



St. JOSEPH'S DEGREE COLLEGE
Sunkesula Road, Kurnool – 518 004 A.P.
(Affiliated to Rayalaseema University, Kurnool)

One Week Faculty Development Programme

(Physical Mode)

On

“Advances in Quantum Technologies”

24th Nov 2025 to 29th Nov 2025

Organized by
Department of Sciences,
IITDM Kurnool, Andhra Pradesh, India

Academic Year

2025-2026

Detailed Gist of the Faculty Development Programme :

Faculty members from our college actively participated in the **One Week Faculty Development Programme (FDP) on “Advances in Quantum Technologies”**, conducted from **24th November to 29th November 2025** in physical mode at **Indian Institute of Information Technology Design and Manufacturing, Kurnool**, in association with **Electronics and ICT Academy, IITDM Jabalpur**, under the sponsorship of the **Ministry of Electronics and Information Technology, Govt of India**.

The FDP was organized with the objective of enhancing knowledge and research exposure in the rapidly growing domain of quantum technologies. The programme brought together experts, academicians, researchers, and participants from various institutions across the country to discuss recent advancements and practical applications of quantum science.

Overview of the Programme:

The Faculty Development Programme (FDP) on **Advances in Quantum Technologies** was designed to provide comprehensive exposure to the rapidly evolving field of quantum science and technology. The programme focused on bridging the gap between theoretical foundations and practical implementation of modern quantum systems.

The FDP brought together distinguished academicians, researchers, and experts from premier institutions across India to deliver lectures, demonstrations, and hands-on training sessions. Participants gained insights into quantum computing, quantum communication, quantum materials, quantum photonics, post-quantum cryptography, and emerging applications in precision sensing.

The programme aimed to strengthen the research and teaching capabilities of faculty members, research scholars, students, and professionals working in allied domains of science and engineering.

Major Objectives of the FDP:

- To introduce the fundamentals and recent advancements in quantum technologies.
- To provide awareness of the practical applications of quantum science.
- To train participants in quantum computing algorithms and quantum communication methods.
- To expose participants to quantum materials and device fabrication techniques.
- To encourage interdisciplinary research in emerging quantum domains.
- To provide practical exposure through demonstrations and hands-on training sessions.

Learning Experience and Knowledge Gained:

During the six-day FDP, participants from our college gained valuable insights into various emerging areas of quantum technologies, including:

- Fundamentals of Quantum Technology
- Quantum Computing and Quantum Algorithms
- Quantum Materials and Devices
- Quantum Photonics
- Post-Quantum Cryptography
- Quantum Sensors and Precision Measurements

The sessions were highly informative and helped participants understand both theoretical concepts and real-world applications of quantum technologies in science and engineering

Expert Lectures and Interaction:

The program featured lectures by eminent professors and researchers from premier institutions such as:

- Indian Institute of Technology Madras
- National Institute of Technology Tiruchirappalli
- University of Hyderabad
- SRM Institute of Science and Technology
- Indian Institute of Information Technology Dharwad

The interaction with experts provided participants an opportunity to learn about current research trends, future challenges, and career opportunities in quantum technologies.

Hands-on Training Sessions:

A Key highlight of the FDP was the practical and hands-on training sessions conducted during the programme. Participants from our college actively engaged in:

- IBM Quantum hands-on training
- Demonstration of Quantum Cryptography techniques
- Random key generation using polarization of light
- Quantum eraser demonstrations
- Fabrication of quantum materials

These practical sessions significantly improved understanding of quantum principles and their practical implementation.

List of Participants:

S.No	Name of the Faculty	Department
1	A.Viswantha Rao	Computer Science
2	D.Mahaboob Basha	Computer Science
3	S.Afshan Anjum	Physics

Benefits to Participants:

Participation in this FDP helped our college representatives to:

- Enhance technical and research knowledge in quantum technologies
- Understand emerging trends in quantum computing and communication
- Gain exposure to advanced research tools and methodologies
- Develop interdisciplinary learning and innovation skills
- Build academic connections with researchers and experts from reputed institutions

Overall Outcome:

The FDP proved to be highly beneficial and enriching for participants from our college. It provided a strong foundation in quantum technologies and motivated participants to explore research opportunities in this advanced and rapidly evolving field.

The knowledge and practical exposure gained through this programme will be valuable for academic activities, research initiatives, project development, and future technological advancements in the domain of quantum science and engineering.

Brochure:

About Electronics & ICT Academy at PDDM IIITDM Jabalpur



The Ministry of Electronics and Information Technology (MeitY), Government of India has instituted Electronics and ICT Academies in the year 2015. In the second phase, the academy at PDDM IIITDM Jabalpur aims at scalable training programmes in niche areas of Electronics and ICT for the development of the required knowledge base, skills and tools to unleash the talent of the Indian population. The Academy is identified by the MeitY as a hub of activities for capacity building through training, internships, research, and consultancy programmes in fundamental and advanced topics in electronics, information and communication technologies, the Academy conducts customized academic programmes for students, corporate sectors and researchers.

IIITDM Kurnool

Indian Institute of Information Technology Design and Manufacturing, Kurnool (IIITDMK) was announced in 2014 after receiving the assent of President of India to the Institutes of Information Technology Act, 2014, and its subsequent publication in the Gazette of India, Extraordinary, Part- II, Section I, on December 08, 2014. The institute was announced by Government of India to give effect to its obligation under the Andhra Pradesh reorganization act 2014. The IIITDM Kurnool campus is located far away from the bustling life of the metropolis in the mineral-rich mountain trails of the Rayalaseema region of Andhra Pradesh.

Faculty Development Programme On

Advances in Quantum Technologies

Quantum technologies have emerged as one of the most transformative areas of modern science and engineering, with applications spanning secure communication, advanced computing, precision sensing, and materials research. The Faculty Development Program (FDP) on "Advances in Quantum Technologies" aims to provide participants with a comprehensive understanding of the fundamental principles and recent developments in quantum science and their technological applications. This offline FDP is designed to enhance the knowledge base of faculty, research scholars, and professionals by bringing together experts from academia and research organisations to deliver in-depth lectures, discussions, and hands-on sessions. The program certainly will yield a new perspective on novel technology in science and engineering, which will be helpful for faculty and researchers in this premier field.

Who can attend: Suitable for faculty from colleges, universities, and technical and professional institutes can attend. Students, fresh graduates, researchers, and industry personnel working in allied disciplines can also attend.

Important Dates:

Last Date of Online Registration: 17-11-2025
FDP Dates: November 24 - 29, 2025

Coordinators:

- Dr. Pandiyarajan T**
Assistant Professor and Head of Department
Department of Sciences
IIITDM Kurnool, A.P., India
- Dr. Putha Kishore**
Assistant Professor
Department of Sciences
IIITDM Kurnool, A.P., India
- Dr. Ashish S Parihar**
Assistant Professor
PDDM IIITDM Jabalpur

Faculty Development Programme On

Advances in Quantum Technologies November 24 - 29, 2025 (Physical mode)

Jointly Organised by
Department of Sciences
Indian Institute of Information Technology
Design and Manufacturing, Kurnool –
518008, Andhra Pradesh, India



and
Electronics and ICT Academy
IIITDM Jabalpur



An Initiative of the Ministry of
Electronics and Information Technology,
Government of India



FDP Schedule :

Faculty Development Programme on "Advances in Quantum Technologies"

Start Date: 24-11-2025

End Date: 29-11-2025

Day 1 (24-11-2025)	Day 2 (25-11-2025)	Day 3 (26-11-2025)	Day 4 (27-11-2025)	Day 5 (28-11-2025)	Day 6 (29-11-2025)
9:30 AM to 10:30 AM Inaugural Session	9:00 AM to 11:00 AM Session 4 Name of the Expert: Dr P V Prakash Madduri Assistant Professor Department of Sciences, IIITDM Kurnool	9:00 AM to 11:00 AM Session 8 Name of the Expert: Dr. Chandra Chowdhury IIT Madras	9:00 AM to 11:00 AM Session 11 Name of the Expert: Dr Murali D Associate Professor Department of Sciences IIITDM Kurnool Hands on Training on Quantum Algorithms	9:00 AM to 11:00 AM Session 15 Name of the Expert: Dr P V Prakash Madduri Assistant Professor Department of Sciences, IIITDM Kurnool Hands on Training on Fabrication of Quantum Materials	9:00 AM to 11:00 AM Session 18 Name of the Expert: Prof B Karthikeyan Department of Physics NIT Tiruchirappalli
10:30 AM to 10:45 AM Tea Break	11:00 AM to 11:15 AM Tea Break				
10:30 AM to 12:30 PM Session 1 Name of the Expert: Dr. Aswathi Babu Assistant Professor and HoD Department of Arts, Science and Design IIIT Dharwad	11:10 AM to 01:15 AM Session 5 Name of the Expert: Dr R Muthuganesan Research Assistant Professor SRM Institute of Science and Technology, Chennai	11:10 AM to 01:15 AM Session 9 Name of the Expert: Dr Murali D Associate Professor Department of Sciences IIITDM Kurnool	11:10 AM to 01:15 AM Session 12 Name of the Expert: Dr Murali D Associate Professor Department of Sciences IIITDM Kurnool Hands on Training on Quantum Algorithms	11:10 AM to 01:15 AM Session 16 Name of the Expert: Dr Pandiyarajan T Assistant Professor Department of Sciences IIITDM Kurnool	11:10 AM to 01:15 AM Session 19 Name of the Expert: Dr R. Kabaleswaran Department of Computer Science and Engineering IIITDM Kurnool
12:40 PM to 2:00 PM Lunch Break	01:15 PM to 02:00 PM Lunch Break				
02:00 PM to 4:00 PM Session 2 Name of the Expert: Dr.	02:00 PM to 04:00 PM Session 6 Name of the Expert: Dr R Muthuganesan	02:00 PM to 05:00 PM Session 10 Name of the Expert: Dr Putha Kishore	02:00 PM to 04:00 PM Session 13 Name of the Expert: Janani Ananthanarayanan	02:00 PM to 05:00 PM Session 17 Name of the Expert: Dr Pandiyarajan T Assistant Professor	02:00 PM to 03:30 PM Session 17 Examination and Feedback

Inaugural Session Invitation :

INVITATION

ONE WEEK FACULTY DEVELOPMENT PROGRAMME (Physical mode)

Advances in Quantum Technologies

24th November – 29th November 2025



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IIITDM Kurnool, Andhra Pradesh, India



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Electronics and ICT Academy-IIITDM Jabalpur

Sponsored by
Ministry of Electronics and Information Technology (MeitY), Government of India

Patron

Prof. B.S. Murthy, Director, IIITDM, Kurnool, A.P., India

Chief Guest

Prof. Bhartendu Kumar Singh, Director, PDPM-IIITDM Jabalpur

Guest of Honour

Dr. Aswath Babu H, IIIT, Dharwad

Guest

Dr. J. Krishnaiah, ASD Faculty Affairs, IIITDM, Kurnool.

Inaugural Schedule

Time	Event	Speaker
09:30 AM-09:35 AM	Welcome & Overview of FDP	Dr Pandiyarajan T, IIITDM, Kurnool
09:35 AM-09:45 AM	Address by Chief Guest	Prof. Bhartendu Kumar Singh, Director, PDPM-IIITDM Jabalpur
09:45 AM- 09:50 AM	Address by Guest of Honour	Dr. Aswath Babu H, IIIT, Dharwad
09:50 AM-09:55 AM	Address by Guest	Dr. Krishnaiah J, ASD Faculty Affairs, IIITDM Kurnool
09:55 AM-10:00 AM	Vote of Thanks	Dr. Putha Kishore, IIITDM, Kurnool

Venue: Tungabhadra Seminar Hall, IIITDM Kurnool

Coordinator

Dr. T. Pandiyarajan
Head, Dept. of Sciences
IIITDM, Kurnool.

Coordinator

Dr. Putha Kishore
Dept. of Sciences,
IIITDM, Kurnool.

Coordinator

Dr. Ashish S Parihar
Dept. of Computer Science and
Engineering, IIITDM Jabalpur

Photos:

