

AICTE Training And Learning (ATAL) Academy Programme
on
Data Science

(21st November 2019 to 25th November 2019)



Organized by

Indian Institute of Information Technology, Design and Manufacturing
(IIITDM) Kurnool
(An Institute of National Importance under MHRD, Government of India)
Kurnool – 518007, Jagannathgattu, Andhra Pradesh, India

Sponsored by

All India Council for Technical Education, Government of India

About the Institute

Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Kurnool was announced in 2014 after receiving the assent of the President of India to the Institutes of Information Technology Act, 2014, and its subsequent publication in the Gazette of India, Extraordinary, Part – II, Section I on December 08, 2014. The Institute was announced by the Government of India to give effect to its obligation under the Andhra Pradesh Reorganization Act, 2014. IIITDM Kurnool is fully funded by MHRD and youngest among the 5 centrally funded IIITs, and launched its academic program with the support of its mentor Institute, IIITDM Kancheepuram on August 2015 from the Kancheepuram campus. Consequent upon the approval of parliament, IIITDM Kurnool was accorded the status of Institute of National Importance by making an amendment in the IIIT Act, 2014 on August 03, 2017. In 2015, the Andhra Pradesh Government allocated an area of 151 acres for the establishment of a permanent campus in Kurnool. The Institute started functioning at its permanent campus at Kurnool from July, 2018.

Currently, the Institute offers admissions to B. Tech. program in Computer Engineering, Electronics and Communication Engineering with Specialization in Design and Manufacturing and Mechanical Engineering disciplines. The Institute is going to offer M. Tech. in Data Analytics and Decision Sciences, Electronic System Design and Smart Manufacturing specializations from the next academic year. The Institute offers admission to Ph. D. program in Computer Engineering, Electronics and Communication Engineering, Mechanical Engineering and Science (Physics and Mathematics) disciplines. The Institute faculty members are highly dedicated to carrying out interdisciplinary researches and design-oriented projects in line with the mission and vision of the Institute.

Course Content

1. Introduction to Data Science and its Life Cycle
2. Introduction to Programming Tools for Data Science: Installation of Python/R and Practice on Data Visualization
3. Mathematical Foundations for Data Science: Linear Algebra Concepts and its Implementation
4. Probability and Statistical Analysis, and its Implementation
5. Hypothesis Testing and Inference using Python/R
6. Overview of Machine Learning
7. Linear Regression
8. Regularization Methods using Python/R
9. Classification and Regression Algorithms
10. Support Vector Machine
11. Decision Tree and Random Forest Implementation
12. Neural Network and Deep Learning
13. Case Studies of Data Science – I
14. Case Studies of Data Science – II

Who Should Attend

The programme is open to the faculty of Engineering Universities/Institutes/colleges, researchers, practitioners, industry personnel and Ph. D. students.

Sample Time Table

Name of the Institute/Organization: Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Kurnool

Title of the Workshop: Data Science

From 21/11/2019 **To** 25/11/2019

Schedule Plan

Dates	10:00 AM to 11:30 AM		12:00 PM to 01:30 PM		02:30 PM to 04:00 PM	
21/11/2019	Registration and Inauguration	Tea	Session 1 Introduction to Data Science and its Life Cycle Dr. Sanjaya K. Panda Asst. Prof. and Head	Lunch	Session 2 Installation of Python/R and Practice on Data Visualization Dr. Sanjaya K. Panda Asst. Prof. and Head	Tea
22/11/2019	Session 3 Mathematical Foundations for Data Science: Linear Algebra Concepts and its Implementation Prof. D. V. L. N. Somayajulu Professor		Session 4 Probability and Statistical Analysis, and its Implementation Prof. D. V. L. N. Somayajulu Professor		Session 5 Hypothesis Testing and Inference using Python/R Dr. Renjith P. Asst. Prof.	
23/11/2019	Session 6 Overview of Machine Learning Prof. R. B. V. Subramaanyam Professor		Session 7 Linear Regression Prof. R. B. V. Subramaanyam Professor		Session 8 Regularization Methods using Python/R Dr. V. Sri Kumar Group Manager	
24/11/2019	Session 9 Classification and Regression Algorithms Prof. P. Radha Krishna Professor		Session 10 Support Vector Machine Prof. P. Radha Krishna Professor		Session 11 Decision Tree and Random Forest Implementation Dr. V. Sri Kumar Group Manager	
25/11/2019	Session 12 Neural Network and Deep Learning Prof. Bhat Dittakavi CEO				Session 13 Case Studies of Data Science – I Prof. Bhat Dittakavi CEO	

Registration Link:

<https://docs.google.com/forms/d/e/1FAIpQLSfLN98idrHENuMzgChSolKjCzkCKLRpLvnj3sIO0Wo1cp0Azw/viewform?vc=0&c=0&w=1>

Instructions:

- The participants to the programme will be faculty and Ph. D. Scholars from AICTE approved technical institutions.
- There is no registration fee from any participant. No TA/DA will be paid to any participant.
- Participants will have to make their own stay arrangement during the five days.
- Only tea during sessions/working lunch will be provided to the participants.
- If selected, I agree to abide by the rules and regulations of the programme and IIITDM, Kurnool, and shall attend the course for the entire duration.
- On completion of the programme on all the days, participants will be awarded a certificate of participation.
- This application (hard copy) must be forwarded through the Head of the Institution/Department to the Coordinator.
- The last date for the receipt of duly forwarded application is **16th September 2019**.
- The selected candidates will be informed through e-mail by **20th September 2019**.

Coordinator

Dr. Sanjaya Kumar Panda

Asst. Professor and Head (CSE), and Faculty In-Charge (Academic Affairs)

IIITDM Kurnool

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(An Institute of National Importance under MHRD, Govt. of India)

AICTE Training And Learning (ATAL) Academy Programme Registration Form

NOTE: The participants to the programme will be faculty and Ph. D. Scholars from AICTE approved technical institutions. There is no registration fee from any participant. No TA/DA will be paid to any participant. Participants will have to make their own stay arrangement during the five days. Only tea during sessions/working lunch will be provided to the participants. On completion of the programme on all the days, participants will be awarded a certificate of participation.

- Yes, I agree
 No

Full Name (in Block LETTER)

Date of Birth (MM/DD/YYYY)

Name of College/Institution/University/
Organization

Designation

Qualification

Experience (in Years)

Area of Interest/Specialization

Email

Mobile Number

Address

No. of Refresher Courses/Workshops/FDPs
Attended

Programme Name

- Data Science (21st – 25th November 2019)
 Artificial Intelligence (28th November – 2nd
December 2019)
 Internet of Things (5th – 9th December 2019)

Declaration: The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the programme and IITDM, Kurnool, and shall attend the course for the entire duration. This application (hard copy) must be forwarded through the Head of the Institution/Department to the Coordinator. The last date for the receipt of duly forwarded application is **16th September 2019**.

- Yes, I agree
 No

Signature of the Candidate

Head of the Institution/Department with Seal