

A Report on Workshop "Emerging trends in Drone Technology" Organized by Department of Mechanical Engineering on 28th January 2025



MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC-AUTONOMOUS INSTITUTION)
Madanapalle - 517325, Annamayya Dist., Andhra Pradesh, India

A Workshop
on
"Emerging Trends in Drone Technology"
Organized by
Department of Mechanical Engineering

Date : 28/01/2025 Venue: Seminar Hall - B

Resource Person
Dr. AT Kishore
Director,
Dhanwantari Drone Pilot Academy (DDPA),
Bengaluru.

Chief Patron Dr. N. Vijaya Bhaskar Choudary Secretary & Correspondent	Patron Mrs. Keerthi Nadella Executive Director	Program Chair Dr. C. Yuvraj Principal	Convener Dr. S. Baskaran Assoc. Professor & Head	Co-Ordinator's 1.Mr. P. MD Rizwan Ali 2.Dr.Thota Bhaskar Rao Asst. professors Dept. of ME
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Report Submitted by: Mr. P. MD. Rizwan Ali, Assistant Professor, Department of Mechanical Engineering & Dr. Thota SS Bhaskar Rao, Assistant Professor, Department of Mechanical Engineering.

Resource Person Details: Dr AT Kishore, Director, Dhanwanthri Drone Pilot Academy, Bengaluru.

Participants: II Year and III Year Mechanical Engineering Students.

Mode of Conduct: Offline

Report Received on 01.02.2024.

Inauguration:

The workshop commenced with an inaugural ceremony held in the Seminar hall -C at 2:00PM. Head of the Department, resource persons, faculty members, and students, graced the occasion. Mr. P. Mohammed Rizwan Ali began with a welcoming address, provided a warm welcome to all participants and the speakers.

Dr I Arun, Professor, Department of Mechanical engineering, delivered the inaugural address, setting a positive tone for the workshop. Dr.Thota SS Bhaskar Rao concluded the ceremony with an insightful speech that outlined the workshop's objectives and the importance of Drone Technology in the Real World Applications.



Workshop:

Dr AT Kishore who was the resource person for the day started delivering the session by 2:15 PM and gave an in-depth exploration of the latest advancements in unmanned aerial vehicles (UAVs) and their applications. The workshop was divided into three key aspects.

Advances in Drone Hardware and Design

- Discussion on lightweight materials and improved aerodynamics.
- Developments in battery technology for longer flight duration.
- Integration of AI and automation in drone navigation.

Applications of Drone Technology

- Use of drones in agriculture for precision farming.
- Role of UAVs in disaster management and emergency response.
- Commercial and industrial applications, including logistics and surveillance.

Regulatory Framework and Future Prospects

- Overview of current drone regulations and compliance requirements.
- Challenges in urban air mobility and integration with existing air traffic.
- Future trends, including swarm technology and AI-driven drone operations.

Speaker also highlighted certain key points regarding adoption of drone technology in Indian scenario and also highlighted the growth statistics of the current sector in India by 2030. Speaker has clearly provided the road map for becoming successful drone pilots and drone engineers.

The workshop provided valuable insights into the evolving landscape of drone technology. It highlighted the importance of continuous innovation, regulatory adaptations, and industry collaboration to unlock the full potential of drones in diverse fields. Attendees left with a deeper understanding of emerging trends and the future direction of UAV technology. Dr Thota SS Bhasker provided concluding remarks and highlighted the importance of this sector in near future.

The event closed with a felicitation ceremony for the resource person, followed by a heartfelt vote of thanks from Mr P Mohammed Rizwan Ali recognizing the efforts of all who contributed to the workshop's success.

