



DevOps & Cloud Computing

2 Weeks / 30 Hours

Job oriented exhaustive program

Summer Internship & Training Program

Delhi NCR – Varanasi – Bengaluru – Lucknow - Bareilly – Bhopal – Bhubaneswar – Gorakhpur

Official Partner



EISYSTEMS SERVICES

FF-113, Express Greens Plaza, Sector 1

Vaishali, Ghaziabad (Delhi NCR), Uttar Pradesh -201010

P: +91 9773976977 | E: info@eisystems.in | W: www.eisystems.in

About EISystems

EISystems Services is a leading Indian technology identity with operations in 16 states and union territories of India. EISystems (We call it EISys) offers trainings in Machine Learning, Internet of things, Deep Learning, Computer Forensics, Automobiles, Robotics and Socialmedia related solutions for enterprises and student community. Our online edtech domain "Robokwik" have been in among top self learning products provider brands in India. We have trained about 70000 students and impacted around 2 lakhs students through our various outreach initiatives since our founding.

Our Clientele

Some of the colleges where we had already felt our presence are given below:-

Indian Institute of Science, Bangalore
Indian Institute of Technology, Bombay
Indian Institute of Technology, Delhi
Indian Institute of Technology, Madras
Indian Institute of Technology, Kanpur
Indian Institute of Technology, Roorkee
Indian Institute of Technology, Guwahati
Indian Institute of Technology (Banaras Hindu University), Varanasi
Indian Institute of Technology, Indore
Indian Institute of Technology, Bhubaneswar
Indian Institute of Technology, Jodhpur
Indian Institute of Technology, Hyderabad
National Institute of Technology, Tiruchirappalli
National Institute of Technology, Warangal
National Institute of Technology, Calicut
National Institute of Technology, Patna
National Institute of Technology, Jalandhar
National Institute of Technology, Jaipur
National Institute of Technology, Durgapur
National Institute of Technology, Surat
National Institute of Technology, Allahabad
Indian Institute of Information Technology, Allahabad
ABV- Indian Institute of Information Technology & Management, Gwalior
PDP- Indian Institute of Information Technology & Management, Jabalpur
College of Engineering Guindy,
Anna University, Chennai
PSG College of Technology, Coimbatore
JNTUH College of Engineering, Hyderabad

and more than 100 other engineering colleges.

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Internship & Training Program

Prerequisites

Participants from CSE/IT/MCA/BCA/BSc IT background are eligible to join this program. This is a not a basic level program and we expect attendee to have bit knowledge of OOPs concepts and programming.

What to bring during training program?

We expect participant to come with

1. A laptop with Microsoft Windows configuration.
2. Laptop Charger/ Adapter for charging purpose.
3. USB Mouse for designing purpose (if required).

Post Training Deliverables

Every participant will get all under mentioned deliverables

1. 30 hours classroom training by specialized trainer.
2. Certificate of Internship from Eisystems Services & Technex IIT (BHU) Varanasi.
3. Printed Study Material Booklet.
4. Eisystems Access ID Card & Stylish Storage Folder.
5. Notepad & Pen.
6. Guidance for Entrepreneurship in chosen field or employment support (if asked).
7. Chance to assist our trainer in our workshop(s) at IISc, IITs, NITs etc.

Fees & Discounts

There are multiple type of discount(s) available as mentioned below:-

Category 1: Single / Individual Entry

Installments	Amount
First Installment	Rs. 1000 per participant only
Second Installment	Rs. 6900 per participant only
Total Fees	Rs. 7900 per participant only

Category 2: Group Discount (2 to 4 Members Group)

Installments	Amount
First Installment	Rs. 1000 per participant only
Second Installment	Rs. 6700 per participant only
Total Fees	Rs. 7700 per participant only

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Category 3: Access Card Discount

This discount will be valid for all aspirants having EISystems Access Card or have participated in any workshop(s) / training program (online or classroom) delivered by EISystems Services, limited seats & subject to seat availability.

Installments	Amount
First Installment	Rs. 1000 per participant only
Second Installment	Rs. 6200 per participant only
Total	Rs. 7200 per participant only

Course & Content

All of the sessions will be practical oriented, kindly look on the syllabus which we are going to cover during training days.

Session 1

- Introduction Of Cloud Computing
- Introduction of computing and its model
- Desktop Computing Model
- Client –Server Computing Model
- Cluster Computing Model
- Grid –Computing Model
- Cloud-Computing
- Shared Hosting, VPN and Dedicated
- Cloud-Computing Services
- Cloud Services Provider Company
- Role of Cloud Computing in Various Engineering Domain
- Future scope of Cloud-computing in Various Field Like IOT, Machine Learning And Artificial Intelligence
- Public Cloud
- Private Cloud
- Hybrid Cloud

Session 2

- Introduction to GitHub
- Introduction of GitHub Repository
- Creating Repository
- How to use Github Repository

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Session 3

- IBM Cloud
- Introduction to IBM Bluemix
- Creating Free account in Bluemix
- Data centre Region
- Introduction about Free Tier Account
- Introduction of Bluemix DashBoard
- Various Services available in IBM Bluemix
- Cloud Foundry
- Bluemix DevOps
- Tool chain
- Delivery Pipeline
- Cloudant
- Bluemix DevOps
- Bluemix Web IDE
- Fundamentals of building and deploying your application in the Cloud with IBM Bluemix.

Session 4

- Installing and Working with Cloud Foundry using CLI
- Installing CLI
- Introduction of Basic Command
- Working With CLI
- Login into Bluemix Account by CLI
- Deploy /Hosting WEB using Cloud Foundry
- Deploying Multiple Webpage in single space
- Accessing our web application from any where

Session 5

- Bluemix DevOps
- Bluemix Devops Service
- Continous Delivery
- Working with Tool chain
- Creating Tool chain
- Creating Delivery Pipeline
- Creating and Deploying web page using web IDE

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Session 6

Working With IBM Bluemix and Eclipse
Configuring Eclipse for IBM Bluemix
Configuring Tomcat Server
Creating and Deploying war file into Bluemix cloud using Eclipse

Working With Cloudant
Basic Structure of Cloudant
JSON
Creating Live Data Base Using Cloudant NOSQL Database
Creating JSON object and Array
Adding Cloudant Database into application

Mobile Foundation
Introduction of Mobile Foundation
Creating Server using Mobile Foundation
Linking Mobile Foundation with android Application

Session 7

Node-Red
Introduction to Node-red
Installing Node-red
Node-Red Basic Command
Input node, Output Node, Function Node ,Template etc
Implementation of Various Type of Node
Sending and Receiving HTTP Request and Response Using NodeRed
Accepting Twitter post using Node Red
Introduction of Websocket
Storing Twitter post in Cloudant Data Base
Chat application using Node Red
Node-Red for IOT
Reading sensor value using of room using node red(iot)
Controlling Device using rpi3 and node red
Creating phone into an IoT device

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Session 8

- IBM Watson
- Introduction to IBM WATSON
- Introduction to cognitiveit
- IBM Watson Services and API
- Introduction to Watson Analytics
- Introduction to languages of AI
- Introduction to Watson Conversation Services
- Smart Chat box AI Based Example
- Adding language translation to apps with IBM Watson
- Adding language translation to apps with IBM Watson
- Build a home assistant mobile application with Watson and IoT Platform services
- simple face detection web app
- Develop a predictive analytics model for a complex data set

Session 9

- Introduction to Networking
- Introduction Computer Network
- Introduction Networking Devices
- Introduction Networking Topology
- Introduction of Packet Tracer
- Implementation of various networking model using Packet Tracer
- Basic Networking command And Its Implementation using CMD

Session 10

- IP Address & Virtualization
- Introduction of Ip Address
- IPV4 and IPV6
- Subneting
- Subnet Masking
- Default Subnet
- Public ,private IP
- Static and dynamic IP

Session 11

- Concept behind the Virtualization
- Vmware
- Hypervisor –VMM
- Type of hypervisor
- Virtualization in Cloud Computing

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Session 12

- Container & Docker
- Introduction of Container
- Containers and VM
- Advantages of Container
- Introduction of Docker
- Docker vs VM
- Docker architecture
- The Docker daemon, The Docker client, Docker registries
- Docker Object
- Cluster and Node
- Docker Toolbox Setup
- Docker CLI Introduction
- Docker-Machine Basic command Implementation
- Chat application using Node Red
- Creating Docker Machine Cluster
- Introduction of Dockerfile and its Commands
- Creating Docker Image using Dockerfile
- Deploy Static HTML Website as Container
- Deploy python(Flask) as Container

Session 13

- DOCKER-SWARM & Kubernetes
- Introduction of swarm
- Docker Swarm components
- Creating-Machine
- Creating Swarm Service
- Accessing the Service
- Scaling up and Scaling down
- Introduction of Kubernetes and its Architecture
- Kubernetes Terminology
- Kubernetes Vs Docker

Session 14

- Openstack & Softlayer
- Introduction of Openstack
- How is OpenStack used in a cloud environment
- components of OpenStack
- Introduction of softlayer
- IBM SoftLayer
- Creating first virtual server in SoftLaye

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Session 15

- Amazon Web Services
- Introduction of AWS
- Creating Account ,Introduction of Free Tier Services
- Services offered by Amazon
- EC2 - Configuring a server, Launching an instance
- S3- Allocating storage buckets,
- Amazon Virtual Private Cloud (VPC)
- Amazon API Gateway
- AWS SDK for Java Developer
- Launch a Web Application
- Deploy a Python Web App
- Host a Static Website
- ML Model to Generate Predictions
- Amazon Machine Learning Example

Disclaimer

Please make sure that IIT (BHU) Varanasi is nowhere charging any amount from any participant and this training/internship will be organised by Eisystems Services in association with Technex, an annual techno-management festival of IIT BHU Varanasi, it is to note that Technex is only responsible for providing certification to attending students and rest of the matters like marketing, operations, publicity, scheduling, payment processing, content development etc. will be taken care by Eisystems Services.

All of the matters/disputes related to internship/training needs to be addressed to Eisystems Services only. See our terms and conditions on www.eisystems.in/tnc.php and fees once paid is non refundable and non transferrable. Company reserves full right to withdraw any offer anytime without any prior notification, Also it is important to understand that center of internship in Varanasi will not be IIT (BHU) Varanasi and it will be at some other place in Varanasi itself.

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