



ABESIT

Summer Training Programs-2017

1. Training Program : Big Data & Hadoop

Course Contents:

- Infrastructure (HDFS)
- NosqlDb (MongoDB)
- Hadoop (MapReduce, Hive, Sqoop, Flume, Zookeeper)
- Introduction to Java
- Web Stack
- Spark and Scala

Venue : Center of Excellence for Big Data & IoT (Established in Collaboration with Datreon, Delhi)

2. Training Program: Analog & Embedded systems

Course Contents:

- Analog Circuit Design on TINA and ASLK PRO Kit
- Programming in C and Embedded C
- Using AVR Microcontroller and AVR Studio
- Using Proteus Simulator
- Programming MSP430 with CCS
- Interfacing sensors with MSP430
- Arduino and Energia Programming
- IOT concepts and Projects

Venue: Center of Excellence for Analog & Embedded Systems (Established in Collaboration with EdGate Technologies Pvt. Ltd. Bangalore under Texas Instruments (India) University Program)

3. Training Program: Industrial Robotics

Course Contents:

- Robot Manipulator
- Kinematic Modeling I and II
- Modeling of Differential Motion
- Robot control Systems
- How to work with an ABB Robot
- Working with ABBs Flex Pendant and with KUKA Teach Pendant
- Robot Programming
- Advanced Robot Programming
- Robot Application

Venue: Center for Advanced Robotic for Industrial Automation (Established in Collaboration with Indo Euro Synchronization and APS GmbH- European Center for Mechatronics, Germany)

4. Training Program: EED + Auto CAD

Course Contents:

Elementary Engineering Drawing

- Projections
- Interpretation of views
- Pictorial views to orthographic views
- Orthographic views to Pictorial Views

AutoCAD

- Two Dimensional Concepts
- Advanced two Dimensional Concepts
- Three Dimensional Concepts
- Printing

Venue: Center for Computer Aided Design & Engineering Analysis (Established in Collaboration with CADPLUS Software Solutions)

5. Training Program: Solid works

Course Contents:

- Sketcher
- Part Modeling
- Assembly Modeling
- Drawing & Detailing
- Surface Modeling
- Motion Simulation

Venue: Center for Computer Aided Design & Engineering Analysis (Established in Collaboration with CADPLUS Software Solutions)

6. Training Program: Structural Design with Staad. Pro

Course Contents:

- Modeling Structures in Staad. Pro
- Bentley Student Ambassador Program
- Basic Modeling in STAAD Pro-Beam and Column elements
- Modeling Commands
- Advanced modeling (Plates)
- Advanced modeling (Surface)
- Advanced modeling (Raft and Solids)
- Typical Model Practice
- Analysis and design of Structure
- Load types and application on structure
- Support types and creation
- Analysis of Frame Structures
- Analysis of Plate/Surfaces
- Analysis of Solid Structures

- Design of Concrete/Reinforced Concrete Structures (Project)

Venue: Center for Structural Design & Analysis

7. Training Program: Data Structure with C Programming

Course Contents:

- Basics of C Programming
- Data Structure

Venue: Computer Lab & CS/IT Department

8. Training Program: JAVA

Course Contents:

- Introduction, Language Components, Object-Oriented Programming
- Methods, Arrays
- Encapsulation, Inheritance & Polymorphism
- Abstract Classes and Interfaces, Exceptions
- Input and Output in Java
- Threads
- JDBC

Venue: Computer Lab of CS/IT Department

9. Training Program: Android- Mobile Application

Course Contents:

- Overview of Android, Architecture and Components
- App development/testing tools and environment, Understanding the app structure
- User Interface: Screen Containers or Layout
- User interface - UI Controls and Event Listeners, Intent and Activities
- Android Debug Framework
- Advance UI
- Adapter and Adapter Views
- Services and Broadcast Receivers
- Data Persistence
- Notification Manager

Venue: Computer Lab of CS/IT department

10. Training Program: MATLAB with Image Processing

Course Contents:

- Introduction
- Basic features
- A minimum MATLAB session
- Getting started
- Mathematical functions
- Basic plotting
- Matrix generation
- Array operation
- Solving linear equations

- Control flow
- Import, Export and conversion of Image
- Interactive tools for image display and exploration
- Geometric transformation and spatial referencing
- Image enhancement tools
- Image analysis
- Color and code generation
- GPU computing

Venue: Project Lab of ECE Department

11. Training Program: PHP (Web Development)

Course Contents:

- HTML 5, CSS
- PHP
- JOOMLA
- MySQL

Venue: Computer Lab & CS/IT Department