

# Faculty Development Program On Data Science with 'R'

Under the banner of  
**Electronics and ICT academy at National  
Institute of Technology Patna**

**27<sup>th</sup> April to 03<sup>rd</sup> May, 2020**



## Patron

**Prof. P. K. Jain**  
Director, NIT Patna

## Coordinators

**Dr. Bharat Gupta**  
Department of Electronics and Communication  
Engineering, NIT Patna  
Patna-800005

## Organized by

Electronics and ICT Academy, National Institute of  
Technology Patna, Patna- 800005. India.

[www.nitp.ac.in/ict/](http://www.nitp.ac.in/ict/)

## Supported by

Ministry of Electronics and Information Technology,  
MeitY, Govt. of India.

## About NIT Patna

National Institute of Technology Patna is the 18<sup>th</sup> National Institute of Technology created by the Ministry of H.R.D. Government of India after rechristening the erstwhile Bihar College of Engineering Patna on 28.01.2004. NIT Patna marked its humble beginning in 1886 with the establishment of pleaders survey training school which was subsequently promoted to Bihar College of Engineering Patna in 1924. This made this institute the 6<sup>th</sup> oldest Engineering Institute of India. The Institute is situated on the south bank of holy river Ganges behind Gandhi Ghat (where the ash of father of the Nation, Mahatma Gandhi was offered in the river Ganges). The campus has a picturesque river view with historic building presenting a spectacle of architecture delight and natural beauty. The Institute imparts high level education training, research and development in science, engineering technology and humanities along with high quality education and values at UG, PG and Ph.D. level. At present the Institute offers courses in six major technical disciplines viz. Architecture, Civil Engineering, Computer Science & Engg., Electrical Engg., Electronics & Communication Engg. And Mechanical Engg. It also consists of well-established departments of Physics, Chemistry, Mathematics and Humanities and Social Sciences.

## Electronics and ICT Academy

Ministry of Electronics and Information Technology, Government of India has instituted seven Electronics and Information & Communications Technology (ICT) Academies of which, the academy of NIT Patna is one. The Academy at NIT Patna aims to design and organize basic as well as specialized training

programmes in niche areas of electronics and ICT for the development of required knowledge base, skills and tools to equip the teaching community with better knowledge and understanding.

## Objective and Scope

Data Science is an evolving and very useful topic in analysing the large amount of data. In this program, participants will be able to understand about the R programming language and be able to program in R and use of R in data analysis effectively. Participants will learn installation and configuration of the necessary software for a data science. The course covers practical issues in statistical computing which includes programming in R, reading data into R, accessing R packages, writing R functions, debugging, profiling R code, and organizing and commenting R code. Topics in statistical data analysis will provide working examples.

## Objectives of the Program

- To familiarize with the 'R' Programming language
- To introduce the fundamental concepts of Data science.
- To understand the methods for Data analysis.
- To develop skills to overcome underlying challenges in handling large data.
- To gain experience of doing independent study and research.

## Topics to be covered in the Theory Program

- Data Pre-processing
- Regression: Simple Linear Regression, Multiple Linear Regression, Polynomial Regression, SVR, Decision Tree Regression, Random Forest Regression
- Classification: Logistic Regression, K-NN, SVM, Naive Bayes, Decision Tree Classification, Random Forest Classification
- Clustering: K-Means, Hierarchical Clustering
- Deep Learning: Artificial Neural Networks, Convolutional Neural Networks.

### Resource Persons

**Experts from Eduxlabs**, Esoir Business Solution LLP, Gurugram, Haryana, India.

**About EduxLabs :** Eduxlabs (Esoir Business Solution LLP) is devoted to conveying extraordinary training and certification Programs. We give intelligent, modified instructional classes to educational institutes and the corporate sector, across the globe.

Our team of industry & academic experts facilitates comprehensive technologies courses, to deliver the best learning experience for everyone. EduXLabs.

### One-week FDP includes

Five Days Training will be taken by one Industrial Expert with the experience of 6-8 years in the industry and has delivered more than 1000+ sessions in India and abroad. The training hour is

5-6 hours/ each day. Mode of training is Instructor-led live online

- ✚ **40 Hours Instructor-led live online Hands-on based learning.**
- ✚ Interactive Query Session.
- ✚ Soft copy of study material, Training PPTs & Projects code
- ✚ Participants will get recorded sessions after completion of training.
- ✚ A one-week FDP/ short course certificate of completion. Will be provided.

### Who Can Participate

Faculty members of UGC/AICTE recognized Universities and Engineering colleges all over India, Researchscholars (PhD only) and Industry personals, however there are very limited number of seats for Ph.D. Scholars; priority will be given to the faculty members. .

### Registration Fee

- ✚ No Registration Fee

### Registration Process

**Total -50 seats and the selection will be done on first-cum-first-serve basis.** PDF file of online filled registration form will be send though email to Dr. Bharat Gupta. (email: eictapatna@nitp.ac.in)

Link for registration:

<https://forms.gle/kFeBZ49g3h8TtCds8>

**Last date of registration: 25.04.2020**

Faculty Development Program  
on

**Data Science with 'R'**  
(27<sup>th</sup> April to 03<sup>rd</sup> May, 2020)

### REGISTRATION FORM

1. Name (block letter): .....
2. Gender: .....
3. Caste:.....
4. DOB:.....
5. Designation .....
6. Organization: .....
7. Address for communication: .....  
.....  
.....  
Pin code: ..... Ph. No.:.....  
E-mail: .....
8. Highest Academic Qualification: .....
9. Specialization: .....
10. Experience (in years):  
(a) Teaching: ..... (b) Industrial: .....
11. Aadhar No:.....

### DECLARATION

I do hereby agree to abide by the rules and regulations of the FDP.

Place: .....

Date:.....

.....  
Signature of the Applicant