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XAVIER BOARD OF HIGHER EDUCATION IN INDIA

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ACADEMIC AUDIT REPORT OF THE

DEPARTMENT OF PHYSICS

SACRED HEART COLLEGE (AUTONOMOUS), THEVARA, KOCHI

The Academic Audit of SACRED HEART COLLEGE (AUTONOMOUS), THEVARA, KOCHI was conducted from 19th to 21st December, 2018. The team comprised:

- **Dr. Sr. Annamma Philip**, FMM, Secretary General, Xavier Board of Higher Education in India, (XBHEI), Bangalore & former Principal, Stella Maris College (Autonomous), Chennai,
- **Dr. Fr. Joseph Xavier SJ**, former Principal, Loyola College (Autonomous), Chennai and former President, XBHEI,
- **Dr. D. Jeevan Kumar**, former Prof. of Political Science, University of Bangalore and currently Hon. Professor at Karnataka State Rural Development and Panchayat Raj University, Gadag, Karnataka
- **Dr. Ms. Ordetta Mendoza**, Member, XBHEI and former Head, Dept. of Bioinformatics, Stella Maris College (Autonomous), Chennai, and Co-ordinator, Xavier Board-Administrative & Academic Audit (XB-AA Audit).

Prior to the visit, the department completed and submitted the Audit Manual developed and deployed by Xavier Board of Higher Education in India.

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Secretary General, XBHEI

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Dr. D. Jeevan Kumar

Dr. Ms. Ordetta Mendoza
Co-ordinator, XB-AA Audit



Dr. Sr. Annamma Philip, FMM, visited the Department of Physics on 19th December 2018 and interacted with the Head of Department and faculty. Earlier, Mr. V. M. George, the HoD made a presentation to all the team members followed by an interaction. A verification of the relevant documents and visit to the laboratories and facilities of the department was carried out by Dr. Sr. Annamma Philip, FMM.

About the Department:

The department of Physics was started in 1954 and offered an Undergraduate programme until 1995 when it also began offering the Post Graduate Programme in Physics. From 1998 the department has been offering research leading to Ph.D. and in 2016 it started offering M.Phil programme.

The Vision of the department is to form an enlightened group of wisdom seekers in Physics founded on relentless pursuit of excellence, a secular outlook and a thirst for moral values.

The Mission is to provide an academic environment that facilitates holistic development of the individual with special emphasis on Physics as a discipline, enabling the students to play a vital role in nation building and contribute to the progress of humanity through the knowledge and skill that they have acquired. The mission of the department is also to inculcate in students a thirst for advancement of Physics and cultivate a concern for nature, environment and the society.

Commendations:

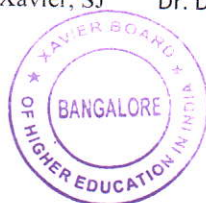
- The curriculum of the department is in keeping with the vision and mission of the college and has relevance to the local, national and global needs.
- The department has incorporated various courses and activities that integrate cross cutting issues relevant to gender, environment and sustainability, human values and professional ethics into the curriculum
- The demand for the UG programme is good with an average demand ratio of 50:1 and 20:1 for the PG programme.
- Faculty members, except one, are adequately qualified with 5 of them having Ph.D. degree.

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- All faculty prepare a teaching plan which is given to students at the beginning of the semester.
- Lectures are often accompanied by demonstrations using physical models, ICT, group discussions, seminars, and laboratory.
- Learner-centric methods (experiential, participative and problem solving methods) such as assignments, hands-on learning in the laboratory, seminars, field trips and study tours are employed by the faculty to enhance the teaching-learning.
- Teacher: student ratio is approximately 1:21 for the UG programme and 1:2 for the PG level.
- There is a good mentoring programme in place, where the mentor spends approximately 3 hrs. per mentee in a semester. The mentor to mentee ratio being 1:20.
- ✓ Establishment of a new SPACE RESEARCH LABORATORY in collaboration with ISRO worth rupees 30 lakhs.
new Lab not

Recommendations:

- The department has to elucidate programme outcomes, programme specific outcomes and course outcomes. The same to be uploaded on the college website.
- ✓ The department may offer value – added courses and add – on courses for imparting transferable and life skills.
- ✓ Insufficient number of faculty in the department.
- ✓ Advanced and slow learners maybe given more attention as advanced learners only interact with faculty to decide on career options while slow learners are given remedial coaching only in the final year.
- ✓ More workshops / seminars and guest lectures maybe organized regularly for the students in order to give them opportunities to interact with experts.
- More faculty members to register as research guides.
- ✓ Research funding, collaborations with other institutions and consultancy maybe increased.
- ✓ Given the fact that there are more female students, women faculty need to be recruited.
- ✓ Being a research department the number of faculty publishing research papers is low.



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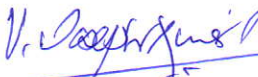
- ICT infrastructure in the department maybe increased.
- The department may make efforts to attract students from across the country.
- Currently standing at 90%, the department may take extra care to increase the pass percentage in both UG and PG programmes.
- Students of this department may be encouraged to take courses offered by other departments.
- ✓• Books and journals held in the Central Library pertaining to the subject are abysmally low.
The department may subscribe to more national / international journals.
- ✓• Department needs adequate number of support staff.
- ✓• Number of students passing NET /SET /GATE in the last three years is very low.
- ✓• Dire need to increase the extension activities of the department.
- ✓• Information provided in the manual should be correct. Typographical errors to be avoided.
- ✓• More student enrichment programmes may be conducted each year.
- Teachers from other states may be recruited if possible.

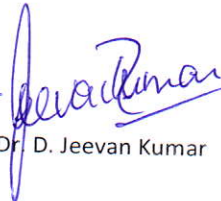
Date: 12/02/2019


Place: Bangalore




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