ABOUT BIET

Bapuji Institute of Engineering and Technology, Davanagere (BIET) located in the city of Davanagere Karnataka India. The College houses around 18 different departments. It offers B.E in 13 Engineering Disciplines, 5 PG programmes, 13 of its departments have been recognized as research centers and 12 departments have been accredited by NBA, New Delhi. It began offering courses from the academic year 1979-1980 and is affiliated to Visvesvaraya Technological University (VTU) karnataka. The institute is NAAC accredited with 'A' Grade.

ABOUT DEPARTMENT
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The Department of Computer Science and Engineering was established in 1984 as an academic Centre for undergraduate studies in Computer Science and Engineering and currently offers undergraduate programe with an intake of 240. Visvesvaraya Technological University recognized the R and D center in the year 2000. There are 10 research supervisors and a total of 13 scholars have been awarded with PhD degrees under VTU. 17 scholars are pursuing their PhD as of today. Very proud to say that, the undergraduate program has been accredited three times by NBA and is valid up to 2024. It is supported by well qualified faculty, non - teaching staff and best - in - class Infrastructure in imparting the quality technical education in the field of Computer Science and Engineering. The department strives hard to prepare the students to be industry ready along with motivating them towards higher studies as well as entrepreneurship qualities. It is the best opted department in the central part of Karnataka and is well known for its university results, placements, industry and Alumni tie ups. Department is proactive in hosting International and National Conferences, faculty development programs, FDPs, Learnathon, Hackathon and many more events regularly for the benefit of students and the faculty members

CHIEF PATRONS:

Dr. Shamanur Shivashankarappa
Hon. Secretary, BEA
MLA Davangere-South

Sri. S S Mallikarjuna
Joint Secretary, BEA
Cabinet Minister of Mines and Geology and Horticulture

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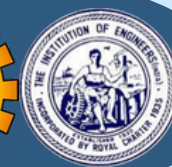Email: kcsantoo@gmail.com, Mobile: 9886134300

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Bapuji Educational Association(Regd.)

Bapuji Institute of Engineering and Technology, Davangere-577004

(AFFILIATED TO VTU BELAGAVI, APPROVED BY AICTE, NEW DELHI)
ACCREDITED BY NBA & NAAC WITH 'A' GRADE

AICTE Training and Learning Academy (ATAL)

Sponsored one week Faculty Development Program on

AGILE SOFTWARE EVOLUTION AND MICROSERVICES MASTERY

Organized by

Department of Computer Science and Engineering

16th to 21st October

ABOUT FDP

The "Agile Software Evolution and Microservices Mastery" faculty development programme (FDP) is a comprehensive program designed to equip faculty members with the latest knowledge and skills in modern software development practices. Participants will gain insights into agile methodologies, DevOps culture, cloud computing, microservices, and tools to deliver software solutions efficiently. This program aims to empower educators with contemporary teaching approaches and technological insights, enabling them to create a dynamic and competitive learning environment for students.

OBJECTIVES OF FDP

- To Understand modern software development concepts, methodologies and technologies including Agile methodologies, DevOps practices, cloud computing, microservices architecture and relevant tools.
- To enhance the knowledge of the evolution of software development practices, from traditional to modern approaches.
- To gain hands-on experience with relevant tools and techniques those are essential in today's software development landscape.

OUTCOMES OF FDP

- To acquire up-to-date expertise in Agile methodologies, DevOps practices, cloud technology, microservices architecture, and related tools.

FDP CONTENTS

Session 1: (SDLC Then and Now: Unraveling the New Age Software Business)
- Evolution of Software Development Life Cycle (SDLC) - Traditional vs. Modern Approaches
- Understanding the New Age Software Business Landscape

Session 2:
- Embracing Agile Methodologies for Faster and Efficient Software Delivery

Session 3: (Cultivating a Culture and Mindset for Continuous Delivery)
- Introduction to DevOps: Synergy Between Development and Operations
- Building a Collaborative and Agile Development Culture

Session 4:
- Leveraging DevOps Best Practices to Optimize Software Delivery Processes

Session 5: (The DevOps Ecosystem and Open Source Tools for Enhanced Productivity)
- Exploring the Vast DevOps Toolset and Open Source Community
- Harnessing Automation with CI/CD Pipelines and Configuration Management

Session 6:
- Implementing Continuous Monitoring and Feedback Loops for Quality Assurance

Session 7: (From On-Premises to Cloud and Containers)
- Tracing the Evolution of Computing Paradigms
- Understanding the Power of Cloud Computing and Its Benefits

Session 8:
- Embracing Containerization for Scalable and Portable Microservices

Session 9: (Cloud Observability and Operations - Ensuring Smooth Software Delivery)
- Monitoring and Managing Cloud-Based Applications with Observability
- Utilizing Advanced Cloud Services for Resilience and Scalability

Session 10:
- Mastering Cloud Operations for Seamless Software Deployment and Maintenance

TARGETED PARTICIPANTS

The faculty members of AICTE approved institutions, universities, and research scholars, participants from Government, industry (Bureaucrats/Technicians/industry experts etc.) and professionals from R&D labs. Number of participants is limited to 50. There is no course fee and preference will be given to new participants. Selection of participants will be based on first come first serve basis.

REGISTRATION

Registration will be done only through https://atalacademy.aicte-india.org/
For more information kindly visit https://atalacademy.aicte-india.org/FAQs

Note: Participants should manage their accommodation by own. TA will be given to the participants as per ATAL guidelines

Bapuji Educational Association (R.)

BAPUJI INSTITUTE OF ENGINEERING & TECHNOLOGY, DAVANGERE–577004

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FDP COORDINATOR	FDP CO-COORDINATOR
Dr. Abdul Razak M S	**Dr. Naseer R**
Associate Professor, CSE, BIET	Associate Professor, CSE, BIET

Dept. of CSE, BIET, Davangere

16th to 21st October

9:00 am to 5:00 pm

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Oct 16, 2023	Oct 17, 2023	Oct 18, 2023	Oct 19, 2023	Oct 20, 2023	Oct 21, 2023
9:00 - 9:30 **Inauguration**					
9:30 – 12.00 **Session 1:** Cloud Computing Intro – Baselining **Mr. Wasim Akram Buden Director Provenir**	9:30 – 12.00 **Session 3:** The DevOps Ecosystem and Open Source Tools for Enhanced Productivity - Why & how CICD, Ecosystem **Rajesh Hegde Unisys**	9:30 – 12.00 **Session 5:** Continuous Integration, Jenkins intro, use cases, business benefits. **Mr. Sanjay M V Cloud Operations Manager ,Securonix, Bangalore**	9:30 – 12.00 **Session 7:** Software build tools - Maven intro, goals, lifecycle, commands **Mr. Wasim Akram Buden Director Provenir**	9:30 – 12:00 Session 9: Automating infra deployment - Ansible playbooks, master slave setup. **Mr. Vishwas Narayan DevOps Engineer, Amnic**	**9:30 – 12.00 Session 10:** Container administration - Intro Kubernetes, Microservices, business benefits, use cases Installing K8 cluster, master worker nodes, minikube installation Pods, services. Cloud observability - Grafana, Pormethrus and use case **Mr. Deepak S Patil Mercedes Benz**
12:00 – 1.00 **Article Discussion** **Dr. Manoj Kumar M V**	12:00 – 1.00 **Article Discussion** **Dr. Manoj Kumar M V**	12:00 – 1.00 **Article Discussion** **Dr. Manoj Kumar M V**	12:00 – 1.00 **Article Discussion** **Dr. Manoj Kumar M V**	12:00 - 1:00 Cloud to Conatiners - Docker intro, arch, registry, commands, compose, containers, images, services **Mr. Vishwas Narayan DevOps Engineer, Amnic**	12:00 – 1.00 **Reflection Journal Dr. Mohamed Rafi**
1:00 – 2:00 Lunch	**1:00 – 2:00 Lunch**	**1:00 – 2:00 Lunch**	**1:00 – 2:00 Lunch**	**1:00 – 2:00 Lunch**	**1:00 – 2:00 Lunch**
2:00 – 3:15 Session 2: Cloud in DevOps **Mr. Wasim Akram Buden Director Provenir**	2:00 – 4:30 **Session 4:** Version control systems – Git, Jenkins and Maven Unleashing DevOps Potential, DevOps Architecture **Mr. Pavan Kumar Thatha United Health Group Optum**	2:00 – 4:30 **Session 6:** Jenkins - deployment, pipelines, git integration, automating pipeline **Mr. Sanjay MV Cloud Operations Manager, Securonix**	2:00 – 4:30 **Session 8:** Maven setup, building Software, CICD integration with maven. **Mr. Wasim Akram Buden Director Provenir**	2:00 – 4:30 **Industrial Visit Davanagere Smart City Limited (DSCL)**	2:00 – 4:00 **MCQ, Feedback and Interactions**
3:15 – 5:30 **Practical Sessions / Labs** Setting AWS architecture focused on software development and solving use cases in DevOps Systems	4:30 – 5:30 **Practical Sessions / Labs** Lab - Setting up DevOps arch, Git - repo, branches, push, pull, stash	4:30 – 5:30 **Practical Sessions / Labs** Lab - push code automatically from git to Jenkins, master slave arch, email config	4:30 – 5:30 **Practical Sessions / Labs** Infra as Code - Ansible intro, IaC spectrum, YAML, Ansible architecture.	4:30 – 5:30 **Practical Sessions / Labs** Lab - Installing docker, pulling images, building image, building containers	4:00 -5:00 **Valedictory**

Registration link from college: https://forms.gle/tVKAW8jaFQhcvrqS8

Note: Participants should register in ATAL Portal https://atalacademy.aicte-india.org/