Short Term Course CEP/FDP on

Big Data Computing: A Practical Approach

December 3-7, 2018

Organised by

**Department of
Computer Science and Engineering,
Indian Institute of Technology Patna
Bihta, Bihar, India.**

About IIT Patna

Indian Institute of Technology Patna is an autonomous institute of education and research in science, engineering and technology located in Bihta, 35 km from Patna. The new campus is spread over 500 acres of green land. As of today, IIT Patna has 10 academic departments that offer B.Tech, M.Tech and PhD programs. The faculties of this institute come with academic and research training from various institutes of excellence within the country and abroad. The recent publication records of the faculty with several practical constraints appear to be outstanding.

It includes many reputed national and international journals. Research activity in IIT Patna has been published in high quality and peer-reviewed national and international journals. Please browse individual faculty member web-page for more information. Faculty members of IIT Patna have been also participating in national and international conferences of repute.

Course Organizers
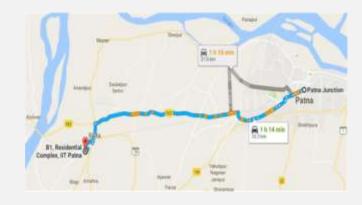
Patron : Prof. Pushpak Bhattacharyya, Director

Head C.S.E. Department : Dr. Jimson Mathew
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Course Coordinator: Dr. Rajiv Misra
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Travel: Reaching IITP

By Rail: IIT Patna Campus is about 35kms from Patna Junction, 24kms from Danapur Station and 38kms from Rajendra Nagar Terminal. You can find direct trains to any one of these stations from all parts of the country such as Delhi, Mumbai, Kolkata, Chennai, Hyderabad, Bangalore, Lucknow, Kanpur, Guwahati, Puri, and Vasco-de-Gamma among many others.

Course Overview

In today's fast-paced digital world, the incredible amount of data being generated every minute has grown tremendously from sensors used to gather climate information, posts to social media sites, digital pictures and videos, purchase transaction records, and GPS signals from cell phone to name a few. This amount of large data with different velocities and varieties is termed as big data and its analytics enables professionals to convert extensive data through statistical and quantitative analysis into powerful insights that can drive efficient decisions.

This Short Term Course CEP/FDP is aimed at giving Faculty, Research Scholars and Students an in-depth understanding of terminologies and the core concepts behind big data problems, applications, systems, techniques, and hands on training using state of the art tools, and will equip participant with the skills necessary to apply these tools and techniques to solving complex scientific and business problems. The specific topics include: Apache Spark, Hadoop, MapReduce, key/value storage systems, NoSQL distributed databases, Apache Cassandra, HBase, Apache Spark Streaming, Apache Kafka Streams, applications of Big Data Analytics using Machine Learning, Deep Learning, Graph Processing and many others. This course is organized under Technical Education Quality Improvement Programme (TEQIP) and Centre for Continuing Education Programme (CEP), IIT Patna.

Schedule

	09.45-11.15	11.30-13.00	14.00-15.30	16.00-17.30
Day 1	Introduction to Big data	Big Data Enabling Technologies	Hands on session	Hands on session
Day 2	Apache Spark, HDFS, YARN	Map Reduce	Hands on session	Hands on session
Day 3	Big Data Storage Technologies, Zookeeper, Paxos	Cassandra, HBase	Hands on session	Hands on session
Day 4	Spark Streaming	Kafka, Streaming Ecosystem	Hands on session	Hands on session
Day 5	Machine Learning with Spark	Graph Processing, Deep Learning for Big Data	Hands on session	Hands on session

Who Can Attend ?

- Executives, engineers and researchers from reputed industry and government organizations including R&D laboratories.
- Students at all levels (BTech/MSc/MTech/PhD) or Faculty from reputed academic institutions and technical institutions.

Local Sightseeing Places

- Bodhgaya: Religious site and place of pilgrimage associated with the Mahabodhi Temple Complex in Gaya.
- Rajgir: Rajgir is town where the air that surrounds its beautiful sceneries carries hints of spirituality and vibrant hues of history with links with both Buddhism and Jainism.
- Varanasi: Varanasi, or Banaras, (also known as Kashi) is one of the oldest living cities in the world. Varanasi`s Prominence in Hindu mythology is virtually unrevealed.
- Patna sahib: Patna Sahib is a very ancient, eventful historic town of India. Now the capital of Bihar, it can rightly be proud of its glorious past, more so because of the birthplace of Sri Guru Gobind Singh, the Tenth Guru of Sikh religion.

How to Register

Registration is required for participating to this course. Number of seats is limited to 55. Seats will be allocated first come first served basis. Selected candidates will be confirmed through Email.

Registration Deadline: Nov 5, 2018.

How to Apply: Please fill the google form using the link below:

https://goo.gl/forms/583LVSCeWwhmMOuN2

Account Details: For paying the registration fees, following account details of IIT Patna can be used. Please keep a copy of the transaction

Account Name	Indian Institute of Technology Patna
Account No.	30957551934
IFSC Code	SBIN0017164
Bank Name	State Bank of India
Branch Name	IIT Patna, Bihta Campus
MICR No.	801002005

Registration Fee

Students:	Rs 3000.00
Faculty:	Rs 5000.00
Industry:	Rs 7000.00

For registration contact:

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