

## INSTITUTE



Sant Longowal Institute of Engineering and Technology (SLIET), Deemed to be University, has been established and funded by MoE, Government of India in 1991, to provide technical education in emerging areas of engineering and technology. The institute caters to the technical manpower requirements at various levels by adopting a concept of a modular system in imparting professional education with an emphasis on practical training in the industry. The study programs include various courses at Certificate, Diploma, B.E. M.Tech. and Ph.D. levels in different branches of engineering and technology. The institute has a sprawling area of 451 acres surrounded by lush green land.

## INSTITUTE VISION

SLIET shall strive to act as an international podium for the development and transfer of technical competence in academics through formal and non-formal education, entrepreneurship, and research to meet the changing need of society.

## DEPARTMENT OF EIE

The department of Electrical and Instrumentation Engineering is poised to impart technical education related to the development of human resources, from the level of skilled workers to the engineering, post-graduate and Ph.D. level. The department has been awarded number of sponsored research projects from various Govt. agencies such as AICTE, MHRD, DST etc. The department caters to the manpower and technical requirements of various sophisticated and household industries. The department envisions holistic development of its students with the help of expert faculty, well equipped laboratories and a healthy learning and working environment. The focus of the department is to discover the true potential of students by creating a challenging yet interesting curriculum. The courses being run by the department include:

- Integrated Certificate-Diploma Program DEE
- Integrated Certificate-Diploma Program DIN
- B.E. (Instrumentation & Control Engg.)
- B.E. (Electrical Engineering)
- M.Tech. (Instrumentation & Control Engg.)
- Ph.D. Programme

## ABOUT THE PROGRAMME

The course aims at making the participants acquainted with the use of artificial intelligence in biomedical engineering.

The program will also inspire the faculty members and research scholars to generate/ share the new ideas in these research areas.

## BACKGROUND

Artificial intelligence is having a huge impact on various fields of life as the expert systems are widely used to solve complex problems in various areas. One such area is medicine. Modern medical data provides an increasing number of features derived from different types of analysis, including artificial intelligence. These features are most often used for a variety of analysis including fuzzy logic, evolutionary calculations, neural networks, or artificial life. Proper data processing, appropriate selection of features and artificial intelligence method can support medical diagnostics. This area has been in recent years the subject of many research papers and research grants. Consequently, this course is devoted to the subject of artificial intelligence, in its broadest sense, in biomedical engineering with particular emphasis on medical imaging, records interpretation, and other time-series data. I hope this course will be a valuable supplement to the knowledge of new artificial intelligence methods and its applications in new areas of biomedical field.

## RESOURCE PERSONS

Renowned experts and researchers from premier Institutions (IIT/NITs) and other organizations (CSIO/ICMR) and industries will deliver expert lectures.

**AICTE Sponsored**  
**AICTE Training and Learning (ATAL)**  
**(Online Mode)**

**Faculty Development Programme**  
**ON**

**ARTIFICIAL INTELLIGENCE IN**  
**BIOMEDICAL ENGINEERING:**  
**CURRENT TRENDS AND FUTURE**

**(July 5-9, 2021)**



**ORGANIZED BY**

**Department of Electrical and Instrumentation Engg,**  
**Sant Longowal Institute of**  
**Engineering & Technology**  
(Deemed to be University under MoE, Govt. of India)  
**Longowal, Distt. Sangrur-148106**  
**Punjab, India**

**Patron** : Prof. Shailendra Jain, Director  
**Co-Patron** : Prof. A. S. Arora, Dean (Acad.)  
**Convener** : Prof. Sanjay Marwaha  
**Coordinators** : Prof. Manpreet Kaur  
Dr. Ashwani Kumar Aggarwal

**ABOUT AICTE-ATAL FDP**

The objectives of AICTE Training and Learning (ATAL) Academy are: To set up an Academy which will plan and help in imparting quality technical education in the country and to support technical institutions in fostering research, innovation and entrepreneurship through training. To provide a variety of opportunities for training and exchange of experiences, such as workshops, Orientations, learning communities, peer mentoring and other faculty development programmes. To support policy makers for incorporating training as per requirements. The Faculty Development Programme (FDP) intends to provide financial assistance to facilitate up-gradation of knowledge, skill and intends to provide opportunities for induction training to teachers

**ELIGIBILITY**

This interdisciplinary course is open for participants from Industry, Faculty members and Research Scholars from AICTE approved Institutes/ Universities.

**COURSE CONTENTS**

- Biomedical images and signal processing.
- Neural network algorithms and its types.
- Supervised, semi-supervised and unsupervised learning techniques.
- Evolutionary computations, Genetic algorithms, and Expert systems.

- Fundamentals of Vision and NLP for biomedical tasks.
- Analysis of biomedical time series signals.
- Probability-based systems and fuzzy systems.
- UCI, NIH, and other machine learning biomedical repositories.

**MODE OF CONDUCTION**

The training program will be conducted on a suitable online platform. The soft copy of study material, PPT's will be shared with the participants. Certificates will be given to the participants as per AICTE ATAL Academy rules.

**REGISTRATION**

No registration fees for faculty from AICTE institutes.

**IMPORTANT DATES**

Last date for registration: June 28, 2021

Notification of selection: June 30, 2021

**APPLY FOR COURSE**

Registration is required for participating in this course. Applicants can fill the registration form only in online mode available at

<https://atalacademy.aicte-india.org/login>

**ADDRESS FOR CORRESPONDENCE**

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