

**Faculty Development Program /
Short Term Course
On
Understanding the concept of
Node.JS and React.JS**

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

20th May to 26th May, 2020



Patron

Prof. P. K. Jain
Director, NIT Patna

Coordinators

Dr. J P Singh, NIT Patna
Dr. Bharat Gupta, NIT Patna

Organized by

Electronics and ICT Academy, National Institute of
Technology Patna, Patna- 800005. India.
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 18th 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 6th 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

Node.js is a JavaScript runtime that uses a non-blocking I/O model that makes it lightweight, efficient and very popular among JavaScript developers who also need to write server-side code. If you need any proof that Node.js can help scale your application, look no further than examples like Netflix, PayPal and Uber, which are currently using Node.js to deliver fast, scalable and reliable Solutions.

React is a Javascript library, developed in 2013 by Jordan Walke of Facebook. You'll find React is both very popular (it's the 5th most starred JS library on GitHub) and used on major sites including on Facebook, Netflix, and Khan Academy. You'll love the flexibility of using React with your favorite web technologies (except for jQuery!), and this path will take you from the fundamentals all the way up to building full apps with custom styling

Objectives of the Program

- ✦ The objective of the proposed FDP is to make the learner integrate more coding skills and subsequent technology onto their learning and teaching. This training is specially designed for the faculty/students/developers striving for a successful career in this field.
- ✦ To gain experience of doing independent study and research.

Topics to be covered

Introduction to Node.js, File System Module and Express.js, Asynchronous Programming, Integration with MongoDB and Email Servers, REST APIs and GraphQL, Building Node.js Applications using ES6, User Authentication and Application Security, Dynamic Client-Server Interaction using Socket.IO, Microservices Application, React Component Approaches, Initial App Structure, Actions, Stores, and Reducers, Connecting React to Redux, Async in Redux, Async Status and Error Handling, Testing React, Testing Redux, Full-stack JavaScript with React.js, Working with an Asynchronous API, The Context API and Higher Order Components, Subscribing to State, Performance Optimization, Production Deployment Best Practices

Resource Persons

- Mr. Shubham Sinha, Technixia Automation
- Ms. Suruchi Gagan, Technixia Automation
- Faculty from NIT Patna

One-week FDP/STC includes

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 PPT's & Projects code
- ✚ Certificate from E&ICT Academy, NIT Patna

Who Can Participate

Faculty members of UGC/AICTE recognized Universities and Engineering colleges all over

India, Research scholars (PhD only), students and Industry personals, however priority will be given to the faculty members.

Registration Fee

- ✚ **Faculty/ Research Scholar (PhD): Rs. 500/-**
- ✚ **Students: Rs. 500/-,**
- ✚ **Industry and others: Rs. 1000/-**

Registration Process

1. Registration fee will be paid though online mode, the account details for this purpose is

Account Name: NIT Patna
Account No.: 50380476798
IFSC Code: ALLA0212286

2. Link for registration:
<https://forms.gle/qEme5DW8hysMHW1H6>
3. **Last date of registration: 19.05.2020 (till 14.00 PM)**

- **Total: 60 seats and the selection will be done on first-cum-first-serve basis.**
- **Only online submission is accepted though above link.**

PDF file of online filled registration form with proof of registration fee paid will be sent through email to **Dr. J P Singh/Dr. Bharat Gupta (email: jps@nitp.ac.in and Copy to eictapatna@nitp.ac.in).**

Faculty Development Program/STC on

Understanding the concept of Node.JS and React.JS (20th to 26th May, 2020)

REGISTRATION FORM

1. Name (block letter):
2. Gender:
3. Caste:.....
4. DOB:.....
5. Designation
6. Organization:
7. Address for communication:
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-
- 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