Pandit Madan Mohan Malaviya National Mission on

Teachers and Teaching

(PMMMNMTT)

Faculty Development Programme in Data Science
For
Faculty in Universities, Colleges and Institutes of Higher Education
(16th –21st Dec 2019)

Call for Registration and Participation
Venue: Sir Visvesvarayya Institute of Technology,
Chincholi, Tal: Sinnar, Dist: Nashik – 422103

Jointly Organized by
Shivaji University, Kolhapur
And
Sir Visvesvarayya Institute of Technology, Nashik

About Shivaji University, Kolhapur

Shivaji University, established in 1962, is named after the Great Maratha Warrior and founder of the Maratha Empire Chhatrapati ShivajiMaharaj. 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 Society

The Pravara Rural Education Society was established in July 1964 by Late. Padmashri Dr. Vitthalrao Vikhe Patil, a great visionary, philanthropist & pioneer of first cooperative sugar factory in cooperative sector not only in India but also Asia. The objective was to avail the technical education in the rural area at affordable cost. Late. Padmabhushan Balasaheb Vikhe Patil, an outstanding leader in Maharashtra & a member of Parliament for over three decades, embarked upon the arduous task of translating the dream of Padmashri into concrete realities by meticulous planning. It symbolizes the ascendance of academic excellence, quality education from preprimary to research level.

About Institute

Pravara Rural Education Society established Sir Visvesvaraya Institute of Technology in 1998-99. It offers Under Graduate Engineering Courses in Chemical Engineering, Computer Engineering, Electrical Engineering, E&TC Engineering, Mechanical Engineering, and Information Technology & P.G. Courses in Mechanical Engineering, E&TC Engineering, Computer Engineering and MBA. The institute is running under the dynamic leadership of Hon'ble Shri. Radhakrishna Vikhe Patil, Minister of Housing Department Govt. of Maharashtra, to equip the institute with excellent infrastructure & with modern methods of governance. The institute has well qualified, devoted and dedicated team of faculty members. The conducive environment exists between staff and students. The quality technical education is provided to the students to meet challenges of globalization with state of art equipment and laboratories.

About Department

Computer Engineering department was established in 1999 and is among the oldest at the Sir Visvesvaraya Institute of Technology. We offer an Under Graduate (UG) program with an intake of 60. It started offering a Post Graduate program in 2012 with an intake of 24.

Information Technology (IT) department at the Sir Visvesvaraya Institute of Technology (SVIT) was set up in 2009 with the objective of enabling engineers harness the infinite opportunities created by the rapid and sustained expansion of the global IT sector. Through excellence in research and teaching, our dedicated faculty has distinguished itself in the core areas of information technology. The department organizes various value added courses such as .NET, JAVA, DB2 etc., to improve the global competence of students in software development, information technology, and information-technology enabled services (ITES).

Resource Centre in Data Sciences and Cyber Security:

National Resource Centre in Data Sciences and Cyber Security 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 (PMMMNMTT)' 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 Data Sciences. There is a large gap between demand and availability of trained human resource in Data Sciences, who can beneficially utilize the available information for cyber safety. Data Science 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, statics, chemometrics 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 among others. 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 preprocessing 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 leads 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
- Sensitizing cyber security & Data Sciences 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, IIITs, 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: 16th – 21st Dec 2019
Venue: SVIT, Chincholi, Nashik- 422 102.

Day and Date	Course Contents
Day 1: Monday, 16/12/2019	Introduction to Python, Python Basics
Day 2: Tuesday, 17/12/2019	Python Hands-on
Day 3: Wednesday,18/12/2019	Data Analytics using Python
Day 4: Thursday, 19/12/2019	Hands on session on Python and Machine Learning
Day 5: Friday, 20/12/2019	Hands on session on Machine Learning using Python
Day 6: Saturday, 21/12/2019	Hands on session on Machine Learning using Python, Examination and Evaluation

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
8. Matrices Preview, 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, Univariate Analysis 2
20. Simple & Multiple Linear Regression, Regression Demo
21. Simple Network Servers
22. Package Managers

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 participation is free of cost as program is sponsored by PMMMNMTT

Instructions for the Participants:

- Attendance at all sessions is mandatory.
- Breakfast, Lunch and Tea will be provided.
- Accommodations are not provided

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

Organizing Committee

Chief Patron

Hon. Dr. Devanand B. Shinde
Vice Chancellor
Shivaji University, Kolhapur, Maharashtra

Hon. Namdar Shri. Radhakrishna Vikhe Patil
Minister of Housing Department, Govt. of Maharashtra,
Chairman PRES, Loni

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

Hon. Namdar Sau.Shalinitai Vikhe Patil
President,Zilla Parishad, Ahmednagar

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

Dr. Sujay Vikhe Patil
Member of Parliament on Govt. of India
Chairman
Pravara Sugar factory, Pravara Nagar.

Hon.(Dr.)Y.S.P Thorat
Director General
PREC,Loni

Program Director
Prof.(Dr.)KTV Reddy
Director Technical PRES, Loni & Principal SVIT

Organizing Committee

Mr. Rushikesh S Bhalerao
Head, ITEngineering
Convener

Mr. Kishor N Shedge
Head, Computer Engineering
Convener

Ms. Pratibha Kashid
Assistant Professor, IT Engineering
Coordinator

Members

Ms. Shital S Patil
Ms. Sweety G Mahajan
Ms. Jayashri P Shinde
Ms. Archana R Ghuge
Mr. Dinesh B Ghorpade
Mr.Yogesh S Jorwekar
Mr.Narayan B Vikhe
Mr.Pravin Tambe

Ms. Prachi Gaikwad
Mr. Devidas S Thosar
Mr. Uttam Patole
Mr. Umakant D Butkar
Mr.Rahul Dhokane
Ms. Tejaswini Aher
Mr.Ravindra Bhosale
Ms. Pooja Chavan

For further details contact:

Name	Contact& Whatsapp No	Email
Ms. Pratibha V Kashid	9422935610	Pratibha.waje@pravara.in

Mr. Kabir Kharade (Shivaji University, Kolhapur)	8055801285	kabirkharade@gmail.com

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

Pravara Technical Education Campus, Sir Visvesvaraya Institute of Technology, Nashik
Tal: Sinnar, Dist: Nashik- 422 102 (Maharashtra- INDIA) Website: www.pravara.in