Certificate of merit and participation will be given to successfull participants.

Online Executive Development Program on DATA SCIENCE WITH R & PYTHON

Module IV: Python for Machine Learning

organized by

Department of Statistics, Pondicherry University.

30-31 May, 2020 8.30 a.m to 7 p.m

Inauguration: 30May 2020 @ 8.30. a.m. &

Valedictory : 31 May, 2020 @ 6.30. p.m.

Training Co-ordinator

Prof. Tirupathi Rao Padi,
Department of Statistics,
Pondicherry University

Chief Guest

Prof. Prathap Kumar Shetty,
Dean, Research, PU.

Keynote Speaker

Prof .Uma Chandrasekharan,
Dean, International Relations,PU.

Convener

Prof. P. Dhanavanthan,
Dean, RSMS, PU.

Valedictory Address

Prof. B. Charumathi,
Head, DMS, PU.

For details: http://www.pondiuni.edu.in/sites/default/files/Online_EDP-DS-STP%20(Revised)_Information%20Brochure_0.pdf

Resource Persons

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SCHEDULE OF MODULE-4

PYTHON FOR MACHINE LEARNING		
Day /Session/ Time	**Course Contents**	**Details of the contents**
Day-1 (4th Saturday): 8.30 AM to 6.30 PM		
08.30 AM to 09.00 AM: Registration & Inauguration		
Day-I/ 08.30 AM - 09.00 AM	Registration &Inauguration	Declaration on Orientation of Workshop/ Skilled Training / Capacity Building by the coordinator and introduction of resource persons
Day-I/Session-1 09.00AM to 11.00AM	Python programming	1. Strings 2. Classes 3. Dates and its challenges in conversions 4. Operators 5. Data extraction and cleaning in python
11.00 AM to 11.15 AM: Morning Tea Break		
Day-I/Session-2 11.15AM to 1.15PM	Statistics	1. Normal Distribution, Binominal & Poisson distribution 2. Testing of Hypothesis, Null hypothesis, Alt hypothesis, p-value 3. Z-test, Chi-square test, F-test, t-test 4. Curve Fitting &Principle of Least square 5. S.E, one & two-tailed test, parameter and statistics, sample and population 6. Theory of Estimation 7. Statistical Inference
01.15 PM. to 02.00PM: Lunch Break		
Day-I/Session-3 02.00 PM to 04.00PM	FORECASTING ANAYTICS	1. Forecasting Analytics – 1 2. Why forecasting 3. Data collection 4. Data Quality 5. Time series components 6. Additive and Multiplicative model
04.00 PM to 04.15PM: Evening Tea Break		
Day-I/ Session-4 04.15PM to 05.45PM	TIME SERIES ANALYSIS	Application with Python in Time series Practical Example
Day-I/Session-5 05.45PM to 06.30PM	Participant's Interactions	Discussions & Case study*

PYTHON FOR MACHINE LEARNING		
Day /Session/ Time	**Course Contents**	**Details of the contents**
Day-2 (4th Sunday): 9.00 AM to 7.00 PM		
Day-II/Session-1 09.00AM to 11.00AM	Python	1. Important Libraries 2. Object creation 3. Data frames 4. Basic statistics with Python commands like mean, histogram 5. Joining, Reshaping, Stack, Grouping 6. Pivot tables, plotting, selection, operations
11.00 AM to 11.15 AM: Morning Tea Break		
Day-II/Session-2 11.15AM to 01.15PM	Data Visualization	1. What is Data visualization? 2. Why Data visualization in Data Science 3. DV in excel 4. DV in Tableau 5. Basic Tableau 6. Example in DV with Excel and tableau
01.15 PM to 02.00PM: Lunch Break		
Day-II/Session-3 02.00 PM to 04.00PM	Practicum ML with Python	1. End to End project 2. Define Problem 3. Prepare Data 4. Evaluate Algorithms 5. Improve Results 6. Present Results
04.00 PM to 04.15PM: Evening Tea Break		
Day-II; Session-4 04.15 PM to 05.30 PM	Practicum KNN with Python	1. k-nearest neighbours 2. practical examples with KNN 3. end to end KNN project with Python
Day-II/ Session-5 5.30 PM to 6.00 PM	Interaction	1. Discussion on the Data sets of the participants, Statistical Data Analysis Planning
Day-II/ Session-6 6.00 PM to 6.30 PM	Examination & Screening Test	1. Online examination, evaluations and declaration of results and grades
06.30 PM to 7.00 PM: Valedictory, Issue of Certificates & Feedback		