

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

Faculty Development Programme in Data Science

For

Faculty in Universities, Colleges and Institutes of Higher Education
(19th Aug to 24th Aug 2019)

Call for Registration and Participation

**Venue: M.E.S College of Engineering, Pune (Wadia College Campus)
19, Late Prin. V.K. Joag Path, Pune - 411001**



**Jointly Organized by
Shivaji University, Kolhapur
And
M.E.S. College 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, and 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 M.E.S College of Engineering, Pune (NAAC 'A' Accredited)

About the College:

Modern Education Society was established in 1932 with the motto "For the Spread of Light".

M.E.S. College of Engineering is established in 1999 and situated in the heart of Pune city, offers Engineering degree courses in Computer, E&TC and Mechanical, Engineering and is affiliated to Savitribai Phule Pune University, accredited by NAAC with 'A' grade. The college is developing fast with the vision "To Develop Motivated, Environment friendly, Self esteemed, Creative and Oriented Engineers" and the mission "To develop industry oriented manpower to accept the challenges of globalization by promoting value Education through motivated trained faculty by maintaining conducive environment for affordable cost by promoting industry institute interaction by involving Alumni"

About the Department:

The Department of Computer Engineering has been taking consistent efforts since its inception in 1999 with highly qualified and energetic faculty for all- round development of budding engineers for tomorrow's nation building. The department has intake of 180 UG and 24 PG students. This is an exciting place to study and grow where thinkers become leaders and where there is thirst of knowledge. The interaction between the students and professors profusely enriches the educational experience. The department is well equipped with the state-of-the-art infrastructure & advance laboratories. Many staff members have completed and some are pursuing Ph.D. in various streams of Computer Engineering to strengthen Research & Development & to leverage research aptitude of students.

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 capacity building of human 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 Cyber security. There is a large gap between demand and availability of trained human resource in Cyber Security, who can beneficially utilize the available information for cyber safety. Cyber security 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:

Cyber security is need of the time, as estimated by National Association of Software and Services Companies (NASSCOM)'s Cyber security Task Force, there is need of 1 million trained cyber security professionals in India by 2025. But, currently there are only 62,000, so to fill this gap there is need to introduce cyber security courses at graduate and postgraduate *levels*. Our aim is to train teachers with practical skills so that more and more cyber security experts can be shaped every year. It is expected that the 'Train the Trainers' approach shall percolate to the students in colleges and make them suitable to take up challenges in the domain of Cyber Security which is the need of this decade and will thus improve their employability enhancing campus placement. In addition, Cyber Security courses will help in start-ups and employment opportunities. The faculty shall be also trained specifically as knowledge creator with strong practical 'skills' and theoretical details.

Objectives of the Training:

- Train 2000 faculties
- Building networks of professional
- Forming consortium of industries specialized in cyber security which will interface with Shivaji university Kolhapur
- Sensitizing cyber security to masses at large for strengthening cashless transactions.

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.

Programme Schedule:

Dates: 19th Aug to 24th Aug 2019

Venue: M.E.S College of Engineering, (Wadia College Campus), 19, V K Joag Path, Pune-1

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

Day 6: Saturday, 24/08/2019	Hands on session on Machine Learning using Python, Examination and Evaluation
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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.

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 data-frames
7. Data analytics using python
7. Matrices Preview
8. Building Your First Matrix
9. Dictionaries in Python
10. Matrix Operations
11. Explore & Define a ML use case
12. EDA and Feature Engineering
13. Working on Machine learning using python
14. Exploring your dataset
15. Importing data into Python
16. Filtering a Data Frame
17. Renaming Columns of a Data-frame
18. Exploratory Data Analysis
19. Univariate Analysis
20. Univariate Analysis 2
21. Simple & Multiple Linear
22. Regression
23. Regression Demo
24. Simple Network Servers
25. Package Managers
26. Importing data into Python

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 of 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 at all sessions is mandatory. Breakfast, Lunch and Tea will be provided.

Technical Requirements from Participants:

- Participants should carry their own laptop

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

Organizing Committee

Chief Patron

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Trustee and CFO,
Modern Education Society, Pune

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Registrar,
Shivaji University, Kolhapur

Principal Investigator

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Director, Innovation, Incubation and Linkages
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M.E.S College of Engineering, Pune

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