

Department of Chemistry Organizes

22nd PROF. K.V. THOMAS ENDOWMENT FACULTY TRAINING WORKSHOP



in

Computational Quantum Chemistry for Post Graduate Chemistry Courses in Indian Universities



13th and 14th October 2023



9.30 AM - 4.30 PM



Chavara IT Centre, Sacred Heart College Thevara, Kochi

Key Features of the workshop

- > Exclusive Hands on Training using Free Softwares with Graphical User Interface and PC's/Laptops.
- > Teachers, Research Scholars and Students from any chemistry background can attend.
- > Essential Theory Coverage using simple approaches.
- > The admission to the workshop is limited to 50 no's and will be on the basis of "first come, first serve"



Rev. Dr. Jose John CMI Principal Dr. Franklin J Head Of the Department

Dr. Abi T G Convenor

Workshop Details

Modules Covered & Schedule

Day1: 13th October 2023

9.30 AM – Inauguration

FN-Theory Sessions :10. AM – 1 PM

- 1.Introduction to Computational Quantum Chemistry
- 2. Hartree Fock Theory & Basis Sets in Computational Calculations
- 3. Introduction to Density Functional Theory

AN-Practical Sessions: 2 to 4.30 PM

- 1. Chemical Structure Coordinates-Z Matrix
- 2. Quantum Chemistry Calculations using GAMESS-Firefly

Day2: 14th October 2023

FN- Practical Sessions: 9.30. AM - 1 PM

- 1. Calculations of fundamental constants in Organic Chemistry
- 2. Molecular Orbital Calculations

AN-Practical Sessions: 2 to 4.30 PM

- 1. Thermodynamic Calculations
- 2. Reaction Mechanism Studies

Relevance of the Workshop

Computational chemistry course is implemented to the MSc Chemistry syllabus as a credit course of major universities in India especially in Kerala for the last 15 years. Though computational chemistry is accessible to higher level researchers, the essential theory and the practical skills in the area are not properly conveyed to post graduate students and college teachers of chemistry in India. Since this is not a traditional course like other core courses in physical chemistry, it is necessary to provide adequate training for the teachers and the students who have interest in computational techniques. To address the issue we organizes a two-day Hands on Faculty Training Workshop for selected and restricted number of participants on the topic "Computational Quantum Chemistry"

Resource Persons



Dr. Jayasree E G,
Professor,
Dept. of Applied Chemistry,
Cochin University of Science
And Technology

Dr. Jayasree E. G. did her Ph.D. in computational chemistry from Central University of Hyderabad. She did her post doctoral research in University of California, Berkeley and worked in National Science Foundation (NSF) funded project. She also worked in Trinity University, San Antonio, Texas and was involved in Welch funded research project. She was a faculty in University of Kerala during 2012-2022.



Dr. Abi T G
Assistant Professor
Dept. of Chemistry
Sacred Heart College, Thevara

Dr. Abi T G. did his Ph.D. in computational chemistry from IIT Kharagpur. He conducted several training workshops in Computational Chemistry including Science Academics Lecture Workshop in Computational Quantum Chemistry organized by Indian Academy of Sciences in 2017 at SH College Thevara. He is also the coordinator of UGC approved certificate course in computer aided drug design.



Registration Details:

Pay the fee & Register Using the link given below

https://forms.gle/Mcfn1tPrpvqjA8287

The registration fee Rs 1000 should be remitted to

The Principal, Sacred Heart College. Bank Account No: 17530100001012, IFSC code: FDRL0001753,

Bank Name and Branch: Federal Bank, Thevara Branch

Organizing Committee

Prof. K V Thomas (Former HOD Chemistry & Union Minister)

Fr. Dr. Varghese Kachappilly CMI, Manager

Fr. Dr. Jose John CMI, Principal

Fr. Dr Joseph Varghese CMI, Vice Principal

Dr. Franklin John (Head of the Department)

Dr. Jinu George

Dr. Grace Thomas

Dr. Ignatious Abraham

Dr. Midhun Dominic C D

Mr. Senju Devassykutty

Dr. June Cyriac

Dr. Ramakrishnan S

Dr. Abi T G (Convenor)

Dr. Ammu Rosin Jose

Dr. Deepak D Prabhu

Dr. Jaison M J

Dr. Thomasukutty Jose

Dr. Shalumon K T

All correspondence shall be addressed to:

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