

Schedule for Online FDP on “Data Science for ALL”

(Organized Jointly by E&ICT Academies – NIT Warangal and IIITDM Jabalpur)

Participating Academies: IIT Kanpur, NIT Patna, MNIT Jaipur, IIT Roorkee and their remote centers

NIT Warangal and IIITDM Jabalpur will deliver lectures and demos through Cisco webex platform

Academies are requested to send soft copy of names, email ids of participants registered with them.

Dates in 2021		10 a.m.-12 noon	2 pm - 4 pm	Tests
12-April	Mon	Mathematical Foundations- DVS	Statistical Foundations Part 1 - VR	
13 April	Tue	Holiday		
14-April	Wed	Python for Data Science Part1- AK	Statistical Foundations Part 2– VR	
15-April	Thu	Python for Data Science Part2- AG	Graphical Analysis - DVS	Assignment Test–1
16-April	Fri	Statistical Foundations Part 3– VR	Data Wrangling – PRK	
17-April	Sat	Data Preprocessing – AK	Linear Model Subset Selection, Cross Validation Techniques – DVS	
18-April	Sun	R Programming Part 1 – TRK	Classification – Part 1- AG	Assignment Test -2
19-April	Mon	Classification :Decision Trees-RBS	Classification: Other Methods- RBS	
20-April	Tue	Clustering : AG	Text Processing : AG	
21-April	Wed	Holiday		
22-April	Thu	Deep Learning Part 1– MAK	Deep Learning Part 2 – MAK	
23-April	Fri	R Programming Part 2 – TRK	Map Reduce - RBS	Assignment Test -3
<i>Respective academies will conduct Assignment tests to the participants enrolled with them and Evaluate.</i>				
<i>e- Certificates will be sent on 30 April 2021 through email after Assignment Tests Evaluation by respective academies</i>				

(Resource Persons are requested to set relevant assignment test questions and send the same with keys to rbvs66@gmail.com and atul@iiitdmj.ac.in (Dr Atul Gupta, Head Dept of CSE, IIITDM Jabalpur)

The following Resource Persons will teach their Topics (theory and /or practical demo sessions)

1) DVS : Prof DVLN Somayajulu, Director, IIITDM Kurnool (3 sessions)

email: somadvlns@gmail.com, Mobile 98493 36547

12th April Forenoon: Mathematical Foundations: Matrix Theory- Matrix Decomposition, Linear Algebra Fundamentals, Vector Spaces.

15th April Afternoon: Graphical Analysis: Histograms and frequency polygons, Box-plots, Quartiles, Scatter Plots, Heat Maps Programming for basic computational methods such as Eigen values and Eigen vectors, sparse matrices, QR

17th April Afternoon: Linear Model Subset selection methods and cross validation techniques

2) VR: Prof V Ravindranath, PhD (IITDelhi), Professor at JNT University, Kakinada (3 sessions)

email: nath_vr@yahoo.com, Mobile: 97015 84555 :Statistical Foundations Part 1,2, 3:

12th Afternoon: Statistical Measures, Probability basics, density function, variance, conditional probability, Overview of Random variables and distributions, Statistical learning, Assessing model accuracy, Simple Hypothesis Testing, Student's t-test, paired t and U test, correlation and covariance, tests for association

14th Afternoon: Descriptive Statistics, Dependent and Independent events. Regression, Linear Regression: Simple and multiple linear regressions,

16th Forenoon : Comparison of Linear regression with K-nearest neighbors. Markov Chains

3) AG: Dr Atul Gupta, Ph.D. (IIT Kanpur) IIITDM Jabalpur – 4 sessions

email: atul@iiitdmj.ac.in , Mobile: 94 2515 2499

Forenoon on 15th April: Python for Data Science: Python library for Data Science: NumPy, Pandas, Matplotlib

18th April Afternoon: Classification Part-1: Logistic Regression and other kinds of Regression, LDA and comparison of classification methods

20th April Forenoon: Clustering and **20th April Afternoon :** Text Processing

4) PRK: Prof P Radha Krishna Ph.D. (IIIT Hyd), NIT Warangal (1 session) –

email: pisipati.radhakrishna@gmail.com, Mobile: 97049 88816

16th April Afternoon: Data Wrangling: Data Acquisition, Data Formats, Imputation, The split-apply-combine paradigm. Descriptive Analytics: Data Summarization, Data de- duplication, Data Visualization using CUBEs.

5) TRK: Dr T Ramakrishnudu, Ph.D. (NIT Warangal), NIT Warangal: 2 sessions

email: trk@nitw.ac.in, Mobile: 94901 64978

18th April Fore noon and 23rd Forenoon: R Programming for Data Science: R Environment, Data Wrangling, Data Visualization, Linear Models , Non Linear Models, Programming.

6) RBS : Prof RBV Subramaanyam, Ph.D. (IITKgp) NIT Warangal – 3 sessions

email: rbvs66@gmail.com, Mobile: 949 134 6969

19th April Forenoon and Afternoon: Classification – Decision Trees, Naïve Bayesian Classifier,

23rd April Afternoon: Handling Large Datasets: MapReduce

7) MAK: Dr M Anand Kumar, NITK Surathkal: 2 sessions

email: m_anandkumar@nitk.edu.in, Mobile: 9894 75 34 37

22nd April: Deep Learning along with Scikit, Keras and TensorFlow: Practice on ML topics.

8) AK: Dr Amey Karkare, Ph.D. (IIT Bombay) IIT Kanpur– 2 sessions

email: karkare@iitk.ac.in, Mobile: 95326 89131

14th April Forenoon: Python for Data Science: Python fundamentals

17th April Forenoon: Data Pre-processing: Data Cleaning, Dimensionality Reduction, SVD, PCA and other methods.