KKR&KSR Institute of Technology and Sciences
Vinjanampadu, Guntur, Andhra Pradesh-522017

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Accredited with "A" Grade by NAAC & NBA Accreditation Status for 4 UG (CSE, ECE, EEE, ME) Programs

A Five-Day Workshop on DevOps for III BTech CSD
from 23/03/2023 To 28/03/2023

About the Workshop:

DevOps is a set of practices that combines software development (Dev) and IT operations (Ops) to improve the software development life cycle. It is a cultural and organizational approach that aims to break down the traditional silos between software development and operations teams, enabling them to work together more effectively and efficiently. The key principles of DevOps include automation, collaboration, continuous integration and delivery, monitoring, and testing. By automating the development and deployment process, DevOps teams can reduce errors and increase efficiency. Collaboration between teams allows for better communication and understanding of each other's roles and responsibilities. Continuous integration and delivery allow for rapid and frequent releases of software, while monitoring and testing ensure that the software is functioning properly and meeting user needs. DevOps has become increasingly important in modern software development, as the pace of software development and the demands of users continue to increase. Adopting DevOps practices can help organizations to improve the quality of their software, reduce costs, and increase customer satisfaction.

About the Chief Guest:

Mr. Pathuri Venkatesh, Senior Programmer, TCS Hyderabad.

He is a Senior Programmer in TCS, and interested in DevOps using AWS DevOps which includes AWS Code build, AWS Code deploy, Continuous Integration, Continuous Delivery and Continuous Deployment, docker and Kubernetes, AWS EKS (Elastic Kubernetes service), Implementing detailed monitoring of various resources within AWS and worked on implementing end to end monitoring tools like Newrelic, Coralogix, Experience in Linux commands, writing shell scripts, creating customized AMI's, Snapshots, Expertise in creating Auto-scaling and working with Elastic Load Balances. Strong proficiency in all the services offered by AWS including IaaS, PaaS and SaaS.

1. Objectives of the Event:

The objective of this workshop is to achieve knowledge in the direction of the theoretical and practical aspects of devops. Faster software delivery: Devops aims to reduce the time between the development of software and its deployment to production. By automating the development and deployment process, DevOps teams can deliver software updates more frequently and with fewer errors. Continuous improvement: DevOps fosters a culture of continuous improvement by enabling teams to continuously monitor and analyze the performance of their software. This allows them to identify areas for improvement and implement changes quickly. Increased collaboration: DevOps encourages collaboration between development and operations teams, as well as other stakeholders, such as quality assurance and security teams. By working together, teams can ensure that software meets the needs of ai stakeholders and is delivered on time and within budget.

Devops also helps to achieve Greater efficiency: By automating repetitive tasks, such as testing and deployment, DevOps teams can increase their efficiency and focus on higher-value activities. This can help to reduce costs and improve the quality of software. Improved customer satisfaction: DevOps aims to deliver software that meets the needs of customers and provides a positive user experience. By continuously monitoring and improving software performance, DevOps teams can ensure that customers are satisfied with the software they are using.

2. Venue of the Event:

The event is organized on campus and conducted by KKR & KSR Institute of Technology and Sciences, Vinjanampadu, Guntur, Andhra Pradesh in association with IIC-MHRD.

3. Date & Time of the Event: The Event is organized **on 23rd March 2023**

4. No. of students participated: 69

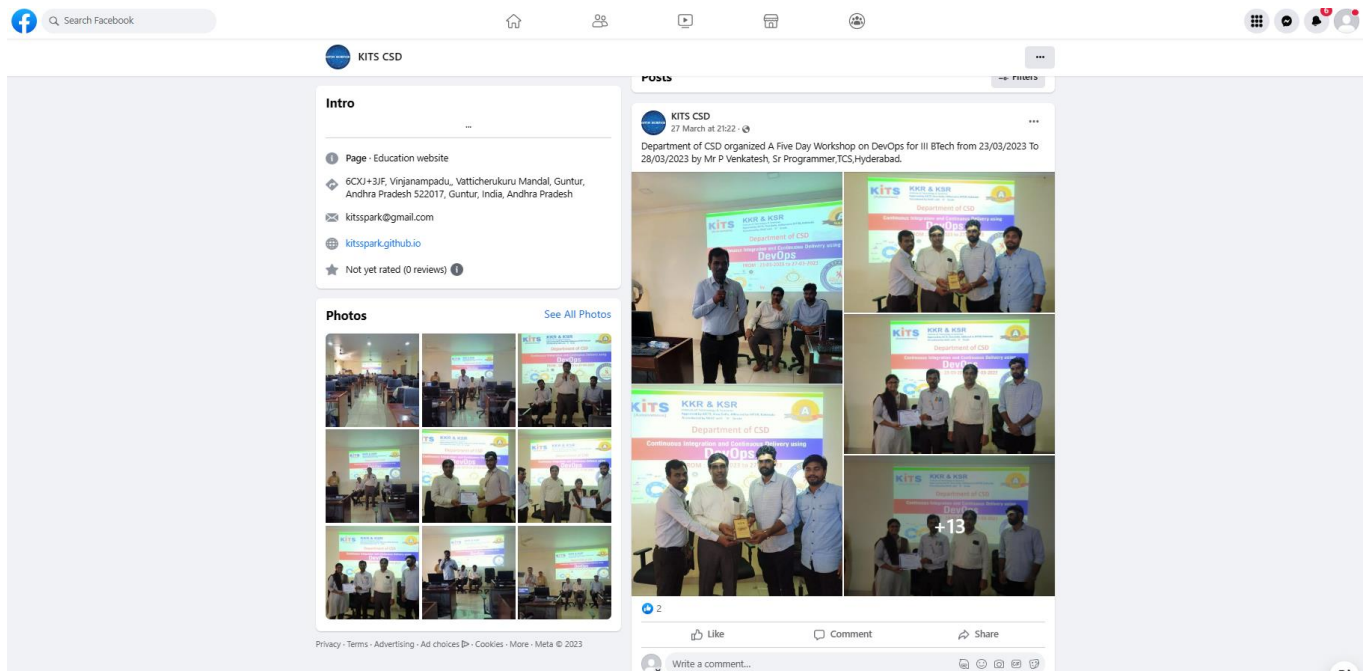## 5. No. of faculties participated: 7

6. Event photographs.

7. **Benefits in terms of learning/Skill/Knowledge obtained.**

Webinars are an essential part of academic life, Listeners will get the knowledge on the following topics.

- ➢ Emerging Trends in Technology
- ➢ Creating CICD pipelines
- ➢ Activity/Context Inference Using AWS cloud
- ➢ EC2 instances on AWS cloud
- ➢ Code-commit on Aws
- ➢ Compliance Monitoring using the metrics and health-checks
- ➢ Code-deploy for the build stages of pipeline
- ➢ S3 buckets for the storage of the files as a static
- ➢ Creating pipelines continuous integration and continuous deployment

8. Promotion of the Event on the Social Media Website: (Link and Screenshot):

(6) KITS CSD | Guntur | Facebook

9. Event on the University/college Website :(Link and Screenshot)

KITS_CSD on Instagram: "Department of CSD organized A Five Day Workshop on DevOps for III BTech from 23/03/2023 To 28/03/2023 by Mr P Venkatesh, Sr Programmer, TCS…"

10. Expenditure Amount (If any): Nil

11. Remarks: The webinar is organized smoothly with practical orientation.

12. Experiences and Output of the Session

Many faculty, research scholars and students from various colleges attended this **A Five Day Workshop on DevOps for III BTech from 23/03/2023 To 28/03/2023 by Mr. P Venkatesh, Sr Programmer, TCS, Hyderabad**, conducted by KKR & KSR Institute of Technology and Sciences in association with SPARK.

The following outcomes are achieved with the workshop

- Engage health researchers in building the technology, starting at the earliest stages of the design process. Ideally, grant makers would fund collaborations that permit iterative development and testing of measurement and intervention technologies to support this goal.

- Create devices that save raw data using international standards (e.g., standard gravity) versus proprietary units (e.g., counts) to facilitate cross-device comparisons. Where necessary to extend limited data storage, create a fully specified path from raw data to intermediate feature that is reproducible by others.

- Explore how instrumentation of the environment, in addition to instrumentation of the body, might be used to gather new types of data on physical activity-related behaviors and their contexts.

- Develop proof-of-concept sensors that show the viability of using consumer technologies to collect high-quality physical activity data, and develop prototype data visualization and analysis tools that demonstrate the potential of data-driven research methods with large datasets.

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