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MECH MOMENTUM
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M.I.E.T. ENGINEERING COLLEGE·
Department of Mechanical Engineering



Academic Year 2023-2024
DEPARTMENT OF MECHANICAL ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

About Us

Department of Mechanical Engineering was started in the year 1998 offering an Undergraduate program (B.E) with the current intake of 60. The department was upgraded as a Post Graduate department with the commencement of M.E. in Manufacturing Engineering in the year 2007 with a sanctioned intake of 18.

Based on the academic and infrastructure quality of the department, Anna University has recognized the department as a research department in the year 2015. The department was accredited by the National Board of Accreditation (NBA), New Delhi in the year 2019, certifying the quality performance of the Department.



Department Vision and Mission

Vision

- Establish a globally recognized school of Excellence in the field of Mechanical Engineering.

Mission

- Impart quality education in Mechanical Engineering through effective teaching-learning techniques.
- Provide necessary infrastructure and facilities for the student's personal and professional growth.
- Expose to specialized Mechanical Engineering domains to harness evolving technologies.
- Create awareness in ethical practices followed internationally.

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MESSAGESES

Chairman's Message



Er. A. Mohamed Yunus, B.E., M.Sc.(Engg.)

Chairman

Being the current world not a hasty track, the responsibility of creating a high-quality educational institution is challenging and embellished with a host of initiatives, which validate them over an extended time span. We at M.I.E.T. motivate and empower our students to be enduring learners, critical thinkers and prolific members of an ever-changing global society.

The students are encouraged to channelize their potential in the pursuit of fineness in a holistic and student-centered environment. I am confident that M.I.E.T. will always guide the fate of its students, while blistering kindness and compassion in its pursuit of academic excellence and the accomplishment of our motto “Humanize, Equalize, Spiritualize”.

Principal's Message



Dr. A. NAVEEN SAIT, M.E., Ph.D.

Principal

M.I.E.T. strives to make a better world through education, Research and innovation, functioning with a motto of accelerating the nation's industrial development through highly skilled and qualified technocrats.

I extend a warm welcome to all students and scholars who choose M.I.E.T. as a preferred destination for higher education and research — a territory of happy learning with great fun and joy, offering ample opportunities for curricular, co-curricular and extra-curricular growth.

The college has modern infrastructure, state-of-the-art laboratories, and well-qualified, dedicated faculty members committed to the complete satisfaction of the student community, and to developing and motivating young talent to meet the challenges they will face after graduation.

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STUDENT'S PARTICIPATION

Internships & Industry Training

- N. S. Amjath Hussain attended the Internship Training Programmed in the Department of Energy and Environment, NIT Trichy, from 17.07.2023 to 17.09.2023, organized by the Department of Training & Placement, M.I.E.T. Engineering College.
- J. Aashiq Mohammed and J. Aslam Mohamed attended Internship Training at Tamil Nadu Newsprint and Papers Limited, Karur, held on 02.11.2023-09.11.2023 and 25.11.2023-28.11.2023.
- Mirza Yusuf ali completed the online course Data Science and Machine Learning: Making Data-Driven Decisions, MIT Schwartzman College of Computing, USA (Jan-May 2024).
- P.Haribalan participated in the Employability Skills Program at University College of Engineering, BIT Campus, Trichy, 29.02.2024-02.03.2024, organized by the Centre for National and International Collaboration (CNIC).
- A.K. Abdul Kani and K. Sahaya Manston undergone internship on 19.06.2023 - 30.06.2023 conducted by the CKEE Engineering Private Limited.
- K. Hariharan and R.T. Navin undergone internship on 22.06.2023 - 05.07.2023 conducted by the High Energy Batteries (India) Limited, Trichy.
- S. Vikram and B. Keerthick Henz undergone internship on 26.06.2023 - 8.07.2023 conducted by the Shri Velan Cones, Coimbatore.
- S. Abdul AfsarAhamed and J. Mohamed Nafeez undergone internship on 03.07.2023-17.07.2023 conducted by Nitro auto components manufacturers private limited, Coimbatore.
- V.R. Nishanth and S. Yaswanth undergone internship on 05.07.2023 - 15.07.2023 conducted by Altec Fabricators, Trichy.
- E. Aravind and B. Abishek undergone internship on 07.07.2023 - 20.07.2023 conducted by Rane Engine valve Limited, Pudukottai.
- K. Balakumaran and P. Haribalan undergone internship on 10.07.2023-23.07.2023 conducted by Ficus Rubber works, Trichy.
- M. Sheik Mohammed and A.Abuthahir undergone internship on 12.07.2023 - 28.07.2023 conducted by Rockfort Moto hub Pvt. Ltd, Trichy.
- K. Mohamed Ashiq and S. Harish undergone internship on 12.07.2023 - 20.07.2023 conducted by Shanmugha Precision Forging, Thanjavur.
- V. Gino Alexander and R.V. Amarnath undergone internship on 11.07.2023 - 27.07.2023 conducted by V.S.T. Motors Private Limited.
- J.AashiqMoahmmed and N. S. Amjath Hussain undergone internship on 02.11.2023 - 09.11.2023 conducted by Tamil Nadu Newsprint and Papers Limited, Karur.

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- Mirzayusufali attended the online course on Data science and machine learning: Making data-driven decisions From Jan 2024 to May 2024.
- P. Haribalan attended the training program in the topic of Employability Skills program from 29.02.2024 to 02.03.2024.
- S.Raja Mohamed and R. Abdul Faizal attended the Fusion 360 Design Challenge on 22.08.2022 under Naan Mudhalvan Scheme of Tamil Nadu.

Sports

- I.Santhosh (III Year), S.Ravikumar and G.Sri Hari Hara Karan (final year) secured Second Place in the Anna University zonal Cricket tournament at Saranathan College of Engineering, Trichy, 26.10.2023-28.10.2023.

Technical Symposia & Competitions

- K. Hariharan and P. Haribalan attended a One-Day Workshop on Robotics at Thiagarajar College of Engineering, Madurai, on 15 March 2024.
- V. Mageshwaran won Second Prize in Paper Presentation at DEEKSHI TECHFEST 2024, Sudharsan Engineering College, Pudukkottai, on 15 March 2024.
- P. Haribalan won First Prize in CAD Modeling at MEGRA 2K24, MAM College of Engineering & Technology, Trichy, on 28 March 2024.
- K. Hariharan won Second Prize in CAD Modeling at MEGRA 2K24, MAM College of Engineering & Technology, Trichy, on 28 March 2024.
- K. Harish participated in CAD Modeling at MEGRA 2K24, MAM College of Engineering & Technology, Trichy, on 28 March 2024.
- N. S. Amjath Hussain won First Prize in Quiz, Second Prize in Paper Presentation, and Second Prize in the Lathe Wizardry Challenge at MEGRA 2K24, MAM College of Engineering & Technology, Trichy, on 28 March 2024.
- K. Hariharan participated in Quiz at MEGRA 2K24, MAM College of Engineering & Technology, Trichy, on 28 March 2024.
- S. Thiruvartselvan won First Prize in CAD Modeling at TECXPLO 24, Mookambigai College of Engineering, Pudukkottai, on 26 April 2024.
- S. Abdul AfsarAhamed won Third Prize in CAD Modeling at TECXPLO 24, Mookambigai College of Engineering, Pudukkottai, on 26 April 2024.
- S. Abdul and R. T. Naveen won Third Prize in Paper Presentation at TECXPLO 24, Mookambigai College of Engineering, Pudukkottai, on 26 April 2024.
- P. Pradeepaldoh, C. Ramachandran, V. S. B. Daksesh, E. Aravind, and S. Yaswanth participated in CAD Modeling at TECXPLO 24, Mookambigai College of Engineering, Pudukkottai, on 26 April 2024.

- C. Ramachandran participated in Paper Presentation at TECXPLO 24, Mookambigai College of Engineering, Pudukkottai, on 26 April 2024.

FACULTY PARTICIPATIONS

- Dr. M. Kirubakaran, Associate Professor: Completed NPTEL Faculty Development Programmes (FDPs) on Municipal Solid Waste Management at IIT Guwahati (July–October 2023) and Biomass Conversion and Biorefinery at IIT Madras (January–April 2024), along with an FDP on Drone Basics, Design, Assembly and Testing under Naan Mudhalvan, Government College of Engineering, Srirangam (29.01.2024–03.02.2024). He also participated in the SAE Club Officers Leadership Training (COLT) Workshop at CARE College of Engineering, Trichy (14.10.2023–15.10.2023).
- Mr. C. Manikandan, Assistant Professor: Successfully completed NPTEL Faculty Development Programmes on Social Innovation in Industry 4.0 at IIT Kanpur (July–October 2023) and Product Design and Manufacturing at IIT Kanpur (January–April 2024).
- Mr. K. Baskar, Assistant Professor: Participated in an FDP on Recent Advancements in Materials, Manufacturing and Technology at Swarnandhra College of Engineering and Technology, Andhra Pradesh (30.10.2023–04.11.2023), a Workshop on Research Paper Writing and Publishing at HI LEARN EDUTECH INSTITUTE, Bijapur (28.08.2023–31.08.2023), and an FDP on Industry 4.0/5.0 at Prasad V. Poultry Siddhartha Institute of Technology, Vijayawada (15.04.2024–27.04.2024). He also attended a seminar on First Aid in the Digital World at Excel Engineering College, Namakkal (09.09.2023) and registered for a Ph.D. under the guidance of Dr. G. Pranesh in 2023.
- Mr. S. Kumaradevan, Assistant Professor: Participated in an FDP on Engineering Thermodynamics organized by CARE College of Engineering, Trichy, from 28.08.2023 to 01.09.2023.
- Dr. B. Selvam, Professor: Participated in the seminar on Strengthening the Research and Digital Education Ecosystem organized by Elsevier Connect on 17.10.2023.
- Dr. G. Pranesh, Assistant Professor: Presented research papers at the 2nd International Conference on Advanced Trends in Renewable Energy (ICATRE 2023), organized by Nehru Institute of Technology, Coimbatore, on 29–30.09.2023.
- Mr. K. Baskar and Mr. R. Manickam: Presented research papers at the National Conference on Waste to Energy, Carbon Capture, Utilization and Storage (NCWECCUS-2023), organized by NIT Rourkela, from 22–24.12.2023.
- Mr. S. Sathish Kumar: Presented a research paper at the 3rd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEE-2023),

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organized by NIT Warangal, on 24–25.11.2023. He also participated in the Professional Development Programme on Energy, Thermal Engineering, Refrigeration and Air-Conditioning conducted by NITTTR, Chennai, from 15.04.2024 to 29.04.2024.

- Dr. K. Panneer Selvam, Associate Professor: Participated in the FDP on Frontiers of Additive Manufacturing at VELS Institute (VISTAS) from 04–08.03.2024. He served as the College SPOC for the Smart India Hackathon 2023–24 and presented a research paper at the 2nd International Conference on Advanced Material Processing & Sustainable Energy (AMPSE-2K24), organized by Nadar Saraswathi College of Engineering and Technology, Theni, on 26.04.2024.
- Mr. R. Narayanan, Assistant Professor: Presented two research papers at the 5th International Conference on Computational Intelligence and Industry 5.0 (ICII 2024), organized by Velammal Institute of Technology, Chennai, on 03.04.2024.

FACULTY PUBLICATIONS & PATENTS

- Mr. R. Narayanan, Presented a research paper titled “Design and Development of a Polishing Machine to Prepare Specimens for Metallographic Analysis”, Proceedings of the 5th ICII 2024, ISBN: 978-81-967851-7-8.
- Mr. R. Narayanan, Presented a research paper titled “Design and Development of a Hot Mounting Machine”, Proceedings of the 5th ICII 2024, ISBN: 978-81-967851-7-8.
- Dr. G. Pranesh, Published a research paper titled Comparative Analysis of NO Emission Control Using Phenylenediamine (PPDA) Antioxidant Additive with Different Biodiesels in CI Engines, International Journal of Ambient Energy, 2024, 45(1).
- Dr. K. Panneerselvam, Filed a patent titled Scavenging Machine to Control Water Pollution (2024).

CONSULTANCY WORK CARRIED OUT

- Dr. K. Panneer Selvam completed the consultancy work titled “Lightweight Composite Material Design for Vehicle Structural Components” for Ashok Leyland Limited, Hosur, over a period of 6 months, with a consultancy value of ₹ 2.8 lakh.
- Dr. K. Panneer Selvam completed the consultancy work titled “Design and Simulation of a Mechanical Conveying/Robotic Arm System” for LIFT INDIA, Trichy, over a period of 6 months, with a consultancy value of ₹ 3.5 lakh.
- Dr. M. Kirubakaran completed the consultancy work titled “Energy Audit and Retrofitting Design for Existing MEP Systems in Manufacturing Plants” for Unique MEP Engineering Academy Private Limited, Chennai, over a period of 6 months, with a consultancy value of ₹ 1.0 lakh.

SEED MONEY WORK CARRIED OUT

- Mr. C. Manikandan: The project titled “Development of an Electrical Resistance Heating Furnace for Melting of Non-Ferrous Materials” was successfully completed over a period

of six months with a sanctioned amount of Rs. 50,000. The prototype was successfully fabricated as an outcome of the project.

- Mr. R. Manickam: The project titled “Experimental Investigation of Oxy-Hydrogen Gas (HHO) Production from a Wet-Cell Electrolyser” was successfully completed over a period of six months, with an amount of Rs. 19,800 utilized for the project. The prototype was successfully fabricated.
- Dr. M. Kirubakaran: The project titled “Experimental Investigation on the Production of Biodiesel from Okra (*Abelmoschus esculentus*) Seed Oil and Its Performance Characteristics in a Compression Ignition (CI) Engine” was successfully completed over a period of six months with a sanctioned amount of Rs. 50,000. A biodiesel production facility was successfully developed as the major outcome of the project.

EVENTS ORGANIZED - GUEST LECTURES

- The Role of Mechanical Engineers in Modern Society – III Year, 23.08.2023.
- Research Avenues in Additive Manufacturing – Final Year, 29.08.2023, by Dr. V. Senthilkumar, Professor, Department of Production Engineering, NIT Tiruchirappalli.
- Fundamentals of Fluid Mechanics and Its Applications – II Year, 06.12.2023, by Dr. R. B. Anand, Professor, Department of Mechanical Engineering, NIT Tiruchirappalli..



Guest lecture conducted by the department of Mechanical Engineering

- Recent Trends in Automobile Engineering-III year, 12.03.2024, by Dr.V.Arul Mozhi Selvan, Professor, NIT Tiruchirappalli.
- Career Guidance for Competitive Examinations – Final Year, 25.04.2024, by Mr. V. Rajadurai, Senior Inspector, Food and Consumer Department, Tamil Nadu.
- One-Day Hands-On Workshop on IoT and Its Applications in Mechanical Engineering – II, III & Final Year students, along with participants from Mookambigai College of Engineering and K. Ramakrishnan College of Technology, 17.04.2024, conducted by Dr. S. Thiagarajan, Managing Director, GWT Educational Pvt. Ltd., Trichy.
- Invited Talk on New-Age Manufacturing and Career Opportunities for Mechanical Engineering Students – III & Final Year students, 30.04.2024, by Dr. R. Rajesh Kumar,

- Senior Manager, Programming Cell, Helicopter Division, Hindustan Aeronautics Limited.
- Impact of Computational Fluid Dynamics in Engineering – Final Year, 19.03.2024, by Dr. P. Mahendra prabu, Manager, Tefugen Technologies Pvt. Ltd.



Students at the One-Day Hands-On Workshop on IoT

- Industry 4.0 – Recent Trends in Manufacturing – Final Year, 03.04.2024, by Dr. B. Shanmugarajan, Senior Deputy General Manager, Welding Research Institute, BHEL, Tiruchirappalli.



Mr.R.Rajesh Kumar, HAL Bangalore, delivering the Chief Guest address

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INDUSTRIAL VISITS

- Final Year Students – One-day industrial visit to Sea Blue Shipyard Limited, Kochi, Kerala, on 23.09.2023, accompanied by Dr. G. Pranesh and Mr. S. Sathish Kumar.



Industrial visit at Sea Blue Shipyard Limited, Kochi

- Second Year Students – One-day industrial visit to Shanthi Gears, Coimbatore, on 06.03.2024, accompanied by Mr. R. Narayanan and Dr. M. Kirubakaran.
- Third Year Students – Undertook a two-day industrial visit to the ISRO Satellite Centre, Bengaluru, from 08–09.03.2024, accompanied by Mr. R. Manickam and Mr. K. Baskar.



Industrial visit at Shanthi Gears, Coimbatore

VALUE ADDED COURSES, IEI CHAPTER & INTERNSHIP PROGRAM

Value Added Courses

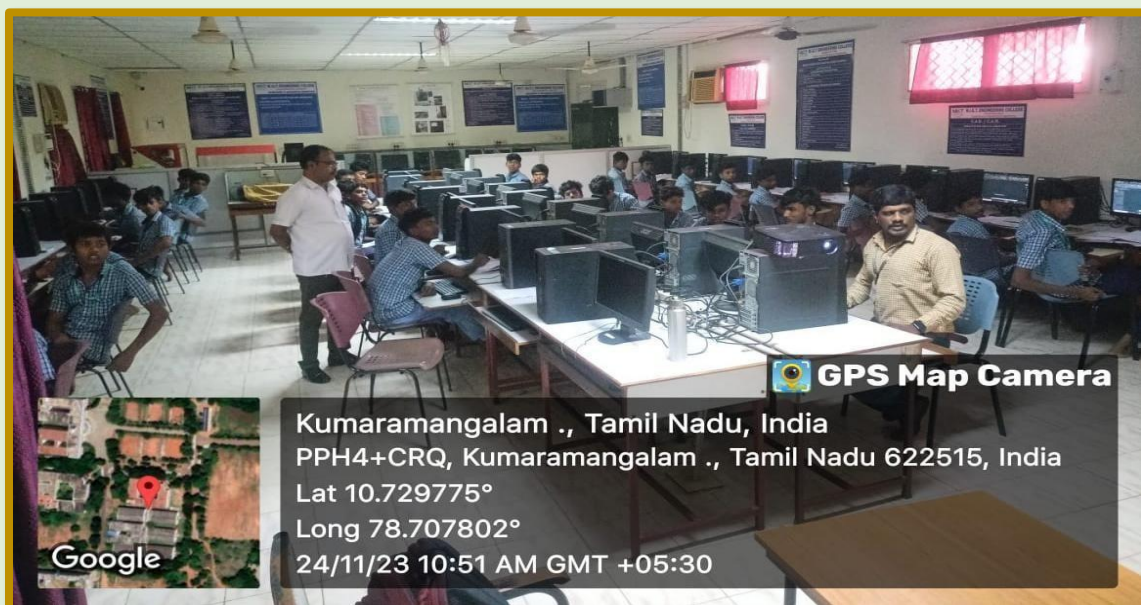
- Final Year Students – Attended a Value-Added Course on MEP-HVAC Design and Training at the CAD/CAM Lab, Department of Mechanical Engineering, from 25.10.2023 to 31.10.2023. Mr. A. Imran Sheriff (BIM Manager) and Mr. P. Kamil (Senior Design Engineer) from Unique MEP Engineering Academy Pvt. Ltd., Chennai, served as resource persons. Dr. G. Pranesh and Mr. R. Manickam served as course coordinators

Institution of Engineers (India) –IEI Student Chapter

- An IEI Student Chapter activity was held on 09.08.2023 at the B-Block Seminar Hall. Dr. K. Panneer Selvam, Associate Professor, delivered a seminar on Opportunities and Utilization of IEI Student Membership. Membership

Internship Program

- An internship program on Engineering Drawing and Design Technologies (AutoCAD) was conducted for Government Boys Higher Secondary School, Manachallur, Tiruchirappalli, 22.11.2023-05.12.2023 at the A-Block CAD/CAM Lab, with Dr. K. Panneer Selvam, Mr. S. Sathish Kumar, Mr. R. Manickam and Mr. M. Mohamed Ibrahim as resource persons. About 34 students actively participated and received certificates.



School students receive training during the AutoCAD Internship Programme

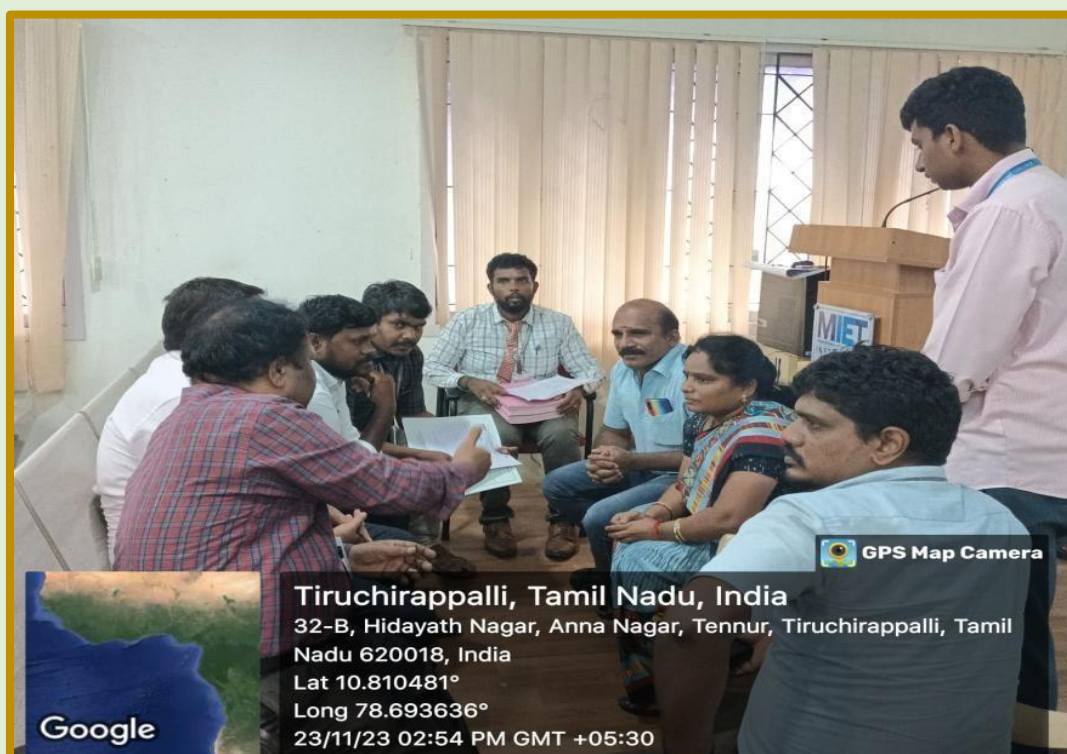
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Memorandum of Understanding (MOU)

- MoU between the Department of Mechanical Engineering, M.I.E.T. Engineering College, and LIFT INDIA, Trichy – Signed on 29.09.2023 and valid until 28.09.2028.
- MoU between the Department of Mechanical Engineering, M.I.E.T. Engineering College, and Unique MEP Engineering Academy Private Limited, Chennai – Signed on 17.10.2023 and valid until 16.10.2028.

PARENTS' TEACHER MEETINGS

- A parent-teacher meeting was held on 23.11.2023 for Second Year Students at the B-Block Seminar Hall. Dr. G. Pranesh, Class Coordinator, and other faculty members interacted with parents regarding the students' academic performance.



Parents, students and faculty interaction during the Parents-Teacher Meeting

- A parent-teacher meeting was held on 04.04.2024 for Third Year Students at the B-Block Seminar Hall. Mr. R. Manickam, Class Coordinator, and other faculty members interacted with parents regarding the students' academic performance. Dr. B. Selvam, Professor and Head, addressed the gathering.

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Dr. B. Selvam, HoD, Mechanical Interacting with the Parents during Parents-Teacher Meeting

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EDITORIAL BOARD

Mech Momentum 2023-2024

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