



Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT)

**Faculty Development Programme in Data Sciences
(Funded by MHRD, New Delhi under RUSA and Shivaji University)**

For

Faculty in Universities, Colleges and Institutes of Higher Education

(19th Aug to 24th Aug 2019)

Call for Registration and Participation

**Venue: Trinity Academy of Engineering, S. No. 25 & 27, A/P. Pisoli, Bopdev Ghat Road,,
Kondhwa Saswad Road, Next to Yevlewadi, Pune, Maharashtra 411001**



**Jointly Organized by
Shivaji University, Kolhapur
and
KJEI's Trinity Academy of Engineering, Pune**

About Shivaji University, Kolhapur

Shivaji University, established in 1962, is named after the Great Maratha Warrior and founder of the Maratha empire Chhatrapati Shivaji. One of the major objectives behind foundation of this University was to cater to the regional needs of South Maharashtra. The jurisdiction of the University is spread over three districts viz. Kolhapur, Sangli and Satara with strength of about 3,00,000 students studying in 280 affiliated colleges and recognized institutes. The recent phase of the University can be termed as "a pursuit of academic excellence". Since last 4-5 years, several attempts are being made to overcome the image of University as a regional University. The University's efforts towards excellence are being recognized by the substantial grants received from funding agencies like UGC, DST, DBT etc. Another indicator of recognition of University is collaborations with premier institutes in the country. Shivaji University has recently signed MOU with Bhabha Atomic Research Centre, Mumbai for research in Material Science. It has also joined hands with Indian Institute of Geo-Magnetism, Mumbai and industries like Phyto-Pharma. Prestigious institutes like Maharashtra Police Academy, Nashik and Centre for Social Studies, Surat have sought affiliation with the Shivaji University. Shivaji University has been re-accredited by National Assessment and Accreditation Council (NAAC) Bangalore, with "A" Grade (CGPA-3.16) (2014). Shivaji University has bagged the 28th position in the rankings announced by the National Institutional Ranking Framework (NIRF) of Union Ministry of Human Resource Development (MHRD). As per the INFLIBNET report, Shivaji University stands second in use of Nature publications Group's (NPG) e-journal usage in the country. The University has also signed MoU with Centre for Development of Advanced Computing (C-DAC), Pune. Under the agreement, the two institutions will exchange information and communication technology.

About KJEl's Trinity Academy of Engineering, Yevlewadi, Pune

The Trinity Academy of Engineering is a technical education institute in the city of Pune, India. The institute is affiliated with the University of Pune and managed by the KJ's Educational Institutes (KJEl). It has been accredited by the National Board of Accreditation and recognized by the All India Council for Technical Education (AICTE). The institute has also been awarded an "A" Grade by the National Assessment And Accreditation Council (NAAC) and Directorate of Technical Education, Maharashtra. The college has about 200 faculty members, 67 laboratories, 1 central library and 100 administrative and support staff. Spread over an area of 120 acres (490,000 sq.m), the academic area consists of five major buildings. The campus has three major canteens, 4 coffee and snack outlets that remain open during the college hours and an auditorium.

About Resource Centre in Cyber Security and Data Sciences

National Resource Centre in Cyber Security and Data Sciences is established under the guidance RUSA Maharashtra from the grants received from the MHRD, Government of India under the 'Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNTT)' scheme. Objective of this centre is to develop resource which is recognized as a critical element to strengthen not only the organization/ institutions but even the people at grassroots level by spreading awareness about Data Sciences and Cyber security. There is a large gap between demand and availability of trained human resource in both of fields, who can beneficially utilize the available information for cyber safety as well as data analysis. Trained human resource is needed both as the provider and user of Technology. This is vital for sustainable development so that informed decision making can be done at all levels.

About the Training:

Data Science– An interdisciplinary field, data science deals with processes and systems, that are used to extract knowledge or insights from large amounts of data. Data extracted can be either structured or unstructured. Data science is a continuation of data analysis fields like data mining, statistics, predictive analysis. A vast field, data science uses a lot of theories and techniques that are a part of other fields like information science, mathematics, statistics, chemo metrics and computer science. Some of the methods used in data science include probability models, machine learning, signal processing, data mining, statistical learning, database, data engineering, visualization, pattern recognition and learning, uncertainty modeling, computer programming etc. With advancements of so much of data, many aspects of data science are gaining immense importance, especially big data. Data science is not restricted to big data, which in itself is a big field because big data solutions are more focused on organizing and pre-processing the data rather than analyzing the data. In addition, machine learning has enhanced the growth and importance of data science in the last few years. Data has real value and every information extracted from it can make or break businesses. Analytics is the intersection of business and data science, offering new opportunities for a competitive advantage. It unlocks the predictive potential of data analysis to improve financial performance, strategic management, and operational efficiency. Data analytics can lead to valuable insights that can determine criteria to increase sales, fraud detection, pattern recognition and risk prediction in various domains. As part of this initiative, a Faculty Development Programme (FDP) is conducted to focus on the fundamentals of data science with hands-on sessions on every topic handled using python.

Objectives of the Training:

- Train 2000 faculties
- Building networks of professional
- Forming consortium of industries specialized in Data Sciences which will interface with Shivaji university Kolhapur
- Promoting Data Science methodologies for real time applications.

Eligibility:

Faculty Members from Science and Technology, Humanities, Social Sciences, Commerce and Management discipline from Universities, Colleges, NITs, IITs, Engineering Colleges and other Institutions of Higher Education. As the number of participants is limited to 40, preference will be given on First Come First Serve basis. Confirmation email of selection will be mailed to all eligible candidates.

All confirmed participants will have to submit a relieving letter from their institution on the first day of the training.

The eligible candidates will be given confirmation is available on web-portal and it will also be informed through email. All confirmed participants will have to submit a relieving letter from their institution on the first day of the training.

Programme Schedule:

Dates: 19th Aug to 24th Aug 2019

Venue: KJEL's Trinity Academy of Engineering, Yevlewadi Pune

Day and Date	Course Contents
Day 1: Monday, 19/08/2019	Introduction to Python
Day 2: Tuesday, 20/08/2019:	Hands-on session on Python
Day 3: Wednesday, 21/08/2019	Data Analytics using Python
Day 4 Thursday, 22/08/2019	Machine learning using Python
Day 5: Friday, 23/08/2019	Hands-on session on Machine Learning Analytics
Day 6: Saturday, 24/08/2019	Hands-on session on Data Analytics

Laboratory assignments:

1. Introduction to Python.
2. Introduction to Machine Learning.
3. Importing data using python for analysis
4. Exploring data sets for analysis
5. Working with loops, metrics, data submission
6. Building Data-Frames, merging data-frames and visualization with dataframes
7. Data analytics using python
8. Matrices Preview
9. Building Your First Matrix
10. Dictionaries in Python
11. Matrix Operations
12. Explore & Define a ML use case
13. EDA and Feature Engineering
14. Working on machine learning using Python
15. Importing data into python
16. Exploring your dataset
17. Filtering a data frame
18. Renaming Columns of a Data-frame
19. Exploring Data Analysis
20. Univariate Analysis
21. Simple & Multiple Linear
22. Regression
23. Regression Demo
24. Simple Network Servers
25. Package ManagersCollect the Owner's information using spyware.

Registration:

Participants must register through online web-portal only. No need to send any printed documents to the Resource Center Shivaji University. Registration Link: <http://sangnaksuraksha.com>

Registration details:

Registration and participants is free of cost. Hard copy of the registration form duly forwarded through the Head of the Institute should be submitted to the Co-coordinator on the first day of the programme.

Instructions for the Participants:

- ✓ Attendance for all sessions is mandatory.
- ✓ Lunch and Tea will be provided.

Technical Requirements from participants:

- ✓ Participants should carry their own laptop as well as debit cards, credit cards, payment wallets, net banking, UPI, mobile banking, paypal, aadhar, PAN card with them for sample demos.
- ✓ Participants should carry Smartphone either android / ios with them.

Important Note: This FDP under PMMMNMTT is applicable for CAS promotions as per UGC gazette.

Organizing Committee

Patron

Hon. Prof. Dr. D. B. Shinde
Vice Chancellor,
Shivaji University, Kolhapur

Hon. Shri. Kalyanji Jadhav
President,
KJEl's Trinity Academy of Engineering, Pune

Hon. Prof. Dr. D. T. Shirke
Pro-Vice Chancellor,
Shivaji University, Kolhapur

Hon. Mr. Vinod Jadhav
Treasurer,
KJEl's Trinity Academy of Engineering, Pune

Dr. V. D. Nanavadekar
Registrar,
Shivaji University, Kolhapur

Dr. V. J. Kakhandki
Director
KJEl Campus

Dr. Hemant K. Abhyankar
Executive Director,
KJEl Campus

Dr. Nilesh J. Uke
Principal,
KJEl's Trinity Academy of Engineering, Pune

Mentor

Smt. Meeta Rajivlochan (IAS)
Principal Secretary, State Project Director, RUSA, Maharashtra

Principal Investigator

Prof. (Dr.) R.K. Kamat
IQAC Director,
Director, Innovation, Incubation and Linkages
Head, Department of Computer
Science,
Shivaji University, Kolhapur

Co-Investigator

Dr. K. S. Oza
Assistant Professor,
Department of Computer Science,
Shivaji University, Kolhapur

Organizing Committee

Coordinator

Mr. A. S. Devare
Asst. Prof.
Computer Engg.

Coordinator

Ms.S.G.Nandanwar
Asst. Prof.
Computer Engg.

Organizing Chairman

Ms. S. N. Maitri
HoD
Computer Engg.

Members

Mr. A.C.Shaikh
Mr. Chandan M.N.
Mr. K.M.Kulkarni

Mr.N.R.Patil
Mr.D.G.Matale

Shivaji University,
Vidya Nagar, Kolhapur – 416 004
(Maharashtra – INDIA)
Website:
www.unishivaji.ac.in

KJEl's Trinity Academy of Engineering,
A/P. Pisoli, Bopdev Ghat Road,, Kondhwa Saswad Road,
Next to Yevlewadi, Pune, Maharashtra 411001
Website: www.kjei.edu.in/tae/