



MALLA REDDY COLLEGE OF ENGINEERING

(Approved by AICTE-New Delhi, Affiliated to JNTUH-Hyderabad)

Recognized under Section 2(f) & 12(B) of the UGC Act 1956,

An ISO 9001:2015 Certified Institution.

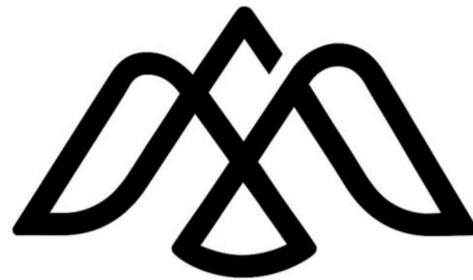
Maisammaguda, Dhullapally, post via Kompally, Secunderabad - 500100

A Report of “A work shop on how to design Android and web application”

Organized by

Department of CSE (ARTIFICIAL INTELLIGENCE & MACHINE LEARNING)

In Association with Plexus Club



Target Audience: II Years

Date : 02 -02 -2026 to 07-02-2026

Venue : Block 1, MRCE



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ABOUT THE INSTITUTION



MALLA REDDY BLOCK-A

Malla Reddy College of Engineering (Formerly CM Engineering College) has been established under the aegis of the Malla Reddy Group of institutions in the year 2005, a majestic empire, founded by chairman Sri. Ch. Malla Reddy. He has been in the field of education for the last 22 years with the intention of spearheading quality education among children from the school level itself.

Since the beginning Mr. Malla Reddy has endeavoured to ensure quality education and carved a niche for himself by managing this group of institutions.

Malla Reddy College of Engineering has been laid upon a very strong foundation and has ever since been excelling in every aspect. The bricks of this able institute are certainly the adept management, the experienced faculty, the selfless non-teaching staff and of course the students.



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INSTITUTION VISION:

To emerge as a centre of Excellence for producing professionals who shall be the leaders in technology innovation, entrepreneurship, management and in turn contribute for advancement of society and human kind.

INSTITUTION MISSION:

- To provide an environment of learning in emerging technologies.
- To nurture a state of art teaching learning process and R&D culture.
- To foster networking with Alumni, Industry, Institutes of repute and other stakeholders for effective interaction.
- To practice and promote high standards of ethical values through societal commitment.

VISION OF THE DEPARTMENT

- To teach excellence education for undergraduates in the field of Artificial Intelligence and Machine Learning in the technological-embedded domain and make professionals who help the better cause of society.

MISSION OF THE DEPARTMENT

- Impart demanding training to create knowledge through the state-of-the-art ideas and skills in Artificial Intelligence and Machine Learning.
- Facilitate the students to adapt to the rapidly changing technologies by providing cutting-edge laboratories and facilities.
- Kick off the research and training, paying special attention to the essential skills of the subsequent generation's workforce.



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ABOUT CSE (AI&ML) DEPARTMENT



CSE-ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

ABOUT THE DEPARTMENT

The Department of Artificial Intelligence and Machine Learning (AI&ML) was founded in 2020 with the goal of providing high-quality higher education to as many students as possible and to satisfy the enormous need for highly trained professionals in the industry. The Department of AI&ML offers a B. Tech program in Computer Science and Engineering (Artificial Intelligence and Machine Learning). The curriculum is created to give students a firm foundation in AI and ML principles and concepts as well as practical experience in handling situations from the real world. Programming languages, computer architecture, machine learning, natural language processing, artificial intelligence, and deep learning are some of the department's core subjects. Students are continuously trained with an attitude of excellence to overcome automation challenges across all industries and provide new context and background to improve the agile process with the assistance of great laboratory facilities and well-qualified faculty members. Because of the program's interdisciplinary nature, it draws on knowledge and coursework from many different disciplines, including computer science, mathematics, and statistics. Students will have the chance to take part in research projects in addition to the required courses, both inside the department and with other departments and organizations. Students who complete the B.Tech. programme in Computer Science and Engineering (Artificial Intelligence and Machine Learning) will be well-versed in the theories and methods of AI & ML and will be qualified for employment in a range of fields and positions, including data analysis, software development, and research.



PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

- PO.1 **Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO.2 **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO.3 **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO.4 **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO.5 **Engineering Tool Usage.** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO.6 **The Engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO.7 **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO.8 **Individual and Collaborative Teamwork.:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO.9 **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive **clear** instructions.
- PO.10 **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO.11 **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



PROGRAM SPECIFIC OUTCOMES (PSO)

PSO1 - An ability to apply unconventional fundamental AI technologies, to citation information and deliver knowledge to intelligent decision-making systems.

PSO2 - An ability to grow an ethical and contemplative approach to the machine learning tools that can address complex reasoning tasks for the enhancement of society.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

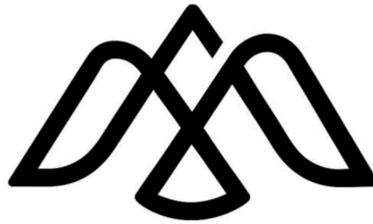
PEO1 – Graduates will obtain robust knowledge in the field of artificial intelligence and machine learning theory and principles for classifying, examining and solving problems.

PEO2 – Graduates will upgrade skill to work efficiently within a squad and apply suitable practices within a skilled and ethical framework for societal needs.

PEO3 – Graduates will pursue higher education and accomplish sustainable growth through lifelong learning and research.



ABOUT PLEXUS



The Plexus Club envisions a dynamic, inclusive, and empowering community that nurtures the holistic development of every student. Rooted in the belief that education extends beyond the classroom, the club is committed to offering a comprehensive platform where students can explore a broad spectrum of interests — spanning technical, non-technical, creative, and athletic pursuits.

Our mission is to cultivate a vibrant environment where students are encouraged to step out of their comfort zones, unlock their potential, and actively engage in diverse opportunities. Whether it's through hands-on technical workshops, coding marathons, public speaking events, artistic showcases, sports tournaments, or leadership forums, Plexus is designed to be a space where talents are discovered, passions are pursued, and ideas come to life.

By fostering collaboration, innovation, and critical thinking, the club aims to equip students with essential skills that prepare them for both professional success and personal fulfilment. Emphasis is placed not only on academic and career-oriented growth but also on emotional intelligence, creative expression, and teamwork — qualities that define well-rounded individuals in today's interconnected world.

Ultimately, the Plexus Club aspires to be more than just an extracurricular space; it seeks to be a transformative journey. Through meaningful experiences, lasting friendships, and impactful projects, our members emerge as confident, compassionate, and competent contributors to their communities and industries.



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ABOUT THE EVENT



INTRODUCTION TO ANDROID & WEB APPLICATION DESIGN WORKSHOP:

The workshop on *Designing Android and Web Applications* introduces students to the fundamentals of creating modern, user-centric digital applications. It provides a structured learning environment where participants gain exposure to application development concepts, tools, and frameworks used in today's software industry. The session bridges the gap between theoretical knowledge and practical implementation through guided demonstrations and hands-on activities.

ENHANCING PRACTICAL DEVELOPMENT SKILLS:

A key objective of this workshop is to strengthen practical skills in application design and development. Students will learn how to structure applications, design intuitive user interfaces, and implement core functionalities. Through real-time coding and design exercises, participants develop a clear understanding of how applications function across Android and web platforms.

ACCESSIBILITY AND CROSS-PLATFORM LEARNING:

The workshop emphasizes accessible learning by introducing tools and technologies that support both Android and web application development. Students gain insights into cross-platform concepts, responsive design, and adaptability across devices, enabling them to build applications that work efficiently on multiple screens and operating systems.

APPLICATION OF THEORY TO REAL-WORLD SOLUTIONS:

The session focuses on applying classroom concepts such as programming logic, databases, and software design principles to real-world application development. By working on sample projects and use cases, students learn how theoretical knowledge is transformed into functional Android and web applications relevant to industry needs.

TECHNOLOGY-DRIVEN DEVELOPMENT ENVIRONMENT:

The workshop highlights the role of modern development tools, frameworks, and technologies in application design. Participants are introduced to integrated development environments, version control, and deployment basics, showcasing how technology is reshaping software development practices in academic and professional domains.

BUILDING SKILLS FOR THE DIGITAL FUTURE:

Finally, the workshop aims to nurture creativity, problem-solving ability, and technical competence among students. By engaging in Android and web application design, learners develop skills essential for careers in software development, entrepreneurship, and innovation, fostering confidence and readiness for future technological challenges.



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BRIEF OVERVIEW OF THE WORKSHOP



The Department of Computer Science and Engineering (Artificial Intelligence & Machine Learning), in association with the Plexus Club, successfully organized a **Workshop on “How to Design Android and Web Applications”** from **2nd February 2026 to 7th February 2026** at Malla Reddy College of Engineering. This workshop was designed to equip students with essential knowledge and practical skills required to design and develop modern mobile and web-based applications, bridging the gap between theoretical programming concepts and real-world software development practices.

The primary objective of this initiative was to familiarize students with the fundamentals of Android and web application development, including user interface design, application architecture, database integration, and deployment processes. Emphasis was placed on enabling students to understand development workflows, create responsive and user-friendly designs, and implement core functionalities using contemporary development tools and frameworks relevant to industry standards.

The workshop featured interactive sessions, live demonstrations, and hands-on coding activities that allowed students to actively participate in designing sample applications. Participants explored essential modules such as front-end development, back-end connectivity, mobile app structure, and responsive web design principles. Faculty members and resource persons guided students through step-by-step development processes, highlighting best practices, debugging techniques, and performance optimization strategies.

The program also addressed the significance of cross-platform compatibility, user experience (UX) design, and emerging trends in application development. Students gained exposure to real-time project scenarios that helped them connect academic knowledge in programming, databases, and

software engineering with practical implementation. Group activities and mini-project tasks encouraged collaboration, creativity, and innovative thinking among participants.

By the end of the workshop, students demonstrated improved technical proficiency, enhanced problem-solving abilities, and a stronger understanding of application development ecosystems.

The event emerged as a valuable academic initiative aligned with the AIML Department's vision of fostering industry-ready professionals capable of designing scalable, efficient, and user-centric digital solutions in today's technology-driven world.



Aim, Purpose and Importance:

AIM OF THE WORKSHOP:

The primary aim of the workshop on *Designing Android and Web Applications* was to provide II Year students with a strong foundation in modern application development. The program aimed to introduce participants to the core concepts of **mobile and web technologies**, enabling them to understand how theoretical programming knowledge can be transformed into practical, real-world applications. It also sought to develop technical confidence at an early stage of their academic journey, preparing them for advanced subjects and industry-oriented projects in the coming years.

PURPOSE OF THE WORKSHOP:

The purpose of conducting this workshop for II Year students was to expose them to the **fundamentals of application design and development** at an early stage of learning. The session was designed to:

- Familiarize students with Android and web development environments and tools.
- Introduce concepts such as UI/UX design, responsive web design, and application architecture.
- Provide hands-on experience through guided coding and practical demonstrations.
- Encourage students to apply classroom concepts such as programming, databases, and software engineering principles to real-time development scenarios.
- Motivate students to explore innovative ideas and build their own applications in the future.

IMPORTANCE OF THE WORKSHOP:

This workshop holds significant importance for II Year students as it builds a strong technical base before they move into advanced subjects, internships, and major projects. Early exposure to application development enhances problem-solving skills, logical thinking, and creativity.

It also helps students:

- Understand industry-relevant technologies and current development trends.
- Improve practical knowledge beyond textbook learning.
- Gain confidence in developing digital solutions independently.
- Prepare for future opportunities such as hackathons, internships, start-up initiatives, and final-year projects.

Overall, the workshop served as a crucial academic initiative that supports skill development, innovation, and career readiness among II Year students, aligning with the department's vision of nurturing competent and future-ready engineers.



Summary:



Target Audience : II Year CSE(AIML)- A, B, C Students

The workshop on *Designing Android and Web Applications* was a highly informative and skill-oriented program conducted for **II Year students** with the objective of strengthening their foundation in modern application development. The session successfully bridged the gap between theoretical programming concepts and practical implementation by providing students with exposure to real-time development environments and tools used in the software industry.

Throughout the workshop, participants were introduced to essential concepts such as **user interface (UI) and user experience (UX) design**, responsive web development, mobile application architecture, and database connectivity. Interactive demonstrations and hands-on coding sessions enabled students to understand the complete workflow of designing, developing, and testing Android and web applications. By actively engaging in guided activities and mini-project tasks, students were able to apply classroom knowledge to practical scenarios, thereby enhancing their analytical thinking and problem-solving skills.

The workshop also emphasized the importance of cross-platform compatibility, structured coding practices, and industry best standards in application development. It encouraged creativity,

innovation, and teamwork among students, motivating them to explore new ideas and develop their own applications in the future.

Overall, the program significantly improved students' technical confidence, practical exposure, and readiness for advanced coursework, internships, hackathons, and future academic projects. It served as a valuable academic initiative aligned with the department's vision of nurturing competent, innovative, and industry-ready engineers prepared to meet the evolving demands of the digital world.



CONCLUSION



The Department of Computer Science and Engineering (Artificial Intelligence & Machine Learning), in association with the Plexus Club, successfully organized a **Workshop on “How to Design Android and Web Applications”** for II Year students at Malla Reddy College of Engineering under the guidance of **Dr. Ananth Raman G R, Head of the Department & Dean, IQAC**. The workshop was conducted with the objective of equipping students with foundational knowledge and practical skills essential for developing modern mobile and web-based applications. In today’s rapidly advancing digital landscape, application development has become a core competency for aspiring engineers, and this initiative aimed to bridge the gap between theoretical classroom learning and real-world software development practices.

The session commenced with an insightful introduction to Android and web technologies, emphasizing the importance of structured programming, application architecture, and user-centric design principles. Students were introduced to development environments, coding standards, and the systematic workflow involved in designing, building, testing, and deploying applications. Special emphasis was placed on UI/UX design concepts to help students understand how to create responsive, interactive, and visually appealing applications that provide seamless user experiences across multiple devices and platforms.

Throughout the workshop, participants actively engaged in live demonstrations and hands-on practice sessions that offered real-time exposure to coding and development processes. They explored essential components such as front-end development, back-end integration, database connectivity, and debugging techniques. Faculty members guided students step-by-step through sample applications, enabling them to understand how theoretical concepts in programming, data structures, and software engineering are translated into practical, industry-relevant solutions.

The workshop also fostered collaborative and experiential learning through group discussions and mini-project activities. Students were encouraged to think creatively, analyze user requirements, and design applications capable of addressing real-world challenges. This interactive approach significantly enhanced their logical reasoning, analytical thinking, and problem-solving skills.

By the conclusion of the program, II Year students demonstrated increased technical confidence and a clearer understanding of application development ecosystems. The workshop stood as a meaningful academic initiative aligned with the department's vision of nurturing innovative, technically proficient, and industry-ready engineers. Under the leadership of Dr. Ananth Raman G R, the event successfully reinforced the department's commitment to preparing students for advanced academic pursuits, internships, entrepreneurial ventures, and future technological advancements.

“A work shop on how to design Android and web application”

Successfully organized and completed with support of Principal, Head of Department, Year Incharge, and Class Incharge

Signature

Principal

: 

Head of Department

: 

Year Incharge

: 

Class Incharges

: 

THANK YOU!!