



TEQIP III-Sponsored

One Week Faculty Development Programme

On

Internet Of Things (IoT) and Software Architecture

(6th - 10th December, 2018)

Course Co-ordinators

**Asst. Prof. I.R.Jhetam
Asst. Prof. S.V.Bharad**

Organized by

**Department of Computer Engineering
Dr. Babasaheb Ambedkar Technological
University, Lonere, M.S.**

Advisory Board

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Dr. S. L. Nalbalwar, Coordinator
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**Dr. V.G. Gaikar
Vice-Chancellor
Dr. Babasaheb Ambedkar Technological University,
Lonere, M.S.**

Introduction

The Internet of Things (IoT), also called the Internet of Everything is a new technology paradigm envisioned as a network of machines and physical devices capable of interacting with each other. The IoT is recognized as one of the most important areas of future technology and is gaining vast attention from a wide range of industries.

The term software architecture refers to the process of making design decisions for a specific system to fulfill a certain business goal. The decisions are trade-offs between qualities that the system to be developed will have based on the requirements for this system. The decisions made on this abstract level of design primarily have an impact on the quality attributes that the system will exhibit.

When talking about the architecture of a specific system, we abstract from implementation details and focus on the decisions that need to be made in order to achieve certain qualities for that system.

IoT technology has applications in many domains including agriculture, space, healthcare, manufacturing, construction, water, mining and defence sectors. For an IoT architect there are many decisions to make – each with an appreciation for what will be most effective. Therefore, it is very important to learn the fundamentals of both these areas.

Course Contents

- Overview of IoT : Fundamentals and Applications
- Overview of Software architecture : Architectural Views, Configurations, Patterns, Architectural Decisions.
- Sensor Network
- Connecting Technologies and protocols in IoT
- Applied Architectural Styles in IoT
- Relevance of Quality Attributes to the Internet of Things
- Implementation of IoT with Raspberry Pi
- Architectural decisions in IoT.
- Software architecture methods for design of complex IoT systems
- IoT gateways and their role in networking
- Introduction to industrial IoT

Eligibility and Selection Criteria

Faculty members / Research Scholars from AICTE / UGC approved Degree/Diploma engineering colleges are eligible to participate. The number of participants is limited to forty and selection will be done on first-cum-first-served basis.

About University and Department

Dr. Babasaheb Ambedkar Technological University, Lonere, was established by Act No. XXII (1989), by the Government of Maharashtra. The University is first of its kind in the state. The University has well-structured governing mechanisms as provided in the University Act. 1st March, 2016 is another milestone now in the history of this university as it becomes State Technical University, by Government of Maharashtra Act No. XXIX 2014, to which Engineering and Technology, Pharmacy, Architecture and Hotel Management and Catering Technology Institutes from the state shall get affiliated over the next few years.

The University is surrounded by State Industrial areas (MIDC): Roha, Mahad, Lote Parshuram, Patalganga and Taloja. The University is about 160 km from Mumbai and 140 km from Pune. The University is well connected by road (Mumbai Goa Highway, No. NH- 17). University is only 2 km off this highway and on Konkan railway. Nearest stations are Veer (5 km) and Mangaon (12 km). The University is located at the lotus feet of Raigad Fort, where Shivaji Maharaj was coroneted. The hill stations Mahabaleshwar and Panchgani are in the close vicinity.

The department of Computer Engineering was established in the year 1995 initially with B. Tech. program having intake of 60 students. In year 2001 M. Tech. program in Computer Engineering with an intake of 18 was introduced. In year 2008, the first research scholar for Ph.D. program was enrolled in the department. The mission of the Department of Computer Engineering is to produce quality Computer Engineers, Researchers and Academicians capable of providing generic solutions to engineering problems with their knowledge of computer science concepts, mathematical abstractions and latest technologies.

Important Information

Submission of Registration Form: **On or before 30th, November 2018**. The completed registration form with signature of Principal/Director and institute seal, is to be sent to Programme Coordinator's email address. Hard copy of registration form must be submitted on first day of the course.

Ms. Jhetam I.R. - irajhetam@dbatu.ac.in

Ms. Bharad S.V. - svbharad@dbatu.ac.in

Course Fees

Accommodation will be provided at the University campus for external participants only. All the participants will be provided lunch and snacks during programme duration. No travelling allowance will be provided to external candidates.

All participants should submit Demand Draft of Rs 250/- in favour of Registrar, Dr. Babasaheb Ambedkar Technological University, Lonere. DD will be refunded to participants after successfully completion of course.

Resource Persons

1. Dr. A.W. Kiwelekar, Head, Department of Computer Engineering, Dr. BATU, Lonere.
2. Dr. Abhiram Ranade, Professor, Department of Computer Science, IIT Bombay, Mumbai.
3. Dr. Rajesh Ingle, Professor and Head, PICT, Pune.
4. Mr. Sham Dhage, Sr. Project Manager, IBM, Pune.
5. Mr. Basavraj Hooli founder & Director, Graceful Growth India Pvt. Ltd.
6. Mr. Harold Dcosta, Cyber-Security Expert.

Contact details

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on

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Application form

1. Name in full: _____

2. Date of birth: _____

3. Designation: _____

4. Name of Institute: _____

5. Whether the Institution is AICTE/UGC
recognized: _____

6. Highest Educational Qualification: _____

7. Experience in years: Teaching/Research/
Industry: _____

8. Area of Interest : _____

9. Details of course payment: _____

10. Address for correspondence with email ID,
alternate email ID, Mobile and Phone No.:

11. Accommodation Required: Yes / No

Declaration

The information provided above is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the course and shall attend the course for the entire duration. I also undertake to inform the Coordinator in case I am unable to attend the course, if selected.

Place:

Date:

Signature of Applicant

Sponsorship Certificate

Mr./Ms. _____ is an employee of this Institute and is hereby sponsored to participate in the One Week Faculty Development Programme On **Internet Of Things (IoT) and Software Architecture** held during 6th - 10th December, 2018.

Place:

Date:

Signature of Head of
Institution (with seal)

Please send completed application forms to the coordinator on or before 30th November 2018.

