



ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

ON

DATA SCIENCE AND ITS APPLICATIONS

(10th – 19th Jan 2022)

Timing: 3 PM to 7 PM

Organized by

E & ICT Academy, NIT Warangal, Telangana

in association with

Department of Computer Science and Engineering

NIT Raipur, Raipur – 492010, Chhattisgarh

Sponsored by

Ministry of Electronics and Information Technology (MeitY), GoI



Preamble:

“Electronics & ICT Academy” was set up at NIT Warangal with financial assistance from MeitY, GoI. The jurisdiction of this academy is Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. This academy role is to offer faculty development programmes (FDPs) in standardized courses and emerging areas of electronics, information communication technologies, training and consultancy services for Industry, curriculum development for Industry, CEP for working professionals, advice and support for technical incubation and entrepreneurial activities.

This Online FDP is devoted to address the need to enhance the knowledge about the latest development pertaining to **Data Science for Engineering Applications: Theory and Practice** is being conducted at **Department of CSE, NIT Raipur, Raipur – 492010, Chhattisgarh**. The whole course is handled by academicians and industry experts.

Major Course Contents:

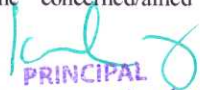
- Introduction to Data Science
- Purpose and Components of Python in Data Science
- Mathematical Computing with Python
- Scientific Computing with Python
- Data Manipulation with Pandas
- Prediction using Scikit-Learn
- Random Variables and Distributions
- Exploratory Data Analysis
- Quantitative and Graphical Techniques
- Feature Generation and Feature Selection
- Data Visualization
- Statistical Foundations for Data Science
- Regression
- Hypothesis Testing
- PCA and SVD
- Data Wrangling
- Predictive Analytics
- Ethical Issues: Privacy and Security
- Next Generation Data Scientists
- Recommender Systems
- Case Studies on Data Science

Faculty conducting this programme:

The programme will be conducted by the faculty members from NIT Raipur, Raipur – 492010, Chhattisgarh and NIT Warangal. Academicians in the concerned field from IITs/NITs/IIITs/IISERs/NISERs/ Abroad are invited to deliver lectures in the programme. Speakers from industries are also expected to deliver as part of the course.

Eligibility:

The program is open to the faculty of engineering colleges, MCA colleges and other allied disciplines in India. Industry personnel working in the concerned/allied discipline can also attend.


PRINCIPAL
 G. Narayanamma Institute of
 Technology & Science (for women)
 (AUTONOMOUS)
 Shaikpet, Hyderabad - 500 104

Registration Fee Particulars:

Faculty and Research Scholars	Rs. 750/-
Industry Participants	Rs. 2250/-

Participants need to pay the registration fee online using the following details

Online Transfer Details
Account Name: Electronics & ICT Academy NITW
Account No: 62423775910
IFSC: SBIN0020149

How to apply:

Participants are required to fill the online registration form by clicking on the following link:

<https://forms.gle/YX8Ddr9ctniHxEz86>

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 100 (hundred). The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the DD/online payment will be sent back. Candidates will be issued satisfactory certificates on successful completion of the course. Reservations are followed for selecting candidates as per GoI norms.

Important dates:

Last date for submission of Application	07 / 01 / 2022 (11:59 PM)
Selection List by E- mail	08 / 01 / 2022 (11:59 AM)
Duration	10 / 01 / 2022 (Monday) to 20 / 01 / 2022(Thursday)

About NIT Raipur:

NIT Raipur situated in the capital city of Chhattisgarh, has proven to be “avant-grade” in the field of science and technology over the past few decades. The foundation Ceremony was graced by the then Honorable President of India Dr. Rajendra Prasad on 14th September 1956. The institute initially under the name Government Engineering College (GEC) started with two Departments namely Metallurgical Engineering and Mining Engineering. From 1st December 2005, the institute has become the NIT and hence joining the elite category “Institute of National Importance”. The institute currently offers 12 undergraduate (UG) and 11 Postgraduate (PG) programs in almost all the thrust areas Engineering and Technology. The institute secured 64th Rank in the Engineering Category under the NIRF-2021.

About NIT Warangal:

National Institute of Technology, Warangal is the first among 17 RECs setup as joint venture of the Government of India and the state government. Over the years the college has established itself as a premier Institute imparting technical education of a very high standard leading to the B.Tech. degrees in various branches of engineering, M. Tech. and Ph. D. programs in various specializations. All B. Tech. and M. Tech. programmes of NIT Warangal are NBA accredited.

Coordinator(s):

Dr. Jitendra Kumar Rout Dept. of CSE, NIT Raipur Email: jkrout.cs@nitrr.ac.in Mobile: +91- 9439622802	Dr. Sanjaya Kumar Panda Dept. of CSE, NIT Warangal Email: sanjaya@nitw.ac.in Mobile: +91-7978685893
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1. Name :
2. Designation :
3. Institution :
4. Email :
5. Reference No: Bank: Date: Amount:
6. Address for Correspondence:
7. Educational Qualification:
8. Subjects taught so far:
9. No. of refresher courses/workshops attended:
10. Experience (in years): Teaching: Research: Industry:
11. Do you belong to SC/ST : YES / NO

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 Online FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the Coordinator in case, I am unable to attend the course.

Signature of the Applicant


SPONSORSHIP CERTIFICATE

Dr. /Mr. /Ms. is an employee of our Institute/Organization and is hereby sponsored to participate in the Online FDP on “Data Science and its Applications”, sponsored by Electronics & ICT Academy during 10th – 19th Jan 2022 at NIT Warangal.

Signature of Head of Institution
(with seal)

Address for correspondence
(Post your application form) at

Dr. Sanjaya Kumar Panda
Assistant Professor
Dept. of CSE
National Institute of Technology
Warangal – 506004
Telangana, India
Mob. No.: +91-7978685893


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**REPORT
ON
10-Day FDP on "Data Science and its Applications"
Organized by
NIT Warangal and NIT Raipur
10-1-2022 to 19-01-2022**

Objective of the Workshop:

- To provide participants with a comprehensive understanding of the fundamentals of data science.
- To introduce participants to various tools and programming languages commonly used in data science, such as Python, R, and SQL.
- To explore the applications of data science across diverse domains, including business, healthcare, finance, and social sciences.
- To enhance the participants' skills in data visualization, statistical analysis, and machine learning algorithms.
- To foster collaboration and networking among faculty members interested in integrating data science into their teaching and research.

Program Highlights:

Expert Sessions: Renowned experts in the field of data science delivered engaging lectures, covering topics ranging from basic concepts to advanced machine learning algorithms. Participants had the opportunity to interact with and learn from industry professionals.

Hands-on Workshops: Practical sessions were conducted to give participants a hands-on experience with popular data science tools and technologies. Workshops included sessions on data cleaning, feature engineering, and model evaluation.


Case Studies and Real-world Applications: The program included case studies and examples from real-world applications of data science. Participants gained insights into how data science is used to solve complex problems in different industries.

Interactive Q&A Sessions: Regular interactive sessions allowed participants to clarify doubts, seek guidance, and engage in discussions with the experts and fellow participants.

The 10-Day FDP on "Data Science and its Applications" was a resounding success, providing faculty members with valuable insights and skills in the rapidly evolving field of data science. The program not only enhanced the participants' knowledge but also inspired them to integrate data science into their teaching and research activities.

Participant:

Mr. G. Nagababu


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