



## FACULTY DEVELOPMENT PROGRAMME (FDP)

ON

DATA SCIENCE AND ITS ENGINEERING APPLICATIONS USING PYTHON

(19<sup>th</sup> June -24<sup>th</sup> June 2019)

Organized by

E & ICT Academy, NIT Warangal

At

G. Pullaiah College of Engineering and Technology (Autonomous), Kurnool

(Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI)



### Preamble:

"Electronics & ICT Academy" is being set up at NIT Warangal with financial assistance from MeitY, MCIT, Govt. of India (GoI). The jurisdiction of this academy covers the states of Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. The role of this academy is to offer faculty development programmes in standardized courses and emerging areas of Electronics and Information Communication Technologies, training & consultancy services for Industry, Curriculum development for Industry, CEP for working professionals as well as Advice and support for technical incubation and entrepreneurial activities. This faculty development programme (FDP) is devoted to addressing the need to enhance the knowledge about the latest technologies pertaining to Internet of Things and is open for Faculty members, Research Scholars as well as students of engineering, MCA and other allied degree colleges from states and UTs mentioned above.

### Major Course Contents:

- Statistical Analysis using Python
- Object Oriented Programming with PYTHON: Creating Classes and Objects
- Object Oriented Programming with PYTHON: Multithreading, Errors & Exception Handling
- Database Connectivity with PYTHON: Establishing Database Connectivity MySQL, Oracle
- Database Connectivity with PYTHON: Performing Database Transactions (Inserting, Deleting, and Updating the Database)
- Advanced Features of Python, Comprehension and Generators
- Modules, Packages, Standard Python Modules
- Introduction to Machine Learning; Supervised Vs Unsupervised Learning; Examples
- Overview of Classification & Clustering
- Link Prediction, SVM and PCA, Data Science Life Cycle
- Overview of Machine Learning packages in Python
- Python APIs for Machine learning Implementation
- Re-sampling Methods
- Hands-on using scipy, Hands-on using matplotlib
- Case Studies using Python

### Eligibility:

The programme is open to the teachers of engineering, MCA colleges and other allied disciplines in Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. Industry personnel working in the concerned/allied discipline can also attend.

### Faculty conducting this programme:

The programme will be conducted by the faculty members from NIT Warangal and Academicians in the concerned field from reputed Institutes are invited to deliver lectures in the programme. Speakers from industries like Texas instruments, ISRO, DRDO are also expected to deliver as part of the course.

### Registration Fee Particulars:

Faculty and Research Scholars	Rs. 2500/-
Faculty of SC/ST Category	Rs. 1875/- (SC/ ST participants should submit the copy of their caste certificate to claim the concession along with application form)
Industry Participants	Rs. 7500/-

SC/ST concession is only for faculty of mentioned states. Research Scholars are not eligible for SC/ST concession.

The fee is to be paid either in the form of DDs or online transfer using the following details:

DD Details	Online Transfer Details
Demand Draft in favor of "Electronics & ICT Academy NITW " payable at any bank in Warangal	Account Name: Electronics & ICT Academy NITW Account No: 62423775910 IFSC: SBIN0020149

### Accommodation:

All the selected participants will be provided FREE boarding & lodging in the institute guest house. No TA will be paid for the participants.

### How to apply:

A filled in form of application in the prescribed format duly signed and sponsored by appropriate authorities (along with Demand draft) should reach the coordinator by speed-post. It is also mandatory to send scanned application form and demand draft through e-mail to [drramanacse@gpcet.ac.in](mailto:drramanacse@gpcet.ac.in) as selection will be intimated only through mail.

### Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 50 (fifty). Additionally 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the DD 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 (Application & DD)	13/6/2019
Selection List by E- mail	15/6/2019
Duration	19/6/2019 to 24/6/2019

### 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.

### About GPCET, Kurnool:

G. Pullaiah College of Engineering and Technology - GPCET (Autonomous) is promoted by Sri Sai Krishna Educational Society. The College established in the year 2007, works with the Motto "Pioneering Innovative Education" and strives to provide the student community, the modern technology supported by Comprehensive library, State of art laboratories along with necessary computational Skills. It has been accredited by NAAC with 'A' grade further being accredited by NBA (CSE, ECE, EEE). Also it has been recognized by UGC under section 2(f) & 12(B) besides being permanently affiliated to JNTUA Ananthapuramu.



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1. Name :  
2. Designation :  
3. Institution :  
4. Email :  
5. DD No: Bank: Date:  
Amount:

**SPONSORSHIP CERTIFICATE**

Dr. /Mr. /Ms. .... is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on “**Data Science and its Engineering Applications using Python**”, sponsored by Electronics & ICT Academy during 19<sup>th</sup> – 24<sup>th</sup>June, 2019 at GPCET, Kurnool.

6. Address for Correspondence:

Signature of Head of Institution  
(with seal)

7. Educational Qualification:  
8. Subjects taught so far:

**Address for correspondence**

*Post your application form with DD to*

**Dr. K. Seshadri Ramana  
Professor,  
Dept. of Computer Science and Engineering  
GPCET  
KURNOOL-518007  
Ph. No: 9885208518**

9. No. of refresher courses/workshops attended:  
10. Experience (in years):  
Teaching: Research: Industry:

***E-mail the scanned copies of filled-in and duly signed application form along with DD to [dramanacse@gpcet.ac.in](mailto:dramanacse@gpcet.ac.in)***

11. Accommodation required: YES /NO  
12. Do you belong to SC/ST : YES /NO

(If yes, please specify and attach a copy of caste certificate to claim the concession)

*For more details about Electronics & ICT Academy, NIT, Warangal, please visit: <https://nitw.ac.in/eict>*

**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 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.

**For more enquiries please contact:**

**Mobile: 9849336547, 9885208518**

Signature of the Applicant

**Coordinators**

**Prof. D. V. L. N. Somayajulu,  
Director,  
Indian Institute of Information Technology  
Design and Manufacturing (IIITDM),  
Kurnool  
Andhra Pradesh, India 518007**

**Dr. K. Seshadri Ramana  
Professor  
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and Engineering  
GPCET, Kurnool  
Andhra Pradesh, India 518452**