

**TEQIP - III SPONSORED
MASTER CLASS
ON
Data Science and its Applications
(21st-25th November, 2020)**

SCHEDULE

Day 1: 21st November, 2020 (Saturday)							
9.00am-9.30am	9.30am-11.00am	11.00am-12.30pm	12.30pm-1.00pm	1.00pm-2.30pm	2.30pm-2.45pm	2.45pm-4.15pm	4.15pm-5.45pm
Inauguration	Session - 1.1	Session - 1.2	Lunch	Session - 1.3	Break	Session - 1.4	Session - 1.5
Inauguration							
Session - 1.1	Dr. Rayid Ghani		Keynote lecture: Doing Good with Data: Fairly and Equitably				
Session - 1.2	Dr. Shailesh Kumar		Evolution in AI Thinking and Products of the next Decade				
Session - 1.3	Dr. Sarabjot Singh		How Machines Learn?				
Session - 1.4	Mr. Sahibpreet Singh & team of Data Scientists		Hands-on Lab Session - Data Handling and Pre-processing - Pandas (N1), Numpy and Scipy (N3)				
Session - 1.5	Mr. Bavalpreet Singh & team of Data Scientists		Hands-on Lab Session - Data Vizualisation - Matplotlib, Seaborn (N2)				
Day 2: 22nd November, 2020 (Sunday)							
9.00am-10.30am	10.30am-10.45am	10.45am-12.15pm	12.15pm-12.45pm	12.45pm-2.15pm	2.15pm-2.30pm	2.30pm-4.00pm	4.00pm-5.30pm
Session - 2.1	Break	Session - 2.2	Lunch	Session - 2.3	Break	Session - 2.4	Session - 2.5
Session - 2.1	Dr. Sarabjot Singh		Bayesian Approach to Learning				
Session - 2.2	Dr. Ashish Ghosh		Introduction to Neural Networks				
Session - 2.3	Mr. Partho Mukherjee & team of Data Scientists		Hands-on Lab Session - Tensorflow and Keras (N8, N9)				
Session - 2.4	Mr. Atul Tripathi		Unsupervised Learning				
Session - 2.5	Mr. Navjot Tung		Hands-on Lab Session - Regression Models using scikit-learn				
Day 3: 23rd, November 2020 (Monday)							
9.00am-10.30am	10.30am-10.45am	10.45am-12.15pm	12.15pm-12.45pm	12.45pm-2.15pm	2.15pm-2.30pm	2.30pm-4.00pm	4.00pm-5.30pm
Session - 3.1	Break	Session - 3.2	Lunch	Session - 3.3	Break	Session - 3.4	Session - 3.5
Session - 3.1	Mr. Atul Tripathi		Text Analysis and Social Networks				
Session - 3.2	Mr. Chirag Ahuja		Graph Analysis				
Session - 3.3	Dr. Debasis Ganguly		Keynote lecture: A Journey towards Explainable AI and its Societal Implications				
Session - 3.4	Mr. Gurmukh Singh & team of Data Scientists		Hands-on Lab Session - Graph Analysis using NetworkX (N7)				
Session - 3.5	Mr. Madhukar Kumar		Supervised Learning - Session 1				
Day 4: 24th November, 2020 (Tuesday)							
9.00am-10.30am	10.30am-10.45am	10.45am-12.15pm	12.15pm-12.45pm	12.45pm-2.15pm	2.15pm-2.30pm	2.30pm-4.00pm	4.00pm-5.30pm
Session - 4.1	Break	Session - 4.2	Lunch	Session - 4.3	Break	Session - 4.4	Session - 4.5
Session - 4.1	Mr. Madhukar Kumar		Supervised Learning - Session 2				
Session - 4.2	Mr. Gurmukh Singh & team of Data Scientists		Hands-on Lab Session - Supervised and Unsupervised learning using scikit-learn (N4,N5)				
Session - 4.3	Dr. Sukhjot Singh Sehra / Sarabjot Singh		Model Evaluation and Selection				
Session - 4.4	Mr. Gurmukh Singh & team of Data Scientists		Hands-on Lab Session - Supervised and Unsupervised learning using scikit-learn with Hyper parameter tuning (N6)				
Session - 4.5	Mr. Sahibpreet Singh & team of Data Scientists		Hands-on Lab Session - Deploying Models in Flask (N12)				
Day 5: 25th November, 2020 (Wednesday)							
9.00am-10.30am	10.30am-10.45am	10.45am-12.15pm	12.15pm-12.45pm	12.45pm-2.15pm	2.15pm-2.30pm	2.30pm-4.00pm	4.00pm-4.30pm
Session - 5.1	Break	Session - 5.2	Lunch	Session - 5.3	Break	Session - 5.4	Valedictory
Session - 5.1	Mr. Gurmukh Singh		Convolution Neural Networks				
Session - 5.2	Mr. Parthosarothi Mukherjee		Recurrent Neural Networks				
Session - 5.3	Mr. Parthosarothi Mukherjee & team of Data Scientists		Hands-on Lab Session - Tensorflow and Keras, RNN, CNN for Image Analysis (N10)				
Session - 5.4	Mr. Gurmukh Singh & team of Data Scientists		Hands-on Lab Session - Tensorflow and Keras, RNN, CNN for Image Analysis (N11)				
Valedictory							

Evaluation: There will be a MCQ test of 5 marks the end of each day based on the content covered for the respective day. Attendance in all sessions is mandatory.

Sessions [Online via Zoom link to be shared on your email ID.](#)

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA
●●● In Collaboration with ●●●
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