

(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 Mission: Zero Bugs

"Perfection is the only endgame"

## Organized by



## Department of CSE (AI&ML) and Plexus Club

Date : 12 -09 -2025

Venue: TPO Cell, 002, 003 Lab



(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



#### **Content**

- About Institute MRCE
- Institution and Department Vision Mission
- About the Department CSE(AIML)
- About Plexus
- · Proposal to Principal
- · Permission Letter
- Poster Release
- Poster
- Registrations
- About the Mission Zero Bug
- · Summary of Mission Zero Bug
- Glimpse of the Mission Zero Bug
- Sample Certificate
- Conclusion



(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

## **ABOUT THE INSTITUTE**



#### **MRCE**

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.



(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



#### **INSTITUTION VISION:**

To emerge as a Center 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.



(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



#### ABOUT CSE (AI&ML) DEPARTMENT



### 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.



(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.





#### 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.
- Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering
   PO.2 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.
- Conduct investigations of complex problems: Use research-based knowledge and research methods
   PO.4 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.
- The Engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, PO.6 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.
- Project management and finance: Demonstrate knowledge and understanding of the engineering PO.10 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.



(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



#### 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.

## COLLEGE OF THE STATE OF THE STA

#### 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



## **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.

# TOLLEGE OF THE

#### 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



## PROPOSAL TO PRINCIPAL

"Defeat the Bugs, Escape the Code Labyrinth" – Students act as Code Detectives tasked with fixing broken programs. Each bug has a quirky name, there are power-ups and penalties to strategize, lightning rounds for bonus points, and a final mystery challenge to crown the ultimate debugging champions.

#### **Benefits for Students**

- Interview Readiness → Debugging + logical thinking are key in technical rounds.
- Practical Coding Skills → Hands-on with real code in C/Java/Python.
- **Problem-Solving Under Pressure** → Prepares for placements & hackathons.
- Fun Learning → Gamified style keeps energy high and stress low.

#### **Event Requirements**

- Lab PCs (with C/Java/Python compilers).
- **Pre-prepared buggy codes** (easy, medium, hard).
- **Timer & scoreboard** (projected live for Round 2 & 3).
- Organizers as round coordinators.

#### **Event Structure**

#### Round 1 – Warm-Up: Quick Fixes

**Duration:** 45 minutes

- Each team gets 5 simple buggy codes with funny names:
  - The Sneaky Semicolon (missing;)
  - The Ghost Variable (undeclared variable)
  - The Infinite Loop Monster (wrong loop condition)
  - The Backward Sort (sorting logic reversed)

- Time: 15 minutes.
- Goal: Fix as many as possible.
- Points for each solved question 5 points

#### Round 2 – Debugging Arena: Logic Traps

**Duration:** 45 minutes

- Medium-level bugs with logic errors.
- Example:
  - o Wrong prime number check.
  - o Off-by-one errors in arrays.
  - o Incorrect formula implementation.
- Live Leaderboard projected.
- Points for each solved question 10 points
- Top 5–10 teams qualify for finals.

### Round 3 – Final Showdown: Mystery Debugging Hunt

**Duration:** 60 minutes

- Teams get 1 big program with multiple bugs. Example: mini calculator, student database, or maze solver.
- Each bug fixed reveals a Mystery Bug Clue (a word or number).
  - $\circ$  Fix Bug 1 → Clue = "BUGS"
  - Fix Bug 2  $\rightarrow$  Clue = "NEVER"
  - Fix Bug  $3 \rightarrow \text{Clue} = \text{"WIN"}$
- At the end, teams must combine all clues to unlock the Final Escape Code (e.g., "BUGS NEVER WIN").
- Twist: One "fake bug" is included. Teams that waste time on it lose valuable minutes →

teaches smart debugging.

#### **Speed Debug Challenges (Lightning Round)**

- Organizers throw in a 1-line buggy code on projector at random times.
- First team to debug it wins 5 points per question.

#### Elimination

- Round 1: Based on number of bugs fixed.
- Round 2: Based on total points (including power-ups/penalties).

#### **Winner Selection**

• **Round 3:** First team to fix bugs, collect clues, and unlock final escape code = Winner.

#### **Expected Outcome**

- Students will develop sharper debugging skills by working with real code errors.
- Teams will learn collaborative problem-solving under timed conditions.
- Participants gain exposure to C/Java/Python error patterns, improving coding fluency.

#### Conclusion

The **Debugging Battle** is not just about fixing code – it's a **gamified competition** that sharpens technical skills, boosts logical thinking, and mirrors real **placement coding tests**. With **funny bug names, power-ups, mystery clues, and lightning rounds**, the event ensures maximum engagement, learning, and excitement – making Engineers' Day truly unforgettable.

## THE WIEDE IS DIVING

#### 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



#### PERMISSION LETTER FROM PRINCIPAL

To

The Principal
Malla Reddy College of Engineering

Date: 09th September 2025

Subject: Permission Request for Conduction of Mission Zero Bug Event

#### Respected Sir,

With due respect, we, the students of the CSE-AI & ML Department, request your kind permission to organize a technical event titled "Mission Zero Bug" under the banner of the Plexus Technical Club on the occasion of Engineers' Day, 15th September 2025, in our college premises.

The objective of this event is to enhance students' coding and debugging skills through a gamified competition. The event will provide participants with hands-on experience in problem-solving, logical thinking, and debugging in C, Java, and Python—skills that are crucial for placements and hackathons.

We kindly request you to grant us permission to conduct this innovative and skill-oriented event.

#### Thanking you in anticipation.

Yours sincerely, **Department of CSE-AI & ML** 

On behalf of the organizing team

### **Countersigned:**

Dr. Anantha Raman G R

Head of the Department – CSE (AI & ML)



(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

## **POSTER LAUNCH**







(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



## **REGISTRATIONS**

SNO	Participant 1	Participant 2				
1	Rugvedha	K. Sasvika				
2	Anumala Sidvitha	Mandru Susan				
3	Venu	Pranith Krishna				
4	Chaithanya	Chaithanya				
5	Dharani	Jasnavi				
6	Ankitha	Hymavathi				
7	Nishad	Harthik				
8	Manohar	Sarvesh				
9	Muskan	Mala Sri				
10	K. Gretchen	B. Vikas				
11	Dontha GANESH	Donthula Dinesh				
12	Vaishnavi .A	Ramya .G				
13	Pranathi	Niharika				
14	B. Sandeep	MD NAHER				
15	M SANDEEP SIDDU	M SHANKAR				
16	Shree Naga	Shikhara				
17	B. Rashmitha	P. Harshitha				
18	M.NIKHIL	Ch. Mahendra				
19	Sri Manavya soma	Akula Architha				
20	M. Sneha	K. Vaishnavi				
21	K. Shiva Shankar	Rajesh				
22	Saniya Mirza	Vaishnavi				

23	J. Manasa	M. Ansika					
24	Goutham	Nandan Reddy					
25	Honeysika	T. Rakesh					
26	KAKARLA ADIVISHNU VENKATA ASISH	E. Bhajarang					
27	K. Kalyani	K. Aparna					
28	Satta Saritha Samal	Rohini Chakraborty					
29	S Revati	Ch Vaishnavi					
30	Aravind	Avik					
31	Gaurav Gehloth	K. Sanjay					
32	B Nishanth	Manoj					
33	Cyrus Sohrab Modi	B.A Mark Abhishek					
34	Rashmitha Reddy	Srinidhi					
35	NUNAVATH GOWTHAM	P. Esther					
36	SAGAR	UMA SHANKAR REDDY					
37	M. Jahnavi	M. Divya					
38	N Sharan Bhushan	Veeranjaneyulu					
39	Sangamesh Gulle	K Sai Vamshi					
40	Rahul Kumar	Lakshika Jethwa					
41	Vara Prasad	Kamal Karthik					
42	Chandu B	Mohammed Nawaz					
43	V M UDAY KIRAN	P SHASHANK REDDY					
44	Bhanu prasad	Nithin					
45	Likith	Pavan					
46	P Lavanya	K Bharathi Devi					
47	Faisal Rahmat	Naresh					
48	G. Tarun	B. Utkarsh					

49	G. Sharath Chandra	N. Sai Venkatesh				
50	Akhil	T. Anil kumar				
51	Shashi Kumar	Najma				
52	D.VARSHITH	G.ANIL				
53	Manoj	Ganesh				
54	G. Naveen	R. Leela Krishna Mohan				
55	Lipika Salloju	Rasganya Ch				
56	V. Neelima	S. Sruthi				
57	P. Kranthi kumar	V. Spoorthi				
58	MADHAV	SAKETH				
59	Dharma Teja	Rohith				
60	V. Rahul	L. Srinivas				
61	Satta Saritha Samal	Rohini Chakraborty				
62	A. Saketh	M. Nagamani				
63	Nareddy Keshavareddy	Kandhada Narender				
64	K. Deekshitha	B. Chandrakala				
65	Pothula Harshitha	Butham Rashmita				
66						
67	Karumanchi Charan					



(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

#### **ABOUT THE MISSION ZEO BUG**

The Mission Zero Bug event, organized by the Plexus Technical Club at Malla Reddy College of Engineering on 15th September 2025 (Engineers' Day), brought together enthusiastic participants eager to showcase their debugging skills.

The event began with a warm welcome by the college dignitaries, who highlighted the significance of debugging in programming. They emphasized that the ability to detect and fix code errors not only strengthens technical expertise but also cultivates logical thinking, quick problem-solving, and teamwork—essential skills for placements and hackathons.

#### **Rounds Overview**

The competition was structured into **three main rounds** along with surprise lightning challenges, making it a dynamic and engaging experience for all participants.

#### Round 1: Warm-Up - Quick Fixes

- Duration: 45 minutes
- Each team was given 5 simple buggy codes, humorously named:
  - The Sneaky Semicolon
  - The Ghost Variable
  - The Infinite Loop Monster
  - The Backward Sort
- Participants had to fix as many as possible within the given time.
- Scoring: 5 points per correct solution.
- The atmosphere was light yet competitive, as teams raced against time to identify common coding pitfalls.

#### Round 2: Debugging Arena – Logic Traps

- Duration: 45 minutes
- This round tested logical reasoning and algorithmic debugging.
- · Problems included:
  - o Incorrect prime number checks
  - o Off-by-one array errors
  - Faulty formula implementations
- Scoring: 10 points per correct solution.
- A live leaderboard kept participants on edge, with excitement building as teams competed for a spot in the finals.
- The top 5–10 teams advanced to Round 3.

#### Round 3: The Final Showdown – Mystery Debugging Hunt

- Duration: 60 minutes
- Teams received one **large program** (examples: mini calculator, student database, or maze solver) containing multiple bugs.
- Unique Twist:

- o Each bug fixed revealed a **mystery clue** (e.g., *BUGS*, *NEVER*, *WIN*).
- At the end, teams had to combine the clues to unlock the Final Escape Code ("BUGS NEVER WIN").
- A deliberate fake bug was included to test smart debugging skills, penalizing those who wasted time on it.
- This round demanded collaboration, accuracy, and strategic time management under high pressure.

#### **Lightning Challenges**

- At random intervals, organizers projected a 1-line buggy code.
- The first team to solve it earned 5 bonus points.
- These surprise rounds kept participants alert and energized throughout the event.

#### **Winner Selection**

- Round 1: Based on number of bugs fixed.
- Round 2: Based on total points (including penalties/power-ups).
- Round 3: First team to debug the program, collect all clues, and unlock the final escape code was declared the Winner.

#### **Program Outcomes**

- Students gained hands-on experience in debugging across C, Java, and Python.
- Improved logical reasoning and error analysis skills.
- Learned collaborative problem-solving under time pressure, simulating real placement tests and hackathons.
- The event fostered a fun yet challenging environment, leaving participants motivated and technically enriched.



(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



## **Summary of Mission Zero Bug**

## Mission Zero Bug – Round 1 Summary



The **Mission Zero Bug** event began with an exciting **Round 1** – **Warm-Up** (**Quick Fixes**), which set the stage for the entire competition. This round was designed to test the **fundamentals of debugging** while keeping the challenge light-hearted and engaging. A total of **67 teams** participated enthusiastically, showcasing their interest and determination to prove their skills.

The structure of Round 1 was simple yet challenging: each team received **five buggy codes**, all embedded with basic but common errors that programmers frequently encounter in real-world coding. To make the experience more enjoyable, the bugs were given quirky and humorous names such as *The Sneaky Semicolon* (missing semicolon), *The Ghost Variable* (undeclared variable), *The Infinite Loop Monster* (loop condition errors), and *The Backward Sort* (sorting logic reversed). These names not only added an element of fun but also reduced the anxiety of participants as they entered the competition.

The round was conducted in the computer labs, with systems preloaded with compilers for **C**, **Java**, **and Python**. Each team had a duration of **45 minutes** to identify and correct as many bugs as possible. For every correct solution, the teams were awarded **5 points**, making it a straightforward scoring system that encouraged speed, accuracy, and strategic problem-solving. The ticking timer and the competitive spirit created an atmosphere of urgency, where every second counted.

As the round progressed, the labs were filled with an intense focus. Some teams quickly identified the errors, demonstrating sharp observation skills and strong basics, while others adopted a slower but more cautious approach, carefully reading through every line of code. There were moments of excitement as teams celebrated after successfully compiling error-free programs, and at the same time, sighs of frustration from others who struggled with hidden mistakes like missing declarations or infinite loops.

What made this round particularly effective was its **focus on fundamentals**. By dealing with commonly overlooked mistakes, the participants strengthened their debugging reflexes. These small but tricky problems mirrored the challenges that students often face during lab sessions, coding contests, and placement rounds. Moreover, the collaborative environment pushed students to communicate effectively with their teammates, divide tasks, and cross-check solutions before submission.

The round concluded with the evaluation of the submitted solutions, where scores were tallied based on the number of successfully debugged programs. The performance in this round laid the foundation for advancement into **Round 2 – Debugging Arena**. Out of the 67 teams, the top performers were shortlisted to continue their journey in the competition, while others gained valuable experience and exposure that would benefit them in future technical challenges.

In summary, **Round 1 of Mission Zero Bug** was a resounding success. It captured the spirit of Engineers' Day by combining learning with fun, fostering healthy competition, and ensuring that every participant gained hands-on experience in debugging. The quirky bug names, the vibrant atmosphere of the labs, and the visible excitement of participants made this round both memorable and impactful. It not only tested coding fundamentals but also prepared students for the more complex and logic-driven rounds that followed.

## Mission Zero Bug – Round 2 Summary



After the excitement of the first round, the competition intensified as the selected teams entered Round 2 – Debugging Arena (Logic Traps). This round was designed to move beyond surface-level errors and challenge participants with deeper, more logical issues in programming. It aimed to evaluate not only coding knowledge but also logical reasoning, problem-tracing skills, and the ability to think critically under time pressure.

The round lasted for 45 minutes, and each team was presented with a set of medium-level debugging problems. Unlike Round 1, which focused on basic syntax and missing declarations, Round 2 tested the participants' ability to identify logical flaws hidden

within working code. Some of the common traps included:

- . Incorrect prime number checks, where subtle mistakes in logic caused inaccurate outputs.
- . Off-by-one errors in arrays, which are some of the trickiest bugs programmers face during implementation.
- Faulty formula implementations, where minor errors completely altered the correctness of the program.

The scoring system was designed to reward accuracy and depth: 10 points were awarded for each correctly debugged solution. This raised the stakes, as every correct answer had double the value compared to the first round.

One of the most engaging aspects of Round 2 was the introduction of a live leaderboard, projected in the lab. This feature transformed the atmosphere into a real-time race, with participants constantly aware of their positions. Teams could see their competitors advancing in points, which heightened the sense of urgency and motivated them to push harder. The tension in the room was palpable as some teams surged ahead with quick, accurate solutions, while others struggled to overcome logical puzzles hidden in the code.

Participants employed different strategies to maximize their performance. Some chose to quickly solve the relatively easier problems to secure steady points, while others attempted the more challenging ones first in hopes of gaining an edge. This balance of strategy, time management, and coding expertise defined the round.

The environment during this round was charged with intense focus. Students leaned over their systems, debugging line by line, occasionally debating with their teammates on possible logical flaws. Small victories, such as fixing a tricky array bug or correcting a flawed loop, brought visible relief and excitement to participants. At the same time, the ticking clock served as a constant reminder that every second mattered.

By the end of the round, the points were tallied and displayed on the leaderboard. The competitive energy reached its peak as teams eagerly waited for the final results to know whether they had secured a spot in the grand finale. The top-performing teams advanced to Round 3 – The Final Showdown, where even greater challenges awaited them.

In conclusion, Round 2 – Debugging Arena was not just a test of programming ability but a test of resilience, logic, and strategy under pressure. It effectively separated the strong contenders from the rest, ensuring that only the most skilled and sharp-minded teams progressed to the finals. This round stood out as a turning point in the competition, where debugging transformed from fixing small errors to solving complex logical puzzles, preparing the stage for the thrilling conclusion in Round 3.

## Mission Zero Bug – Round 3 Summary



The atmosphere reached its peak of intensity as the shortlisted teams advanced to Round 3 – The Final Showdown (Mystery Debugging Hunt) of the *Mission Zero Bug* event. After surviving the warm-up in Round 1 and the logic traps in Round 2, the participants now faced the most demanding stage of the competition. This round was designed to replicate real-world debugging scenarios where programs are larger, more complex, and riddled with multiple layers of errors.

Each team was provided with a large program, such as a mini calculator, a student database system, or a maze solver. Unlike the earlier rounds that focused on small snippets of code, this round tested the ability to handle a full-fledged application with multiple interdependent bugs. The challenge required participants to carefully analyze the codebase, break it down into modules, and methodically identify where the errors were hidden.

What made this round especially exciting was the mystery clue system. For every bug successfully fixed, a clue was revealed. These clues together formed the Final Escape Code, which the teams had to unlock in order to be declared winners. For example, fixing three separate bugs might reveal the phrase "BUGS NEVER WIN". This gamified twist added a sense of adventure, transforming the debugging process into a treasure hunt for hidden solutions.

Adding to the challenge, the organizers deliberately inserted a fake bug into the program. Teams that wasted time chasing this trap lost valuable minutes, making this round not only a test of coding skills but also of judgment and decision-making under pressure. Participants had to think critically and decide whether a suspected bug was genuine or just a diversion.

The round lasted for 60 minutes, and every passing moment was filled with urgency. Teams collaborated intensely, dividing tasks among members, discussing possible logical flaws, and rechecking each other's work. The room was a mix of quiet concentration and bursts of excitement whenever a team successfully solved a bug and revealed a clue. The pressure of the ticking clock, combined with the competitive spirit of the finals, created a thrilling environment that pushed students to their limits.

In the final moments, tension ran high as the top contenders raced neck-to-neck to solve the last few bugs. The decisive factor

was not just technical ability, but also team coordination, smart strategies, and calmness under pressure. Ultimately, the first team
to piece together all the clues and unlock the final escape code emerged as the Winner of Mission Zero Bug, while the runners-
up also earned applause for their commendable performance.
up also earned applicase for their commencatore performance.
Landaia Banda The Fire I Charles and highlight fide and a second formation of the second in the second seco
In conclusion, Round 3 – The Final Showdown was the highlight of the entire event. It successfully combined technical rigor
with creativity, making debugging feel like both a puzzle and a competition. This round truly reflected the spirit of Engineers'
Day—celebrating innovation, problem-solving, and teamwork. For the participants, it was more than just a contest; it was an
experience that sharpened their skills, tested their perseverance, and left them with valuable lessons for future academic and
professional challenges.
professional chanenges.



(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



WINNERS & RUNNERS



**WINNERS** 

N. Sharan & Veeranjaneyulu

CSM – B 3<sup>rd</sup>year



RUNNERS – A. Satya Saketh & Nagamani

 $CSM - C 3^{rd} year$ 



3<sup>rd</sup> Place : Karumanchi Charan
CSD 2<sup>nd</sup> year



(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



F	H	N	T	ns	•	E	TH	IF	F/	/EN	JT
		`	And USA			,			1 2 1	/   7	N

























(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



## **SAMPLE CERTIFICATES**



#### CERTIFICATE OF PARTICIPATION



Proudly presented to:

has participated in the technical event "MISSION: ZERO BUQ" organized by the Department of CSE (Artificial Intelligence & Machine Learning) in association with PLEXUS, on the occasion of Engineer's Day, 12th September 2025. The participant has shown writhusiasm, logical thinking, and problem solving spart throughout the contest.

Dr. Maram Ashok Dr. Narasimha Reddy Dr. Anantha Raman G R
Patron Convener Convener
Principal, MRCE Dem Studnit Affairs Dem RQAC & HOD - CSP(AIML)







(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



#### **CONCLUSION:**

The Mission Zero Bug event, organized under the banner of the Plexus Technical Club at Malla Reddy College of Engineering, concluded on a high note, leaving a lasting impression on both participants and organizers. Conducted on the occasion of Engineers' Day, the competition went beyond being just another technical event. It became a platform where learning, fun, and teamwork seamlessly blended into an unforgettable experience.

From the very beginning, the event was marked by enthusiasm, with **67 teams** registering for the first round. The overwhelming participation reflected the growing interest of students in competitive coding and problem-solving. Each round of the competition was carefully structured to assess different dimensions of debugging — starting from fundamental syntax corrections in Round 1, moving to logical reasoning challenges in Round 2, and culminating in the complex, strategy-driven Mystery Debugging Hunt of Round 3. This progression ensured that only the most adaptable and sharp-minded teams made it to the finals, making the event both fair and intellectually rewarding.

The gamified format of the event played a major role in keeping participants motivated. The quirky bug names, the live leaderboard in Round 2, the mystery escape code in Round 3, and the surprise **Lightning Challenges** ensured that the atmosphere remained lively and engaging throughout. These elements reduced the stress of competition and instead encouraged participants to treat debugging as an exciting puzzle rather than a daunting task.

Another highlight of the event was the emphasis on **real-world coding skills**. Unlike standard theory-based tests, *Mission Zero Bug* gave participants hands-on exposure to errors in **C**, **Java**, **and Python**, which closely mirrors challenges faced during placements, hackathons, and software development projects. By working under strict time limits, students not only honed their technical accuracy but also learned the importance of **time management**, **teamwork**, **and smart decision-making**.

The conclusion of the event was marked by an overwhelming sense of accomplishment. Winners were celebrated for their outstanding debugging abilities, while every participant walked away with valuable learning and confidence in tackling code under pressure. For many, it was an eye-opening experience that highlighted the importance of debugging as a crucial skill in programming, not just a secondary task.

In essence, the **Mission Zero Bug** event stood out as a perfect example of how technical competitions can be transformed into **interactive, enjoyable, and impactful learning experiences**. It successfully achieved its mission of equipping students with sharper debugging skills, logical reasoning abilities, and collaborative problem-solving techniques. Beyond the scores and results, the true victory of the event lay in the knowledge gained, the friendships strengthened, and the inspiration sparked among students

to pursue excellence in coding.
The event not only celebrated Engineers' Day but also underscored the spirit of engineering itself—innovation, resilience, and
problem-solving. With its unique format and enthusiastic participation, Mission Zero Bug set a benchmark for future technical
events at MRCE and reaffirmed the commitment of the Plexus Technical Club to nurture talent, creativity, and excellence among
students.

#### "MISSION: ZERO BUG"

Successfully organized and completed with support of Chief Patron, Patrons, Convenor, Co-Convenors, Organizing Secretaries, Staff Coordinators and Student Coordinators

Signature

Patron/ Principal

Convenor

Co-Convenors

Organizing Secretary

Staff Coordinators

Student Coordinators: 1. To Yashwarth

2. N. Keerhana 3. P. Sahith Reddy

