CMR ENGINEERING COLLEGE
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# CMR ENGINEERING COLLEGE

**UGC AUTONOMOUS CAMPUS**

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Kandlakoya, Medchal Road, Hyderabad-501401

# Skill Development Programme on Data Science Using Python

## January 05th - 09th, 2026

## (A Hybrid Mode )

**No Charge for Registration Course and Certification**

In association with

**iHub-Data, IIIT Hyderabad**

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY
HYDERABAD

Organized by

**CMR ENGINEERING COLLEGE**

**UGC AUTONOMOUS**

www.cmrec.ac.in

## CMR Engineering College

CMR Engineering College, widely recognized as CMREC, stands as a pioneering institution in UGC autonomous engineering education. Founded in 2010 by the visionary CH. Narasimha Reddy, who transitioned from agriculture to education, CMREC occupies a sprawling 10-acre campus. Its primary mission is to offer an exemplary platform for students in Engineering and Technology, fostering academic excellence, holistic development, and ethical growth.

CMREC provides undergraduate programs in various specialized fields, including Computer Science and Engineering with specializations in Artificial Intelligence & Machine Learning, Cyber Security, and Data Science along with the stand alone programs in Artificial Intelligence & Data Science, Information Technology, Electronics and Communication Engineering, and Mechanical Engineering. Additionally, it offers postgraduate courses such as M.Tech in VLSI System Design and Computer Science Engineering.

## Overview of the SDP

- A Skill Development Program (SDP) on **"Data Science Using Python"** typically aims to equip student members with knowledge and practical skills related to Data Science Domain.

- The participants will gain insights into, Data Handling & Preprocessing, Data Visualization, Statistics for Data Science, Feature Representation and Collaborative Filtering. The SDP explores on the key concepts, practical uses, ethical considerations and it embarks on a transformative journey through Python from basic principles to advanced mastery.

## Objectives:

A Student Development Program (SDP) on **Data Science Using Python** typically aims to achieve several key objectives to equip educators and researchers with the knowledge and skills necessary to leverage this technology effectively. Here are some common objectives:

1. **Understanding basics of Python:** Provide a comprehensive overview of Python technologies, including their underlying principles, algorithms and their capabilities.
2. **Applications and Use Cases:** Explore various applications of **Data Science Using Python**. Highlight real-world examples and case studies to illustrate the technology's impact.
3. **Research Opportunities:** Identify and explore potential research opportunities and current trends in **Data Science Using Python** Encourage participants to consider how they might contribute to the field through their own research.

## Topics reckoned for Coverage:

- Introduction to Data Science & Python.
- Data Handling & Preprocessing
- Data Visualization
- Statistics for Data Science
- Feature Representation and Collaborative Filtering
- Unsupervised Learning Methods
- Supervised Learning Methods
- Decision Trees
- Linear Regression: Simple and multiple linear regressions
- Dimensionality Reduction Methods (PCA)
- Hands on sessions on Unsupervised and Supervised Methods
- Support Vector Machines and Neural Networks
- Meta Heuristic Approaches
- Ensemble Methods and Matrix Vectorization
- Machine Learning with Python
- Advanced Topics
- Tools & Deployment
- Case Studies & Projects

## Resource Persons:

**Dr. M.Laxmaiah**
Professor and HOD
Years of Exp: **26**

**Dr.P.RadhaKrishna**
Professor
NIT, Warangal
Years of Exp: **33**

**Mr. S. Bharat Sriram**
DS & AI Expert
Freelancer

**Dr. S. Ganga**
Dean R&D
CMR IT
Years of Exp:12

**Dr. A. AmarJyothi**
CMREC
Years of Exp: **16**

**Mrs. N. Hari Gauthami**
Sr. Data Engineering
Microsoft
Years of Exp: 13

**Dr. P Prasanthi**
Asst. Prof.
Years of Exp:12

**Dr. Mrutyunjaya. S. Yalawar**
CMREC
Years of Exp:**10**

**Dr. K. Ruben Raju**
St. Martins College,
Years of Exp:**17**

**Dr. M. Ashwitha**
Assoc. Prof. and HOD(IT)
Years of Exp:13

## Target Group

- Open exclusively to individuals from the Scheduled Tribe (ST) category.
- This includes students, young professionals, faculty members, researchers, and startups.
- A minimum of 80 participants is strongly preferred for each program.

### CHIEF PATRONS

**Shri. Ch. Narasimha Reddy**
Chairman

**Shri. Ch. Bhoopal Reddy**
Vice-Chairman

**Shri. Ch. Srisailam Reddy**
Secretary and Correspondent

### PATRON

**Dr. A. Srinivasula Reddy**
Principal

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## CONTACT DETAILS

### Programme Coordinator

**Dr. M. Laxmaiah**
Professor and HOD
Experience : 26 Yrs.

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CMR Engineering College,
Telangana State, INDIA
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### Programme Co-Coordinator

**Mr. J. Rajendar**
Assoc. Professor
Experience : 13 Yrs.

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CMR Engineering College,
Telangana State, INDIA
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College Code CMRN

# CMR ENGINEERING COLLEGE

(UGC - AUTONOMOUS)

## SKILL DEVELOPMENT PROGRAMME ON DATA SCIENCE USING PYTHON

**January 5th- 09th, 2026**

## Programme Schedule

| S.No | Day Wise Schedule | Name of the Resource Person | Topic |
|---|---|---|---|
| 1 | Day 1: Session 1<br>Jan 5th-2026 (Mon) 9:30AM to11:00AM | Dr.A.S.Reddy, Principal<br>Dr.M.Laxmaiah,<br>Ashok Godge<br>Dept/College Team | Inaugural Session |
| 2 | Day 1: Session 2<br>Jan 5th-2026 (Mon) 11:30AM to 1:00PM | Mr. S.Bharath Sriram<br>DS & AI Expert | Introduction to Data Science & Python |
| 3 | Day 1: Session 3<br>Jan 5th-2026 1:40PM to 3:50PM | Mr. S.Bharath Sriram<br>DS & AI Expert | Data Handling& Pre processing |
| 4 | Day 2: Session 1<br>Jan 6th-2026(Tues) 9:30 AM to 12:40PM | Mr.S.Bharath Sriram<br>DS & AI Expert | Statistitics for Data Science |
| 5 | Day 2 : Session 2<br>Jan 6th-2026 1:30PM to 3:50PM | Mr.S.Bharath Sriram<br>DS & AI Expert | Introduction to Machine Learning,Types of ML,Applications of ML. |
| 6 | Day 3 : Session 1<br>Jan 7th - 2026(Wed) 9:30AM to 11:00AM | Dr. A. AmarJyothi<br>Assoc. Prof. | Supervised Learning Methods and Decision Trees,Bayesian Classification. |
| 7 | Day 3 : Session2<br>Jan 7th - 2026(Wed) 11:10AM to 12:30PM | Dr.Ganga<br>Dean R&D | Feature Extraction & Dimensionality Reduction |
| 8 | Day 3 : Session3<br>Jan 7th-2026(Wed)1:10PM to 2:30PM | Dr.Mrutyunjaya.S.Yalawar<br>Assoc. Prof. | KNN, SVM and ML Tools,<br>Hands on Practice |
| 9 | Day 3 : Session 4<br>Jan 7th- 2026 2:40PM to 3:50PM | Dr.P.Prashanti<br>ML Expert | Linear Regression: Simple and multiple linear regressions |
| 10 | Day 4 : Session 1<br>Jan 8th- 2026(Thu) 9:30AM to 11:00AM | Dr.P.Radha Krishna<br>Professor | Unsupervised Learning Methods. |
| 11 | Day 4 : Session 2<br>Jan 8th-2026(Thu) 11:10AM to12:40PM | Dr. M. Ashwitha<br>Assoc Prof and HOD(IT) | Ensemble Methods Bagging,Boosting |
| 12 | Day 4 : Session 3<br>Jan 8th-2026 (Thu) 1:40PM to 3:50PM | Dr.K.Rubhan Raju<br>Assoc Prof. | Neural Networks,Types of Neural Networks<br>Meta Heuristic Approaches |
| 13 | Day 5 : Session 1<br>Jan 9th - 2026(Fri) 9:30AM to12:30PM | Mrs. N. Hari Gauthami<br>Sr. Data Engineering<br>Microsoft | Data Visualization<br>Tools,Deployment,Case studies |
| 14 | Day 5 : Session 2<br>Jan 9th-2026 1:30PM to 3:30PM | OnlineTest &feedback | Valedictory Ceremony |