

**One Week Hybrid
Short Term Training Program
(STTP)
on
Advancements in Machine
Learning and Accelerated
Computing (AMLAC-25)**

07-12 April, 2025



**Organized by the Department of
Computer Science and Engineering**



**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

Machine Learning (ML) and accelerated computing have witnessed remarkable advancements in recent years, transforming industries and shaping the future of technology. Advancements in machine learning, such as deep learning and generative models, enabled accurate data analysis and human-like interactions in applications ranging from healthcare to autonomous vehicles. Accelerated computing powered by CUDA and OpenMP enhanced the capabilities of computing hardware for solving large-scale real-world problems. General purpose graphics processing units (GPGPUs) are well developed to provide accelerated computing for solving various machine learning related tasks.

Many computational problems can be solved in real time by exploiting the power of GPUs and multiple processing cores inside a processor chip. This short term training programme helps participants to enrich their knowledge for solving problems related to diverse computational fields using machine learning and accelerated computing.

Course Contents

The program is focused on discussing various aspects of machine learning and accelerated computing. The following are the topics to be covered in this program:

- Machine Learning
- Deep Learning
- Generative Adversarial Networks
- Transformer and LLM

- Explainable Artificial Intelligence
- Introduction to Accelerated Computing
- Accelerated Computing using OpenMp
- Accelerated Computing using CUDA
- Applications of CUDA
- **Hands-on: Python/Pytorch/Keras for Machine Learning**
- **Hands-on: OpenMP and CUDA for Accelerated Computing**

Resource Persons

Eminent academicians from IITs, NITs, IIIT's 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 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 them.

Important Dates

Last date for Registration: 03 April 2025

List of Eligible Candidates: 05 April 2025

STTP Dates : 07-12 April, 2025

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.

Patron

Prof. Anupam Shukla
Director, SVNIT Surat

Convener

Dr. Sankita J. Patel
HoD CSE, SVNIT, Surat

Program Coordinator

Dr. Anugrah Jain, CSE
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Registration Fee Registration

Participants Category	Registration Fee
Students: UG/PG/Ph.D	826 ₹
Academicians/Researchers	1180 ₹
Industry Person/Engineers	2950 ₹

Registration Information

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



<https://forms.gle/ZMExSFZC7P6BaKDF6>

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 “AMLAC-25 Registration Fee”. (Kindly save the receipt or take a screenshot of the payment).

ACCOMMODATION/TRAVEL

Efforts will be made to provide hostel accommodation for each participant, subject to availability, on a chargeable basis at the SVNIT Hostels.