

5-day Hands-on Workshop on
DevOps 101: Build, Ship, and Scale Smarter
School of Computer Science and Engineering

Date: 15.07.2025 to 19.07.2025

E-Certificate for Participation

Registration Link:

<https://events.vitap.ac.in/e/5-day-hands-on-workshop-on-devops-101-build-ship-and-scale-smarter-51379031-16eb-435c-9db5-35f0a7feb85d>

Last date for Registration: 13 July 2025



Mode of Workshop: Online (Google meet)

Target Audience:

Internal VIT-AP Participants:

Faculty Members, Research Scholars, Students (UG and PG) – **Rs. 100 per person**

External Participants:

Faculty Members, Research Scholars, Students (UG and PG) – **Rs. 200 per person**

Industry Participants – Rs. 500 per person

ABOUT UNIVERSITY

VIT-AP University, also known as VIT Amaravati, is a private research university located in Amaravati, Andhra Pradesh, India, established in 2017. It belongs to the VIT group, which is renowned for its high calibre of instruction and commitment to innovation and research. The university provides undergraduate, graduate, and doctoral degrees in the sciences, engineering, management, and humanities. VIT-AP was founded to offer top-notch, globally-recognized higher education. In order to continuously raise the standard of higher education, it actively seeks out and implements innovative methods. Students from all around the world create a multicultural culture on campus. Teachers with experience and education are highly welcomed to help students grow. Our unwavering pursuit of excellence is motivated by the international standards that VIT-AP has set for both teaching and research. There is always pride in the highly driven students on campus. VIT-AP emphasises student development and fosters collaborative research activities with Faculty members.

ABOUT SCHOOL

The Department of Computer Science and Engineering was established in 2017 and became the School of Computer Science and Engineering (SCOPE) in January 2019. The school has qualified and committed faculty members who offer impressive instruction in a variety of modes, exploring experiential learning approaches and new pedagogical methods in order to provide proper learning to students. SCOPE at VIT-AP University offers a variety of programs in computer science and engineering, including undergraduate, postgraduate, and doctoral programs, with specializations in areas like Artificial Intelligence, and Machine Learning, Data Analytics, Cyber Security, Software Engineering, Blockchain Technology and Computer Science and Business Systems. SCOPE emphasizes a blend of theoretical knowledge and hands-on experience, aiming to equip students with the skills needed for innovation and success in the IT industry. The school provides the necessary infrastructure, hardware, and software to support the faculty in their continuous learning and research

ABOUT WORKSHOP

Learning DevOps is crucial because it gives people and companies the methods and abilities to speed up software development and delivery, foster better teamwork, and increase productivity. Better products, a shorter time to market, and more customer satisfaction are the results of DevOps' promotion of a culture of automation, continuous improvement, and faster feedback loops. So, HANDS ON WORKSHOP on DevOps would provide students, faculty and industry persons more exposure with insights and perspectives.

Participants can directly interact with DevOps tools and processes through hands-on experience, which helps to solidify theoretical notions.

- ✓ Workshops often simulate real-world situations, providing a practical understanding of how DevOps is implemented in various environments.
- ✓ By working through challenges in a workshop setting, participants develop their problem-solving skills and learn to adapt to different situations
- ✓ DevOps places a strong emphasis on cooperation, and workshops promote contact among participants, which improves teamwork and communication.

Workshop Convenors:

Dr. K G. Suma,

Associate Professor, Department of AI & ML,
SCOPE, VIT-AP University.

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Dr. Eswaraiah Rayachoti,

Professor, Department of Networking and Security,
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Schedule:

Resource Person:

Mr. KEDARNATH GRANDHE

Senior DevOps Engineer

TRANSUNION, HYDERABAD, TELANGANA, INDIA

KUBERNETES CERTIFIED | GCP CERTIFIED



Day 1 - 15.07.2025 (Tuesday) 02:00PM to 04:00PM	<ul style="list-style-type: none">- What is Devops? Why do we need it?- How is Devops different from SRE, Devops vs Traditional- Devops Principles & Lifecycle - The infinity loop- Devops Phases and tool chain overview- Real world examples
Day 2 - 16.07.2025 (Wednesday) 02:00PM to 04:00PM	<ul style="list-style-type: none">- Git fundamentals- Branching strategies (GitFlow vs trunk-based)- Other tools- CI and CD
Day 3 - 17.07.2025 (Thursday) 02:00PM to 04:00PM	<ul style="list-style-type: none">- What are microservices? Why?- What is containerisation? Containers vs VMs- What is Docker? Architecture and key concepts- Docker hub and private registries- Instructions to Execution - A simple container lifecycle- Best practices- Docker compose
Day 4 - 18.07.2025 (Friday) 02:00PM to 04:00PM	<ul style="list-style-type: none">- What is container orchestration?- Kubernetes and why it is leading this phase?- Kubernetes architecture and its components- Ways to deploy Kubernetes- Kubernetes resource definitions- Tools around Kubernetes
Day 5 - 19.07.2025 (Saturday) 02:00PM to 04:00PM	<ul style="list-style-type: none">- Intro to cloud and IAC- GCP components and comparison to other clouds- Software Infrastructure and Platform Engineering categories (Observability, Networking, Security)- What is Opensource? What is CNCF?- Brief explanation on each category and Tools examples in each category