progress. A close rapport is maintained with the students' parents. Informally the parents/guardians often visit the departments to assess the progress made by students.

2.5.3 After the introduction of the CBCSS in 2009, there has been a welcome change in the evaluative process. Through a pattern of assessment tests, assignments, attendance, seminars - the evaluation process has become continuous, efficient and distributive. 25 percent of the weighting is allotted for internals. The grading has been standardized and the evaluation made more scientific. All the components of the internal assessment programme are meticulously monitored by the Coordinator of Internal Exams as well as by the departmental coordinators. Results are published, and grievances, if any, are addressed promptly by the Grievance Redressal Cell.

2.5.4 The evaluation process has undergone a sea change with the introduction of CBCSS with 25% of the points being awarded through internal evaluation. The college follows the norms of internal evaluation set by the university rigorously and transparently. There was hardly any serious grievance regarding the evaluation process.

2.6 Best practices in Teaching-Learning process

2.6.1 Since the last accreditation, much thought has gone into the vital component of teaching-learning evaluation. The digital makeover of the teacher-learner interface has added zest, variety and greater efficiency. The state-of-the-art gadgets such as smartboards, computers, WiFi, video-conferencing, DELNET and INFLIBNET have made the process easier and faster. The teacher, having turned tech-savvy and the students equipped with a slew of mechanisms to acquire knowledge, the academic interface has become more sophisticated. The role of the teacher is shifting to that of a facilitator, and the student more

empowered and confident of learning by themselves. Gone are the days of a know-all instructor spoon feeding the passive student.

- Annually updated prospectus, brochures, handbook, periodically updated website disseminating information on the policies and programmes of the college.
- Strict adherence to university and govt. norms vis-à-vis admissions, ensuring equity.
- Equal opportunity centre to ensure equity.
- 13 Bridge courses and 24 Remedial courses and tutorials
- Add on courses
- Academic year planner
- project presentations, on-the-job training, ICT enabled learning, video conferencing, interactive boards
- Networked and wifi Campus
- Transparent internal evaluation system.
- Invited lectures in different disciplines for updating the students and the faculty.
- Memorial lectures, quizzes and talks.
- National level seminars and workshops
- Career Guidance Centre
- Counselling Centre.
- IQAC/DQAC
- Active departmental associations
- 100 awards and scholarships.
- Campaign against drugs, cola, plastics etc.
- Para – learning supports
- Common instrumentation centre.
- Virtual Learning Centre.
- Language lab
- Digital editing studio.
- Community projects – Janaparvam and Mangrove conservation.
- Enhanced sports facilities.

Criterion III

Research, Consultancy and Extension

3.1 Promotion of Research

Recognizing the place of research in higher education, the college began its efforts to encourage research activities as early as in the 1980s. Taking the cue from the NAAC peer team which visited the college in 2007 to step up its efforts to obtain funds from various funding agencies, more interdepartmental linkages for inter/multi-disciplinary research and engage in community oriented research, the college has undertaken a slew of measures resulting in stupendous achievements. The planned initiatives undertaken by the college since then has resulted in a remarkable number of research publications in international and national journals, PhDs, patents, a large number of major and minor projects and research centres of national/international reputation. The last five years, in particular, have witnessed a gamut of research oriented programmes including 4 international seminars, 56 regional and 12 national seminars, 87 invited talks and 10 training programmes. On the side of financial assistance also the last 5 years have shown remarkable progress. Besides these, the UGC has awarded Rs 37.2 lakhs as PG assistance to the PG departments. A sum of Rs. 92.2 lakhs has been received by the departments of Botany and Chemistry under the FIST programme of DST.

3.1.1 In 2004, a research committee was formed to promote a ‘research culture’ in the college and to monitor the progress of the various research activities and projects undertaken by the faculty and students. The committee, consisting of the principal, a faculty coordinator, heads of all research departments and all research guides of the college, has been coordinating the whole spectrum of research activities in the college since then. The primary task of the research committee is to assess the infrastructure for research in the college and give recommendations to the authorities for the creation of an atmosphere conducive for effective research activities. The committee was also entrusted with the tasks of dissemination of information related to research, identification of areas

where the college has 'home advantage' and exploring the sources of funding for research. It is also in charge of intimating the faculty on notifications from various national and international agencies for research proposals, reminders on timeline, preparation of budget etc. The major decisions taken by the committee in the last year include financial incentives for publications under SHRI, travel and registration fee for faculty participating in seminars, thrust for collaborative research and to try for research grants from external agencies.

3.1.2 The college has always been supportive of research endeavours by its faculty and it has taken an increasingly proactive role in the last couple of decades as is evidenced in the 20 teacher fellowships availed under the FIP programme in the last 5 years (*Appendix 8*), number of publications and projects undertaken by the faculty during this period. The college provides seed money, travel expenses and registration fee for attending outstation seminars/workshops, and has taken a generous attitude towards granting leave for research purposes, besides providing the necessary infrastructure for advanced research. Moreover, the college has a mechanism to alert the staff of invitations for research proposals by various agencies.

3.1.3 The college has kept apart a corpus of approximately Rs. 100,000/- for promoting research activities by faculty. The amount is utilized for providing seed money and other supports where external funding is absent or inadequate.

3.1.4 There has been a progressive research orientation in the undergraduate and postgraduate levels after the recent syllabi revisions, making it mandatory for UG students to do a project carrying 2 credits in the 6th semester of their programme. The project report in the final semester of the postgraduate programme also carries similar credits. A number of these project reports have been presented in the state and national level seminars in the last few years. Sacred Heart Advanced Research Endeavour

(SHARE), a fraternity of researchers of the college, volunteers in initiating teachers and PG students into the frontier areas of research through a gamut of programmes such as science congresses, lectures, PhD synopsis presentations as well as the sharing of research experiences. Among them is the interdepartmental Project Presentation Contest, in which the best projects prepared by students as part of the curriculum are presented in a public event. Some of the projects have already been converted into research publications. The PG departments are now giving greater emphasis on raising the quality of these projects so that they could be converted into research publications later. With the introduction of CBCSS, the UG students are also bound to prepare a research project. This is seen as an initiation into the world of research.

3.1.5 The six research centres of the college have ample facilities for world class research. The funds received during the past five years from the UGC under the CPE and the DST under FIST programme have been utilized to improve the facilities in the research departments. Each research department is provided with adequate facilities such as separate research rooms with connectivity, software including SPSS, well-equipped labs, libraries, sophisticated instruments and devices, and spacious conference halls. In addition to these, there are common facilities such as instrumentation centre, a research and analysis centre with an HP Z600 workstation (with Gaussian 09 software package for molecular modelling), HPLC, a digital studio, video conferencing facility, and a herbarium. The college library has subscription to over 40 research journals, besides its subscription to online libraries such as INFLIBNET, DELNET and YMCA e-Portal, providing access to the catalogues of the all networked libraries across the country and abroad. The digital library which the college has had since 2007 has undergone a major updating, utilising the MP fund of its alumni Prof. K.V. Thomas. An air-conditioned conference Hall with ceiling mounted LCD Projector and advanced light and sound

system, having a seating capacity of 150 provides the right ambience for seminars, workshops, invited talks and symposia. All these material and technological resources enhance the research potential of the institution.

3.1.6 The vantage place the college occupies in terms of its proximity to the upcoming Fisheries University, Maritime University, and research institutes such as CMFRI, CUSAT, has presented itself as an opportunity for collaborative research. Therefore the college has increased its efforts to have more collaborative and participatory research endeavours. Dr. Philip Mathew of the Zoology department is collaborating with Dr. Ashok Kumar of CIFT for his postdoctoral research work on Antibiotic Biopeptides from Shrimp Waste and Prof. Mark Searcey of School of Pharmacy, University of East Anglia, UK under the Commonwealth Academic Staff Fellowship Programme which is expected to be patented shortly. Dr. P A Sebastian is a collaborator in the AICOPTAX project under the Ministry of Environment and Forest, Govt. of India. The Centre for Arachnology Studies under the department of Zoology is an internationally reputed centre for spider research. Currently, the centre is collaborating with ICAR on a national project involving national institutes such as CICR, Nagpur, CSRTI, Mysore, MKVP, Rahuri, and CIRCT, Mumbai. The head of the Centre, Dr P A Sebastian is a subject expert with DST on project evaluation and a visiting scientist to various international universities and academic bodies in Brazil, Belgium and Washington. He has entered into a collaborative research work with Dr. Norman I Platnik, Division of Invertebrate Zoology, American Museum of Natural History New York, on 'Oonopid Spider'. He also collaborates with Prof. Aparna Dutta Gupta of School of Life Sciences, University of Hyderabad and with Kerala Agricultural University, Thrissur, for research activities. Dr. T.J. James collaborates with both the School of Studies in Zoology Gwalior and Jiaji University Centre of Neurosciences, Gwalior. Dr. M. George of Chemistry department has research collaborations with NIH Mass Spectrometry Resources at

Washington University in St. Louis, USA and National Centre for Mass Spectrometry, at IICT, Hyderabad. He is a visiting scientist at Washington University in St. Louis, and has visited the university 4 times in the past five years and spent several months at the Mass Spectrometry Resources in doing research/getting trained in modern mass spectrometers. **Mitradham**, a research extension centre of the Physics department, established with German collaboration is a pioneer in renewable energy research. The Centre is immensely contributing to creating awareness about alternative energy. Dr. C. M. Joy of the department of Botany conducts collaborative studies with NGO's (the Association for Environment Protection and All Kerala River Protection Council) on environmental aspects of various projects implemented by the Govt. Dr. V. C. George of Aquaculture Department has academic tie up with FORV Sagar Sampatha of Department of Ocean Development, Govt. of India. He has acted as subject specialist for CUSAT and was also in the committee set up by CMFRI (Central Marine Fisheries Research Institute), Kochi, for designing Fisheries Research Vessel. The college has a tie up with Nihon Fukushi University, Japan and Dr. Siby Zacharias of the department of Economics coordinates the Indo-Japanese cultural exchange programme. Dr. V J Dominic and Dr. M.S. Francis collaborate with nature conservation programme of Amrita Institute of Medical Sciences (AIMS), Kochi. Dr. Joy P. Joseph collaborates with Tissue Culture Lab, Spices Board, Kochi. He also associates with KAPL Ltd., Aluva. The research collaboration of the college with national agencies includes CRL, FACT, IRE, HOC, MPEDA, CMFRI, FC Kochi and Spices Board, Kerala. In addition to the above, the college has collaborations with Hohenheim University, Germany on non-conventional energy research. Rev. Dr. Johnson Palackappillil, the Principal, collaborates with IGNOU Regional Centre Kochi as Subject Expert for MSW counselling. Prof K. J. Jose of the department of Commerce works as resource person for IGNOU, regional centre Kochi. (Appendix 9 & 10)

The interaction facilitated through these linkages has had a profound impact on curriculum development and delivery. Innovative methods of teaching and research are brought about through linkages. Faculty exchange programmes available through linkages have enriched the faculty too.

3. 2. Research and Publication Output

The last five years have witnessed a quantum leap in the research output of the college. In terms of the number of PhDs produced (*Appendix 16*), the number of research projects completed, publications in refereed international and national journals, presentation of papers in national and international seminars/workshops the college has achieved remarkable growth in the last 5 years (*Fig.3*). The efforts to encourage research and publication, which the college began with the setting up of the Best Publisher Award in 1990, have yielded thirty, sixty and hundred fold, producing nearly 400 research publications in national/international journals (*Appendix 11 & 12*). Giving further fillip to the effort, the college has introduced a system of monetary reward for every national/international publication.

3.2.1 The first tangible outcome of the efforts made by the institution to build up the research infrastructure was the elevation of six of its postgraduate departments into research departments by the MG University.

Ph. D Scholars in the research centres of the college (*Table 7*)

Economics			
Sl No	Name of the Scholars	Name of the Guide	Year of Reg.
1	Ancy V.P.	Dr. K.V. Raju	2005
2	Thadevoose K.G.	Dr. K.V. Raju	2009
3	C.Ajayakumar	Dr. N. Ajithkumar	2006
4	K.J. Mathew	Dr. N. Ajithkumar	2006
5	Swathy Varama P.R.	Dr. N. Ajithkumar	2005
6	C. Narayanlal	Dr. K.V. Raju	2005
7	Rajesh Kumar S.	Dr. K.V. Raju	2005

8	Nino Baby	Dr. N. Ajithkumar	2007
9	Bijumon P.S.	Dr. E.M. Thomas	2008
10	Martin K. J.	Dr. K.V. Raju	2008
11	Haseena Beevi A.A.	Dr.K. A. Stephanson	2008
12	Ullas M.A.	Dr. K.A. Stephanson	2008
13	Sabulayan P.J.	Dr. K.V. Raju	2008
14	Agile Joy	Dr. K.V. Raju	2009
15	Sijil S.R.	Dr. N. Ajithkumar	2009
16	Mary Liya C.A.	Dr. N. Ajithkumar	2009
17	Baby V.O.	Dr. K.A. Stephanson	2009
18	Mary Thomas K.	Dr. K.A. Stephanson	2009
19	Siby Abraham	Dr. K.V. Raju	2010
20	Madhusudhanan Nair M.S.	Dr. K.V. Raju	2010
21	Leema T.G.	Dr. E.M. Thomas	2010
22	Vidhu Johnson	Dr. E.M. Thomas	2010
23	K. Sujatha	Dr. E.M. Thomas	2010
24	P.K. Madhusoodhanan Nair	Dr. Radhakrishnan K.	2008
25	Liju K.T.	Dr. Radhakrishnan K.	2010
26	Rafeek V.H.	Dr. E.M. Thomas	2010
27	Suprabha L.	Dr. Radhakrishnan K.	2010
28	Ibrahim Cholakkal	Dr. Radhakrishnan K.	2010
29	Sreelakshmi S.	Dr. V.T. Jose	2010
30	Vandana Aravindan	Dr. V.T. Jose	2010
31	Parvathy S.	Dr. V.T. Jose	2010
32	James C.P.	Dr. E.M. Thomas	2011
33	Siji. K.	Dr. N. Ajithkumar	2009
34	Nishanthi P.U.	Dr. Radhakrishnan K.	2011
Chemistry			
1	Justine Pualose	Dr. M. George	2009
2	June Cyriac	Dr. M. George	2009
3	A.G. Umadevi	Dr. M. George	2010
Commerce			
1	Raji Mohan	Dr. K.X. Joseph	2008
2	Ambili Catherine Thomas	Dr. K.X. Joseph	2009
3	Anitha B.	Dr. K.X. Joseph	2009
4	Sajoy P.B.	Dr. K.X. Joseph	2010
5	Smitha Mathew M.	Dr. Thomas John M.	2010
Zoology			
1	P.Lakshmi Devi Menon	Dr. P.A. Sebastian	2006
2	M.V. Praveen	Dr. Thomas Philip	2006
3	Swapana Johny	Dr. N.D. Inasu	2008

4	Dalie Dominic A.	Dr. N.D. Inasu	2008
5	Naomi T.S.	Dr. John Joseph	1999
6	Sunish E.	Dr. P.A. Sebastian	2004
7	Sheenaja K.K.	Dr. John Thomas	2008
8	Sumesh S.	Dr. Sr. Karmali K.	2010
9	Presty	Dr. Sr. Karmali K.	2010
	Botany		
1	Sreelekshmi S.G.	Dr. M.S. Francis	2007
2	P.Ravikumar	Dr. M.S. Francis	2007
3	Jayakrishnan	Dr. M.S. Francis	2007
4	Roy Zacharias	Dr. C.M. Joy	2007

3.2.2 Six of its departments are research centres under the MG University, Kottayam.

They are: **a)** Economics, Commerce, Botany, Chemistry, Physics, Zoology **b)** The following is a list of the faculty who are recognised as research guides: (Table 8)

Economics (1998)	Zoology (1998)
Dr. K.V. Raju HoD	Dr. P.A. Sebastian
Dr. V.T. Jose	Dr. P.C. Sebastian
Commerce (1998)	Dr. T.J. James
Dr. K.X. Joseph, HoD	Dr. John Joseph
Dr. Stanley Chazhoor	Dr. Philip Mathew
Physics (1998)	Botany (1988)
Rev. Dr. George Peter	Dr. V.J. Dominic, HoD
Dr. Palson T.I.	Dr. Joy P. Joseph
Chemistry (1998)	Dr. C.M. Joy
Dr. M. George	Dr. M.S. Francis
Dr. Thommachan Xavier	

c) Priority areas are: Neurobiology of Ageing, Arachnology, Ichthyology, Waterland Ecology, Taxonomy, Marine Biotechnology, Reproductive Physiology, Environmental Science, Biotechnology, Plant Anatomy, Tissue Culture, Biochemistry, Bacteriology, Biodiversity, Bio-prospecting, Ethno-botany, Fisheries, Industrial Economics, Agricultural Economics, Capital Market Analysis, International Trade and Policy, Public Finance and Policy, Thin films, Crystal Growth and Characterisation, Nanotechnology,

Mass Spectrometry, Polymer Science, Finance Management, Human Resource Management, and Consumer Protection.

d) Minor Projects – Completed during 2006-2010 (Table 9)

Sl.	Department	Name	Funding Agency	Title	Amount	Period
1	Zoology	Prof. Samson Davis Padayatty	UGC	Taxonomy and Behaviour of the Ant-Mimicking Salticid Spider Genus Myemarachne	29000	2006-07
2		Dr. P. A. Sebastian	UGC	A 'Study on the Mygalomorph Spiders in Western Ghats, Kerala, India'	28000	2006-07
3		Dr. T.J. James	UGC	Deprenyl as an anti ageing	50000	2006-07
4		M.K. Raju	UGC	Quality and source of prawn seeds in Kerala	34000	2006-07
5	Chemistry	Dr. Thommachan Xavier	UGC	Synthesis & characterisation of reprocessible magnesium ionomers based on natural rubber, an alternative to vulcanised rubber	55000	2008-10
6	Zoology	Dr. Samson Davis	KSCSTE,	Spider diversity of Kumarakom Bird Sanctuary	10000	2008-09
7	Botany	Dr. V.J. Dominic	UGC -	Bioprospecting into an endemic threatened genus of Kerala; Anaphyllum beddomei Engl. and Anaphyllum wightii Schott.	80000	2008-10
Total					286000	

Ongoing Minor Projects (Table 10)

1	Economics	Dr. P.E. Cherian	UGC - Minor	An Economic Analysis of Food Processing Industries in Kerala	90000	2009-11
2	Economics	Alphonse Ligori	UGC - Minor	A historical analysis of industrialization in Ernakulam district	70000	2010-11
3	Chemistry	Dr. T. Xavier	DST	AC Conductivity & dielectric studies of thermoplastic elastomers	85000	2011-12
4	Physics	Dr. G. Joseph				
5	English	Dr. C.S. Francis	UGC - Minor	An introductory course into the study of English theatre	135000	2011-12
6	Economics	Siby Abraham	UGC-Minor	Investment in gold and real estate – a study of household preference in Kerala	70000	2011-12
7	Principal	Dr. Johnson X. Palackappillil	UGC-Minor	Conservation of traditional food practices: a food security concern	75000	2011-12

8	Commerce	Joseph George	UGC - Minor	A study impact of dematerialisation in Cochin stock exchange	90000	2011-12
9	Mathematics	Shiju George	UGC-Minor	Fixed point property in ordered topological spaces	100000	2011-12
10	Mathematics	Dr. Jeenu Kurian	UGC-Minor	Fuzzification of ideal sets and its application in image processing via digital topology	85000	2011-12
11	Chemistry	Dr. Jinu George	UGC-Minor	Synthesis, characterisation of a PH sensitive alginate ulcer patience	150000	2011-12
12	Chemistry	Dr. Franklin J	UGC-Minor	RNA targeting by oligosaccharide mimetics	130000	2011-12
13	Chemistry	Dr. K.B. Jose	UGC-Minor	Kinetics and mechanism of reaction of aliphatic amines study	100000	2011-12
14	Chemistry	Dr. Jorphin Joseph	UGC-Minor	Towards the understanding of proton activity and conduction mechanism in polymer electrolyte membranes	90000	2011-12
15	English	Dr.Binu K.D.	UGC-Minor	Historicizing the pain: constructing a parallel historiography of Malayalam Dalit writings	115000	2011-12
16	English	Dr. K.M. Johnson	UGC-Minor	From Humanism to post humanism shifting contours of an epistemic shift	125000	2009-12
17	English	Dr. Tom C. Thomas	UGC-Minor	Poetics of Discursive stasis; a Structuralist Analysis of Select print media on current affairs	100000	2011-12
18	English	Subhi Tresa Sebastian	UGC-Minor	Banned Books: Dynamics of reading reception	100000	2011-12
19	English	Jose Varghese	UGC-Minor	Suburban Identities, Popular Culture and Creativity: 2nd Generation Expatriate Experience in the novels of Hanif Kureishi	125000	2011-12
Total					1835000	

Major Projects Completed during 2007-11 (Table 11)

Sl .	Dept.	Name	Funding Agency	Title	Amount	Period
1	Zoology	Dr. P.A. Sebastian	KSCSTE	Taxonomy of Spiders in Ernakulam District	319000	2003-07
2	Zoology	Dr. P.A. Sebastian & Dr. John Joseph	Ministry of Environment and Forest	Bio ecology of Spiders in Western Ghats of Kerala	1535710	2006-09
3	Botany	Dr. M.S. Francis	U.G.C – Research	Characterisation and utilisation of seed gum	400000	2004-07

			Award Scheme	from Hyptis suaveolens (Linn.) Foit		
4	Economics	Dr. V.T. Jose	U.G.C –	Sustainable land use in Kerala	250000	2004-07
5	Zoology	Dr. Philip Mathew	UGC	Bacterial isolation from shrimp wastes.	560000	2006-09
	Total				3064710	

Ongoing Major Projects (Table 12)

1	Botany	Dr. Joy P. Joseph	U.G.C	Invivo and invitro production of camptothecin from ophiiorhiza species	714300	2008-11
2	Economics	Dr. Siby Zacharias	U.G.C	Tribes and Human Rights Violations-A case study of the Primitive Forest Dwelling Tribes of Kerala	591200	2009-11
3	Zoology	Dr. Philip Mathew	U.G.C – Research Award Scheme	Bacterial isolation and characterisation of proteins from prawn shell wastes	3048000	2009-12
4	Chemistry	Dr. M.George	U.G.C	Experimental and theoretical investigation of the ESI mass spectral fragmentations of Curcumin	100000	2011-13
7	Zoology	Dr. P.A. Sebastian	International Foundation for Science (IFS), Stockholm, Sweden	Diversity of abundance of spiders (order Araneae) in different habitat types of Agastyamala biosphere reserve in southern western ghats of Kerala, India	480000 (USD 8291)	2009-12
8	Zoology	Dr. P.A. Sebastian	Network project funded by ICAR	DNA Bar Coding of Agriculturally Important Insects	5609000	2011-13
9	Zoology	Dr. P.A. Sebastian	Network project funded by ICAR	Spiders and Pseudo scorpions of Western Ghats	3333000	2011-13
Total					13875500	
Sl.	Dept	Name	Funding Agency	Title	Amount	Period
1	Zoology	Dr. P.A. Sebastian	(ICAR), New Delhi	Engineering Longer and Stronger cotton fibre with heterologous genes	20000000	2012-15

d. There is only one on-going student research project currently. The details are as follows:

Dept.	Supervisor	Name of Student	Funding Agency	Amount	Period
Zoology	Dr. P.A. Sebastian	Sijil Stephan	KSCSTE, Thiruvananthapuram	Rs. 10000	2010-11

3.2.3 There has been a meteoric rise in the number of research projects undertaken by the faculty during the last 5 years; 14 major and 26 minor projects. The total outlay for the same amounts to a whopping amount of Rs. 1, 91, 81, 210/-. In terms of the number of projects and the total outlay, the last five years have created an all-time record for the college. Dr. V.T. Jose of Economics department successfully completed his postdoctoral research project on the “Sustainable Land Use Pattern in Kerala” in 2009. A multi-crore major research project titled *Engineering Longer and Shorter Cotton Fibre with Heterologous Genes* under the supervision of Dr. P.A. Sebastian has recently been accorded sanction by ICAR. Dr. M.S. Francis of the department of Botany completed his major research project on the “Extraction and Application of Seed Gum Extracted from *hyptisfuaveolens*” in 2007. As the findings of the project have potential for patenting, the process for the same has been initiated. His earlier project on the development of natural dye is in the last stage of receiving patent. An area that is being explored for research and development by the faculty is the creation of ICT-based resources for the various programmes offered by the university. Dr. C.S. Francis of the department of English is currently working on a project to develop an ICT-based foundation course on English theatre for the postgraduate students of English. A total of 32 PhDs have been awarded through the various research departments of the college in the last five years. This is a significant achievement considering the fact that the preceding 5 year period saw only one PhD degree awarded through the research departments of the college. Currently, 47 scholars are pursuing research in the college. There are 18 research guides in the college and 10 guides from other colleges also avail the facilities of the college for research guidance.

3.2.4 There has been a remarkable rise in the number of research articles produced by the college in the last five years. A total of 77 research papers were published in international journals, 41 in nationally acclaimed refereed journals.

- 3.2.5**
- a) Books published - 27 (Appendix 13)
 - b) Popular articles - 388 (Appendix 17)
 - c) Conference /Seminar proceedings - 72 papers in international seminars
-119 papers in National seminars (Appendix 18)
 - d) Course materials for Distance Edn. - Nil
 - e) Software package etc. - 4
 - f) Any other - The college publishes two research journals (a) *Heartian Journal of Pure and Applied Sciences* (b) *S.H. Research Journal: Humanities & Business Studies*.

3.3 Consultancy The immense intellectual resources and technical skills that the institution possesses have been extended to the industry and the public by means of consultancy services.

3.3.1 The college offers consultancy in a broad range of areas such as Career Options, Creative Writing, Editing, Communication and Soft Skills, Comparative Literature, Company Law, Economic Forecasting, Foreign Trade, Market Research, HRD, Local self-government, Women empowerment, Solid waste management, Secretarial Service, Aquaculture, Algae-identification, River pollution monitoring, Mangrove eco-systems, Biodiversity, Biochemistry, Biological Pest Control, Cyano Bacteria, Endocrinology, Histopathology, Identification of Spiders, Marine Toxicology, Mosquito Control, Organic Chemical Analysis, Electronic Circuits, Renewable Energy, Mass Spectrometry, Molecular Modelling, Theoretical Physics, Thin films and Sports Management. The Departments of English and Oriental languages provide translation facilities for English, French, Malayalam, Hindi, Sanskrit to the public and governmental agencies. A good

deal of the consultancy work is done free of charge. For the rest, a nominal fee is charged from the agencies which avail the consultancy services from the college. (*Appendix 14*)

3.3.2 The college website and the Consultancy Registry help the public to easily access its professional consultancy services. Other than this, the college website also acts as a medium to inform the public about the consultancy services provided by the college. The PTA and alumni associations also do their bit in the publicity work.

3.3.3 The present arrangement is that the faculty members who offer consultancy through the college give 40 percent of the revenue to the college. Out of which 20% goes to the departmental fund and the remaining 20 % goes to the research fund of the college. Most of the consultancy work at present is based on expertise of the faculty and very little of the research infrastructure is utilised for consultancy purposes.

3.3.4 As mentioned above, of the 40 % of the income that is given to the college 20% goes to the department for its developmental work and the remaining 20% goes to the corpus fund the college has kept apart for research promotion under the SHRI programme (ie. for providing seed money, TA and registration fee to attend outstation seminars/workshops, incentives for publication etc.)

3.4 Extension activities

The development of the neighbouring community being one of the priority areas of the college as stated in its mission, it has given a significant place for the local community in its co-curricular programmes and activities. The engagement of the college with civic life is explored through its various clubs and associations.

3.4.1 The NSS of the college conducts several development-oriented camps every year. The NCC wings – army, navy and air – of the college undertake and conduct camps, sensitisation programmes, rallies, as well as lend a helping hand to the destitute. The

Youth Red Cross (YRC) of the college is a task force to help those in need of medical assistance. The YRC has prepared a databank of blood donors in the college and their service is always available to the public. Last year, the various student bodies of the college conducted a sensitisation programme on child labour, visiting the different workplaces in the city. In connection with the theme of the year (2009), the college conducted several programmes to promote a sustainable lifestyle. This included an exhibition on organic farming and waste management promotion through EM methods. In 2010, the college organised a seminar on vegetable cultivation in collaboration with Vegetable and Farm Promotion Council of Kerala, and has launched an annual organic exhibition and health promotion programme in collaboration with Organic Kerala. The ambitious 10 year programme *Janaparvam* undertaken by the department of Economics in collaboration with other departments of the college aimed at improving the quality of the life of BPL families of Maradu Panchayath in Ernakulam district is progressing steadily with remarkable results. In addition to it, the department of Economics has launched an outreach programme named STEP (Scheduled Tribe Empowerment Programme).

3.4.2 Apart from the above mentioned community-oriented programmes, the college organizes several outreach programmes based on topical relevance every year for the welfare of the public and for social uplift. Some of these are integrated with the academic curricula. An outreach programme of perennial interest is that of spreading awareness on health and hygiene. The college conducts free blood group determination camps and prepares a computerized databank of willing donors among the students and teachers each year for emergency use. The blood donation service is open to the public. In addition to it, the college conducts programmes to spread awareness regarding AIDS and epidemics like Chikungunya, H1N1 etc. The awareness efforts made by the college has

greatly helped the general public to adopt preventive measures. Following are the various extension activities we undertook in the last five years:

- a. The department of Chemistry organized CAP – 2006 (Chemistry awareness programmes) for High School students and teachers and PRAP 2006 (Plastic and Pollution Awareness Programme) for Higher Secondary Students and Teachers.
- b. The faculty and students of the department of Economics visited the tribals in 2008
- c. The Botany department conducted Botany Awareness Programme for school in 2010
- d. Mangrove conservation and Mushroom cultivation are the two extension programmes conducted by the Botany department during 2010-11 and 2011-12 academic years.
- e. Three teachers of the department of Botany participated in the ‘bio-diversity census’ of Cochin Corporation held in July 2010.
- f. INSPIRE, a five-day intensive awareness programme on basic sciences was organised by the Physics, Chemistry, Botany, Zoology and Aquaculture depts. for the higher secondary school students from Dec. 6-10, 2010. It was fully funded by the DST. The 2011 inspire programme is scheduled from 10 - 13 January 2012.
- g. The Botany, Zoology, Physics and Aquaculture departments conducted BIORHYTHM- a science exhibition in 2010.
- h. The department of Economics with the support of the Corporation of Cochin conducted a socio-economic survey of the 58th and 59th wards of the Corporation in January 2011 with the aim of aiding the urban local body to identify the priority areas in decentralized planning.
- i. A seminar on Medicinal plants was conducted by the Botany Dept. for local farmers in 2010
- j. The department of Aquaculture gave training to fisher women of Mulavukadu Grama Panchayat on Ornamental Fish Farming in 2010

3.4.3 Protection of nature, conservation of natural resources and the fight against pollution have been taken up by the college as high priority issues for civic engagement. ‘Go green’ campaign launched in the year 2010 helped not only to vegetate the campus

but to create awareness among the entire college community. The year 2009 was observed by the college as the 'Green Year'. Waste management and waste reduction were given special attention as part of the observations. In a state like Kerala, blessed with scenic beauty and plentiful rain it is a matter of serious concern that people not only squander but also pollute and destabilize the ecosystem. The urgent need to protect the mangroves of the south Kochi has led the department of Botany to initiate a programme for preserving mangroves, in collaboration with the Indian Railways. The premises of the college are declared plastic free and efforts are being made to create awareness to protect the backwaters. (*Appendix 15*)

3.4.4 The college has forged partnerships with a number of local and national bodies in extending its service and expertise. One of the major initiatives undertaken by the college is a comprehensive socio-economic survey of the people of the 58 and 59 Wards of the Corporation. The survey which was originally suggested by the last NAAC peer team was carried out with the collaboration and support of the civic authorities. The report of the survey is presented to the Corporation authorities for necessary action. Another important study was the survey on the psychosocial impact of the forced eviction on the people of Moolampilly, for the Vallarpadam Container Terminal Project. The report of the survey is submitted to the local administration to speed up the rehabilitation process. The college collaborates with corporate and local bodies in lending support to the weaker sections of the society. This includes the distribution of umbrellas to the children of the underprivileged sections in the locality and the supply of essential furniture to the local schools with the support of organisations such as Hotel Le Meridian and L&T.

3.4.5 The college conducts various programmes especially camps, communal harmony meets, visits to hospitals and old age homes etc. The resources of the college staff, study

materials and infrastructural facilities are made available for the welfare of the target groups. Visits are arranged to orphanages and old age homes to make the students aware of the less privileged and the marginalized in the society. Visits made by the students to tribal colonies have given them insights into the ground realities of their existence. Programmes like blood donation, environmental protection efforts, awareness programmes about caring the aged, “fast a meal and feast a friend” have all been highly appreciated by the public. Rainwater harvesting and plastic free campus campaigns have been duly recognized by the public.

3.4.6 The college takes into confidence the neighbouring community in its extension activities. Often the initiative of the college acts as a rallying point for the otherwise unorganised efforts of the community. Programmes such as NSS camps, Mangrove conservation and the various environment protection campaigns have witnessed the involvement of the community. The neighbouring community extends its support whenever it is needed. The annual cultural festival of the college, *Heartifest* is open to the public too in which the people of the neighbourhood actively join to appreciate the feats of the students.

3.4.7 Rev. Fr. Johnson Palakkappillil, the principal of the college has been awarded the *Green Golden Feather Environment Puraskar* by Team Solar, a voluntary organisation for sustainable development. He has also been awarded for his environmental conservation activities by the Youth Commission of KCBC in 2011.

3.5 Collaborations: As mentioned earlier, the college is seriously involved in the civic life of the neighbourhood. As such, it cooperates with the civic authorities of the neighbourhood, lending them a helping hand in implementing its programmes and projects as well as giving them feedback on the various social and developmental issues.

3.5.1 This year itself, the college has collaborated with the Cochin Corporation in the surveys on the flora within the corporation area, and the socio-economic conditions of the fishermen community of the 58 and 59 wards of the Cochin Corporation area. Another was a survey among the displaced people of the Moolampilly region who were evicted for developmental work. The study report was submitted to the civic authorities for further action. The college works in collaboration with the Maradu Municipality for the protection of the Mangrove in the Maradu Municipality. Dr. Philip Mathew of the Zoology department is collaborating with Dr. Ashok Kumar of CIFT for his postdoctoral research work on Antibiotic Biopeptides from Shrimp Waste and Prof, Mark Searcey of School of Pharmacy, University of East Anglia, UK under the Commonwealth Academic Staff Fellowship Programme which is expected to be patented shortly. Dr. P. A. Sebastian is a collaborator in the AICOPTAX project under the Ministry of Environment and Forest, Govt. of India. The Centre for Arachnology Studies under the department of Zoology is an internationally reputed centre for spider research. Currently, the centre is collaborating with ICAR on a national project involving national institutes such as CICR, Nagpur, CSRTI, Mysore, MKVP, Rahuri, and CIRCT, Mumbai. The head of the Centre, Dr P A Sebastian is a subject expert with DST on project evaluation and a visiting scientist to various international universities and academic bodies in Brazil, Belgium and Washington. He has entered into a collaborative research work with Dr. Norman I Platnik, Division of Invertebrate Zoology, American Museum of Natural History New York, on 'Oonopid Spider'. He also collaborates with Prof. Aparna Dutta Gupta of School of Life Sciences, University of Hyderabad and with Kerala Agricultural University, Thrissur, for research activities. Dr. T.J. James collaborates with both the School of Studies in Zoology, Gwalior and Jiaji University Centre of Neurosciences, Gwalior. Dr. M. George of Chemistry department has research collaborations with NIH

Mass Spectrometry Resources at Washington University in St. Louis, USA and National Centre for Mass Spectrometry, at IICT, Hyderabad. He is a visiting scientist at Washington University in St. Louis, and has visited the university 4 times in the past five years and spent several months at the Mass Spectrometry Resources in doing research/getting trained in modern mass spectrometers. **Mitratham**, a research extension centre of the Physics department, established with German collaboration is a pioneer in renewable energy research. The Centre is immensely contributing to creating awareness about alternative energy. Dr. C. M. Joy of the department of Botany conducts collaborative studies with NGO's (the Association for Environment Protection and All Kerala River Protection Council) on environmental aspects of various projects implemented by the Govt. Dr. V. C. George of Aquaculture Department has academic tie up with FORV Sagar Sampatha of Department of Ocean Development, Govt. of India. He has acted as subject specialist for CUSAT and was also in the committee set up by CMFRI (Central Marine Fisheries Research Institute), Kochi, for designing Fisheries Research Vessel. The college has a tie up with Nihon Fukushi University, Japan and Dr. Siby Zacharias of the department of Economics coordinates the Indo-Japanese cultural exchange programme. Dr. V J Dominic and Dr. M.S. Francis collaborate with nature conservation programme of Amrita Institute of Medical Sciences (AIMS), Kochi. Dr. Joy P. Joseph collaborates with Tissue Culture Lab, Spices Board, Kochi. He also associates with KAPL Ltd., Aluva. The research collaboration of the college with national agencies includes CRL, FACT, IRE, HOC, MPEDA, CMFRI, FC Kochi, Spices Board, Kerala. In addition to the above, the college has collaborations with Hohenheim University, Germany on non-conventional energy research. Rev. Dr. Johnson Palackappillil, the Principal, collaborates with IGNOU Regional Centre Kochi as Subject Expert for MSW counselling. He is also a subject expert for Social Work with various

Universities, Schools of Social Work and PSC. Prof K. J. Jose of the department of Commerce works as resource person for IGNOU, regional centre Kochi. The department of English has a 5-year long collaboration with Vishnavi College for Women for the conduct of a Media seminar and with Kerala Law Journal for editing their bimonthly magazine. Besides these, the college has understanding with media houses such as *The New Indian Express*, *The Hindu*, *Veekshanam*, *Mathrubhoomi*, *Kairali TV*, *Asianet* etc., for on-the-job training for its undergraduates. This helps their placement prospects in these media houses.

3.5.2 The interaction facilitated through these linkages has had a profound impact on curriculum development and delivery. In the first place, these collaborations give opportunities to the faculty, research scholars and the UG/PG students to get introduced to world class institutions which help them set their standards higher. A number of research scholars have benefited from these interactions by finding placement or admission for higher studies in these organisations besides the opportunity for internship. Secondly, for courses like Copy Editor these collaborations have been of much use as they needed little introduction for their on-the-job training. The students who work with these agencies have been able to bring out a good number of articles with by-lines. Besides the above, the collaborations with civic bodies and NGOs have given the college to develop a desirable interface with the civic life. This in turn helped the college to fill the lacunae in the curriculum to achieve its institutional goal of developing a socially committed generation. The collaborations also have resulted in world class research and publications as mentioned above (3.5.1).

3.5.3 The college has worked out MoUs with the Kerala Sangeetha Nataka Academy for conducting music and dance classes. This has benefitted local talents to develop their talents and obtain diploma/certificate from a recognised institution. The department of

English has an MoU with Kerala Law Journal to edit their bimonthly. Both these MoUs have helped the college in giving exposure to its students and the neighbouring community to benefit.

3.6 Best Practices in Research, Consultancy and Extension

3.6.1 Significant Best Practices

- SHARE
- SH Research Initiative
- Best Publisher Award
- Research Committee
- Website
- Advanced research infrastructure
- Videoconferencing
- Internet with wi-fi
- Research journals
- Science congress
- FIP push
- Seminars and workshops, Invited lectures on frontier areas
- Digital library/subscription to INFLIBNET, DELNET, YMCA e-portal
- Promotion of minor/major projects
- Common instrumentation facility
- A/C seminar halls
- Welcomes guides from other institutions to partner with its research centres
- Clubs and fora
- Consultancy registry
- Encourages the faculty to become resource persons

Criterion IV

Infrastructure and learning resources

Introduction

Physical space, furniture, chalk, talk and a modicum of laboratory equipment were enough infrastructure for an arts and science college years ago. The very concept of educational infrastructure has radically altered with the all-pervading growth of science and technology including IT. Realizing the need to augment the existing learning resources, the college management has been expending a major part of the available funds for upgrading and modernizing the infrastructural facilities. The spirit, the passion and the enthusiasm for change and the 'state-of-the-art' which is everywhere on the campus will be naturally caught by the young learners who in turn will shortly drive in change in all areas of life. The college provides the infrastructure upon which the upcoming generation shall build up the superstructure for the growth of the nation.

The verdant campus of the college has been designed to strike a happy balance between the formal and informal views on education and thus to impart a holistic education for the upcoming generation. No educational institution can ignore the minority, but potent voice of the exponents of deschooling. Their romantic ideas legitimize the attention paid to field sports, exposure and outreach programmes. The Janus-faced college has well maintained gardens in the front and in the backyards. The campus flora has been meticulously documented by the Botany Department. The horses and the emus on the campus and the rare breed of fishes and underwater life that animate the aquaria add an exotic touch to the campus fauna. In this state of lakes and lagoons, few colleges can claim anything like the Lakeview Ground, the playground and basic sports infrastructure, which awakens when the sun sets with the health conscious public.

4.1 Physical facilities

4.1.1 Built on 11.98 acres (484.81 are) and - an additional fourteen cents of prime land for women's hostel - the college functions in three buildings which testify to the various

phases in the growth of the institution. The three blocks are the Main Block, the Economics Block and the Life Science Block. However, the casual visitor is likely to miss the three styles of construction as the various blocks are well linked so as to enable easy passage from one to another. A steel bridge has been put up to facilitate easy access from block to block on the first floor. Built in an area of 17900 Sq.Mts. the institution is spacious enough to accommodate around 2,500 students. The students of UG/PG programmes have separate class rooms which are well lit and properly ventilated. All basic requirements like furniture, black boards, light and fans are provided in all the class rooms. The specially furnished PG classrooms are equipped with networked computers. Every department has at least one room equipped with smart gadgets like fixed LCD projectors and interactive boards. The facilities of the college are uniformly enjoyed by the students who belong to the government aided, self financed and vocational streams. Besides the standard classrooms, the available space is divided among lecture/seminar/conference halls, central library, departmental libraries, laboratories, administrative office and recreation/rest rooms. The 60 year old auditorium and the relatively young Marian Hall are the usual venues of cultural programmes, orientation and training programmes, seminars, conferences, competitions, exhibitions, placement tests and also University examinations. The pick of academic seminars and conferences are held in Fr. Melesius A/C Hall, which is equipped with high definition audio visual facilities. The seminar hall on the II floor, primarily caters to the needs of the Sociology and Commerce departments. The renovated Students' Centre cum Community Centre atop the college Canteen comes in handy for students' programmes of Department Associations including rehearsals. Space has been kept apart for the History and Heritage Museum, Zoology and Botany Museums, Studio, Instrumentation Room, Research Analysis Centre and so on.

The office complex on the first floor houses the recently renovated Principal's Office, Bursar's Office, the Administrative Office and the Hadrian A/c Conference Hall, the venue of College Council and high level meetings with officers of the University and the Government. The front offices on the ground floor cater to the immediate needs of the students, parents and even the general public. The Manager's Office, Equal Opportunity Centre and the IQAC function on the ground floor.

The IT friendly campus is fully networked using wired as well as wi-fi methods. The core areas of teaching, research and administration are the immediate beneficiaries of LAN. The entire college community can access the internet free of charge at the Browsing Centre or in the high tech cyber hub. A major change has taken place in the power sector with the help of UGC-CPE assistance. The college has installed a **transformer** with the permission of the Kerala State Electricity Board (KSEB) and a **66 KV Generator**, as a result of which the college enjoys fluctuation free voltage and uninterrupted power supply. To support the new power system and to protect the sophisticated equipments, the entire college was re-wired and adequately earthed. Besides these major installations, a **hybrid wind cum solar generator (2.5kv)** atop the main building powers the college office for 10 to 12 hours a day. There are fourteen heavy duty UPS in the range of 1KVA to 30 KVA. The major halls, the central library, and the office are additionally backed by 9 inverters. Running water is provided on all the floors of the college. Water coolers with purifiers are available in all the Blocks. The innovations and structural changes mentioned above were made for the smooth functioning of the institution. (*Appendix 19*)

(a) Infrastructure for academic activities: This section highlights the major academic infrastructure facilities of the college other than the conventional ones. After a gap of 15 years, 21 permanent teachers have been appointed in various departments since December 2010. The college has gone international with the installation of **full HD Video**

Conferencing System with Multi point (1+5) access in the A/C seminar hall with the assistance of UGC-CPE fund. The campus is wi-fi enabled and the UG and PG Departments have been provided with at least one smart class room with interactive board besides the portable LCD projectors available in the departments. Members of the faculty make use of their own laptops, mostly bought on the strength of a loan advanced by the management. The PG classes are equipped with computer and internet facility. The Computer Centre is recognized by the Central Govt. for 'O' Level courses and it is accredited by IGNOU. It is one of the few online TOEFL test centres in Kerala. The Zoology Department maintains the largest and most spectacular museum among the colleges in Kerala. Established in 1952, it has 2500 specimens on display collected from various parts of India and abroad. There are three full skeletons of which the skeleton of a blue whale and an elephant are rare exhibits. There are a good number of stuffed mammalian specimens like the kangaroo, platypus and so on. A large number of local fishes and invertebrates add to the rich variety of the museum. The Arachnology Study Centre and the researchers have caught the attention of Indian Universities and even foreign bodies like the National Geographic. The Botany Department has a well-maintained museum with more than 500 exhibits. There are 1800 specimens in the herbarium collection. There are more than 200 rare plants of medicinal and scientific importance in the botanical garden. A mushroom cultivation centre, a lab for tissue culture and research labs are part of the Department. The Chemistry Department has new research labs, a new lab for food processing and preservation and a new store for the labs. The Aquaculture Department has a microbiology lab, a hatchery and a fishpond. A **Heritage museum** in association with the National Museum, New Delhi, has been recently set up in the campus. Utmost importance is given to the full use of the infrastructure available in the

college. The infrastructure facilities are extended to IGNOU, Pondicherry University, Madras University and Kalabharathi.

(b) Co-Curricular Infrastructure: In addition to the statutory organisations like the NCC and the NSS, the college maintains a lot of talent clubs to nurture and sustain the budding talents of the campus. Hence, the college earmarks a part of the annual budget for building the right co-curricular infrastructure. The Speakers' Forum has been giving training in GD, public speaking, debating and in organising cultural programmes like the intercollegiate cultural competition, *Sargapatham*. The balcony of the existing auditorium has advanced facilities for GD training. The digital movie camera and audio facility would enable the trainees to record, analyse and perfect their GD skills. The Civil Service Circle prepares students for the Indian Civil Service and other competitive examinations. The Departments and the clubs can make use of the general audiovisual equipment like LED/LCD TVs, MP3/DVD Players, and high resolution multimedia Projectors. The audio-video recording studio is equipped with state-of-the-art technology in videography, dubbing and editing to serve various educational processes is being completed. The co-curricular art wing like the Music club has been replenished with an array of gadgets and instruments like a Triton-Le professional keyboard synthesizer, an imported jazz set, electric guitar, a *mridangam* and a harmonium.

(c) Sports infrastructure: The Department of Physical Education provides infrastructure facilities and training in basketball, volleyball, athletics, football, cricket, ball badminton, shuttle badminton, yoga, wrestling, judo, table tennis, power lifting, body building etc. The Department has provided the venue for University Athletics Meet, *Keralotsavam*, Athletics Championship, MGU North Zone chess championship, MGU Power lifting, Wrestling, Junior State and National Judo championship, to name a few. The college health club SHAPE Fitness Centre has been renamed B-Fit and revamped with additional facilities.

‘Promote Fitness’ (ProFit) is a unique project, which extends the health club facilities to the public as well. Summer coaching camp is a children’s programme organized by the Department every year for basketball, yoga and cricket for children under 15. There is a cricket academy for children under 13. The Volleyball and Basketball courts are flood lit.

Facilities: 400 mts track with 8 lanes, 600 mts joggers’ track, Standard football field, Cricket field with centre matting wicket, Cricket practice wicket (concrete), one Basketball court (flood-lit), Two Volleyball courts (flood-lit), Two Badminton courts (shuttle), Badminton court (ball)1, Handball court 1, Judo and Wrestling Room Matted 1, Weight lifting 1, Table Tennis1, Three Lawn mowers, ‘B-Fit’ a fine Fitness centre with all modern fitness equipment including facilities for sauna and steam bath. Necessary equipment for games, track and field events are also available. The Physical Education department has introduced the following programmes: Horse riding, yachts, canoes and speed boats.

4.1.2 The master plan of the college and its projected expansion is attached at the end of the report.

4.1.3 The college has given top priority for building the required infrastructure to boost its academic growth. What follows is a detailed list of the facilities acquired and its cost for the last five years. (*Table 13*)

1.	Physical infrastructure	Rs. 3,09,31,800/-
2.	Academic facilities	Rs. 13,53,500/-
3.	Co-curricular facilities	Rs. 2,90,000/-
4.	Sports infrastructure	Rs. 5,00,000/-
5.	Library	Rs. 28,93,100/-
6.	ICT	Rs. 4,2,95,000/-

- Women’s hostel Rs. 2 crore (with UGC help of Rs. 80 lakhs)
- Rooms of Manager, Principal, Bursar renovated Rs 800000/-
- Transformer-generator and required cabling and re wiring Rs. 2.8 lakhs (UGC-CPE)
- Networking with additional 40 nodes and 20 access point for wifi. Rs. 2.5 lakhs (UGC)

- Smart class room for all departments Rs. 12 lakhs
- LED Display Board Rs. 1.75 lakhs (UGC)
- Video conferencing Rs. 17 lakhs (UGC-CPE)
- Digital library Rs. 8.99 lakhs (MP fund)
- Website Rs. 2.95 lakh (UGC)
- Server Room for Internet Gate way, Web server and Digital Library etc. Rs. 1 lakh
- Reprographic Centre - RISO - Dual Color Printing Rs. 7 lakhs (UGC)
- 6 new computer labs for various departments Rs. 14 lakhs
- Computer and Laptops, Printers, Scanner, and LCD Projects, Rs.2.44 lakhs
- UPS and Inverters Rs. 5.95 lakhs
- Student centre renovated Rs. 7 lakhs
- Reprographic centre in the college building Rs 17000/-
- New and Safer Entrance and Security Cabin: Rs. 10 lakhs
- Vitrified tile flooring lobbies and corridors Rs. 7 lakhs
- 2 College buses for Rs. 30 lakhs
- Installation of CCTV in Library, Verandas and Auditorium Rs. 4 lakhs
- Hybrid generator (solar and wind) Rs. 2.5 lakhs
- Paper Shredder Rs. 60,000/- (UGC)
- Waste management unit at Lakeview ground Rs. 70000/-
- Solid waste treatment plant Rs. 2 lakhs
- National History Museum established Rs. 2.08 lakhs
- Walkers' Lane-600mts – around the lake view ground Rs. 1 lakhs
- Sanitary Napkin vending Machine and incinerator installed Rs. 75000/-
- Marine and Fresh water Aquaria and maintenance Rs 2 lakhs
- 4 Horses purchase, stable and maintenance Rs. 5 lakhs
- 4 Emus Rs. 2 lakhs
- Yachts and speed boat Rs 5 lakhs
- Sprucing of existing garden, landscaping and 100 potted plants Rs 1.6 lakhs
- Butterfly Garden Rs. 1 lakhs
- Bee keeping units Rs. 12000/-
- Eco Friendly and Green Campus development Rs. 30000/-
- Biogas Plant Rs. 200000/-
- Vegetable garden Rs. 30000/-
- Paddy cultivation Rs. 1 lakh

- Water pollution testing facilities Rs. 2 lakhs
- Mushroom cultivation Rs. 10000/-

4.1.4 The institution provides ample facilities for the students and staff to hone their creativity, to relax and rest. The virtual learning centre and the LED display board at the entry, provide information and entertainment to students during intervals and free hours. The public address system becomes a music station during lunch recess. The common staff room is a meeting ground for the faculty. The green room of the auditorium becomes the space to unwind for the supporting staff especially during lunch break. The women staff and students find a world of their own in their exclusive domain, the Women's Retiring Room.

4.1.5 Utmost priority is given for the full utilisation of the available infrastructure. Every addition to the infrastructure and learning resources is done after serious planning and due consideration. The high capacity generator swings into action during power failure and as a back up during seminars, workshops and practicals including examinations. The information and news that appear on the digital display board go a long way in making learning easy. The horses and the yachts are used to train the students in riding and yachting. Members of the teaching staff are given training in the use of advanced equipment on a regular basis. Students are encouraged to use IT for surfing the internet, preparing assignments and so on. The available infrastructure is also let out during holidays and the income in terms of rent is used for infrastructure maintenance.

4.1.6 The institution has been increasingly attentive to the requirements of the differently abled students. An Equal Opportunity Centre has started functioning in the college. Four staff members i.e., two from the faculty and two from the administrative staff underwent training in this regard. Under its auspices, an access audit was conducted by the students and staff. As a first step the college has constructed a few rest rooms for the said students. The access audit report has been seriously considered and the management is in the process of mobilising funds for the construction of ramps to elevators.

4.2 Maintenance of infrastructure

4.2.1 Budget allocation in 2010-2011

Land	:	Rs: 9, 70,000/-
Building	:	Rs: 14,50,000/-
Furniture	:	Rs: 5,00,000/-
Equipments	:	Rs: 3,00,000/-
Computers	:	Rs: 2,00,000/-
Vehicles	:	Rs: 4,70,000/-

4.2.2 The college budget is prepared annually and is endorsed by the management. The money expended on books, sophisticated lab equipment and development of IT resources is supervised by the Purchase Committee. The laws of the land are fully observed and tenders are invited before the purchase of costly equipment and the expenditure are audited periodically.

4.2.3 The management has appointed full timers for maintenance, repair and cleaning work. The college has a team of carpenters, masons and painters. We also have a workshop with an array of equipment like machines for welding, lathe and drilling. The workshop is also equipped with compressor sprayer, grinder, fabricator, thread-cutter and a blowing machine. The electric and electronic equipment are mainly maintained by outside agencies on the strength of AMCs.

4.3 Library as Learning Resource and Information Centre

4.3.1 The Library Advisory Committee, headed by a faculty member, monitors the functioning of the library. On the recommendations of the Committee, generally useful books, CDs/DVDs are purchased and improvements are brought about periodically.

4.3.2 The general library of the college has a collection of over 80,000 books and it subscribes to 125 journals. In addition to the general library there are four Department libraries for Commerce/Economics, English and Zoology. The general library has a spacious reference section. The library is open from 8 am to 5 pm (the expected working time being 9.30 am to

4.30 pm.) on all working days. The library is also equipped with advanced facilities such as RFID entry and CCTV monitoring, which ensures the security of the books. The library is with open stacks, fully computerized with internet and reprographic facilities.

4.3.3 Internet facility is used by students and staff especially during free hours. The library is kept closed on Sundays and public holidays, declared by the Government of Kerala. The college has spent 15 lakhs on books and journals during the last two years. The PG Department libraries of Zoology, Commerce/Economics and English facilitate easy access to books on specific subjects to the PG students and staff of the college. All the UG departments have a collection of important books under the control of the HoDs. The vantage position of the library at the centre of the main block with imposing wide doors easily catches the attention of all wisdom seekers. It is sufficiently airy and properly lighted. The books are well arranged within the library. Magazines and newspapers are displayed on the shelves. Cubicle facility is provided within the library which gives students more privacy and convenience for making notes, doing project work, and preparing for seminars. Separate seating provision is available for the staff of college. The library has support facilities like computer, internet (10 Mbps bandwidth) and reprographic facility in the browsing centre attached to the main library. The library has computerised catalogue search. A Digital library facility with 20000 pages is also available in the college.

4.3.4 The Book Selection Committees of various departments recommend the purchase of books. Journals are also subscribed on their recommendations. An amount of Rs.874054/- was spent on books and journals in 2010 -11.

4.3.5 Free internet is available in the campus round the clock but it is mostly used by the students from 8 am to 5 pm. The college uses licensed software of Microsoft, Adobe etc.

4.3.6 The library is fully computerized with multiple modules which enable the simultaneous operations of the system by the librarian, the faculty and the students. The

internally developed software monitors the issue and return of books. It has facilities like catalogue search and book reservation. It is also programmed to produce reports on daily issue/daily return, library use by staff and students and defaulters.

4.3.7 DELNET and INFLIBNET and YMCA e-portal services are available in the library and the annual subscription is Rs.7500/-, Rs 5000/- and Rs 1200/- respectively. They are primarily used by the faculty and the PG students.

4.3.8 The new additions to the library are often displayed on a special rack and also put up on the LED Display.

4.3.9 Staff and students make use of interlibrary borrowing facility provided by DELNET.

4.3.10 The browsing centre attached to the library has audio facility to help learning for the visually challenged. The library on the ground floor provides easy access to the PWDs.

4.3.11 During the past two years, a few infrastructural developments have taken place: 1) Additional door with RFID entry, 2) Development of new software to enable search facility from all departments, 3) Setting up of a new digital library, 4) RISO – MZ7700-Dual Color Printing machine 5) Browsing centre.

4.3.12 A library/reading club functions in the college. The aims are to promote reading habit and a thirst for knowledge, to attract more students to make use of the various facilities in the library and to encourage the students to make further study and research in their subjects. Members of the library club voluntarily work in the library by helping the staff in arranging the books and organizing them on the basis of the principles of library management. They keep the premises neat and tidy. The college has instituted two awards for students who read the maximum number of books. The fresh students of the college are given an orientation on book reading and library processes such as classification, cataloguing, indexing and bibliography preparation.

4.4 ICT as a learning resource

4.4.1 The use of technology aided learning and ‘administering’ is given great thrust in the college agenda. There are 215 computers in the college and their configuration varies from Intel dual core 2.66, 1GB RAM to latest Intel core i5 with 4GB RAM. The college has campus agreement with Microsoft in the Volume Licence scheme and most of the computers work on Windows 7 platform with Kaspersky Antivirus 2011. The computer student ratio is 1: 9. After the last re-accreditation another 40 nodes have been added to existing central computing system and the campus is fully wi-fi enabled. The college has three stand-alone servers. The Manager/Principal’s residence (S H Monastery) has been linked to campus network. High speed optical fibre internet connectivity is available round the clock. Internet connectivity provided by BSNL and Airtel.

4.4.2 The college has a central computing facility. It is primarily used for IT enabled class room teaching (including power point presentation) through the dynamic portal, accessing the digital library and as file server for day to day activities of the college.

4.4.3 Periodic training is given to the staff for computer aided teaching in the Chavara IT centre mostly by external faculty. The staff is given special training when new gadgets are introduced like interactive boards and a new software for language lab. The facilities available are interactive boards, LCD projectors, language lab, digital studio, video conferencing etc.

4.4.4 The former website of the college has been timely upgraded to a dynamic website (www.shcollege.ac.in), which was launched in 2011-2012 as an important teaching/learning resource. The new website is interactive and is capable of online application like admission process, online courses, students’ progress and alumni status. It is also supported by moodle - software for course management system. Students can access their performance, attendance position, take free lessons and free tests. There are

separate gateways for administration, faculty, students, parents and alumni. The website could be updated on a daily basis using inputs from the various departments.

4.4.5 Every department has been provided with smart class room equipped with interactive boards. The research departments have been provided with an additional smart room supported by interactive boards. A good number of CD/DVDs has been purchased for digital library. Eight departments have computer labs. In addition to the free access to the computers in the PG classrooms and departments, the college has a studio with editing facility with Final Cut Pro licensed software. The courseware produced can be put on the server, which can be accessed through the network. To make teaching efficient and for the production of academic courseware, the management advanced loans to the faculty for buying laptops. Students and staff can make use of the networked computers during free hours between 9 am and 5 pm. Access to the computers is free of cost including the use of internet.

4.4.6 Budgetary allocation for purchase, upgrade and maintenance of computers is 10 lakhs. Annual maintenance of computer (AMC) is undertaken by an outside agency. Students of various departments like Sociology, Commerce, Mathematics and English (Copy Editor) produce computer aided brochures, books and journals. The funds are sourced from UGC, donations, grants from educational bodies, from projects undertaken by various Departments, the PTA and from the letting out of the infrastructure to other agencies.

The college ensures better utilization of the infrastructure facilities by:

- Keeping the library open for 9 hours
- Keeping the computer service open for 24 hours
- Giving access to teachers and students to internet free of charge
- Offering short term courses on Computer, Management, Business English (BEC)
- Existing academic facilities are extended to the IGNOU, Kalabharathi etc.

4.5 Other facilities

4.5.1 a. A good majority of the students are day scholars as most of them stay in and around the city of Kochi. Besides the sports hostel, the college offers hostel facilities to the men students of the UG and PG classes. The men's hostel has 109 single rooms of which 25% are occupied by the students of the college. A landmark achievement is the construction of 'Prathibha' - Women's hostel - which can accommodate a maximum of 90 students of the UG and PG classes.

b. The women's hostel has 45 occupants and is likely to be houseful by next academic year. Men's hostel including sports hostel has 40 occupants.

c. Women's hostel has 6 dormitories and men's hostel has 109 single rooms.

d. In addition to the existing facilities, yachting and horse riding are the recently introduced training and recreational facilities provided for the staff and students. Four lasers and a speed boat have been added to fleet of yachts for giving training in yachting and also for rescue purpose.

e. Two Volleyball, ball badminton, basketball courts, two shuttle badminton indoor courts, football and cricket ground and the necessary infrastructure for table tennis, athletics, judo, wrestling, yoga and so on.

f. The B-Fit fitness centre has been converted into a health centre. A campus doctor is available on demand. All the tournaments conducted by the Physical Education Department are done in association with the sports medicine dept. of the Medical Trust Hospital. A counsellor is available in the campus once a week. She meets the students individually and in groups. Students who need professional help are directed to the counsellor.

4.5.2. The women students actively participated in sports and cultural competitions at all levels. The college fields women's teams for shuttle badminton, khoko, kabbadi, judo, wrestling, weightlifting, and yoga. They are given adequate preparation and are trained

by qualified coaches. In the University arts festival the college gets a position in the first five slots every year and the majority contestants are women. About Rs. 3 lakhs is spent for costumes and training.

4.5.3. 13 Departments have separate staff rooms, besides restrooms on all the floors women have separate retiring rooms. Computer centre and the browsing centre provide internet access. College bus service is available to places where the public transport system is inadequate. Drinking water is available in all the blocks. The well maintained canteen provides quality food to the students and staff at subsidized rates. The Health Centre 'B-Fit' caters to the students and the general public. The facilities at the Instrumentation Centre are open to the staff and the research scholars. There is a Post Office (682013), an ATM counter and an offset printing press on the campus. There are two co-operative societies (registered under the Govt. of Kerala) in the college. The Credit Co-operative Society accepts deposits and gives loans to the staff. The other co-operative society caters to the stationary requirements of the students and staff.

4.6 Best Practices in infrastructure and learning resources.

4.6.1. The college has drawn a master plan for campus development. All the four recommendations and suggestions of the former NAAC Peer team regarding Infrastructure and learning resources have been taken care of. 1. The women's hostel (maximum 90 inmates) has been completed and is fully functional. 2. Campus network has been strengthened with additional 40 nodes and the campus is wifi enabled. 3. The former fitness club has been transformed into a health centre and fitness club named B-Fit. 4. IQAC office has been provided with networked computer with printer and scanner. Its functioning has become more dynamic and effective. As envisaged in the former NAAC report it has conducted an internal audit and a Departmental Quality Assurance Cell (DQAC) functions in all departments. All developmental activities are inspired by

the mission/vision of the college. The institution keeps abreast of recent developments by visiting colleges in Kerala and cities like Chennai and Bangalore and feedback is collected from faculty who attend national seminars. The inputs and ideas are gathered - with funds from UGC, CPE and DST – and implemented. The management is particular that first class facilities are provided to the learners. A wifi networked campus, video conferencing facility, more than a dozen smart class rooms, a common instrumentation room and digital library are some of the facilities that were realized in the last five years.

Criterion V

Student Support and Progression

5.1 Student progression

5.1.1 Sacred Heart College fosters a student community that is diverse in terms of socio-economic class. The total strength of regular students in the 2011-12 academic year is 1850 in which 555 are men and 1295 are women (*Fig.4*). Most of the students are from Kerala. However, there are a few students from the other states of India (29). Several students of the college are children of Non-Resident Indians as well (22). Though there are no foreign nationals among the regular student community during this period, one student each from Japan and Germany was accommodated in the departments of Economics and English respectively as part of the international student exchange programme. The profile of the last two batches of students is provided in the table below. It displays the demographic diversity of our student community in terms of gender, religion, caste and socio-economic background. Nearly 57.2% of the students belong to backward classes and there is a large representation of students from the fishermen's community. (Table 14)

<i>Year</i>	<i>SC</i>	<i>ST</i>	<i>OBC</i>	<i>General</i>	Total
2009-10	58	12	238	292	600
2010-11	69	11	283	268	631

5.1.2 The dropout rate of students is negligible and does not reflect the difficulties faced by students to continue their studies. Most of those who drop out from courses do not discontinue their studies but shift to other programmes, especially in the professional stream. This happens because the admission to professional programmes starts late. It is the policy of the college that no student shall discontinue his/her education due to financial difficulties. Departments, organizations and clubs contribute towards funding the same. A small number of students who are admitted under the various quotas often find it hard to cope with the demands of the programmes. Such students are particularly taken care of through bridge courses and remedial courses. Over 20 such courses are offered by the college each year.

5.1.3 Except for a minority, the students who pass out of the UG and PG courses opt for further studies. Many PG students opt for the BEd course, because they can finish the course by the time their PG results are announced. Since teaching in the higher education sector has become a coveted career, many of the students start preparing for the UGC-SCIR/NET exams. Several of them opt for research in their preferred areas of study. Some do BEd and some others go for PG in the same or related subjects of their UG course. Those who aspire for the new age careers opt for courses like MBA, Mass Communication, International Relations, Biotechnology, Bioinformatics etc. (Fig.5).

Details of students pursuing higher studies: 2009 – 2010 (Table 15)

	UG	PG
Progression to further study	90 %	80 %
Progression to employment	10 %	20 %

5.1.4 About five percent of students are offered placements through campus recruitments. There is a steady increase in the percentage of students who get campus placements, and the number of job providers who recruit them have also increased steadily. Multinational and IT companies like Google, GENPACT, HSBC, HDFC, INFOSYS, Federal Bank, South Indian Bank, WIPRO visit the campus routinely for recruitment. The Career Guidance Cell, Civil Service Study Circle and Placement Cell in the college provide significant information regarding job openings in various sectors through notice boards, interactive sessions, career *mela*, video conferencing etc. The college conducts career guidance workshops and talks as well. The soft skills training and career/life orientation sessions help students gain confidence in their aptitude and ability to work in specific sectors. The college delegates its staff for attending training sessions in emerging areas of industry expectations so that they can equip the students with necessary skills in the emerging job market.

5.1.5 Besides the competency enhancing drives such as talks and workshops by experts in various fields, NET coaching, Civil Service entrance coaching, certificate courses like BEC, Tissue Culture are also available for students. The career guidance Cell and the Campus Recruitment Cell also prepare students in their career aspiration. The number of students who have successfully completed coaching and placements last year is 72.

(Table 16)

MAT/CAT	96
CA/ICWAI	86
NET/JRF	52
OTHERS – company secretary	8

5.1.6 In results, ranks and grading, SH has had a brilliant record in the past 5 years. Total number of ranks in all departments is 78. One of its students, Kishen K. Warriar, had the

unique distinction of winning first rank in All-India CA examination in 2009. Similarly, Dr Sudheer Kumar was awarded with Encyclopaedia of Life (EOL) Rubinstein Fellowship of Smithsonian Institute, Washington, USA.

University Ranks in the last 5 years (Table 17)

Sl.	Year	UG (11 programmes)	PG (10 programmes)
1	2006-07	12	10
2	2007-08	4	9
3	2008-09	5	14
4	2009-10	12	9
5	2010-11	7	6 (incomplete)

5.2.1 The college prospectus and handbook are published annually. Besides these, the college website provides a comprehensive view of the college. Fresh applicants are given the prospectus, which contains details of programmes offered, optional and open courses available, second languages that they can opt, fee structure, rules governing admission, initial amount of fee to be paid at the time of admission and so on. The handbook is distributed to the students after they secure admission. The following are the important sections:

Profile of the college, details of the office bearers, faculty and staff, detail of research centres, area of research and research guides, academic programmes and courses, details of the departments, details of college library - general and departmental, schemes for internal evaluation – criteria, college rules and general discipline, various associations functioning in the college, co-curricular activities and extension services, scholarships and awards, allied university programmes, college calendar and telephone directory, consultancy and extension services, grievance redressal cell, talent club, details of the student facilities available in the college. The college website is upgraded with all the

relevant information regarding the admission procedures, course contents, department activities, research areas and examinations. The newly introduced features include online processing of internal evaluation data, free lessons, online tests, 360 degree pictures and interactive portals for students, parents and alumni. The college blog, *Heart-Bytes*, managed by a group of students under the supervision of teachers, provides information on all the programmes that take place in the college. It features news, reports, interviews, photo features, contests, video clips and the creative work of students. It also features the activities of various clubs and forums.

The college news bulletin, *Heartbeats*, is published biannually. It reaches out to the faculty, students, alumni and well-wishers, with an update of the college activities, achievements of teachers and students, programmes organized by the departments, clubs and forums as well as future plans. Besides these, the various departments publish their own news bulletins. The daily video clippings of the college activities on the digital display screen, monthly news bulletins - edited and mixed by students under teachers' supervision - also disseminate information about the happenings in the college.

5.2.2 Students of the college receive numerous scholarships and financial aids. There are government scholarships, college scholarships, scholarships by the PTA and the Students Welfare Trust (SWT) and other cash awards instituted by various departments. The college office has a special wing to facilitate student scholarships. As mentioned earlier, the college policy ensures that no student drops out of a programme owing to financial difficulties and to guarantee the same, an application is attached to the student handbook. This makes the process simpler and confidential. Apart from this the Class-teachers and tutorial guides are advised to track the needy. A total of Rs. 1,92,57,316 was given away to the economically backward students as financial assistance in the last five years.

Yearwise Financial Aid to Students (Table 18)

Item	2006-07	2007-08	2008-09	2009-10	2010-11	Total
Govt. Scholarships	2441203	3393062	3427253	4327027	4201410	17789955
PTA assistance	80050	36900	33700	66000	55839	272489
Student Welfare Trust Aid	283050	43250	53950	65800	87800	533850
St. Vincent de Paul help	78430	87645	115350	121390	151107	553922
Endowment Scholarships	21300	21450	21450	21450	21450	107100
Total	2904033	3582307	3651703	4601667	4517606	19257316

5.2.3 There are different welfare schemes available to students, particularly to the SC/ST students. The SC/ST educational concession makes available to SC/ST students a lumpsum grant, stipend and fees concession. This is renewable every year. In place of the earlier special remedial sessions made available to SC, ST students the college now offers special sessions to the slow learners. A special cell works in the college to monitor the SC/ST welfare. As a matter of fact, weak students do come to the departments without inhibition to seek help. The pass percentage of SC, ST students has remained high. A few sports quota students enjoy subsidised rates in the college canteen and the Vincent de Paul Society extends financial help to the families of many needy students. The college encourages earn while learn initiatives through the ED club of the college. The college and the faculty also organise collective fund-raising for humanitarian assistance to the students.

5.2.4 As part of their Semester around the World Programme, a batch of 10 students from Nikon Fukushi University, Japan visit, stay and study at the Sacred Heart Campus for 3 months, every alternate year. The package of five courses we offer the overseas students include Indian History and Literature, Indian Society, Indian Religion and Philosophy, Indian Government and Economics, and Arts of India - Art, Music, Theatre and Film.

5.2.5 The college has a Placement Cell with a faculty in charge. Recruiting agencies and companies have put Sacred Heart on their regular list of campuses to visit every year. Infosys, Genpact, Google, Sutherland are some of those who make it to the campus every year. In addition to the college placement cell, departments have their placement cells as well. They attend to job calls directly too. The college provides guides and literature of almost all competitive exams for professional courses and jobs. Career counselling is also provided at specified hours. The Career Guidance Centre aims at making the students employable in the new millennium. To realize this dream, talks on career awareness, orientation and model sessions on interviews, group discussions etc are organized. Students are also given assistance for on-the-job-training. The Centre subscribes to 20 periodicals and has 500 books exclusively on career matters. With a full time staff, the centre operates from 9am to 5pm. Many companies give presentations for the benefit of the students. PEP, BMLP etc fine tune their skills. In spite of the global recession, many students have benefited from the campus interviews organized by the Centre.

5.2.6 The ED club, which was started with a view to developing entrepreneurial skills organise different activities in the college. Five members of the staff have received training on entrepreneurial skills under the ministry for MSME. Two exhibitions, a 10-day antique exhibition in collaboration with SLR group and a hobby related exhibition organised by the club were opportunities for students to showcase their entrepreneurial skills. The former attracted over 20,000 students from the neighbouring schools besides the general public. A system of monthly markets has been introduced in the college in which the students put on sale their own produce. The college encourages earn while learn programmes. Mushroom cultivation organised by the Botany department, bee keeping training provided by the Bio Forum, the various programmes organised by the Women's Cell such as fabric painting, paper bag making and umbrella making are a few.

5.2.7 The college has in place a system to provide value education to the students. Accordingly, one hour is dedicated each month for such sessions where the teacher in charge of a batch of 20 students discuss with them matters related to civic sense, interpersonal relationships, campus and personal life, moral and social responsibilities etc. Separate guidance and counselling for women is provided by *Swasti*, the women's cell of the college. It brings experts from various fields to give talks to the female students. Guidance and counselling sessions are organized for both male and female students in relation to gender issues. The women's cell of the college also provides skill training, and training in self-defence.

5.2.8 The Counselling and Guidance Centre works in the college under the supervision of a faculty member. It provides timely help and counselling tips to the students for properly moulding their personality. A trained counsellor is available for the students and the women-specific issues are dealt with by a woman counsellor. Besides the class teachers perform the roles of counsellors and mentors to the students. Where there is a need for professional assistance they seek the help of the professional counsellor.

5.2.9 *Swasti*, the womens' cell of the college has a wing called *Vanitha Cell* consisting of 4 women faculty members with the Principal as its chairman, to deal with any possible sexual assault on women students. A suggestions box is kept for female students give their suggestions/complaints without fear. The lady teachers in charge take special care to see that gender related issues are promptly and effectively addressed. All women faculty members are actively involved in the activities of the women's cell.

5.2.10 An efficient system of grievance redressal has been built into the administrative framework. Students can get their complaints heard at various levels, depending on the level at which grievances arise. The class teachers and the HoDs attend to academic grievances relating to day-to-day classes. Discipline related grievances are taken through

the class teacher to the HoD who passes it on to the Disciplinary Committee headed by the principal. Grievances are redressed within a fixed time-frame. The Ethics Committee ensures basic codes of conduct and deviations are promptly set right. The Anti-ragging Committee scrupulously prevents any ragging attempt. The alertness of these bodies at different levels has ensured the smooth functioning of the college. Grievance related to internal assessment are heard and redressed at the Department level and if needed, taken up to the college level IARC (Internal Assessment Redressal Cell).

5.2.11 Although the curricula, does not require computer skills for all students, the college insists that all UG students undergo computer training at the beginning of their programme. The department of Computer Science of the college takes the initiative in imparting training. Moreover, the students are encouraged to do their seminar presentations using PPT/interactive boards. Most of the students in the college have basic level proficiency in computers.

5.2.12 The English department offers training for Business English Certificate examination of the Cambridge ESOL. Food Processing course is offered by the Aquaculture department. The Physics department offers a certificate course in Electronic and Equipment maintenance. The Botany department offers two certificate courses in Bioinformatics and DNA barcoding and another in Tissue Culture. The final year students are given life-orientation programmes every year with the assistance of experts in Gynecology, Psychology and religious studies. Personality development programmes are offered to every batch of students in the college. Special tutorial modules on civic sense and citizenship responsibilities are also offered to every batch of students. Besides these training is offered to the public in Bee keeping, Mushroom cultivation, Fabric Painting and Umbrella making. Safety and security of the faculty, students and the institutional assets are ensured with the help of security guards and surveillance cameras.

5.3 Student Activities

i. Every student who passes out of the college is a member of the Sacred Heart College Alumni Association. In addition to this umbrella body the college has alumni associations for individual departments, which meet at least once every year. The members are: Dr. M.S Francis (Convenor), Prof. P.J. Joseph, Prof. Roy Zacharia, Prof. K.A. Raju, Prof. Joseph George, Ms. Subhi Sebastian.

ii. The alumni association is composed of the alumni associations of the various individual departments under the coordination of a committee. The association organises annual get togethers and assists the college in instituting scholarships, organising lectures as well as giving lectures. Besides this, the alumni association provides financial and logistic support to the various programmes organised by the college.

iii Top Ten Alumni of the College

1. Prof. K.V. Thomas, Hon.Union Minister (Chemistry)
2. Mr. P.J. Joseph, Minister for water resources, Kerala State (Economics)
3. Mr. K.M. Mani, Finance Minister, Kerala State (Economics)
4. Dr. T.M. Thomas Isaac (Former Finance Minister)
5. Mr. Hiby Eden, MLA (Commerce)
6. Justice Ramachndra Menon (Kerala High Court)
7. Justice Narayana Kurup (Former, Kerala High Court)
8. Dr. Thomas Thundath, Defense Scientist, USA (Physics)
9. Mr Divesh Sahera IAS
10. Sr. Alphonsa, Principal, Morning Star College, Angamali (Zoology)

iv. The digital library of the college is the latest of a series of programmes supported by the alumni. Moreover, the college has received the assistance of the alumni in organising a number of lectures and seminars. Some of the endowments and scholarships are instituted by its alumni. The alumni join the college in its annual cultural festival *Heartifest* by taking part in the cultural show and raising funds for the event. They

regularly give feedback on the activities of the college and have always lent a helping hand in its march towards excellence.

5.3.2 The college offers its students a number of activities to choose from. There are many extracurricular activities that cater to their individual aptitudes and talents. The sports activities comprise of athletic meets, All Kerala Bartholomew Trophy tournament and College Sports Day. The encouragement given to sports and games, and athletics at SH is unequalled, and every student who passes out cherishes its sports culture. Having contributed many a sports star of national renown, the college still excels in sports and games and continues to reign as an unchallenged master in the arena. The sports hostel run by the college on its own, without any governmental aid, speaks volumes. The college has a glorious record in sports and games. (*Appendix 20*)

5.3.3 The students publish the students' magazine every year, which contains creative work by students, their responses to social issues and some of their original art work. *Heart-Bytes*, the Sacred Heart college blog features work by students as well, and is updated weekly. There are several other publications brought out by the associations and departments of the college. (*Appendix 21*)

5.3.4 The college has a democratically elected students' council. The council consists of the college students' union chairperson, a vice-chairperson (reserved for women), a general secretary, two university union councillors, a lady representative, arts club secretary, student editor, and class representatives. The union acts as a liason between the college authorities and the student community. Other activities of the union includes: organisation of various cultural programmes, publication of students magazine and other social awareness programmes. The college has a corpus fund for the student union activities, collected from the students as per the government norms. Besides this the union raises funds through sponsorships, holding events such as film festivals.

5.3.5 The college has ensured student representation in various committees. All departmental associations have student representatives as their core members, the SC/ST and other welfare committee consists of four student representatives, women's cell has two student representatives in them.

5.3.6 The college has a regular feedback mechanism, which ensures an evaluation of its performance by all stakeholders and prospective employers. Teachers collect assessments from the students periodically. In addition to this, feedback is collected by the college IQAC (now computerised) and the data is processed for further action. The parents are also given an opportunity to express their opinions during the open sessions after each sessional examination. The outgoing students are given an opportunity to give a comprehensive feedback on all the aspect of education in the college, using an exit survey form. The PTA executive committee meets every month to monitor the functioning of the college and to render advice. The college tries to get feedback from its clientele as well – these include the several organizations that visit the campus for recruitment, annually. Their comments have enriched its confidence and their suggestions have prodded the college to start initiatives like the BMLP, the VLC, GYM and the add-on courses.

5.6 Best Practices in Student Support and Progression

5.1.7 Institutional Best Practices

- Departmental Alumni and College alumni
- Text book bank
- Endowments and scholarships
- Financial support schemes: PTA-assisted scholarships, financial aid supported by the Student Welfare Trust and St. Vincent de Paul Society and fee waiver to the poor students.
- Soft skill training and personality development programmes
- Career Guidance and Placement Cell, Career Bay
- JRF/NET / Civil Service coaching

- Prospectus, Handbook & Calendar, Website and News Letters
- Canteen, Special diet for the sports persons, Bank, Salon, Post office, ATM
- Special sporting facilities such as multi-gym, horse riding, yachting, kayaking
- Earn-while-learn scheme
- Professional counselling service with a counsellor for women students.
- Value education classes, Life orientation programmes and annual retreat
- Entrepreneurship development programmes
- Special programmes for international students
- Anti-ragging Cell, Vanitha Cell, Women's Cell and Grievance Redressal Cell
- Computer literacy programme
- Add-on courses, Remedial courses and Value added courses,
- Community orientation programmes
- Safety and security system
- Heartifest: a festival of the SH family combined with alumni get-together
- Festivals such as Sargapatham, Hrudyasargasangamam, Intercollegiate Festivals and Departmental festivals
- Student council
- Multi-level feedback

Criterion VI

Governance and Leadership

6.1 Institutional vision and leadership

6.1.1 The institution is steered with the vision of 'fashioning an enlightened society founded on a relentless pursuit of excellence, a secular outlook on life, thirst for moral values and an unflinching faith in God'. The college has articulated its mission as 'to provide an environment that facilitates the holistic development of the individual'. The thrust is to grow into a 'wisdom seeking community with righteous heart' as goes the motto: *Cor Rectum Inquirat Scientiam*. The vision and mission of the college are founded on CMI educational vision, which is based on the national aspirations as well as the

church's vision of higher education. It emphasises holistic formation, value education, quality and affordable education for all and social commitment. The CMI Education policy aims at 'forming leaders who are intellectually competent, spiritually mature, morally upright, psychologically integrated, physically healthy and socially acceptable, who will champion the cause of justice, love, truth and peace, and who are ever open to further growth' (CMI vision of Education, 2009: 9-12). The institution disseminates knowledge beyond the academia and instils in students a feel for frontier disciplines and a concern for the environment by setting lofty standards in the ever-evolving teacher-learner interface.

Being a Christian minority institution of the Syrian Catholic community, the duty of maintaining the religio-cultural traditions and values is conscientiously kept, while remaining open and accessible to all sections of the society without any discrimination. The college makes effort to ensure that the vision-mission and college objectives are in consonance with the objectives of higher education at the national level, through periodic review of the same.

There are conscious efforts to disseminate the larger goals at all levels through orientation talks, induction processes for the new comers (students and staff), periodic review of the same during the planning sessions, at the beginning of the semester and through tutorials. All activities are linked to the over-arching values and ideals of creating an enlightened society. Being a wisdom seeking community with a sense of righteousness, the college provides the right environment for the learner to learn, learn for life and learn to live together.

6.1.2 The governing board is the supreme authority, which sets the vision of the college and broad framework of operation. It provides unstinted support to making and maintaining

a productive and creative environment by suitable policy decisions, ensuring adequate academic autonomy; and making efforts for timely appointment of staff. The college functions under the leadership of the Principal who gives impetus to all the academic and non-academic activities. The Management is involved in and is supportive of all activities in the direction of the vision and mission of the college and operates mainly through the Principal. It gives a great deal of freedom in day-to-day operations of the departments and committees, while providing free access to the Manager, whenever required. While holistic development is the goal, at the higher education level, the college recognizes 'teaching-learning' as the core activity. Advance planning helps in setting apart time for other aspects of development within the schedule. The management encourages the teachers to avail opportunities for improving teaching by undergoing refresher programmes, training programmes, workshops and seminars, and makes a budgetary allocation for such activities. Supportive resources for improving teaching learning – library, computers – are procured as and when required. All faculty members were encouraged to get lap tops for themselves by management advancing the amount, and permitting a pay back in easy instalments.

6.1.3 Initially the system of management had been based on a family like bond; however, as the institution grew and its activities became more diversified, there arose the need to build a well-defined administrative system. At the appointment, the management's expectations are shared with the new appointees by the manager and the principal, to the extent possible, in the presence of the HoD. The council meetings serve as the venue for defining, clarifying and redefining such roles. However, primarily the responsibility of doing that rests with the principal. In order to make it more system based, a quality assurance and heritage manual has been prepared, and it describes various activities and the roles. Monthly meeting of the principal (separately) with the

teaching and supporting staff serves as a platform for further re-articulating and clarifying these roles. Besides, circulars, bulletin boards, emails, SMS, telephone calls and individual meetings with the staff members serve this purpose.

6.1.4 The council meetings serve as a platform for gaining feed back for the management. The expectation is that council agenda is discussed in the departments (formally/informally) and consensus arrived at, and council discussions are shared with the departments for implementation or further responses. The end-course computerized evaluation also is an excellent source of feedback from the primary stakeholders. The HoD is appraised of the department's relative ranking as well as the ranking of the individual faculty members. Extraordinary ratings are conveyed directly by the Principal. Suggestion boxes are kept strategically to gather student feedback and the suggestions are reviewed once in a month. The Principal personally visits every class once a semester (at least once a year) and takes feedback from the class directly. Every student and staff, if required, can have direct access to the Principal and Manager, if the lower levels of grievance redressal mechanisms fail. The Principal tries to meet the staff members individually, and tries to visit their families, which all serve as feedback sources.

6.1.5 Usually the development concerns and administrative hassles are presented before the staff, and consensus is arrived at. Involvement and support are duly noted and appreciated. The management tries within reasonable limits to remove all sorts of encumbrances in the way of improving performance. Effort is made to ensure that everyone is involved in some aspect or other of administration, and tasks are devolved through various committees to increase efficiency.

6.1.6 The Head of the institution plays a key role in planning, mobilising material and in human resources implementation and evaluation. Department level academic

autonomy and committee-based devolution of power are the key strategies. Open door policy and free access to the Principal are also strategies involved in ensuring smooth governance with minimum of formalities. The Principal initiates the process of bottom up planning, consolidates the same through various meetings, introduces monitoring mechanisms (internal and external), motivates the various stake holders, monitors the progress with the help of a full-fledged IQAC and ensures timely implementation followed by structured or unstructured evaluation of the same. Timely documentation and public relations are also monitored by him with the newly introduced documentation system at IQAC and the office of PRO and media relations

6.2. Organisational Arrangements

6.2.1 A graphic representation of the organizational structure of the college

Governing Board meets at least twice a year. The decisions of such bodies are carried out in an efficient and time-bound manner. The last 5 Governing Body meetings decided to purchase 2 buses, plan for future development with a separate wing to house newer programmes, to build a women's hostel, a stadium and a swimming pool, to furnish facilities for guests, recreation facility for staff, health room for students, a students' cum community centre, outsource the gym, erect a facility for yachting and horse riding etc. It appointed 21 permanent faculty under the aided scheme, and introduced several benefits for the self-financing stream which has almost 25 staff members. The college council as per the directions of the Governing Board introduced a year planner, included time for extra-curricular activities (club), social awareness programmes, environment sensitisation and value & spiritual education within the schedule. As per the suggestion of the council, the vice-principal post was re-introduced *ad experimentum*. The research committee recommendation has led to the annual science congress and get together and presentation of the research scholars with their guides. The governing body has also

permitted optimisation of the college facilities for generating resources for managing the maintenance and development expenditure of the college as well as raising of funds from the parents through the PTA. At the suggestion of the governing body, a computerised teacher cum course evaluation has been introduced, while the teachers are encouraged to take mid-course evaluation from the students themselves.

The **College Council** meets once in a month, and whenever necessary as the immediate consultative body for the Principal as far as academics and discipline are concerned. It has made several decisions regarding the scheduling of programmes and discipline of students.

Details of the meetings held (2009-2011) (Table 19)

	Name of the committee	Number of meetings
	Management Governing Board	10
	College Council	50
	General Staff Meeting	45
	Research Committee	5
	Purchase Committee	5
	Library Committee	10
	Golden Jubilee Trust	6
	PTA Executive & SWT	40
	IQAC	24
10.	Establishment Staff Association	20

6.2.2 Administrative powers are decentralized. All major issues are discussed in the Council and also in the general staff meeting. Senior superintendent and two elected representatives from among the staff are members of the Council. Various committees monitor the functions of different departments and associations. The committee members are chosen from various departments. Collaboration and coordination takes place through

standing committees which work throughout the year for various matters; and **ad hoc committees** which are constituted for specific purposes. The Vice-principal heads the **discipline committee**, and generally monitors the activities of various committees, with the active support of elected staff secretary and staff representative. The **research committee** identifies new projects and recommends them. It also coordinates the activities of Ph. D research at the various centres. There is a **purchase committee** whose approval is required to make purchases for the departments. The **library committee** is in charge of purchase of books for the library and recommends books. Other major units of decentralisation are **planning committee, media committee, coordination committee for clubs** etc. The administrative staff also has a committee to discuss their involvement in decision-making. There is a very active **PTA** which meets annually. Its executive committee meets regularly, once a month. Various departmental meetings are held for planning, organization, preparation and implementation of an academic year plan. The **Golden Jubilee Trust** functions to promote involvement of the various stakeholders in the development activities of the college, especially through financial contributions. Periodical training and updation programmes for teaching & non-teaching staff also ensure quality enhancement and improve collaborative efforts.

6.2.3 The institution has effective **internal coordination and monitoring mechanisms**. The regular college council meeting is the key monitoring mechanism for progress towards the vision. The pre-planned college calendar serves as a monitoring tool. The task of monitoring is specifically assigned to IQAC with the help of staff secretary and staff representative sees to it that approved plan is implemented. This is achieved by the weekly review meeting of IQAC and IQAC sub-committee members taking responsibility to remind the units concerned of the planned activity. A semester review of the implementation is held and the plan is further revised or fine-tuned as per

requirements. The departments are encouraged to hold review meetings with the students on a semester basis. The college has a self-appraisal system to evaluate the performance of the faculty. The faculty members are encouraged to collect mid-course feedback from the students; while end-course feedbacks are collected centrally, with the support of computer department. Corrective measures are taken based on the assessment. The parents are invited for meetings with the faculty and their feedbacks guide our course of action. The tutorial sessions held regularly is another opportunity for the teachers to find out what the students feel about the classes and the institution, as students are given chances to speak out. These interactive sessions are very useful in getting a regular feedback on the teachers. Besides these, the students have access to the teachers, HoDs and the Principal. During their initial orientation they are informed of the grievance redressal mechanism and reminded of it, during the principal's meetings with the classes. A suggestion box in the library/principal's lobby and in women's retiring room collects feedback from the students on various issues.

6.2.4 An effective system for the grievance redressal of the employees has been put in place lately. Any employee is expected to present his grievance first to the immediate supervisor concerned – HoD concerned or the office Superintendent. If their grievance is not redressed, they are free to present the matter before the principal. The next level of grievance redressal is the Manager. As a norm, the staff has to have the concurrence of the head of the institution to lodge a complaint or grievance with an authority beyond the manager. Generally, there is a very healthy atmosphere prevailing among the staff, as well as the management and the staff.

6.2.5 The Principal serves as the representative of the Management and meets the staff on a regular basis and discusses all major issues. Besides this, for the non-teaching staff, the Bursar is given additional charge for their welfare. The last meeting discussed the

following matters: achievements of the staff/departments, general discipline, upcoming programmes, need to expedite the pending promotions and arrears, greetings to the staff celebrating birthdays. The manager formally meets the staff during planning session and the sent off session. The staff has free access to the manager.

6.2.6 The statutory women's cell is established to ensure women's rights and services on the campus and serves as the cell to prevent sexual harassment of women staff (although no such case has been reported so far). All women staff are members of this cell. It started functioning in 1990 under the banner SWASTI (Sacred Heart Women's Association for Service, Truth and Integration). It is financially and technically assisted by the All India Association for Christian Higher Education. The cell cultivates among girls a deeper interest in the cultural heritage of the country, bringing out the best in them providing opportunities in the form of discussions, seminars, symposia, exposure programmes and helping them take up projects in related issues. It also takes care of the upkeep of the retiring room for women.

6.3 Strategy Development and Deployment

6.3.1 The new Principal convened an IQAC meeting, which chalked out the framework for quality improvement for the academic year 2010-11. The planning for the academic year 2010-11 was based on five values of assessment of higher educational institutions such as:

1. Contributions to national development
2. Fostering global competencies among students
3. Inculcating a value system in students
4. Promoting the use of technology
5. Quest for excellence in all disciplines

The various departments and other units were asked to prepare a plan at their level corresponding to the fulfilment of the NAAC criteria within the framework of the vision-mission of the institution. The suggestions were received from the students through the personal meeting of Principal with individual classes. These suggestions were presented in the common forum for comments and corrections. The final form was further consolidated and presented to the IQAC. Their suggestions were incorporated and approved by the council to be submitted for the management's approval, along with the budget.

6.3.2 The head of the institution through regular meetings and informal interactions with the staff and students, reminds and inspires the community to translate the vision in academic and extra academic spheres. Regular feedback is collected and deliberated upon to ensure uninterrupted progress towards the vision. The Principal directly collects feedback from all the classes through an informal interaction once a year; visits every department and holds formal and informal discussions with the faculty members and administrative staff at least once a year; Making use of ICT, he regularly communicates with all the stakeholders and remind them of the larger goals of the college and update them of the newer developments. He promotes participatory and bottom up planning, and decentralised implementation, especially through the departments and the various committees. Monitoring is done through review meetings. Achievements and accomplishments are duly commended and pitfalls are amiably pointed out and rectified. The annual renewal sessions of teaching and non-teaching staff, renewal sessions for the students, and planning sessions serve the purpose of reminding and re-orientating towards the institutional goals. Besides these, special tasks for improving quality are assigned specifically to individuals, and they serve as the Principal's arms in reaching up to the set goals.

6.3.3 The following major committees are constituted for a convenient management of the different activities in the college: **Discipline committee** – for the maintenance of general discipline, preventing ragging, as well as for initiating disciplinary action when required; **Research Committee** – for identifying and promoting research areas and quality improvement in PhD research. The committee convenes a review meeting internally, and another review meeting with the research guides and the scholars; **Purchase Committee** - for finalising on purchases of the departments as per grants. Usually the committee meets once in a semester; **Library Committee** – to monitor the activities of the library and encourage the utilisation of library; **Golden Jubilee Trust** – to involve various stakeholders in the college development activities. The committee meets twice in a year. Projects such as women's hostel, college bus, college gate etc. were supported by this fund. **PTA Executive Committee**– the joint body that supports student development activities; **SWT** – a trust to support student welfare and college development. It is an ancillary to PTA. The two meetings are jointly held and decisions were taken regarding insurance for sports stars, insurance for all new comers, support for college programmes etc. **IQAC** – the statutory quality monitoring cell; **Establishment Staff Association** – for the welfare of administrative staff. It meets once in a month and takes decisions regarding staff welfare, staff tour etc. **Examination committee** – works as a team in coordinating the exam activities, and bringing out results.

6.3.4 There is a management information system in place; however, it is yet to be fully computerised. The process is on, and is entrusted to a professional group. The system will be fully functional by 2012 June. There is systematic collection and collation of data of the students and the staff, and they are properly filed. Any information can be gathered by the staff in order to facilitate decision making.

6.3.5 Application of feedback information in decision-making and performance improvement, data related to groups like female students, minorities, dalits and differently-abled are utilised to plan programmes specifically for them and to address their requirements.

6.3.6 Inter-disciplinary programmes are given added thrust and in this direction joint seminars (Fr. Kallarackal Memorial), surveys, community outreach programmes, exhibitions (Bio-rhythm) and training programmes like INSPIRE are conducted apart from the usual inter-departmental competitions in arts and sports and by various clubs. Courses like BEC by English, BMLP by Maths, Human Rights by Economics and Food preservation by Botany and Animation by Computer Science promote inter-departmental collaboration. Computer, English and Oriental Languages serve as common resource pool for all departments in their respective areas of expertise. SHARE serves as a platform for inter-departmental research and publication.

6.4. Human Resource Management

6.4.1 The college has a self-appraisal system to evaluate the performance of the faculty. There is feedback from the students on a semester basis. Corrective measures are taken based on the assessment. The parents are invited for meetings with the faculty and their feedback guide the course of action of the institution. The regular tutorial sessions give students an opportunity to give their feedback on classes and the institution. Besides these, the students are encouraged to contact the Principal, the HoDs and the teachers regarding any problems they encounter. Principal also takes direct feedback from the students once a year (from each class) on all aspects of campus life, and initiates action in the light of the same. The faculty members and non teaching staff are encouraged to attend at least one programme of upadation by way of conference, seminar, workshops or

training programmes. A peer team evaluates the entire department activities once in 2 years, on NAAC parameters.

6.4.2 The college has several welfare measures for the well-being of its staff and faculty:

- The college cooperative credit society for loan up to Rs. 200000/- with least amount of paperwork. Credit availability for faculty of the self-financing programmes.
- Subsidised health check up facility in collaboration with Medical Trust Hospital, EKM
- Periodical checkups in collaboration with local health care providers (Dental care, eye care) Medical insurance coverage for self-financing staff
- Advances for training and international travel
- Part/full payment for travel and registration to attend seminars/workshops/ training programmes.
- Seed money for research projects
- Participation in the solemn family functions of the staff
- Provision of leave for completing studies, especially Ph. D
- Duty leave for officially sanctioned training or workshops
- Awards and scholarships for academic performances of the children of staff members
- Special consideration in admission for the children of the staff members
- Incentives for publication
- Additional income by way of extra assignments taken up by the college.

6.4.3 Faculty selection: Faculty selection is done with utmost discretion, adhering to the norms stipulated by the state and its regulatory bodies. The primary focus is on the suitability of the candidate as far as institutional vision is concerned. This aspect is thoroughly explored along with the non-negotiable of academic excellence. The selected faculty members are given orientation to the ethos and work culture and institutional expectations through various sessions by the manager, Principal, and senior faculty members. They are gradually inducted into the college life by assigning tasks and involvement in various committees. For the initial two years, their performance is monitored on the basis of feedback from the students and senior faculty members, before

confirming them in their posts. The existing members of the faculty are encouraged to identify suitable candidates and inspire them to apply for faculty posts when advertised. The faculty who join as guest faculty are also assessed informally so that those who are found fit are absorbed through the stipulated processes either in the self-financing scheme or in the aided scheme. The CMI management is informed of the possible vacancies so that the management is able to identify talent from among the community and groom them to make themselves fit for the faculty/administrative posts.

6.4.4. The part time faculty are chosen and employed as per the stipulations of the government. However, it is also looked at as an opportunity to groom youngsters in the profession, and instead of treating them as part time faculty they are permitted to be fully involved in the team, sharing all the benefits and responsibilities (attending faculty meetings, training programmes, parties and picnics) of a full-fledged faculty under training. The experience becomes a value addition to their CV when they appear for a post.

6.4.5 There is budgetary allocation for faculty development. Faculty members are encouraged to attend at least one national level updation programme annually, and they are supported financially for the same. They are also encouraged to take membership in professional bodies – both as individuals or as departments – at various levels. Budgetary allocation is also made for faculty research. All information regarding training and seminars are forwarded to concerned departments or common staff room. The principal also follows it up with the departments so that there is maximum utilisation of such opportunities.

6.4.6 There is faculty appraisal happening every year, and there is provision for assessing faculty's aspirations and needs for professional development. The institution has organised regular programmes in the field of application of ICT, of personality development, soft skill development, social outreach and spiritual renewal.

6.4.7 Improvements in infrastructure facilities like laboratory upgradation, departmental renovation, additional facilities to departments, audio visual aids, teaching and learning materials, new equipments and facilities related to ICT-enabled learning were added to the departments. Welfare measures that can contribute to the human resource development also include:

1) First-aid facilities 2) reprographic facilities and round the clock email 3) Digital Library and wi-fi access 4) lap-tops funding 5) Recreation facilities 6) surveillance cameras 7) Orientation/skill development programme for the staff 8) Computer training for non teaching staff 9) Seminars and workshops

6.5 Financial Management and Resource Mobilization

6.5.1 The college is supported by state government for the payment of its faculty members and administrative staff under the aided scheme. It also receives a nominal amount from the government for maintenance and books. The rest of the resources are mobilised through a) the PTA initiated development contribution of the parents and other well-wishers b) support from agencies such as UGC, DST for specific items of lab and infrastructure c) the judicious utilisation of the college's own resources such as grounds, buildings etc. without affecting the core activity. The self-financing programmes, including the payment of the salaries, are managed by the fees collected from the students. The college being an institution under 2f, 12 B and CPE, has received generous support from the UGC and DST during the reporting period. The college was sanctioned Rs. 7,14,97,010/- during the past five years, of which Rs 3,65,25,562/- was disbursed.

In the light of previous Peer Team's visit and feedback, the college has chalked out more comprehensive plans for development and received assistance from the UGC, especially for the UG and PG programmes. The college has received a total of 2.37 crore assistance

under CPE and was effectively and carefully utilized to upgrade the infrastructure and various other facilities of the college. The DST (Rs 35 lakhs) assistance has led to long term initiatives as well as buying various equipments for the research development and laboratory upgradation in the Botany department. The Chemistry Department has received DST assistance of Rs. 52.6 lakhs under the FIST programme for its various ambitious projects. (*Appendix 22*)

6.5.2 The college mobilised Rs. 62,14,700/- through the Jubilee Trust for its various developmental activities.

6.5.3 The budget is adequate to cover the day-today expenses. However, for infrastructural development this is insufficient. For this, advances are obtained from the management or the strategy of deferred payment, with the consent of the parties concerned, is employed. However, as this may not be feasible on a long term basis, loans are being contemplated for introducing newer programmes requiring added infrastructure facilities.

6.5.4 Income-expenditure statement of the last 2 years is attached at the end of the report.

6.5.5 There is a system for internal and external audit. The internal audit is stipulated twice a year, and is carried out by a government official. The external audit of all programmes take place either through a professional audit firm or by the government agency concerned, as the case may be. The Principal checks the money transactions every evening. (The audited account report is attached at the end of the report).

6.5.6 The finance management system has been computerised, however, conversion to *Tally* programme is in the process of completion. A *Tally* expert has been employed to clear the backlog, and the college staff members are getting trained to utilise the package.

The women students and staff are provided with exclusive retiring rooms. A common space for dining and wash facilities is provided there. The rest rooms have been recently renovated and more conveniences added.

6.6 Best practices in governance and leadership

6.1.7 Significant Best practices in Governance and Leadership

- Secular outlook
- Emphasis on promoting cultural tradition
- Decentralized administration with a slew of committees
- Periodical review of goals
- Open door policy and free access to the management
- Transparency in administration
- Social commitment
- Constant upgradation of the infrastructure keeping pace with technological advancements
- Emphasis on quality in appointments
- Initiation programmes for students
- Induction programmes for the new staff
- Various support schemes for the staff and students
- Value orientation for students and staff
- Continuous feedback mechanism
- Various quality enhancement schemes
- Monthly staff meetings and Council meetings
- Planning sessions
- IQAC with a full-time staff
- Regular governing body meetings
- Regular PTA meetings
- Research Incentives including seed money, leave, awards, publications etc
- Internal and external auditing of funds
- Sustainable development initiatives (wind energy/paddy cultivation/ waste management/ plastic free campus etc.)
- Grievance Redressal Mechanism for the staff

- Scholarship schemes for staff children
- Computerized management information system
- Encouragement to sports and cultural activities

Criterion VII

Innovative Practices

7.1 Internal Quality Assurance System

7.1.1 The college has always maintained a high faculty profile and excellent academic output. The IQAC (Internal Quality Assurance Cell), at the college level and the DQAC (Department Quality Assurance Cell) consisting of the faculty, representatives of the industry, alumni and experts function in tandem to sustain and enhance academic finesse of the college. Both the IQAC & DQAC meet periodically, assess the programmes and projects and give creative suggestions for quality enhancement. The IQAC core group has representation from all stakeholders. Besides these, the various committees such as – the statutory College Council, examinations committee, research committee, purchase committee, library committee, UGC affairs committee, publications committee cultural affairs committee, website committee and programmes like SHRI, SHARE and Remedial sessions assure and enhance the quality standards of the institution.

7.1.2 These bodies ensure the implementation of the plans and programmes of the college, and updates the college community on various quality parameters through workshops and seminars. The IQAC is in charge of disseminating information regarding various academic programmes, UGC initiatives, governmental policies and international academic events. It also meticulously documents the activities and events in the college. The other activities of the IQAC include liasoning with the UGC and other governmental agencies and the preparation of the AQAR reports. As part of the preparation of the NAAC report, the IQAC conducted several department level and college level

discussions and seminars. It organised an interdepartmental peer visit and the observations were incorporated into the agenda for quality improvement of the departments. The other bodies offer their constant support to the initiatives of the IQAC and the college.

7.1.3 The students of the college make optimal use of the resources and training imparted by the college. Majority of the students make conscious efforts to imbibe the institutional values by actively getting involved in the collective life of the institution through the various clubs and associations in the college. The college is ever alive to the world outside and is always ready to respond to them in a creative manner. The yearly symposium on a relevant socio-political issue, incorporating the best minds in the respective fields, organized as part of *Sargapatham*, a literary pentathlon, is one such effort. ‘Suchitwa Bhodhana Yagnjam’, an action-oriented programme to make Kochi a zero-waste zone was well attended by the students. It was followed up by a Clean Heartian Week and an awareness rally in the locality. The Nature club initiated the tree census ***Go Green Campaign***. As part of the campaign, the staff and the students planted about 200 tree saplings in the Medical trust campus at *Irumpanam*, a Kochi suburb. On the academic front, the students of the college, excel in university examinations, campus recruitments, competitive examinations as well as in research. The students make good use of the library resources, and the free training given in ICT is applied while preparing projects and seminar presentations.

7.1.4 Through the various information dissemination channels, initiation programme and all the subsequent activities, it ensures that every student is aware of the vision, mission and objectives of the college as well as the best practices promoted by the college. The involvement of the students in the various programmes testifies how they internalise these initiatives.

7.1.5 In consonance with the vision of fashioning an enlightened society, the college strives not only for academic excellence but also to instil in its students the essential values – human/spiritual/civic/ecological. On admission, the students are initiated into the collective life and core values of the college through an orientation programme, and the tutorial sessions and all the major activities constantly make the students aware of the values, possibilities and the best practices of the college. The extension lectures organized by various clubs, the inter-college literary fests like *Sargapatham* and intra-mural competitions like *Hridyasargasangamam* and cultural fests like *Heartifest* and tournaments by the Physical Education Department - all act as value additions to the strong academic input. The staff and students of the institution are encouraged to make the campus a plastic free zone. The institution also has an effective waste management system. The college is also an officially recognized ‘Bhoomithra unit’ which gets financial support from the state government for environment awareness campaigns. “Red Ribbon Express”- an AIDS awareness programme, planting of different species of saplings in the campus, active participation in a Tree Census programme with the support of Kochi Corporation too are initiatives towards quality enhancement. The college also tries to emulate the best practices of other institutions through institutional visits and discussions. The outreach programmes organized in collaboration with other institutions and a recent visit of a team of faculty to Christ University, Bangalore are such endeavors.

7.2 Inclusive Practices

7.2.1 The college, true to its vision, reaches out to the socially disadvantaged. The college strictly adheres to the government norms regarding the admission quota for the backward communities. In addition, a certain percentage of the seats in the management quota is used for admitting students from the weaker sections of the neighbourhood. It provides financial assistance to economically weak students as scholarships. The individual

departments and the PTA chip in with endowments. The college also promotes the reimbursement of study tours/ field study expenses to the economically backward. Various endowments and awards for top students in various departments are effective support for economically weak students. In the current academic year *The Vincent De Paul Society* provided regular educational aid to 17 students. Another project, *Vidyarthi Kshemanidhi*, under the co-operative society, offers assistance to the economically weak students. Remedial teaching, a scheme of the university to aid SC/ST students in their learning is also undertaken with serious intent. In the process of making the college more disabled friendly, an *Equal Opportunity Cell* has been constituted. Its members made a survey of the college premises and made recommendations on the measures to be taken for better access to differently abled. The measures for the implementation of the recommendations are in the pipeline.

7.2.1 The college has an open attitude towards recruiting staff from various sections of the society. This includes backward classes and members from other communities. Of the total regular staff of the college 10% consists of backward classes.

7.2.2 Women students in the college outnumber men. All the same, the college makes efforts to address their special needs through its women's cell. Through a series of programmes the college seeks to sensitise its students on gender equity and women's empowerment. The strong Women's Cell tries to nurture each girl student through their active participation in workshops, seminars and outreach programmes. The cell also sensitizes the entire student community on gender related issues. Amenities are provided for them in ample measures. Among the staff, a good number consists of lady teachers and the majority of the guest faculty are ladies. The Women Cell is in charge of women-related activities of the college and the Counselling Centre has a woman counsellor to deal with women-related issues.

7.2.3 The college maintains the gender-wise data of its students and faculty. It organises a gender-sensitising programme at the beginning of the year with the help of experts from outside. Separate sessions are conducted for men and women. In addition to this, the faculty of the college organise debates and discussions relating to gender issues. On an average, two such programmes are held in a year.

7.2.4 The students from rural and tribal background are given free remedial sessions to improve their basic skills. They are also given free training in basic computers at the beginning of their academic programme. They are also supported financially for their academic and extracurricular development through various support schemes.

7.2.5 The experience of the college is that there has been tangible progress in the academic levels of the students from the disadvantaged sections. The large majority of these students either go for higher studies after their education here or take up jobs. In order to make the monitoring mechanism more effective, the academic management system attached to the new website of the college has been attached with a special window.

7.2.6 Through social campaigns and extension programmes, the college tries to promote social justice and good citizenship amongst its students and staff. The social forums of the college like NSS, AICUF, Vincent De Paul society, regularly organize campaigns, out-reach programs and workshops. Whether it is visits to old age homes or orphanages, economic surveys or signature campaigns, maximum student participation is ensured. The college, alumni and students also make use of the social media as interactive domains to share information and to discuss different issues. The college makes sure that its social campaigns reach out to the community. *Janaparvam* is a village adoption scheme by the department of Economics and is funded by the college. The project aims at enhancing the quality of life and integrated development of the poor in a neighboring locality. The

Students Union, the representative body of the students, is a nursery of citizenship, leadership and social organization. They plan, execute many events, which is an enriching non-formal education. The students generously contribute to voluntary public welfare measures undertaken by agencies like Vincent De Paul. The faculty also chips in with contributions for contingency needs of fellow employees, public causes etc. STEP (Scheduled Tribe Empowerment Programme) is another initiative of our college where students and teachers visit and interact with tribal settlements and supply them with food.

The students of the college have successfully launched an economic survey in the neighborhood community and have held a signature campaign on the need to repair the Thevara Bridge. The students of various disciplines were into mosquito eradication campaign and chlorination of wells of the locality. The members of the local community are all enthusiastic about the community oriented programmes of the institution viz. the visits to local orphanages and old age homes, extension programmes of clubs like effective waste disposal mechanism, water testing facility and mosquito eradication campaign. Routine workshops on topics like traffic rules, fuel conservation, hazards of mobile phones, global warming and conservation of mangroves, constantly remind our students of their social responsibility. Apart from the social activities of the clubs, each department has a separate day for campus cleaning and social outreach programmes. This assures that every member of the institution is a part of at least one social outreach program. The outreach measures have been bountiful with students being given fee waiver, buildings constructed for the poor, food and cloth distributions etc for the needy. Students too co-operate in good measure in such endeavours.

7.3. Stakeholder relationships

7.3.1 The college has an effective IQAC and departmental QACs in addition to the PTA and student bodies. These agencies give creative input in planning, implementing and evaluating all its activities. The stringent internal quality check mechanism looks into all aspects of teaching, learning, student support and infrastructural facilities. The principal and the faculty collect feedback from the students and other stakeholders and act on it. All these efforts have found fruition in the form of better student achievements and faculty vigilance.

7.3.2 From the regular feed back collected from the various stakeholders and the industry, including the agencies under which the students do their on-the-job training and projects, the college develops new programmes to create an overall climate for effective learning. Accordingly, a number of programmes have been initiated by the college including programmes for experiential learning, technology-oriented learning and community oriented learning.

7.3.3 The college has a glorious legacy and it still lives up to it. The excellent academic output, co-curricular achievements, its proactive civic engagements, its illustrious alumni in diverse fields, the routine media coverage of the in-campus programmes, the high ratings by national magazines such as *India Today*, *Outlook*, all attract prospective students to our institution. The number of final year students getting placed through campus placements is steadily on the rise. Leading companies of various sectors are absorbing our students. This year apart from the regulars like Google, Radio Mango, Infosys BPO, Genpact, South Indian Bank, Corporation Bank, OPI Global, DELOITTE-the leading audit firm has also started its recruitment drive from our campus. In 2011, a total of 72 students were selected/ recruited by the companies. The prizes bagged by our students in various competitions, the top ranks in the university examinations, and the number of students clearing the

competitive/entrance examinations ,our negligible drop–out rate and our list of illustrious alumni all speak for the student’s goodwill and trust.

7.3.4 The Parent Teacher Association meets regularly and as stakeholders play an active part in planning, implementing and evaluating the academic and extracurricular activities of the college, its executive and the trustees of Student Welfare Trust meet once a month. The individual departments through Open Houses and sometimes through informal monthly visits by parents make sure that there is continuous parent – teacher interaction.

7.3.5 Most of the current programmes in the college began 6-7 decades ago. However, the college has made every effort to upgrade and enhance the quality of these programmes through periodical reviews and modifications, taking into account local and industry needs, emerging areas of disciplines and the need for global competency. In addition to modernizing the existing programmes, the college tries to address these considerations while introducing new courses. The college awaits administrative sanction for courses such as UG/PG in Geology, Business Administration, Multimedia, Computer Applications and Commerce. Besides these exclusive academic programmes, the college also responds positively towards the social and environmental concerns of the times through programmes such as training for mushroom cultivation, ICT skills, renewable energy research, *suchitvabodhana yagna*, ‘go green’, plastic free campus, ‘red-ribbon’, paddy cultivation etc.

7.3.6 The college organises a slew of programmes aimed at promoting social responsibilities and citizenship roles. The college has a very strong team of NCC with all 3 wings - army, naval and airforce, the NSS also has 3 units. These bodies are actively involved in the social outreach and extension programmes of the college. Apart from

these, Mithradham, the nonconventional energy research centre, Janaparvam community uplift project, paddy cultivation project, various skill training programmes, social campaigns against, plastic, cola, drugs, AIDS etc., participation in census work, various surveys, field visits and visits to orphanages are aimed at developing social and citizenship responsibilities in the students.

7.3.7 At the heart of the mission of the college is an enlightened and self-reliant community. Keeping this view, the college organises a series of activities with a community face. The skill training programmes like bee-keeping, mushroom cultivation, pickle making, umbrella making were conducted as open programmes wherein the public could join. Other programmes mentioned above (para 7.3.6) are also aimed at giving a community orientation to the students. Opening up the interface with the community, the college now organises its annual cultural event *Heartifest* as a public event.

7.3.8 The college has numerous avenues for interaction with the local community which helps it gather their sentiments, needs and aspirations. The feedback collected from these interactions is put to use while developing the organisational strategies for supporting and strengthening the neighbourhood communities. The *Janaparvam*, Mangrove conservation project, the academic programme in aquaculture, the various community surveys, campaigns have been the result of its sensitivity to the needs of the neighbourhood. The college joins hands with the local self-governments in a number of community-centered programmes.

7.3.8 The college identifies the programmes to be implemented and students under the leadership of the faculty carry out these projects. The college authorities also seek the support of the local self-governments in undertaking these projects.

7.3.9 The feedback from the stake holders - including the students, parents, industry, alumni – help the college assess the quality of the education offered by the college. These feedbacks help the college to set new benchmarks for the various academic activities. A large number of the co-curricular and para-learning programmes are the outcome of such inputs.

7.3.10 The college enjoys social recognition and reputation for its quality of teaching and research work, infrastructural facilities, secular outlook, co-curricular programmes, community orientation and above all, student support. Hence the college needs little publicity to attract good students to it. Through a range of initiatives mentioned earlier (the best practises under each criterion) the college retains, enhances and meets the expectations of the students.

There is a multi-layer, mandatory Grievance Redressal Cell working in the college which looks into the various academic and non-academic complaints. The college council, the apex body of the college, monitors the functioning of the cell and extends support if necessary. It also studies the nature of complaints and makes recommendations for structural changes where the complaints affect the stakeholder confidence in the institution.

SH college is an institution with a secular outlook. It admits students of all classes and communities without discrimination of any kind. Its educational vision goes in tandem with the expectations of the nation. The range of programmes and activities of the college are aimed at knowledge acquisition to meet the challenges of emerging world order; skill development necessary for a world driven by fast changing technologies; social commitment necessary for the building up of an egalitarian society; personal and spiritual values to keep one's bearing in an increasingly materialistic and utilitarian world; and

ultimately shaping up wholistic individuals who contribute to the development of the nation.

C. Evaluative Report of the Departments

Department of Botany

The Department of Botany had its inception in 1957 with the introduction of a graduate programme in the subject. It became a full-fledged PG department in 1984 and was recognised as a research centre in 1988. With 16 PhDs awarded and more than 60 research papers published in research journals of repute, the department is now competent to undertake any research project in the frontier areas of the subject. The department celebrated its golden jubilee in 2007 and the silver jubilee year of the PG programme in 2009. It was recently honoured by the DST, Govt. of India, with a financial assistance of Rs.36 lakhs under the FIST programme.

1. Faculty profile – adequacy and competency of faculty

There are seven permanent members and a guest lecturer in the department. **Dr. V J Dominic** M Sc, M Phil, PhD is the Head of the Department and he is a research guide under MG University. He served the University as a Senate member during the years 2006-2009 and as a member of the PG Board of Studies. He was the president of Kerala Botanical Society and was a resource person for the syllabus restructuring committee of SCERT. He officiated as the chairman of question papers setters, PG and UG Boards under Kerala University. He has 9 research articles during the last five years. **Dr. George Joseph** MSc, MEd, PhD is a member of the PG Board of studies of MG University (*Appendix II*). He worked as a

resource person for Kerala State Higher Education Council for the restructuring of UG curriculum in the state as well as for the implementation of grading in place of marking system of evaluation. Besides, he has published 3 books and over 100 articles in dailies. He has also published two research articles in scientific journals. **Prof. Jacob Varghese** MSc, MPhil is an Executive Member of Ernakulam District Agri-horticultural Society. He is a resource person for AIR Kochi and Regional Agricultural Technology Training Centre, Ernakulum. Besides four books, he has published 100 popular articles and has a website of his own (www.gardenplantskerala.com). **Dr M S Francis**, MSc, MPhil, PhD is a research guide of MG University. He did his Post-Doctoral Research under the FIP of UGC. He had undergone training at Madurai Kamaraj University in Plant genetic engineering, CCMB, Hyderabad in developing interdisciplinary approaches in Biology and EMMRC, Calicut in e-content development. He is a resource person of syllabus restructuring committee (SCERT), member of UG Board of Studies of MG University and Examiner of Calicut & Kerala Universities. He was a resource person for the DST Sponsored SAP programme in 2000. He has published 18 research articles during the last five years. **Dr. Joy P Joseph** MSc, PhD is a research guide of MG University. He was a member of the PG Board of Studies. He is the founder secretary of Kerala Botanical Society. He is in the board of question paper setters of Calicut and Kerala Universities. He is coordinating SHARE and short time training programmes in Molecular Technology and Bioinformatics. He has 8 published papers. **Prof. Roy Zacharias** MSc is also a member of Ernakulam District Agri-Horticultural Society. He is also elected to the Senate of MG University. He is a member of the University vigilance committee to inspect and examine the conduct of examinations in different affiliated colleges of the university. **Dr. C M Joy**, MSc, PhD is a well-known environmentalist in Kerala. He is the General Secretary of All Kerala River Protection Council (AKRPC) and Advisory Member of Supreme Court Monitoring Committee's Local Area Environmental

Committee, Eloor. He is the coordinator of college IQAC. He is an observer for UGC NET. He is the Chairman of BSc and MSc Examinations, Calicut University. He has published 16 research articles and more than 200 popular articles. **Fr. Jobi Xavier** MSc, the bursar of the college, is a guest faculty in the department. The department has three supporting staff, Mr. M.V. Sebastian, Mr. V.O. Joseph and Mr. K.A. Paul. (*Appendix vi*)

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

The UG and PG admissions to the department are made as per the strict norms and regulations of the Govt as well as the university. About 70% of the students of the UG classes are women and in the PG class they are 90% of the total strength. Most of the students come from low economic strata and are not very proficient in English language. Their entry level competency is not often adequate and sufficient. However, proper orientation and initiation at the beginning of the course equip them to do the course well and secure good results.

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The annual system of BSc Botany was changed to a Choice Based Credit and Semester System (CBCSS) and the marking system of evaluation was changed to a direct grading system. Dr. George Joseph of the department was appointed and trained by the Kerala State Higher Education Council, as a resource person for orienting faculty members of the colleges regarding the re-structuring of the degree syllabus, evaluation and grading. Dr. George Joseph was also included in the PG Board of Studies to re-structure the syllabus of PG Botany, as per the Credit and Semester System. Dr. M.S. Francis was entrusted with the responsibility of drafting model question paper for MG University BSc Botany theory and practical examinations.

Courses Offered: The department offers BSc, MSc and PhD programmes in Botany. The thrust areas of research are Biotechnology, Cytology, Phycology, Biochemistry, Environmental

Science and Plant diversity. The department also offers career oriented certificate /diploma programmes (UGC) and short- term training programmes in Plant Tissue culture.

- 4. Trends in the success and drop-out rates of students during the past two years.** The UG and PG results of the dept. are available in Figures 6&7. The student drop-out during the past 2 years is practically negligible. Only those students who get admission for professional courses discontinue their courses in the college.
- 5. Learning resources of the departments – library, computers, laboratories and other resources.**

Following are the infrastructural facilities available in the department:

1. Tissue culture lab for Career Oriented Programme on Plant Tissue culture.
2. Incubation & Hardening Units
3. Staff room and PG classrooms with internet connection, Infilbnet and DELNET services.

The equipment include: Advanced Research Microscope, Stereo Zoom Microscope, High Resolution Digital camera with photomicrography, Laminar Air Flow Chamber, Microprocessor based Colorimeter, High Precision Electronic Balances. A technology upgradation is carried out with the following equipment and facilities: 1) UV Visible spectro photometer 2) Lyophiliser 3) Deep freezer with -20°C facility and Refrigerators 4) Autoclave and a BOD incubator 5) UV chamber for TLC 6) Clinical centrifuge 7) Water bath with sonicator 8) Distillation apparatus, Magnetic stirrer and Heating mantles 9) Networking software and Image analyzer etc.

The department library contains about 300 books and the general library has 7550 books and a good collection of CD ROMs. The department subscribes to 22 research journals. The department also has a botanical garden which contains 50 tree species, 50 shrub species, 25 Twiners and Climbers, 150 Medicinal herbs, 250 Ornamental spp, 20 Cryptogam spp, 05

Gymnosperms and 15 Water plant spp. Botany museum displays 500 wet specimens of plants and the Herbarium collection amounts to 1500 well preserved dry exhibits.

The research cabins and PG classrooms are all well equipped with internet Wi-Fi facilities.

An interactive board provided to the Botany seminar hall, along with the LCD facility and lap top have proved to be very useful for academic delivery.

6. Modern teaching methods practiced and use of ICT in teaching –learning

The virtual learning centre of the department facilitates modern methods of instruction assisted by the interactive boards. Illustrations are usually done on the board and are recorded so that the students can trace the stages of the diagrams later at their own leisure. The PPT with the help of LCD projector makes the classes lively. All PG students and at least a few UG students are encouraged to make their seminar presentations through Power Point.

7. Participation of teachers in academic and personal counseling of students:

The students of each class are taken care of by their respective class teachers. The class teacher is the mentor of the students of the class and looks after their overall progress and maintains a record of the same.

Remedial coaching classes: Remedial coaching classes are arranged after identifying the high achievers and the low achievers of the UG class. The former is asked to conduct classes for the latter on the portions allotted to them. In this way, the low achievers are better focused. Poor performers in English are identified and given remedial coaching with the help of the faculty members of English department. Group discussions, Quiz, and Personality development programmes are also conducted at the class level. Around 10 UG and 2 PG students are sent to counselor

8. Details of faculty development programmes and teachers who have been benefited during the past two years

An in-service training programme on ICT was organized by the college and all faculty members have undergone training in Information and Communication Technology. The department faculty also attended a seminar on “Re-structured Curriculum and Grading at the Undergraduate level”.

Seminars attended by the faculty: Altogether, 35 international/national seminars were attended by the various members of the faculty during the last 5 years. Some of the faculty members also had served as resource persons for various programmes in other institutions.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

Research Activities: At present there are 4 research guides in the department: Dr. V.J. Dominic (Biotechnology and Plant diversity), Dr. M.S. Francis (Biochemistry, Biotechnology and Ethno Botany), Dr. Joy P. Joseph (Biotechnology and Plant Anatomy) and Dr. C.M. Joy (Environmental Science). The department has produced 16 PhDs so far. There are now 8 research scholars pursuing research in the department. The department has published around 50 research papers during the last five years and has also applied for OSI.

Community Service: The department conducts a mushroom cultivation training programme periodically. Dr. V. J. Dominic conducted a Clean Kochi Project field survey. Prof. Jacob Varghese worked as resource person for agricultural training for farmers organized by the Department of Agriculture, Govt. of Kerala. Prof. Roy Zacharias and Prof. Jacob Varghese are organizing committee members of Kochi Flower show. Prof. Roy is also associated with the City Action Force as a member and with IMA blood donation campaign as a supporter. Dr Joy P Joseph works as consultant for the Spices Board Laboratory and Amrita Viswa Vidya Peedam, Kochi. Other activities of the department include Florafest, Biorhythm exhibition, Fr. Aquinas Intercollegiate Quiz, and the publication of the MS magazine *Dalamarmaram*. Dr. C.M. Joy is the General Secretary to All Kerala River Protection Council. He was in the staff selection committee of the various colleges under Mahatma Gandhi University. Dr. Joy is also a resource

person for various environmental education programmes. Dr. C.M. Joy is the IQAC Coordinator of the college.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

1. The department collaborated with the Science Departments of the college in organizing the INSPIRE programme aimed at orienting the Plus Two science students on the future studies on science subjects, during the academic year 2010-11. Prof. Jacob Varghese and Prof. Roy Zacharias are the members of organising committee peri urban roof top vegetable cultivation funded by State Horticultural Mission of Kerala.
2. Bio-diversity seminar and exhibition were conducted during 2010-11 in collaboration with other science departments of the college.
3. Collaborated with the VFPCCK (Vegetable and Fruit Promotion Council, Kerala) for the distribution of seeds and seedling among the students and general public.
4. Collaborated with the Mardu Grama Panchayat, Kochi, Kerala for the mushroom cultivation training extended to the local public.
5. Collaborated with the Southern Railway in maintaining and conserving mangrove vegetation, around Nettor, at length of 5 kms at Ernakulam Railway track.
6. Collaborated with Amrita Institute of Medical Sciences (AIMS) for pharmacological research, with emphasis on identification of medicinal plants.
7. Collaborated with Department of Forest and Wild Life of the State of Kerala in conducting wild life nature study camps at wild life sanctuaries such as Chinnar, Thattekkadu, Shenthuruni and National Parks at Eravikulam and Silent Valley.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

Research and Consultancy: The department was recognized by the Department of Science and Technology, Govt. of India under FIST programme and awarded Rs.35 lakhs for the infrastructural upgradation. UGC sanctioned a major research project worth Rs.8.25 lakhs to Dr. Joy P Joseph and minor research project of Rs.80, 000 to Dr V. J. Dominic. A Post-Doctoral Research Fellowship was awarded to Dr.M.S. Francis. Dr.C. M. Joy conducted research studies in collaboration with Association for Environmental Protection, Aluva,

Ernakulam. Dr. George Joseph attended a training programme in Electrophoresis Institute, at Yercaud, Tamil Nadu. Dr. M.S. Francis underwent training programmes of Kerala Bio-Diversity Board and Institute of Public Administration. Dr. M.S. Francis has applied for a patent for dye extraction in *Nyctanthes arbor-tristis*.

Publications of the faculty: Dr. V.J. Dominic has published 2 books and 6 research articles (2006-2011). Dr. George Joseph has published over 50 articles in popular journals and dailies (2006-11). Prof. Jacob Varghese has authored 4 books. Dr. M.S. Francis published 18 research articles in journals/proceedings. Dr. Joy P. Joseph has published 8 articles in scientific journals. Prof. Roy Zacharias has published one scientific article in journal. Dr. C.M. Joy has published 16 research articles and over 200 popular articles. Dr. Joy and Prof Jacob contribute regular columns in various periodicals. (*Appendix xi-xiii*)

12. Placement record of the past students and the contribution of the department to aid student placements.

The majority of students who pass BSc and MSc courses from the department go for further studies. The PG students start their preparations for UGC-CSIR/NET examinations right from the first semester. After MSc, some of the students pursue research or join for teacher education programmes. Many of the UG students join for MSc in interdisciplinary subjects such as Bio-informatics, Microbiology, Biochemistry, Biotechnology etc. A small percentage opts for MBA and other professional programmes.

Many of the students get placement through campus recruitments. The percentage of students joining the work force is steadily increasing every year. This year a number of students, mainly from UG, has attended the interviews for appointment in various firms that seek professionals in Tissue culture, Biotechnology, Horticulture etc. The department encourages the students to participate in campus recruitment drives and prepares them for facing interviews, take part in debates, discussions etc.

Placements during the 2007-2012 periods

1. Dr.Sanjay V.N. –Assistant Professor, Botany, S.D. College, Alleppy
2. Mrs. Bindu P.K. – Assistant Professor, Botany, S.D. College, Alleppy
3. Ms. Suprabha – Assistant Professor, Botany, Cochin College, Kochi
4. Dr. Manju Madavan – Assistant Professor, St. Mary's College, Thrissur
5. Mr. Binoy C. – Research Associate A.V.T., Tissue Culture Division, Kochi
6. Mr. Midhun – Agricultural Assistant, Maradu

13. Plan of action of the department for the next five years.

The department proposes to realize the following during the next five years:

- UGC financial support for improving Biotechnology & Phytochemistry facilities
- MPhil course in Botany
- Research in association with Coconut Board
- Short term courses in: Molecular Biology and Genetic Engineering; DNA Finger Printing / PCR, RAPD, RFLP Analysis; Mushroom cultivation; Floriculture.
- One year Diploma Programme in Heat Reduction Therapy (*SEETALI CHIKITSA*) in collaboration with IGNOU. It aims at a rural health mission through herbal supplements.

The proposed four courses are:

Health and Hygiene, Human Body, Heat Reduction Therapy and Healing Practices

Department of Chemistry

The Department of Chemistry was established in 1945 with BSc Programme. The MSc course commenced in 1962 and later, in 1998, the department was recognised as a research centre under MG University, Kottayam. The MSc in Applied Chemistry (Pharmaceuticals) got affiliation in 2001 on self-financing basis and in 2011 it became an aided course. The career-oriented course in Food Processing and Preservation was started in 2005. The department was identified by DST (Govt. of India) for special assistance under FIST programme in 2007. The department undertakes consultancy and is actively engaged in research activities.

1. Faculty profile – adequacy and competency of faculty

At present there are 16 members in the faculty, of whom 12 are permanent and 4 are guest lecturers. Prof. P. J. Joseph, the HoD, is also the Vice Principal of the college. Among the permanent members of the faculty, 2 are MPhils and 10 have doctorate degree. The training of the students in the laboratories is supported by 5 non-teaching staff.

Membership in various bodies-University/State/National/International levels

Prof. P.J. Joseph: Member Director, *Organic Kerala* and a member of Development committee Triakkara Grama Panchayath.

Prof. P. M. Joseph: Member of UG Board of Studies M.G. University.

Dr. Joseph John: Senate member of M.G University, Life member of Kerala Academy of Science and Chemistry Researchers' Society of India (CRSI)

Dr. Joseph T Moolayil: Member UG Board of Studies MG University; Life member of Indian Society for Mass Spectrometry, and Eco-fraternity Kerala.

Dr.Thommachan Xavier: Research guide & member, Society of Polymer Scientists, India.

Dr.V.S. Sebastian: Member, Indian Society for Mass Spectrometry.

Dr.M.George: Research guide and amember of the American Society for Mass Spectrometry, and Indian Society for Mass Spectrometry.

Dr.Franklin J: Member, American Chemical Society.

(Appendix vi)

2. Student profile – entry level competencies, socio-economic status, language proficiency etc.

At present there are 58 PG and 126 UG students in the department with a higher proportion of female students. Most of the students belong to the lower and middle socio-economic background. Though the majority of the students hail from the neighbouring locality, a good number of students from other parts of Kerala seek admission here. The students are average in their language proficiency.

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The UG programme in the department was totally revamped in consonance with the guidelines of the UGC and the University to Choice Based Credit and Semester System (CBCSS) from the academic year 2009 onwards. As a member of board of studies, Dr. Joseph T Moolayil actively took a lead role in the curriculum planning and development workshops at the university level along with other faculty members. The department faculty contributed significantly to the syllabus restructuring and to the introduction of the grading in the evaluation system of the university.

4. Trends in the success and drop- out rates of students during the past two years

The UG and PG results of the department are available in figures 8, 9 & 10. The drop-out rate is quite negligible. The students of the postgraduate and the undergraduate programmes have secured several university ranks during the last five years, viz., 5 first ranks, 2 second ranks and 3 third ranks. To the credit of the department, 22 students have qualified the CSIR-UGC/JRF/NET examinations during last five years. After completing PG, many students pursue research in various institutions of international repute.

5. Learning resources of the departments – library, computers, laboratories and other resources.

The department library functions as part of the general library in a centralised manner. The Chemistry section is enriched with 7900 books and 10 journals. The MSc class rooms are equipped with computers with internet facility. The department has an ICT enabled smart class room. There are three well equipped laboratories in the department- one for undergraduate and two for post graduate laboratory training. All the laboratories are equipped with modern fume hoods and safety equipment so as to provide a safe and hygienic environment.

DST-FIST Funding

Department of Science and Technology (DST) has sanctioned 52.6 lakhs under the FIST (Fund for improving science teaching) scheme to the Chemistry Department in 2008 for purchasing equipment, books, establishing computer laboratory and improving the infrastructure in MSc lab. Utilizing the first instalment of 36.4 lakhs, the department has modernized the PG and research labs and procured (1) FTIR Spectrometer, Alpha-T model from Bruker Daltronics, Germany equipped with ZnSe ATR accessory (2) UV-VIS Spectrophotometer, UV1800 model from Shimadzu, Japan, equipped with Peltier accessory (Thermostated cell holder) and UV Probe software for kinetics measurements (3) Magnetic susceptibility balance, MK1 model from Sherwood Scientific Ltd. UK (4) all minor equipment in the MSc laboratory was replaced with new ones (5) added a collection of 1000 books to the library. Utilizing the second instalment of funds (9.5 lakhs) the department has added a collection of 1000 books to the library and established computer lab by procuring (1) HP Z600 workstation class computer (2) HP multi-seat computer with 10 user terminals (3) Gaussian 09, a state-of-the-art molecular orbital calculation software (4) UPS with 8 hours back up for the computers.

Impact of FIST (a) strengthening of the PG laboratories, (b) the computer laboratory has enabled the department to give training to students in the preparation of project reports and presentation using MS word and MS PowerPoint softwares, (c) the addition of new equipment and molecular modelling facility has strengthened the research facilities in the department and consequently improved the quality of research as well as that of UG and PG student projects.

UG and PG laboratories were equipped with modern fume hoods (4 nos) (Modern Labs, Chennai), Electronic balances (3 and 4 digits) by utilizing the CPE Funds PG class rooms were modernised with computers with internet facility in addition to Spartan 08 and molecular modelling software which were added to the computer lab.

6. Modern teaching methods practiced and use of ICT in teaching –learning

The smart class rooms help the teachers to maintain students' attention span and make teaching more interesting. Illustrations are made more clear and interesting by interactive boards. All the PG and UG students are trained and are encouraged to make their seminar presentations using computer software. The project reports are normally presented through power point. ICT is an integral part of teaching in the department.

7. Participation of teachers in academic and personal counseling of students

The department takes special care to understand the problems of students and to give them counselling and guidance to overcome them. One of the faculties, Dr. Jinu George, is coordinator of women's cell and student counselling in the college. Those students who need specialized help are directed to the professional councilors of the college. All the teachers of the department offer academic counselling, especially at the beginning of the programmes to properly orient the students to the course and at the end of the programme to decide on their future course of action.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

Four faculty members, Dr. Joseph John, Dr. K.B. Jose, Dr. Joseph T. Moolayil and Dr. V S Sebastian were awarded PhD during the last five years. In addition, 11 international conferences have been attended by its faculty. The faculty also have attended 49 national seminars.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

Prof. P.J. Joseph, the HoD of the college is a member of the Staff selection committee of the college. Prof. P.M. Joseph is the coordinator of the remedial courses. Dr. Joseph John serves as the secretary to the SH College Co-operative Society. Dr. Joseph T. Moolayil is the

College Information Officer and the coordinator of Open Courses in the college. Dr. Thommachan Xavier is a member of the Publication committee of the college science journal. Dr. Franklin and Dr. Grace are in charge of the career guidance cell.

Prof. P.J. Joseph	Vice Principal & Chairman – Discipline committee; Staff selection & Alumni Association
Prof. P.M. Joseph	Coordinator Remedial courses
Dr. Joseph John	Senate Member, M.G. University, Coordinator-University affairs & New Courses
Dr. K.B. Jose	Member IQAC, Placement Cell
Dr. Joseph T Moolayil	Member-Board of studies (UG), M.G. University, College information Officer & Open Course Coordinator,
Dr. V.S. Sebastian	Student advisor, AICUF Coordinator, Secretary Chem Alumni & Magic Club
Dr. Thommachan Xavier	Research guide, Speakers Forum Coordinator, Member-Publication committee,
Dr. M. George	Research Guide, Member American Chemical Society, Member – IQAC, Website Committee,
Dr. Jorphin Joseph	Staff Secretary- Chemistry Dept, Coordinator AICUF, SAAF
Dr. Franklin J	Member - Career guidance, Member American Chemical Society, Coordinator- Youth Red Cross, IYC & AICUF,
Dr. Jinu George	Women's Cell and Counseling- Co-ordinator, Student advisor- Chemistry Association, Member- Equal opportunity Cell, Ethics committee & SC/ST and other welfare activities
Dr. Grace Thomas	Member OSDD, Member IQAC, career guidance cell, Ethics committee, Discipline committee & UGC affairs

Seminars and lectures

The department has been organizing **Prof .K.V. Thomas Endowment National seminar** since 2001 to honor the former HOD and present union minister, Prof. K.V. Thomas. Teachers, Research scholars and students from various states participate in this programme. In addition to this, we conduct 5 endowment lectures in the department. The department and the Institute of Management Studies (IMS) jointly organized a career-oriented programme for the degree students.

Honours/ Achievements /Award winners

Dr.M. George is invited every year by the Washington University as a visiting professor. Dr Grace Thomas, one of the faculty members was conferred a U.S. Patent and two Indian patents during the period 2002-06 (U.S Patent No.6489,492, Indian Patent nos US2002137950 & US6489492) Dr. Joseph John is elected to the M.G. University senate and. Dr. Grace Thomas, Assistant Professor was invited to attend Vanderbilt summer workshop on “Chiral molecular structural determination and analysis” from June 6-8, 2011 held at Vanderbilt University, Nashville Tennessee, USA. The workshop represents a service to scientific community in providing state of the art information on deducing molecular stereochemistry of chiral molecules using chiroptical spectroscopic methods and analysis of chiral molecules using chiral HPLC.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

The department has research collaborations (since 2002) with Mass Spectrometry Centre, Washington University, St. Louis, USA, and National Centre for Mass Spectrometry at IICT, Hyderabad. Both centres provide support for conducting mass spectrometric experiments and training to the PhD students of the department. In addition, Washington University provides support for conducting molecular orbital calculations. These two collaborations have resulted in the publication of 6 research articles in international journals. During the past five years, Dr. M. George has spent nine months in four visits at Washington University as visiting scientist and got training in the operation of the latest types of mass spectrometers such as Thermo LTQ Orbitrap mass spectrometer. The department has also collaboration with Institute for Intensive Research in Basic Sciences (IIRBS) and School of Chemical Sciences, MG University. IIRBS provides facilities for doing project works and conducting NMR studies.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

Research Projects: UGC has sanctioned 6 minor research projects, the investigators being Dr. M. George, Dr. Thommachan Xavier, Dr. K.B. Jose, Dr. Jorphin Joseph, Dr. Franklin J. and Dr. Jinu George.

Interdisciplinary Research Project: Dielectric investigation of novel reprocessable ionomers based on natural rubber is a joint interdisciplinary project of Dr. Thommachan Xavier of Dept. of Chemistry and Dr. Georgekutty Joseph, Dept. of Physics. The project has been approved by UGC and sanctioned Rs. 85,000 for implementation.

12. Placement record of the past students and the contribution of the department to aid student placements.

Placement details

Sl No	Name of the student	Year	Institution
1	Aravind K.A	2011	S.B. College
2	Sindhu Isac	2011	St. Peter's College
3	Sunitha Theresa	2012	St. Pauls Kalamassery
4	Junu Mathew	2011	Baselius College, Kotayam
5	Jeena P. Varghese	2010	St. Peter's College, Kolencherry
6	Jomia	2011	Aroor Lab-Food
7	Ron Antony	2011	FACT
8	Junu Mathew	2011	Baselius College, Kottayam
9	Julia Susan	2011	Research Lab
10	Sebastian Nybin	2011	IISER
11	Libin Joseph	2011	IISER
12	Sonia Thresa	2011	Higher Secondary
13	Rohini	2012	IISER
14	Dhanya Thomas	2007	South Indian Bank
15	Joycy	2007	South Indian Bank
16	Tintu	2007	South Indian Bank
17	Teena	2007	South Indian Bank
18	Akshara	2009	Federal Bank
19	Ajith	2009	IISER
20	Dhanya T.M.	2011	Airhostes
21	Vineesh K. Venugopal	2011	Alaa International, UAE
22	Aiswarya Prakash	2011	NIST, Tvm

23	Divya Susan Philip	2011	NIST,Tvm
24	Nibin Sebastian	2011	Biocon
25	Pratheesh U.G.	2011	Cochin Refineries
26	Roshith Roshi	2011	Chemical Lab
27	Anoop	2011	Chemical Lab
28	Albert	2011	Chemical Lab
29	Rajalakshmi K	2011	CIPET, Chennai
30	Anju Mathew	2011	Food Lab – Aroor
31	Nithya Mahawar	2011	MIO PA
32	Rajeswari R.	2010	Axis Bank
33	Shoney Joseph	2009	RMS

13. Plan of action of the department for the next five years.

- **Obama-Singh Knowledge Initiative:** The department has applied for funds from UGC under the Obama-Singh knowledge Initiative to strengthen the department's research collaboration with Washington University in St.Louis, USA. Under the project the faculty from Chemistry and Zoology get trained in proteomics using mass spectrometry and computational protein-ligand docking in Washington University. The faculty from Washington University is expected to visit the College and give lectures in mass spectrometry and proteomics.
- The department plans to procure Glide software, part of Maestro software package from Schrodinger enabling it to pursue research in protein-ligand docking and computer-aided drug design.
- Major research projects by Dr Jinu George, Dr.Franklin and Dr.Grace with financial support from DBT, DST and CSIR.
- To intensify training for GATE, NET etc.
- Improve the ICT enabled teaching.
- Lectures by experts from IITs and IISc through video-conferencing.

Department of Commerce

Sacred Heart College was the pioneer to commence commerce education in the state of Kerala.

One of the three colleges in Madras University to start a B.Com course in 1944, it became a full-

fledged PG department in 1961. It was approved as a research centre in Commerce in 1998. Today, the department is one among the top 25 leading departments imparting commerce education in the country. The department, a dream destination for Commerce education, offers some of the best academic resources like excellent faculty, advanced infrastructure and modern library. It attracts the best students from all over state and endeavours to nurture their potentials to greater heights and utility. While the college provides a blend of academic, cultural and intellectual resources, the department offers the students a dynamic environment for developing their knowledge and skill in the discipline of Commerce. The highest number of employment secured through campus recruitment in reputed organizations talks about the distinctive merit of the commerce students. The department is consistent in securing 100% pass and many ranks in both B Com and M Com programmes.

1. Faculty profile – adequacy and competency of faculty

Faculty Profile: **Prof. T.S. Sojan**, M Com, M Phil, Associate Professor, is the present head of the department. He is a member of the PG Board of Studies and also acts as the college staff council secretary. He is also a member of the college disciplinary committee. **Dr. T. P. Thomas** M Com, M Phil, LLB, FCS, Ph D, is an Associate Professor. He is the Public Representative Director of Cochin Stock Brokers Ltd and is a visiting faculty of Indian Maritime University and a CIMA advocate. He is also the Placement & Training Officer of the college. **Prof .M. M. Dominic**, MA, M Com, M Phil, Associate Professor, is an active Member of YMCA and the Secretary of the Teachers' Welfare Fund. **Prof. Johnson John**, M Com, M Phil, Associate Professor, is a Member UG Board of Studies and is the winner of the Best Teacher Award 2010. **Dr. Mathew Jose K**, M Com, M Phil, Ph D, Associate Professor, is the Coordinator of ED, Coordinator, FRC Students Guidance Centre, Kadukutty and Director of the college Cooperative Society. **Mr. Joseph George**, M Com, Assistant Professor, is as ANO of NCC Air Wing, Coordinator of Civil Service Study Centre and

member of IQAC. **Mrs. Tessa Mary Jose**, M Com, M Phil a new recruit to the regular faculty, is a member of the Women Cell of the college. Besides these regular faculty members, the department also has two guest faculty: **Mrs. Sangeetha K. G.** M Com and **Ms. Deepa Jawahar**, M Com, MBA. (*Appendix vi*)

2. Student profile – entry level competencies, socio-economic status, language proficiency etc.

The total number of the students in the department during the academic year 2011-12 is 248. The department also has 13 students doing research leading to PhD. The students belong to different religions, caste denominations and occupational groups. Their economic background is diverse too. The department also has students from different states and union territory like Lakshadweep. The majority of the students are very proficient in language.

Student Profile (Table 20)

Programme	Sanctioned	Actual	Male	Female
I DC	70	68	22	46
II DC	66	65	14	51
III DC	70	69	29	40
I M.Com	24	24	4	20
II M.Com	24	22	4	18

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The degree programme was revamped with credit and semester system according to the stipulations of UGC and M G University. The department members, Prof. T.S. Sojan, Prof. Johnson John and Asst. Prof. Joseph George were members in the committee for restructuring the programme.

4. Trends in the success and dropout rates of students during the past two years

There are no drop-outs as such; students who would like to pursue professional courses and get employment leave the department to pursue their respective future aspirations and

continue their study thereafter as private candidates. The UG and PG results of the department are available in figures 11 & 12.

5. Learning resources of the departments – library, computers, laboratories and other resources.

Class Rooms: The faculty of the department makes use of modern gadgets in teaching in addition to traditional style of teaching for both UG and PG classes. The class-rooms are equipped with good lighting, fans, power supply for connecting ceiling-mounted LCD projectors, podium and black-boards for faculty.

Library: The department library is spacious with a seating capacity for about 100 readers. It is well-stacked and has a collection of over 6900 books, including 300 reference books related to Commerce and Management subjects. The library also subscribes to 27 Journals and 3 newspapers. Latest publications in the fields of business studies, economics, commerce and industry are continuously added to the collection to provide students with a wide range of academic material. The department library is fully automated and provides user services through computer.

Computer Lab: The department has a well-equipped computer lab. Internet facility is provided to each computer. Printing and scanning facilities are also available through network. The computer lab is equipped with uninterrupted power backup. The teaching is imparted through ICT enabled techniques. In addition, the computer centre also provides facility for students to access internet, collect materials and prepare their projects. Internet with more than 2 mbps data transfer rate is available. Wi Fi facility for laptop users is also available in the department. Interactive board and projector are used in final B Com classes.

6. Modern teaching methods practiced and use of ICT in teaching –learning

The infrastructure support provided by the college, especially, computers, internet, interactive board and LCD projector have enabled the department to shift to ICT enabled

teaching. The PPT with the help of LCD projector makes the classes lively. All PG students and at least a few UG students are encouraged to make their seminar presentations through Power Point. PG students are required to submit their project online for correction. To make learning more effective, the lecture method is supplemented by discussions, quiz, question-answer method, seminar presentations, and surprise tests.

7. Participation of teachers in academic and personal counseling of students

The teachers of the department offer both academic and personal counselling to students. In cases where students need professional counselling, they are directed to the college counsellor. With the help of website, handbook and through oral instruction teachers provide necessary guidance to the students. Free books and financial aid from various agencies like PTA, Vincent De Paul, Students Welfare Fund and well-wishers are provided to needy students. Remedial classes are arranged for slow learners. PG students are taking class for slow learners in UG classes. Counselling through mentors at the department level and professional counsellors at college level are also provided. Dr. T.P.Thomas is in charge of the Placement Cell. It has made a good placement track record over the years. Anti-Ragging Cell and Grievance Cell are formed under the supervision of the HOD and the respective class teachers of the department. The ED Club, The Capital Market Forum of Commerce Department, tries to inculcate and stimulate entrepreneurial and investment skills in students. To impart practical training, add - on courses like SIDCO- certified Practical Accounting and Tax Practitioners Course and certificate course in MBA foundation – an inter disciplinary programme, have been started. Career orientation programmes with the help of professional bodies like ICWA and CIMA are organized by the department for the benefit of students who wish to go for professional courses other than CA and MBA.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

Dr. Mathew Jose and Prof. Joseph George have participated in a 14 days faculty development programme on entrepreneurship organized at Vidyabharathi Institute, Kalamassery and MSME. Dr Mathew Jose K. availed FIP during the last five years and completed his PhD work.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research

Prof. T.S. Sojan and Prof. Johnson John are members of PG and UG Boards of MG University(*Appendix I&II*). Prof. T.S. Sojan, Prof. Johnson John and Asst. Prof Joseph George were members of the restructuring committee of B Com programme for the new CBCSS programme of MG University. Dr. T.P. Thomas offers consultancy service on company secretaryship and he is a SEBI nominated Public Representative Director of Cochin Stock Brokers Ltd.

Seminars/ Workshops Attended/ Paper Presented:

- Dr. Thomas T.P participated in two day workshop on Methodology (Business Stream) of Teaching by Kerala Higher Education Council held at CMS College, Kottayam.
- Dr. Thomas T.P presented a paper on ‘Indo ASEAN Free Trade Agreement and its Importance on Kerala Agriculture’ in a seminar held at Cochin College.
- Dr. Thomas T.P attended a seminar on ‘Global Financial Crisis’ at St. Albert’s College.
- Dr Mathew Jose participated in a workshop on ‘Research Methodology’ which is sponsored by Kerala State Higher Education Council held at Cochin College.
- Prof. Joseph George participated in a two day training and development workshop organized by Indian Society For Training and Development on topic ‘Living Learning- An Emotional and Cognitive Experience’ at POC, Kochi.
- Ms. Tessa Mary Jose had participated in international seminar on ‘Ethics and free market in the globalised world’, at S.H College, Thevara.
- Ms. Tessa Mary Jose had participated in annual lecture series organized by FISAT Business School on “Banking Challenges for the next Decade” by Smt. Usha Thorat, Former Deputy Governor RBI.

- Prof. Joseph George participated in the conference on American Studies, India and United States in 21st century organized by St. Thomas College, Palai.
- Ms Sangeetha K.G has participated in international seminar on ‘Ethics and free market in the globalised world’, at S.H College, Thevara.
- Prof. Johnson John participated in 5 day workshop in Restructuring Curriculum of Degree Course conducted by MG University.
- Prof. T.S Sojan participated in 5 day workshop in Restructuring Curriculum of Degree Course conducted by MG University.
- Ms. Deepa Jawahar had participated in international seminar on ‘Ethics and free market in the globalised world’, at S.H College, Thevara.
- Ms. Deepa Jawahar had participated in annual lecture series organized by FISAT Business School on “Banking Challenges for the next Decade” by Smt: Usha Thorat , Former Deputy Governor RBI.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years

The department associates with other departments of the college in fostering the collective life of the institution. The department has tie up with Tax Study centre for a new add on course.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years

The department has been sanctioned one national seminar by UGC. Asst. Prof. Joseph George is doing a minor project funded by UGC. The faculty of the department published 10 articles in national journals and one book during the last five years. They also have participated in 13 national seminars and presented papers.

12. Placement record of the past students and the contribution of the department to aid student placements.

Dr. T. P. Thomas is in charge of the placement cell. 45 MCom and BCom students of the department secured placements through campus recruitment during the past five years. The

institutions which provided job opportunities include HSBC, Google, IBM, Ford, Sutherland Global Services, South Indian Bank, Federal Bank, Deloitte, OPI Global etc.

Name	Class	Organisation
Thomas R.V Jose	M.Com	HSBC
Gloria Sumitha Benny	B.Com	Google.Com
Joseph Dominic	B.Com	Google.Com & Fidelity Investments
Shivetha Ashok	M.Com	IBM
Indu	M.Com	IBM & Ford
Aswathi.P	M.Com	IBM & Ford
Rose Mary	M.Com	IBM & Ford
Ambili	M.Com	IBM & Ford
Angel	M.Com	IBM & Ford
Sinu Matrin	M.Com	Ford
Candida	M.Com	Ford
Raphael Sharon	B.Com	Fidelity Investments & Sutherlands Global Services
Teena Jose Kadavil. P	B.Com	Sutherlands Global Services
Meera Alexander	B.Com	Sutherlands Global Services
Anitha Joseph	B.Com	South Indian Bank
Dhanya Vijayan	B.Com	South Indian Bank
Neethu Ravindran	B.Com	South Indian Bank
Kiran Ravindran	B.Com	South Indian Bank
Nishi Ann	B.Com	South Indian Bank
Soumya Stephen	B.Com	South Indian Bank
Nikhil N.G	B.Com	Federal Bank
V.Sreejith	B.Com	Federal Bank
Sebastian C.K	B.Com	Federal Bank
Tony T Thomas	B.Com	Federal Bank
Sameer K.M	B.Com	Federal Bank
Sreekumar S	B.Com	Federal Bank
Shalu Jojan	M.Com	OPI Global
Reshmi M.B	M.Com	OPI Global
Jyothy Mary Mathew	M.Com	OPI Global
Hariprasad .B	B.Com	OPI Global
Aravind R	B.Com	OPI Global
Riyas M.M	B.Com	Deloitte
Veena .M	B.Com	OPI Global
Joseph Joy	B.Com	OPI Global & South Indian Bank
Arun Raj Gladson	B.Com	OPI Global& South Indian Bank
Neethu M.A	B.Com	OPI Global& South Indian Bank
Anjali.G	B.Com	OPI Global
Jijo Joy	M.Com	South Indian Bank
Jipin V Jimmy	M.Com	South Indian Bank
Balasubramaniam R	B.Com	South Indian Bank
Vinu K Thomas	B.Com	South Indian Bank
Rasiya K.R	B.Com	South Indian Bank

Vani Mohan	B.Com	South Indian Bank
Sanal M Sunny	B.Com	South Indian Bank
Ami Antony	B.Com	South Indian Bank

Career after B Com (Table 21)

Career options	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
MBA/IIM	19(1 IIM)	20	19	18	20(1 IIM)
M.Com	4	3	4	5	4
CA	18	10	11	16(Inter)	12(Inter)
ICWA	4	3	4	5	3
CS	1	1	2	3	1
Employed in banks	16	18	15	11	10
Govt/Others	2	4	3	2	4

Career after M Com (Table 22)

Careers options	2006-	2007-2008	2008-2009	2009-2010	2010-2011
MBA	2	1	1	1	1
CA	2	1	1	2	1
ICWA	3	2	1	1	2
Teaching	6	4	7	6	4
Doing M.phil / P.hd	2	3	2	4	2
Employed in Banks	3	5	4	3	4
Govt/Others	2	4	3	2	4

13. Plan of action of the department for the next five years.

- Strengthen the alumni and organize various programmes with their support, including placements for the outgoing batches
- To organize seminars at the state, national and international levels
- To conduct various social outreach programmes with students, staff and alumni.
- Start UG Programmes like BBA and BBM.
- Start research oriented programmes like MPhil
- To publish a departmental journal.

Department of Economics

The Department of Economics has been playing a pivotal role in the economic education of the state for almost seven decades. The department has been a catalyst of economic development and innovation in this part of the country. *The India Today*, the national magazine rated the department as the best department in the state and among the top 25 departments at the national level, for the last so many years. Students of the department regularly top in the undergraduate and graduate programmes in the university.

1. Faculty Profile – Adequacy and Competency of Faculty

The department is well known for its teaching and research innovations. The faculty consists of nine members and among them four have PhD degree.

1. Dr.K.V.Raju, PGDM, PGDMM, PGDE, M.A.M.F.T, M.P.A (UMN), M.B.A. PGDE, PGDM, PGDMM, M Phil, PhD, Associate Professor, HoD
2. Dr. Sibi Zacharias, M.A., M Phil, DEM, PhD, Associate Professor
3. Prof. T.O. Alphonse Ligori, M.A., M Phil, Associate Professor
4. Dr. P.E. Cherian, M.A., M Phil, PhD, Associate Professor
5. Dr. V.T. Jose, M.A., M Phil, PhD, Associate Professor
6. Prof. M.S. Madhusudanan Nair, M.A., B. Ed., Associate Professor
7. Prof.Sibi Abraham, M.A, B.Ed., Assistant Professor
8. Ms. Agile Joy M.A , Assistant Professor
9. Mr.Vinil K.V, Guest faculty.

Teacher Quality: The total sanctioned staff strength of the department is nine, out of which eight are filled. The vacant posts are filled by guest faculty. At present there is one teacher for every 25 students at the UG level. The department is a research department under MG University. Four of our teachers have PhD degree. At present four faculty members are doing their PhD programme. Dr. V.T. Jose has completed his Post-doctoral research project under the UGC research Award. The department has produced eight PhDs since the last NAAC visit in 2007.

Dr.K.V.Raju secured MBA in International Finance from Pondicherry University in 2007. Dr. P.E Cherian was awarded PhD by the M G University in 2008. The faculty of the department have been serving as the members of several academic bodies inside and outside the college during the last five years. Prof. Alphons Ligori was elevated to Captain Rank and is heading the NCC (Army wing) of the college. Dr.V.T. Jose and Dr. Sibi Zacharias were in the Board of Studies of the M G University during the period 2005-09. Dr.Sibi Zacharias is an executive committee member of the American Studies Centre, Chennai.

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

The total strength of regular students in the department for the BA and MA programmes is 222 during the academic year 2011-12. Besides, there are 33 students doing part-time/full-time research leading to PhD. The students belong to different religions and caste denominations and occupational groups. Their economic background is diverse too. Around 20 percent of the students are from the scheduled caste and tribes. The department has students from Lakshadweep islands too. Though most of the students hail from Kerala, there is a fair sprinkling of students from other states also. There are quite a few children of NRIs too. The English language proficiency of the students is average. Their subject competency at the entry level has not been very remarkable, however, with proper orientation and training the department has been able to make students competent and achieve good results.

Student Strength for the BA & MA Programmes 2011-12 (*Table 23*)

Classes(BA&MA)	Sanctioned	Actual	Male	Female
1 DC	60	62	21	41
11 DC	60	55	20	35
111 DC	60	63	24	39
1 MA	20	22	5	17
11 MA	20	20	4	16

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

UG programme in Economics has been there since the college's inception in 1944. The undergraduate programme provides an excellent background for those going to professional schools, for example, law and business. At present, the department offers BA degree programme in Economics with Political Science and History as subsidiary subjects. MA programme in Economics was introduced in 1959. The department became an approved Research Centre in Economics in 1994 and offers PhD in Economics. The degree programme was restructured recently introducing the CBCSS. The faculty members co-operated with the University in formulating and implementing the programme successfully. The department has launched a new foundation course on Human Rights from 2011 onwards with the financial aid of the University Grants Commission. The syllabus for the course was formulated by the department itself. In line with global trends in higher education and thrust on national development, the faculty formulates views and suggestions through inter-faculty seminars and workshops, seeking the University's intervention in syllabus restructuring. Dr.V.T Jose was a member of the PG Board of Studies in Economics during the period 2006-10. Dr. Sibi Zacharias was a member of the UG Board of Studies in Political Science during the period 2006-10.

4. Trends in the success and dropout rates of students during the past two years

Trends in success: The UG and PG results of the department are available in Figures 13 & 14. The drop-out rate is negligible. Except for one or two from a whole batch, those who drop out do not discontinue their study, but shift to professional courses. Since admission to professional courses like Law starts late, a few who join colleges for some courses discontinue on getting admission.

Results of the BA Programme 2007-11

Year	% of pass	No. of First Classes	No. of Distinctions
2007	95	20	4
2008	98	30	5
2009	98	32	8
2010	96	28	6
2011	98	35	6

Results of the MA Programme 2007-11

Year	% of Pass	No. of First Classes
2007	98	10
2008	97	9
2009	97	10
2010	98	12
2011	98	12

Rank Holders of the B A and M A Programme During the Period 2007-11

2007.Ms.Nbila Haniph, IIIrd Rank B A Economics

2009 Ms.Nandini R Nair, I Rank B A Economics

2010. Ms.Sradha Vinodkutty, IVth Rank B A Economics

2010. Ms.Smitha Jose, Ist Rank M A Economics

2011. Mr.Soney Sunny, Ist Rank B A Economics

2011. Ms.Thasneem Azeez, IVth Rank B A Economics

2011.Ms.Sheeja Thampy, IIIrd Rank M A Economics

2011. Ms.Roshini Thomas, IVth Rank M A Economics

Student Progression: The majority of the passes out students from BA and MA programmes join higher courses of study. A substantial number of the PG students join B Ed course. Others prepare for UGC-CSIR/NET examinations. Some opt for research. BA pass outs join various courses of study; some do B Ed, a few join PG in the same subject and many of them pursue other fields. Of late, MBA and other management programmes have become favourite higher studies options with many. Nearly 10% of the students get absorbed through campus recruitments. The percentage of students joining the work force is steadily increasing. This year a number of our students, most of them from UG have attended the

final interview for appointment. South Indian Bank, Federal Bank etc. are some of the agencies that routinely visit our campus for recruitment.

5. Learning resources of the departments – library, computers, laboratories and other resources.

The process of upgradation and modernization of infrastructure facilities, which began with the first NAAC visit, gathered momentum from the academic year 2007 onwards. The Department is endowed with fully furnished class rooms, a well-stocked library, computer lab, Smart class rooms with LCD projectors, and internet facility for the students and research scholars.

Library: The Department library has 8,618 books concerning various branches of Economics, viz., Microeconomics, Macroeconomics, Fiscal Policy, Monetary Economics, Development Economics, Environmental Economics, Economic Statistics and Mathematics, Econometrics, and other books. Further the department library subscribes to 24 various scholarly journals and reports, both national and international.

6. Modern teaching methods practiced and use of ICT in teaching –learning

As noted above, the department is endowed with fully furnished class rooms, a well-stocked library, computer lab, Smart class rooms with LCD projectors, and internet facility for the students and research scholars. The entire faculty has become IT enabled and ICT has empowered the student community also. Internet facilities are available for the students, and they use them for seminars, projects, presentations and assignments. The department conducts seminars, group discussions, quiz, paper presentations, field visits and supervised study tours to enhance the learning process. A minimum of two internal examinations are conducted in each subject and the progress report is analyzed in the presence of the parents. Students sometimes engage classes as well as give free tuitions. Fast- learners teach slow-learners. Speakers' forum debates, lectures by visiting faculty, Budget analysis, VLC, lecture

series etc supplement the routine classroom teaching. The students serve as TV anchors, talk show hosts, and newsreaders contribute to the overall capability and confidence level. Digitalizing the classes by smart Boards DELNET and INFLIBNET facility have contributed to transforming the dominant lecture-oriented teaching procedures. Smart class rooms were introduced in the UG and PG Programmes. The department regularly conducts tutorial and interactive sessions for the overall development of the students. The department conducted several seminars during the last five years including an international seminar on Indo-Japanese Socio-Economic Dynamics in (2010). Ms.Sradha Vinodkutty one of the UG programme presented a paper on Microfinance at the **South Asian Economics meet** held at University of Dhaka, Bangladesh. Mr.John Arogya Swamy of final year BA Economics won second prize in the **Young Economist competition** organized by the Christ University, Bangalore in 2011.

7. Participation of teachers in academic and personal counseling of students

The department takes special care to understand the problems of students and to give them counselling and guidance to overcome them. Each class is allotted to a teacher who will be in charge of its academic and disciplinary aspects. Open house conducted in each semester facilitates parents to meet teachers and share ideas with them for the overall development of their children. Tutorial system provides opportunity to teachers to give personal attention to students. Remedial sessions are also arranged to needy students. Students who require any kind of special help like financial support, professional counselling etc are properly guided to the concerned authorities.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

Dr. P. E. Cherian availed FIP of UGC to complete his research and was awarded PhD by the M G University in 2008. Dr V.T. Jose availed Postdoctoral fellowship of UGC after the last

NAAC visit. Three other faculty members are doing PhD at present. The department faculty regularly attend workshops, seminars, conferences and present papers.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

The department is a recognized research centre of Mahatma Gandhi University. Four of the faculty members have PhD degree. Research and consultancy are very significant part of the activities in the department. The department has a research committee to co-ordinate the research activities. The department has produced 8 PhDs since the last NAAC visit. Dr. Sibi Zacharia is doing a UGC major project on “Tribes and Human Rights Violations - A Case Study of Forest Dwelling Primitive Tribes of Kerala”. Dr .P.E. Cherian and Prof. Alphons Ligori also have UGC minor research projects. Dr. V. T. Jose has completed his post-doctoral research under the UGC fellowship programme in 2007. The department also receives PG assistance of the UGC; Rs. 4, 50,000 was sanctioned by the UGC in the 12th plan. The research wing has a well-furnished room with internet connectivity and other provisions. TPC (Technology Promotion Club), paper presentation awards given to the best MA dissertation, seminar on research topics do promote the research culture in the department. E-search facilities, INFLIBNET and DELNET are available in the department. Dr.V.T. Jose has published a book entitled *The Rural Urban Dynamics and Land Use Pattern* in 2007. He also published a book on *The Future of Public Sector Undertakings* in 2009. Eleven other research papers are also published by the faculty during this period. The department takes the initiative to publish the *S H Research Journal: Humanities and Business studies*. As a sign of the the department’s commitment to the society it has undertaken a 10 year project at Maradu panchayat to achieve sustainable development and poverty alleviation.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

The Department of Family Welfare, Nikon Fukushi University Japan, selected the department for taking classes for their students. Ms. Aya Sasaki, Department of International Economics, Kumamoto Gakuen University, Japan has undergone training in the various aspects of Indian economic development in the department from August 22nd to September 2nd 2011. She has attended classes on International Trade, Indian Economic Development, Indian History and Gandhism. According to the recommendations of the last NAAC peer team, the department collaborated with Sociology, Botany and Aquaculture departments of the college to conduct a survey on the socio-economic conditions of the people of 58th and 59th divisions of the Cochin Corporation. The survey also examined the living conditions of the fisherman community in particular. The survey results, along with their meticulous analysis are submitted to the local authorities for further action.

Outreach programmes: The department has several outreach programmes. Many of them are integrated with the academic curricula. At the same time, these programmes are organized for the welfare and upliftment of the neighbourhood. Both the public and the student community gain by these. A major milestone in the department's endeavours is the completion of the socio-economic survey of the 58th & 59th wards of Kochi Corporation. Various initiatives are organized by the department for reaching out to the neighborhood. The health awareness campaign of the Department in collaboration with L&T and Kochi Corporation was a great example of private-public partnership. In collaboration with L & T, the department has distributed mosquito nets to 150 *angana wadi* students. The department's innovative programme *JANAPARVAM* was started in 2006. This village adoption scheme aims at enhancing the quality of life and integrated development of the poor people in the neighborhood panchayat. The specific objective of this programme is to provide quality education to UP and high School students of BPL families of Maradu Grama Panchayat and to evaluate and monitor the standard of living of the beneficiaries. Visits are also arranged to orphanages and old age homes to make the students aware of the less privileged and the

marginalized in the society. Visits to tribal colonies give an insight into the ground realities of their existence.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

Projects undertaken:

1. Dr.Sibi Zacharias, "Tribes and Human Rights Violations-A case study of forest dwelling primitive tribes of Kerala" UGC, 2009-11 Rs.5,91,200.
2. Prof.Alphons Ligori, "Historical study of the impact of industrialization in Ernakulam District- with special reference to Eloor, UGC, 2010-11, Rs.70,000.
3. Dr. Cherian P.E, "An Economic Analysis of Food Processing Industries in Kerala – A Farm Industrial Linkage approach. 2009-11, Rs.95,000

Publications: During the last five years, the department faculty published two books and 14 articles in research journals.

Books.

1. Jose, V.T. *The Rural Urban Dynamics and Land Use Pattern*. Mahamaya Publications, New Delhi, 2008.
2. Jose, V.T. *Future of Public Enterprises*. Mahamaya Publications, New Delhi, 2009.

Journals Articles

1. Raju.K.V, "Global warming and Environmental Concerns for India", *S.H. Research Journal-Humanities and Business Studies*, Vol.II, No.2, July-December, 2006.
2. Raju K.V and Sunil Kumar Menon, "Globalization of Indigenous Health Care Industry- Lessons from Kerala" in Ranbir Singh Gulia et.al. (ed), "Handbbok of Management and Behavioural Science", Wisdom Publications, Delhi, 2010.
3. Raju.K.V and Sindhu K, "Stock Market Efficiency and Macro Economic Linkage- Empirical Evidence from India", *S.H. Research Journal-Humanities and Business Studies*, Vol.VI, No.2, July-December, 2010.
4. Sibi Zacharias and Sijo Mathew, "Forest Laws and forest Dwelling Primitive Tribes of Kerala, *S.H.Research Journal*, July-December, 2010.
5. Sibi Zacharias, "Socio economic Conditions of Kadu and Malaya Tribes", *S.H.Research Journal*, July-December, 2006.

6. Jose V.T, "Rural Urban Dynamics and Development", *S.H. Research Journal-Humanities and Business Studies*, Vol.VI, No.2, July-December, 2010.
7. Jose V.T, "Changes in Land Use Pattern in Kerala Recent trends and future perspectives" in B.A Prakash and V.R.Prahakaran Nair (ed) "Kerala's Development Issues in the New Millenium", Seraials Publications New Delhi, 2008
8. Jose V.T, "Changes in Land Use Pattern in Kerala- Recent trends and future Perspectives", *S.H. Research Journal-Humanities and Business Studies*, Vol.II, No.2, July-December, 2006.
9. Cherian P.E, "Farm Industry Linkages in Kerala-Needs Attention", *Kerala Calling*, November, 2008.
10. Cherian P.E, "Farm Industry Linkages of Agro-processing Industries-Kerala experience", in Vijayalakshmi V (ed.), "*Development of Indian Agriculture-Trends and Challenges*", Southern Economist, Bangalore, 2011.
11. Cherian P.E, "Rural Development through Agro-processing Industries-Kerala Experience, *S.H. Research Journal-Humanities and Business Studies*, Vol.VI, No.2, July-December, 2010.
12. Cherian P.E, "Instability in Export Earnings from spices –sources and policy implications" *S.H. Research Journal-Humanities and Business Studies*, Vol.II, No.1, January-June, 2006.
13. Agile Joy, "Pokkali-Prawn Farming – An Organizational Rotational Cultivation System of Kerala", *S.H. Research Journal-Humanities and Business Studies*, Vol.VI, No.2, July-December, 2010.
14. Sibi Abraham, "Portfolio Diversification with Gold in the Era of High Volatility in Asset Prices", *S.H. Research Journal-Humanities and Business Studies*, Vol.VI, No.2, July-December, 2010.

12. Placement record of the past students and the contribution of the department to aid student placements.

Students who pass out of the department are placed both in the private and public sector companies. Nearly 10% of the students are absorbed by companies through campus recruitment. Some of the companies that had selected students from the B A programme are Google, South Indian Bank Ltd., Federal Bank, OPI Global, Fidelity, Infosys, ICFAI, etc. A number of students also join as faculty members in colleges and schools. Mr.Raghavendran

(South Indian Bank Ltd), Ms.Pinky Abraham (Federal Bank), Ms.Maja George (ICFAI), Ms.Thasneem Azeez (Department of Posts), Ms.Anu Alphred (South Indian Bank Ltd) , Ms. Agile Joy (S H College), Mr.Justin George(St.Pauls College), Praveena K (NSS College, Changanassery), Ashish Kumar (ICICI), Sheeja Thampy (IIM Calicut) etc. were some of the students who were appointed in the last five years.

The department conducts mock interviews, sample tests, group discussion training and other coaching programmes for personality development. These programmes help the students to increase their confidence and performance in the recruitment drives.

13. Plan of action of the department for the next five years.

As the department moves to the 21st century, it strives to maintain its quality and extend its facilities to other communities and institutions in the neighbourhood. The department intends to continue its outreach programmes to other schools in the region. More publications and research activities will be carried out in the department in the coming years. It also tries to start new courses on Tourism studies. As a part of the 70th year celebrations of the UG programme in Economics, the department intends to organize national seminars and inter-collegiate competitions. The career guidance and Civil Service Study Circle will be strengthened and more programmes on soft skill development will be offered to the students.

Department of English

Coeval with the college itself, the department of English is one of the oldest of its kind under the University of Kerala to offer postgraduate education. In 1982, the college came under the jurisdiction of MG University, Kottayam, and has established itself as a reputed centre for postgraduate studies, attracting a wide cross-section of students from all over the state and the Lakshadweep. The flagship programme of the department is the innovative BA English

(Copy Editor) which was started in 1998. It is a vocational degree programme for students who aspire for a career in publishing and journalism. The modules for the programme include Editing, Publishing, Desktop printing, besides courses in English language and literature. At the PG level, the department offers courses in accordance with the restructured curriculum of MG University with Film Studies as optional paper.

The department also offers training for Business English Certificate examination (Higher and Vantage levels) conducted by Cambridge ESOL for the advanced learners; a remedial course for weaker students; a certificate course in Creative Writing and an online certificate course for international students on postcolonial Indian Writing.

1. Faculty profile – adequacy and competency of faculty

Faculty Profile: After a relatively lean period, the department has once again rejuvenated itself with the induction of eight fresh hands into its regular faculty. Today its strength stands at fifteen with thirteen regular members among whom one is on LWA. Of the total thirteen regular faculty members, five are Associate Professors and the rest are Assistant Professors. There are four PhD holders and another has submitted his thesis. Five are M Phils.

Prof. John Francis, the head of the department is the senior most having over 28 years of experience in teaching and mentoring. He is currently member of the PG Board of Examiners of the MG University. **Dr. C.S. Francis** of the department has his specialization in theatre studies and is a theatre practitioner himself. He is skilled in ICT and is handling three ICT based courses for the undergraduates in Copy Editing. He is also in charge of monitoring the development of the all-new dynamic website of the college. Dr. Francis is also a resource person for soft skills training programmes. **Prof. P.J. Philip** has his specialization in Modern Drama. Nevertheless, he is a multifaceted personality with a wide range of interests which include music, theatre, copy writing and editing besides teaching. Prof. Philip has single-handedly edited the college newsletter, *Heartbeats* for nearly a decade. **Prof. Sr. Rosily**,

Associate Professor is currently on LWA to pursue further studies. **Dr. K.M. Johnson** is a familiar figure among the research scholars who specialize in contemporary literary and cultural theories. He has to his credit four research publications (two in refereed journals and two in collections of critical essays) and has presented four papers in international/national seminars. Dr. Johnson is also a certificate holder in Critical Thinking from the State University of Oregon, USA.

Of the Assistant Professors, **Prof. Jose Varghese** is a creative writer with many anthologies of poems, besides contributions to literary magazines and journals and is a guest writer for *Thresholds*, the international short story forum of Chichester University, UK. He has published two research articles in refereed journals and has six international and one national presentation to his credit. He also holds a PG diploma in the teaching of English from EFLU. He is currently the editor of the college blog, *Heartbytes* and has recently taken charge of the college news letter *Heartbeats*. Prof. Jose is awaiting his 'open defense' of his PhD thesis. **Dr. Binu K. Devassy** has specialized in Dalit literature. He has to his credit two research publications and two papers at national seminars. **Prof. Subhi Tresa** had her M Phil from SSUS, Kalady and has her specialization in reception theory. **Dr. Tom C. Thomas** has his specialization in contemporary poetry and is well versed in Malayalam as well as English poetry. He is also a specialist in structuralist poetics.

Of the four new faculty members, **Prof. Rajesh James** has been pursuing his research in Film Studies. He has to his credit two research papers published and three others have been accepted for publication by refereed journals. **Prof. Aravind R. Nair** has had his M Phil in science fiction. He also holds the BEC from Cambridge ESOL. **Prof. Bijo N. Mathew** is specialized in editing and currently he is supervising the publication of the students' journal *Koppee*. **Prof. Sunil K. V.** possesses an additional degree in education. (*Appendix vi*)

The sole Teacher Fellowship under the FIP availed by the faculty in the last five years was Dr. Johnson who completed his PhD in 2008.

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

Student Profile:

The faculty of English caters to all UG programmes by offering three courses for all sciences and humanities and two courses for the Commerce stream as common courses. The total strength of students for these courses is approximately 730. Over and above this, the department offers a vocational undergraduate programme in English (Copy Editor) having a total of 77 students and a postgraduate programme, having a total strength of 32 (Figures 15 & 16). In all, girls outnumber boys in both UG and PG programmes. A quarter of the students for the UG programme are from outside the district of Ernakulam, and a few are from the Lakshadweep islands. Of the total student strength of the department, around 20 % of the students are from the scheduled castes and scheduled tribes. While nearly 70% of the students from the urban background have had their secondary education in English medium schools, 30% are from the Malayalam medium schools. In order to help the students from the Malayalam medium to acquire necessary competencies to pursue their UG studies, the department has been offering, remedial courses for the last few years. Around 15% of the students of the department belong to the BPL category. The department makes efforts to identify such students and provide them assistance through the various student support schemes. Hence the dropout rate is negligible except for those who move to other institutions to pursue programmes for which they had been wait-listed.

The department has a vibrant student community which is actively involved in the co-curricular life of the college. Based on their individual talent and aptitude, the students have been offered a gamut of activities to choose from. The students' magazine, college blog, English Association and various other clubs of the college cater to the needs of the students.

The undergraduates of the department have started a fully in-sourced journal called *Koppee* as a biannual. An editorial board consisting of second UG is formed with a faculty member as its advisor. The contributions of the students in this endeavour include the creative articles, editing, proofing, illustration; lay out as well as its marketing. It is a test of the skills they have learned in the class room. In addition to this, the college blog *Heartbytes* is entirely managed by the undergraduate students of the department under the guidance of a faculty member.

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

Curriculum: From the very beginning the UG programme in English had been modelled on CBCSS, except for the credit system. Hence transition from the old system to the new one had been smooth. The BA English students also undertake a one month on-the-job training as part of their curriculum. Notwithstanding the limited leeway that the affiliated institutions enjoy in introducing new programmes, the department has taken the bold step in offering short term certificate and diploma courses under the seal of the college. A certificate course in Creative Writing and an online certificate course on postcolonial writing in English aimed at international students is another. Both these courses are introduced recently. The department has endeavoured to adopt an individualised approach in curriculum delivery. The fast learners are given additional tasks and are encouraged to acquire international certifications such as Business English Certificate from Cambridge ESOL and the slow learners are offered remedial classes to enable them to attain the minimum required level of proficiency in acquiring the language. Apart from these, the students in the sixth semester are given the freedom to choose an open course of their choice (provided such candidates possess the aptitude and interest), outside of the course offered by the department, and a teacher is assigned to supervise the progress of the student.

With the introduction of CBCSS system, the UG courses have undergone a sea change. Through meticulous planning, the department has effectively rolled on the new curriculum. The systematic and rigorous implementation of the formative assessment scheme and feedback mechanism has helped the students easily shift gear to the new curriculum. Each member of the faculty is allotted tasks in accordance with his/her area of interest.

4. Trends in the success and dropout rates of students during the past two years

Trends in Success: The UG and PG results of the department are available in figures 17 & 18. The dropout rate is negligible except for those who join other institutions to pursue professional programmes for which they had been wait-listed.

5. Learning resources of the departments – library, computers, laboratories and other resources.

The department has a PG library, containing over 8000 select books exclusively for the use of its PG students and the teachers. The multi-purpose conference area of the library is equipped with the latest audio-visual facilities including a state-of-the-art interactive board. The purpose-built PG class rooms are provided with computers with internet connectivity, over and above the wi-fi facility on the campus. The editing centre of the department, which is set up to cater to the needs of the Copy Editor students, is an air-conditioned facility with a capacity to accommodate the whole strength of the UG batch and is equipped with fifteen computers of the newest configuration, printers, internet and connectivity. The department also has a digital language lab with twenty six terminals.

6. Modern teaching methods practiced and use of ICT in teaching –learning

With the implementation of CBCSS, the teaching-learning process is gradually shifting from a teacher-centred process to a student centred process. Teachers equip the students with the necessary background knowledge and encourage them to actively engage in the learning process through assignments, discussions and presentations. Nearly all the teachers use ICT

in teaching and prefer students' assignments and projects discussed online. Needless to say, more and more teachers are switching to the e-mode. Postgraduate projects are entirely done through net-based discussions. The PG class rooms are equipped with computer systems with round-the-clock internet connectivity. The conference facility of the department is equipped with state-of-the-art interactive board. Dr. C. S. Francis of the department is currently working on an ICT-based foundation course on English theatre.

7. Participation of teachers in academic and personal counseling of students

The tutorial system adopted by the department has had a significant impact on the academic performance as well as the personal development of the students. Each class has been assigned a mentor from the faculty and their interactions with the students help the department formulate its policies and programmes. This system ensures that each and every student is attended to vis-a-vis their academic and personal progress. Where the need of a professional counsellor is found necessary, the tutors guide them to the counsellor who is available in the college for such needs. The counselling cell of the college plays a key role in the personal grooming of the students. Every batch of students goes through counselling at least twice during their graduation period.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

The teachers of the department keep themselves updated in the manifold areas of their profession through participation in workshops, seminars and other training programmes. The details of the programmes and the teachers who benefited from these seminars in the last two years are given below:

Nature of the Programme	Area /Agency	Participant/s
International Conference	Research in English/Kerala Univ	Dr. K.M. Johnson
International Workshop	Critical Thinking, SH College, Kochi	Prof. John Francis, Dr. C.S. Francis, Prof. P.J. Philip, Dr.

		Tom C. Thomas, Dr. Binu K.D, Subhi Tresa Sebastian.
National Workshop	National Workshop for Coordinators of BEC/Cambridge ESOL	Dr. C. S. Francis
National Workshop	Teaching methodology Christ Univ., Bangalore	Prof. Subhi Tresa S., Dr. Binu K.D.
National Seminar	Post theory/Aquinas College, Edakochi	Dr. Tom C. Thomas
National Seminar	American Studies /St. Thomas College, Pala	Dr. Binu K.D.
National Seminar	Tranformation of public sphere Panjab Univ	Dr. K.M. Johnson
National Seminar	Maharajas College, Ernakulam	Prof. Jose Varghese
National Seminar	Critical theories /Fathima Matha College, Kollam	Dr. K.M. Johnson
National Seminar	Ecology and Texts/St. Pauls College, Kalamassery	Dr. Tom C. Thomas
National Seminar	Ethics and free market/ S.H. College, Thevara	Dr. Tom C. Thomas, Ms. Subhi Tresa Sebastian
National Seminar	Dalit Studies - Pondicherry University	Dr. Binu K.D.
National Seminar	Film Studies Farooq College, Calicut	Dr. Binu K.D.
National Seminar	Theatre studies / Central Univ. , Kasaragod	Prof. Jose Varghese
National Seminar	Research Methods/IASA	Prof. Jose Varghese
National Training Programme	For Trainers of Soft Skills, JDV, Pune	Dr. C. S. Francis
Refresher course	ASC, University of Kerala	Rev. Sr. O.J. Rosily
Refresher course	ASC, University of Kerala	Rev. Sr. O.J. Rosily
Regional Seminar	ICT in Education / SSUS, Kalady	Dr. Binu K.D.
Regional Seminar	General Informatics/S.H.College & KHEC	Prof. John Francis, Prof. P.J. Philip, Dr. C. S. Francis

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

Research and Consultancy work: The drive which the department began a few years ago to augment its research activities has gathered momentum with the infusion of more Ph Ds

into its faculty. Currently, there are four faculty members holding PhD degree and Prof. Jose Varghese is awaiting the 'open defence' of his thesis. Another member is currently pursuing his Ph D research. Currently, there are six ongoing UGC funded minor research projects undertaken by its faculty members with a total outlay of 7.90 lakhs. The last five years also saw the publication of five research papers in refereed journals by the faculty members and more are on the anvil. The department has become eligible for PG grant from the UGC and the documentation work for the same is being done now.

10. Collaboration with other departments/ institutions at the State, National, and

International levels, and their outcome during the past two years.

Seminars/Lectures/workshops: The department holds the reputation of pioneering academic seminar culture among the affiliated colleges in the university with the launching of the annual, Dr. Dan Thottakkara National Seminar. Since its inception in 1998, the seminar has had its focus on frontier areas in the field of Literary and Cultural Studies. Today, it is one of the most awaited events by the academic community. Apart from this, the department organizes three more seminars as annual events. They are Dr. Cheruvelli Endowment Seminar, Rev. Fr. Koyikkara Endowment Lecture on Media Studies, Dr. Dan Thottakkara Memorial Lecture. In addition to this, the department organizes seminars/Lectures by eminent academicians of national and international repute. Recently, the department has received financial aid from the UGC for conducting a national seminar which is scheduled for the end of January 2012. In November 2011, the department organized an international workshop on Critical Thinking. Prof. Agnieszka Alboszta from the State University, Oregon led the workshop.

The department ensures its participation and contribution in national and international seminars through paper presentations and delegation. A few that deserve special mention are the following: Dr K.M Johnson attended and presented a paper at the thirteenth International

Conference of the Forum on Contemporary Theory held in Chandigarh from Dec 15-18th, 2010. Prof. Jose Varghese has presented a paper and chaired a session at the second International Conference of Indian Association for the studies of Australia held at Calcutta from January 22-24, 2011. Dr. Binu K. D. presented a paper on Dalit literature in the national seminar organized by the Central University, Pondicherry in March 2011 and another on Film Studies in the national seminar organized by Farooq College, Calicut in October 2011. Besides the research orientation of the faculty, the department has been rigorously monitoring the project work of postgraduate students to ensure quality and originality. The students of the department have won the most number of times the awards in the intercollegiate project presentation contest organized by Devamatha College, Kuravilangad. The department offers consultancy service in editing, translation, soft skills training and training in communication skills. It has already signed an MoU with Kerala Law Journal Pvt. Ltd for editing its bimonthly, *Kerala Law Journal*. The preliminary editing work for the same is done by the undergraduate students of Copy Editing Programme. For the past few years the department has been collaborating with M.O.P Vaishnav College for Women, Chennai to organize media seminars in which eminent personalities from the media address the audience.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

The Department of English is all set to become a research department under the MG University to offer Ph. D. programme. The department has five doctorate degree holders among its faculty members with specialization in areas such as Literary Theory, Postcolonial Studies, Feminism, Cultural Studies and Theatre Studies. It has also to its credit nearly a dozen research publications in refereed journals besides a number of creative works in reputed national and international

journals. Currently, there are six UGC-funded minor research projects underway under the leadership of the members of the faculty.

List of Ongoing Research Projects:

1. Dr. C.S. Francis, “ An introductory course into the study of English theatre” UGC – Minor (2011-12)
2. Dr. Binu K.D. “Historicizing the pain: constructing a parallel historiography of Malayalam Dalit writings” UGC-Minor (2011-12)
3. Dr. K.M. Johnson, “From Humanism to post humanism shifting contours of an epistemic shift” UGC-Minor” UGC-Minor (2009-12)
4. Dr. Tom C. Thomas, “Poetics of Discursive stasis; a Structuralist Analysis of Select print media on current affairs” UGC-Minor” (2011-12)
5. Subhi Tresa Sebastian, “Banned Books: Dynamics of reading reception” UGC-Minor (2011-12)
6. Jose Varghese, “Suburban Identities, Popular Culture and Creativity: 2nd Generation Expatriate Experience in the novels of Hanif Kureishi” UGC-Minor (2011-12)

Research Publications:

1. Binu, K. D. “From Erasure to Articulation: Engaging Dalit Feminist Reading of Bama’s Sangati . SH Research Journal Humanities and Business Studies. 2010-11
2. Johnson, K.M. “Cyberspace and Postmodern Democracy: A Critique of the Habermasian Notion of the Public Sphere,” The Virtual Transformation of the Public Sphere, Ed. Gaurav Desai. New Delhi: Routledge, 2012.
3. Johnson, K.M. “The Gendered Caste Subaltern and the Philosophy of Humanism: A Critical Reading of Bama’s Works.” Dibrugarh University Journal of English Studies.
4. Johnson, K.M. “A History of Subaltern Resistance and Revolt: Aravind Adiga’s The White Tiger,” Perspectives on Aravind Adiga’s The White Tiger, Ed. Ashok K Saini. Jaipur: Aadi Publications, 2011.
5. Johnson, K.M. “From Humanism to Posthumanism: Emerging Contours of an Epistemic Shift.” TJES: Teresian Journal of English Studies, Vol. 3, No.1, (October 2011): 1-7.

6. Varghese, Jose. "The Greatest Show on Earth", Thresholds Home of the International Short Story Forum, Chichester: University of Chichester, UK, 2012.
7. Varghese, Jose. Notwithstanding Christmas: Longing beyond life in Louis de Bernieres's "This Beautiful House", Thresholds Home of the International Short Story Forum, Chichester: University of Chichester, UK, 2012.

12. Placement record of the past students and the contribution of the department to aid student placements.

A large number of students who graduate through the department prefer to go for higher studies. Thus, nearly 90 % of the UG students and around 80% of the PG students have chosen to continue their studies. All the same, the department extends every possible help to those who seek employment. *Career Bay*, the career guidance centre of the department, which was launched in 2005 has continued its good work through all these years, giving necessary information on career opportunities as well as guidance on career options that suit the aptitude of students both for higher studies and for employment. Over and above this, the centre uses its good offices to attract prospective employers for recruitment. In collaboration with the placement cell of the college, Career Bay offers training in GD and interview skills, etc.

Apart from these, the department offers coaching classes for NET/JRF for PG students and remedial classes for the slow learners among the UG students in order to equip them for the competition in the job market.

The following is a list of the graduates/postgraduates of the department who got employed in the last 2 years.

Name	Designation	Organisation
Rose Cleetus	Clerk	South Indian Bank
Surya Thampy	Clerk	South Indian Bank
Vishnu Chandran	Immigration Executive	Fragomen, Del Rey, Bernsen & Loewy
Leo P. Antony	Teacher	GHSS, Vellamunda
Aswathi Manilal	Teacher	St Mary of Leuca Sr. Sec.School
Agraja N Potty	Clerk	Bank of Maharashtra
Aswathy	Teacher	
Charutha Raj	Executive	Infopark, Kochi

Bivin Vijay	Executive	Technopark, Thiruvananthapuram
Hima Babu	Executive	Spectrum
Manu Babu	Administrator	Scotland
Aleena Angel		
Reshmi Raguraj	Immigration Exec.	Fragomen Global Immigration
Akhil	Physical Trainer	Dawn School, Kochi
Ashna Davis		
Deji George	Coordinator	Educomp Smart Class
Vineetha Raphael	Teacher	Peace International School
Subina Ali	Air Hostess	Air India
Meenu Mary George	Councilor	Panta Monica, Kochi

It is to be mentioned here that over a dozen teachers of the English departments of various colleges of Kochi city are the alumni of this department. This bears testimony to the standing of the department in the academic community here.

13. Plan of action of the department for the next five years.

Future plans: With the infusion of fresh blood into the faculty, the department feels rejuvenated and is on the runway for a major take off and has chalked out the plans for the next five years. The key aspects of which are the following:

- Elevation of the department into a research centre.
- To obtain PG grant at the earliest for the infrastructural development of the dept.
- To launch an international journal on literary and cultural studies.
- To enter into full-fledged consultancy in copy editing
- Start more online courses for international and national students
- To offer training for the public/students for international certificates such as BEC.

The department has consistently produced good results. Candidates of B. A. (Vocational) Copy Editor course of the department have figured among the top three rank-holders in the university examination in all the past five years except in 2007-08. The results at the PG level too stood among the best in the university.

Department of Mathematics

The Department of Mathematics is one of the oldest departments in the college. The department commenced its degree programme in 1944 itself as BA Mathematics. Though the course had been discontinued for some time, it was revived in 1982. The PG course was commenced in 1999. The department faculty consists of 9 members. It has a well-equipped computer laboratory and the reference library has over 1000 books and 3 periodicals. The department has a very strong alumni association which meets on 15th of August every year.

1. Faculty profile – adequacy and competency of faculty

The department consists of five Associate Professors and four Assistant Professors, five of whom are MPhil degree holders and one a Ph.D holder. Currently, four members are doing PhD in different Universities and two of them have already submitted their thesis.

Associate Professors: Prof. Joy Mathew is the head of the department since 2005. He has a commendable teaching experience of more than 30 years. The additional chief superintendant of examinations of the college, Prof Joy has been a member of the PG Board of Studies of MG University for five years. He is an active member of the Kerala Mathematical Association. **Prof. Cyriac Antony** has been handling the Statistics Studies of the college for the last three decades. He has been an active researcher in the areas of Financial Econometrics and Time Series Analysis. He has participated in several national and international conferences and presented papers. He has published two papers in peer reviewed journals and co-authored two books. He has organized 14 surveys/seminars/quizzes and offers consultancy in data analysis. He was the college staff secretary for two years and director of various clubs like NSS, Sample Survey and Analysis Wing, Mathematics Association. **Prof. W.T. Paul** has a teaching experience of 27 years and has specialized in Topology and Coding Theory. He is a member of the executive committee of Kerala Mathematical Association. He regularly attends National and International seminars. He is a member of University Exam Board. He was a member of Board of question

paper settings of Calicut University. He has been a resource person for **Janaparvam**, a community extension programme of Economics Department and 'Basic Mathematics Learning Programme' (BMLP) of Mathematics Department. At present he is the convener of Welfare Fund Committee of the college.

Prof. Jose P Joseph has specialized in the areas of Fuzzy Mathematics and Complex Analysis and has a teaching experience of over 28 years. He is a member of the Board of Studies of UG programme in Mathematics. He is also a member (Chief Examiner) of the UG and PG valuation boards. He is the coordinator of the Xavier Board of Higher Education in the college. **Prof. M. P. Sebastian** has specialized in the areas of Theory of Wavelets and Functional Analysis and has a teaching experience of over 22 years. He is the chief examiner, CBCSS. He has published 4 books. He is the coordinator of AIACHE in the college.

Assistant Professors: Four new Assistant Professors have been inducted into the department of Mathematics in December 2010. **Mr. Shiju George** is a CSIR (JRF & SRF) research fellow and he has carried out his research in the department of Mathematics, Mangalore University. He has participated in several training programmes like MTTS (Level –II), AFS-I, AFS-II. He has also participated in several conferences including in the international conference of Mathematicians at Hyderabad in 2010 and presented papers. He has published two papers and got two papers accepted for publication in peer reviewed journals. He has an active collaboration with Prof. Daniel Wulbert from the University of California, San Diego. **Dr. Jeenu Kurian** has a research experience of 3 years at the Department of Mathematics, Nirmala College, Coimbatore and a teaching experience of 4 years at different colleges in Kerala. She is the Life Member of Kerala Mathematical Association and the Assistant Coordinator of Xavier Board. She has participated in 5 conferences and presented papers. She has 7 national/international publications in peer-reviewed journals. **Mr. Jeet Kurian Mattam** has a teaching experience of over 4 years at different colleges in Kerala. He is the coordinator of

Quiz Club, convener of SAAF and member of Equal Opportunities Centre and Publication Committee of the college. He is also the ex-officio member of Tourism Club. **Mr. Didimos** has a research experience of over two years including one year as a CSIR Research Fellow at CUSAT. He is the convener of UGC/ NET coaching for Mathematics and UGC affairs committee. (*Appendix vi*)

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

The students of the department hail from different socio-economic status and belong to different religions. Most of the students are from the neighbouring towns and are day scholars. A few students stay in the hostels. The merit cut off of the students for admission is above 80%. The entry level competency of the students is average. Though a few students are very good in communication, the language proficiency of the students is average.

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The Choice Based Credit and Semester System (CBCSS) is meticulously implemented for all the three batches of degree students. Assignments, seminars and internal evaluations are done with utmost care and seriousness. It enables the students to develop a serious work culture and research interest. The effective and time bound functioning of the department also helps the students to take part in co-curricular and other socially useful activities. Moreover, the CBCS system also gives students better opportunities to attend and present papers in workshops and seminars. The two-day workshop for setting of question papers for the UG programme in Mathematics in the CBCSS was held in the department on 13th & 14th August 2009.

4. Trends in the success and drop-out rates of students during the past two years

The department achieved excellent results in the last five years. The UG and PG results of the department are available in figures 19 & 20. The department takes special care to identify the financially backward students who cannot continue their education and refer them to college

authorities for financial assistance and the continuation of their education. The department also takes several other measures to reduce the dropout rates by giving the students chance to participate in many extra-curricular programmes.

- *The department has achieved excellent results in the last five years.*

UG - UNIVERSITY EXAMINATION RESULTS				
YEAR	NSA	NSP	%	DISTINCTION
2006-07	34	33	97	26
2007-08	37	37	100	29
2008-09	26	24	92	18
2009-10	23	23	100	16
NSA: Number of students appeared for the Examination NSP: Number of students passed				

- *Sruthy Pramod of 2010 batch bagged the **first rank** in the BSc University Examination.*
- *The department has excellent results for Postgraduate programmes as well.*

PG - UNIVERSITY EXAMINATION RESULTS				
YEAR	NSA	NSP	%	DISTINCTION
2006-07	16	15	94	4
2007-08	15	14	93	8
2008-09	13	11	85	4
2009-10	12	11	92	4
2010-11	14	13	93	
NSA: Number of students appeared for the Examination NSP: Number of students passed				

5. Learning resources of the departments – library, computers, laboratories and other resources.

The department has a library with more than 1000 books, 3 Periodicals and a good collection of old question papers. The department also has a well-furnished computer lab with 8 desktop computers, a laptop and an interactive board. The department has 24 hour internet access.

6. Modern teaching methods practiced and use of ICT in teaching –learning

The department uses the interactive board and power point presentations for regular classroom teaching. Further, with the help of mathematical softwares students are given vivid visual representation of abstract mathematical concepts. Students are also encouraged to present their seminars using power point presentations.

7. Participation of teachers in academic and personal counseling of students

The teachers make it a point to give special attention to each of the students in their **academic** and personal matters. They are given academic orientation during the initial stages of the course. The class teacher will meet each student at least once in every semester. Weak students are offered remedial programmes and special classes. Those students who need professional psychological attention are often directed to the college counsellor. The department upholds the human face of Mathematics through the “Basic Mathematics Learning Programme (BMLP) for the students of other disciplines. As a part of the outreach programme the department co-operates with *Janaparvam*, the extension programme of the college and the department of Economics. The department also offers coaching for the NET in Mathematics.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

The department organized two national seminars: one on Coding Theory and the other on Applied Statistics. Further, the department organized two workshops, one on UG syllabus restructuring and the other on, setting model question papers for MG University. The department faculty attended more than 20 conferences/seminars and presented 5 papers in the last two years. One of the faculty members has submitted his PhD thesis and is awaiting open defence.

9 Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

Two of the faculty members are pursuing their PhD programme at CUSAT, two have submitted their thesis for the award of PhD and one has already been awarded PhD degree.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

A regional quiz programme on Statistics in association with the Old Student's Forum of department of Statistics, CUSAT is held every year. Prof. Shiju George of the department has an active collaboration with Prof. Daniel Wulbert from the University of California, San Diego.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

The priority areas of research and publication of the department are: Algebra, Fixed Point Theory, Topology, Lattice Theory and Functional Analysis. The department has 9 national/international publications in the last five years.

Publications in the last two years

Jeenu Kurian and I Arokarani, *IR^* - Hausdorff spaces via topological ideals*. **Journal**: Kochi Journal of Mathematics, 5 (2010) 1-14. *Operators and Local function on (I, γ) - Ω^* - closed sets*. **Journal**: Mathematica Japonica.

- 1 Jeenu Kurian and I Arokarani, *IR^* - Compactness with respect to ideal space*. **Journal**: Advances in Theoretical and Applied Mathematics vol.4 (2009) 119-125.
- 2 Jeenu Kurian and I Arokarani, *$RI_\gamma G$ - closed sets in ideal spaces*. **Journal**: Bulletin of Kerala Mathematics Association vol.7 June (2010) 35-42
- 3 S. P. Bhatta, Shiju George, Some fixed point theorems for pseudo ordered sets, Algebra and Discrete Mathematics, 11 (2011), 17 – 22.
- 4 S.P. Bhatta and Shiju George, 'A note on weak chain-completeness and fixed point property for pseudo ordered sets', RMS Lecture Notes Series, 13 (2010), 119- 123

12. Placement record of the past students and the contribution of the department to aid student placements.

Placement records and contribution of the department: (Table 24)

PLACEMENT DETAILS	
Year	No. of students placed
2006-07	6
2007-08	10
2008-09	7
2009-10	6
2010-11	7

The department organizes a career guidance training programme by experts from NIIT Ravipuram, Kochi, every year. The teachers of the department provide proper guidance to the students for higher studies and career orientation throughout, especially during the end of the semester.

13. Plan of action of the department for the next five years.

- The department would like to raise itself as a research centre of frontier areas in Mathematics.
- The department intends to make serious effort to secure PG assistance from UGC during the next plan period.
- The department also aims at securing a few major research projects from UGC, DST and other funding agencies.
- The department plans to begin a PG programme in Actuarial and Financial Statistics.
- As a part of the extension activity, the department intends to involve the PG students of the department in offering support and tuition to the needy students of neighbouring schools.

Department of Physics

The Department of Physics started functioning in 1956 with a BSc programme under the able leadership of Prof. C.J Daniel, who designed the prestigious Physics laboratory of the

college. In 2009, the department received **The Best Physics Department Award** instituted by the *Academy of Physics Teachers Kerala* in connection with the International Year of Physics. Though the PG course was started only in 1995, it has established itself with enviable credentials in a short span of time and the students topped with first three ranks in 1998 and first two ranks in 2009 and 2010 in the MG University. The department was elevated to a research centre in 1998. The DST assisted **INSPIRE** programme of the college is successfully carried out under the leadership of the department. An interdisciplinary UGC project of Dr. Georgekutty Joseph and Dr. Thommachan Xavier of Chemistry department is in progress and a paper based on this project is accepted for presentation in the 33rd Australasian Polymer Conference in Feb 2012.

1. Faculty profile – adequacy and competency of faculty

Faculty profile: The faculty is well known for their innovations in teaching. The faculty consists of 10 permanent members and a guest lecturer. Among the permanent members, three are PhD and two are M.Phil degree holders. (*Appendix vi*)

Prof. A. Varadarajan is the head of the department. **Dr. T.I Palson** is a recognized research guide in the university and looks after the activities of the research centre. The three technical staff supports the training of the students in the laboratories. **Dr. Siby Mathew** is the captain of the NCC Naval wing of the college. **Prof. V. M. George** is a member of the PG Board of Studies. **Dr. Georgekutty Joseph** attended the 17th **American Conference** on Crystal Growth epitaxy and presented three papers and visited the Fermi lab, USA.

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

The total student strength is 150. The students belong to diverse economic background with 20 percent students from scheduled castes and scheduled tribes. The department has a few

students from Lakshadweep islands and from other states of India as well. Student strength of the department for BSc and MSc Programmes 2011-12 (*Table 25*).

Classes	Actual strength	Male	Female	3.
I DC	43	21	22	4.
II DC	43	19	24	5.
III DC	43	16	27	6.
I M.Sc	10	4	6	7.
II M.Sc	11	Nil	11	

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The department has adopted the choice based credit and semester system of the University for the UG programme and implements it with the right spirit and perspective. It also opted particularly for the open course, **Energy and Environmental Studies**, to make the students aware of environment and its importance. The course is open to all UG students. The department conducted an add-on course in **Computer Hardware** in 2011 and was attended by 20 participants.

The faculty contributed significantly to the syllabus restructuring of the UG and PG programmes. Prof. V.M George is a member of PG Board of Studies and is taking a lead in revamping the scheme and syllabus of the programme. (*Appendix II*) Dr. Georgekutty Joseph has attended the workshop on the restructuring of the UG course and Dr. Siby Mathew represented the college in the workshop on the open course “Energy and Environmental Studies”. Mr. Jerin Mohan attended the workshop on the restructuring of the UG course (CBCSS) as a student representative. The Physics association plays a key role in development of scientific attitude by conducting various programmes.

4. Trends in the success and drop-out rates of students during the past two years

The UG and PG results of the dept are available in figures 21&22.

Result of BSc programme in 2007-11

Year	% of pass	% of First Classes	Top Score in %
(2006-07)	90	90	92.7
(2007-08)	94	96.7	96.3
(2008-09)	89.5	88.3	84.4
(2009-10)	91	83	95
(2010-11)	91	83	93.7

Result of MSc Programme 2007-11

Year	% of pass	% of First Class	Top Score in %
2006-07	82.2	100	88
2007-08	100	100	86.4
2008-09	100	100	87.69
2009-10	100	100	88.95
2010-11	83.4	100	85.5

Rank Holders of BSc & MSc Programme 2007-11

Sl.No	Name	Rank	Year of Pass
1	Miss Darsana Soman	SECOND	Msc-2007-08
2	Miss.Sethulakshmi	FIRST	Msc-2008-09
3	Miss.Haritha . H	SECOND	Msc -2008-09
4	Miss, Manju Varghees	THIRD	Msc-2008-09
5	Miss. B .Lakshmi	FIRST	Msc-2009-10
6	Miss.Roopa Venktaraj	SECOND	Msc-2009-10
7	Miss. Roshni B.R	FOURTH	Msc-2010-11
8	Miss. Sari P S	FIFTH	Msc-2010-11
9	Miss.Ambili S	SIXTH	Msc-2010-11

The dropout rate of the department is very negligible; however, some students discontinue the course when they get employment or admission to some other professional course. The department also takes special care to prevent the drop out of the students. The weak students are helped by fast learners as well as by the teachers. A bridge course is offered to slow learners to alleviate their difficulty in learning. Remedial classes and tutorial sessions are also organised to help the weak and the needy students. The open house after every terminal examination is a forum where the parents can have the comments and suggestions from

teachers regarding their wards and can put in their suggestions. Students who complete the BSc programme with high marks join the PG course while 5% to 10 % get absorbed in various organizations through campus recruitment.

The students of the PG and UG programmes have secured several university ranks during the last five years. After MSc, the students join for research or are absorbed in Banks or central government services. Mr. Tojo M. Chacko joined the Department of Atomic Minerals, Jamshedpur as a scientist in 2011.

5. Learning resources of the departments – library, computers, laboratories and other resources.

The Physics section of the general library contains a good collection of books which cater to both UG and PG students. Around 200 books are kept in the department library for the ready reference by the staff and students. Computers along with printers are provided in the PG and UG laboratories while the PG lab is provided with internet facility as well. There are 19 computers in the departments. New instruments are added to the existing collection using funds obtained from UGC.

6. Modern teaching methods practiced and use of ICT in teaching –learning

The department promotes student-student interaction, a programme in which fast learners teach slow learners and also PG students teach UG students. Moreover internet and audio-visual facilities enhance and enrich the teaching –learning process. Classrooms are digitalized with smart boards, inflienet and Delnet facility and have transformed the teaching procedures into an enjoyable exercise. Smart classrooms are available for students in the UG and PG programmes. The students are required to take seminars using PPT, as a part of the curriculum. The department regularly conducts tutorials and interactive sessions for the overall development of the students. A minimum of two internal examinations are conducted in the core as well as the complementary courses in the UG programmes. PG students are

continuously evaluated by test papers conducted during every Monday first hour and fifth hour.

7. Participation of teachers in academic and personal counselling of students

Class teachers are the mentors and counsellors of all the UG and PG classes. They monitor the academic progress and overall performance of the students. They hold discussions with students individually and in groups to sort out their problems. Both the UG and PG students are given orientation classes and bridge like lectures to initiate them into their concerned programmes. Those who are in need of professional assistance in tackling their specific problems are directed to the college counsellor.

8. Details of faculty development programmes and teachers who have been benefitted during the past two years

Dr. Georgekutty Joseph and Dr Siby Mathew who availed FIP were awarded PhD in 2007 and 2008 respectively. The department faculty regularly attend workshops, seminars and refresher courses to enrich their knowledge. The department organised 13 local seminars and invited lectures, including one international seminar, during the last five years. Dr Georgekutty Joseph of the department visited America and Australia and presented papers.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

The research areas of the department include thin film study and crystal growth, sol-gel silica glasses and Nanocrystals. Dr. Georgekutty Joseph presented three papers in the 17th American conference on Crystal Growth. Dr. Georgekutty also has collaborative research project with Dr. Thommachan Xavier of the Chemistry department of the College. Utilizing the grant from UGC, the research lab was further equipped and thus the MSc students do their research projects in thin film and crystal growth in the department.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

The MSc students do research projects as part of the curriculum at the Physics departments of CUSAT and Maharaja's college, Ernakulam. The Mithradham renewable energy project is an extended wing of the Physics department and is functioning in collaboration with Cohenheim University, Germany. The department also collaborates with Dr. Thomas Thundath, a department alumnus and an internationally reputed scholar and Chairperson of Alberta University, Canada. With more than **20 patents** to his credit, he made use of the principle of cantilever in his first few discoveries. Dr. Georgekutty Joseph a member of the faculty is elected as Treasurer of IAPT, Kerala Regional Council.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

Research Papers published/communicated

1. Siby Mathew, K V Arun Kumar, C. Sudarsanakumar, V P N Nampoori , V Unnikrishnan, Local symmetry and Z-scan analysis of ZnSe/ Eu³⁺ doped sol-gel silica hosts, Canadian Journal of applied Physics 88(2010), Impact factor .864
2. P.R. Rejikumar, P.V. Jyothy, Siby Mathew, Vinoy Thomas, N.V. Unnikrishnan ,Effect of silver nanoparticles on the dielectric properties of holmium doped silica glass, Physica B 405 (2010) 1513, Impact factor 1.056
3. Siby Mathew, P.R. Rejikumar, Amrutha K. Adiyodi, P, V. Jyothy, N.V. Unnikrishnan, Structural and optical characterization of oxygenated CdTe/Sm³⁺ in sol-gel silica glasses, Materials Chemistry and Physics 112, (2008) 1061, Impact factor 2.015
4. Siby Mathew, P R Rejikumar , Jaimon Yahannan, K.T Mathew and N V Unnikrishnan, Microwave Studies on the Dielectric Properties of Sm³⁺ and Sm³⁺/CdTe Doped Sol-Gel Silica Glasses J.Alloys. Compo 462 (2008)456 Impact factor 2.135
5. Siby Mathew, P R Rejikumar, Xavier Joseph and N V Unnikrishnan, Optical Studies on Eu³⁺/ZnSe Nanocrystal in Silica Hosts, Opt. Mat. 29 (2007) 1689 Impact factor 1.728

6. Toney Fernandez, Gijo Jose, Siby Mathew, N V Unnikrishnan, A ew Sol- Gel Route to Titanosilicate Glasses for Integrated Optics Applications J.Sol-geI.Sci.Tech. 41 (2007) 163, Impact factor 1.393
7. G. Joseph, A. Santhosh Kumar, L. Iype, R. Rajesh, and G. Louis. DC conductivity studies in K₃Na(SeO₄)₂ single crystals, Cryst. Res. Techno. 44, No.7, 759 - 762 (2009)
8. A. Santhosh Kumar, G. Varughese, L. Iype, R. Rajesh, G. Joseph, and G. Louis, Electrical conductivity of sulfamic acid single crystals. Cryst. Res. Technology 1- 4 (2010)
9. Georgekutty Joseph, A. Santhosh Kumar, R. Rajesh, and G. Louis, Growth and dc conductivity studies of tripotassium sodium dichromate single crystal, Indian J. Phys. 84 (9) 1123-1128 (2010)
10. S. Kumar, L. Iype, R. Rajesh, G. Varughese, G. Joseph, and G. Louis, Electrical conductivity and dielectric properties of potassium sulfamate single crystals Cryst. Res. : 1 - 8 (2011)
11. Georgekutty Joseph, A. Santhosh Kumar, Rajesh R., Leesal Iype and Godfrey Louis Complex impedance and Frequency dependent conductivity studies of K₃Na(SeO₄)₂ single crystal, S.B.Academic Review, (2011).(ISSN NO.0973 -7464)
12. Georgekutty Joseph, A Santhosh Kumar, R Rajesh and Godfrey Louis, Growth and DC Conductivity studies of K₃Na(SO₄)₂ single crystal. Proceedings of the national seminar on Advances in Materials Science March 27 -28, pages 145 -146, (2006).
13. Bincy John, Jeethu Augustine Georgekutty Joseph, Dielectric properties of NiSeO₄.6H₂O single crystals, Proceedings of the DAE Solid State Physics Symposium, Vol 51, 963 (2006).
14. Bincy John, Jeethu Augustine Georgekutty Joseph, Growth and characterization of K₃Na(CrO₄)₂. Heartian Journal of Pure and Applied sciences, Vol.01, March,(2011).

12. Placement record of the past students and the contribution of the department to aid student placements.

The department joins hands with the college placement cell in preparing the students to attend interviews and campus selection procedures. 17 students from the department got placement through campus interviews during the last 5 years.

SL.NO	NAME	PLACEMENT AT
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1	ALDRENIE	INFOSYS
2	SIVARAJ	KGIS
3	JOSE FEJOY	KGIS, ASAIN PAINTS
4	SREEJITH	INFOSYS,KGIS, SOFTSRIBE
5	AJEESH	IMFOSYS
6	THANUSH	INFOSYS
7	DOLBY	INFOSYS, KGIS,
8	DEREK	WIPRO,INFOSYS, KGIS,
9	NEHA	INFOSYS
10	ANUSREE	ANUSREE
11	NEETHA	TCS
12	SHEBIN	WIPRO
13	GEETHU	WIPRO
14	ROOPA	INFOSYS, SOFT SCRIBE
15	PREJITHA	INFOSYS
16	MEGHA	INFOSYS
17	TOJO. M. CHACKO	SCIENTIF IC OFFICER- DAM JAMSHEDPUR

13. Plan of action of the department for the next five years.

- Strengthen the research, consultancy and publication of the department
- Plan to secure more major and minor research projects
- ICT enabled class room teaching will be extended to UG classes too
- Strengthen and extend outreach programme
- Remedial teaching to be extended to PG classes
- Career orientation classes to all Physics students in frontier areas.

Department of Sociology

The department of Sociology of the college is one of the earliest Sociology departments in South India. Established in 1964, the department celebrated its Silver Jubilee in 1989. The department in its glorious history of 47 years has even become instrumental in engendering a new institution of social sciences at Rajagiri.

1. Faculty profile – Adequacy and Competency of faculty

Profile of the faculty: The department comprises of three faculty members of whom, two are MPhil holders. Currently, one member of the faculty is doing PhD. **Mr. R K.Varghese**, Associate Professor, is the head of the department. He holds a number of responsible positions in the college and other professional organizations. He has been working as the Chairman of the Board of Examinations of M G University for the last three years. He is a life member of Indian Sociological Society and the Vice President of the Kerala Sociological Society, one of the leading associations of teachers and research scholars in Sociology in the state for the last many decades. Under his able leadership, the department successfully hosted the **35th All Kerala Sociological Conference** in the College in 2009. Apart from coordinating the activities of the department, he is in charge of the Social Action and Awareness Forum (SAAF), a voluntary organization of students for social commitment and social activism. The association conducted a notable study on the socio-psychological life of Moolampally evictees of the Vallarpadom Container Project, Kochi. The data collected are analysed and interpreted and the findings are submitted to Cochin Corporation authorities for appropriate action. Prof. Varghese also serves the college as the director of tutorial sessions and remedial programmes.

Prof. Benny Varghese, Associate Professor, is a member of Board of Studies of both UG and PG. He has participated actively in the formulation of the syllabi of Sociology for UG programme in the recently introduced CBCSS of the University. He is also appointed as one of the mentors of sociology students by MG University under ACQUIRE scholarship programme, a University venture to motivate the students to the world of social sciences. Under his leadership, the college organises several symposiums on relevant socio-economic issues every year. Prof. Benny Varghese, along with 20 students from the department, actively participated in the socio-economic survey that was conducted under the leadership of Dr P.E. Cherian of Economics department.

Mr. Sibi K.I., Assistant Professor is the NSS Programme Officer of the college. Under his effective leadership, the NSS unit organised a number of activities to develop social responsibility, social awareness and leadership quality of the students. Mr. Sibi is in-charge of the formulation of suitable themes for the tutorial session in the college. He was appointed as one of the mentors of sociology students by the MG University under ACQUIRE scholarship. Apart from this, he served as a Master trainer in the census programme of the Govt of India. (*Appendix vi*)

2. Student profile – Entry level competencies, socioeconomic status, language proficiency etc.

Student Profile: Of the 112 students of the department 65 are girls and 47 boys. Majority of the students belong to lower economic strata. About 10% of students belong to middle to upper income group. The students come from all religious segments. Most of students are from the neighboring places. Most of the students are not very proficient in English language communication. Their competency level is also very low. There are 14 hostlers, and the rest are day scholars. The newly introduced single window system of admission hopes to create an equitable opportunity for students from different parts of Kerala to join the department. The students of the department have secured several ranks in the University examinations in the last five years. Sociology students are very active in co-curricular activities and talent clubs of the college. Many of the students have represented the university and state in sports and cultural events. Sociology Association organizes rallies, demonstrations and competitions on socially relevant occasions like International Women's Day, AIDS Day, Human Rights Day and Environment Day etc. The department organizes discussions and debates on socially relevant issues under the forum '*Sargavedi*'; exposure programmes and visits to industries, hospitals, old age homes, tribal settlements etc. It is a matter of great pride to the department that eight students have been selected for the ACQUIRE scholarship

programme by the University. Shivani Prabhu was selected as the Best Student Leader of South India by D C Books. Abraham Jose was awarded the Best All Rounder Award from among 25 colleges in the state by Corporation Bank in 2010.

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The newly introduced Choice Based Credit and Semester System (CBCSS) provides the students more exposure to the subject. The department takes timely steps to make sure that students utilize the new openings. The faculty members have contributed actively to the preparation of new curriculum by their participation in syllabus preparation workshops organized by Boards of Studies. The department has taken special care to implement the new CBCS system according to its spirit and philosophy.

4. Trends in the success and drop-out rates of students during the past two years

Students from the department have secured several ranks in MG University examinations during the last 5 years. The percentage of pass of the students was also good. The dropout rate was quite negligible. The UG result of the department is available in figure 23.

5. Learning resources of the departments – library, computers, laboratories and other resources.

The department subscribes to journals on current sociological topics. Now the department has 5000 books to its credit. The department also has two computers with internet facility. Students are allowed to make use of internet facility during intervals and free hours.

6. Modern teaching methods practiced and use of ICT in teaching –learning

All the faculty members are trained in using computer, internet, LCD projector etc. students are also motivated to make use of these facilities available in the department and in the Computer Science department.

7. Participation of teachers in academic and personal counseling of students

The faculty members take special interest in giving guidance to students. Regarding academic counselling, the department focuses on both slow learners and fast learners. Slow learners are given special attention. Consultation with professional counsellor is arranged for those who require special attention. Students are also encouraged to attend different kinds of career orientation seminars campus interviews, life orientation programmes etc conducted in the college. They are given hands on training in surveys, survey analysis, and social services to equip them for future careers and studies.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

One of the faculty members is doing doctoral research in sociology. During the last five years, the faculty attended 3 refresher courses and one orientation course; 5 national seminars and 2 state level conferences. Students are also encouraged to attend seminars, workshops and lectures organized by various agencies. The department faculty and students regularly participate in the All Kerala Sociological Conference of the Kerala Sociological Society every year. The department hosted the 35th Annual National Conference of the Kerala Sociological Society in November 2008 which was attended by more than 400 delegates from various parts of the country. The department also organized an International Seminar on 1st November 2011 on the theme 'Ethics and Free Market in the Globalised World'.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

Prof. Benny Varghese has been selected as a member of the PG Board of Studies of MG University. The faculty members contributed substantially to the development of the newly implemented syllabi of CBCSS. Two faculty members from the department attended the workshop organized by the Board of studies and offered suggestions. Two faculty members are research guides under Annamalai University for MPhil Course.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

The department associates with other departments in the college in the conduct of several surveys and research studies. The socio-economic survey at Thevara locality is the most important among them. 20 students and one faculty member actively participated in the survey. The survey report has enabled the college to understand the socio-economic profile of the locality and to make creative suggestions to the local government agencies for improvement of the living conditions of the people. The department also associated with Moolampally Action Forum to understand the problems of the displaced population in forced eviction for Vallarpadam project. The department continually associates itself with the Kerala Sociological Society in conducting its annual conferences every year. In 2009 the department collaborated with *Janamaithri* policing programme of Kerala State to evaluate the strength and weakness of the programme.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

A Project on the socio-psychological impact of displacement at Moolampilli was completed in the department. A socio-economic survey of the inhabitants of Thevara locality was also done in association with the Department of Economics.

12. Placement record of the past students and the contribution of the department to aid student placements.

The department alumni occupy important positions in state, central government and NGOs. The department organized two career orientation programmes during the last year to direct the students to lucrative career opportunities.

13. Plan of action of the department for the next five years.

The students and members of the faculty have earnest commitment for the betterment of the students and the community around. Some of the future plans for the fulfillment of this aim are:

- Programmes to strengthen the link with voluntary organizations, action forums and welfare associations to provide wider exposure to students.
- To get major and minor research projects of the UGC to probe into the realities and issues of the society.
- To organize action programmes in the neighbouring fishermen and agricultural communities.
- To include recent methods and techniques in the teaching-learning process in class rooms.

Department of Zoology

The Department of Zoology, established in 1952 by the great visionary, Padma Bhushan Rev. Dr. Gabriel CMI, began with a BSc programme under Madras University. The MSc programme was launched under Kerala University in 1959. As a part of the Golden Jubilee celebrations of the college, the department initiated a one year PG diploma course in Aquaculture - a pioneering attempt of its kind in the state. In 1994, the department was recognized as a Research Centre by the Mahatma Gandhi University. In 2001, the department was selected under the FIST programme by the Department of Science and Technology (DST) New Delhi, for a special funding to enhance the teaching, learning and research facilities. In 2005, the department signed an MoU with the Centre of Cellular and Molecular Biology (CCMB), Hyderabad, for training faculty and students in the field.

The innovative teaching - learning methods adopted, splendid infrastructure, a magnificent zoology museum and animal house, library, advanced research in various frontier areas of science, large number of academic and research publications and a rich legacy of alumni are unique to this department. The department conducts seminars, workshops, trainings,

exhibitions, study tours and field trips in addition to the regular activities to ensure high academic quality.

Milestones:

- B Sc. Degree :1952
- M Sc. Degree :1959
- Centre of Advanced Research in Zoology:1994
- PG Diploma in Aquaculture :1994
- Golden Jubilee of the Department: 2001
- Selected under FIST programme : 2004
- Golden Jubilee of the P. G. course: 2009

Programmes offered: The department offers a UG programme in Zoology under the Choice Based Credit and Semester System (CBCSS) with **Nutrition, Community Health and Sanitation** as the elective subjects. Chemistry and Botany are taught as complementary subjects. Project work and field visit/study tour, visit to research institutes, group activity, etc form an integral part of the academic schedule. The students can choose a subject of their choice (Open Course - depending on the availability) in the fifth semester in other streams of study to make the spectrum of learning more varied. A two year PG programme comprising of four semesters is offered with **Environmental Science** as specialization. PhD programme in Zoology is also available in Arachnology, Neurobiology of Ageing, Marine Biotechnology.

1. Faculty profile – adequacy and competency of faculty

Profile of the Faculty: The faculty comprises of eight permanent teachers, of whom, two are on leave. The department has two supporting staff. Dr George Francis is engaged in academic activities abroad and Dr Philip Mathew is pursuing post-doctoral studies under the scheme of UGC Research Award. Among the eight faculty members seven have doctoral

degrees and the eighth has submitted his thesis for adjudication. All teachers have vast research experience and offer consultancy in various fields. (*Table 26*)

Name of the faculty	Area of Specialization
Dr. George Francis, M.Sc. Ph.D. Asst. Prof. (On leave)	Fish Nutrition
Dr. Samson Davis Padayatty, M.Sc. M.Phil. Ph.D Asso. Prof. (HOD)	Spider Taxonomy
Dr. P. A. Sebastian, M.Sc. Ph.D. Asso. Prof.	Arachnology
Mr. M.K. Raju, M.Sc. M.Phil. Asso. Prof.	Fishery Biology
Dr. Philip Mathew, M.Sc. Ph.D. Asso. Prof. (On leave)	Marine Biotechnology
Dr. John Joseph, M.Sc. Ph.D. Asso. Prof.	Developmental Biology
Dr. P. C. Sebastian, M.Sc. Ph.D. Asso. Prof.	Biotechnology
Dr. T. J. James, M.Sc. Ph.D. Asso. Prof.	Neurobiology of Ageing
Dr. Ani Kurian M.Sc., Ph.D (Guest faculty)	Microbiology
Ms. Lucy Rithu B. G. (Guest faculty)	Environmental Science

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

Student Profile: The sanctioned strength of the UG course is 48 and PG, 10. Both the courses are in great demand at the university and college level with the number of applicants often being more than three times the available seats. The intake comprises students from urban and rural areas and represents all strata of the society including a few from other states and Lakshadweep islands (*Table 27*). The students are mostly from middle and lower middle class families and are not very proficient in English language.

Table 27

Year	Course	STUDENT DETAILS							
		No. admitted			Rural	Urban	General	SC/ST	OBC
		Male	Female	Total					
2006 - 2007	B.Sc	9	34	43	74%	26%	25%	14%	61%
	M.Sc	1	9	10	40%	60%	60%	20%	20%

2007 - 2008	B.Sc.	8	32	40	68%	32%	24%	18%	58%
	M.Sc.	2	9	11	40%	60%	50%	20%	30%
2008 - 2009	B.Sc.	9	39	48	62%	38%	17%	14%	69%
	M.Sc.	0	9	9	44%	56%	22%	22%	56%
2009 – 2010	B.Sc.	8	37	45	71%	29%	24%	13%	63%
	M.Sc.	0	11	11	27%	73%	64%	27%	9%
2010 – 2011	B.Sc.	13	35	48	73%	27%	29%	19%	52%
	M.Sc.	3	7	10	30%	70%	50%	20%	30%

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

Curriculum Design and Development: Though the syllabus revision is done at the university level, members of the faculty are actively involved in its formulation and discussions at the college and university level. Dr. John Joseph and Dr. P. A. Sebastian are members of the Board of Studies of the UG and PG courses respectively. Dr. Philip Mathew has contributed to the curriculum development of a novel PG Diploma course on 'Heat Reduction Therapy' (a method in Alternative Medicine) and has been submitted to IGNOU, New Delhi, for final approval. The course, if sanctioned, would be conducted as an extension programme of the college.

As part of the newly introduced CBCSS at the UG level, the department has opted for an optional paper titled 'Nutrition, Community Health, and Sanitation' with the intention of making the students aware of the importance of nutrition and sanitation in building up a healthy society. The department also offers a paper, 'Human Genetics, Nutrition, Community Health, and Sanitation' to students of other streams. Two internal examinations are conducted in each semester to help students to enhance their academic grades. The department also organizes programmes to expose students to the advanced methodologies in science not included in the curriculum. In two-day hands on training programme, the PG students are familiarized with the advanced protocols in Biotechnology like 'DNA isolation and quantification', 'PCR amplification of DNA', 'DNA band analysis by Gel Electrophoresis' etc. The department also conducts sessions by external

experts to help PG students to prepare for the NET examination. Further, all undergraduate students are introduced to basic computer skills in association with the department of Computer Application.

4. Trends in the success and drop-out rates of students during the past two years

The UG and PG results of the department are available in figure 24&25. Students' dropout rate was practically zero during the last five years. Few seats become vacant due to the trend of pursuing professional courses during the second year of UG programme.

5. Learning resources of the departments – library, computers, laboratories and other resources.

Class rooms and laboratories: The department has five lecture halls and three well equipped laboratories. Each PG classroom is equipped with a computer terminal having 24 hour internet connection. There are 3 full-fledged research laboratories. A computer lab with eight computers having latest features provides facility for students to improve their computer skills.

Department Library: The department has to its credit a library with a collection of about 2500 books in the field of Zoology including the series of Fauna of British India, Hymen's volumes on Invertebrates, etc. Two computer terminals with 24 hour internet connection provide online access mainly to undergraduate students.

Instrumentation Room: The instrumentation room is equipped with the state-of-the-art equipment supporting the PG curriculum as well as research activities in the department. Some of them are Trinocular Microscope and Stereo Zoom Microscope with digital camera attachment, Stereo Microscope with Image Analyzer, UV Visible Spectrophotometer, PCR, Electrophoresis, Ultracentrifuge, Water Analyzer with Sensors, High Speed Centrifuge, Deep Freezer, etc.

Audio-visual hall: The department has an audio – visual hall with a seating capacity of fifty. A computer with online access, an LCD projector and two interactive boards, high definition LCD – TV, etc are the notable features of the facility.

Research labs: Three well-equipped research labs are available in the department where advanced research in the fields of Neurobiology of Ageing, Arachnology and Marine Biotechnology are currently underway. A number of students are pursuing their doctoral studies in these laboratories.

Animal house: The animal house of the department provides facility for rearing and conducting experiments on laboratory animals like albino rats.

Fr. Gabriel Zoology Museum: The Zoology museum with over 2000 specimens is another attraction. It is the largest and the most spectacular among the zoology museums maintained in colleges of Kerala. The museum was established in 1952 along with the beginning of the department. The specimens on display have been collected from various parts of India and abroad. Two rare exhibits are the full skeleton of a whale and an elephant. The exhibits also include stuffed specimens of Indian mammals like spotted deer, leopard, bear, Nilgiri Thar, etc. Australian mammals like kangaroo, platypus and echidna, South American animals armadillo, opossum, etc. collection of local and exotic fishes including African and Australian lung fishes, various reptiles and amphibians, etc add richness to the museum. The museum was named after Rev. Fr. Gabriel CML., the founder to honour him on the occasion of awarding Padma Bhushan to him by the nation. The museum attracts a large number of students and science enthusiasts to the college.

6. Modern teaching methods practiced and use of ICT in teaching –learning

Innovation in Teaching Methods: The teachers of the department use audio-visual aids and internet resources to enrich their class room teaching. Projects and seminars are part of the curriculum and two hours per week are set apart in the UG timetable for students to present

seminars. They are encouraged to present seminars with power point. About five UG students and one PG student are allotted to one teacher for project guidance. Team based project works in the pattern of *supervising teacher – PG student - UG students* are also undertaken according to the suitability of research topics whereby the postgraduate students get an opportunity to acquire leadership skills and to learn the methodology of guiding research projects. The newly introduced *group activity* in the lab curriculum also provides chance for team work. PG students are encouraged to utilize advanced facilities like Scanning Electron Microscope, Atomic absorption spectrophotometer, etc available in the nearby research institutions for their project work. Invited talks on frontier areas of science by experts are organized by the department to help update the knowledge of students.

7. Participation of teachers in academic and personal counseling of students

Teacher Involvement in Students' Progression: Each class is allotted to a teacher who will be in charge of its academic and disciplinary aspects. Practical sessions, internal assessment, open house, field trips, etc of every class is co-ordinated by the class teacher. Open house conducted in each semester facilitates parents to meet teachers and share ideas with them for the overall development of their children. Tutorial system provides opportunity to teachers to give personal attention to students. Remedial sessions are also arranged to needy students. The department has instituted a number of scholarships to encourage top ranking students in each class. Economically backward students are supported by educational aids provided by the college through PTA. The department also facilitates the students from reservation categories to get financial support from various agencies. The department promotes extracurricular talents of students through various means such as the wall magazine 'ACTA ZOOLOGIA' and the annually published manuscript magazine. The department manuscript magazines have won prizes on several occasions at the intercollegiate level. The annual 'ZOOFEEST' is an event to showcase the cultural aptitude of the students. Programmes to inculcate good values to students

also form an integral part of the department activities. 'FAST A MEAL AND FEAST A FRIEND' is such a programme wherein the students skip a day's meal and spend the money to support the inmates of a nearby destitute home. Wildlife week is celebrated every year with various programmes that impart the message of conservation of nature to students. Teachers take active role in organizing these activities.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

One of the faculty members, Prof. Samson Davis completed his doctoral research under the FIP scheme and was awarded PhD degree by the Mahatma Gandhi University. Prof. M.K. Raju also has completed his PhD work and the thesis has been submitted for adjudication. The members of the faculty attended a training programme organized by the college to enhance skills in ICT – enabled teaching. Most of the teachers utilized the facility offered by the college to acquire an individual laptop in order to improve class room teaching. The department in association with the Zoological Society of Kerala organized a one day intercollegiate workshop on revised BSc practical and was attended by 25 Zoology teachers from various colleges. (*Appendix XV*) The faculty attended various trainings and workshops related to their area of specialization.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

Prof. Samson Davis co- authored *Laboratory Workbook for BSc Zoology* published by the Zoological Society of Kerala. First of its kind in the University and based on the revised syllabus for BSc Zoology practical, it intends to make the practical sessions more systematic and meaningful and was well accepted by the academia. Dr. Philip Mathew prepared a study material series in Biology in four volumes for the Higher Secondary Classes. Many of the faculty offer consultancy service *on gratis* in the field of Arachnology, biotechnology,

histopathology histochemistry and in biodiversity to students and researchers of various institutes, colleges and schools. Members of the faculty were resource persons and gave talks in various colleges and professional bodies.

All the members of the department are involved in active research and contribute substantially to the development of the department. Five of the faculty members and five teachers from other colleges are registered research guides of Mahatma Gandhi University in the research centre of the department. Out of the 17 research scholars who were pursuing their research work under these guides, seven have been awarded PhD degree and one has submitted the thesis. Faculty members and research scholars participated and presented research findings in various national and international conferences during the last five years.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

Collaborative Activities: As part of the international year of biodiversity, an exhibition *biorhythm* was conducted in association with Botany, Aquaculture, and Physics departments. The department actively participated in the **INSPIRE** programme funded by the department of Science and Technology, New Delhi. The department also provided training in advanced biological techniques to the Plus Two students from various schools. The department also co-operates with *Janaparvam*, a village adoption programme initiated by the department of Economics of the college in 2006. The upper primary and high school students of Govt. High School, Mangai in Maradu Grama Panchayath, mostly belonging to the BPL category, were exposed to the facilities available in the Zoology labs and museum to support their studies.

Members of the faculty have research collaborations with various national and international research institutions and agencies. Dr. P. A. Sebastian has research links with the Zoological Survey of India, Kolkata, School of Life Sciences, University of Hyderabad, Kerala Agricultural University, Thrissur; etc.(Appendix X) He also has collaborative research on

‘Oonopid Spiders’ with Dr. Norman I. Platnick, Division of Invertebrate Zoology, American Museum of Natural History, New York. Dr. Philip Mathew has research collaboration with scientists of the Central Institute of Fisheries Technology (CIFT), Kochi, for his studies involving isolation of biopeptides from shrimp shell wastes. Dr Philip has also established links with Prof. Mark Searcy, School of Pharmacy, University of East Anglia, UK, to undertake the Common Wealth Academic Staff Fellowship 2012. Dr. P. C. Sebastian has research collaboration with National Institute of Immunology (NII), New Delhi, for his studies on the molecular biology of human Y-chromosome. Dr. T. J. James collaborates with Alzheimer’s and Related Society of India and Indian Academy of Neurosciences for extension activities.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

Research Activities - Thrust Areas

Neurobiology of Ageing: Established in 1995, this division is exploring the biochemical processes involved in ageing in brain. The studies veer around the effects of various environmental factors that enhance ageing and possible means like drugs, nutrients etc to attenuate the process. Recently, the centre has initiated studies on the possibilities of targeting enzymes that reduce and/or nullify the likely pathological changes that occur with ageing, using liposomes as carriers. The division has taken up research projects with financial aids from agencies like DST, UGC, KSCSTE, etc. (*Table 9-12*) The results obtained have been published in various national and international seminars. Two PhD’s have been awarded from the centre and Dr T. J. James leads the research activities.

Arachnology: The division of Arachnology was established in 1997 and is one of the leading centres in India engaged in research pertaining to spiders and related animals. The areas of research include taxonomy of spiders, potential of spiders as biocontrol agents, effect of

insecticides on spiders, ecology and ethology of spiders, etc. The division also launched a website on spiders: www.southindianspiders.org. The division has so far published more than 30 research papers in national and international journals. (*Appendix XI-XIII*) It also has identified over 400 species of spiders from Kerala including 35 species which are new to science. Over the years, the division has taken up research projects funded by various agencies such as ICAR, UGC, MoEF and KSCSTE. The division has so far produced four PhDs and is led by Dr P. A. Sebastian.

Marine Biotechnology: Set up in 2001, the centre for Marine Biotechnology is actively involved in advanced research in novel areas of Biotechnology. The division has completed a major research project with financial assistance from UGC, New Delhi. Techniques have been developed and standardized to separate proteins from shrimp waste, an important pollutant of the coastal waters of India, employing ecofriendly method of biofermentation in the presence of the bacterium *Lactobacillus*. The results obtained have been published in journals of international repute. Preliminary studies on the isolation and characterization of biopeptides from shrimp waste are currently underway. The division has produced one PhD and Dr. Philip Mathew is leading the research activities of the division.

Research Projects – Completed/ongoing: The faculty completed 6 research projects during last five years and there are 5 ongoing projects in the department now. (*Table 9-12*)

Research Publications:

Book - *Spiders of India*

The division of Arachnology brought out an interesting book that provides detailed information on the spiders of India. It contains descriptions on the natural history, bio-ecology and evolution of spiders. About three hundred species of spiders are described in this book along with detailed illustrations and colour photographs. Dr. P.A. Sebastian, Dr.

Samson Davis, Dr. John Joseph along with the research scholars, Dr. Sunil Jose K., Dr. Sudhikumar A. V., Dr. Mathew M.J., and Mr. E. Sunish were involved in its publication. The book jointly edited by Dr. P.A. Sebastian and Dr. K. V. Peter was published by University Press, Orient Blackswan, India.

Research articles published: The faculty published 36 research articles in various international/national journals and books during the last five years. (*Appendix XI-XIII*)

12. Placement record of the past students and the contribution of the department to aid student placements.

Placement Services: The department offers active co-operation in the programmes organized by the placement cell and the career guidance centre of the college and encourages students to make use of the various sessions to enhance their soft-skills. Two of the UG students have been placed in one of the leading nationalized banks and several PG students have been inducted into various educational institutions under various capacities during the last five years. Some of the PG students have been selected as research fellows in various research institutions such as CIFT, CMFRI etc. PG students are also trained and motivated to write NET exam and during the past five years four students cleared NET. Two of the PG students got placement as permanent faculty in colleges.

13. Plan of action of the department for the next five years.

- The Department proposes to begin a new PG course in Biotechnology and has already submitted the application to the University for Sanction.
- An interdisciplinary programme in the field of Environmental Science is being planned under the 'Obama – Singh' initiative by the UGC.
- The department also has a plan to intensify research activities in the coming years.

- Zoology museum is one of the unique properties of the department and the department plans to expand it with galleries of marine biodiversity and nature studies.

Department of Oriental Languages

The Department of Oriental Languages, a composite department consisting of Malayalam, Hindi, Sanskrit and French, was set up in 1944. Unlike the other departments, which have their UG and PG courses, the oriental languages department offers these languages as second languages and hence the activities coordinated by the department also varies. The motto of the department is “to promote language, literature, art and culture and to cultivate human values and social awareness among the student community and thus make them broadminded citizens of tomorrow.” The Oriental Languages department coordinates and assists almost all the cultural events of the college throughout the year and hence plays a key role in planning and implementing the college’s various cultural activities like: **Hridayanjali**: An orientation programme for the first year degree students that involves a multi-religious prayer session. It is organised with the help of literary club and is intended to convey religious and secular values to students. **Sargapatham**: A Literary Pentathlon, coordinated by the Speakers’ Forum. **Malayalam Week Celebrations**: Organised on the first week of November, it is coordinated by the literary club. The programmes include Malayalam quiz competition, *malayali manka* and *kerala sreeman* contest to emphasize the importance of the mother tongue, Malayalam. **Hridyasargasangamam** is a three day annual arts festival that is coordinated by the literary club and speaker’s forum. **Hindi Fortnight Celebration** is conducted on the first week of September with a quiz competition on Hindi language. It is meant to create awareness about the official language of India. **Film Appreciation Programme**: The purpose of the programme is to train students in reviewing films and to train them understand films as semiotic systems of communications.

The faculty of the Oriental Languages department also collaborates with the various clubs of the college such as literary club, AICUF and Youth Red Cross, Mind Matters, Dance club and Music club.

1. Faculty profile – adequacy and competency of faculty

Faculty profile: The department has 3 permanent and 3 guest faculty, of which one is a PhD.

One faculty is doing doctoral research. *Table 28.*

Prof. Kuriakose Alexander	MA Hindi	Associate professor
Prof. Mathew Jose	M A Sanskrit	Associate Professor
Ms Shoba Liza John	M A French	Assistant Professor
Mr. Joby Joseph	MA Malayalam	Assistant Professor
Dr. Sreekanth	PhD Hindi	Assistant Professor
Ms Prameela	MA, BEd Malayalam	Assistant Professor

The Oriental Languages faculty holds various positions within and outside the college. Prof. Kuriakose Alexander is the chairman of the Board of Studies. Prof. Mathew Jose is also a member of Board of Studies. The department faculty also acts as question paper setters for various universities. Prof. Shoba Liza John is a resource person of Alliance Francaise.

Student Support: The department offers remedial classes for students on a regular basis. It also offers counselling to students. The fast learners are encouraged to take classes for weaker ones. The department has 100% success in the university examinations. The Hindi department conducts Dakshin Bharathi Hindi pre-test examination for interested students and the French department offers training to students who wish to write the DELF examination conducted by the French Embassy and the Alliance Francaise. The department encourages students to develop their reading habit and introduces them to new authors and literary movements. The department organizes workshops and seminars to give the students an exposure to contemporary aspects of literature and to introduce them to various career opportunities.

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

Student Strength for BA, BSc & BCom Programmes 2011-12 (Table 29)

Classes(BA&B.Sc&B.com)	Malayalam	Hindi	Sanskrit	French
1 DC	174	176	8	120
11 DC	149	111	12	12

The Oriental Languages department doesn't have either graduate or postgraduate programme. They teach Oriental languages and French as Second languages. The majority of students are good in these languages. Their competency level is good at the entry point. They belong to different religious, cultural and economic backgrounds.

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The syllabus of the Second Languages also underwent a sea change with the introduction of CBCS system in M.G. University. The faculty of the department attended the course restructuring workshops organized by the university. Prof Kuriakose Alexander and Prof. Mathew Jose, who are members of the Board of Studies represented the college in these workshops and played active roles in formulating the syllabus of Hindi and Sanskrit for undergraduate programmes. The faculty of the department takes special care to implement this syllabus and CBCS system strictly in accordance with the vision of the university.

4. Trends in the success and drop-out rates of students during the past two years

The students of all second languages normally perform excellently in University exams. The Hindi students of the college regularly top the Hindi Pre-Test exam conducted by Dakshin Bharat Hindi Pracharar Sabha. The drop-out rate of Second Language studies depends on the drop-out rate of other subjects and it is quite negligible.

5. Learning resources of the departments – library, computers, laboratories and other resources.

The department has a department library comprising of around 300 books and CDs. The main library has a section for Oriental Languages. The department is also provided with computers - desktops and laptops – with Wi-Fi internet facility to make teaching-learning process effective.

6. Modern teaching methods practiced and use of ICT in teaching –learning

The department uses various innovative practices in teaching. The department uses games and music in teaching to make the sessions interesting. The department uses ICT in teaching and encourages the students to use technology in their learning. The students are often encouraged to submit their assignments online and to do research on various topics by using internet. Teachers make use of PPT to take classes. Prof. Mathew Jose also trains and arranges classes in film editing and preparation of brochures etc.

7. Participation of teachers in academic and personal counseling of students

The teachers of the department take special care in offering both academic and personal counselling to students. Students are given career and higher education awareness and are guided in their personal problems. They are directed to different channels for expert advice when it is required. Weak students in studies are offered special and remedial programmes. During the beginning and end of the programme, special personal orientation is given to students about their future course of action.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

One faculty member Shobha Liza John is doing PhD and another member, Dr. Sreekanth was awarded PhD in 2011.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

The department offers consultancy in translation in French, Hindi, Malayalam and Sanskrit.

However, it is generally offered without accepting any remuneration.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

The Department collaborates with other departments in the college to foster the collective life of the institution. The department also has close working relationship with Languages department of Cochin University of Science and Technology and Dakshin Bharat Hindi Prachar Sabha.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

The department is not a research centre and teaches languages at the graduate level as second language.

12. Placement record of the past students and the contribution of the department to aid student placements.

As the department does not have any students of its own, the faculty of the department offers help to the Campus placement cell headed by Dr. T. P. Thomas in organizing campus interviews and career orientation seminars.

13. Plan of action of the department for the next five years.

The department would like to begin two degree programmes during the next five years and has already submitted the proposal to University and Government. The courses are:

- BA French, Language and Literature
- BA Malayalam, Copy Editing (Vocational)
- Training to equip the students for certificate examinations like DELF.

- To organize a series of seminars and workshops with the assistance of UGC and other agencies
- To organize film appreciation courses of one-week duration.

Department of Physical Education

Physical education and sports is not only a supplement to academics but a significant component of holistic education, with tangible value-addition to the stakeholders' well being. The college cherishes a very proud tradition of sports and has alumni sportsmen of international reputation. The department has facilities for athletics, major games, indoor-activities, martial arts and health club. The health club is open to the public. In sports achievements, Sacred Heart College is one of the top rated colleges in the University and has received three times the coveted MANORAMA TROPHY for the best College in the state. The conduct of Fr. Bartholomew Memorial tournaments in Basket ball, Volleyball and Ball badminton with unbroken succession since 1945 is a testimonial to the sporting dedication of our college. The department's major focus include: PROFIT- Promote Fitness, an ambitious thrust area that revolutionizes the concept of body care under **SHAPE** – 'SACRED HEART ATALIER FOR PHYSICAL EDUCATION'. The development programmes are sponsored by well-wishers.

1. Faculty profile – adequacy and competency of faculty

The department has one permanent faculty and a Guest lecturer, qualified NIS volleyball coach. The health club administrator is a Black belt holder, former secretary of State Judo Association and international referee. **Prof. Raju K.A** is an Associate Professor and Head of the Department. He is the Secretary of 'SHAPE' Fitness Centre, Ex. Member of College

Co-operative Society, Executive Committee Member Staff Welfare Association and Coordinator, Sacred Heart College Alumni Association. **In district level** he serves as:- (1) President District Basketball Association, (2) Vice President Badminton Association, (3) Vice President Volleyball Association, (4) Member of the District Hockey, Tennis and Athletic Associations. **In University Level** he serves as:- 1) President Mahatma Gandhi University College Physical Education Teachers' Association, 2) Member Mahatma Gandhi University Sports Scholarship committee, 3) Joint Convener MG University Judo (M/W), Power lifting (Men/Women), 4) Selection Committee Member- Badminton, Table tennis, weight lifting, Body building, 5) University open course syllabus committee member, 6) Chairman, valuation of theory in physical education degree course 7) Additional examiner of open course. **In State Level** he is: 1) Vice President Kerala Judo Association 2000 onwards 2) Vice president Kurash Association 3) PSC Selection board member 4) Convener, All Kerala Tournament Basketball, Volleyball (M/W) ball badminton (Men). **Coaching & Fitness Management:** 1) Fitness Centre Management 2) Organizing Summer Camps for Children in Basketball, Yoga, Judo, Cricket 3) Consultancy for Exercises & Personal Fitness 4) Work station analyst for job hazards and MSD. **Infrastructure Development:** Fitness Centre, Laying Track field, Cricket Pitch, Football field, Volleyball, Basketball court. Prof. Raju provides technical assistance for the construction of play fields and courts.

Mr. Sandeep Sunny M.P.Ed, Diploma in Sports Coaching [Volleyball], is doing PhD (Guest lecturer in the Department since 2009).

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

The college does not have any graduate or postgraduate programme in Physical Education; however, it has students who secure admission in sports quota in all the courses. The college attracts and encourages good sports men and women through different kinds of scholarships and support systems. These students belong mostly to lower economic strata and are offered

free food. They are also from different socio-economic strata and are not proficient in English language communication.

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

With the introduction of CBCS system, the department has received an opportunity to offer a theory optional paper “Physical Health and Life Skill Education” to Vth Semester graduate students. The course is offered for one semester and has 5 weights. The course is taken by many students as their favourite optional. The department faculty Mr K.A. Raju played an important role in making this paper an optional for Vth Semester students.

4. Trends in the success and drop-out rates of students during the past two years

The success rate of physical education is very good with 90%. There is practically no drop-outs among physical education students in the college. Those students who have any kind of difficulty, particularly financial, are taken care of by the department and the college. The college teams won 52 University Championships, 35 Runners up, 28 third positions and one state championship other than private inter-collegiate basketball and volleyball tournaments. Men’s Judo team won the MG University and district overall championship 12 times in a row. The department organized 16 inter-collegiate university championships, 12 inter-district championships and 8 district level and 3 nationals in various games. During the past five years 96 students represented the University and state and 14 students represented India. In 2007-08, the M.G. University team that won the all India Inter University Badminton men’s Championship for the first time in the history, was composed entirely of players from SH college (*Figure 26*).

5. Learning resources of the departments – library, computers, laboratories and other resources.

The department has the following infrastructural facilities and training programmes:

Lake View Ground with 400mts grass track and 8 lanes, Cricket and football field, Cricket Nets, Fitness centre with modern fitness equipment, sauna and steam, flood-lit Basketball, Volleyball ball and Badminton court, handball court, Judo & Wrestling, Yoga Room [Matted], Weight lifting, Power lifting, Table Tennis, Kho Kho, Yachting Training, Motor Speed boat riding, Horse riding practice, Handball training centre for girls, First aid facilities for all departments, Staff Recreation centre, Established a health centre, Open course in Physical, health and life skills education, Horse riding and Yachting, Self defense Krow maga training

Mrs. Mercy Kuttan Academy for Athletics, Cricket Academy of Kerala Cricket Academy

The department also has a computer with 24 hour internet facility. It has a department library with 250 books for ready reference on physical education and allied subjects.

6. Modern teaching methods practiced and use of ICT in teaching –learning

The department makes use of power point and interactive board to handle classes. The lecture method is supplemented with seminar presentations, quiz programmes, surprise tests, question answer method etc. Experts on different subjects are also invited from outside to give greater exposure to students. The department focuses its attention on giving more practical oriented training to students.

7. Participation of teachers in academic and personal counseling of students

Student counselling is an important aspect of physical education department. Students with greater mental pressure are sent to the professional counsellor of the college. The academic counselling enables many students get placement even before completing their course. Remedial classes for the students on the specialized subjects of their study are arranged with the concerned departments.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

There is only one regular faculty in the department and he is doing part-time PhD in M.G. University. He has attended three national seminars and one regional seminar during the last two years.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

The department offers consultancy and technical support in laying track and field, playing fields and courts, training for the Physical Test of military services and police recruitment and training support for the election recruitments in paramilitary forces and police.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years

The department collaborates with 1) Mercy Kuttan Athletic Academy 2) Kerala Cricket Association (3) Kerala Water Sports Association for yachting training 4) Anjali Sports Trust for girls handball training 6) Be-fit group for fitness training 7) Rotary club for football coaching and kids football fest 8) Medical Trust Hospital Ernakulam for medical checkup and Sports medicine 9) Indo American Hospital for health checkup for students 10) Le Meridian Hotel group in physical hygiene and hospitality.

Extension Activities of the Department

1. B-Fit Health Club with Multi-gym and sauna and steam bath Facilities.
2. Walkers lane for public
3. Providing facilities and officials to conduct various tournaments and athletic championship
4. Track and field and playgrounds for hire.
5. Conduct summer camps for basketball, cricket, Judo, Yoga, Athletics, Football for children

6. Extend the available sports infrastructure facilities are opened to the public.
7. Physical Training Centre: Assistance for organizing school, district, state and university level tournaments.
8. Providing facilities and officials to conduct various tournaments.
9. Track and field, playgrounds, courts etc for hire.

(Appendix xx)

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years

Prof. K.A. Raju, the only regular member of the faculty is currently doing his Ph.D on the topic "Professionalism and Burnout among College Physical Education Teachers in Kerala.

12. Placement record of the past students and the contribution of the department to aid student placements.

The Department has placement cell that equip the students to meet the various challenges at the recruitment phase. During the past five years 21 students got placement in reputed firms.

1	Prasinji.P	Indian Air force
2	Alwin Francis	Food Corporation of India
3	Arun Raju	Kerala Police
4	Anas H	Indian Railways
5	Manjush Mohan	A G S Kerala
6	Sachin Baby	Kerala Government
7	Rynold Timothy	KSEB
8	Mohamed Shafeeque	Indian Air force
9	Dano	M.E.G Bangalore
10	Bipin joseph	M.E.G Bangalore
11	Jinse	M.E.G Bangalore
12	Saneesh	ASE Hyderabad
13	Ajeesh	K S E B
14	Jamshad U	K S E B
15	Adarsh Hari	Customs & Central excise
16	Leslie Xavier	Indian express sports reporter
17	Binu Raj	Syndicate Bank
18	Siju Kuriakose	South Indian Bank
19	Jithin Babu	Police
20.	Visal AJ	Police
21	Sujith MS	Police

13. Plan of action of the department for the next five years.

The department plans to establish the following facilities in the department during the next five years:

- Multipurpose Indoor Stadium
- Swimming Pool
- Academies for basketball and badminton
- Adventure sports facilities in the campus
- Aero modeling and flying club
- Indoor cricket practice facilities
- Indoor Rifle Shooting range
- Centre for excellence: Basketball, Volleyball, Athletics, Handball and Judo
- Physical Education degree level course.

Department of Aquaculture

The Department of Aquaculture, established during the Golden Jubilee year of the college, began with a PG diploma in Aquaculture. It was later converted to a four semester job oriented PG programme, MSc Aquaculture and Fish Processing (with two majors) in 2004. It is a self-financing course where students are given hands - on - training in the discipline. The course curricula is designed and implemented with the intention of creating employment opportunities for the youth, particularly the youth of the locality. Nearly 85 % of the students are placed at the end of the course through campus recruitment.

1. Faculty profile – adequacy and competency of faculty

Faculty: The department has some of the renowned experts in the field. The main faculty consists of 8 members and two of them have PhDs. (*Table 30*)

1	Dr. V.C. George MSc, PhD, ARS Director
2	Ms. K.R. Sangeetha, MSc (Aquaculture)
3	Mrs. Susmitha Saimon, MSc,BEd (Fisheries and Applied Life Science),
4	Mr. C.P. Binesh, MSc (Marine Biology)
5	Mr. H. Krishna Iyer, MA, MSc, Dipl. Fish Marketing (U.K), A.R.S.

6	Mr.K.K.Balachandran,MSc, Diploma in fish ProcessingTechnology (U.K), ARS
7	Mr. P.R.G. Varma MSc, Diploma in Fish Biology, ARS
8	Prof. Dr. K.J. Joseph MSc, PhD (Marine Biology)

Teacher Quality: Of the eight faculty members, four are guest faculty. The faculty of the department has had served many research institutions outside the college. Dr. V.C. George is the retired Head of Fishing Technology of CIFT (ICAR). He underwent training in Fisheries Technology under FAO fellowship and is a certificate holder in Research Methodology and Instrumentation of FAO. He is also trained in the management of research organization. He had served in the Research Advisory Committee of CMFRI-Cochin CIFRI-Kolkata, QRT of CIFRI and CIFT. He was a member of ICAR Research Panel on Fisheries and Member of Scientific Committee for FORV SAGAR SAMPADA of the Dept. of Ocean Development in Ministry of Earth Science. He is also an advisor to UPSC, New Delhi, and ASRB of ICAR, New Delhi, and Subject matter specialist and examiner of CUSAT.

Ms. K.R Sangeetha is a specialist in Aquaculture from Madras University. She is also the chairperson of the Pass Board for MSc examination of Mahatma Gandhi University. **Mrs. Susmitha Simon** is a specialist in Fisheries and Applied Life Science from Mahatma Gandhi University. She undertakes an extension activity which is related to ornamental fish culture in Mulavukadu Panchayat, Eranakulam. **Mr. C.P. Binesh** had his masters programme at CUSAT and is pursuing his research leading to PhD in Molecular Virology at CIBA, Chennai. **Mr. H. Krishna Iyer**, a double PG degree holder in Mathematics and Statistics from Kerala University, is a Diploma holder in Fish marketing of UK. He teaches at CUSAT, MG University and Institute of Chartered Accountants and Amritha Institute of Medical Sciences. He is a retired Head of Statistics Division of CIFT. **Mr. K.K. Balachandran** had his MSc from Kerala University. He was the Head of Fish Processing Division of CIFT and is trained in UK in Fish Processing Technology with reference to canning. He has authored

the book *Fish Processing Technology*. **Mr. P.R.G. Varma** was trained in Norway in Quality control and HACCP protocol. He is an accredited Bacteriologist and retired as the Head of Division of Quality Control in CIFT. **Dr. K.J. Joseph** is the retired Head and Professor of Marine Biology of CUSAT and is a specialist in Planktonology. All these faculty members are engaged in research and have research publications.

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

The annual student intake of the department is 20 with a marginal increase of 4. The students are from different parts of Kerala; however, a few of them are from Lakshadweep and Uttar Pradesh. As the basic qualification of the course is B.Sc. Botany/ Zoology/ Aquaculture/ Life Science, the students are given orientation programmes in the first semester itself with an overview on the prospects and avenues of opening regarding the course and its course contents. Periodical assessments, seminars and internal tests are part of the teaching programme. Most of the students come from lower middle class families and are not very proficient in English language.

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The syllabus of MSc Aquaculture programme was formulated in the department. The department takes special care to modify and reformulate the syllabus to incorporate new developments in the field. Seminars by industrialists and scientists from national institutes enable the department to carry out this process effectively and continuously. The students are given hands-on-training in all the fields relating to their study and specialization. Industrial visits, tie-ups with various national institutes, talks by eminent scholars in the field, on the job-training etc help students getting placements in good firms and organizations.

4. Trends in the success and drop-out rates of students during the past two years

Drop-out rate: Drop-out is almost nil except for a very few students who discontinue the course temporarily for some reason and join later for subsequent semesters. Nearly 85% get their placement at the end of the course itself in fish processing factories and establishments. The remaining opt for B Ed course, service sectors, self employment ventures or join Central Institutes and Universities as project assistant or research scholars. Getting a job is not a problem for the students of the department as there are several avenues open to them. Even those who join the food processing factories, on their passing of the European Union test, normally opt for Foreign Service either in Gulf countries or in Africa.

Success Rate: The UG and PG results of the department are available in figure 27

5. Learning resources of the departments – library, computers, laboratories and other resources.

The department has a multispecies ornamental fish hatchery, state- of-the-art Microbiology laboratory and bioassay system, Algal culture facility and a wet laboratory. The department has a library with 300 books and 755 journals. The library also subscribes to two journals. The department also has computer with internet facility.

6. Modern teaching methods practiced and use of ICT in teaching –learning

Apart from the classroom, laboratories and library, there is internet and computer facility. Students also use the library facilities of CUSAT, CIFT, CMFRI and NIO. The students have regular training programme with CIFT on identification of bacteria which cause public health hazards. Internship with various seafood factories for 2-3 weeks duration, fish breeding training at Rosen Fisheries, Marathakkara, Trissur, for one week during monsoon season are all meant to impart modern technology-oriented training to students.

7. Participation of teachers in academics and personal counseling of students

As the basic qualification of the course is BSc Botany/ Zoology/ Aquaculture/ Life Science, the students are given orientation programmes in the first semester itself with an overview

on the prospects, avenues of opening and its course contents. Periodical assessments, seminars and internal tests are part of the teaching programme. One novel aspect of this course is the exposure of the students to the latest trends in the subjects by seminars and interaction with scientists from national laboratories and industry. Apart from this, they are taken to different laboratories concerned with the subject like CIFT, CMFRI, FSI, NIO, CMLRE, NIHAPT and KAU. The internship in factory, specialized training in research institutes and fishing village make them competent enough to shoulder the responsibility in these areas of discipline with confidence. During the last five years the department conducted 20 lectures by invited experts from different institutes of repute. Moreover, 21 training programmes in various institutions and 5 skill development programmes and 7 field visits and tours were conducted during the last five years. Project work, which is an integral part of the course, is done with the help of organizations like CIFT, CMFRI and CUSAT. Students use the library facility of these organizations on a regular basis. Performance of the students in the university examinations is excellent.

Dr. V.C. George, the director of the course is a research consultant in many fields. The other members of the faculty also constantly update themselves in their specialization.

Students are properly guided by these faculty members as well as by external experts, who regularly visit the department.

Seminar by External Experts

Date	Name of Expert	Association	Subject
12.11.2008	Dr. T.V Shankar	Principal Scientist, CIFT	Biochemistry of fishes
09.10.2010	Mr.C.D Sebastian	Managing Director, Rosen Fisheries, Marathakkara.	Talk on and demonstration of fish breeding techniques under captive condition.
19.08.2010	Dr. Srinivas Gopal	Director, CIFT.	Post harvest technology of fish.
03.03.2011	Mr. M Baiju	Senior Naval Architect, CIFT	Recent trends in fishing boat construction in India.
22.03.2011	Dr. S. Saly N. Thomas	Senior Scientist, CIFT	Exploitation of the resources of the sea

08.06.2011	Dr. Leela Edwin	H.O.D, Fishing Technology, CIFT	Ocean management with special reference to fisheries
03.11.2011	Dr. Kripa	Principal Scientist and H.O.D, CMFRI, Cochin	Climate change and its impact on fisheries
30.11.2011	Dr. S. Sanjeevan	Principal Scientist, CIFT	Biological hazards in seafoods

Skill development programme

1. One day training programme was conducted in preparation of fish pickle for the benefit of the public on 29.09.2010
2. Community training on ornamental fish farming was given to fisher woman community of Mulavukadu Gramapanchayath block 2.
3. One day training program in tuna fish pickle program was conducted on 15.12.2011

Training to students as part of the curriculum

1. Six days annual programme on Identification of bacteria of public health significance at CIFT, Cochin.
2. 7 days annual programme on breeding of ornamental and commercial fishes at Rosen fisheries, Marathakkara, Thrissur
3. Annual programme of Factory Internship at Fish Processing Factories for 3 weeks.
 - a. Mangala Seafoods, Aroormukkam
 - b. Innovative Food Ltd. , Ezhupunna P.O., Cherthala, Alleppey
 - c. Abad Fisheries Pvt. Ltd., 1/168, Aroor P.O., Alleppey
 - d. Cherukattu Industries, Marine Division, Aroor-688534, Alleppey
 - e. Safa Enterprises, Bolding No. 424/4, P.O Azhikkodu Jetty, Kodungallur, 680666
 - f. Tory Haris, Eramallur, Alleppey-688537
 - g. Uni Royal Marine Exports Pvt. Ltd. Vengalam, Calicut
 - h. R.F Exports, Eramallur, Alleppey-688537
 - i. Abad Exports, Abad Building, Kochangadi, Kochi
 - j. Cochin Frozen Food Exports Pvt. Ltd., Adoor, Cherthala, Alleppey-688534

- k. Bhatsons Aquatic Products, A division of Mangala Marine, Exim India Pvt. Ltd., Industrial Area, Aroor, Cochin
- l. Baby Marine International, Thoppumpady
- m. Rosen Fisheries, Marathakkara, Thrissur
- n. Premier Marine Foods, Chandiroor
- o. NAS Fisheries, Edakochi

Visits and study tours

1. Annual visit to FORV SAGAR SAMPADA, Dept. of Ocean Development of Ministry of Earth Sciences
2. Annual visit to Govt. net making factories at Eranakulam
3. Annual visit to Fishery Survey of India at Kochangady, Cochin.
4. Annual socio-economic survey at fishing village.
5. Annual visit to fish farms and hatcheries.
6. Frequent visits to fish markets in and around Cochin for market survey.
7. Field Trip to Rosen Fisheries, Marathakkara, Thrissur.

Project work, which is an integral part of the course, is done with the help of organizations like CIFT, CMFRI and CUSAT. Students use the library facility of these organizations on a regular basis.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

- 1 Dr. N.S Sudheer, Mrs. K.R Sangeetha attended a seminar on wetlands, their values and function (2011).
- 2 Dr. V.C George, K.R Sangeetha, Arya, Gilna, Lakshmi Priya Attended 2 days national seminar on biosecurity in aquaculture (2011)
- 3 Dr. Prabhakaran attended an International seminar on Marine Ecosystem (2011).
- 4 Dr. Prabhakaran attended a National Seminar on application of biotechnology in aquaculture. AQUATEC-2009.
- 5 Dr. Prabhakaran attended a National Seminar on sustainable management of water resources in Kerala.
- 6 Dr. V.C George attended National seminar on India's environmental challenges (2010).
- 7 Mrs. Susmitha Simon, Ms. Hridya, Ms. Liji attended a Seminar on imitation and innovation in ecotoxicology (2011) at Marine Science Campus-CUSAT.
- 8 National Seminar on Sustainable management of water hyacinth in Kerala, Kochi.

- 9 National Seminar on Application of Biotechnology in Aquaculture – Aquatech, 2008, Cherthala.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

Dr. V.C. George is a consultant to ICAR, New Delhi for Tuna Fishing Vessel, under the NAIP project on Tuna Fisheries. He is an advisor to ASRB of ICAR, New Delhi, subject matters specialist (PhD Examination) to CUSAT and assessment of readers of CUSAT and Mangalore Agriculture University and University of Agricultural Sciences, Bangalore. Dr. George is a member of the committee for the design and construction of a research vessel for CMRI and fishing vessels for CMFRI. He has been appointed as a member of the jury to select candidates of SOFTI Award 2011-12. He is an official invitee on the committee for review of the mandate and functioning of CIFNET, Cochin, at the request of Dept. of Animal Husbandry, New Delhi. **Mrs. Susmitha** carries out her extension activities in association with Mulavukadu Panchayath. She guides and trains the local people in ornamental fish culture.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

Outreach Programme: Complying with the last NAAC peer team report, the staff and students of the department actively participated in the socio-economic and fisheries survey conducted by the departments of Economics and Sociology of the college. The department actively collaborated in the INSPIRE programme of DST and conducted the theory and practical training in the department.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

The faculty of the department made significant contributions in the field of aquaculture during the last five years in terms of their research and publications. The faculty have published 23 research articles in various books and journals.

Research papers

1. Suja, N., and Muthiah, 2007. Effect of salinity on the growth and survival of spats of clam, *Marcia opima* (Gmelin). *J. Mar. Biol. Assn. India*, 48 (2): 253-256.
2. Suja, N., and Muthiah, 2007. The reproductive Biology of the baby clam, *Marcia opima* from two geographically separated areas of India. *Aquaculture*, 273 (4): 700-710.
3. Suja, N., 2007. A study on the metabolism of baby clam, *Marcia opima*. *J. Mar. Biol. Assn. India*, 49 (1): 100-101.
4. Suja, N., and Muthiah, 2007. Allometric relationships of the clam *Marcia opima*, collected from two longitudinally separated areas. *Indian J. fish.*, 55 (3): 281-283.
5. Joseph, T., Shaiju, P., Laluraj, C.M., Balachandran, K.K., Nair, M., George, R. Nair, K.K.C., Sahayak, S. Prabhakaran, M.P., 2008. Nutrient environment of red tide- infested waters off south-west coast of India. *Environmental Monitoring and Assessment*, Vol. 143(1-3): 355-361.
6. Jyothibabu, R., Devi, C.R.A., Madhu, N.V., Sabu, P., Jayalakshmy, K.V., Jacob, J., Habeebrehman, H., Prabhakaran, M.P., Balasubramanian, T. and Nair, K.K.C., 2008. The response of microzooplankton (20-200 μ m) to coastal upwelling and summer stratification in the south-eastern Arabian Sea. *Continental Shelf Research*, Vol., 28: 653-67.
7. H. Habeebrehman, M.P. Prabhakaran, Josia Jacob, P. Sabu, K.J. Jayalakshmi, C.T. Achuthankutty and C. Revichandran, 2008. Variability in biological responses influenced by upwelling events in the Eastern Arabian Sea. *Journal of Marine Systems*, 74(1-2): 545-560.
8. Prabhakaran, M.P., Pillai, N.G.K. and Bijoy Nandan, S, (2008). Spatial and Temporal variations in seagrass biomass and shoot density in Minicoy Lagoon, Lakshadweep, India. Accepted in MECOS International Seminar, Kochi (to be held in February, 2009).
9. Prabhakaran, M.P., Pillai, N.G.K., Bijoy Nandan, S. and Abhilash, K.R., (2008). A first time analysis of the community structure of Ichthyofaunal community structure of Minicoy Atoll. (Accepted in *J. Mar. Biol. Assn. UK*).

10. Karuppasamy, P.K., Laluraj, C.M., Anil Kumar, K., Biju, A., Sheeba, P., Prabakaran, M.P., Priyaja, P., Sahayak, S., Rajalekshmi, S., Venugopal, P., C.Ravichandran and K.K.C.Nair., 2008. Myctophid and pelagic shrimp assemblages in the oxygen minimum zone of the Andaman Sea during the winter monsoon. *International Journal of Ocean and Oceanography* (Accepted).
11. Sudheer, N.S., Rosamma Philip., I.S. Brightsingh, 2011. In view of screening of mangrove plants for anti WSSV activity in *Penaeus monodon* and evaluation of *Ceriodaphnia dubia* as a potential source of antiviral. *Aquaculture*, 311 (1/4), 36-41.
12. Antony, S.P., Sing, I.S., Sudheer, N.S., Vinda, S., Priyaja, P., Philip, R. (2011). Molecular characterization of a crustin like antimicrobial peptide in the giant tiger shrimp *P. monodon* and its expression profile in response to various immunostimulants and challenge with WSSV. *Immunobiology*, 216 (1/2): 184
13. George Mathai, P., Vijayan, V., Varghese, M.D., and V.C George (2008). Development of Large meshed semipelagic trawl for the shelf and distant waters (Hindi version). Pragrahan and Samvardhan Matsyaki First edn. CIFT P.P. 11-16.
14. Ashadevi, C.R., Jyothibabu, R., Sabu, P., Josia Jacob., Habeeb Rehman., Prabhakaran, M.P., Jayalakshmi, K.J., and C.T Achuthan kutty. Seasonal variation and trophic ecology of microzooplankton in sotheastern Arabian Sea.
15. Prabhakaran, M.P., Pillai, N.G.K., Bijoy Nandan, S and Abhilash K.R. (2008). A first time analysis of the community structure of Ichthyofaunal community structure of Minioy Atoll. (Accepted, J. Mar. Bio. Assn. U.K).
16. Karuppasamy, P.K., Laluraj, C.M., Anil Kumar, K., Biju, A., Sheeba, P., Prabakaran, M.P., Priyaja, P., Sahayak, S., Rajalekshmi, S., Venugopal, P., C.Ravichandran and K.K.C.Nair., 2008. Myctophid and pelagic shrimp assemblages in the oxygen minimum zone of the Andaman Sea during the winter monsoon. *International Journal of Ocean and Oceanography*.
17. Joseph, T., Shaiju, P., Laluraj, C.M., Balachandran, K.K., Nair, George, R. Nair, K.K.C., Sahayak, S. Prabhakaran, M.P., 2008. Nutrient environment of red tide- infested waters off south-west coast of India. *Environmental Monitoring and Assessment*, Vol. 143(1-3): 355-361.
18. Jyothibabu, R., Devi, C.R.A., Madhu, N.V., Sabu, P., Jayalakshmy, K.V., Jacob, J., Habeebrehman, H., Prabhakaran, M.P., Balasubramanian, T. and Nair, K.K.C., 2008. The response of microzooplankton (20-200 μ m) to coastal upwelling and summer

- stratification in the southeastern Arabian Sea. *Continental Shelf Research*, Vol., 28: 653-67.
19. H. Habeebrehman, M.P. Prabhakaran, Josia Jacob, P. Sabu, K.J. Jayalakshmi, C.T. Achuthankutty and C. Revichandran, 2008. Variability in biological responses influenced by upwelling events in the Eastern Arabian Sea. *Journal of Marine Systems*, 74(1-2): 545-560.
 20. Prabhakaran, M.P., Pillai, N.G.K. and Bijoy Nandan, S, (2008). Spatial and Temporal variations in seagrass biomass and shoot density in Minicoy Lagoon, Lakshadweep, India. Submitted to MECOS International Seminar, Kochi.
 21. M.R. Boopendranath, V.C George, M. Sahul Hameed (2010). Energy efficiency in trawling operations. *J. Coast.env.* Vol 1. No. 1, P. 53-70
 22. M.R. Boopendranath, V.C George, M. Sahul Hameed (2009). Fish production and energy requirement during demersal and aimed mid water trawling by intermediate range freezer trawler. *Asian Fisheries Science*. 22, 415-428.
 23. K.K Balachandran (2009). Containers for thermal processed fish products. *Post-Harvest Technology of Freshwater Fish*. Eds. Jose Joseph, RavishankarSainudheen, Bindhu Mohan, C.O., George Ninan. CIFT publication. P.P. 146-152.

Popular Article

1. Suja, N., 2007. India moves up in Sirumi production. *INFOFISH International*, May/June (3): 32-36.
2. Suja, N., 2008. India International Aquashow – 2008. A world full of colours and enthusiasm. *Fishing Chimes*, April (2008): 102-110.

12. Placement record of the past students and the contribution of the department to aid student placements.

About 80% of the students from each batch are placed through campus interview and other channels.

13. Plan of action of the department for the next five years

- Upgrading MSc Aquaculture and Fish Processing course as an aided course since it has completed 7 years.
- New course in the field of Aquaculture and diversification of the existing course to meet the needs of the industry.

- Establishment of a commercial ornamental fish breeding unit and training facilities with the participation of the students.
- Twinning programme with foreign universities/laboratories for students/scientific manpower exchange.

Department of B Com Computer Applications

The Department of Commerce with BCom Computer Applications commenced in 2004.

The department offers a self-financing three year UG programme under choice based credit and semester system. This programme is approved by UGC and is recognized by MG University. The course provides an excellent base for those who intend to go for professional courses like MBA, ICWA, CA, CS and Law. Within a short span of time the department could impress the student community and the public as a centre of quality education.

1. Faculty profile – adequacy and competency of faculty

The department has five guest faculty members.

1. Prof.K.J. Jose MCom, MPhil (HoD)
2. Ms.Baby Simi MCom, BEd, PGDIM, DCFM
3. Mr.Ajish V. MCom, BEd
4. Ms.Priya Renjini S. MCom, PGDCA, TALLY
5. Ms. Jimsu P J. MCom

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

The admission process to the course is based on the marks secured by the students in Plus Two. There are 205 students in the department during the current academic year. Majority of the students are from financially sound families and have good language proficiency. They belong to different regions and caste denominations. Some of the students come from other states like UP, Rajasthan, Himachal Pradesh, Lakshadweep and Tamil Nadu. A few students are NRIs. There are no student dropouts.

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The Choice Based Credit and Semester System (CBCSS) introduced with the initiative of the University three years back is meticulously implemented for all the three batches of degree students. Assignments, seminars and internal evaluations are done with utmost care and seriousness. It enables the students to develop a serious work culture and research interest. The effective and time bound functioning of the department also helps the students to take part in co-curricular and other socially useful activities. Moreover, the CBCS system also gives students better opportunities to attend and present papers in workshops and seminars. The two-day workshop for setting of question papers for the UG programme in Mathematics in the CBCSS was held in the department on 13th & 14th August 2009.

4. Trends in the success and drop-out rates of students during the past two years

The results of the department are available in figure 28. There are no student drop-outs in the department (Table 32).

Student Strength	Sanctioned	Actual	Male	Female
I B.Com	60	71	36	35
II B.Com	60	64	34	30
III B.Com	60	70	33	37

The college and the department has also taken certain steps to check the drop out of students. It offers financial assistance to the needy students through PTA. The department provides remedial classes to weak students, slow learners and SC/ST students, and encourage fast learners to give tuitions to the slow learners.

5. Learning resources of the departments – library, computers, laboratories and other resources

The department library consists of more than 90 text books related to the subject and maintains more than 100 dissertations/projects for reference. Students also avail the facilities provided by the college library. The department has a laptop with internet facility. The students are free to access the college computer laboratory too.

6. Modern teaching methods practiced and use of ICT in teaching –learning

With the introduction of CBCSS, the teacher centred method of learning is replaced by student centred system. ICT enables teachers and students to present the subject matter with clarity and simplicity. The department makes use of PPT and interactive board to engage classes. Students are also encouraged to make use of computer for seminar presentation and assignment preparation. The lecture method is supplemented with seminars, group discussions, debates, test papers etc.

7. Participation of teachers in academic and personal counseling of students

The teachers make it a point to give special attention to each of the students in their academic and personal matters. They are given academic orientation during the initial stages of the course. The class teacher meets each student at least once in every semester. Weak students are offered remedial programmes and special classes. Those students who need professional psychological attention are often directed to the college counsellor. Monthly tutorial is an important occasion for students and teachers to have free interaction. Computer and internet facilities are provided in the laboratory, Seminar paper presentations and group discussions by students enhance the teaching-learning process. Two internal examinations are conducted in each semester. The parents are informed of the performance and progress of students. The performance of the students in the university examinations during the last five years has been very good.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

B Com computer Application is a self-financed course and therefore none of the faculty members of the course comes under the purview of regular faculty. So the faculty of the department could not avail the FIP of UGC during the past five years. However, the faculty updates themselves academically by participating in various seminars and workshops.

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

Some of the faculty members of the department offer their expertise to other institutions like IGNOU. Ms Baby Simi and Priya Ranjini S are faculty members of IGNOU, Kochi. Mr Ajeesh V. Nair offers consultancy services to Income Tax Department, Kochi.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years.

The department has informal collaborations with companies like Xexl, Digital Nirvana Information Systems Pvt. Ltd., Deloitte & Touche Assurance and Enterprises Risk Services India Pvt. Ltd.

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

The department does not have any ongoing project/publication.

12. Placement record of the past students and the contribution of the department to aid student placements.

On completion of the degree programme, the majority of the students join professional courses. Very few join PG programmes. Many students get placement through campus recruitment in reputed firms such as **Deloitte, Infosys, Sutherland, Federal Bank and South Indian Bank**. Hayna Francis, Reshma Maian Jose, Rini James, Bhavana Natesan, Deepika Sondal, Harish Mohanan, Nandini Balachandran, Riyas M.M., Sandhya Sharma and Harish Mohanan are some of the students who have secured placement through campus recruitment during the past two years.

13. Plan of action of the department for the next five years.

- To become a PG department when the proposed SH Institute of Science and Technology becomes a reality.
- To organize a few national seminars during the next five years.
- To organize soft skill development programmes for all the students of the college.

Department of Computer Science

The Department of Computer Science was established in 1991. The flagship programme of the department is the innovative BSc programme in Computer Applications that was started in 2001. It is a self-financing vocational degree programme for students who aspire for a career in IT. It was designed and approved by the UGC and recognized by M G University. This course offers triple main in Computer Science, Statistics and Mathematics. Apart from getting placed, the successful graduates gain eligibility to pursue academic programmes such as MCA, MSC Computer Science, MSC Statistics, MSC Mathematics or programmes for which graduation is the minimum eligibility. The department is provisionally accredited by DOEACC, Department Of Electronics, Government of India, for conducting 'O' Level course. The Department also conducts a PG Diploma in Computer Applications.

1. Faculty profile – adequacy and competency of faculty

Faculty Profile: The department is well known for its teaching and research innovations.

The faculty consists of seven members. (*Table 33*)

Ms. Regitha Baiju	PGDCA, MCA, A-Level, MPhil
Ms. Lakshmi Priya	MSC, MPhil
Ms. Prima Maxi	B Tech
Ms. Achamma Cherian	PGDCA, MCA
Ms. Jisha Soman	MCA
Ms. Bilu P Lalu	MSC
Ms. Tresa Shybelm	DCA, 'O' Level,

Teacher Quality: The department has adequate number of faculty (7 members), of whom, Ms. Regitha Baiju and Ms. Lakshmi Priya hold M Phil and Ms. Prima Maxi is doing M Tech and MBA integrated course. Ms. Regitha and Ms Prima take classes for the MCA programme of IGNOU. Ms. Regitha, Ms Prima, Ms Achamma and Ms.Jisha are additional examiners and practical examiners for BSc Computer Applications of MG University and IGNOU. Ms. Regitha, Ms. Prima and Ms. Jisha are also practical examiners for ‘O’ Level of DOEACC.

2. Student profile – entry level competencies, socioeconomic status, language proficiency etc.

During the current academic year there are 105 students in the department. 50% of the seats are filled from merit and 50% from management quota. Some from Lakshadweep also join the course. Majority of the students belong to middle class and lower-middle class. The student strength of each batch is 36. Most of the students hail from Kerala; however, there is a fair sprinkling of students from other states also. The department has quite a few NRI students too. The majority of students are proficient in English language.

Student Strength for the BSc Programmes 2011-12 (Table 34)

Class	Sanctioned	Alloted	Male	Female
1 DC	35	35	12	23
2 DC	37	37	13	24
3 DC	31	31	13	18

3. Changes made in the course or programmes during the past two years and the contribution of the faculty to those changes.

The BSc computer science had been in system since its inception. However, the syllabus was restructured recently in conformity with the newly introduced CBCS system. The faculty of

the department played an active role in the restructuring of the BSc syllabus. One of the faculty members after detailed planning and discussion at the college level represented the department in the meeting of syllabus restructuring organized by MG University in 2009.

4. Trends in the success and drop-out rates of students during the past two years

The results of the department are available in figure 29. The pass percentage of BSc Computer Application course is between 85 and 100. The pass percentage in 2011 was 94.8. There are no real drop outs in the department. However, some students discontinue the programme when they get admission for professional programmes.

Year	Number of Drop Outs
2006-07	0
2007-08	1
2008-09	0
2009-10	1
2010-11	1

5. Learning resources of the departments – library, computers, laboratories and other resources.

The department has three class rooms. It has a full-fledged computer lab with 60 computers with head phones and 65 revolving chairs and five air conditioners. Student-computer ratio is 1:1. All computers are connected in LAN with internet facility. Students can access internet in limited manner. Some classes are taken using LCD projector and white boards.

The BSc computer applications practical exam, MCA and BCA practical exam of IGNOU and TOEFL online exam are conducted in the department computer lab. Digital Library server, Linux server and Language lab server are situated in the department lab. The department has one lap top, one switch of LAN, one modem, one UPS, one scanner, one laser printer, one inverter, one display screen, one land phone, intercom facility and one notice board. The department has a library room with 380 books. Book details are kept in a

database. Each book has a unique number. Books are classified and kept in the corresponding rack. The transactions of books are recorded in the register. Due books are returned with fine of 50 paisa/day after 15 days of issue.

The BSc students undertake a project work as part of their syllabus to increase their chance of getting jobs in IT sectors as programmers. The class teachers regularly give tutorial classes, counselling sessions and value education classes. The department also gives project guidance to IGNOU students. Personality development programme, career guidance classes and higher education classes are conducted in the department with the help of NIIT.

6. Modern teaching methods practiced and use of ICT in teaching –learning

The department takes classes with PPT using LCD projector. Students take classes for school students using PPT. Students are allowed to access internet in a limited manner. Students access department library books and all transactions are recorded in the register. Industrial visit is conducted for students. Minimum three lab hours per week are provided. Students are prepared for conducting computer quiz, coding and debugging. The department also conducts class tests, surprise tests and mid-term exams and the marks are recorded in the register. Open house is normally conducted at the end of each semester and the report on the performance of the students is communicated to parents. The students are given assignments, seminars/viva-voce and grades are recorded in the register.

7. Participation of teachers in academic and personal counseling of students

The department offers academic and personal counselling to students regularly. Remedial classes and tutorial sessions are introduced to support the weak students. Class-teachers and tutorial guides try to track the needy and the economically challenged and see that their needs are met and some regular assistance is made available. Career orientation as well as academic orientation is given to each and every student of the department. The department also takes special interest in motivating the students to participate in sports, games and arts festivals.

Students have secured prizes in inter- collegiate wrestling competition, inter-collegiate dance competition, debate competition etc. One student secured 3rd rank in the typing test which was conducted by Postal Dept.of India. Students who are in need of professional counselling are also directed to the college counsellor.

8. Details of faculty development programmes and teachers who have been benefited during the past two years

As the department is a self-financed one, no faculty could avail FIP during the last two years. . However, the faculty pursues PhD and other programmes on their own. Ms. Lakshmi Priya has registered for PhD in Quality Control Techniques. Ms. Regitha Baiju has also applied for Ph.D admission. She successfully defended her doctoral dissertation in ‘Artificial Intelligence Past, Present and Future’ recently. She presented a paper “Thread Synchronization in Java”. Prima Maxi has submitted her I EEE PROJECT on the “Impact of the ACK drop anomaly on TCP through put in Anomalous Loss Performance for TCP Traffic in Routers with Very Small Buffers.”

9. Participation/contribution of teachers to the academic activities including teaching, consultancy and research.

The department conducted a one year project of ICT training for AEES (Atomic Energy Education Society) school teachers of all India in collaboration with IGNOU in 2007. The department faculty trained around 1600 teachers under this project. Training programme in MS-Office for non-teaching staff under the scheme of General Informatics sponsored by Kerala Higher Education Council was conducted in the Computer Lab in November 2010. Mr. Sebastian Panakkal offered theoretical training and the department faculty handled the practical sessions of the programme.

10. Collaboration with other departments/ institutions at the State, National, and International levels, and their outcome during the past two years

The department collaborates with other departments of the college in developing various softwares for meeting the in-house requirements like grading, library automation, office management, teacher evaluation, website upgradation etc. The department also collaborates with Amrita Institute and NIIT, Kochi. During the past five years, the department collaborated with the following institutes.

No	Year	Collaboration	Talks/Seminars
1	2009-2010	CAD Centre	Talk
2	2009-2010	STC Technologies	Seminar
3	2009-2010	RR Careers	Orientation
4	2009-2010	APTECH Computer Centre	Seminar
5	2009-2010	LCC Computer Centre	Talk
6	2009-2010	NIIT	2 Seminars
7	2010-2011	Ideaon Pvt Ltd	Seminar
8	2010-2011	NIIT, Kochi	Orientation
9	2010-2011	APTECH	3 Seminars
10	2010-2011	Ayruz Web Holdings, Kochi	Workshop
11	2010-2011	CAD Centre	Orientation

11. Priority areas for Research and details of the ongoing projects, important and noteworthy publications of the faculty, during past two years.

Ms. Achamma Cherian developed '**CBCSS Grading System Software**' in 2009. Using this software, internal marks are prepared and printed and forwarded to the university. This software is used in all the departments of the college. Ms. Regitha Baiju developed **Library Automation System Software** for Francis Sales library of the college in 2010. Using this software, the transactions of issue and return of books are recorded and dues list and other relevant reports are prepared in the main library. Ms. Regitha also developed the **Faculty Evaluation System Software** in 2011. This software is used to prepare the evaluation of individual teachers and departments by the students. Many students can enter the marks in different machines at the same time. The Principal can directly access the student evaluation of departments and teachers using this software. Ms. Lakshmi Priya has registered for PhD in quality control techniques. Ms. Regitha Baiju is awaiting PhD registration. She has

defended her doctoral synopsis 'Artificial Intelligence, Past, Present and Future' successfully.

12. Placement record of the past students and the contribution of the department to aid student placements.

Most students after their degree join for higher studies like MCA, MBA, MSc Computer Science, MSc IT, MSc Statistics and MSc Mathematics. Every year, 35% to 40% of the students get selection in reputed companies like Wipro, Infosys, IBM, TCS, ACCENTURE and COGNIZANT. In 2011, 12 students got placements in various companies and 3 in South Indian Bank. (Table 35)

No	Period	No. of recruitments
1	2006-2007	9
2	2007-2008	5
3	2008-2009	8
4	2009-2010	7
5	2010-2011	11

13. Plan of action of the department for the next five years.

- To become an economically self-sufficient department.
- To begin Masters programme in Computer Applications.
- To start job-oriented add-on courses, MS Excel, Graphics and Web Designing.
- To give opportunities for students to earn money while learning.
- To extend the online-tuition provided by Amrita University to all students.
- To provide computer literacy to all first year UG students.
- To conduct computer awareness programme for school students from rural area.
- To give consultancy service in training for the creation of e-content of subjects in other departments
- To be strengthen the alumni of the department.

D: Declaration by the Head of the Institution

I certify that the data included in this Self - Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the Peer team visit.

Thevara

Signature of the Head of the Institution

10.02.2012

Seal