

PACE INSTITUTE OF TECHNOLOGY & SCIENCES

(AUTONOMOUS)

Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NBA&NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Adequate and well-equipped laboratories

The Department possesses sufficient computer laboratories which are used throughout the year. These cater to undergraduate students of the Computer Science and Engineering. The laboratories are equipped with sufficient hardware and software to run programme specific curriculum and off-programme curriculum.



(MB 201)

The following are the Labs conducted in both Odd Semester and Even Semesters.

> Odd Semester Labs

- **★** Java Programming Lab
- ★ Free Open-Source Software Lab
- **★** Front End Web Technologies Lab
- ★ Source Code Management Using Git & GitHub Lab

> Even Semester Labs

- **★** Advanced Python Programming Lab
- **★** R Programming Lab
- **★** Database Management System Lab
- **★** Data Science Using Python Lab



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Java Programming Lab Equips students with practical coding skills, problem-solving, and software development expertise, preparing them for a range of technical careers.



(MB 201)

Free Open Source Software Lab Teaches collaboration, open-source principles, and ethical coding, fostering a sense of community and innovation while enhancing technical proficiency.

Front End Technologies Lab Provides hands-on experience in web development, user interface design, and project work, making students job-ready in tech-related fields.

Source Code Management using GitHub Lab Teaches version control and collaborative coding, essential for teamwork, efficient project management, and maintaining code integrity.



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(MB 201)

These labs collectively contribute to a well-rounded education and empower students with skills highly sought after in the tech industry, aligning perfectly with the CSE department's goals.

Advanced Python Programming Lab Enhances proficiency in Python, a versatile and widely used programming language, preparing students for complex coding challenges and advanced software development projects.

R Programming Lab Focuses on statistical computing and graphics, crucial for data analysis and research. R programming skills are essential for various fields, including data science and bioinformatics.



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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



Database Management System Lab Provides hands-on experience in designing, implementing, and managing databases. Understanding DBMS is vital for organizing and accessing data efficiently, a fundamental skill in software development.

Data Science Using Python Lab Teaches data analysis, machine learning, and data visualization using Python. In the era of big data, data science skills are highly sought after, making this lab essential for students pursuing careers in data-related fields.

These labs collectively empower students with advanced technical skills, preparing them for careers in fields ranging from software development to data analysis, aligning with the CSE department's mission to provide a comprehensive and cuttingedge education.



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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



(MB 214)

The following are the Labs conducted in both Odd Semester and Even Semesters.

> Odd Semester Labs

- * Artificial Intelligence & Machine Learning Lab
- **★** Computer Networks & Operating Systems Lab
- ⋆ Mobile Application Development Lab
- ⋆ MEAN Stack Lab

> Even Semester Labs

- **★** Web Technologies Lab
- ★ Hadoop & Big-Data Lab



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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



(MB 322)

Advanced Python Programming Lab Enhances proficiency in Python, a versatile and widely-used programming language, preparing students for complex coding challenges and advanced software development projects.

R Programming Lab Focuses on statistical computing and graphics, crucial for data analysis and research. R programming skills are essential for various fields, including data science and bioinformatics.



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These labs collectively empower students with advanced technical skills, preparing them for careers in fields ranging from software development to data analysis, aligning with the CSE department's mission to provide a comprehensive and cutting-edge education.



(MB 106)

Object Oriented Analysis & Design With UML

The Object-Oriented Analysis & Design with UML Lab, under the CSE department, is vital for students. It instills fundamental skills in software design, applying theory to practical projects, preparing students for real-world software engineering. Proficiency in UML, an industry standard, enables students to visualize, design, and document complex software systems. This lab fosters problem-solving and teamwork abilities, enhancing career readiness in software development. It aligns seamlessly with the CSE department's mission of providing a comprehensive education in computer science and engineering, making students well-prepared for the professional world.



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(B.TECH Project Lab - MB 312)

An M.Tech project lab, when managed by the CSE department, holds paramount importance for college students. Firstly, it offers invaluable hands-on experience, allowing students to translate theoretical knowledge into practical applications by developing and managing complex projects. This experience not only enhances their technical and project management skills but also fosters innovation and research, encouraging students to explore creative solutions to real-world challenges. Moreover, collaborative projects often necessitate interdisciplinary learning, enabling students to draw knowledge from various domains and work effectively in teams. The resulting portfolio of work showcases their capabilities, enhancing their career readiness and employability. Additionally, it aligns with the academic goals of the CSE department, elevating the quality and reputation of its programs.



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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Research & Development Lab



(MTECH PROJECT LAB & R&D LAB)

Research and Development (R&D) lab managed by the Computer Science and Engineering (CSE) department is of immense importance for students. It serves as a breeding ground for innovation, offering a platform for students to explore emerging technologies and engage in cutting-edge research. The benefits are multifaceted: students gain practical research experience, enhance problem-solving skills, and contribute to advancements in the field. This lab nurtures creativity and critical thinking, preparing students for roles in academia, industry, and technology leadership. Moreover, it aligns with the CSE department's mission of providing students with a dynamic and forward-looking education, ensuring they remain at the forefront of technological innovation.