J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY

(UGC AUTONOMOUS)

Bhaskar Nagar, Yenkapally Village, Moinabad Mandal, R.R. District, Hyderabad -500075

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ORGANIZED A TECHNICAL EVENT

"DRONATHON"

ON

1ST MARCH 2025

J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)
Accredited by NAAC & NBA, Approved by AICTE, Permanently Affiliated to JNTUH

CLIQUE

Department of Electronics and Communication Engineering

DRONATHON

A TECHNICAL EVENT

1ST MARCH 2025

ADMIN BLOCK, JBIET

LIST OF EVENTS

- DRONE HURDLES RACE
- DRONE HIDE & SEEK

REGISTRATION FEE

- SINGLE EVENT Rs 1000/-
- DUAL EVENT Rs 1500/-

SCAN HERE FOR REGISTRATION

CASH PRIZES UPTO 15K

STUDENTS COORDINATOR
K.Anvesh:9010757202
K.V.V Satya Sai:6309137596

ANNUAL TECHNICAL FEST

INFOQUEST

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Vision of Institute:

To be a center of excellence in Engineering education, research and application of knowledge to benefit society with ethical values.

Mission of Institute:

1. To provide world class engineering education, encourage research and Development.
2. To evolve innovative applications of technology and develop entrepreneurship.
3. To mould the students into socially responsible and capable leaders.

Vision of ECE Department:

To be a guiding force enabling multifarious applications in Electronics and Communications Engineering, promote innovative research in the latest technologies to meet societal needs

Mission of ECE Department:

1. To provide and strengthen core competencies among the students through expert training and industry interaction.
2. To promote advanced designing and modelling skills to sustain technical development and lifelong learning in ECE.
3. To promote social responsibility and ethical values, within and outside the department.

About the Department:

The Department of ECE is best known for its talented and dedicated professionals renowned for their excellence in various specializations in the field of Electronics & Communication Engineering. For the last ten years, the students of ECE, who walked out of the portals of the institute successfully, holding their degrees, were immediately inducted into the MNCs of high reputation in India & abroad. The intake of B. Tech Program is 120 and of MTech program in VLSI System Design is 18. Department of ECE is having professional societies like IEEE, Department clubs etc.

REPORT ON TECHNICAL EVENT

"DRONATHON"

Event Title: Dronathon : Drone Hurdle Race

Organizing Committee: Team Clique

Date: 1st March 2025

Venue: Admin Block, JBIET

Department: Electronics and Communication Engineering

College: JB Institute of Engineering & Technology, Hyderabad, Telangana.

Report Date: 10th March 2025

INTRODUCTION

The Dronathon Event was an exciting and innovative competition held at JB Institute of Engineering and Technology (JBIET), organized by Team Clique from the ECE Department. This event aimed to promote advancements in drone technology, encourage hands-on learning, and provide a competitive platform for drone enthusiasts.

One of the key highlights of the event was the Drone Hurdle Race, where participants navigated their drones through a challenging track featuring various obstacles and checkpoints. The race tested the pilots' skills in precision, speed, and control, making it an exhilarating experience for both participants and spectators.

The event attracted numerous students, tech enthusiasts, and drone pilots, fostering a spirit of innovation and teamwork. With a well-structured race format, engaging activities, and enthusiastic participation, the Dronathon successfully showcased the potential of drone technology in modern applications.

Objective of the Event

The primary goal of the Dronathon was to:

- Encourage hands-on learning and practical application of drone technology.
- Provide a competitive yet educational platform for students to showcase their drone piloting and engineering skills.
- Highlight the increasing role of drones in various industries, including surveillance, logistics, and disaster management.

Key Event – Drone Hurdle Race

One of the major attractions of the Dronathon was the Drone Hurdle Race, a dynamic competition where participants had to maneuver their drones through a specially designed obstacle course. This race tested several critical aspects of drone handling, including:

- Speed: How fast participants could navigate the course.
- Precision: The ability to control the drone through tight turns and obstacles.
- Stability: Maintaining steady flight despite environmental challenges.

The track included various hurdles such as hoops, tunnels, and elevated obstacles, requiring pilots to demonstrate skill, strategy, and quick reflexes.

Importance of Drone Technology in Modern Applications

Drones, or Unmanned Aerial Vehicles (UAVs), have revolutionized various industries, providing efficient, cost-effective, and innovative solutions across multiple sectors. Their ability to operate autonomously or remotely makes them invaluable in modern applications.

1. Surveillance and Security

- Used by law enforcement for crime monitoring, crowd control, and traffic management.
- Helps in border security and military reconnaissance.
- Provides real-time aerial surveillance for disaster-struck areas.

2. Agriculture and Farming

- Precision Farming: Drones equipped with sensors and cameras help in monitoring crop health, soil conditions, and pest control.
- Irrigation Management: Thermal imaging drones detect areas needing water, optimizing irrigation.
- Crop Spraying: Automated drones distribute pesticides and fertilizers efficiently, reducing manual labor.

3. Disaster Management & Rescue Operations

- Search and Rescue: Drones locate missing persons in disaster-struck or remote areas.
- Damage Assessment: UAVs provide real-time aerial views of affected regions for faster response.
- M
- edical Supply Delivery: Drones transport emergency medicines, vaccines, and first aid kits to hard-to-reach locations.

4. Infrastructure Inspection and Maintenance

- Used for inspecting bridges, power lines, wind turbines, and pipelines.
- Detects structural damage and prevents potential hazards without risking human lives.
- Reduces operational costs and improves maintenance efficiency.

5. Healthcare & Medical Assistance

- Emergency medical deliveries to remote locations or hospitals.
- UAVs transport organs for transplants, reducing transportation time.

Promotional Activities for Dronathon Event

To ensure maximum participation and awareness, Team Clique (ECE Department, JBIET) undertook extensive promotional activities across Hyderabad. The goal was to attract drone enthusiasts, engineering students, and tech-savvy individuals to take part in the Dronathon – Drone Hurdle Race and witness the exciting advancements in drone technology.

1. Poster Designing and Distribution
    - Our team designed visually engaging posters highlighting key details of the event, including the date, venue, competition details, and prizes.
    - The posters were strategically placed across JBIET and other prominent engineering colleges in Hyderabad.
    - We also created digital posters and circulated them via WhatsApp groups, Instagram, and LinkedIn to reach a wider audience.
2. College Visits and Direct Promotions
    - To encourage participation, Team Clique members visited multiple colleges across Hyderabad, interacting with students and faculty.
    - Personal interactions helped in resolving queries, motivating students, and building excitement around the event.
3. Social Media & Online Promotions
    - Active promotion was carried out through social media platform like Instagram, (teamclique_) where regular updates, countdowns, and teaser videos were posted.
    - Reels and short videos showcasing drone demonstrations were shared to capture the interest of tech enthusiasts.
    - A dedicated registration portal was shared online, making it easy for students to sign up.

Our organizing team for Dronathon 2025 undertook an extensive outreach effort, visiting 24 colleges across Hyderabad to create awareness and encourage participation. These visits allowed us to connect with students from diverse academic backgrounds, fostering enthusiasm for drone technology and its applications. The interaction with students and faculty from various institutions helped in building strong networks and expanding the reach of our event. Engaging discussions, knowledge exchange, and the opportunity to showcase the significance of drones contributed to the success of our initiative. The support and interest received from these colleges played a vital role in making Dronathon a grand and impactful event.

The List of Colleges for Campaign :

SL.NO	COLLEGES
1	Chaitanya Bharathi Institute of Technology
2	Mahatma Gandhi Institute of Technology
3	VNR Vignana Jyothi Institute of Technology
4	Global Institute of Engineering & Technology
5	Muffakham Jah College of Engineering & Technology
6	KG Reddy College of Engineering & Technology
7	Jawaharlal Nehru Technological University Hyderabad
8	Marri Laxman Reddy Institute of Technology and Management
9	Ellenki College of Engineering & Technology
10	College of Engineering-Osmania University
11	Gokaraju Rangaraju Institute of Engineering & Technology
12	MLR Institute of Technology
13	Gitam University
14	International Institute of Information Technology-Hyderabad
15	Anurag University
16	Srinidhi Institute of Science & Technology
17	ACE Engineering College
18	Vignana Bharathi Institute of Technology
19	Geethanjali College of Engineering & Technology
20	Hyderabad Central University
21	KL University
22	Joginpally B.R Engineering College
23	Bhaskar Engineering College
24	Vidya Jyothi Institute of Technology

Banner Launch of Dronathon Event

The Banner Launch for Dronathon 2025 was held on 1st March, marking the official commencement of this much-anticipated event. The unveiling was a moment of great excitement and pride, as it symbolized the collective efforts of Team Clique and the ECE Department in bringing this grand event to life.

The launch was graced by the presence of our esteemed department faculty members and all Clique team members, who played a pivotal role in organizing and executing the event. The vibrant and dynamic banner, representing the spirit of innovation and technology, was unveiled amidst loud cheers and enthusiasm.

The moment was not just about the event's official beginning but also about celebrating the teamwork, dedication, and hard work that went into making Dronathon 2025 a reality. The energy and enthusiasm of the participants and organizers set a high tone for the event, building anticipation for the thrilling drone races and competitions ahead.

This memorable launch truly marked the spirit of collaboration and technological excellence, making it a significant highlight of the event.


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DRONE OBSTACLES RACE
DRONE HEIDI N SEEK
1ST MARCH 2025
MAIN BLOCK, JNEC


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THE COMPETITION RULES AND REGULATATIONS : There will be only single round.

1.1. SINGLE ROUND

1.1.1. Participants who successfully complete the round with less time then the drone will be the winners.

1.1.2. The robot participating should be the same throught the game. Modifications will be allowed for the robot (only if previously used parts are damaged) in between the rounds only if the following conditions are satisfied

- The participant must show both the damaged part of the robot (propellers, chassis, motors) and the replaced part of the robot (propellers, chassis, motors) on the day of the final round.
- Heads or coordinators of the event will allow the modified robot only if the damaged part and replacement part are the same/similar.

2. COMPETITION RULES:

2.1. TECHNICAL TIMEOUTS

2.1.1. A technical timeout of 1 minute can be taken by a team.
2.1.2. After the finishing of the technical timeout, the timer will start again and will not be stopped under any circumstances.
2.1.3. No technical assistance will be provided by the event coordinators or heads during the event.

2.2. SCORING & PENALTIES

2.2.1. Penalties are imposed if the drone touches the border of the track or if skips or replacements are chosen. Each penalty adds extra time to the total time. The time added for each penalty shall be declared on the day of the event.
2.2.2. Scoring schema (including penalties) will be disclosed on the event day by heads and coordinators.

3. DISQUALIFICATION:

3.1. If a participant does not comply with the rules of the event, the robot will be disqualified from the event.
3.2. Robots should not damage any part of the arena, it will be disqualified.
3.3. Misbehavior of any kind will not be tolerated and the team will be subjected to

disqualification from Dronathon.
3.4. Usage of commercial drones is not allowed.

List of Participants:

S.NO	NAME OF THE PARTICIPANTS	NAME OF THE COLLAGE
1	SHREYASH	MLRIT
2	HARI KRISHNA	MLRIT
3	SUMANTH	MLRITM

Track of the Event:

Event Pics:


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Awards Ceremony of the Event:

Winner: Shreyash From MLRIT Collage

Runner: Sumanth From MLRITM Collage

Conclusion:

The Dronathon technical event was a resounding success, showcasing the latest advancements in drone technology and innovation. The event brought together enthusiasts, experts, and industry professionals to witness the thrilling drone hurdles race and drone hide and seek competitions.

As drone technology continues to evolve, events like Dronathon will play a crucial role in promoting innovation, driving progress, and fostering a sense of community among enthusiasts and professionals alike.

By building on the success of Dronathon, we can create a vibrant ecosystem that promotes innovation, education, and community engagement in the field of drone technology.