

## Short Term Training Program

On

## Big Data Analytics (BDA 2018)

12<sup>th</sup> MARCH to 16<sup>th</sup> March, 2018

Organized By

Department of Computer Science & Engineering  
Maulana Azad National Institute of Technology  
(MANIT), Bhopal



In Collaboration with  
E & ICT Academy, IIITDM, Jabalpur



### Coordinators

Dr. Akhtar Rasool  
Dr. Nilay Khare  
Dr. Meenu Chawla  
Dr. Atul Gupta

### VENUE

Department of Computer Science & Engineering,  
MANIT, Bhopal.

### COURSE INTRODUCTION

This Course provides an insight to big data processing requirement and processing mechanism & provides a scalable and speedy solution to handle huge data. It helps to analyse new business opportunities and next generation computations.

Course is all about to give the knowledge about big data batch processing using apache **hadoop** tool & give the knowledge about real time, interactive and iterative big data processing using apache **spark** tool. It helps to give knowledge about streaming data processing using apache **storm**. This course note that the gains in performance of NoSQL versus RDBMS's due to differences in how the data is persisted and managed in memory and on disk.

### COURSE CONTENT

Overview of Big Data: Introduction, history, elements, related knowledge, big Data in Businesses, and types of big data analytics. Technologies for Handling Big Data: Understanding Hadoop Ecosystem: HDFS, Map Reduce YARN, HBase, Hive, Pig, Sqoop, Zookeeper, Flume, Oozie etc. Understanding of Apache Spark: Programming in Scala, Spark Core, Interactive Data Analysis with Spark Shell, Writing a Spark Application, Spark Streaming, Spark SQL, Machine Learning with Spark Graph Processing with Spark. Understanding of Apache storm: Introduction to Apache Storm. Use Cases of Apache Storm, Key features and Architecture of a Storm cluster, Storm Programming.

### REGISTRATION FEE

Research Scholar and Students	INR 2000/-
Faulty Members	INR 2000/-
Industry Professionals	INR 2000/-

Registration fee may be sent as Demand Draft in favor of Director, MANIT Bhopal payable at SBI, MANIT, Bhopal by 8<sup>th</sup> March 2018. Online payment can also be made to the account.

Account No. 10020150107

IFSC Code: SBIN0001608

The Course fee includes course material, working lunch and snacks.

### ACCOMMODATION

Limited accommodation for the participants shall be arranged at VIP guest house of MANIT, Bhopal or nearby hotels on first come first serve payment basis.

## REGISTRATION FORM

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Name: .....

Designation: .....

Affiliation: .....

Educational Qualifications: .....

Category: .....

(Student / Faculty / Industry Person)

Category (GEN/OBC/SC/ST):.....

Mailing Address: .....

.....

.....

Contact No.: .....

Email: .....

Accommodation Required (Yes / No): .....

Relevant Experience: .....

Payment Details:-

Bank Name: .....

Branch: .....

DD No.: .....

Date: .....

*I certify that the above mentioned information is true to the best of my knowledge and belief.*

*Signature of Applicant*

### About the “CITY” & “INSTITUTE”

Maulana Azad National Institute of Technology (MANIT), an Institute of National Importance, formerly known as Maulana Azad College of Technology MACT. Presently, along with about 200 faculties and 5000 students, the institute is successfully meeting the objectives of producing skilled manpower of the highest quality to cope up with challenges of ever evolving industrial needs of the country. The institute currently runs 13 UG and 20 PG courses and research programs leading to Ph.D. Department of Computer Science & Engineering in addition to B.Tech. in Computer Science & Engineering, offers M. Tech. Course (Computer Science & Engineering) and Ph.D. programs. Bhopal is the capital of Madhya Pradesh and is known as city of Lakes. It is well connected to all parts of the country by rail and air. MANIT is about 9 km from Bhopal city railway station. Weather in Bhopal is normally pleasant (25oC-38oC) with rains in July-Aug.

### About the “Electronics” & “ICT”

The Electronics and ICT Academy at IIITDM Jabalpur (funded by Ministry of Electronics and Information Technology) aims to provide training to faculty, students and unemployed graduates in fundamental areas as well as on the cutting edge technologies with hands on training using latest software tools and systems. Academy is envisioned to become a central hub of activities on training, research, consultancy work and entrepreneurship programs.

### How to Apply?

1. Make Payment.
2. Send duly filled registration form along with DD or NEFT Receipt to Dr. Akhtar Rasool.

#### PATRON

**Dr. N. S. Raghuwanshi**  
Director, MANIT – Bhopal

**Prof. S.G. Deshmukh**  
Officiating Director, PDPM IIITDM  
Jabalpur and Director ABV IITM,  
Gwalior

#### COORDINATORS

**Dr. Akhtar Rasool**  
Assistant Professor (CSE), MANIT  
Bhopal

**Dr. Nilay Khare**  
Associate. Professor (CSE), MANIT  
Bhopal

**Dr. Meenu Chawla**  
Professor (CSE), MANIT Bhopal

**Dr. Atul Gupta**  
Associate Professor (CSE), IIITDM  
Jabalpur

#### ADDRESS FOR CORRESPONDENCE

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**Note:** All the post / email correspondence must be addressed with the subject “BDA 2018”.

#### Objectives:

- 1.To provides knowledge for preparing a scalable and speedy solution.
- 2.To helps to analyse new business opportunities.
- 3.To gives knowledge about big data batch processing, Real time, Interactive and iterative big data processing.
- 4.This course note that the gains in performance of NoSQL versus RDBMS's due to differences in how the data is persisted and managed in memory and on disk
5. To get the knowledge of installation and hand's on experience of Apache hadoop, Apache Spark and Apache Storm.
6. Lots of practise to ensure that we are very comfortable handling an Analytics project on BigData.

#### Program Outcomes:

1. Develop the capability to Build and enhance business intelligence capabilities by adapting the appropriate technology and software solutions in big data analytics.
2. Develop the capability for Analyze legal and ethical principles applied to contexts and environments of data science and decision making.
3. Design tested and effective advanced big data analytics models and simulations for decision making.