

# One Week Hybrid Short-Term Training Programme (STTP)

on

## Recent Advancement in Artificial Intelligence and Robotics (RA-AIR-24)

08-13 July, 2024



Organized by the Department of  
Computer Science and Engineering  
&  
Artificial Intelligence



**S.V. NATIONAL INSTITUTE  
OF TECHNOLOGY Surat**  
Gujarat, India– 395007

(An autonomous Institute under the aegis of the Ministry of  
Education, Govt. of India)  
website: <http://www.svnit.ac.in>

### Introduction

Artificial Intelligence (AI) and robotics have witnessed remarkable advancements in recent years, transforming industries and shaping the future of technology. Recent advancements in AI, such as deep learning and Generative models, enabled accurate data analysis and human-like interactions in applications ranging from healthcare to autonomous vehicles. Robotics, powered by sophisticated AI algorithms, is enhancing automation in manufacturing, improving safety and productivity through collaborative robots, and advancing capabilities in fields like autonomous navigation and manipulation. This STTP would provide participants to enrich their knowledge and help them learn to develop methods for solving problems related to diverse computational fields using AI.

### COURSE Content

The program is focused on discussing various aspects of AI and Robotics. The following are the topics to be covered in this program:

- Introduction to Artificial Intelligence and Deep Learning
- Advancement in Robotics
- Reinforcement Learning
- Deep Generative Adversarial Networks
- Graph Neural Network
- Explainable Artificial Intelligence
- Robotics: Navigation and Path Planning
- Applications of AI in Computer vision, ChatGPT4.0, Robotics
- CAPSTONE Project
- **Hands-on: Python/Pytorch/ Keras**

### RESOURCE PERSONS:

Eminent academicians from IITs, NITs, and Industry experts will deliver the sessions with practical demonstrations.

### ELIGIBILITY

Students/faculty members from academic institutes and universities, research scholars/UG, PG students, and industry personnel working in the concerned /allied discipline.

Seats are limited to 50-60 participants.

Selection will be based on eligibility and a first-come, first-served basis. Certificates will be awarded to the participant who attends 75% of the sessions and successfully completes the STTP.

### IMPORTANT DATES

Last date for Registration: 01 July 2024

List of Eligible Candidates: 02 July 2024

### REGISTRATION FEE

Participants Category	Registration Fee
Students: UG/PG/Ph.D	1,000 ₹
Academicians/Researchers	2,500 ₹
Industry Person/Engineers	5,000 ₹

## ABOUT SVNIT Surat

The institute, one of the pioneering engineering institutions of the country, was established in 1961 as Sardar Vallabhbhai Regional College of Engineering & Technology and was given the status of National Institute of Technology in 2002. At present, there are 11 undergraduate courses, seventeen postgraduate courses, and Ph.D. programs in all disciplines of engineering and applied sciences. It has an excellent placement record, and many top-ranking companies visit the campus.

## About Computer Science and Engineering

The department is running the UG program B.Tech. Computer Engineering since 1989 and M.Tech. Computer Engineering since 2006. The department has also offered Ph.D. programs since 2005. The department has well-qualified and dedicated faculty members with specializations in niche areas like AI, Motion Analysis, Robotics, Computer vision, Information security, Cloud computing, Image processing, Data Mining, wireless sensor networks, etc.

## About Artificial Intelligence

The Department of Artificial Intelligence was established in 2023 to strengthen education and research in Artificial Intelligence, Machine Learning, Biometrics, Generative AI, NLP, Soft Computing, Computer Vision, and allied areas. Currently, the department offers B.Tech., 5-year IPG (B.Tech+M.Tech), and Ph.D. programs in AI.

## PATRON

**Prof. Anupam Shukla**  
Director, SVNIT Surat

## CONVENER

Prof. M. A. Zaveri, HoD CSE, SVNIT  
Prof. Ritu Tiwari, HoD AI, SVNIT

## PROGRAM COORDINATOR

Dr. Chandra Prakash, CSE  
Dr. Praveen Kumar Chandaliya, AI  
Dr. Naveen Kumar, CSE  
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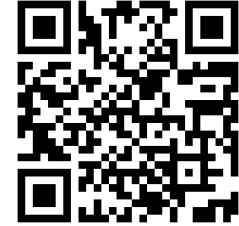
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## LOCAL TECHNICAL COMMITTEE

Prof. D. C. Jinwala,	Prof. Dhiren R. Patel
Dr. Rupa G. Mehta	Prof. R. P. Gohil
Dr. B. N. Gohil	Dr. Dipti P. Rana
Dr. S. J. Patel	Shri. R. P. Gohil
Dr. K. N. Jariwala	Dr. B. L. Parne
Dr. Rahul Dixit.	Dr. Tanmoy Hazra
Dr. K. J. Parmar	Dr. Alok Kumar
Dr. Abhilasha Chaudhuri	Dr. Anugrah Jain
Dr. Vishesh P. Gaikwad	Dr. Nitesh A. Funde

## REGISTRATION INFORMATION

Participants are requested to complete the registration process using the QR link. You are requested to upload the necessary documents after paying the registration fee.



<https://forms.gle/vPNbLgMwCaMVTcO26>

The non-refundable registration fee should be paid online through net banking to

**“Director, SVNIT-CCE”**  
**A/c No.: 37030749143,**  
**State Bank of India, SVRCET Branch,**  
**SVNIT Campus, Ichchhanath, Surat,**  
**IFSC: SBIN0003320.**

While paying through net banking, the purpose should be written in the remarks as “RA-AIR24 Registration Fee”. (Kindly save the receipt or take a screenshot of the payment).

## ACCOMMODATION

Efforts would be made to ensure that each participant is provided Hostel accommodation subject to the availability on a chargeable basis at the SVNIT Hostels.

A course kit, breakfast, tea/coffee, and lunch will be served during the STTP period.