



Gujarat Technological University

Organizes

One Day FDP for MCA Faculties

on

“Data Science Project and Code Optimization”

(Only for MCA - faculties of GTU affiliated colleges)

Title: FDP on “Data Science Project and Code Optimization”

Objectives: After attending the workshop, the participants will be able to:

- become aware of the basic concepts underlying Data Science
 - To understand fundamentals of data characteristics and data processing
 - To understand data visualization techniques
 - to be familiar with applications and processes of data science and data analytics
 - goal will be to cover almost all the salient aspects of the syllabus
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Topics to be covered

Session-1: Understanding Data

- Data types: Numerical, Nominal, Ordinal
- Data Source: Process Data, Audio, Video
- Data categories: (a) Data-by-design: Small size, Rich; (b) Big Data: Large, random
- Population; Sample: (a) Non-random; (b) Random: Central Limit Theorem; Training Set; Test Set

Session-2: Data Preprocessing

- Encoding;
- Missing Data;
- Normalization

Session-3: Data (Pre) Visualization

- Anscombe
- Histogram
- Scatter Diagram
- Box Plot, etc

Session-4: Model Building

- Occam's Razor
- Classification: Decision Tree; ANN
- Clustering
- Linear Models
- Random Forest; SVM

Session-5: Data Analytics

- Case study with an example

Session-6: Result Analysis

- (Post) Visualization
- Descriptive Analysis
- Analytical Analysis
- Predictive Analysis
- Prescriptive Analysis
- Interpretation of Results

Duration of the workshop: 1 Day ||| Date - 18/01/2019 ||| Friday

Target audience: MCA faculties

Workshop Impact -Expected outcome – Academic /Social /Commercial

- Faculties get a good overview of Data Science Process.
 - Faculties will also get a good feel of Data Pre-processing, Analytics and application of analytics
 - Faculties learn that it is in their interest that a quality Teaching is done
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Program Details

Time	Activity	Venue
09:00 to 09:45	Registration	GTU, Chandkheda, Ahmedabad
09:45 to 10:00	Inaugural	
10:00 to 10:40	Session-1: Understanding Data	
10:40 to 11:10	Session-2: Data Preprocessing	
11:20 to 12:00	Session-3: Data (Pre) Visualization	
12:00 to 13:00	Session-4: Model Building	
13:00 to 13:45	Lunch Break	
13:45 to 14:30	Session-5: Data Analytics	

14:30 to 15:45	Session-6: Result Analysis	
15:45 to 16:00	Tea Break	
16:00 to 16:15	Valedictory Function	

Expert-1: Dr. Sanjaykumar Vij

Expert Profile:

- Ph. D. from I.I.T; Mumbai
- Experience: 24 years in industries (Jyoti Ltd, Alembic, Paramount) till year 2000 and thereafter (17 years) of Academic experience in SVIT, Vasad; DDIT (DDU), Nadiad; and ITM Universe, Vadodara.
- Association with Professional Bodies:
 - Chapter Patron and Past Chairman, Computer Society of India, Vadodara Chapter
 - Executive Committee Member of Vadodara Innovation Council
 - Life Members of Computer Society of India (CSI) and Indian Society of Technical Education (ISTE)

Expert: Prof. Himashu B. Dave

Expert Profile:

- B.E.(Elect) 1959, M.Tech.from IIT/Kharagpur, 1961, Doctorate from Tohoku University, Sendai, Japan, 1967
- Experience: 43 years in Teaching (IIT/Kharagpur; L.D.College of Engg, Ahmedabad; DDIT, Nadiad; DAICT, Bhat). Consultant to various industry for more than 50 years, Narmada Canal Group, GOG; Accumax Ltd Rajkot; Director ORG systems, Vadodara; a number of SSI units;
- Director (Technology and HR) D2V ISP Vadodara for 2 years
- Professional Bodies: Coordinator for Gujarat state, CLASS project of GOI;
- Life Fellow of Institute of Electronics and Telecomm Engineers, Computer Society of India (CSI) and Indian Society of Technical Education (ISTE)

Target/Expected Participants: 40 ||| No Fees and workshop is only for GTU MCA/IMCA faculties |||

Note: No TA and DA provision for any participants.

Workshop coordinator:

Dr. Jignesh Doshi, Dean, Computer Applications, Gujarat Technology University, Ahmedabad

Link for Registration: <https://goo.gl/forms/reRRzYk04VnMrhAS2>

Last date for registration is 11-01-2019
