ABOUT US

Vivekanand Education Society's Institute of Technology (VESIT), established in 1984, is one of the most premium institutions for engineering affiliated to the University of Mumbai. VESIT has been practicing innovative teaching practices to attain its mission of being committed to excellence in technological education, research and training, use of contemporary participant-centric pedagogies and teaching methods and establishing a presence in emerging segments of technological education.

The department of Computer Enginnering is committed towards imparting quality education and developing future technocrats in the stream of computers. It is focussed towards its mission of facilitating student's progress by providing a strong foundation in fundamental concepts, critical thinking skills as well as inculcating core values of professionalism and ethics.

VISION

- To create center of excellence in computing by imparting quality education for developing competent professionals.

MISSION

- To provide enabling environment through excellence in teaching & learning, to contribute towards industry and society.
- To promote and strengthen interdisciplinary approach in innovation, creativity and research.
- To facilitate productive employment and higher studies with entrepreneurial attitude and professional ethics.

VIVEKANAND EDUCATION SOCIETY'S INSTITUTE OF TECHNOLOGY

AUTONOMOUS INSTITUTE AFFILIATED TO UNIVERSITY OF MUMBAI

NAAC ACCREDITED "A" GRADE

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ADVISORY COMMITTEE

- Dr. Gresha Bhatia, Deputy Head, CMPN, VESIT
- Dr. Sharmila Sengupta, Associate Prof, CMPN, VESIT
- Dr. Sujata Khedkar, Associate Prof, CMPN, VESIT
- Dr. Prashant Kanade, Assistant Prof, CMPN, VESIT
- Dr. Dashrath Mane, Assistant Prof, CMPN, VESIT
- Dr. Rohini Temkar, Assistant Prof, CMPN, VESIT

VIVEKANAND EDUCATION SOCIETY'S INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER ENGINEERING

PRESENTS

AICTE SPONSORED - ONE WEEK FACULTY DEVELOPMENT PROGRAM ON

CloudOps Unleashed : Scaling Applications through DevOps and Cloud

ATAL Application No : 1691593333

1st Jan 2024 - 6th Jan 2024

CONVENOR
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ABOUT PROGRAMME

The "CloudOps Unleashed : Scaling Applications through DevOps and Cloud" program focuses on integrating DevOps practices and cloud technologies to enhance scalability, efficiency, and reliability of applications. Participants gain insights into automating development pipelines, deploying applications on cloud platforms, and optimizing performance through agile methodologies. This program equips professionals with the skills needed to manage scalable applications effectively in cloud environments, ensuring seamless integration and continuous improvement.

PROGRAM OBJECTIVES

- Gain a comprehensive understanding of DevOps principles, practices, and methodologies.
- Understand fundamental cloud computing concepts and various cloud service models (IaaS, PaaS, SaaS).
- Learn to set up automated CI/CD pipelines to streamline the software development and deployment processes.
- Understand the importance of automated testing, version control, and code reviews in CI/CD.
- Explore Infrastructure as Code (IaC) and Learn configuration management techniques to automate server provisioning, configuration, and management.
- Understand containerization technologies such as Docker and container orchestration platforms like Kubernetes.

PROGRAM OUTCOMES

- Participants will design, implement, and automate CI/CD pipelines, integrating version control, automated testing and deployment processes effectively.
- Participants will proficiently use IaC tools to provision and manage cloud resources.
- Participants will be able to create, deploy and manage containers using Docker and orchestrate containerized applications using Kubernetes.
- Understand the importance of automated testing, version control and code reviews in CI/CD.
- Participants will implement logging solutions, analyze performance data and optimize applications based on insights gained from monitoring tools.
- Participants will be able to explain the core principles of DevOps and its impact on software development and operations collaboration.

ORGANISING COMMITTEE

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- Mr. Mukesh Kataria, VP and Head of Learning, QualityKiosk
- Dr. Deven Shah, Associate Dean of Faculty of Technology, Mumbai University, Principal - Shree L. R. Tiwari College of Engineering
- Dr. Gaurav Trivedi, IIT Gawhati
- Mr. Prakash Kapadia, Adjunct Engineer, Center for Development of Advanced Computing (C-DAC)
- Mr. Goutham Nanjundaswamy, 5X AWS Certified | AWS Authorized Trainer | WorldSkills Cloud Computing Expert - India | Ethnus Consultancy Services Pvt. Ltd, CTO, Director - Product Engineering
- Mr. Yati Gharat, IIT Roorkee | CTO at Litmus Information Systems LLP
- Dr. Bhushan Jadhav, Associate Professor, Thadomal Sahani College of Engineering, Mumbai

PARTICIPANT GUIDELINES

- There is no Registration fee for the FDP.
- Register for the FDP at https://aicteindia.org/atal.
- The faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, CBSE Teachers, Industry (Bureaucrats/ Technicians/ Participants from Industry etc.) are eligible to attend the FDP.
- Maximum of 50 participants will be selected on first come first serve basis.
- Confirmation of selected candidates will be intimated through e-mail provided by them during registration.
- The Certificates shall be issued by AICTE Training and Learning (ATAL) academy to participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test conducted at the end of the FDP.

PROGRAMME SCHEDULE & CONTENT

Day	Morning Session				Afternoon Session			
	9:00 am to 10:30 am		11:00 am to 12:30 pm		1:30 pm to 3:00 pm		3:30 pm to 5:00 pm
Monday 01/01/2024	Inauguration *Dr Gresha Bhatia, Dr. Sujata Khedkar* **Mr. Mukesh Kataria (Chief Guest)**	**B r e a k**	What is Cloud Computing? Cloud Service Models, Cloud Deployment Models **Dr. Deven Shah (Keynote Address)**	**B r e a k**	Introduction to DevOps, DevOps Culture and Benefits, DevOps Tools and Toolchain *Dr. Bhushan Jadhav*	**B r e a k**	CI/CD Pipeline Overview, Version Control with Git, Introduction to Continuous Integration (CI) *Dr. Bhushan Jadhav*
Tuesday 02/01/2024	Setting up a Basic CI/CD Pipeline *Mr. Prakash Kapadia*		Hands-on: Building and Testing Code in CI *Mr. Prakash Kapadia*		Introduction to Continuous Deployment (CD) and Continuous Delivery (CD), CD/CD Automation and Orchestration *Mr. Prakash Kapadia*		Advanced CI/CD Pipeline Configuration, Monitoring and Logging in DevOps *Mr. Prakash Kapadia*
Wednesday 03/01/2024	Introduction to AWS, AWS Services Overview, Hands-on: Creating an AWS Account and Access Management *Dr. Bhushan Jadhav*		EC2 Instances and Networking in AWS *Dr. Bhushan Jadhav*		AWS Lambda and Serverless Computing, AWS Elastic Beanstalk and Containers *Dr. Gaurav Trivedi*		AWS CloudFormation and Infrastructure as Code, Hands-on: Deploying Applications on AWS *Dr. Gaurav Trivedi*
Thursday 04/01/2024	Introduction to Kubernetes, Docker and Container Basics, Kubernetes Architecture and Components *Dr. Gaurav Trivedi*		Deploying Applications with Kubernetes, Introduction to Infrastructure as Code (IaC) *Dr. Gaurav Trivedi*		IaC Tools: Terraform and CloudFormation, Creating and Managing Infrastructure with Terraform *Mr. Goutham Nanjundaswamy*		Hands-on: Deploying Infrastructure as Code *Mr. Goutham Nanjundaswamy*
Friday 05/01/2024	Cloud Monitoring and Performance Optimization, Logging and Tracing in Cloud Environments *Mr. Goutham Nanjundaswamy*		Cloud Security Best Practices, Implementing Security Measures in Cloud and DevOps *Mr. Goutham Nanjundaswamy*		Advanced CI/CD Practices and Strategies, Infrastructure Testing and Validation *Mr. Goutham Nanjundaswamy*		Automating Deployment Workflows, Hands-on: Advanced CI/CD Implementation *Mr. Goutham Nanjundaswamy*
Saturday 06/01/2024	Managing Cloud Costs and Budgeting, Cloud Cost Optimization Strategies *Mr. Yati Gharat*		Right-sizing Resources and Reserved Instances, Hands-on: Implementing Cost Management Techniques *Mr. Yati Gharat*		Assessment and Feedback *Mr. Richard Joseph, Mrs. Sunita Suralkar*		Validatory Function *Dr. Sharmila Sengupta, Mr. Richard Joseph, Mrs. Sunita Suralkar*

MR. MUKESH KATARIA VP AND HEAD OF LEARNING QUALITYKIOSK

DR. DEVEN SHAH. ASSOCIATE DEAN OF FACULTY OF TECHNOLOGY, MUMBAI UNIVERSITY, PRINCIPAL - SHREE L. R. TIWARI COLLEGE OF ENGG.

DR. BHUSHAN JADHAV, ASSISTANT PROFESSOR, THADOMAL SAHANI COLLEGE OF ENGINEERING, MUMBAI

DR. GAURAV TRIVEDI , ASSOCIATE PROFESSOR, DEPT. OF ELECTRONICS & ELECTRICAL ENGG. IIT GUWAHATI

MR. GOUTHAM NANJUNDASWAMY, CTO, ETHNUS, BANGALORE (CLOUD COMPUTING EXPERT IN WORLDSKILLS)

MR. PRAKASH KAPADIA, ADJUNCT ENGINEER, CENTER FOR DEVELOPMENT OF ADVANCED COMPUTING (C-DAC)

MR. YATI GHARAT, CTO LITMUS INFORMATION SYSTEM LLP, MUMBAI (IIT ROORKEE)