

(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI) (Approved by AICTE, New Delhi)

Department of Mechanical Engineering



HoD Message

Department of Mechanical The Engineering started the UG programme in 2005. Mechanical Engineering is witnessing remarkable growth and opportunities especially recent advancements in materials, automation, and All integration. From 3D printing and smart materials to renewable energy systems, these trends are shaping the future of Mechanical Engineering and opening doors to innovative solutions across various industries. The Department has highly qualified and experienced faculty members in different fields of specialization. The Department is accredited by the NBA, New Delhi. We are dedicated in preparing students to harness the potential of Mechanical Engineering, vast contributing to a sustainable and technologydriven world. Together, we aspire to shape a brighter future with our collective expertise and passion.



Dr.S.Thanga Kasi Rajan
Associate Professor and HOD

DEPARTMENT PROFILE

Program of Study	Description
Under Graduate B.E Mechanical Engineering	Started with Approved intake of 30 seats in 2005 FILE NO.: 730-52-311(E)/ET/98 dated 09.06.2005
	Intake increased to 60 seats in 2009 FILE NO.: 730-52-311(E)/ET/98 dated 11.07.2009
	Intake increased to 120 seats in 2013 FILE NO.: Southern/1-1402872972/2013/EOA dated 19.03.2013
	Intake reduced to 60 seats in 16.06.2021 FILE NO: Southern/1-9321338833/2021/EOA dated 10.07.2021
	Intake reduced to 30 seats in 02.01.2023 _FILE NO : Southern/1-36452806855/2023/EOA dated 02.01.2023.
Research Programmes	Department is Recognized as Research center of Anna University FILE NO: 4959/IR/Mechanical/AR2 Dated: 02.12.2020



DEPARTMENT OF MECHANICAL ENGINEERING VISION, MISSION, PEO'S & PSO'S



VISION

To make Department of Mechanical Engineering the unique of its kind in the field of Research and Development activities in the prominent field of Mechanical Engineering in this part of the world.

MISSION

To impart highly
Innovative and Technical
Knowledge in the field of
Mechanical Engineering
to the urban and
unreachable rural
student folks, through
"Total Quality Education".



PROGRAM EDUCATIONAL OUTCOMES (PEO'S)

PEO -1: Graduates of the Programme will excel in Technical Knowledge and apply Innovative Skills in the field of Mechanical Engineering.

PEO -2: Graduates will contribute to Technological Development and Research Activities through "Total Quality Education".

PEO-3: Graduate of the Programme will accomplish Leadership Qualities and Social Responsibilities through "Life Long Learning".



PROGRAM SPECIFIC OUTCOMES (PSO'S)

PSO -1:

Graduates will be able to create and analyze the Research and Development activities related to design and manufacturing.

PSO- 2:

Graduates will be able to design, develop need based products in Mechanical Engineering and allied Industries.

DEPARTMENT MECHANICAL ENGINEERING

Accredited by

National Board of Accreditation (NBA)

NEW DELHI



July 2023 – June 2026

July 2020 - June 2023

July 2017 - June 2020



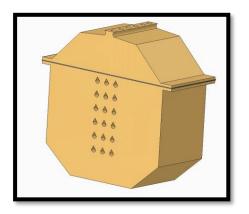
Department of Mechanical Engineering

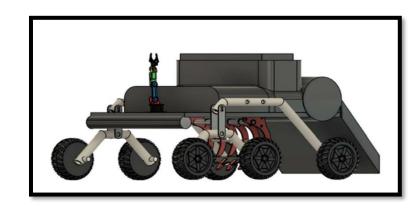
Achievements

Design Patent Granted

10 Design Patent Granted During the Academic Year 2024-2025

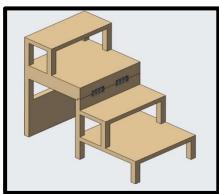
A Design patent titled "Polygon shaped burring stand" (426068-001/ Date 07/08/2024) was granted to Dr.M.Prithiviraj AP/Mech Dr.S.Senthil Prof/Mech



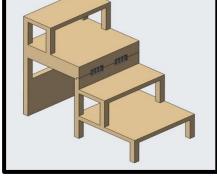


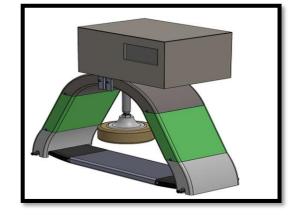
A Design patent titled "Potable Chair cum Ladder" (428054-001/ Date 23/08/2024) was granted to

Dr.B.K.Parrthipan AP/Mech Dr. B.Balavairavan AP/Mech Dr.P.Narayansamy ASP/Mech Dr.S.Thangakasi rajan ASP&HoD / Mech Dr.S.Senthil Prof/Mech



A Design patent titled " Agribot - Growing Smarter" (430824-001/ Date 18/09/2024) was granted to Dr.B.K.Parrthipan AP/Mech





A Design patent titled "TYRE" (432140-001/ Date 28/09/2024) was granted to Dr.M.Prithiviraj AP/Mech Dr.S.Senthil Prof/Mech

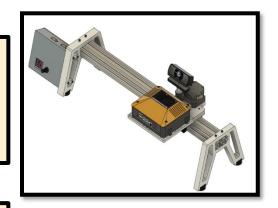


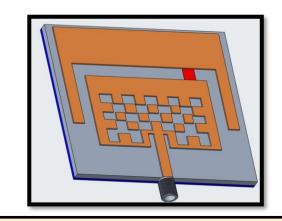
A Design patent titled "CBR Device" (453137-001/ Date 27/03/2025) was granted to Dr.B.K.Parrthipan AP/Mech

Design Patent Granted

10 Design Patent Granted During the Academic Year 2024-2025

A Design patent titled "Yarn Breakage
Detection Device with Integrated Camera
Slider" (439468-001/ Date 04/12/2024) was
granted to Dr.R.Sakthivel Murugan AP/Mech

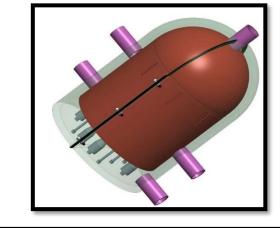




A Design patent titled "Four Wheel Electric Vehicle With Treadmill" (432343-001/ Date 30/09/2024) was granted to Dr.S.Thangakasi rajan ASP&HoD /Mech Dr.B.K.Parrthipan AP/Mech Dr.M.Murugananthan AP/Gen.Engg Dr.R.Sakthivel Murugan AP/Mech Dr.S.Senthil Prof/Mech

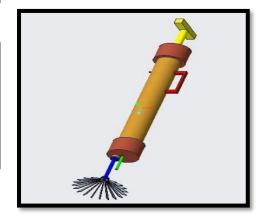


A Design patent titled "Micro strip Antenna" (448815-001/ Date 21/02/2025) was granted to Dr.B.K.Parrthipan AP/Mech



A Design patent titled "Toilet Cleaner" (435097-001/ Date 21/10/2024) was granted to

Dr.B.K.Parrthipan AP/Mech



A Design patent titled "Anaerobic Digester" (446844-001/ Date 04/02/2025) was granted to Dr.B.K.Parrthipan AP/Mech

UTILITY PATENT GRANT AND PUBLISHED



A Utility patent titled "Development of Basalt, Kevlar, Fabric, MWCNT, and Date Palm Filler Bio - Epoxy Composite for Aircraft Structures" (202341059455 / Dated 05.09.2023) was granted to Dr.P.Senthamaraikannan AP/Mech

1 Utility Patent grant and 2 utility patent Published During the Academic Year 2024-2025

Mr.R.Sakthivel murugan, Mr.N.R.Madhan,
Dr.S.Senthil, Dr.S.Thangakasirajan
Dr.B.Balavairavan Dr.B,K.Parrthipan
Dr.P.Narayanasamy Dr.K.Murugananthan
Mr.A.Sankaranarayanamurthy Dr.M.Pritivraj,
Mr.D.Palanikumar, Dr.Muthunatarajan, Utility
patent titled "Design and fabrication of
Engineering Graphics Teaching Models through
the integration of Design for interchangability
and Design for Additive Manufacturing"
(202541001295) on 31.01.2025.

Dr.B.Balavairavan Dr.B,K.Parrthipan Dr.S.Thangakasirajan Dr.P.Narayanasamy Published the

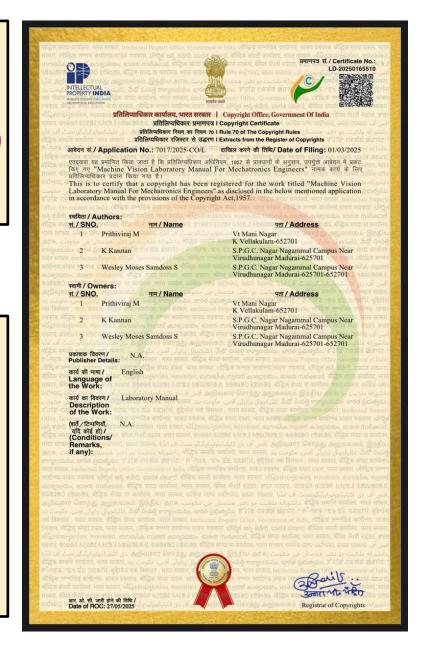
Utility patent titled "IoT - Driven Robotic Arm for injecting Medication to Pet animals" (202441080467) on 14.11.2024.

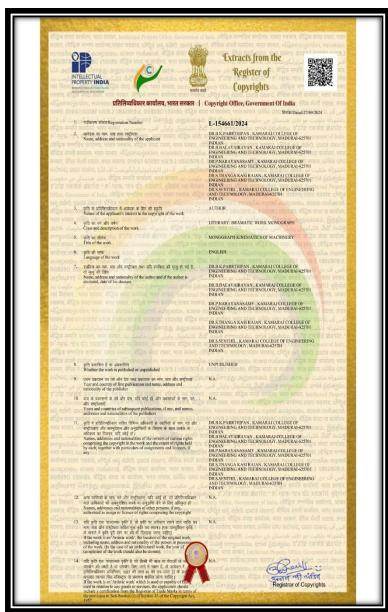
COPY RIGHTS GRANTED

2 Copy rights Granted During the Academic Year 2024-2025

A Copy rights titled "Machine Vision
Laboratory Manual for Mechatronics
Engineers"
(LD-20250165510, Dated 01.03.2025)
was granted to
Dr.M.Prithiviraj AP/Mech

A Copy rights titled "Monograph of Kinematics of Machinery"
(L-154661/2024, Dated 27/09/2024)
was granted to
Dr.B.K.Parrthipan AP/Mech
Dr. B.Balavairavan AP/Mech
Dr.P.Narayansamy ASP/Mech
Dr.S.Thangakasirajan ASP&HoD/Mech
Dr.S.Senthil Prof/Mech





FACULTY AWARDS/ACHIEVEMENTS









Dr. B.K. Parrthipan AP/Mech Honoured by Bharatha Rathna Kamaraj Educational Trust for the "Excellence in Education" Dr. B. Balavairavan AP/Mech and Mr. N. R. Madhan AP/Mech completed the Short-Term Course on "Additive Manufacturing and Industry 4.0," organized by the Department of Production Technology, National Institute of Technology, Tiruchirappalli, from 02.12.2024 to 06.12.2024.

Dr. M. Prithiviraj AP/ Mech received Best paper award titled "MODE I FRACTURAL TOUGHNESS OF ALKALI TREATED SISAL FIBRES GLASS HYBRID EPOXY COMPOSITES WITH SILICA NANO PARTICLE" in the "International conference THE ROLE OF TECHNOLOGY AND MANAGEMENT IN FULLFILING THE SUSTAINABLE DEVELOPMENT" on 29.11.2024.

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FACULTY ACHIEVEMENTS – SEED MONEY GRAND

Dr.S.Thangakasirajan ASP &HoD /Mech,
Dr.R.Sakthivel Murugan and
Dr. K.Murugananthan AP/Mech received
Faculty seed money grand of Rs.5,00,000/- for
the Project titled "A novel way of developing
the electric cycle with a thread mill".
Date of Sanction: 27.12.2024.

Dr. R.Sureshbabu HoD/ECE, Dr.S.Thangakasi rajan ASP & HoD / Mech and Mr.N.R.Madhan AP/Mech received Faculty seed money grand of Rs.5,00,000/- for the Project titled "Surveillance Drone". Date of Sanction: 27.12.2024.



Dr.R.Sakthivel AP/EEE, Dr.S.Thangakasirajan ASP &HoD /Mech, Dr.B.K.Parrthipan AP/Mech and Dr.B.Balavariavan AP/Mech received Faculty seed money grand of Rs.5,00,000/- for the Project titled "Solar – Powered Electric Vehicle with Dynamic Solar Panel Reconfiguration for Optimal Power Generation ". Date of Sanction: 27.12.2024.

FACULTY AS EDITORIAL BOARD MEMBERS



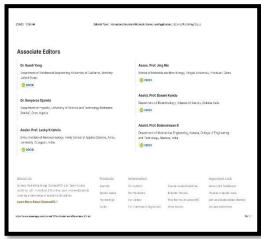


Dr.S.Thangakasirajan ASP&HoD/Mech appointed as "Editorial Board member" for the Journal "Composite Materials", Science Publishing Group.





Dr.B.K.Parrthipan AP/Mech appointed as "Associate Editor" in journal of Advances in Materials (AM) Science publishing group Inc.





Dr.B.Balavariavan AP/Mech appointed as "Associate Editor" in the International journal of Material Science and Applications, Science Publishing Group, IF 2.8.







Dr. P. Narayanasamy ASP/Mech appointed as an "Associate Member of the Institute of Physics (IOP), UK". Membership ID is 80466333.







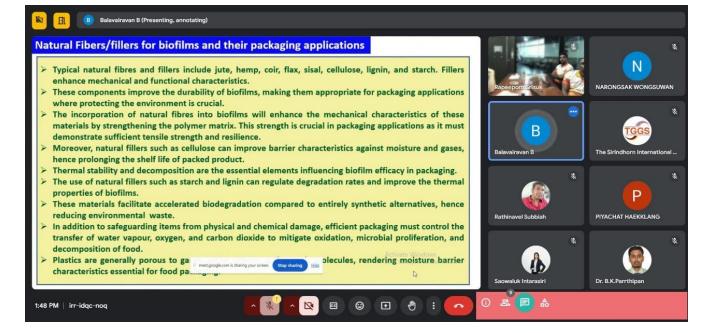
INTERNATIONAL CONFERENCE IN FORGEIN UNIVERSITY

Dr.B.Balavariavan AP/Mech, Dr.B.K.Parrthipan AP/Mech presented a paper titled "The Role of Natural fibers and Fillers 2000-2024" in the 2nd International Conference on "Sustainable Technologies, Energies and Materials organised by "King Monkut's University of Technology, North Bangkok, Thailand "on 21.02.2025.











SCHOLARS OF EMINENCE







Dr. M. Kaliraj Public viva voce held at 04.10.2024

Supervisor Incharge Dr. S. Senthil Prof /Mech, KCET **Supervisor**

Dr. P. Narayanasamy ASP/Mech, KCET

Dr.S.David Blessley Public Viva voce held at 14.05.2025 **Supervisor Dr. P.Narayanasamy** ASP/Mech, KCET

Dr.R.Sakthivel Murugan Public Viva voce held at 24.03.2025 **Supervisor** Dr. S. Vinoth **Prof/Production Engineering**, National Institute of Technology, Tiruchirappalli.

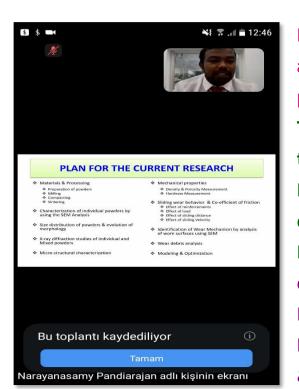
GUEST LECTURES DELIVERED BY FACULTY



Dr.S.Muthunatarajan AP/ Mech acted as Resources person for Guest lecture on "Forming of Metals" Online mode organized by Francis Xavier Engineering College, Tirunelveli, held on 18-10-2024.



Dr.B.K.Parrthipan AP/ Mech acted as Resources person for Guest lecture on "Engineering Mechanics" organized by, Department of Mechanical Engineering, Fatima Michael College of Engineering and Technology, Poovanthi on 23.10.2024.



Dr. P. Narayanasamy ASP/ Mech acted as resource person presented a topic "Recent trends in Thermal Spray Coatings" as part of 5-day virtual International Faculty Development Program (FDP) on "Sustainability and Research in Modern Mechanical Engineering," organized by the Department of Mechanical Engineering, **Madanapalle Institute of Technology** & Science, on 24.09.2024.



Mr. R. Sakthivel Murugan AP/Mech Delivered a lecture titled "
Prioritization and Deployment of DFAM methods to Automotive Component " through online in short term faculty development course on "Additive Manufacturing and Industry 4.0", being organized by the Department of Production Engineering, NIT Tiruchirappalli on 05.12.2024.

GUEST LECTURES DELIVERED BY FACULTY



Dr. B. Balavairavan AP/ Mech delivered a guest Lecture on "Effective Utilization of Bio fillers and Their Effects on Packaging Biofilms" in online Faculty Development Program on "Techniques and Tools for Sustainable and Emerging Materials," organized KLN College of Engineering on 12.12.2024.



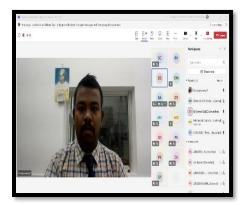
Dr. B.K. Parrthipan AP/Mech acted as a resource person and delivered a guest lecture on the topic "Securing your innovation: IPR Applications and protection strategies" organized by Madurai Sivakasi Nadars Pioneer Meenakshi Women's College, Sivagangai. on 14.12.2024.



Dr. K. Murugananthan AP/Mech Delivered Guest lecture on One day Seminar on "Interactive E-Tools for Novice Researchers: A Practical Approach" at P.S.R. ENGINEERING COLLEGE. Date: 27.12.2024.



Dr. P. Narayanasamy, ASP/Mech delivered a Guest lecture on "Research Publication and Ethics" during the Faculty Enrichment Programme organized by the IQAC, Vivekananda College, Madurai, on 06.01.2025.



Dr. P. Narayanasamy, ASP/Mech delivered a session on "3D printing of Smart Implants: Applications and Challenges" as a part of 6- Day AICTE sponsored ATAL online FDP, Organized by S.A. Engineering College on 13.02.2025.

FACULTY INTERACTIONS



Dr. P. Narayanasamy ASP/Mech acted as BoS Member in the 13th BoS meeting at VHVSN Polytechnic College, Virudhunagar on 27.07.2024



Dr. S.Thangakasirajan ASP/ Mech visited the Vickram Sarabhai Space center and LPSC interacted with LPSC Director, Narayanan , ISRO, Trivandrum on 20.11.2024.



Dr. B.K. Parrthipan, AP/Mech along with EDC student members visited ATAL Community Innovation Centre (ACIC) - MEPCO Innovative Foundation, Mepco Schlenk Engineering College, Sivakasi on 23.08.2024.



Dr.M.Murugananthan AP/Mech attended the "Vision for a Better world: Achieving Industry Innovation, and Infrastructure through AI" program as part of the world Standards Day Celebrations on 14.10.2024 Organized by the Bureau of Indian Standards, Madurai.



Dr. P. Narayanasamy ASP/ Mech attended Madurai MSME Summit 2024 " organized by CII, on 17-10-2024.



Dr. P. Narayanasamy ASP/ Mech acted as Judge for "Innover 2K24" organized by Fatima Michael College of Engineering and Technology, Madurai held on 15-10-2024.

FACULTY INTERACTIONS



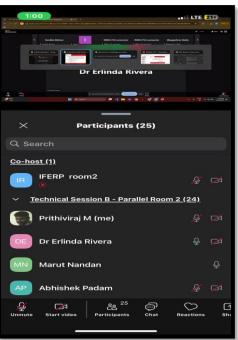
Dr. P. Narayanasamy ASP/Mech participated in a "One-Day Mentor Training Programme" organized by the "Entrepreneurship Development and Innovation Institute of Tamil Nadu (EDII-TN)" under the Government of Tamil Nadu, held at Virudhunagar Collectorate on 13.12.2024.



Dr. B. Balavairavan AP/ Mech visited "Nano Technology and Battery Fuel Cell laboratory" established in Sri kalieswari college of arts and Science, Sivakasi on 09.12.2024.



Dr. M. Prithiviraj AP/Mech, appointed as "Technical committee member" in the International Conference on Theoretical and applied Science Organized by Rest Labs & Rest Society for Research International on 27th – 28th June 2025.



Dr.F as Inte and Istal pres Beh Con

Dr. M. Prithiviraj AP/Mech acted as "session chair for "14th International Conference on Recent Challenges" in Engineering and Technology (ICRCET-2025) organized by IFERP Academy, Bangalore on 26.05.2025.

Dr.P.Narayanasamy ASP/Mech Acted as a keynote speaker at the 12th International Congress on Engineering and Technology Management in Istanbul, Turkey, and delivered a presentation titled "Tribological Behaviour of Magnesium Hybrid Composites." on 09.11.2024.

FACULTY INTERACTIONS



Micro, Small and Medium Enterprises Development and Facilitation Office (Branch), Government of India, Ministry of MSME, Tirunelveli has organized 5 days Management Development Programme on Export Policies, Procedures and Documentation at Kamaraj College of Engineering and Technology, from 09.12.2024 to 13.12.2024 for the Entrepreneurs growth and development of Export.

Dr. V.Jeyaseelan IAS, District Collector, Virudhunagar District, has distributed MDP certificates to participants of the Programme. A total of 26 trainees had undergone the training and benefitted. Officials from MSME-DFO, Tirunelveli, DIC, Virudhunagar and Dr.S.Thangakasi rajan ASP&HoD /Mech and Dr.P.Narayansamy ASP/Mech have attended valedictory function.



Dr. S.Thangakasirajan ASP&HoD / Mech Served as a "NBA Expert" for the Mock Audit at Sankar Polytechnic College, Tirunelveli on 17.03.2025.



Dr. P. Narayanasamy ASP/Mech Served as a resource person for the workshop on "Crafting High-Impact articles for Scopus: Strategies for Success" organized by EMG Yadava Women's College, Madurai, on 20.03.2025.

INDUSTRY INSTITUTE INTERACTION BY FACULTY



Dr. S.Thangakasirajan ASP&HoD/Mech and Mr.A.Sanakaranarayanamurthy AP/Mech visited TAFE, Kalladipatti, Dindugul District and Interacted with Senior manager Er.K.Siva kumar and HRM Mrs.Shivaskathi on 19.10.2024 for students internship and Placement.



Dr. B.K.Parrthipan, AP/ Mech along with 6 Final Year Mechanical Engineering Students Visited the "ISF Industries Pvt. Ltd, Chennai" on 28.08.2024 for Students placement Drive.

Students Achievements and Awards

Grants Fetched by Students Project

Final year student B. Siva Sethu Rajan (21UME025) and Dr. B.K. Parrthipan, AP/Mech received a grant of Rs:7500/-under the Tamil Nadu State Council for Science and Technology (TNSCST) Student Project Scheme 2025 for their project titled 'EEE272: An Innovative Design for a Smart Projector Using Raspberry Pi'."

Final year students P. Vignesh kumar (21UME038), V. Sakthivel (21UME040), Nijo Prasad (21UME036), and Dr. M.Prithiviraj, AP/Mech received a grant of Rs:7500/-under the Tamil Nadu State Council for Science and Technology (TNSCST) Student Project Scheme 2025 for their project titled 'EME121: Design and fabrication of low impact-resistant waterproof car cover in mitigating Chennai flood damage"













Niral Tiruvizha – Nan Mudhalvan Scheme 2024

Final year Mechanical Engineering students M.Ganesh Shree (21UME043), S.Kiran, S. Mithun and Faculty Mentor Dr. P. Narayanasamy, ASP/MECH, presented their project titled "Sustainable Utilization of Rubber **Industry Scrap in Low-Cost Composites** for Lightweight Applications" at Niral Thiruvizha, Anna University Regional **Campus – Madurai on 21.05.2025.**



Paper Publication by Students

Second Year Mechanical Engineering Students D.M.Sahi (23UME014), M.Varunesh Bala (23UME024), S.Yokahariharan (23UME012) along with Dr.M.Prithiviraj AP/Mech **Published the Article Titled** "Crashworthiness Characterization on Thin-Walled Tube with Rubberized Coir Filled in Quasi-Static Loading" in "Material Circular Economy" Science, **Engineering and Sustainability, Springer Nature.**

Published online: 13.09.2024





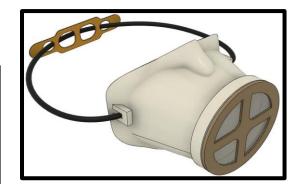




A Design Patent Titled "Personal Protective Equipment for Pesticide Spraying" (414705-001 / Date 24/04/2024) was Final Year Mechanical granted **Engineering Students (2020-2024 Batch)** Mr. A.Akash (920420UME047) Mr.C.Chandrakumar (920420UME046) & Mr.S.P.Subramanian (920420UME048) **Along with Faculty members** Dr. R. Sakthivel Murugan AP/Mech Mr.N.R.Madhan AP/Mech

















डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

तारीख / Date

24/04/2024

पारस्परिकता तारीख / Reciprocity Date

देश / Country

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो PERSONAL PROTECTIVE EQUIPMENT FOR PESTICIDE SPRAYING से संबंधित है, का पंजीकरण, श्रेणी 29-02 में 1.R.Sakthivel Murugan 2. N.R. Madhan 3.A. Akash 4.G. Chandrakumar 5.P. Subramanian के नाम में उपर्यक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 29-02 in respect of the application of such design to PERSONAL PROTECTIVE EQUIPMENT FOR PESTICIDE SPRAYING in the name of 1.R.Sakthivel Murugan 2, N.R. Madhan 3.A. Akash 4.G. Chandrakumar 5.P.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001



A Design patent titled "An Innovative **Design of Sustainable Table** using **Corporate Wastes " (413559-001/** Date: 15/04/2024) was granted to Third **Year Mechanical Engineering Students** Mr. N. Hariharan (920421UME011) along with Faculty members Dr.S.Thangakasirajan ASP&HoD/Mech **Dr.S.Senthil Prof/Mech**













डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

पारस्परिकता तारीख / Reciprocity Date*

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो AN INNOVATIVE DESIGN OF SUSTAINABLE TABLE USING CORPORATE WASTES से संबंधित है, का पंजीकरण, श्रेणी 06-03 में 1.P.Ganeshprabhu 2. S.Brintha 3.S.Senthil 4.S.Thanga Kasi Rajan 5.U.Varshidha 6.A.G.Niranjana 7.G.Aravindh Aarya 8.D.Senthilkumar 9.N. Hariharan के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 06-03 in respect of the application of such design to AN INNOVATIVE DESIGN OF SUSTAINABLE TABLE USING CORPORATE WASTES in the name of 1.P.Ganeshprabhu 2. S.Brintha 3.S.Senthil 4.S.Thanga Kasi Rajan 5.U. Varshidha 6.A.G. Niranjana 7.G. Arayindh Aarya 8.D. Senthilkumar 9.N.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में। In pursuance of and subject to the provisions of the Designs Act, 2000 and the



A Design patent titled "An Innovative Design in Luggage rack with foldable solar panel " (408543-001/ Date 23/02/2024) was granted to

Third Year Mechanical Engineering Students

Mr.G. Anand

Mr.M. Dinesh Karthick and

Mr.P. Thirumurugan

along with Faculty members

Dr.S.Thangakasirajan ASP&HoD/Mech

Dr.S.Senthil Prof/Mech

Mr.B.K.Parrthipan AP/Mech



















डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो LUGGAGE RACK WITH FOLDABLE SOLAR PANEL FOR E-VEHICLE से संबंधित है, का पंजीकरण, श्रेणी 12-16 में 1.Dr.S.Thanga Kasi Rajan 2. Mr.G Anand 3.Mr.M.Dinesh Karthick 4.Mr. P. Thirumurugan 5.Mr. B.K.Parrthipan 6.Dr.J.Rajesh Babu 7.Dr. P.Sureshkumar 8.Mr. S.Alwyn Rajiv 9.Dr. S.Senthil 10.Dr. S.Gandhi 11.Dr. R.Suresh Babu 12.Dr. D.Prince Winston के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 12-16 in respect of the application of such design to LUGGAGE RACK WITH FOLDABLE SOLAR PANEL FOR E-VEHICLE in the name of 1.Dr.S.Thanga Kasi Rajan 2. Mr.G Anand 3.Mr.M.Dinesh Karthick 4.Mr. P. Thirumurugan 5.Mr. B.K.Parrthipan 6.Dr.J.Rajesh Babu 7.Dr. P.Sureshkumar 8.Mr. S.Alwyn Rajiv 9.Dr. S.Senthil 10.Dr. S.Gandhi 11.Dr. R.Suresh Babu 12.Dr. D.Prince

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में In pursuance of and subject to the provisions of the Designs Act, 2000 and the



A Design patent titled "Potable Chair Cum Ladder" (428054-001/ Date 23/08/2024)

was granted to

Mr.Aniket Lakra

Mr.V.Aathi

Mr.V.Naveen Sarathi

Engineering Third Year Mechanical **Students along with Faculty members**

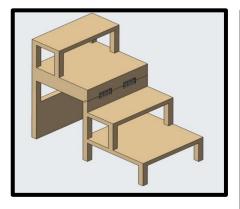
Dr.S.Thangakasirajan ASP&HoD/Mech

Dr.S.Senthil Prof/Mech

Mr.B.K.Parrthipan AP/Mech

Dr.B.Balavairavan

Dr.P.Narayansamy























डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो POTABLE CHAIR CUM LADDERF से का पंजीकरण, श्रेणी 06-03 में 1.Dr.B.K.Parrthipan 2. Aniket Lakra 3.V.Aathi 4.V.Naveen Sarathi 5.Dr.B.Balavairavan 6.Dr.P.Narayanasamy 7.Dr.S.Thanga Kasi Rajan 8.Dr.S.Senthil के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 06-03 in respect of the application of such design to POTABLE CHAIR CUM LADDERF in the name of 1.Dr.B.K.Parrthipan 2. Aniket Lakra 3.V.Aathi 4.V.Naveen Sarathi 5.Dr.B.Balavairavan 6.Dr.P.Narayanasamy 7.Dr.S.Thanga Kasi Rajan 8.Dr.S.Senthil.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में। In pursuance of and subject to the provisions of the Designs Act, 2000 and the



A Design patent titled "Wall Tiles (SET) " (414781-001/ Date 25/04/2024) was granted to

Mr.N.Hariharan

Third Year Mechanical Engineering **Students** along with Faculty members Dr.S.Thangakasirajan ASP&HoD/Mech Mr.B.K.Parrthipan AP/Mech















डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Desi

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो WALL TILES (SET) से संबंधित है, का पंजीकरण, श्रेणी 25-02 में 1.Dr P Ganeshprabhu 2. S.Brintha 3.S.Senthil 4.U.Varshidha 5.A.G.Niranjana 6.S.Thanga Kasi Rajan 7.B.K.Parrthipan 8.N. Hariharan 9.G.Aravindh Aarya के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 25-02 in respect of the application of such design to WALL TILES (SET) in the name of 1.Dr P Ganeshprabhu 2. S.Brintha 3.S.Senthil 4.U.Varshidha 5.A.G.Niranjana 6.S.Thanga Kasi Rajan 7.B.K.Parrthipan 8.N. Hariharan 9.G. Aravindh Aarya.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में। In pursuance of and subject to the provisions of the Designs Act, 2000 and th

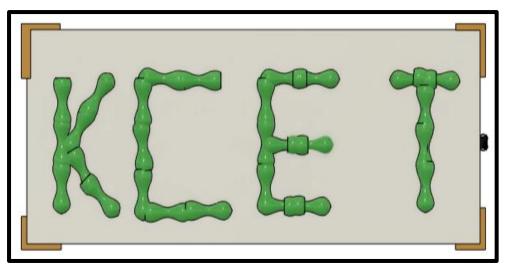


A Design patent titled "LED Light Board" (416790-001/ Date 14/05/2024) was granted to

Mr.N.Hariharan

Third Year Mechanical Engineering **Students** along with **Faculty** members

Dr.S.Senthil Prof/Mech Mr.B.K.Parrthipan AP/Mech













पेटेंट कार्यालय, भारत सरकार The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो LED LIGHT BOARD से संबंधित है, का पंजीकरण, श्रे 26-04 में 1.Dr P Ganeshprabhu 2. S.Brintha 3.S.Senthil 4.K.Abinanthan 5.A.Uvarai 6.V.Saravanakumar 7.N.Hariharan 8.G.Aravindh Aarya 9.V. Perumal 10.B.K.Parrthipan के नाम में उपर्युक्त संख्या और तारीखा में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 26-04 in respect of the application of such design to LED LIGHT BOARD in the name of 1.Dr P Ganeshprabhu 2. S.Brintha 3.S.Senthil 4.K.Abinanthan 5.A.Uvaraj 6.V.Saravanakumar 7.N.Hariharar 8.G. Aravindh Aarya 9.V. Perumal 10.B.K. Parrthipan.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में। In pursuance of and subject to the provisions of the Designs Act, 2000 and the



प्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिस

UTILITY PATENT PUBLISHED

Dr.S.Thangakasirajan ASP&HoD/Mech Dr.B.Balavairavan AP/Mech Dr.K.Muruganandam AP/Mech Dr.B.K.Parrthipan AP/Mech **Dr.S.Senthil Prof/Mech Published the Utility patent titled "The Transformation of rubber waste into** environmentally friendly self adhesive rubber sticky putty" (202441027215 / CBR No 22566) on 12.04.2024.

Dr.B.Balavairavan AP/Mech
Dr.B.K.Parrthipan AP/Mech
Published the
Utility patent titled "Low cost
Mobile Robot" (202441020632 /
CBR No 18905) on 05.04.2024.

IV Year Mechanical Engineering Students Mr. Alwyn Joshua Mr. Ramakrishnan Mr. Ashraf Mohammed Along with Dr.B.Balavairavan AP/Mech Dr.B.K.Parrthipan AP/Mech Dr.P.Narayasnasamy ASP/Mech Dr.S.Thangakasirajan ASP&HoD/Mech **Dr.S.Senthil Prof/Mech Published the Utility patent titled IoT Driven Robotic Arm for injecting Medication to Pet animals** (202441027215 / CBR No 22566) on 12.04.2024.

Dr.B.K.Parrthipan AP/Mech
Published the
Utility patent titled "An App for
Country Egg Detector"
(202441025103 / CBR No 21428)
on 05.04.2024

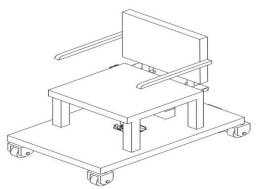
Design Patent Filed by Students

Second, third and Final year students Filed their project work as Design Patent

Fish Breeding Box (427514-001 Date: 20.08.2024)



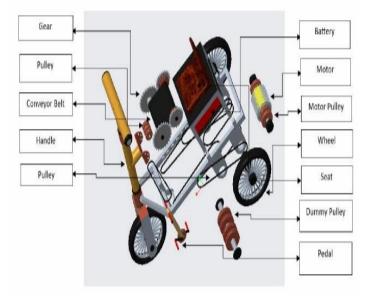
Smart Wheel chair (429405-001 Date: 05.09.2024)



A novel spike weed puller with pigeon anterior view profiled structure for pulling out of plants and unwanted grass. (410715-001 Date: 16/03/2024)

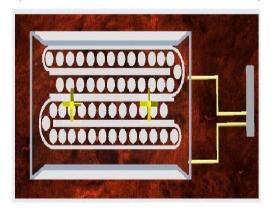


Electric Tricycle with Treadmill (434639-001Date: 17/10/2024)

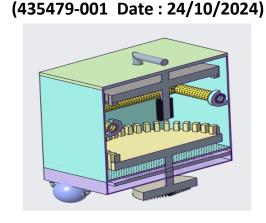


Battery Cooling System for F-Vehicle

(434839-001 Date: 18.10.2024)

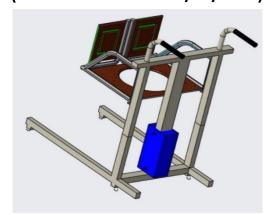


Integrated Dishwasher and Floor Cleaner



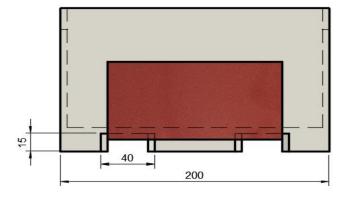
Hydraulic Actuated Patient Lifting chair

(431118-001 Date: 20/09/2024)



Design of medical tray box with enhanced stability for automatic lifting and delivery operation in medical shop

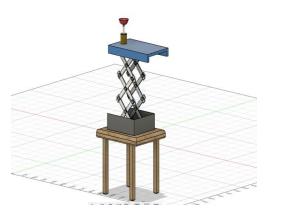
(410256-001 Date: 12.03.2024)



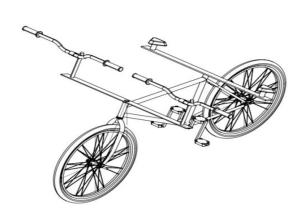
Design Patent Filed by Students

Second, third and Final year students Filed their project work as Design Patent

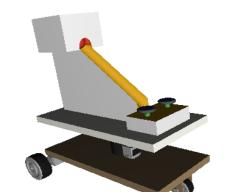
Ceiling fan cleaning setup (389444-001 Date: 03/07/2023)



Two-member bicycle (391170-001 Date: 26/07/2023)



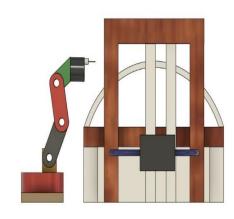
Autonomous Fire Fighting Robot (409798-001 Date: 08/03/2024)



Pesticide sprayer agribot (413985-001 Date: 18/04/2024)

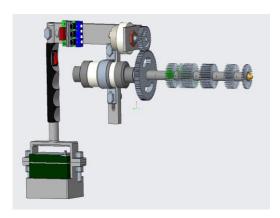


IOT Enabled automatic syringe injection setup for pet animals (410445-001 Date: 13/03/2024)



3D printed Low weight portable bottle cleaner.

(412683-001 Date: 05/04/2024)



Conference presentation in NIT - Calicut

Second year Mechanical Engineering students Mr. D.V.Sahi, Mr.M.Varuneshbala, Mr.B.Mayilkani, Yogahariharan along with Guide Dr. B. Balavairavan AP/ Mech, Dr.B.K.Parrthipan AP/Mech Dr.S.Thangakasirajan ASP&HoD/Mech presenting paper titled "Effect of Corona Treatment on Physicochemical, Mechanical, Water Barrier, and Biodegradation Properties of PVA/Vigna mungo Husk Powder Reinforced Biofilms" in International conference (MEEHCON'24) organized by NIT, Calicut on 20.12.2024&21.12.2024.

Seond Year year Mechanical Engineering students M.Aravind kumar , K.Ashwin along with Guide Dr. B. Balavairavan AP/ Mech, Dr.B.K.Parrthipan AP/Mech Dr.S.Thangakasirajan ASP&HoD/Mech presenting paper titled "Development and Characterization of Cocos Nucifera Shell (CNS) Biochar Reinforced Vinyl Ester Composites" in International conference (MEEHCON'24) organized by NIT, Calicut on 20.12.2024&21.12.2024.



Second year Mechanical Engineering students Mr.S.Arun Prakash, Mr.J.Sharukesh presenting poster titled "Review on Gravitational Energy Storage" in International conference (MEEHCON'24) organized by NIT, Calicut on 20.12.2024 & 21.12.2024.

Final year Mechanical Engineering student Mr.V.Sakthivel presenting poster titled "Design and Fabrication of Low impact Resistant Waterproof Car Cover in mitigating of Flood Damage" in International conference (MEEHCON'24) organized by NIT, Calicut on 20.12.2024 & 21.12.2024.











Conference presentation in NIT – Rourkela & IIT Hyderabad

Final-year Mechanical Engineering students J. Alwyn Joshua (21UME014), S. Ramachandran (21UME027), and A. Asraf Mohamed (21UME017), along with third-year student Balaji (22UME025) and Dr. B. Balavairavan, AP/Mech, presented their project titled "Robotic Arm System for Injecting Medication to Pet Animals Through Real-Time Vision" at the International Conference on Automation and Machine Learning Using Robots and Artificial Intelligence Methods (AMLURAIM), organized by the Department of Mechanical Engineering, National Institute of Technology, Rourkela, Odisha, on February 12, 2025 hybrid mode.

Final-year Mechanical Engineering students G.R.Srivasan (21UME034), M.Kannan (21UME015), and V.Pragathiswaran (21UME043), with along Mr.R.Sakthivelmurugan, AP/Mech, presented their project titled " Improving Photogrammetry System through the Development of Low -Cost Data Acquisition Device Setup for the construction of Complex Geometries" at the 10th International Conference on Research and Design organized by Indian Institute of Technology, Hyderabad on January 8th -10 th 2025.

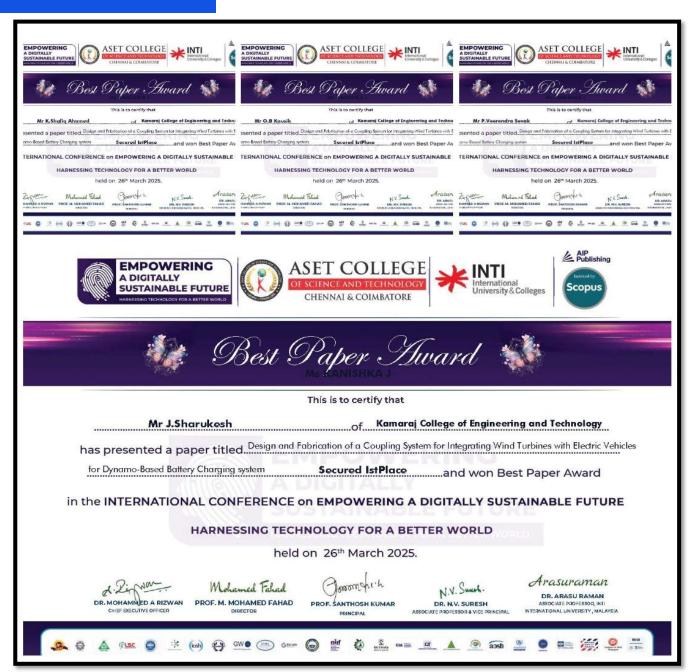






Achievements in Students Co-Curricular Activities

The Final and Second year mechanical students Shafiq Ahamed.K (21UME028), O.B.Kausik (21UME026), P.Veerendra Sevak (21UME006) J.Sharukesh (23UME026) along with Dr. M.Prithiviraj AP/Mech presented a Conference paper titled "Design and fabrication of a **Coupling System Wind Turbine with electric** vehicle for Dynamo-based Battery Charging System", in online and "Won Best Paper **Award"** in Empowering a Digitally Sustainable **Future: Harnessing Technology for a Better** World 2025, organized Collaboratively by INTI **International University & ASET College of** Science & Technology, Date: March 26.03.2025.



Achievements in Students Co-Curricular Activities



Third year mechanical student Mr.V.Aathi (22UME014) Won the first prize in "CAD MODELING" along with cash prize Rs.750/- in National Level Students Technical Symposium IMPLEZ 2K25, Held at KLN college of Engineering on 13.02.2025.



Third year mechanical student Mr.V.Aathi (22UME014), Mr.Aniket Lehra (22UME020), Mr.V.Naveen Sarathi (22UME022) Won the first prize in "Paper Presentation along with cash prize Rs.750/- in National Level Students Technical Symposium IMPLEZ 2K25, Held at KLN college of Engineering on 13.02.2025.



Third year Mechanical student R. K. Dhanush (22UMEC013) won First prize in "Quiz competition" conducted by STATISTA '25 Inter-Collegiate Competitions by Department of Statistics, GVN College, Kovilpatti on 18.02.2025.



Third year Mechanical students, S.Vigneshwar(22UME005), B.Paramasivan (22UME018) attended National Level Technical Symposium TORQUEX25 and Won Third prize in the Decode designer (CAD Modelling) along with a Cash prize of Rs.700/- held at S.I.T College of Engineering, Kariapatti on 08.03.2025.



The IV-year mechanical students Kiran.S (21UME013), Karan.V (21UME030), Siva Balan.K (21UME009) along with Dr.K.muruganandhan AP/Mech presented a paper and won second prize for the paper titled DESIGN OF NEXTGEN WASTE COLLECTION INTERFACE in the International Conference on Advances in Biotechnology: Leveraging AI Tools for Future Innovations (BLAIT 2025) organized by P.S.R. Engineering College, Sivakasi, Date:13.03.2025.

Students Co-Curricular and Extra Curricular Activities





Final year mechanical engineering students AlitiaB. almeda, and M.Ganesh shree Won the Third prize on the paper presentation in National Level Technical Symposium "TEK CLUSTER'24" organized by kongu Nadu college of Engineering and Technology, Trichy on 21.09.2024. Won cash prize of Rs. 1000/-



Third year mechanical student R.K.DHANUSH (22UME013) received certificate of merit to become top 20th place in 6km marathon held at virudhunagar by good well scouts group on 28.07.2024.

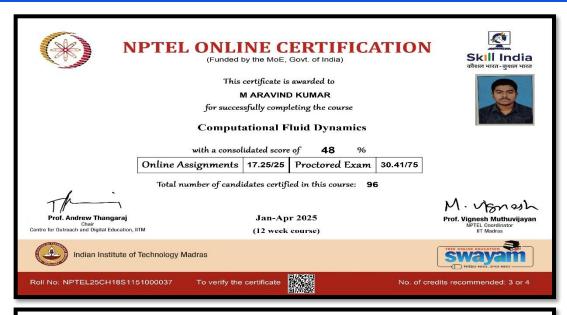


Final year Mechanical Engineering student *Mithun*. Completed 10KM in*CYCLOTRON* and *5KM in MARATHON* organization by Maa Madurai Team on10.08.2024.



Final year Mechanical Engineering student Mr. P. Thirumurugan participated in 5km marathon organised by MAA Madurai vizha on 11.11.2024.

NPTEL /International Certification courses





NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

This certificate is awarded to

B MAYILKANI

for successfully completing the course

Matlab Programming for Numerical Computation

with a consolidated score of 49 %

Online Assignments | 16.35/25 | Proctored Exam | 32.81/75

Total number of candidates certified in this course: 231

1/

Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jan-Apr 2025 (12 week course)



M. Visnosh



Roll No: NPTEL25CH29S1051000330



No. of credits recommended: 3 or 4







Student Mr.Karan.V successfully completed the "AWS Academy, International Graduate Certification course on – AWS Academy Cloud Foundations".

VALUE ADDED COURSES COMPLETED 2024-2025 (ODD)



31 III Year Mechanical Engineering
Students successfully completed the
Value added course on "Internet of
Things" from 08.07.2024 to 13.07.2024.
Resource person: Er. A.Kesavan, CEO and
Director, Quantanics Techsery, Madurai.



VALUE ADDED COURSES COMPLETED 2024-2025 (EVEN)

IMTEX, Visit by Students











All II Year Mechanical Engineering Students successfully completed the Value added course on "CNC Machines" from 20.01.2025 to 25.01.2025.

Venue: NTTF Peeneya, Bangalore.

All II Year Mechanical Engineering Students along with Dr.R.Sakthivel Murugan AP/Mech Visited the IMTEX 2025, International Industrial Expo at Bangalore on 25.01.2025.

Students Performance in 2024-25 (EVEN)

Co-Curricular Activities	II Year Mech Students (Total Strength 26)	III Year Mech Students (Total Strength 31)	IV Year Mech Students (Total Strength 44)
Participation of Paper Presentation in Symposium	20	22	10
Patent filling by Students	-	-	-
Technical and Non technical events participation	15	20	15
Paper presentation in Conference (National/Inter national)	12	9	43

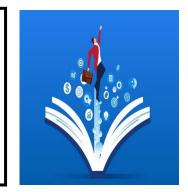
Students Placement

Outcomes – Students Placement

Total No of Students: 44

No of Students Placed: 36

Average Salary: 3.08 Lakhs



Our Recruiters



















Students Placement (Batch 2021-2025)







Students Placement (Batch 2021-2025)



Congratulations for getting placed in

YOUNGSHIN AUTOMOTIVE INDIA PRIVATE
LIMITED, CHENNAI



K. Gokul Raj IV Mech



N. Mohamed Ashif IV Mech



A. Dhanush Kumar IV Mech



A. Kaliraj IV Mech

Your success is well deserved, and your journey is just beginning.

Shine bright and keep achieving!



K. Sivabalan IV Mech



V. Sakthivel IV Mech

COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G.C. Nagar, K.Veliakulam – 625 TO! (Near VIRUDHUNAGAR).

Department of Mechanical Engineering (Accredited by NBA, New Delhi)

Congratulations for being placed in

MOTHERSON AUTOMOTIVE TECHNOLOIGES AND ENGINEERING, CHENNAI



JEGATHEESH.M IV - Mech



KARAN.V IV - Mech



BALAGURU.A IV - Mech



DEEPAK KUMAR.C IV - Mech



RAMAR.A IV - Mech



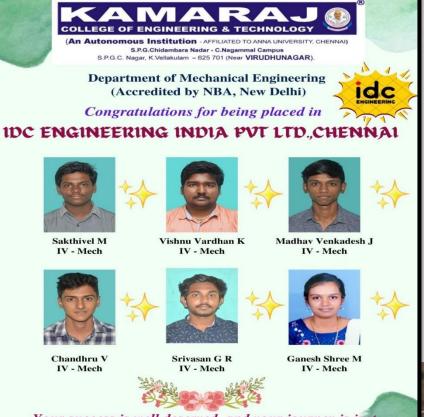
MITHUN.S IV - Mech



DINESH KARTHICK.M IV - Mech



Your success is well deserved, and your journey is just beginning. Shine bright and keep achieving!



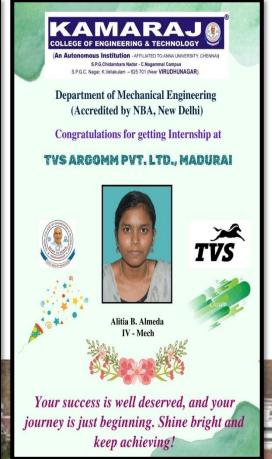


Students Placement (Batch 2021-2025)













keep achieving!

Students Internship

24 of Students II year Mechanical Engineering (2023-27 Batch) got Internship in Various Industries

SI.No	Name of the Industry	Students Name
1.	Hindustan Aeronautic Limited, Bangalore	GIRIDHARAN. N THARUN RAJ. P. S MUKILARASAN. M HARISH BALA. R
2.	ISRO, Trivandrum	ARAVIND KUMAR .M
3.	Mahindra Research Valley, Chennai	DHARINEESH. S , ARUN PRAKASH. S KARTHICKEYAN. M
4.	National Institute of Technology, Tiruchirappalli. Summer Internship 2025	SAHI D.V.
5.	Nova Carbon Private Limited, Tirunelveli	SHIVAKUMAAR. M THANGAPANDIRAJA. M PON GANESH RAM. M BALAKRISHNAN. P
6.	M/s Raini Industries, Chennai	SUBRAMANI PANDI.K SIVAKUMAR. V VISHAL. M
7.	Rane Groups, Chennai	SHARUKESH. J ASHWIN. K MAYILKANI. B
8.	Schwing stetter India Pvt. ltd , Chennai	VASANTHKUMAR. N, VARUNESHBALAA. M ESAKKI SUDHAN.E, MUTHURAJA. M MAHALINGAM. N
9.	Sona BLW Precision Forgings Limited, Coimbatore	YOKAHARIHARAN. S

Four of Final year mechanical students got internship at "TAFE Chennai for the duration of 3 months from 16.12.2024 to 16.03.2025.

Kiran .S (21UME013)
Thirukumaran.S (21UME037)
Vigneshwaran. P (21UME038)
Anandh .G (21UME039)



Two of Third year mechanical students got 52 day NSDC certified internship at "Unity of Youth Foundation (UOY) – Pratham 2- Wheeler Automotive Skilling Centre, Salem from January 20th 2025.

S.Karuppasamy (22UME009)

S.Aravindkumar (22UME031)















INDUSTRIES VISITED BY STUDENTS



II year Mechanical Engineering students Visited the Industry "Kwality coils Pvt. Ltd", Madurai along with Dr.B.Balavariavan AP/Mech and Dr.B.K.Parrthipan AP/Mech on 15.02.2025.



II year and III Year Mechanical Engineering students Visited the Industry "Anna Aluminum", Cochin, Kerala along with Dr.M.Prithiviraj AP/Mech and Mr.D.Palanikumar AP/Mech on 14.03.2025.



II year and III Year Mechanical Engineering students Visited the Industry "Sun Pressing Pvt,Ltd" Madurai along with Dr.M.Prithiviraj AP/Mech and Mr.N.R.Madhan AP/Mech on 27.03.2025.







The following Third Year Mechanical Engineering Students Aathi.V (22UME014). Aniket Lekra (22UME020) Naveen sarathy V (22UME022) visited Virudhunagar Junction Railway Station for the Seed Money Project titled "Solar-Powered electric vehicle with dynamic solar panel reconfiguration for optimal power generation.

Date of visit: 20.02.2025.

II year and III Year Mechanical Engineering students Visited the "Cochin Harbor, Cochin, Kerala". along with Dr.M.Prithiviraj AP/Mech and Mr.D.Palanikumar AP/Mech on 14.03.2025.

II year and III Year Mechanical Engineering students Visited the "VTM Textiles Industry" Sulakarai, Virudhunagar along with Dr.S.Muthunatarajan AP/Mech and Mr.N.R.Madhan AP/Mech on 16.04.2025.

ALUMNI INTERACTION



Er.Harimalairajan (2017 passed out), Design Engineer, Caterpillar, delivered a guest lecture on "Industry Culture" for Final year Mechanical Engineering students on 20.07.2024.



Mr. Michael Raj, Engineer - Renault Nissan delivered a Guest lecture on "Enlightenment About Renault Nissan Recruitment Process" for IV year Mechanical Engineering Students through online on 26.08.2024.



Er. Vignesh (2015 batch), Senior Engineer in Daimler Trucks India, Bangalore delivered a Guest Lecture on "Work Ethics" for Final Year and third Year Mechanical Engineering Students on 25.09.2024.







Er.D.Sivaramakrishnan (2016 Passed Out), Cooling Specialist Engineer, Siemens Gamesa Renewable Energy, Bangalore delivered a guest lecture on "Technical Aspects of Cooling Systems" for III and IV year Mechanical Engineering students. on 16.08.2024.

Er.M.DhanushKumar, Er.S.Harish, Er. G.Alphose Sam Anto (2024 Passed out) discussed with a third year Mechanical Engineering Students in the topic of "Job Opportunities in BIM for Mechanical Engineer" on 05.10.2024.

Mr.N.Vijayakumar, Deputy General Manager, Mahindra & Mahindra, Chennai , delivered a Guest Lecture on "Innovative Thinking and Career Opportunities" for First year mechanical Engineering students on 07.12.2024.

Events Organized by Department (2024-2025) Total - 22 Events

S. No.	Date of Event	Name of the Event		
1	19.07.2024	Funding Opportunities in MSME		
2	07.09.2024	Department of Mechanical Engineering in association with Institution of Engineers, Madurai Local Chapter organizes one day seminar on "NEXT GEN ENGINEERING IN IOT: A NEW ERA OF SMART PRODUCTS & SYSTEMS"		
3	16.11.2024	How to enhance the employability in core Engineering		
4	07.12.2024	Innovative Thinking and Career Opportunities		
5	09/12/2024 to 13/12/2024	Export Policies, Procedures and Documentation		
6	23.01.2025	Expectations of engineering in today's market		
7	02.04.2025	Shop floor Immersion using 5S Technology		
8	20.07.2024	Organisation Culture		
9	16.08.2024	Technical aspects of Cooling system		
10	26.09.2024	Next Gen Engineering in IoT: A New Era of Smart Products & Systems		
11	05.11.2024	Industry Expectation		















