

**DST-Anusandhan National Research
Foundation (ANRF)- formerly SERB
Sponsored**

A Three-Day National Level Workshop
on

**“Emerging Predictive Modeling in Materials Science
and Quantum Photonics using AI and ML Solutions:
Pathways to Sustainable Development”**

on

09.04.2025 – 11.04.2025

REGISTRATION FORM

Name:.....

Degree: UG / PG / FACULTY

Designation:.....

Department:.....

Institution:.....

Mailingaddress:.....

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Phone:.....

Mobile:.....

Email:.....

Demand Draft No. & Bank :

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Accommodationrequired:Yes /No

Date:

Place:

Signature

All Correspondance must be Addressed to :
Organizing Secretary

Dept.of Electronics and Communication Engineering
Hindusthan Institute of Technology
Coimbatore(TN),India-641 032

dr.purushothaman@hit.edu.in

For More Information about the Seminar Visit
www.hit.edu.in

WORKSHOP VENUE

Hindusthan Institute of Technology,
Coimbatore-641 032,Tamil Nadu,India

CHIEF PATRON

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Smt.T.R.K.Sarasuwathi Khannaiyann
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Executive Secretary
Hindusthan Educational Institutions

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Professor/ Dept .of ECE

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Associate Professor / Dept. of ECE
Dr.V.Anbumannan
Associate Professor / Dept. of S & H

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Dr.K.Sakthivel., Professor / Dept .of S & H
Mr. A.Abdul Hayum., Associate Professor / Dept. of ECE
Mrs.S.Suganya., Associate Professor / Dept. of ECE

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Mr. R.Karuppusamy., Assistant Professor / Dept. of ECE
Dr.P.Vivek., Assistant Professor / Dept .of S & H
Dr.K.Anupama., Assistant Professor / Dept .of S & H

ORGANIZING CHAIRS

Mrs. T.Sivamani., Assistant Professor / Dept. of ECE
Ms.S Saranya., Assistant Professor / Dept. of ECE

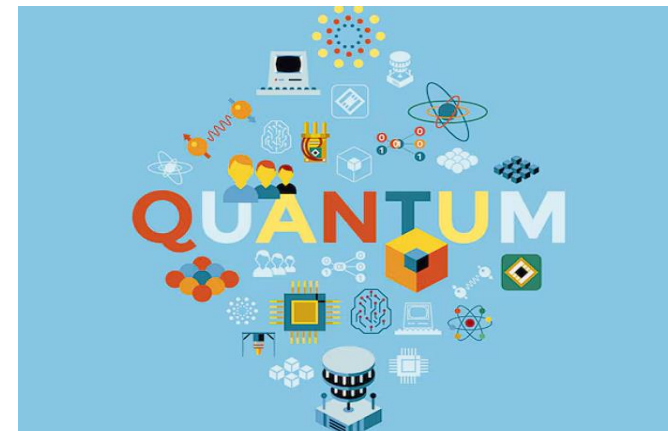
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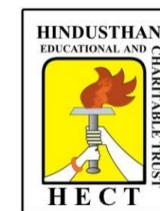
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Organised by.,
Department of Science and Humanities
&
Electronics and Communication Engineering



HINDUSTHAN INSTITUTE OF TECHNOLOGY
(Autonomous)
Othakkalmandapam, Coimbatore – 641,
Tamil Nadu,India



ABOUT THE COLLEGE:

Hindusthan Institute of Technology is one of the leading Engineering Colleges imparting quality Technical Education to the aspirants from Tamilnadu and other neighboring states. It is run by Hindusthan Educational and Charitable Trust under the leadership of Sri.T.S.R.Khannaiyann and Smt. T.R.K Sarasuwathy Khannaiyann.

The Institution was established in the year 2007 and is affiliated to Anna University Chennai. The Institution is well known for its high educational standards with excellent infrastructures, spread over 200 acres and is located on the Coimbatore - Pollachi National Highway. The Institution currently offers 7 UG and 3 PG programs.

ABOUT THE DEPARTMENT:

The Department of Electronics and Communication Engineering was started in the year 2007 with vision to develop Centre of Excellence in the wide area of Electronics & Communication Engineering Field and to promote innovative research and development.

The department has well equipped laboratories with latest simulation Software and eminent faculty member with good academic records. Our Department got Research Centre Recognition from Centre for Research Anna University Chennai. Under R&D many students doing their project in our department itself.

ABOUT THE WORKSHOP:

The national workshop on **Emerging Predictive Modeling in Materials Science and Quantum Photonics using AI and ML Solutions: Pathways to Sustainable Development** is a gathering of experts from around the globe focusing on the latest breakthroughs in materials science and quantum photonics. The workshop explores the synthesis, characterization, and applications of emerging materials, alongside the revolutionary potentials of quantum photonics in fields such as information technology and telecommunications. This workshop is a premium forum that offers a dynamic blend of professionals, expert keynotes, researchers, and industry leaders and aims to inspire collaborative innovation and drive progress in these dynamic and interdisciplinary fields. This workshop will feature invited talks from national experts in the field of emerging materials and quantum photonics. The event shall provide an excellent opportunity for all the attendees to engage in the development of new technologies in the national interest particularly with the Quantum Technologies and applications.

By fostering collaboration and knowledge exchange, this workshop aligns with and supports the objectives of the National Quantum Mission. This mission aims to advance the development and deployment of quantum technologies, driving innovation and enhancing national capabilities in quantum science and technology. The workshop presents a

valuable opportunity for researchers and stakeholders in the quantum science and technology domain to contribute to these national objectives and push the boundaries of what is possible in the field of quantum research and application.

SUB THEMES:

- **Accelerating Materials Discovery Using Computations and Machine Learning**
- **Quantum Entanglement of Spins and Its Relevance in Quantum Technology**
- **2D Quantum Materials: A New Approach Beyond Nanomaterials for Terahertz Applications**
- **Intriguing World of Quantum Dots**
- **Design Strategies of Broadband Terahertz Meta surfaces using Machine Learning**
- **Enhanced Energy Harvesting: Flexible PEDOT: PSS/ rGO / Bi₂Te₃ Films Boost Thermoelectric Performance**
- **Terahertz physics: Novel Photonic Detectors, Metamaterial Modulators and Waveguide Optics**
- **Lipid Lateral Diffusion: Mechanisms and Modulators**
- **AI on AI action: Metamaterials Powering the Next-Gen Neuromorphic Chips**
- **Optimizing fabrication Procedures for High Performance 1 cm² Perovskite Solar Cells at 30- 50% Humidity**
- **Advanced two-Dimensional (2D) Materials and their Van Der Waals (vdW) Heterostructures for Magnetic Applications**
- **Recent Developments in Emerging and Advanced Optoelectronic Research**
- **Implementation and Simulations of Quantum Gates**
- **Superconducting Photon Detectors: Present and Future**
- **BaZrS₃ Perovskites: A Leap Towards Sustainable and Efficient Solar Energy Conversion**
- **Photoluminescence Investigations Phosphors doped with Rare Earth ions for Diversified Application**
- **Radiation Induced Modifications in Engineering Polymers/SSNTDs by PALS and Their Potential Applications**
- **Investigation of Phase transformation in pyrochlore structured ceramics**
- **Radiation Grafted Adsorbent Based Technology for Wastewater Treatment**
- **Fundamentals and Fabrication of Hybrid Supercapacitors**

- **Development and Applications of Photopolymer as Hologram Recording Material**
- **The Journey of Crystallography Through Small Molecules**

BENEFITS OF THE NATIONAL WORKSHOP:

- Foster Interdisciplinary Expertise by Bridging Quantum Computing Concepts with AI and ML Techniques
- Facilitates Collaboration and Networking Among Educators, Researchers, Industry and Practitioners Inserted in Quantum Computing
- Exploration of Research Opportunities in Quantum Computing & ML for Sustainable Development
- Development of Collaborative Project and Empowering Educators to Drive Quantum Machine Learning Advancements, Enhancing Institutional Capabilities, Engaging with Industry and Contributing to The Quantum Community While Preparing Students for Emerging Quantum Technologies and Sustainability

RESOURCE PERSONS:

Academicians from premier institutions like IITs, NITs, State/Centrally Funded universities, foreign universities, and scientists from ISRO and DRDO having expertise and experience in relevant domain knowledge

REGISTRATION FEE:

Research Scholar/Student	: Rs. 300
Academicians / Teacher	: Rs. 400
Industry personnel	: Rs. 500

IMPORTANT DATE:

Last date for Receipt of Application	: 25.03.2025
Date of Intimation to Participants	: 30.03.2025
Confirmation by Participants	: 04.04.2025

PLACES TO VISIT IN COIMBATORE & QUEEN OF HILLS (OOTY)

Isha Yoga Centre



Perur Pateeswarar Temple



Mudumalai Tiger Reserve



Doddabetta Peak-Ooty

