



One-Week Online Short-Term Course

on

Artificial Intelligence in Space Science and Emerging Technologies

20 – 25 July 2026

Organized by

CENTRE OF EXCELLENCE MAHARANA PRATAP INSTITUTE OF TECHNOLOGY, GORAKHPUR

(Affiliated to Dr. A.P.J. Abdul Kalam Technical University,
Lucknow, Uttar Pradesh)

In collaboration with

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, LUCKNOW

ABOUT THE PROGRAM

The One-Week Online Short-Term Course (STC) on "Artificial Intelligence in Space Science and Emerging Technologies" aims to provide participants with a comprehensive understanding of Artificial Intelligence and its applications in Space Science and emerging technologies. The course covers AI fundamentals, Space Science and Technology, AI in intelligent space systems, Smart Manufacturing, Industry 4.0/5.0, Additive Manufacturing, and Innovation & Entrepreneurship. Through expert lectures, interactive sessions, and laboratory demonstrations, participants will gain insights into emerging technologies, current research trends, and real-world applications, fostering innovation, interdisciplinary learning, and academia–industry collaboration.

OBJECTIVES OF THE PROGRAM:

The One-Week Online Short-Term Course (STC) aims to:

- Build a strong foundation in Artificial Intelligence and its modern applications.
- Provide comprehensive insights into Space Science and Technology, including satellite systems and the Indian space programme.
- Explore AI-driven innovations in Space Science, Earth observation, autonomous systems, and intelligent satellite technologies.
- Introduce participants to Emerging Technologies such as Industry 4.0/5.0, Smart Manufacturing, and Additive Manufacturing.
- Promote innovation, entrepreneurship, and academia–industry collaboration for developing future-ready professionals.

ABOUT CENTRE OF EXCELLENCE, MPIT GORAKHPUR

The Centre of Excellence (CoE) at Maharana Pratap Institute of Technology (MPIT), Gorakhpur, established under the aegis of **Maharana Pratap Shiksha Parishad (MPSP)**, is envisioned as a transformative initiative to strengthen technical education, skill development, innovation, and entrepreneurship in Eastern Uttar Pradesh. Aligned with the vision of “Viksit Bharat”, the Centre aims to bridge academia and industry by creating an ecosystem that empowers learners with practical skills, innovation capabilities, and future-ready competencies.

The Centre focuses on emerging technologies including **Artificial Intelligence, Cybersecurity, Drone Technology, 3D Printing and Space Science & Technology**, through interdisciplinary education, hands-on learning, research, and industry engagement. The Centre aspires to become a leading hub for skilling, employment generation, research, innovation, and entrepreneurial incubation, contributing toward technological advancement and nation-building.

ABOUT MPIT GORAKHPUR

Established in 2024 under the aegis of Maharana Pratap Shiksha Parishad, Gorakhpur, Maharana Pratap Institute of Technology (MPIT) is affiliated to Dr. A.P.J. Abdul Kalam Technical University, Lucknow. The institute offers B.Tech programs in Computer Science & Engineering, Artificial Intelligence & Machine Learning, Data Science, Cyber Security, Information Technology, and Electronics Engineering (VLSI Design). MPIT is committed to nurturing innovation, research, and industry-relevant skills through its Centre of Excellence. With advanced infrastructure, state-of-the-art labs, experienced faculty, and a focus on emerging technologies, MPIT is shaping future-ready professionals and fostering a vibrant research and innovation ecosystem.

ABOUT IIIT LUCKNOW

The Indian Institute of Information Technology, Lucknow (IIIT Lucknow) is one of the 20 IIITs being set up by the Central Government in Public Private Partnership (PPP) mode. IIIT Lucknow admitted its first batch of B.Tech. in Information Technology with an

intake of 50 students w.e.f. the academic session 2015-16. It currently offers all the amenities, academic and non-academic to its students that can help them flourish and serve the nation with all their apprehension in the various fields of technology. The admission is made through central counselling of candidates who qualify in JEE (Mains).

The Institute is being set up with the financial contributions of MHRD, Govt. of India, Govt. of Uttar Pradesh, and U. P. Electronics Corporation Ltd. as industry partners. The mission of IIIT Lucknow is to be a unique and world class nucleating “Apex Center of Excellence” in the area of Information Technology so as to enhance India’s Technological strength in Information Technology. IIIT seeks to derive its strength from a linkage with sound Indian traditions of centuries past, and sets out to create knowledge-based resources in regional languages.

PROGRAM HIGHLIGHTS:

- 3 Learning Sessions per Day (**10:00 AM – 2:00 PM**)
- Expert Sessions from Academicians, Scientists, and Industry Professionals
- Foundations of Artificial Intelligence, Machine Learning, Deep Learning, Generative AI, and Responsible AI
- Space Science and Technology: Space Weather, Satellite Systems, Space Exploration, and the Indian Space Programme
- Artificial Intelligence in Space Science: Intelligent Space Systems, Spacecraft Avionics, Satellite Communication, Earth Observation, and Climate Analytics
- Emerging Technologies: Industry 4.0/5.0, Smart Manufacturing, Digital Manufacturing, Digital Twins, IoT, and Cyber-Physical Systems
- AI in Additive Manufacturing (3D Printing): Emerging Trends and Industrial Applications
- Innovation, Entrepreneurship, Startup Ecosystems, and Technology Commercialization
- Laboratory Demonstrations from the Centre of Excellence, MPIT Gorakhpur
- Opportunities for Academia–Industry Interaction, Collaboration, and Networking

WHO CAN PARTICIPATE

This program is open to faculty members, scientists, industry professionals, research scholars, and UG/PG students interested in Artificial Intelligence, Space Science and Technology, AI-enabled Space Systems, Smart Manufacturing, Innovation, and Emerging Technologies.

-  Faculty Members
-  Scientists
-  Research Scholars
-  PG & UG Students
-  Industry Professionals
-  Startup Entrepreneurs

CERTIFICATION CRITERIA

Certificates will be provided to all participants subject to fulfillment of the following criteria:

- Minimum 75% attendance throughout the program
- Submission of Daily Quizzes
- Successful submission of the final assessment and obtaining at least 50% marks in it.

REGISTRATION FEE DETAILS:

Category	Fee
Faculty/Scientists	Rs. 1000
Research Scholar	Rs. 700
PG Students	Rs. 500
UG Students	Rs. 300
Industry Professional	Rs. 2000
Others.	Rs. 1000



SCAN HERE TO REGISTER

REGISTRATION PROCESS

Candidates may register in this One-Week Online course through the Google Form link mentioned below.

Link For Registration: <https://forms.gle/BTv54ph1qisRbrj77>

Last date for registration: 18 July 2026

BANK DETAILS (For Fee Payment)

Account Name	CENTRE OF EXCELLENCE OF MAHARANA PRATAP INSTITUTE OF TECHNOLOGY
Account No.	0666002100025181
Bank	Punjab National Bank
IFSC Code	PUNB0066600

Note:

- The registration is mandatory to be done online through the link provided above.
- Candidate must deposit the amount as per the category mentioned in the registration fee details above.
- Payment should be done by UPI/Bank Transfer only.
- After payment, the candidate is required to upload the proof of payment (receipt/screenshot) in jpg or pdf format at the appropriate place in the Google Form.
- The registration fee is not refundable/transferable.

Patrons:

- **Prof. J. P. Pandey**
Vice Chancellor, Dr. A.P.J. Abdul Kalam Technical University, Lucknow
- **Dr. Arun Mohan Sherry**
Founding Director, Indian Institute of Information Technology, Lucknow

Chairpersons:

- **Prof. (Dr.) Sudhir Agrawal**
Director, Maharana Pratap Institute of Technology, Gorakhpur
- **Mr. Aayush Chaurasia**
Chief Executive Officer, Centre of Excellence, Maharana Pratap Institute of Technology, Gorakhpur

Organizing Chair:

- **Dr. Anil Prakash Singh**
Principal, Maharana Pratap Polytechnic, Gorakhpur
- **Mr. Sachidanand Chaturvedi**
Chief Operating Officer, Centre of Excellence, Maharana Pratap Institute of Technology, Gorakhpur

Technical Advisory Committee:

- **Prof. Rajesh Kumar Verma**
Dean, Research and Development, Harcourt Butler Technical University, Kanpur
- **Prof. Umesh Yadava**
Professor, Department of Physics, Deen Dayal Upadhyaya University, Gorakhpur
- **Dr. Deepak Kumar Singh**
Associate Professor, Lucknow, Indian Institute of Information Technology, Lucknow
- **Dr. Vijay Kumar Verma**
Associate Professor, Department of Electronics & Communication Engineering, Madan Mohan Malaviya University of Technology, Gorakhpur
- **Dr. Wageesh Mishra**
Associate Professor, Indian Institute of Astrophysics, Bengaluru, Karnataka

Organizing Committee Members:

- **Mr. Darshan Srivastav**
Head, Drone & 3D Printing Lab, Centre of Excellence, Maharana Pratap Institute of Technology, Gorakhpur
- **Mr. Alok Bhatt**
Head – Cyber Security Lab, Centre of Excellence, Maharana Pratap Institute of Technology, Gorakhpur
- **Mr. Kumar Vaibhav Srivastava**
Assistant Professor, Department of Electronics Engineering, Maharana Pratap Institute of Technology, Gorakhpur

Technical Support Team:

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Digital Programme Manager, Centre of Excellence, Maharana Pratap Institute of Technology, Gorakhpur
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- **Mr. Raj Singh**
Lab Assistant, Cyber Security Lab, Centre of Excellence, Maharana Pratap Institute of Technology Gorakhpur

Program Coordinators:

- **Dr. Sanjeev Kumar Sharma**
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- **Dr. Ankita Srivastava**
Assistant Professor, Department of Computer Science, Indian Institute of Information Technology, Lucknow
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Artificial Intelligence:

- **Dr. Deepak Kumar Singh**

Associate Professor, Lucknow, Indian Institute of Information Technology, Lucknow

Topic: Machine Learning, Deep Learning and Generative AI

- **Dr. Rahul Kumar Verma**

Assistant Professor, Indian Institute of Information Technology (IIIT) Lucknow

Topic: Foundations of Artificial Intelligence: Concepts, Evolution and Applications

- **Dr. Saurabh Shukla**

Assistant Professor, Department of Computer Science, Indian Institute of Information Technology (IIIT) Lucknow

Topic: Responsible AI, Explainable AI and Large Language Models



Space Science & Technology

- **Dr. Wageesh Mishra**

Associate Professor, Indian Institute of Astrophysics (IIA), Bengaluru

Topic: Foundations of Space Science: Understanding the Universe and Beyond

- **Dr. Vijay Kumar Verma**

Associate Professor, Department of Electronics & Communication Engineering, Madan Mohan Malaviya University of Technology, Gorakhpur

(Ex-ISRO Scientist)

Topic: Satellite Systems, Spacecraft Avionics and Emerging Trends in Space Technologies

KEYNOTE SPEAKERS & EXPERTS:

- **Dr. Karan Verma**

Associate Professor, Department of Computer Science & Engineering, National Institute of Technology, Delhi

Topic: Satellite Communication Systems, 5G/6G Networks and Space-Air-Ground Integrated Communications

- **Mr. Manoj Kumar**

Scientist 'SG', U R Rao Satellite Centre (URSC), ISRO, Bengaluru

Topic: Satellite Systems Engineering: Design, Integration, Testing and Mission Operations

- **Mr. Kumar Sangam**

Scientist 'SE', U R Rao Satellite Centre (URSC), ISRO, Bengaluru

Topic: Satellite Applications and Future Space Missions: An ISRO Perspective

- **Dr. Harshit Shukla**

Assistant Professor, School of Advanced Engineering, UPES, Dehradun

Topic: Space Launch Vehicles: Rocket Propulsion, Technologies and Emerging Trends

- **Dr. Tarkeshwar Singh**

Research Scientist, Nansen Environmental and Remote Sensing Center (NERSC), Bergen, Norway

Topic: Earth Observation, Remote Sensing and Artificial Intelligence for Climate and Environmental Monitoring

- **Mr. Yajur Kumar**

Guidance, Navigation & Control (GNC) Engineer, PLD Space, Spain

Topic: Guidance, Navigation and Control Systems for Launch Vehicles and Spacecraft



Emerging Technologies

- **Prof. J. Ram Kumar**

Professor, Department of Mechanical Engineering & Design, Indian Institute of Technology Kanpur

Topic: Smart Manufacturing, Industry 4.0/5.0 and Digital Transformation

- **Prof. Rajesh Kumar Verma**

Professor & Dean (Research & Development), Harcourt Butler Technical University (HBTU), Kanpur

Topic: Additive Manufacturing (3D Printing): Technologies, Applications and Future Trends

- **Dr. Dipesh Kumar Mishra**

Assistant Professor, Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur

Topic: Artificial Intelligence for Intelligent Systems: Applications and Future Directions



Innovation & Entrepreneurship

- **Mr. Mahip Singh**

Chief Executive Officer (CEO), Innovation Hub UP Foundation, Dr. A.P.J. Abdul Kalam Technical University (AKTU), Lucknow

Topic: Innovation, Startups and Technology Commercialization: Building the Next Generation of Entrepreneurs

"Exploring the Future: Centre of Excellence Technology Showcase"

A Special Demonstration Session Featuring:

Artificial Intelligence | Cyber Security | Drone Technology | 3D Printing | Space Science & Technology Labs