

## ADVISORY COMMITTEE MEMBERS

### Dr.R.RAMESH BABU

Head & Associate Professor of Physics  
Bharathidasan University, Trichy-24.

### Dr.J.MADHAVAN

Head & Associate Professor  
Department of Physics, Loyola College, Chennai-34.

### Dr.K.S.JOSEPH WILSON

Associate Professor of Physics  
Arulanandar College, Karumathur-625514.

## INVITED SPEAKERS

### ■ DR. R. RAMESH

Assistant Professor, Dept. of Physics,  
Periyar University  
Salem, Tamilnadu

### ■ DR. CHANDKIRAM GAUTAM

Associate Professor,  
Department of Physics  
University of Lucknow

### ■ DR. KAVIYARASU KASINATHAN

Senior Researcher -  
UNESCO - Unisa Africa Chair in  
Nanoscience & Nanotechnology  
City of Johannesburg, Gauteng,  
South Africa.

### ■ DR. EDWARD PRABU AMALADASS

Assistant Professor, HBNI,  
Scientific Officer, MSG IGCAR,  
Kalpakam.

### ■ DR. M. VICTOR ANTONY RAJ

Assistant Professor, Dept. of Physics  
Loyola College, Chennai

### ■ DR. ARISTATIL GANESAN

Scientist, Atral Innovations Pvt Ltd  
Chennai

## REGISTRATION FEE

Participation : **Rs. 400/-**  
Presentation : **Rs. 700/-**

## BANK DETAILS FOR FEE PAYMENT

Name : HOD, Department of Physics  
Account Number : **33679624762**  
Branch : **St. Xavier's College (Autonomous),  
Palayamkottai-2.**  
IFSC Code : **SBIN0010482**



## PATRONS

Rev. Fr. Dr. S. Ignacimuthu, S.J., Rector  
Rev. Fr. Dr. G. Pushparaj, S.J. Secretary  
Rev. Fr. Dr. Godwin Rufus, S.J., Principal

## CONVENER

Dr.B.Helina  
HOD

## CO-CONVENER

Dr.L.Arun Jose  
Coordinator, S- II

## FOR DETAILS CONTACT ORGANISING SECRETARIES

Dr.D.Prem Anand  
Associate Professor  
(+91 9994292586)

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Assistant Professor  
(+91 6381134316)

## ORGANISING COMMITTEE MEMBERS

Dr.V.Sivashankar

Dr.G.David Rathinavelu

Dr.S.G.Rejith

Dr.R.Mary Jenila

Mr.R.Christhu Raja

Dr.D.E.Jain Ruth

Dr.S.Aron Rabi

Dr.L.Antony Selvam

Dr. M. Sheela Udhaya Roselin

Ms. M. Josephine Gladiya

Assistant Professor

Assistant Professor

Assistant Professor

Assistant Professor

Assistant Professor

Assistant Professor

Assistant Professor

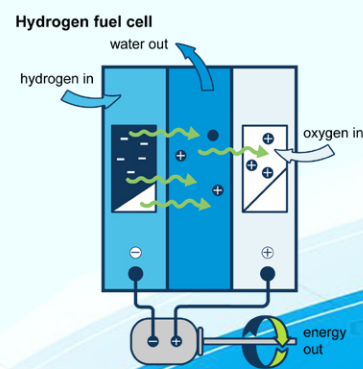
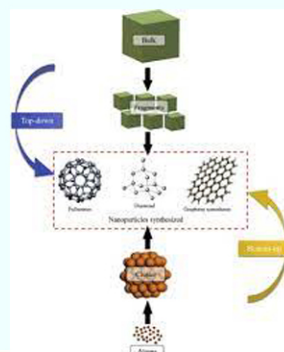
Assistant Professor

Assistant Professor

Assistant Professor

## REGISTRATION LINK

<https://forms.gle/6gj3vQUwwssLiZtv6>



# INTERNATIONAL CONFERENCE CUM WORKSHOP ON

The Techniques of Nanomaterials  
Characterisation, Hydrogen Energy  
and Fuel Cells.

18<sup>th</sup> & 19<sup>th</sup> February 2025

ICWNF 2025

Funded by  
TNSCST, Precision Equipments and SXC



Since 1923

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DEPARTMENT OF PHYSICS  
ST. XAVIER'S COLLEGE  
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PALAYAMKOTTAI - 627 002

TAMIL NADU, INDIA

Website: [www.stxavierstn.edu.in](http://www.stxavierstn.edu.in)



## ABOUT THE COLLEGE

St. Xavier's College was established at Palayamkottai in 1923 by Jesuit Fathers of the Jesuit Madurai Province with an aim of preparing generations of students for a happy, healthy and harmonious life. The motto of the college is *Veritate Lumen et Vita* (Light and Life through Truth). It is a grant-in-aid institution recognized by the UGC Act under sections 2(f) and 12(B). The College is affiliated to the Manonmaniam Sundaranar University. In recognition of its service and excellence, the College was granted autonomy in 1987. The National Assessment and Accreditation Council (NAAC) in 2019 at A++ grade with a CGPA of 3.66 out of 4 in Cycle IV. The UGC awarded the status of "College with Potential for Excellence" to our college in 2004 and again in 2010 and 2014. STAR College scheme has been awarded by DBT, Govt. of India. In the ranking conducted by the National Institutional Ranking Framework (NIRF), our college got 36<sup>th</sup> rank in College Category in 2024. Today more than 4600 students study in 15 Postgraduate and 21 Undergraduate departments. Ph.D. Research is carried out in 12 Departments.

## ABOUT THE DEPARTMENT

The Department of Physics was established in the year 1924 and Physics was one of the subjects for the intermediate course. Then B.Sc., Physics was introduced in the year 1956. After that M.Sc., Physics was started during the academic year 2007-08 as a self-financing course. Then the Department was upgraded as a research centre in the year 2010. At present 15 teaching staffs and 4 non teaching staffs are working in the department. The areas of research being carried out in the Department are Solid State Physics, Astro Physics, Nanomaterials, Crystal Growth, Polymers and Thin Films. The department has well equipped laboratories for both academic and research. There are six laboratories. one for UG and other one for PG and four for research purpose.

## ABOUT THE CONFERENCE CUM WORKSHOP

This Conference cum Workshop will be one of the international meetings exclusively dedicated to Emerging Materials. We hope that the event will be extremely useful to researchers working in this field as people with diversified backgrounds are expected to attend the conference and making the event truly interdisciplinary in nature. The International conference on emerging materials is a unique event and platform for Global Scientists, Researchers, Directors, Professors, Research Scholars and Engineers from the research areas of Material Science to share their knowledge and research experiences with interactive panel discussions and sessions by keynote lectures, oral presentations and poster presentations. The scientific session comprises research areas of advanced materials, polymer science, material science, nano technology, carbon materials, energy materials, conductive materials, electrical, optical, magnetic materials, supercapacitor, Hydrogen energy and Fuel Cells applications.

### IMPORTANCE AND SCOPE

This conference cum workshop provides best opportunity for delegates from various institutes and universities to interact with superlative scientists and material experts worldwide. It acts as a dais in linking academicians and industries to transform the innovative research works into products. The sphere of material science is the interdisciplinary field connecting chemistry and physics which concentrates on the properties of the materials and their microscopic structures. The advancement in the material science leads to the designing of novel materials and provides acquittance for engineering applications. Materials are dynamic for the industrial and the socio-economic development of the society. The emerging materials and its remarkable technology in the new era expose exciting advances in micro and nano engineering.

India is now embracing green hydrogen production and fuel cell technology, Since hydrogen energy plays a vital role in offering green energy without carbon emissions, carbon capture and green energy have become points of focus for all industrialists and academic researchers.

Our in-depth training and practical sessions can instruct the budding scientist in state-of-the-art technologies. Be part of a community that engages in hydrogen energy and fuel cell technology, growing alongside our nation.

## GENERAL INSTRUCTIONS

- ▶ Certificates will be issued to all the participants after attending all the sessions.
- ▶ Abstract and Full length paper should be sent to [icwnf2025@gmail.com](mailto:icwnf2025@gmail.com)  
Maximum no. of words in abstract: 100  
Maximum no. of pages for full paper: 4 (A4size)  
Style : Times New Roman,  
Typed in MS Word with 1.5 line spacing,  
Font size: 12
- ▶ Full length paper will be published in the ISBN proceedings and an e-copy will be given to the participants those who have published the papers.
- ▶ An Abstract Book will be given to all the participants.
- ▶ Best paper presentation for both oral and poster will be judged and awarded with a memento and Certificate.

## PAPERS ARE INVITED IN THE FOLLOWING TOPICS

- Nano Materials
- Optical and Nonlinear Optical Materials
- Crystal Growth
- Ceramics, Polymeric and Composite Materials
- Materials Characterization
- Structure of Organic and Inorganic Materials
- Dielectric Materials
- Nuclear Materials
- Electronics and Optoelectronic Materials
- Magnetic and Semiconductor Materials
- Condensed Matter
- Thin Films
- Superconducting Material
- Biomaterial
- Sensor Materials
- Fuel Cells
- Hydrogen energy

## DATES TO REMEMBER

Last Date for Registration : **06.02.2025**  
Last Date of Abstract Submission : **10.02.2025**  
Last Date for the Submission of full paper : **15.02.2025**

