



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

(30th December 2019 to 4th January 2020)

Call for Registration and Participation

**Venue: Smt. Kamala & Sri Venkappa M Agadi College of Engineering & Technology,
Lakshmeshwar-582116 District Gadag Karnataka India**



Jointly Organized by

Shivaji University, Kolhapur

And

Department of Computer Science & Engineering

**Smt. Kamala & Sri Venkappa M Agadi College of Engineering &
Technology, Lakshmeshwar**

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 Smt. Kamala & Sri Venkappa M Agadi College of Engineering & Technology

The college is situated at a prime location, Lakshmeshwar, near the twin city of Hubli and Dharwad the second largest town of Karnataka. While this twin city is already a cultural hub, it is an emerging and growing Technological and Business Centre, the pride of Karnataka. The region is well connected to all the parts of the country by rail, road and airways.

UNIQUE SPECIAL FEATURES

- IIT Bombay Remote Center(1 among 30 colleges recognized by IITB in Karnataka)

- IITM NPTEL Local Chapter(First college to establish Local Chapter in entire Karnataka-LC ID 159)
- MoU's with Amba Software Solutions, ACCPL, HESCOM, CADMAXX Solutions & many more.
- Meritorious Scholarship worth Rs. 10 lakh & above.
- Several Merit Institutional Scholarship worth Rs. 40 lakh & above.
- Boys & Girls Hostel accommodates 70%.
- Workshop Funded by Technical Education Quality Improvement Program in association with VTU, Belagavi.
- Incubation Center in Association with Sonata Software & Primus Software Inc. USA
- Nine University Blues during the academic year 2018-19.
- 150+ Placements in year 2018-19 still counting.

OTHER FEATURES

- IIT Bombay Resource Centre for Spoken Tutorial Project.
- 25 acres of lush campus.
- Conveniently located 40km from Gadag, 50km from Hubli & 55km from Haveri.
- Well Equipped laboratories and workshops.
- Library with more than 30,000 volumes of books & an e-journal facility.
- Digital Library.
- Qualified, Experienced & Dedicated Faculty.
- Cloud Based Education Management System.
- Campus wide Wi-Fi Connectivity.
- College bus facility from Hubli & Gadag.
- SBI ATM in Campus.
- Sports and Gym facility.
- 1400+ student's strength in campus.

About Department of Computer Science & Engineering

The department of Computer Science and Engineering was established in the year 2003 with an intake of 60 students, right from the inception of the Institution with an objective of imparting quality technical education in the field of Computer Science & IT. The department has credit an eminent team with qualified, experienced and dedicated Teaching & Technical staffs, well equipped laboratories with the state-of-the-art computing system and peripherals.

The department is striving hard to make the unique spirit of SKSVMACET, an Institution with a difference by promoting excellence in Teaching, Research and Services covering the fundamentals as well as applied aspects of Computer Science and IT.

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, 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: 30th December 2019 to 4th January 2020

**Venue: Smt. Kamala & Sri Venkappa M Agadi College of Engineering & Technology
Lakshmeshwar-582116**

Day & Date	Course Contents
Day 1: Monday, 30/12/2019	Introduction to Python
Day 2: Tuesday, 31/12/2019	Python Basics
Day 3: Wednesday, 01/01/2020	Hands-on session on Data Analytics using Python
Day 4: Thursday, 02/01/2020	Hands-on session on Python and Machine Learning
Day 5: Friday, 03/01/2020	Hands-on session on Machine Learning using Python
Day 6: Saturday, 04/01/2020	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 PMMMMNMTT.**

Instructions for the Participants:

- Attendance at all sessions is mandatory.
- Food & Accommodation will be provided with nominal charges.

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

Chief Patrons

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

Sri. Harshavardhan V. Agadi
Honorable Chairman, SKSVMA Charitable Trust
(R), Bengaluru

Hon. Dr. D. T. Shirke
Pro-Vice Chancellor
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Hon. Dr. V. D. Nanavadekar
Registrar, Shivaji University, Kolhapur,
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Director Campus Operations, SKSVMACET, Lakshmeshwar

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Principal, SKSVMACET, Lakshmeshwar

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