

# AERO EXPRESS

DEPARTMENT OF AERONAUTICAL ENGINEERING



## PUBLISHER'S

**FACULTY CO-ORDINATOR**  
MR.N.UDAY RANJAN GOUD

**STUDENT CO-ORDINATOR**  
Mrudula Girhepuje  
A.Sai Praneeth

*"To succeed in your mission, you must have single-minded devotion to your goal."*

# NEWS-LETTER

OCT - DEC 2024

## DEPARTMENT OF AERONAUTICAL ENGINEERING

From the earliest dreams of flight to the supersonic jets of today and the innovative aircraft of tomorrow, this discipline has consistently pushed the boundaries of what's possible. A field that has quite literally allowed humanity to touch the sky. MLR Institute of Technology offers Aeronautical Engineering that focuses on the design, development, construction, testing, and maintenance of aircraft and related systems that operate within Earth's atmosphere.

### VISION

“To be a centre of excellence in Aeronautical engineering with emphasis on Research & Innovation to serve the needs of industry with human values to build strong nation.”

### MISSION

M1. Provide quality oriented education, well-grounded in the fundamental principles of Aeronautical Engineering.

M2. Consistently produce top quality Aeronautical engineers with core and multidisciplinary skills, who can become ace leaders and successful entrepreneurs with human values.

M3. Continuously strive for knowledge; undertake Research and Innovation that will contribute to the industrial development of the nation.

## HIGHLIGHT

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### DEPARTMENTAL ACHIEVEMENTS

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### STUDENT ACHIEVEMENTS

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### FACULTY ACHIEVEMENTS

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# NEWS-LETTER

## PROGRAM EDUCATIONAL OBJECTIVES :

- **PEO 1:** To prepare the students to excel in Aeronautical engineering and mould their careers for successful employment in industrial, academic and entrepreneurial activities.
- **PEO 2:** Graduates will analyze and synthesize data and apply technical problem concepts which lead to the design of new products and develop technical problem solving skills.
- **PEO 3:** Graduates will have excellent communication skills, ethical attitude and an ability to relate engineering issues to broader social environment.
- **PEO 4:** To provide a passionate academic environment for students that encourage learning of emerging technologies, multi disciplinary areas and acquire leadership qualities.

## PROGRAM SPECIFIC OUTCOMES(PSO'S) :

- **PSO1:** Apply engineering and management knowledge and techniques to estimate time and resources needed to complete Aerospace/Mechanical engineering projects.
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- **PSO2:** Recognize the challenging and rewarding careers in the field of Aerospace Engineering.

# NEWS-LETTER

## DEPARTMENTAL ACHIEVEMENTS

- Department of Aeronautical Engineering conducted an Industrial Visit to the Air Force Academy, Dundigal on 12.12.24.
- Department of Aeronautical Engineering conducted Interaction Day- Aamukh at MLRIT on 20.11.24.
- Department of Aeronautical Engineering conducted a Quiz competition- Inspiration 2k24 on account of Dr. A P J Abdul Kalam's birth anniversary on 15.10.24.

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- Mr. K Sukumar Satlin, published a patent for 'Emergency Landing Gear Deployment Mechanism' on 25.10.24.
- Mr. G Varun, published a patent for 'Emergency Landing Gear Deployment Mechanism' on 25.10.24.
- Mr. CH Nikhil, published a patent for 'Emergency Landing Gear Deployment Mechanism' on 25.10.24.
- Mr. A Rohan Sai, published a patent for 'Landing Gear for UAV using Quantum Locking Mechanism' on 01.11.24.
- Ms. K Pranathi, published a patent for 'Landing Gear for UAV using Quantum Locking Mechanism' on 01.11.24.
- Mr. N Manishankar, published a patent for 'Landing Gear for UAV using Quantum Locking Mechanism' on 01.11.24.
- Ms. B Kameshwari, published a patent for 'Wind Powered Automated Solar Distilled Dehumanification Desalination System ' on 01.11.24.
- Mr. M Naresh, published a patent for 'Wind Powered Automated Solar Distilled Dehumanification Desalination System ' on 01.11.24.
- Ms. N Tanishka, published a patent for 'Wind Powered Automated Solar Distilled Dehumanification Desalination System ' on 01.11.24.
- Ms. Geetika V C, published a patent for 'Passenpro: Passenger Professional Assistance ' on 01.11.24.
- Mr. N Sreekanth, published a patent for 'Passenpro: Passenger Professional Assistance ' on 01.11.24.

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- Mr. Ponnuru Kodanda Ajaya, published a patent for 'Passenpro: Passenger Professional Assistance' on 01.11.24.
- Mr. A Vinay Teja, completed the 12-week NPTEL course on 'Introduction to Aircraft Design'.
- Ms. B Kameshwari, completed the 12-week NPTEL course on 'Introduction to Aircraft Design'.
- Mr. D Ramu, completed the 12-week NPTEL course on 'Introduction to Aircraft Design'.
- Ms. Anusha, completed the 12-week NPTEL course on 'Nuclear and Particle Physics'.
- Ms. Geetika VC, completed the 12-week NPTEL course on 'Introduction to Aircraft Design'.
- Ms. Geetika VC, completed the 12-week NPTEL course on 'The Joy of Computing using Python'.
- Mr. G Pranav, completed the 12-week NPTEL course on 'Introduction to Aircraft Design'.
- Mr. I Adithya Shashank Reddy, completed the 12-week NPTEL course on 'Introduction to Aircraft Design'.
- Mr. N Balakrishna, completed the 12-week NPTEL course on 'Introduction to Aircraft Design'.
- Ms. Uha Redy, completed the 12-week NPTEL course on 'Introduction to Aircraft Design'.
- Mr. Suraj Dakua, completed the 12-week NPTEL course on 'Introduction to Aircraft Design'.

- Mr. Vinay Teja, participated in Tech Glide event- Conscientia 2024 held at IIST, Thiruvananthapuram from 03.10.24 to 06.10.24.
- Mr. K Abhinay Reddy, donated blood at KIMS hospital for a surgery on 03.12.24.
- Mr. Kishore, donated blood at KIMS hospital for a surgery on 03.12.24.
- Mr. Sai Manik, donated blood at KIMS hospital for a surgery on 03.12.24.
- Mr. A Sai Praneeth, participated in ZENITH'24 organised by SCOPE club at MLRIT from 07.11.24 to 09.11.24.
- Mr. B Nikxith Reddy, participated in ZENITH'24 organised by SCOPE club at MLRIT from 07.11.24 to 09.11.24.
- Mr. Sai Chandu, participated in ZENITH'24 organised by SCOPE club at MLRIT from 07.11.24 to 09.11.24.

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## FACULTY ACHIEVEMENTS

- Mr. Nayani Uday Ranjan Goud, assistant professor, completed the Adventure Camp conducted by Atal Bihari Vajpayee Institute of Mountaineering and allied sports, Manali held from 15.11.24 to 24.11.25.
- Dr. M Satyanarayana Gupta, HoD & professor, coordinated the online training course on Basics of “Remote Sensing, Geographical Information System and Global Navigation Satellite System” conducted by IIRS institute during 27.08.24 to 22.11.24.
- Dr. M Satyanarayana Gupta, HoD & professor, coordinated the online training course on Basics of “Overview of Geographical Information System” conducted by IIRS institute during 14.10.24 to 01.11.24.
- Dr. M Satyanarayana Gupta, HoD & professor, coordinated the online training course on Basics of “Air Pollutants: Implications, Monitoring and Modeling” conducted by IIRS institute during 18.11.24 to 22.11.24.
- Dr. M Satyanarayana Gupta, HoD & professor, coordinated the online training course on Basics of “Raman Spectroscopy and its applications in Earth observations” conducted by IIRS institute on 24.12.24.

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- Mr. B Manideep, assistant professor, participated as a Faculty coordinator in the EloqVent-Regional organised by EWB-IUCEE-MLRIT Student Chapter Body on 28.10.24 and 29.10.24 at MLRIT.
- Mr. Nirmith Kumar Mishra, assistant professor, completed the NPTEL course on 'Introduction to Machine Learning' in the exam was conducted on 22.09.24.
- Mr. S Sreekanth, assistant professor, completed the NPTEL course on 'Introduction to Machine Learning' the exam was conducted on 22.09.24.
- Mr. S Sreekanth, assistant professor, completed the NPTEL course on 'Accreditation and Outcome Based Learning' the exam was conducted on 22.09.24.
- Mr. B Manideep, assistant professor, completed the NPTEL course on 'Python for Data Science' the exam was conducted on 21.09.24.
- Mr. Arun Kumar, assistant professor, completed the NPTEL course on 'Accreditation and Outcome Based Learning' the exam was conducted on 03.11.24.
- Ms. G Sravanthi, assistant professor, completed the NPTEL course on 'Accreditation and Outcome Based Learning' the exam was conducted on 03.09.24.

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- Mr. A Sai Kumar, assistant professor, published a paper on 'Comprehensive Comparative Study of the Durability Wear Assessment of a Diesel Engine Fuelled with Jatropha Seed Oil and Diesel Fuel and Its Troubleshooting and Scheduled Maintenance' on 15.10.24.
- Mr. Arun Kumar, assistant professor, published a paper on 'Influences of basalt fibre position and addition on the mechanical and viscoelastic behaviours of steel mesh/flax/basalt fibre metal laminates' on 04.12.24.
- Mr. Nirmith Kumar Mishra, assistant professor, participated in the 5 day International Faculty Development Programme on Project Excellence Guide at Hyderabad, Maharashtra, Tamil Nadu, Andhra Pradesh from 21.10.24 to 25.10.24.
- Mr. B Nagaraj Goud, assistant professor, published a patent for 'Emergency Landing Gear Deployment Mechanism' on 25.10.24.
- Mr. B Manideep, assistant professor, published a patent for 'Emergency Landing Gear Deployment Mechanism' on 25.10.24.
- Mr. S Sreekanth, assistant professor, published a patent for 'Emergency Landing Gear Deployment Mechanism' on 25.10.24.
- Dr. A Vivek Anand, assistant professor, published a patent for 'Micropatterned Surface for Controlling Corrosion on Steel Surface' on 25.10.24.

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- Mr. A Sai Kumar, assistant professor, published a patent for 'Water-can with Mouth-piece' on 01.11.24.
- Mr. Nirmith Kumar Mishra, assistant professor, published a patent for 'Water-can with Mouth-piece' on 01.11.24.
- Mr. M Ganesh, assistant professor, published a patent for 'Water-can with Mouth-piece' on 01.11.24.
- Mr. S Sreekanth, assistant professor, published a patent for 'Water-can with Mouth-piece' on 01.11.24.
- Mr. K Veeranjanyulu, assistant professor, published a patent for 'Landing Gear for UAV using Quantum Locking Mechanism' on 01.11.24.
- Mr. Nirmith Kumar Mishra, assistant professor, published a patent for 'Wind Powered Automated Solar Distilled Dehumanification Desalination System' on 01.11.24.
- Mr. Nirmith Kumar Mishra, assistant professor, published a patent for 'Passenpro: Passenger Professional Assistance' on 01.11.24.
- Mr. Nirmith Kumar Mishra, assistant professor, applied for a patent for 'Python Programme to Calculate G-values on Planets on Moon' on 24.09.24.
- Mr. Sai Kumar, assistant professor, applied for a patent for 'Solution for the One-Dimensional Wave Equation' on 24.10.24.
- Mr. Nayani Uday Ranjan Goud, assistant professor, completed the training program on 'Drug Abuse in Youth' at Dr. MCR HRD Institute on 27.11.24.

- **Dr. M Satyanarayana Gupta, HoD & professor, completed training in Basic Life Support conducted by Yashoda Hospital on 08.12.24.**
- **Mr. Nirmith Kumar Mishra, assistant professor, participated in a One day Online workshop on 'Raman Spectroscopy and its applications in Earth Observation' conducted on 24.12.24.**
- **Mr. Nirmith Kumar Mishra, assistant professor proposed a research paper on 'Exploring Entrepreneurial Ecosystems in India: Understanding Key Drivers and Barriers for Startups and Small Businesses' in 2024.**

# NEWS-LETTER

## PO'S

- **PO1: Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.
- **PO2: Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development.
- **PO3: Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required.
- **PO4: Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions.
- **PO5: Engineering Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems.
- **PO6: The Engineer and The World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment.

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## PO'S

- **PO7: Ethics:** Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws.
- **PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.
- **PO9: Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences
- **PO10: Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.
- **PO11: Life-Long Learning:** Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change.

# NEWS-LETTER

APRIL 2025

## DEPARTMENT OF AERONAUTICAL ENGINEERING

From the earliest dreams of flight to the supersonic jets of today and the innovative aircraft of tomorrow, this discipline has consistently pushed the boundaries of what's possible. A field that has quite literally allowed humanity to touch the sky. MLR Institute of Technology offers Aeronautical Engineering that focuses on the design, development, construction, testing, and maintenance of aircraft and related systems that operate within Earth's atmosphere.

### VISION

Its vision is "To be a centre of excellence with emphasis on Research & Innovation in the industry with human values to build strong

### MISSION

Our sole mission is to consistently nurture and produce top-quality engineers equipped with strong core competencies and multidisciplinary skills. We aim to develop professionals who are not only technically sound but also capable of adapting to the evolving global landscape. By fostering creativity, innovation, and critical thinking, we empower our students to become ace leaders and successful entrepreneurs.

## HIGHLIGHT

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## DEPARTMENTAL ACHIEVEMENTS

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## STUDENT ACHIEVEMENTS

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## FACULTY ACHIEVEMENTS

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# NEWS-LETTER

## DEPARTMENTAL ACHIEVEMENTS

1. Department of Aeronautical Engineering organized a guest lecture on Exclusive Talk on Masters in Flight Test Engineering at MLRIT by Dr. Cathal Nolan, HOD, Aerospace & Mechanical Engineering, SETU, Ireland and Dr. Ashish Vashishtha, Lecturer, Aerospace & Mechanical Engineering, SETU, Ireland at CIE, MLRIT on 12.02.25.
2. Department of Aeronautical Engineering organized a Guest Lecture on “International Education Services” at MLRIT by Mr Govardhana Vamshi Krishna, Consultant , Scholar Overseas at MLRIT on 27.01.25.
3. Department of Aeronautical Engineering organized a Guest Lecture on “Career Guidance Program for Aeronautical Students” at MLRIT by Mr. T. Ashok Naidu, Co-founder, GATE Aerospace Academy on 20.02.25.
4. Students of the Department of Aeronautical Engineering conducted a field trip to Wing and Props, Gajularamaram to observe and analyze working and modelling of RC aircrafts on 11.02.24.
5. Department of Aeronautical Engineering conducted ‘Aerotron 3.0’ at CIE, MLRIT on 24.02.25 and 25.02.25.
6. Students and faculty of Department of Aeronautical Engineering took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- Ms. S Keerthana, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Mr. Saraf Rohan, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Ms. B Kameshwari, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Ms. K Keerthana, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- **Mr. G Rahul, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr. B Venkanna, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Ms. Soundarya Lahari, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr. A sai Praneeth, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- **Mr. R Lakshman Karthikeya, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Ms. Geetika V C, has secured Best Innovation Third Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Ms. T NMD Yashaswi, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Ms. N Tanishka, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- **Mr. Suryan Bisoyi, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr. T Sai Krishna Goud, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr. Adam G, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr. B Nikxith Reddy, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- **Mr. MP Lucky, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr. Shubhan Yeramallu, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr. I Adithya Shashank Reddy, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr. Dulam Anusha, has secured Overall Second Prize under Regular class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Mr. AVSS Jithendra, has secured Best Aerodynamic Analysis(CFD) Second Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Mr. G Harsha Vardhan Rao, has secured Best Aerodynamic Analysis(CFD) Second Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Mr. G Jaiwanth, has secured Best Aerodynamic Analysis(CFD) Second Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.

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## STUDENT ACHIEVEMENTS

- Ms. Sarwani K, has secured Best Aerodynamic Analysis(CFD) Second Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Ms. M Uha Reddy, has secured Best Aerodynamic Analysis(CFD) Second Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Mr. R Shashi Kumar, has secured Best Aerodynamic Analysis(CFD) Second Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Mr. Shaik Mahaboob Yesdan, has secured Best Aerodynamic Analysis(CFD) Second Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.

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## STUDENT ACHIEVEMENTS

- **Mr. T Rishi Raj, has secured Best Aerodynamic Analysis(CFD) Second Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr. G Varun Babu, has secured Best Aerodynamic Analysis(CFD) Second Prize under Micro class in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Mr.N Balakrishna, participated in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**
- **Ms. T Rithika Singh, participated in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.**

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## STUDENT ACHIEVEMENTS

- **Mr. G Pranav** participated in the 8th National Aerospace Conceptual Design Competition Supersonic Unmanned Combat Aerial Vehicle in 2025.
- **Ms. Manasvini Thakur**, participated in the 8th National Aerospace Conceptual Design Competition Supersonic Unmanned Combat Aerial Vehicle in 2025.
- **Mr. A. Vinay Kumar**, participated in the 8th National Aerospace Conceptual Design Competition Supersonic Unmanned Combat Aerial Vehicle in 2025.
- **Ms. K Pranathi**, received the Arundathi Award during Women's Day celebration on 08.03.25.. **G Prathap**, participated in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- **Mr. K Sukumar Satlin**, participated in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.

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## STUDENT ACHIEVEMENTS

- Ms. K Shiney Premlatha, participated in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Mr. Sai Chandu, participated in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25.
- Mr. S Sai Eshwar Prasad, participated in the 10th SAEINDIA Southern Section Drone Development Challenge 2025 held at Karpaga Vinayaga College of Engineering and Technology from 28.03.25 to 30.03.25
- Mr. N Rohith Kumar, participated in the 8th National Aerospace Conceptual Design Competition Supersonic Unmanned Combat Aerial Vehicle in 2025.
- Mr. Suraj Dakua, participated in the 8th National Aerospace Conceptual Design Competition Supersonic Unma
- Mr. J Anusha, secured First Position in the Cultural Dance event in the district level Yuva Utsav 2024-25 held at Anurag University on 25.03.25 .
- Ms. P Monisha, secured First Position in the Cultural Dance event in the district level Yuva Utsav 2024- 25 held at Anurag University on 25.03.25 .

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## STUDENT ACHIEVEMENTS

- Ms. K Ashritha, participated in the declamation competition in the district level Yuva Utsav 2024- 25 held at Anurag University on 25.03.25 . Ms. C Vedha
- Reddy, participated in the declamation competition in the district level Yuva Utsav 2024- 25 held at Anurag University on 25.03.25 . Ms. Mansa Devi
- Sharma,secured Second Position in the Drawing competition in the district level Yuva Utsav 2024- 25 held at Anurag University on 25.03.25 .
- Ms. Mrudula Girhepuje, participated in the drawing competition in the district level Yuva Utsav 2024- 25 held at Anurag University on 25.03.25 .
- Ms. Geetika V C, participated in the District level Viksit Bharat Youth Parliament on 21.03.25 and 22.03.25 held at Government City College, associated with NSS cell Osmania University.
- Ms. C Vedha Reddy, participated in the District level Viksit Bharat Youth Parliament on 21.03.25 and 22.03.25 held at Government City College, associated with NSS cell Osmania University.
- Mr. A Sai Praneeth, participated in the District level Viksit Bharat Youth Parliament on 21.03.25 and 22.03.25 held at Government City College, associated with NSS cell Osmania University.

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- Mr. M P Lucky, participated in the District level Viksit Bharat Youth Parliament on 21.03.25 and 22.03.25 held at Government City College, associated with NSS cell Osmania University.
- Ms. K Ashritha, secured second position in the District level Viksit Bharat Youth Parliament on 21.03.25 and 22.03.25 held at Government City College, associated with NSS cell Osmania University.
- Mr. Vinay, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. Anurag, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. Jithendra, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. Jaiwanth, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. Adithya Shashank, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Ms. Uha Reddy, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. Naresh, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- Mr. Prashanth, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. Shashi , took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. Rohan, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. Mahaboob, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Ms. S Keerthana, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25., took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Ms. Rithika, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. Rishi, took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. MP Lucky, took part in the Anvsa Walkathon: Walk for hope on 23.03.25
- Ms. Mrudula Girhepuje, took part in the Anvsa Walkathon: Walk for hope on 23.03.25.
- Ms. Mahaboob, took part in the Anvsa Walkathon: Walk for hope on 23.03.25.

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- **Mr. Nayani Uday Ranjan Goud, Assistant professor** took part in the district level Yuva Utsav2024- 25 as Judge for a declamation competition held at Anurag University on 25.03.25 .
- **Mr. A Sai Kumar, Assistant professor** took part in the Innovation Challenge as a jury member held at MLR Institute of Technology on 25.01.25.
- **Mr. Nirmith Kumar Mishra, Assistant professor** contributed as an evaluator at Faculty Conclave-V held from 07.02.2025 to 08.02.2025.
- **Mr. A Sai Kumar, Assistant professor** participated as a faculty advisor in the 10th SAE Southern Section Drone Development Challenge held at Karpaga Vinayaga college of Engineering and technology from 28.03.25 to 30.03.25.
- **Mr. Nirmith Kumar Mishra, Assistant professor** participated as a faculty advisor in the 10th SAE Southern Section Drone Development Challenge held at Karpaga Vinayaga college of Engineering and technology from 28.03.25 to 30.03.25.
- **Mr. S. Sreekanth, Assistant professor** participated as a faculty advisor in the 10th SAE Southern Section Drone Development Challenge held at Karpaga Vinayaga college of Engineering and technology from 28.03.25 to 30.03.25.

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- **Mr. Nayani Uday Ranjan Goud, Assistant professor received the Van Mahotsav award for the year 2024 on 08.03.24.**
- **Dr. M Satyanarayana Gupta, professor & HOD coordinated the online training course on Space Science and Technology awareness training under ISRO START Programme conducted by IIRS institute during 09.01.25 to 29.01.25.**
- **Mr. Nirmith Kumar Mishra, Assistant professor coordinated the online training course on Space Science and Technology awareness training under ISRO START Programme conducted by IIRS institute during 09.01.25 to 29.01.25.**
- **Mr. Arun Kumar, Assistant professor has published a paper on Design, aerodynamic, and structural integrity investigations of the advanced three bladed propeller for high payload based unmanned aerial vehicles on 01.03.25.**
- **Mr. Arun Kumar, Assistant professor has published a paper on Influence of grain structure evolution and microtexture development on hardness, residual stresses, and wear behavior of AA6061 alloy processed via cryogenic friction stir processing on 30.01.25**

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- **Dr. M.SATYANARYANA GUPTA, Professor & HOD** has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Harnessing Sustainable Energy for Climate Resilience at K.G.REDDY COLLEGE OF ENGINEERING & TECHNOLOGY from 20.01.25 to 25.01.25.
- **Mr. A Sai Kumar, assistant professor** has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Unmanned Air Vehicles and Drone Technology at Maturi Venkata Subba Rao Engineering College from 27.01.25 to 01.02.25.
- **Mr. A Sai Kumar, assistant professor** has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on DevOps for Cloud Native Development : Containers , Kubernetes and CI/CD Pipelines at Sri Venkateshwaraa College of Engineering and Technology from 03.02.25 to 08.02.25.
- **Mr. S Sreekanth, assistant professor** has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Unmanned Air Vehicles and Drone Technology at Maturi Venkata Subba Rao Engineering College from 27.01.25 to 01.02.25.

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- **Mr. Nirmith Kumar Mishra, assistant professor has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Harnessing Sustainable Energy for Climate Resilience at K.G.REDDY COLLEGE OF ENGINEERING & TECHNOLOGY from 20.01.25 to 25.01.25.**
- **Mr. Nirmith Kumar Mishra, Assistant professor has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Unmanned Air Vehicles and Drone Technology at Maturi Venkata Subba Rao Engineering College from 27.01.25 to 01.02.25.**
- **Mr. Nayani Uday Ranjan Goud, Assistant professor has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Unmanned Air Vehicles and Drone Technology at Maturi Venkata Subba Rao Engineering College from 27.01.25 to 01.02.25.**
- **Mr. B Manideep, assistant professor has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Harnessing Sustainable Energy for Climate Resilience at K.G.REDDY COLLEGE OF ENGINEERING & TECHNOLOGY from 20.01.25 to 25.01.25.**

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- **Mr. B Manideep, Assistant professor has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Unmanned Air Vehicles and Drone Technology at Maturi Venkata Subba Rao Engineering College from 27.01.25 to 01.02.25.**
- **Ms. G Sravanthi, Assistant professor has participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Unmanned Air Vehicles and Drone Technology at Maturi Venkata Subba Rao Engineering College from 27.01.25 to 01.02.25.**
- **Ms. G Sravanthi, Assistant professor has participated in the One Week National Level faculty development program on AI tools organised by Behara College of Engineering and technology from 17.02.25 to 21.02.25.**
- **Mr. Sreekanth Sura, assistant professor received patent for 'Vibrational frequency distribution analysis of cantilever beam with UDL' ON 02.01.25.**
- **Mr. Arun Kumar, assistant professor received patent for 'Computational analysis of composite structures laboratory manual' on 02.01.25.**
- **Mr. Nirmith Kumar Mishra, assistant professor received patent for 'Stress on a cantilever beam' on 03.01.25.**

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- Mr. Nayani Uday Ranjan Goud, assistant professor took part in the HMTV Cyclothon 2025: Pedalling for health and happiness on 25.01.25.
- Mr. A Sai Kumar, assistant professor has an ongoing patent on 'Design and development of Thrust stand for electric motor performance test' with Hexaind Technologies and services.
- Mr. Nayani Uday Ranjan Goud, assistant professor has an ongoing patent on 'Structural Analysis of composite wing' with Hexaind Technologies and services.
- Mr. B Manideep, assistant professor has an ongoing patent on 'Computational Modeling of turbine blades' with Hexaind Technologies and services.
- Ms. Sravanthi, assistant professor has an ongoing patent on 'Fluid flow analysis on landing gear structure ' with Hexaind Technologies and services.
- Mr. S Sreekanth, assistant professor has an ongoing patent on 'Dynamic analysis on UAV wing' with Hexaind Technologies and services.

# AERO EXPRESS

DEPARTMENT OF AERONAUTICAL ENGINEERING



## PUBLISHER'S

**FACULTY CO-ORDINATOR**  
MR.N.UDAY RANJAN GOUD

**STUDENT CO-ORDINATOR**  
Mrudula Girhepuje  
A.Sai Praneeth

*"To succeed in your mission, you must have single-minded devotion to your goal."*

# NEWS-LETTER

APR - JUNE 2025

## DEPARTMENT OF AERONAUTICAL ENGINEERING

From the earliest dreams of flight to the supersonic jets of today and the innovative aircraft of tomorrow, this discipline has consistently pushed the boundaries of what's possible. A field that has quite literally allowed humanity to touch the sky. MLR Institute of Technology offers Aeronautical Engineering that focuses on the design, development, construction, testing, and maintenance of aircraft and related systems that operate within Earth's atmosphere.

### VISION

"To be a centre of excellence in Aeronautical engineering with emphasis on Research & Innovation to serve the needs of industry with human values to build strong nation."

### MISSION

M1. Provide quality oriented education, well-grounded in the fundamental principles of Aeronautical Engineering.

M2. Consistently produce top quality Aeronautical engineers with core and multidisciplinary skills, who can become ace leaders and successful entrepreneurs with human values.

M3. Continuously strive for knowledge; undertake Research and Innovation that will contribute to the industrial development of the nation.

## HIGHLIGHT

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### DEPARTMENTAL ACHIEVEMENTS

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### STUDENT ACHIEVEMENTS

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### FACULTY ACHIEVEMENTS

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# NEWS-LETTER

## PROGRAM EDUCATIONAL OBJECTIVES :

- **PEO 1:** To prepare the students to excel in Aeronautical engineering and mould their careers for successful employment in industrial, academic and entrepreneurial activities.
- **PEO 2:** Graduates will analyze and synthesize data and apply technical problem concepts which lead to the design of new products and develop technical problem solving skills.
- **PEO 3:** Graduates will have excellent communication skills, ethical attitude and an ability to relate engineering issues to broader social environment.
- **PEO 4:** To provide a passionate academic environment for students that encourage learning of emerging technologies, multi disciplinary areas and acquire leadership qualities.

## PROGRAM SPECIFIC OUTCOMES(PSO'S) :

- **PSO1:** Apply engineering and management knowledge and techniques to estimate time and resources needed to complete Aerospace/Mechanical engineering projects.
- 
- **PSO2:** Recognize the challenging and rewarding careers in the field of Aerospace Engineering.

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- Ms. Syeda Asma has been certified on “Finite Element Method” by IIT Kharagpur on April 2025.
- Mr. THOKALA SAIKIRAN has been certified on “Gas dynamics: Fundamentals and Applications” by IIS Bangalore on April 2025.
- Mr. AILA VINAY TEJA has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. AVSS JITHENDRA has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. BANOTH VENKANNA has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Ms. KAMESWARI BUSSALA has been certified on “Introduction to Evolutionary Dynamics” by IIT Bombay (NPTEL) on April 2025.
- Mr. DARRU RAMU has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Ms. ANUSHA has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Ms. GEETIKA V C has been certified on “Programming in Java” by IIT Kharagpur (NPTEL) on April 2025.
- Mr. GUDDATI RAHUL has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. GUGLOTH PRATHAP has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. GURRAM PRANAV has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. IREDDY ADHITYA SHASHANKREDDY has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- Ms. K KEERTHANA has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Ms. KHARCHAWALE SARWANI has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Ms. UHA REDDY has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. MUKESH MATURI has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. MIDDE NARESH has been certified on “Gas dynamics: Fundamentals and Applications” by IIS Bangalore (NPTEL) on April 2025.
- Ms. N TANISHKA has been certified on “Gas dynamics: Fundamentals and Applications” by IIS Bangalore (NPTEL) on April 2025
- Mr. NANDIGAM BALAKRISHNA has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. PILLI RAJU has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. RENUMALA SASHI KUMAR has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. SHAIK SOHEL has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- Mr. TEGALA SAI KRISHNA GOUD has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.

- Ms SONDARYA LAHARI has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- Mr. ANNAMRAJU SAI PRANEETH has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- Mr BANDI NIKXITH REDDY has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- Ms. CHAVADI VEDHA REDDY has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- Mr. K ABHINAY REDDY has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- Ms. KARRE ASHRITHA has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- Ms. KOTHAPALLY SHINEY PREMA LATHA has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- Mr. M P LUCKY has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- Mr. PENDKAR DWIJOTHAMA has been certified on “Combustion of Solid Fuels and Propellants” by IIT Kharagpur (NPTEL) on April 2025.

- **Mr. POLASA SHIVAKUMAR** has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- **Mr. VIRANCH SHIROYA** has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- **Mr. SHUBHAN YERRAMALLU** has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- **Mr. UCHULA PRIYANSHU RICKY** has been certified on “Fundamentals of Theoretical and Experimental Aerodynamics” by IIT Kharagpur (NPTEL) on April 2025.
- **Mr. TNMD YASHASWI** has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- **Mr. MEDICHETTI VARDHAN** has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.
- **Mr. KAVALA SUKUMAR STALIN** has been certified on “Aircraft Design” by IIT Kanpur (NPTEL) on April 2025.

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- Mr. k. Arun Kumar, Assistant professor has submitted a review on &quot;An Investigation of the Use of computational Fluid Dynamics in the Components Selection Process for Agricultural Drones &quot; to International Journal of Aerospace Engineering on Mon, Jun 16, 2025.
- Mr. Nirmith Kumar Mishra, Assistant Professor has been Certified on “Designing Learner-Centric MOOCs” by IIT Bombay (NPTEL) on March 2025.
- Mr. B. Manideep, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Bombay (NPTEL) on April 2025.
- Ms. G. Sravanthi, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Bombay (NPTEL) on April 2025.
- Mr. k. Arun Kumar, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Bombay (NPTEL) on April 2025.
- Mr. Nirmith Kumar Mishra, Assistant Professor has been Certified on “Designing Learner-Centric MOOCs” by IIT Madras (NPTEL) on March 2025.

- Mr. S. Sreekanth, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Bombay (NPTEL) on April 2025.
- Mr. N. Uday Ranjan Goud, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Bombay (NPTEL) on April 2025.
- Mr. k. Arun Kumar, Assistant Professor, has contributed in publishing papers on &quot; Structure–Property Relationship in Cryo-Rolled AM50 Magnesium Alloy: From Grain Refinement to Ductility Gain” on 14 June 2025.
- Dr. M. Satyanarayana Gupta, Professor and Head of the Department, has contributed in publishing papers on &quot; Numerical Investigation Using Machine Learning Process Combination of Bio PCM and Solar Salt for Thermal Energy Storage Applications” on 25 June 2025.
- Mr. Nirmith Kumar Mishra, Assistant Professor, has contributed in publishing papers on &quot; A Blockchain-Based Authentication Handover Protocol for Autonomous vehicle Network” on 26 June 2025.

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- **Mr. k. Arun Kumar, Assistant Professor, has received a certificate for active participation in the 3<sup>rd</sup> International 5-Day Faculty Development Program on “Sustainability and Research in Modern Mechanical Engineering” from 02<sup>nd</sup> to 06<sup>th</sup> June 2025, organized by the Department of Mechanical Engineering, Madanapalle Institute of Technology & Science, Andhra Pradesh, India.**
- **Mr. Nirmith Kumar Mishra, Assistant Professor, has received a certificate for active participation in the 3<sup>rd</sup> International 5-Day Faculty Development Program on “Sustainability and Research in Modern Mechanical Engineering” from 02<sup>nd</sup> to 06<sup>th</sup> June 2025, organized by the Department of Mechanical Engineering, Madanapalle Institute of Technology & Science, Andhra Pradesh, India.**
- **Mr. B. Manideep, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Madras (NPTEL) on April 2025.**
- **Ms. G. Sravanthi, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Madras (NPTEL) on April 2025.**
- **Mr. k. Arun Kumar, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Madras (NPTEL) on April 2025.**

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- **Mr. S. Sreekanth, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Madras (NPTEL) on April 2025.**
- **Mr. N. Uday Ranjan Goud, Assistant Professor has been Certified on “NBA Accreditation and Teaching and Learning in Engineering (NATE)” by IIT Madras (NPTEL) on April 2025.**

# NEWS-LETTER

## DEPARTMENTAL ACHIEVEMENTS

- The Students of Aeronautical Department have visited the Indian Air Force Academy, Dundigal as Industrial visit which was organized by Mr. Nirmith Kumar Mishra and Mr. S.Sreekanth on 12 June 2025.

# NEWS-LETTER

## PO'S

- **PO1: Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.
- **PO2: Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development.
- **PO3: Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required.
- **PO4: Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions.
- **PO5: Engineering Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems.
- **PO6: The Engineer and The World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment.

# NEWS-LETTER

## PO'S

- **PO7: Ethics:** Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws.
- **PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.
- **PO9: Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences
- **PO10: Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.
- **PO11: Life-Long Learning:** Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change.

# AERO EXPRESS

DEPARTMENT OF AERONAUTICAL ENGINEERING



## PUBLISHER'S

**FACULTY CO-ORDINATOR**  
MR.N.UDAY RANJAN GOUD

**STUDENT CO-ORDINATOR**  
A.SIRISHA  
K.SRIHITA

*"To succeed in your mission, you must have single-minded devotion to your goal."*

# NEWS-LETTER

JULY-SEP 2025

## DEPARTMENT OF AERONAUTICAL ENGINEERING

From the earliest dreams of flight to the supersonic jets of today and the innovative aircraft of tomorrow, this discipline has consistently pushed the boundaries of what's possible. A field that has quite literally allowed humanity to touch the sky. MLR Institute of Technology offers Aeronautical Engineering that focuses on the design, development, construction, testing, and maintenance of aircraft and related systems that operate within Earth's atmosphere.

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“To be a centre of excellence in Aeronautical engineering with emphasis on Research & Innovation to serve the needs of industry with human values to build strong nation.”

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M3. Continuously strive for knowledge; undertake Research and Innovation that will contribute to the industrial development of the nation.

## HIGHLIGHT

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## DEPARTMENTAL ACHIEVEMENTS

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## STUDENT ACHIEVEMENTS

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## FACULTY ACHIEVEMENTS

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# NEWS-LETTER

## PROGRAM EDUCATIONAL OBJECTIVES :

- **PEO 1:** To prepare the students to excel in Aeronautical engineering and mould their careers for successful employment in industrial, academic and entrepreneurial activities.
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- **PEO 3:** Graduates will have excellent communication skills, ethical attitude and an ability to relate engineering issues to broader social environment.
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- **PSO1:** Apply engineering and management knowledge and techniques to estimate time and resources needed to complete Aerospace/Mechanical engineering projects.
- 
- **PSO2:** Recognize the challenging and rewarding careers in the field of Aerospace Engineering.

# NEWS-LETTER

## DEPARTMENTAL ACHIEVEMENTS

- Department of Aeronautical Engineering organized Alumni Interaction from Classroom to career: Alumni Guide to your future on 18 Sep 2025
- 15 Students of Aeronautical Engineering have certified in NPTEL courses
- Mr Hardeep Singh Bamrah, operations Delivery Expert, Talent Acquisition, Campus relations-TAG, HCL technologies has released Department of Aeronautical Engineering magazine Aero-X and Aero Express News letters on 26/07/2025
- Organized a Quiz competition to the students of Aeronautical Engineering to commemorate the remembrance of our former president Dr . APJ . Abdul Kalam on his death anniversary on 28/07/2025.
- Ms. Pranathi, Ms.Pavani , Ms. Vishanavi and Ms. Soumya secured jobs in saffron company.
- Department of Aeronautical Engineering organized 8<sup>th</sup> national science fair Lunar on 15/09/2025.
- Department of Aeronautical Engineering organized Outreach program at ARCA GLOBAL INDIAN INTERNATIONAL SCHOOL on 25 Aug 2025.

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- Dr.Vivek Anand, Associate professor received Participation certificate at IUCEE Annual Leadership Summit 2025 .
- Mr.A.Sai kumar, Assistant professor received appreciation for his participation in lecture meeting on Introduction to UAVs and Practical Design Tools on 6<sup>th</sup> sep 2025.
- Mr.N.Uday Ranjan Goud, Assistant professor received Certificate for appreciation for successfully completing Aerospace Structures Lab Digital course on 5<sup>th</sup> sep 2025
- Mr.N.Uday Ranjan Goud, Assistant professor has attended as a guest speaker on NSS Day at Geethanjali college of pharmacy on 26<sup>th</sup> sep 2025.
- Mr.N.Uday Ranjan Goud, Assistant professor has attended as a guest speaker, virtually on NSS Day at Rajapalayam Raju's college ,Madurai , Tamil Nadu on 26<sup>th</sup> sep 2025.
- Mr. A Sai Kumar , Assistant professor Published a paper on "ConvNext Model based Classification of FUndus Retinal Images into Healthy Cataract" on 04/09/2025.
- Mr. Dr M S N Gupta, Head of the Department Published a paper on "Approximation of an Autonomous NavigationSystem in UAVs Based on Reinforcement Learning" on 27/05/2024

# NEWS-LETTER

## FACULTY ACHIEVEMENTS

- Mr. Nirmith Kumar Mishra, Assistant Professor Published a Journal on “A Blockchain-Based Authentication Handover Protocol for Autonomous Vehicle Networks” on 26/07/2025.
- Mr. A Sai Kumar, Assistant Professor Published a Journal on “Exhaust manifold performance enhancement using nano fluids a design and CFD investigation for four stroke petrol engines.” on 26/07/2025.
- Mr. Nirmith Kumar Mishra, Assistant Professor Published a Journal on “A Blockchain-Based Authentication Handover Protocol for Autonomous Vehicle Networks” on 1 July 2025.
- Mr. Dr M S N Gupta, Head of the Department Published a paper on “Numerical Investigation Using Machine Learning Process Combination of Bio PCM and Solar Salt for Thermal Energy Storage Applications” on 27/05/2024.
- Mr. Nirmith Kumar Mishra, Assistant professor has attended FDP on Accreditation and Outcome Based Learning on 17-19 July 2025 at MLR Institute of Technology.
- Mr. B MANIDEEP, Assistant professor has attended FDP on AI in Education: Tools and Trends in Teaching from 15/09 to 20/09/2025 at MLR Institute of Technology.
- Mr. A Sai Kumar, Assistant professor has attended FDP on Reimagining Media Education: The Role of Artificial Intelligence in Transforming Educational Practices from 7 to 13 July 2025 at Shri Ramswaroop Memorial University, Lucknow.

- Dr.Vivek Anand, Associate professor has Published a patent on “METHOD FOR ENHANCING WETTABILITY AND CORROSION RESISTANCE OF SS304 STEEL VIAMICROPATTERNS” on 25 July 2025
- Mr. Nirmith Kumar Mishra, Assistant professor has Published a patent on “AERODYNAMIC LANDING GEAR SYSTEM WITH DRAG REDUCTION FEATURES” on 25 July 2025.
- Mr. Nirmith Kumar Mishra, Assistant professor has Published a patent on “THERMOELECTRIC ENERGY HARVESTING SYSTEM WITH AUTONOMOUS POWER ALLOCATION FOR DUAL-ZONE HEATRECOVERY IN AIRCAFT” on 1 Aug 2025.
- Mr. Nirmith Kumar Mishra, Assistant professor has Published a patent on “MOBILE INSULIN COOLER” on 1 Aug 2025.
- Mr. K Arun Kumar , Assistant professor has Published a patent on “FOAM-FILLED CORRUGATED CORE SANDWICH PANELS FOR ENHANCED STRUCTURAL PERFORMANCE” on 1 Aug 2025.
- Mr. A Sai Kumar , Assistant professor has Published a patent on “THRUST MEASURING BED” on 1 Aug 2025.

# NEWS-LETTER

## STUDENT ACHIEVEMENTS

- 15 students of 2<sup>nd</sup> year Aeronautical Engineering have certified in NPTEL course “ Introduction to Airplane Performance” on 2025-09-21.
- TEAM “JATAYU , VARAHI , PHOENIX” have attended SAE DDC Workshop at NSS College of Engineering, Palakkad, Kerala on 27-28 Sep 2025.
- 2<sup>nd</sup> year MD HUZEAF has participated in National integration Camp at Gujarath on 02/07/2025 to 09/07/2025.
- 3<sup>rd</sup> year SHINEY PREMALATHA has recived 1<sup>st</sup> prize in painting on NSS Day Painting cometitions on 24/09/2025.
- 2<sup>nd</sup> year Navya sri has participated in Anti Drug Awareness competition organized by NSS on 02/07/2025 at MLRIT.
- 4th year SHAIK MAHABUB has participated in CPR Training program organized by NSS on 06/08/2025 at Arundathi Hospital, Dundigal.
- 3rd year MRUDULA GIRHEPUJE has participated in CLOTH DONATION DRIVE organized by NSS on 14/08/2025 to 15/08/2025 at MLRIT.
- 4th year J ANUSHA has participated in Eco friendly Ganeesha distribution organized by NSS on 26/08/2025 at MLRIT.
- 3rd year ASHRITHA KARRE has participated in National Sports Day organized by NSS on 29/08/2025 at MLRIT.

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## STUDENT ACHIEVEMENTS

- 3rd year Kothapally Shiney Prema Latha has participated in Hyderabad liberation day competitions organized by NSS on 16/09/2025 at Rastarapathi Nilayam, Bollaram.

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## PO'S

- **PO1: Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.
- **PO2: Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development.
- **PO3: Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required.
- **PO4: Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions.
- **PO5: Engineering Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems.
- **PO6: The Engineer and The World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment.

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## PO'S

- **PO7: Ethics:** Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws.
- **PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.
- **PO9: Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences
- **PO10: Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.
- **PO11: Life-Long Learning:** Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change.