

KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506015, TELANGANA, INDIA काकतीय प्रोद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६०१५, तेलंगाना, भारत ङर्डर्छे के न्वेडर्ड क्रिक्ष्ट के क्ष्यूर्व क्षयूर्व क्ष्यूर्व क्षयूर्व क्षयूर्व क्ष्यूर्व क्षयूर्व क्ष्यूर्व क्ष्यूर्व क्ष्यूर्व क्ष्यूर्व क्षयूर्व क्षयूर्य क्षयूर्व क्षयूर्व क्षयूर्व क्षयूर्य क्षयूर्य क्षयूर्य क्षयूर्व क्षयूर्व क्षयूर्य क्षयूर्

(An Autonomous Institute under Kakatiya University, Warangal) (Approved by AICTE, New Delhi; Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)

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Department of Computer Science & Engineering

Research & Education Centre CLOUD COMPUTING

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About the Centre:

- This Research and Education Centre on Cloud Computing was established in the Year 2014.
- This centre serves as a pivotal resource for our students (UG & PG) supporting various curriculum-related experiments and research works. This Centre helps the faculty members for their academic research work. facilitating Minor and Major projects for PG students and Final-year UG students.
- Cloud computing facility is essential because it offers hands-on experience with cloud technologies in a cost-effective, scalable, and flexible environment.
- Cloud computing lab helps to simulate real-world scenarios, promote collaborative learning, provide access to cutting-edge tools, and offer remote accessibility, making them invaluable for education and industry training.

The primary functions of the center:

- To Carry out academic laboratory sessions and Research work of B.Tech. and M.Tech. Students on various cloud platforms.
- This centre helps the faculty members in their pursuance of their research work.
- The following popular cloud providers services can be accessed
 - Amazon AWS
 - Google Cloud Platform (GCP)
 - Microsoft Azure

Major Equipment:

88 Computer systems with the following configurations:

Dell Inc. Intel Core(TM) i5-7400 CPU @3.00 GHz

8.00 GB RAM

1 TB HDD

CDROM &VEN_HL-DT-ST & PROD_DVD+-RW_GU90N

Dell Keyboard

Dell Mouse

18.5" Dell LED Monitor,

UPS: Delta EH-20 KVA UPS (WITH 30 min. HOUR BACK UP),

Projector :Epson EB-S31 Projector with screen,

Switches: D-LINK 24 Port Gigaset

PA System : Ahuja SSB – 120 DP

Major software to be accessed or utilized:

Platform as a Service (PaaS)

- Microsoft Azure App Service: A cloud platform that enables developers to build, deploy, and scale web apps and APIs.
- Google App Engine: A platform for developing and deploying web applications on Google's infrastructure.
- AWS Elastic Beanstalk: An easy-to-use environment for deploying and scaling web applications and mobile backends.

Software as a Service (SaaS)

- GitHub: A cloud-based version control system for software development projects. Students can use GitHub to collaborate on projects, track changes, and share code.
- GitLab: Another popular Git-based platform offering functionalities similar to GitHub, but with additional features like project management and continuous integration/continuous delivery (CI/CD) tools.

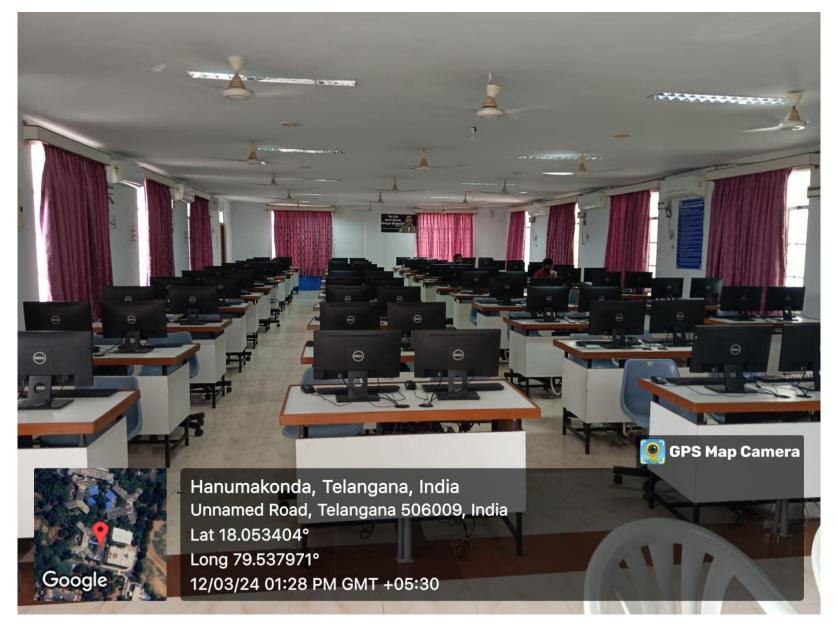
Cloud Management Tools

- AWS CloudFormation: A service for managing and provisioning cloud resources in a declarative way.
 Students can use CloudFormation to define the infrastructure for their cloud applications using templates, ensuring consistency and repeatability.
- Microsoft Azure Resource Manager (ARM): Similar to AWS CloudFormation, Azure Resource Manager allows users to define and manage cloud resources through templates.

Google Cloud Deployment Manager: A service for deploying infrastructure on GCP in a declarative way, using templates that specify the desired state of the cloud resources.

Types of projects / research carried out with description:

- PG Dissertation work Cloud Computing, Data Science, Big Data Analytics, Machine Learning, Artificial Intelligence and Internet of Things (IoT)
- UG Major Projects -Cloud Computing, Artificial Intelligence and Machine Learning, Data Science, IoT
- Faculty to carry out their Research work related to the fields of Cloud Computing, Artificial Intelligence and Machine Learning, Data Science and IoT



Research and Education Centre for Cloud Computing is equipped with 88 high end configuration systems



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Cloud Computing Research and Education Centre Facility of CSE Department