

## *A self-financed summer training program*

On

## *Enhancing Skill for Enterprise Scale Application Development ((ES)<sup>2</sup>AD)*

From 20<sup>th</sup> June – 16<sup>th</sup> July, 2016



Organized by

**Department of Computer Science & Engineering  
Motilal Nehru National Institute of Technology Allahabad  
Allahabad-211004, Uttar Pradesh, India**

### THE INSTITUTE

Motilal Nehru National Institute of Technology (MNNIT) Allahabad is one of the premier National Institute of Technology (NIT) in India. It is committed to achieve quality and excellence in academic pursuits. Established in 1961, as a Regional Engineering College, a joint enterprise of Government of India (GOI) and Government of Uttar Pradesh, the institute was transformed into NIT on June 26, 2002. With the enactment of NIT Act-2007 (29 to 2007), the Institute has been granted the status of institution of national importance w.e.f. August 15, 2007.

The Institute now offers various undergraduate and postgraduate program such as B.Tech., M.Tech., MCA, MBA, M.Sc., M.S.W and Ph.D. degree. It has been recognized by GOI as a Quality Improvement Programme (QIP) centres for the M.Tech. and Ph.D. program.

### ABOUT THE CITY ALLAHABAD

The city of Allahabad is among the largest cities of Uttar Pradesh. It is situated at the confluence of three rivers- Ganga, Yamuna and the mythological Saraswati. The sacred meeting point is known as Sangam.

The city better known as PRAYAG has many governmental institutions which include MNNIT Allahabad, High Court of UP, Allahabad University & tourist places like Sangam, Anand Bhawan, Narayani Ashram etc. MNNIT Allahabad is one of the premier institutes of the city offering Quality Technical Education.

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

For the first time in India under graduate program in Computer Science and Engineering was offered in 1977 under Electrical Engineering Department with a modest strength of 10 students.

The Department of Computer Science & Engineering offers courses leading to a Bachelor of Technology in Computer Science & Engineering, and Information Technology. It also offers a Master of Technology in Computer Science & Engineering, Master of Technology in Software Engineering, Master of Technology in Information Security, and Master of Computer Application (M.C.A.). Further, the department also enrolls candidates for Ph.D. program.

### ABOUT THE TRAINING

The training program is about making students learn developing software in Object Oriented way using Java Technology. Major problem in the industry is newly graduated students lack skill in developing software using object oriented principles. Without understanding the principles of object oriented development they end up developing procedural code using object oriented language. Some features that are expected of object oriented development is flexibility, reusability, scalability, evolvability and maintainability of the applications. The training emphasizes at enhancing skill for developing web based applications modularized through the use of object oriented principles. This would generally help the students for their final year project development as well as enterprise scale application development in the industry. The course will be taught through running examples and is expected to culminate into developing a good enterprise scale application by students on their own. The content is divided in three parts firstly core java then advance java followed by the use of design patterns and frameworks in

building object oriented systems. Designing object-oriented software is hard and designing reusable, flexible, evolvable and maintainable software is even harder. Experts don't develop designs and code from scratch. Generally, they reuse successful solutions that have worked for them in past. Design patterns are the record of experiences of experts in designing good object oriented software. The framework aims to alleviate the overhead associated with common activities performed in Web development. They generally help in object oriented software development by making design and coding easier and faster as they often promote code reuse.

**Core Java:** Introduction to Object Oriented Software development through Java.

Classes and Objects, Extending classes, Polymorphism, Interfaces, Nested classes and interfaces, Exceptions, Strings, Packages, The I/O Package.

**Advanced Java:** Event Handling, AWT, Swing, Applets, Multi Threading, The collection frameworks, Networking, Java Server Pages (JSP), Java Servlet, Enterprise Java Beans (EJB), Java Messaging Service (JMS), Java Database connectivity (JDBC).

**Design patterns and frameworks:** Singleton, Factory Method, Builder, Prototype, Adapter, Bridge, Composite, Decorator, Facade, Proxy, Template Method, Iterator, Observer, State, Strategy, Visitor etc. Frameworks include Spring MVC, JSF, Struts 2, Hibernate, JSON, Tapestry, etc.

### OBJECTIVE OF THE TRAINING PROGRAM

The program tries to enhance the skill of graduating students to increase the chances of employability which is very poor in India according to reports. Sangeeta Gupta, Senior Vice President, NASSCOM said, "Our engineers are not unemployable, they just don't have industry-ready talent. In other words, they lack the skills required for the jobs that are available to them." Our program (ES)<sup>2</sup>AD is a step towards the enhancing skills for making newly graduated students industry ready. The major concern of industry today is that new entrants generally develop procedural code using object oriented languages. However, the expectation of industry from them is well

designed and developed object oriented code. But, they have very little idea about how to use an object oriented language to develop the user friendly, flexible, reusable, evolvable and maintainable web based object oriented applications that are the requirements of any enterprise scale application today. Program is expected to solve some of these concerns of the industry along with the small contribution towards “Skill India Program” of Government of India.

### IMPORTANT DATES

**Course Duration: 4 weeks, June, 20th to July, 16th, 2016**  
**Last Date of Registration: Registration Closed. Due to overwhelming response seats got filled. Thanks for your kind attention.**

### WHO SHOULD ATTEND

B.Tech, M.Tech, BCA, MCA, M.Sc. Computer Science, Industry persons and faculty with Engineering & Sciences background.

### REGISTRATION DETAILS

The prospective participants are requested to submit their applications at the address for communication. The course fee will be as follows:

Industry Persons/Faculty Rs. 8000=00

Students (from other institutions) Rs. 6000=00

Students (from MNNIT Allahabad) Rs. 5000=00

Registration fee can be submitted through DD in **favour of “ESAD” payable at Allahabad** or via NEFT

**A/C Name: ESAD A/C Number: 718400301000194**

**Bank: Vijaya Bank**

**Branch: M.N.N.I.T. Allahabad IFSC: VIJB0007184**

The participants will receive ample course material in the program to practice. The fooding and lodging arrangements for candidates can be made on the request of students from outside the Allahabad. Limited number of accommodation will be provided on first come first serve basis to the participants, based on the availability of rooms in the institute hostel. The charges of fooding and lodging will be separate from the registration fee and will be nominal.

The participants shall download Registration Form available in the MNNIT Allahabad web site otherwise can use the registration form available in this pamphlet. Completed

registration form along with the D.D.and payment details should reach at the communication address by post or E-mail (in case of NEFT payment) on or before June, 7, 2016. Seats are limited. The list of participants will be displayed at the MNNIT Allahabad website and they will also be intimated by E-mail on or before June, 10, 2016.

### RESOURCE PERSONS

The resource persons for the program shall be Faculty from IITs, NITs and experts from the industries.

### COMMITTEE

#### ORGANIZING COMMITTEE

##### Patron

Prof. P. Chakrabarti, Director, M.N.N.I.T. Allahabad

##### Chairman

Prof. R. S. Yadav, Head, CSED.

##### Course Coordinators

Prof. M. M. Gore, CSED.

Prof. R. S. Yadav, CSED.

Dr. D. K. Yadav, CSED.

##### Course Co- Coordinators

Dr. Ranvijay, CSED

Dr. Shashank Srivastava, CSED

##### Student Coordinators

1. Mr. Brijendra Pratap Singh, CSED.
2. Mr. Mainejar Yadav, CSED.
3. Ms. Neelam Dayal, CSED.
4. Mr. Naveen Gupta, CSED
5. Mr. Brajesh, Umrao, CSED.
6. Mr. Mahendra Pratap Yadav, CSED

### ADDRESS FOR COMMUNICATION

Complete registration form should reach at the following address on or before 7th June, 2016. The contact details are:

**Dr. D. K. Yadav** (Mob: +91-9820839705)

Department of Computer Science and Engineering  
Motilal Nehru National Institute of Technology Allahabad  
Allahabad-211004

Phone: 0532-2271361

E-mail: esad.mnnit@gmail.com

#### FOR ANY QUERY CONTACT:

Mr. Ashish Kumar Mishra, Department of C.S.E.

**(Mob:+91-9452597751)**

**Registration Closed. Due to overwhelming response seats got filled. Thanks for your kind attention.**