

## About the FDP

Gujarat Technological University is organizing the Faculty Development Program on Data Mining and Machine Learning. The objectives of this Faculty Development Program are:

- Skill enhancement in the field of data mining and ML in faculty members and research fellows.
- Imparting knowledge in the field of data mining and machine learning amongst faculties.
- Exploring scope of research in machine learning fields.
- Redesigning ongoing research in the field of data mining and ML.
- Improving curriculum with recent trend in Data mining and ML.

## About the GTU– Graduate School of Engineering and Technology

In the year of 2017, GTU has started AICTE approved PG course, ME in Computer discipline (specialization in Cyber Security) and in the year of 2018, another PG course, Master of Engineering in Electronics and Communication discipline (specialization in Mobile Communication and Network Technology) has been started. Both these courses run under GTU-Graduate School of Engineering and Technology (GTU-GSET) with the vision of providing excellent technical knowledge and preparing competent man-power in the respective specialization.

**Following are salient features of the courses run under GTU-GSET:**

- Courses run by state government university (GTU).
- Admission through ACP.
- Courses run in academic campus of GTU located in Gandhinagar.
- Courses guided and acknowledged by senior academicians and industry experts in capacity of advisors.
- Chance for students to showcase their talent by arranging student led programs.
- Easy access to conferences and workshops organized by GTU in campus itself, elsewhere in India and abroad.
- Live research projects proposed by regulatory bodies and industries.
- 100% Placement possibilities.
- Guest lectures by various industry experts and academicians.
- Excellent digital and physical library facility.
- Hostel facility is available for boys and girls.

## About the GTU

Gujarat Technological University (GTU) is the largest government university in Gujarat, catering to the fields of Engineering, Business Management, Computer Science, Pharmacy and Architecture. GTU is having a pool of more than 5,00,000 students and 18,000 professors teaching in more than 500 affiliated colleges/institutes across the state of Gujarat.

GTU has initiated number of innovative policies and it has put in place systems to develop GTU into a great university. Today GTU is considered as the benchmark among the technological universities of India. Its industry-oriented academic programs and its efforts for establishing and maintaining an active relationship with industries and businesses through GTU Innovation Council has been recognized as the most successful effort in the country.

GTU has established fourteen Post-graduate Research Centres, including the Centre for Infrastructure, Transport and Water Management, Centre for Environmental and Green Technologies and Centre for Environment and Energy Efficiency. The Innovation Council of GTU is well known in the country for its initiatives in grass root innovation work by the engineering students for solving problems of SME industrial units located throughout Gujarat. Intensive innovation efforts resulted in many patentable outcomes. GTU's Policy Documents for Student Start-up Development and for Skill Development Mission are being used by universities all over India.



Gujarat Technological University  
Graduate School of Engineering and Technology  
& PG Research Centre for Cyber Security

Faculty Development Program on

# “Data Mining and Security with Machine Learning”

12<sup>th</sup> to 16<sup>th</sup> October 2020



Under Information Security Education and Awareness (ISEA) Project Phase II

at

GUJARAT TECHNOLOGICAL UNIVERSITY  
Graduate School of Engineering and Technology

Chandkheda Campus, Nr. Vishwakarma  
Government Engineering College,  
Visat - Gandhinagar Highway, Chandkheda,  
Ahmedabad – 382424 – Gujarat.

## Topics

- Introduction of data mining and machine learning
- Introduction of Neural Network and back propagation
- Regression models for biomedical applications using
- Basics of Classification and Clustering, Meta heuristic Clustering
- Introduction on various features and parameters of Computing models
- Python Programming and Libraries for machine learning
- Clustering using K-means algorithm
- Introduction to Deep Neural network, Machine Learning in Healthcare
- Data cleaning and feature engineering, Basics of SSO Algorithm
- Deep Neural Network for Biomedical Applications
- Implementation machine learning algorithms in python with real world example
- ML in Robotics with Practical Overview, Applications of SSO for image clustering
- Diabetes care using Machine Learning for COVID-19
- Machine learning algorithms for communication channel equalizer
- Multirate Signal Processing Applications with Machine Learning
- IOT Security Topic

## Important Dates:

Event On: 12<sup>th</sup> to 16<sup>th</sup> October 2020  
Last Date of Registration: 07<sup>th</sup> October 2020  
Notification of Acceptance: 9<sup>th</sup> October 2020

## Resource Persons:

Eminent Speakers from IIT , MNIT and VIT will conduct the sessions.

- 1 Dr. Amit M. Joshi, MNIT Jaipur
- 2 Prof. Pratik Jain, MNIT Jaipur
- 3 Mr. Sidharth Pancholi, IIT Delhi
- 4 Mr. AmitKumar Parmar, TCS Innovation Lab, Bangalore
- 5 Dr. Kuldeep Singh, MNIT Jaipur

## Who can attend?

- Faculty members of Degree/Diploma level engineering colleges/universities recognized by AICTE/UGC and from following disciplines: Computer Engineering, Computer Science and Engineering, Computer Technology, Information Technology, Information & Communication Technology and Electronics & Communication.
- Faculty members of MCA/BCA colleges/university departments running MCA/BCA course recognized by AICTE/UGC.

## Registration Guidelines

Kindly visit following link to register yourself for the FDP:  
<https://forms.gle/Jg7PT342ipwbZmj67>

- Limited Seats available and confirmation will be done on first-cum-first serve basis
- Participants have to submit their ID card.

## Management Committee

### Chief Patron

**Prof.(Dr) Navin Sheth**

Hon'ble Vice Chancellor  
Gujarat Technological University

### Patron

**Dr. K. N. Kher**

Registrar, Gujarat Technological University

### Convener

**Prof. (Dr.) Shailesh D. Panchal**

Director, GTU-GSET  
Email: director\_set@gtu.edu.in

### Coordinators

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### Organizing Committee

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