ABOUT GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA

Guru Nanak Dev Engineering College, Ludhiana (An Autonomous College under UGC Act), established in 1956, is the oldest and one of the premier institutions of Punjab. The college is providing education in the field of engineering by comprehending the need for upliftment of rural youth in highly competitive, technologically-elevated societies. The college was declared an Autonomous College by UGC, New Delhi in 2012. Apart from offering various accredited graduate level B.Tech. courses, the institute imparts instruction in eleven Postgraduate M.Tech. courses both,on regular and part-time basis. An excellent platform is provided to the researchers preparing for the Ph.D. degree program as well.

Department of Computer Science and Engineering established in 1997, is presently offering - B.Tech. (CSE), M.Tech. (CSE) and Post-graduate diploma in Machine learning and Artificial Intelligence. The department has various laboratories equipped with state of the art computing facilities to support the research and teaching activities.

ABOUT TEQIP-III

The Technical Education Quality Improvement Programme (TEQIP) was launched in December 2012, by the Ministry of Human Resource Development with assistance from the World Bank. The programme was conceived and designed as a long-term project to be implemented in 10-12 years in 3 phases in order to support excellence and transformation in technical education in the country. The third phase of the programme (TEQIP-III) was started in 2019. The main objective of TEQIP-III is to improve the quality of engineering education in the existing government institutions, in the educationally backward states and also arrange for twining them with other institutes.

ABOUT SABUDH FOUNDATION

Sabudh Foundation was set up in 2018 with the express desire to create a momentum in Artificial Intelligence (AI) and Machine Learning (ML) in Punjab. It has been formed by the leading data scientists in the industry with the objective to bring together data and young data scientists to work on focused, collaborative projects. It provides world class training for students free of charge. The foundation has signed Memorandums of Understanding (MoU) with leading universities and colleges of Punjab to create an AI and ML talent pool in the region. The foundation is working with various NGOs to solve social problems using Data science principles.

WHO SHOULD ATTEND

Research scholars, industry persons, and faculty members of degree level Colleges/Universities are eligible to attend the course. The candidate must be self motivated to use data science for social good.

REGISTRATION

There is no registration fee for participants from academic institutes. Applicants should fill the registration form only in online mode available at: http://bit.do/mcds1120. Shortlisting and confirmation of eligible candidates will be on a first-come first-serve basis.

EVALUATION CRITERIA

An evaluation test for the assessment of the acquired knowledge will be conducted at the end of the programme. The master class certificates will be issued to only those participants who have attended the programme and passed the test successfully.

TEQIP-III SPONSORED

MASTER CLASS
ON
DATA SCIENCE AND ITS APPLICATIONS

(From 21st Nov. 2020 To 25th Nov. 2020)

(IN ONLINE MODE)

ORGANIZED BY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA

In Collaboration with

SABUDH FOUNDATION, MOHALI
(A NON-PROFIT SECTION 8 COMPANY)

MASTER CLASS OBJECTIVES

The objective of this industry-led 5-day master class, is to provide an opportunity for faculty members and research scholars to immerse themselves in the field of data science. This data science master class will be delivered by leading lights in the field of data science. Participants will gain access to the best minds in this field, learn the latest developments and get a chance to implement these in hands-on sessions. It will also give them the opportunity to network with their peers. They will get exposure to the tools, methods and current research trends prevailing in this area so that they can be used to benefit society.

CONTENTS TO BE COVERED

- How Machines Learn?
- Bayesian Learning
- Data visualisation and Data pre-processing
- Supervised Learning
- Unsupervised Learning
- Neural Networks
- Graph Analysis
- Text Analysis
- Convolution Neural Networks
- Recurrent Neural Networks, Sequence Models
- Hands-on Lab Session-Python Libraries, Pandas
- Hands-on Lab Session-Matplotlib, Seaborn
- Hands-on Lab Session-Numpy and Scipy
- Hands-on Lab Session-Regression Models using scikit-learn
- Hands-on Lab Session-Supervised and Unsupervised learning using scikit-learn
- Hands-on Lab Session-Hyper parameter tuning
- Hands-on Lab Session-Graph Analysis using NetworkX
- Hands-on Lab Session-Text Analysis
- Hands-on Lab Session-Tensorflow and Keras, RNN, CNN for Image Analysis
- Hands-on Lab Session-Deploying models in Flask

ORGANIZERS

CHIEF PATRON
Dr. Sehijpal Singh (Principal)
Guru Nanak Dev Engineering College, Ludhiana

CHAIRMEN

Dr. Parminder Singh (Head of CSE department)
Guru Nanak Dev Engineering College, Ludhiana

Dr. Sarabjot Singh Anand (Director)
Sabudh Foundation, Mohali

COORDINATORS

Er. Diana Nagpal, Assistant Professor
Guru Nanak Dev Engineering College, Ludhiana

Er. Kapil Sharma, Assistant Professor
Guru Nanak Dev Engineering College, Ludhiana

Dr. Sukhjit Singh Sehra
Sabudh Foundation, Mohali

Mr. Bhavneet Singh
Sabudh Foundation, Mohali

CONTACT INFORMATION

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MASTER CLASS MENTORS

- Dr. Ashish Ghosh, Head Machine Intelligence Unit, ISI Kolkata, India
- Dr. Shailesh Kumar, Chief Data Scientist CoE AI/ML, Jio, India
- Mr. Atul Tripathi, Principal Data Scientist - Cyber-security, Tech Mahindra, India
- Mr. Madhukar Kumar – Chief Analytics Officer, HT Media LTD., India
- Dr. Sarabjot Singh Anand, Chief Data Scientist, Sabudh Foundation, Director CSE BML Munjal Univeristy, India
- Dr. Sukhjit Singh Sehra, Wilfrid Laurier University, Canada
- Mr. Chirag Ahuja, Lead Data Scientist, Tatras Data, India
- Mr. Parthosarothi Mukherjee, Data Scientist, Tatras Data, India
- Mr. Gurmukh Singh, Data Scientist, Tatras Data, India

IMPORTANT DATES

- Last Date for Receipt of Application: November 15, 2020.
- Intimation of Acceptance: November 17, 2020.
- Master Class Dates: November 21 to November 25, 2020.
- Inauguration: 9:00 A.M. on November 21, 2020.

Get involved with Sabudh Foundation:

Selected participants would have an opportunity to work with Sabudh Foundation to apply data science for social good projects (free-of-charge). The participants, who complete their respective projects will be given an additional Certificate of Merit, issued by Sabudh Foundation.