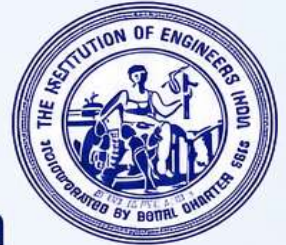




# ESCI



## Engineering Staff College of India

— An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution —

PROFESSIONAL DEVELOPMENT PROGRAMME

# AI POWERED FULL STACK DEVELOPMENT WITH JAVA



03 – 07 AUG 2026



ESCI Campus,  
Hyderabad

### HIGHLIGHTS

- ✓ AI Tools for Developers
- ✓ End-to-End Full Stack Development
- ✓ Hands-on Projects
- ✓ Real-world Applications
- ✓ Expert Faculty
- ✓ Industry-Oriented Curriculum
- ✓ Certificate of Participation



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[www.escihyd.org](http://www.escihyd.org)



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(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

## Centre for Promotion of Professional Excellence

[www.escihyd.org](http://www.escihyd.org) , [it@escihyd.org](mailto:it@escihyd.org) , 040-66304124/25/23, 8886661060

## Introduction

This comprehensive program bridges the gap between traditional full stack development and the cutting-edge world of AI. Participants will gain hands-on experience in building modern web applications using **Java**, **Spring Boot**, **React/Angular**, and **RESTful APIs**, while also learning to integrate intelligent features powered by **machine learning**, **natural language processing**, and **AI services**.

## Objective

- To understand the Web Technologies and master Full Stack Development with Java
- Integrate AI Capabilities into Applications
- Develop Scalable and Secure Web Applications
- Apply Agile and DevOps Practices in Project Development
- Build and Deploy a Capstone AI-Powered Full Stack Project

## Course Content

### Foundations of Full Stack Development

#### Introduction to Full Stack Development

- Java full-stack ecosystem, Core Java Refresher
- OOP concepts, Collections, Streams API
- Exception handling and best practices
- Version Control & Collaboration
- Git & GitHub basics, Branching strategies
- IDE (IntelliJ/Eclipse) setup, Java project

### Backend Development with Java

#### Spring Boot Essentials

- RESTful API design
- Controllers, Services, Repositories
- Dependency Injection & annotations

#### Database Integration

- JDBC vs JPA (Hibernate)
- CRUD operations with Spring Data JPA
- Using H2/MySQL/PostgreSQL

#### API Testing

- Postman & Swagger for API documentation
- Unit testing with JUnit & Mockito

### Frontend Development

#### Frontend Essentials

- HTML5, CSS3, JavaScript (ES6+) refresher
- Responsive design basics

#### Modern Frontend Framework

- React or Angular fundamentals

- Components, props, state management
- Fetching data from Java backend
- Building dashboard consuming Spring Boot Pls

### AI Integration in Full Stack

#### AI for Developers

- Overview of AI/ML in software apps
- REST APIs for AI models

#### Java & AI

- Integrating AI APIs into Spring Boot
- Example: Sentiment Analysis,
- Text Summarization

#### Frontend + AI

- Calling AI services from frontend (React)
- Displaying AI-powered insights in UI
- Building an AI-powered feature

### Deployment & Capstone Project

#### DevOps & Cloud Basics

- Containerization with Docker
- Deploying Java apps on AWS/Azure/ CI/CD Pipeline
- GitHub Actions/Jenkins for automation

#### Capstone Project

- Full-stack Java app with AI feature
- Backend: Spring Boot REST APIs
- Frontend: React/Angular UI
- AI integration: Simple ML/AI serviceg

## Methodology

Methodology of the programme includes class room sessions with Lecture / Discussion with Hands- on Practical, with tools, audio visual aid, bench marked video shows, Chalk & Talk sessions, group discussions, case studies, debates, sharing of experiences etc. All the sessions will be interactive demanding active participation from all the members.

## Target Participants

- Professionals working in the field of software development, Web Administrators, Programmers, Application Developers, Web developers in IT departments.
- IT Managers, Systems Managers, Scientists, Engineers and Consultants working in governmental, defense, public, private sector organizations.

## Course Director

**Mr. Syed Azgar** , MBA(IT), RHCE, MCSA,

Sr Faculty & Head IT,

Information Technology Division,

## Course Fee

- ₹ **30,000/- (Residential Fee)** per participant. Fee includes Single / Double AC accommodation as per the availability, course material, course kit, Breakfast. Lunch, Dinner, Tea / Coffee and Snacks during the actual days of the training program.

**GST @18%** is to be paid extra and above the training fee as training. **PAN Card No.** AAATT3439Q. **GST No:** 36AAATT3439Q1ZV, **HS No.:** 999293 (under commercial training or coaching services – clause 65(105) (ZC) of Finance act – 1994).

Programme fee is to be paid in in favour of “**THE INSTITUTION OF ENGINEERS (INDIA) – ENGINEERING STAFF COLLEGE OF INDIA**” by **Electronic Fund Transfer (EFT)** to ESCI – **Axis Bank A/c No. 912010049234564** with The Axis Bank Ltd, Old Mumbai Hwy, Cyberhills Colony, P Janardhan Reddy Nagar, GachiBowli Hyderabad-500032 by NEFT/ RTGS/ IFSC Code No. UTIB 0000733 – MICR No.500211020. **While using EFT method of payment, please ensure to communicate us your company name, our invoice reference and programme title.**

### Registration

**To register manually** please send your nominations giving details of name, designation, contact address, email address, mobile no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to : [it@escihyd.org](mailto:it@escihyd.org)

**A Certificate of participation will be awarded to each participant on conclusion of the programme.**

## Glimpses of our Recent Programmes



### Information Technology Division, Engineering Staff College of India

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