Electronics and ICT Academy

The Ministry of Electronics and Information Technology (formerly Department of Electronics & Information Technology (DeitY), a department under the Ministry of Communications and Information Technology), Government of India has sponsored a scheme entitled "Scheme of Financial Assistance for setting up of Electronics and ICT Academies" on 14th November, 2014. An Empowered Committee under the chairmanship of the Secretary, of the then DeitY has accorded approval for setting up of 4 such Academies in NIT Patna (Bihar), IIITDM Jabalpur (Madhya Pradesh), NIT Warangal (Telangana), IIT Guwahati (Assam). With financial assistance from the Central Government, the Academy aims at providing specialized training to the faculties of Engineering, Arts, Commerce & Science colleges, Polytechnics etc, by developing state-of-the-art facilities and in turn intends to enhance the academic skills of the students.

Objectives

The objectives of the FDP are:
- To introduce several fundamental concepts and methods for machine learning.
- To familiarize the audience with some basic learning algorithms and techniques and their applications.
- To develop skills of using recent machine learning software and algorithms for solving practical problems.
- To learn methodology and tools to apply machine learning algorithms to explore and analyze real data.
- To gain experience of doing independent study and research.
- To learn the basics of Big Data Analytics Concepts, Data preparation – merging, managing missing numbers sampling, Data visualization, Basic statistics.
- To familiarize the audience with tools for Big Data Analytics.
- To familiarize the audience how machine learning thrives on growing data sets.
- To learn tools and algorithms for creating machine learning models that learn from data, and to scale those models up to big data problems.

Outcomes

By the end of the FDP, the participants should:
- Identify the type of machine learning problem and to apply the appropriate set of techniques.
- Understand a wide variety of machine learning algorithms to frame data models.
- Know how to apply a variety of machine learning tools for handling data effectively.
- Understand how to perform evaluation of learning algorithms.
- Know the basics of Big Data Analytics.
- Know how to apply a variety of data analytics tools.
- Construct models that can be learned from data using available open source tools.
- Analyze big data problems using scalable machine learning algorithms.
- Broad opportunities for automation with machine learning.

Venue

Techno India, EM 4/1, Sector V,
Salt Lake, Kolkata-700091

About NIT, Patna

On 28th January, 2014, the erstwhile Bihar College of Engineering, Patna was rechristened as the 18th National Institute of Technology by the Ministry of H.R.D., Government of India. But the journey began in 1886 with the establishment of pleaders survey training school and was subsequently promoted as Bihar College of Engineering, Patna in 1924. This marks this institute as the 6th Oldest Engineering Institute of India. The institute is situated on the south bank of holy river Ganges behind Gandhi Ghat (the place of immersion of the ashes of Mahatma Gandhi)and has a picturesque river view with historic building presenting a spectacle of architectural delight and natural beauty.

The Institute has attained National importance and has been granted fully Autonomus Status by MHRD, Govemment of India. Due to its constant initiative to set high educational standards and hence holding long record of academic excellence, it has also been declared as a Centre of Excellence. This expedites its endeavor further to impart high level education training, research and development in various disciplines of science, engineering technology and humanities. The pedagogical aspects have been framed effectively to suit not only the needs of the contemporary industrial requirements but also to develop human potential to its fullest extent in a range of professions. To conclude, ever since its rechristening, NIT Patna has been on the fast track of development and has undergone numerous facelifts in imparting education nationwide.

About Dept. of IT, Techno India

Techno India, a college with a difference, was established in the year 2001 initially with 4 AICTE approved Degree Engineering Courses including the Department of Information Technology. Starting from its birth, the department is constantly trying to evolve, advance and enhance the fundamentals of Information technology with a motive in building interest amongst students for specialized research, develop skills on new and current topics and creating the ability in them for better academic credentials.

Apart from these, the department also encourages the students to participate in various intra and inter college events to help them develop quality interpersonal and professional skills in academic and non-academic domains.

The main focus is to inculcate job oriented, value based quality education in recent technologies and equip the students with system and software development concepts in the state-of-art laboratories.

FACULTY DEVELOPMENT PROGRAM ON

“Big Data Analytics and Machine Learning”

In Association with

Department of IT, Techno India, Salt Lake

In the banner of

Electronics and ICT Academy, NIT Patna

Sponsored by

Ministry of Electronics & Information Technology, Govt. of India

Duration: 04TH July to 14TH July, 2017

Patrons

Prof. (Dr.) Asok De, Director, NIT Patna
Mr. Goutam Roy Chowdhury, Chairman, TIG
Mrs. Manasi Roy Chowdhury, Co-Chairman, TIG

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Academic Partner

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SAP University Alliances

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Academic Partner

Knowledge Partner

SAP University Alliances

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**Topics**
- ICT Enabled Blended Mode of Education.
- Overview of Big Data analytics.
- Shallow and Deep Learning.
- Data Management towards Big Data Analytics-MongoDB.
- Big Data Analytics with R and Hadoop.
- Spark and Big data analytics.
- Ensemble of Classifiers.
- Industry perspective on Artificial Intelligence.
- Multi-objective Optimisation.
- Bayesian Inference.
- Arduino and Raspberry Pi based Robot design.

**Advisory Committee**
- Dr. Deepak B. Phatak, Professor, Dept. of CSE, IIT Bombay.
- Prof. (Dr.) Rina Paladhi, Director, TISL.
- Prof. (Dr.) C. K. Bhattacharya, Principal, TISL.
- Mr. Anit Adhikari, CEO & Director, TIG.

**Technical Advisory Committee**
- Dr. Anirban Mukhopadhyay, Associate Professor, Dept. of CSE, University of Kalyani.
- Dr. Asit Kumar Das, Associate Professor, Dept. of CST, IIEST, Shibpur.
- Prof. (Dr.) Bhabatosh Chanda, Professor, ECSU, ISI.
- Prof. (Dr.) Jaya Sil, Professor, Dept. of CST, IIEST, Shibpur.
- Dr. Jayanta Poray, Dept. of CSE, TIU.
- Dr. Nabarun Bhattacharyya, Director, C-DAC, Kolkata.
- Prof. (Dr.) Nabin Ghoshal, University of Kalyani.
- Prof. (Dr.) Sandeep K. Shukla, Head, Dept. of CSE, Poonam and Prabhu Goel Chair, IIT Kanpur.
- Prof. (Dr.) Sarmistha Neogy, Professor, Dept. of CSE, Jadavpur University.
- Dr. Sourav Mukhopadhyay, Associate Professor, Dept. of Maths, IIT, Kharagpur.
- Prof. (Dr.) Ujjwal Maulik, Professor and HOD, CSE, Jadavpur University.

**Organising Committee**
- Prof. Piyal Sarkar, HOD, Dept. of IT, TISL.
- Dr. Tanmay Bhattacharya, Dept. of IT, TISL.
- Mr. Anirban Goswami, Dept. of IT, TISL.
- Mr. Soumitra Sasmal, Dept. of IT, TISL.
- Ms. Anindita Saha, Dept. of IT, TISL.
- Ms. Aparajita Chowdhury, Dept. of IT, TISL.
- Ms. Bijoly Saha, Dept. of IT, TISL.
- Ms. Subhamita Mukherjee, Dept. of IT, TISL.
- Mr. Pradipta Bhownick, Dept. of IT, TISL.
- Ms. Poly Sil Sen, Dept. of IT, TISL.
- Ms. Tapasi Bhattacharya, Dept. of IT, TISL.

**Resource Persons**
- Dr. Alok Kanti Deb, Associate Professor, Dept.of EE, IIT Kharagpur.
- Dr. Anirban Mukhopadhyay, Associate Professor, Dept. of CSE, University of Kalyani.
- Dr. Asit Kumar Das, Associate Professor, Dept. of CST, IIEST, Shibpur.
- Prof. (Dr.) Bhabatosh Chanda, Professor, ECSU, ISI.
- Dr. Debasish De, Associate Professor, Dept. of CSE, MAKAUT.
- Mr. Debasish Mazumdar, Jt. Director, C-DAC, Kolkata.
- Dr. Deepak B. Phatak, Professor, Dept. of CSE, IIT Bombay.
- Prof. (Dr.) Jaya Sil, Professor, Dept. of CST, IIEST, Shibpur.
- Dr. Jayanta Poray, HOD, Dept. of CSE, TIU.
- Dr. Nabaru Bhattacharyya, Director, C-DAC, Kolkata.
- Dr. Pabitra Mitra, Dept. of CSE, IIT Kharagpur.
- Mr. Premashish Dan, Solution Architect, TCS.
- Mr. Ritosh Mukherjee, Jt. Director, C-DAC, Kolkata.
- Prof. (Dr.) Sandeep K. Shukla, HOD CSE, Chair Professor, IIT Kanpur.
- Mr. Sanjay Kumar Choudhury, Jt. Director, C-DAC, Kolkata.
- Mr. Sanju Walia, Principal Consultant, SAP Custom Development.
- Prof. (Dr.) Sarmistha Neogy, Professor, CSE, Jadavpur University.
- Dr. Soumya Sankar Basu, Senior IT Architect, IBM.
- Dr. Sourav Dutta, Thought Leader, IBM.
- Prof. (Dr.) Ujjwal Maulik, Professor & HOD, CSE, Jadavpur University.

**How to Register**
- Amount (Inclusive of Lunch and Registration Kit)
  - Rs. 1500/- for participants from academia.
  - Rs. 5000/- for participants from industry and research organizations.
  - The amount must be paid in form of Draft in favour of “The Director, NIT Patna”, payable at Patna.
- **Mode**
- **Online:** Registration form should accompany a single demand draft of Rs 1500/- or Rs 5000/- (non-refundable), as applicable, which should be drawn in favour of “Director, NIT Patna” payable at Patna.
- Online payments of registration fee should be done in the following Account Name: NIT Patna Account No: 50380476798, IFSC: ALLA0212286.
- The form (http://training.ticollege.org/login/signup.php) must be filled properly, duly signed, endorsed by the competent authority and can be scanned and mailed to us at the address tapasi.dgp@gmail.com and aparajita2007@gmail.com along with the scanned copy of the DD (if applicable). (Last date: 2nd July, 2017.)
- **On Spot:** The endorsed registration form and the DD can also be submitted on spot (4th July, 2017) but the details of the participant must be intimated in the mail address - tapasi.dgp@gmail.com and aparajita2007@gmail.com by 3rd July 2017. (TA must be borne by the participants themselves).

**Faculty Development Program (FDP)**

**“Big Data Analytics and Machine Learning”**
Under the Electronics and ICT Academy, NIT, Patna
(04th July to 14th July, 2017)

**Registration Form**

1. Name (Block Letters):
2. Gender:
3. Cast:
4. Domicile State:
5. Designation:
6. Organization:
7. Address for Communication:
8. Email (Mandatory):
9. Mobile Number (Mandatory):
10. Qualification:
11. Specialization:
12. Subjects Taught (UG & PG levels):
13. Teaching Experience (Years):
14. Research Experience (Years):

Please register me for the course (FDP) on “Big Data Analytics and Machine Learning” to be held at Techno India, Kolkata.

Date: .................
Place: .................

Signature of the Applicant