

Mech'Časopis

**Edition 10
July 2024**

Mech'Časopis

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About the Department of Mechanical Engineering

The Department of Mechanical Engineering was established in the year 2005. The Department is accredited by NBA New Delhi. We are witnessing remarkable growth and opportunities for the students especially recent advancements in materials, automation, and AI integration, 3D printing and also provide innovative solutions across various industries. The Department has highly qualified, experienced faculty members in different fields of specialization, driving student development in academic pursuits and career placement.

Our alumni's are occupying accountable positions in several Industries like DRDO, Renault Nission, TVS Tyres, Mercedes Benz, Altair, TVS – Sundram Fasteners, Bosch, Tataelxi, Motherson Automotive, TAFE, etc. Our focus is on preparing students to unlock the vast potential of Mechanical Engineering and to provide our students with a comprehensive education that combines theoretical learning with hands-on experiences, enabling them to address the challenges of our society effectively through Total Quality Education.

About Mech'Časopis

The name Mech'Časopis is taken from the Croatian language; Časopis (Pronounced as Chasopis) means Newsletter. This newsletter brings the outline of the students and faculty achievements with the activities of the department.

Mechanical Engineering

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 Objectives

PEO1 - Graduates of the Programme will excel in Technical Knowledge and Apply Innovative Skills in the field of Mechanical Engineering.

PEO2 - Graduates will contribute to Technological Development and Research Activities through "Total Quality Education".

PEO3 - Graduate of the Programme will accomplish Leadership Qualities and Social Responsibilities through "Life Long Learning".

Program Specific Outcomes

PSO1 - Graduates will be able to create and analyse the Research and Development activities related to design and manufacturing.

PSO2 - Graduates will be able to design, develop need based products in Mechanical Engineering and allied Industries.

MOUs Signed



**MoU signed with SIEMENS
Centre of excellence in Manufacturing
at NIT Trichy**



**MoU signed with Alfa TKG
Integrated
Solutions India Pvt. Ltd., Chennai**



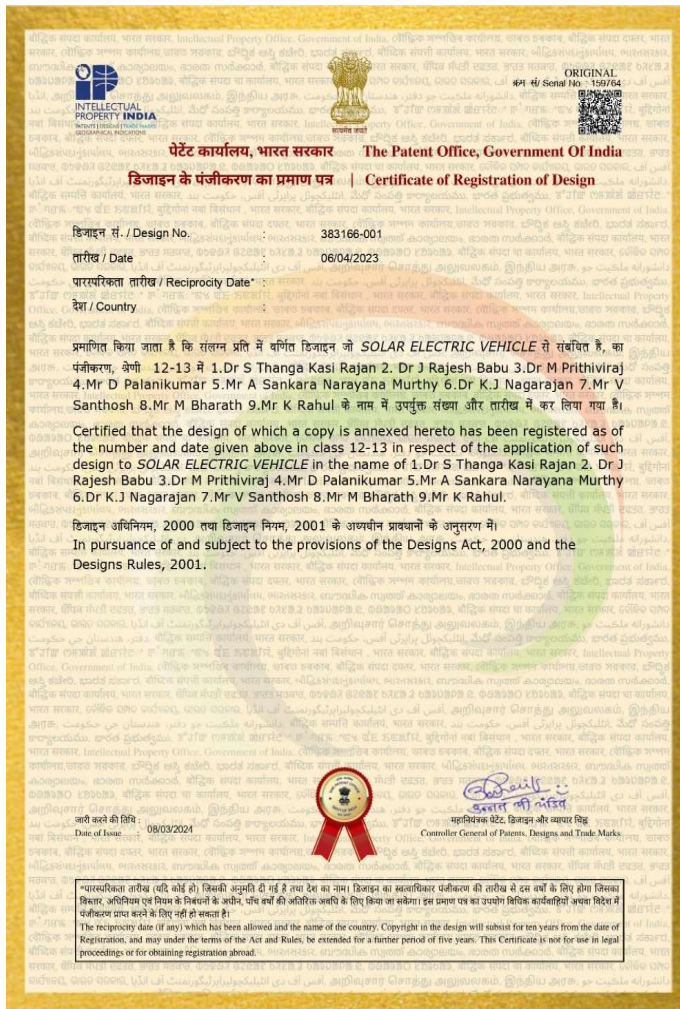
MoU Signed with Sri Hari Tex Industries. Madurai

Central Institute of Petrochemicals Engineering & Technology (CIPET), Madurai has agreed to sign an MoU with KCET."

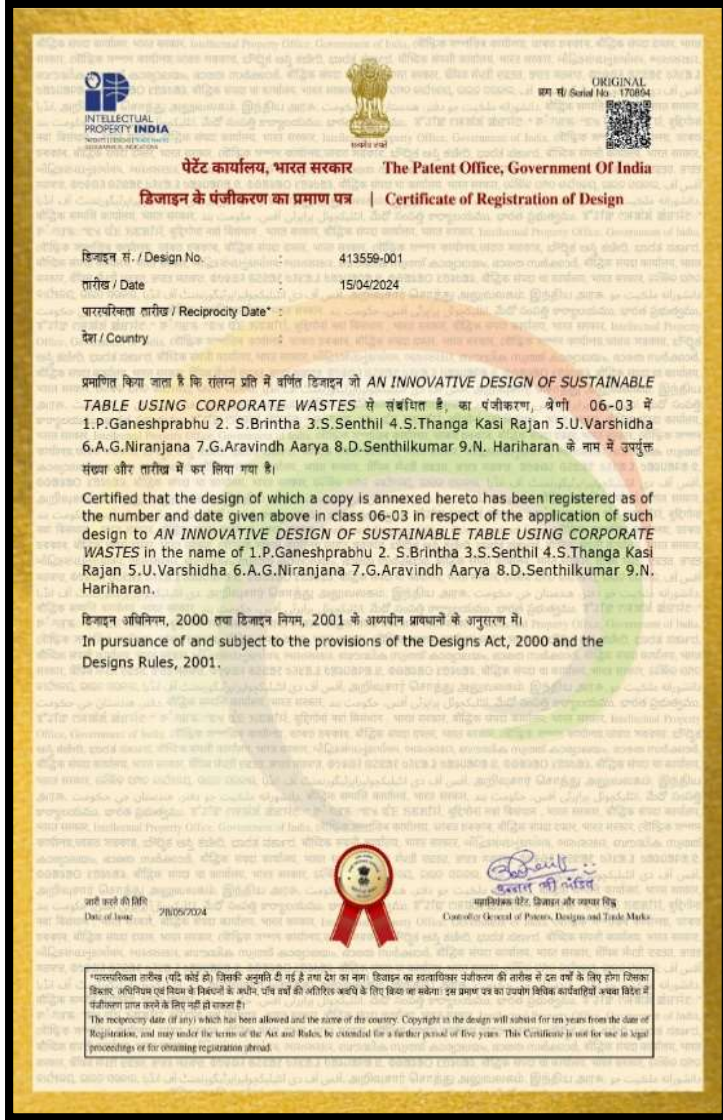
Design Patent Granted



A Design patent titled “An Innovative Design in Luggage rack with foldable solar panel ” (408543-001/ Date 23/02/2024) was granted to
Dr.S.Thangakasirajan ASP&HoD/Mech
Dr.S.Senthil Prof/Mech
Dr.B.K.Parrthipan AP/Mech



A Design patent titled “ Solar Electric Vehicle” (383166-001- / Date 06/04/2023) was granted to
Dr.S.Thangakasirajan ASP&HoD/Mech
Dr.M.Prithiviraj AP/Mech
Mr.D.Palanikumar Prof/Mech
Mr.A.Sanakaranarayanamurthy AP/Mech



A Design patent titled “An Innovative Design of Sustainable Table using Corporate Wastes ” (413559-001/ Date : 15/04/2024) was granted to
Dr.S.Thangakasirajan ASP&HoD/Mech
Dr.S.Senthil Prof/Mech



A Design patent titled “Personal Protective Equipment for Pesticide Spraying” (414705-001 / Date 24/04/2024) was granted to
Mr. R. Sakthivel Murugan AP/Mech
Mr.N.R.Madhan AP/Mech

Utility Patent Published

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.

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

Dr.S.Thangakasirajan ASP&HoD/Mech

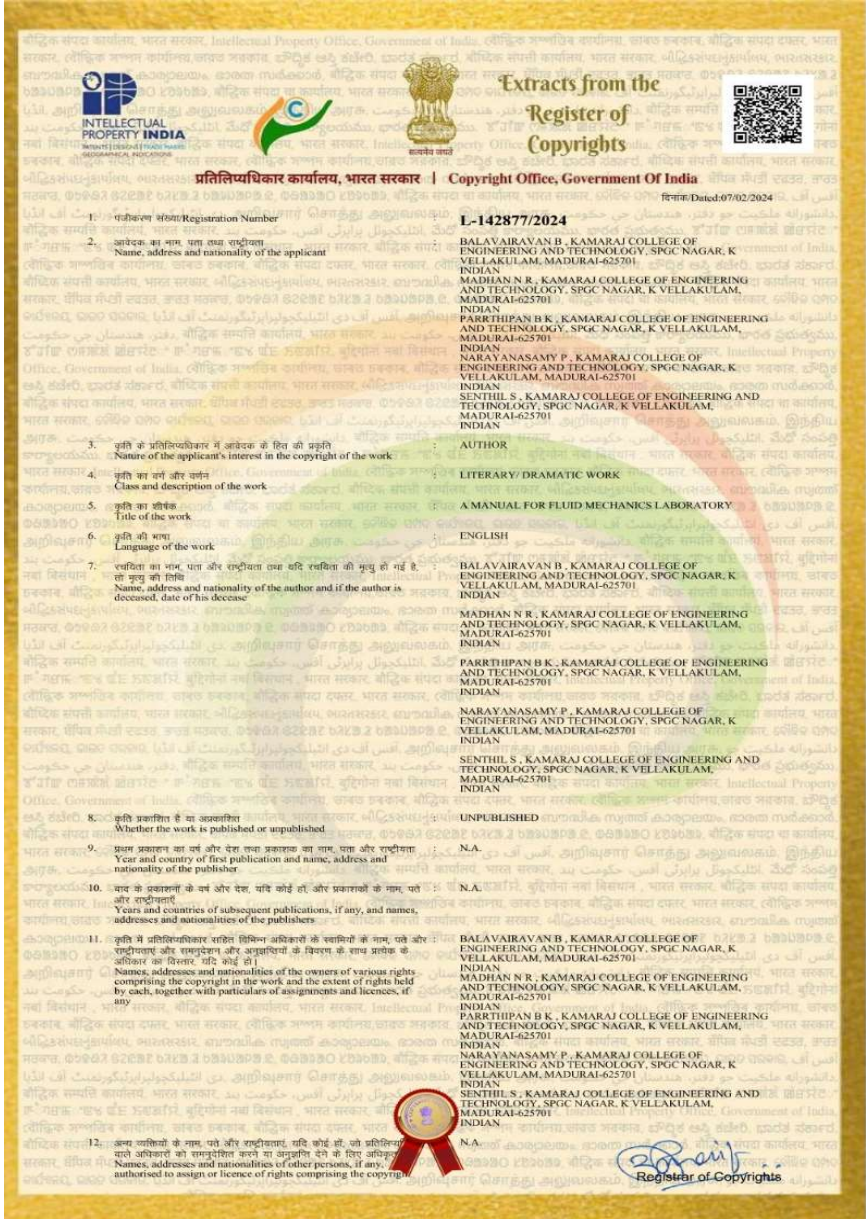
Dr.B.Balavairavan AP/Mech

Dr.K.Muruganandam AP/Mech

Dr.B.K.Parrthipan AP/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.



A Copy rights titled “ A Manual for Strength of Materials Laboratory” (L-142468/2024 Dated 30/01/2024) was granted to

Dr. B.Balavairavan AP/Mech
Mr.N.R.Madhan AP/Mech
Dr.B.K.Parrthipan AP/Mech
Dr.P.Narayansamy ASP/Mech
Dr.S.Senthil Prof/Mech

Intellectual Property Office, Government of India

Extracts from the Register of Copyrights

प्रतिलिप्यधिकार कार्यालय, भारत सरकार | Copyright Office, Government Of India

Date: 30/01/2024

Registration Number: **L-142468/2024**

Name, address and nationality of the applicant: **BALAVAIRAVAN, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, MADURAI-625701, INDIAN**

Name, address and nationality of the author: **MADHAN N R, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, MADURAI-625701, INDIAN**

Nature of the applicant's interest in the copyright of the work: **AUTHOR**

Class and description of the work: **LITERARY/ DRAMATIC WORK**

Title of the work: **A MANUAL FOR STRENGTH OF MATERIALS LABORATORY**

Language of the work: **ENGLISH**

Name, address and nationality of the author and if the author is deceased, date of his decease: **BALAVAIRAVAN, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, MADURAI-625701, INDIAN**

Year and country of first publication and name, address and nationality of the publisher: **N.A.**

Names, addresses and nationalities of the owners of various rights comprising the copyright in the work and the extent of rights held by each, together with particulars of assignments and licences, if any: **N.A.**

Year and country of subsequent publications, if any, and names, addresses and nationalities of the publishers: **N.A.**

Names, addresses and nationalities of other persons, if any, authorized to assign or licence of rights comprising the copyright: **N.A.**

Registrar of Copyrights



A Copy rights titled " A Manual for Fluid Mechanics Laboratory" (L-142877/2024 ,Dated 07/02/2024) was granted to

Dr. B.Balavairavan AP/Mech
Mr.N.R.Madhan AP/Mech
Dr.B.K.Parrthipan AP/Mech
Dr.P.Narayansamy ASP/Mech
Dr.S.Senthil Prof/Mech



Intellectual Property Office, Government of India

Extracts from the Register of Copyrights

प्रतिलिप्यधिकार कार्यालय, भारत सरकार | Copyright Office, Government Of India

दिनांक/Dated: 22/03/2024

L-145632/2024

1. प्रतिलिपि संख्या/Registration Number	L-145632/2024
2. आवेदक का नाम, पता तथा राष्ट्रियता Name, address and nationality of the applicant	PARRTHIPAN B K, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN BALASUNDAR P, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN NARAYANASAMY P, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN BALAVAIRAVAN B, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN SENTHIL S, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN
3. कृति के प्रतिलिप्यधिकार में आवेदक के हित की प्रकृति Nature of the applicant's interest in the copyright of the work	AUTHOR
4. कृति का वर्ग और वर्णन Class and description of the work	LITERARY/ DRAMATIC WORK
5. कृति का शीर्षक Title of the work	A MANUAL FOR THEORY OF MACHINES LABORATORY
6. कृति की भाषा Language of the work	ENGLISH
7. रचयिता का नाम, पता और राष्ट्रियता तथा यदि रचयिता की मृत्यु हो गई है तो मृत्यु की तिथि Name, address and nationality of the author and if the author is deceased, date of his decease	PARRTHIPAN B K, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN BALASUNDAR P, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN NARAYANASAMY P, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN BALAVAIRAVAN B, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN SENTHIL S, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN
8. कृति प्रकाशित है या अप्रकाशित Whether the work is published or unpublished	UNPUBLISHED
9. प्रथम प्रकाशन का वर्ष और देश तथा प्रकाशक का नाम, पता और राष्ट्रियता Year and country of first publication and name, address and nationality of the publisher	N.A.
10. बाद के प्रकाशनों के वर्ष और देश, यदि कोई हों और प्रकाशकों के नाम, पता और राष्ट्रियता Years and countries of subsequent publications, if any, and names, addresses and nationalities of the publishers	N.A.
11. कृति में प्रतिलिप्यधिकार सहित विभिन्न अधिकारों के स्वामियों के नाम, पते और राष्ट्रियताएं और समनुबंधन और अनुज्ञापनों के विवरण के साथ प्रत्येक के अधिकार का विवरण यदि कोई हो। Names, addresses and nationalities of the owners of various rights comprising the copyright in the work and the extent of rights held by each, together with particulars of assignments and licenses, if any	PARRTHIPAN B K, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN BALASUNDAR P, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN NARAYANASAMY P, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN BALAVAIRAVAN B, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN SENTHIL S, KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY, SPGC NAGAR, K VELLAKULAM, NEAR VIRUDHUNAGAR, MADURAI-625701 INDIAN
12. अन्य व्यक्तियों के नाम, पते और राष्ट्रियताएं, यदि कोई हों, जो प्रतिलिप्यधिकार वाले अधिकारों को समनुबंधित करने या अनुज्ञापित देने के लिए अधिकृत हैं। Names, addresses and nationalities of other persons, if any, authorized to assign or license rights comprising the copyright	N.A.

Registrar of Copyrights



A Copy rights titled “ A Manual for Theory of Machines Laboratory” (L-145632/2024 ,Dated 22/03/2024) was granted to

Dr.B.K.Parrthipan AP/Mech

Dr.P.Narayansamy ASP/Mech

Dr.B.Balavairavan AP/Mech

Dr.S.Senthil Prof/Mech

Events Organized 2023 24



Workshop on “Cycle Design Challenge” 11.07.23 & 12.07.23 by
Mr.Dakshina Moorthy, Senior Manager, TI Cycles, Chennai



FDP on ‘Internet of Things’ 11.07.23, 13.07.23 & 14.07.23
Mr.A. Kesavan, CEO, QUANTANICS TECHSERV PVT.LTD.



**Anna University Sponsored FDP on 'Additive Manufacturing'
17.07.23 to 22.07.23**



**Webinar on 'Building Data Pipelines for Automotive Data Analytics' on
21.07.23 by Shashank Prakash Shirude, Data Science Expert, Skill-Lync**



Guest lecture on 'Resume Writing and Interview Preparation'
28.07.2023 by Mr.J.Indrajit, Managing Director, GJ Surgical & Pharma.
Madurai



Guest lecture on 'Expectations of Mechanical Industries'
02.08.23 by Mr Janarthanan, (2019 passed out),
Senior Engineer, Telecommunications, Chennai.



Guest Lecture on 'PictoBlox' 08.08.23 by Dr.M.Sudalaimani, Associate Professor, Mechatronics Engineering, Kamaraj College of Engineering and Technology



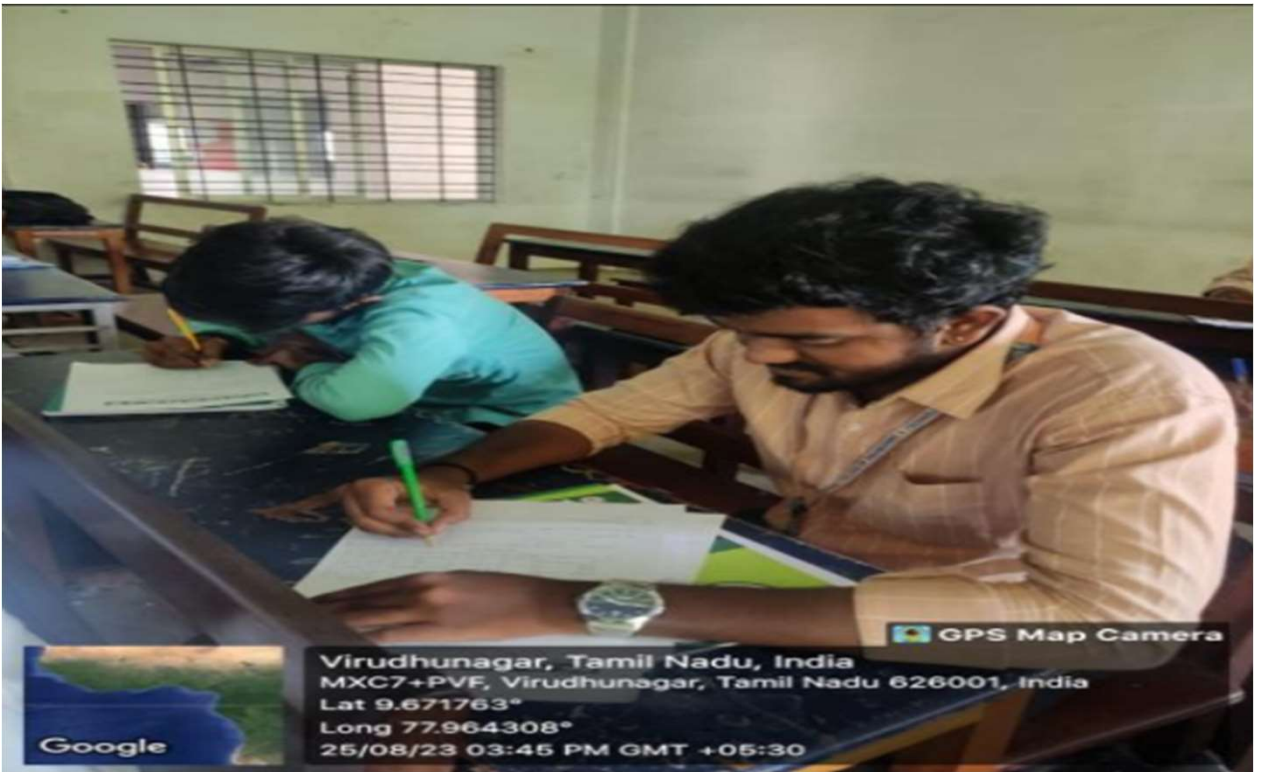
Guest Lecture on 'Awareness Programme on Quality and Standards' 11.08.23 Dr.K.Murugananthan, Assistant Professor



Guest lecture on 'Current opportunities in foreign countries, state govt job, central govt job' on 22.08.23 by Sathiya Seelan.R Central Industrial Security Force



ISTE Sponsored Event 'Mr. Machinist' on 22.08.23



ISTE Sponsored Design contest on 'Mr.Artificer' 22.08.23



ISI Sponsored Quiz Program on 'Quality and Standards' 25.08.23



Fictitious Interview on 29.08.23



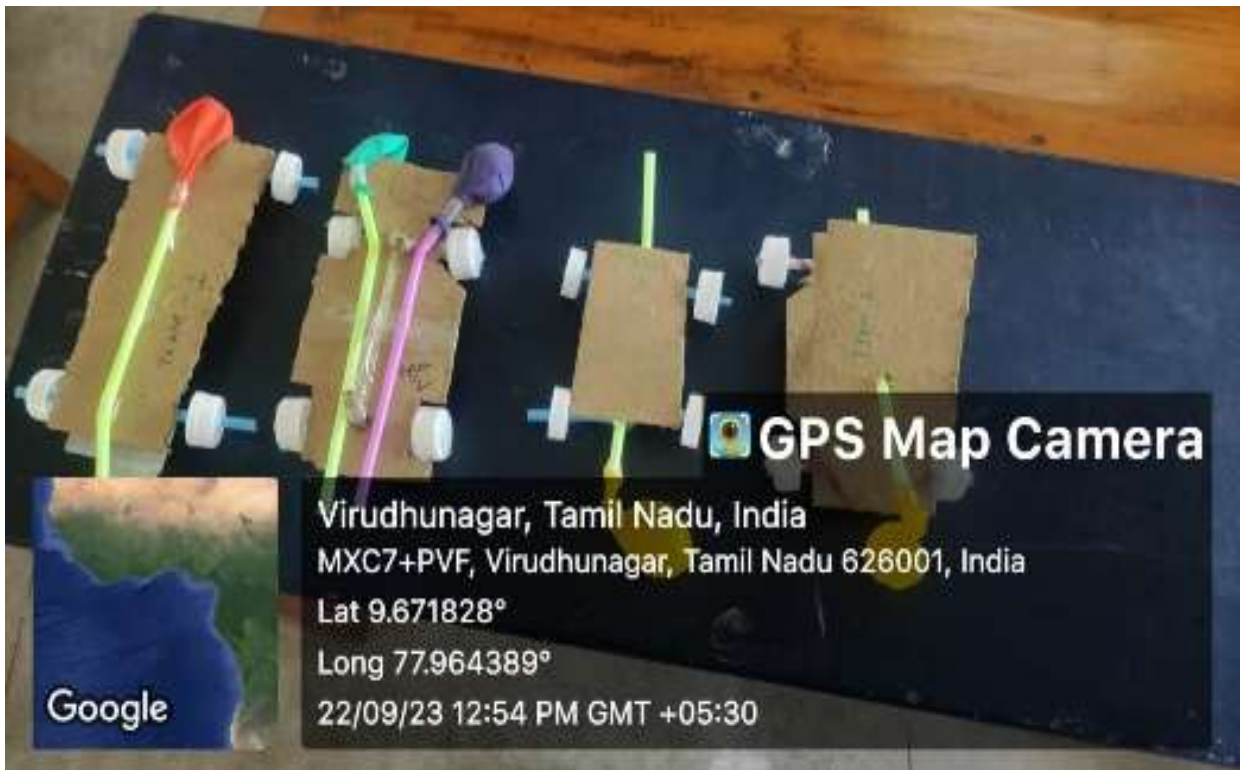
Guest Lecture on 'Software and Core Company Expectations' On 31.08.23 by Mr.Subash Raj, Engineer – TCS & Mr.Navaneetha Krishnan, Engineer – Intercool Limited.



Technical Presentation 01.09.23



Seminar on Effective Utilization of LinkedIn by S.Kiran (21UME013) on 11.09.23



Design contest on 'Blimps Car' 22.09.23



Poster Presentation Contest on 22.09.23



Workshop on 'Two-Wheeler Assembly and Disassembly'

09.10.23 to 14.10.23 by ARA Rajkumar, Skill India Representative, Sivakasi.



Guest lecture on 'Higher study opportunities in Germany'

18.01.24 Er.JASWANTHRAJ.S 2022 Passed Out



Guest lecture on 'Awareness session on Startup' on 21.02.24

By Dr.Raama Sreenivasan, Director, NABARD



Logo Design Contest on 05.03.24



Guest Lecture on, "Why to Choose IT Job" by Mr.Pandeeswaramoorthy, Team Lead, HCL, Madurai



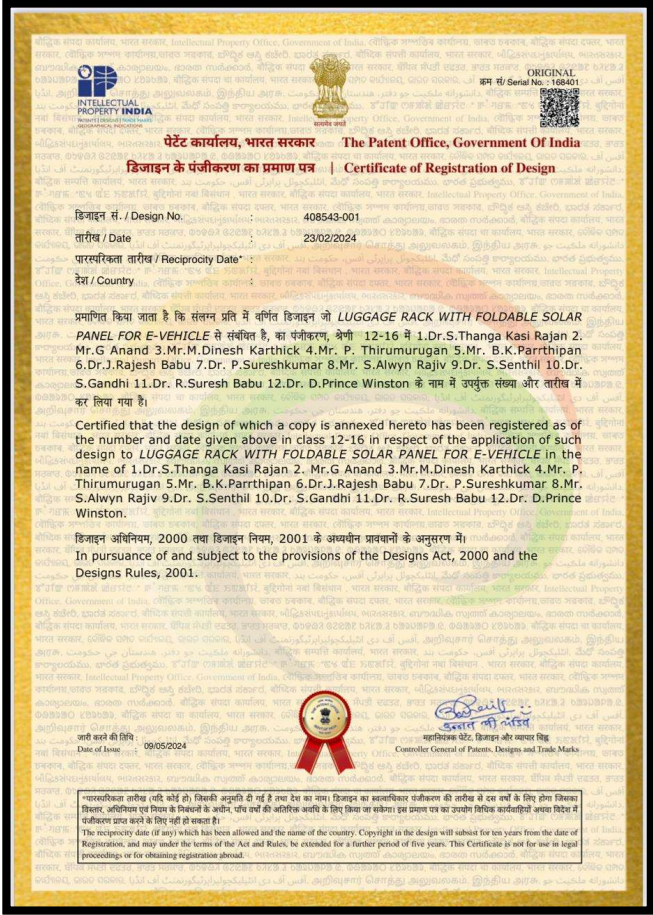
Awareness program on “WORLD CONSUMER RIGHTS DAY CELEBRATION” by Mr.N.Sivakumar, BIS on 12.03.24



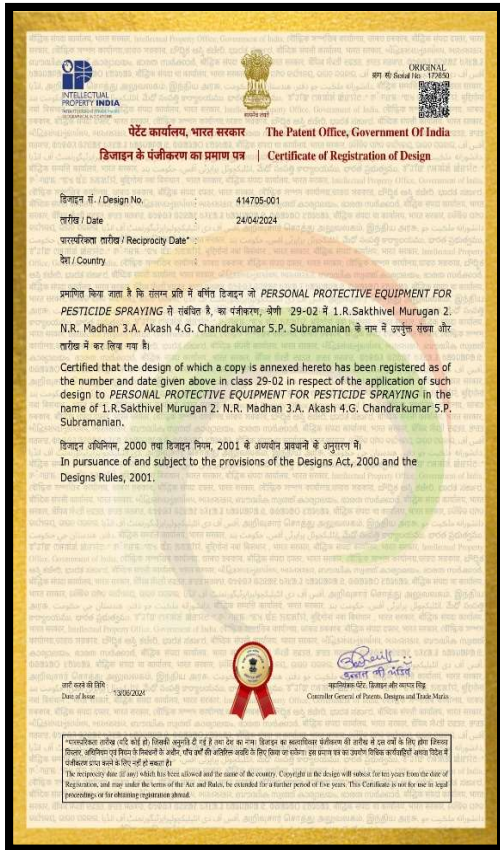
**Project Expo on 16.04.24
Chief Guest**

Er.A.N. Lakshmanan, Vice President, TVS EuroGrip, Madurai.

Student Achievements



A Design patent titled “An Innovative Design in Luggage rack with foldable solar panel ” (408543-001/ Date 23/02/2024) was granted to III 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
Dr.B.K.Parrthipan AP/Mech



A Design patent titled “Personal Protective Equipment for Pesticide Spraying” (414705-001 / Date 24/04/2024) was granted to

Final Year Mechanical Engineering Students

Mr.A.Akash

Mr.C.Chandrakumar and

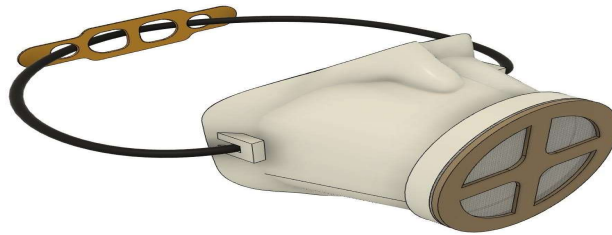
Mr.S.P.Subramanian

Along with Faculty members

Mr. R. Sakthivel Murugan

AP/Mech

Mr.N.R.Madhan AP/Mech



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

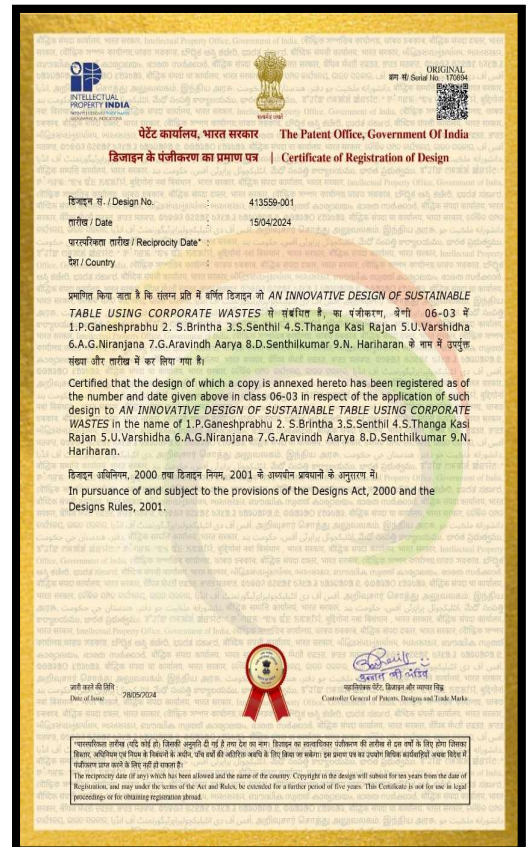
Mr. N. Hariharan

along with Faculty members

Dr.S.Thangakasirajan

ASP&HoD/Mech

Dr.S.Senthil Prof/Mech



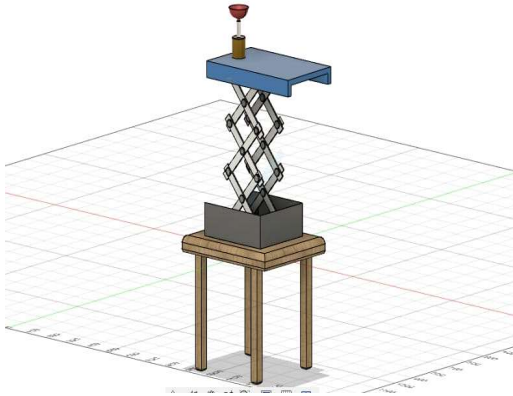
Design Patent Filed by Students

Project Title : Ceiling fan cleaning setup

Patent No : 389444-001 Date : 03/07/2023

**Students Name : M.Manojkumar
P.AkilanKarupaiya , K.Arul
Murugan**

**Guide Name :
Mr.B.K.Parrthipan AP/Mech**

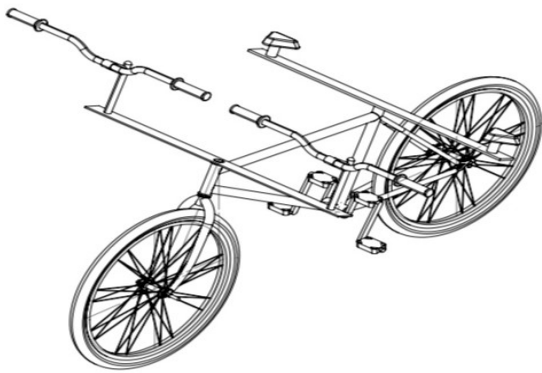


Project Title: Two-member bicycle Patent no : 391170-001

Date : 26/07/2023

**Students Name : AlitiaB.Almeda
S.Thirukumaran, G.R.Srivasan
K.M.Yogeswaran**

**Guide Name :
Mr.B.K.Parrthipan AP/Mech**

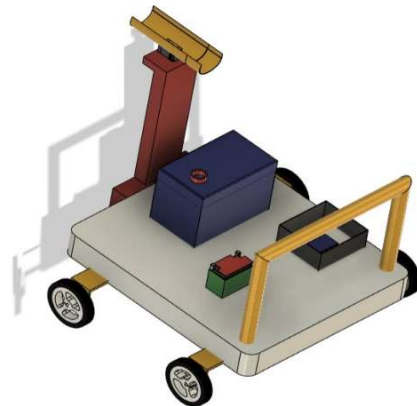


Project Title: Autonomous Fire Fighting Robot

Patent No : 409798-001 Date : 08/03/2024

**Students Name: S.Kishore,
A.Balaguru, N.Mohamed ashif**

**Guide Name :
Dr.S.Muthunatarajan AP/Mech**



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

Patent no : 410256-001 Date : 12.03.2024

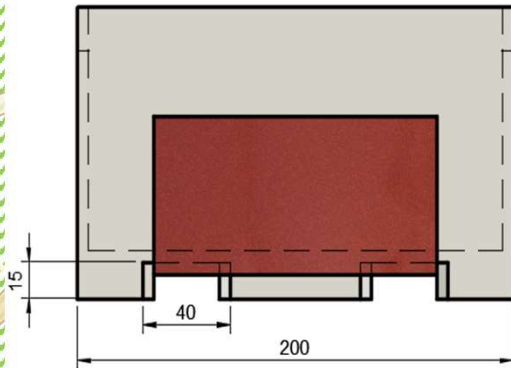
Students Name :

N.Hariharan

A.Kaliraj, S.Mithun

Guide Name :

N.R.Madhan AP/Mech



Project Title : IOT Enabled Automatic Syringe Injection Setup for Pet Animals

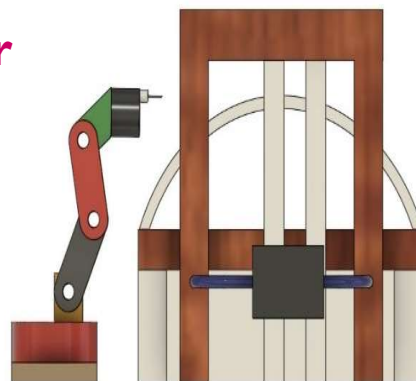
Patent No : 410445-001

Date : 13/03/2024

Student Name : J.Alwyn Joshua, S.Ramachandran , A.Asraf Mohamed

Guide Name :

Dr.B.Balavairavan AP/Mech



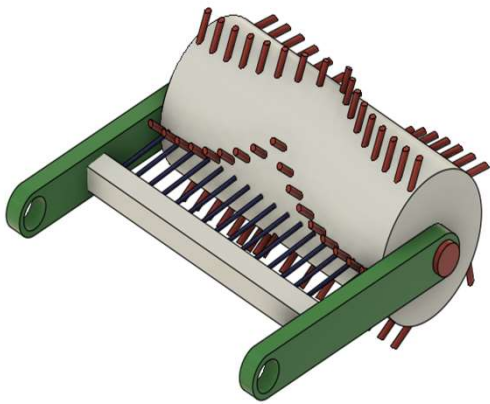
Project Title : A novel spike weed puller with pigeon anterior view profiled structure for pulling out of plants and unwanted grass.

Patent No : 410715-001 Date : 16/03/2024

Students Name : M.Sakthivel, K.Vishnuvaradhan, C.Deepakkumar

Guide Name :

Mr.N.R.Madhan AP/Mech



Project Title : 3D printed Low weight Portable Bottle Cleaner.

Patent No : 412683-001

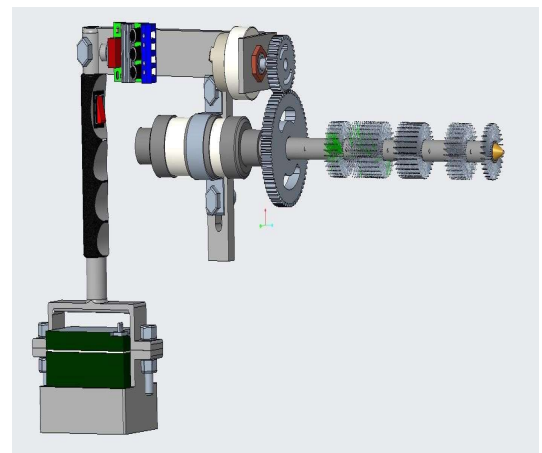
Date : 05/04/2024

Students Name :

Mr.P.Vingesh kumar , Mr. Nijoprasad, Mr.V.Sakthivel

Guide Name :

Dr.M.Prithviraj AP/Mech





Third year
Mechanical
Engineering
student
Mr.N.Hariharan
was appreciated
by “Rotary
kingdom of
Virudhunagar”
for “Tamil
Elocution
competition”

Third year
Mechanical
Engineering
Student **Mr.**
G.R.Srivasan, has
“won First Prize” in
“Yoga competition
in syllabus
category” and
“Third Prize in
Overall
championship”.





Second Year and Third year Mechanical Engineering Students Mr. Dhanush and Mr. Karan “won medals in the National Integrity Marathon” conducted by “Virudhunagar Goodwill Scouts”.



Third year Mechanical Engineering students Mr. P.Thirumurugan, Mr. K.Shafiq Ahmed, Mr. O.B Kaushik and Mr. S. Mithun won Rs.1000/- cash prize in the event ENIGMA conducted by Department of Information Technology, Velammal Engineering College, Chennai.



Third Year Mechanical Engineering students Mr.M.Jegadeesh, Mr.K.Gokulraj, and Mr.M.Aravind Kumar won First Prize with cash of Rs 3000/- in Paper Presentation Competition (ELANZAA'24) Conducted in Bannari Amman Institute of Technology.



Third year Mechanical Engineering student Mr. G.R. Srivasan, has won first place in CHAMPION OF CHAMPION category in the 8th South Indian Level Yoga Championship 2024 held at Thiruvannamalai, Tamil nadu on 03.03.2024



Third Year Mechanical Engineering students Mr. Kaviyarasan and Mr. Madhav Venkatesh won First Prize in Paper Presentation . Third Year Mechanical Engineering students Mr.Srivasan , Mr. Kannan and Mr. Pragadeeshwaran won first prize in Reverse Engineering. in Technical competition Conducted by Thiagarajar College of Engineering, Madurai.



Third Year Mechanical Engineering students won prizes in Technical Competition Conducted by KPR Institute of Engineering and Technology.
First Prize in CAD Modelling Mr. Saktivel – Cash Prize Rs.1500
Second prize in CAD Modelling Mr. Srivasan – Cash Prize Rs. 1000
Third prize in CAD Modelling Mr.Yogeswaran - Cash Prize Rs. 500



Third Year Mechanical Engineering students Mr.G.Anand and Mr.M.Dinesh Karthick Won First Prize in Paper Presentation Conducted by JNN Institute of Engineering, Chennai on 28.03.2024



III year mechanical engineering student Alitia.B.Almeda (21UME029) Received Student Seed Money grant of Rs.6525/- for her project titled “Two member bicycle”, Name of the guide – Dr.B.K.Parrthipan AP/Mech

Third year Mechanical Engineering Student Mr.S.Kiran (21UME013) “Got Summer Internship 2024 at NIT Tiruchirappalli”. Faculty Mentor : Dr.Mallikarjuna Production Department / NITT





NATIONAL CADET CORPS

4D/28 TN BN NCC VIRUDHUNAGAR

**CDT. DHANUSH K (II year Mech)
Our NCC Cadet, representing
Tamilnadu SNIC CAMP (PM RALLY)
from 17 Jan to 28 Jan 2024 at New
Delhi**

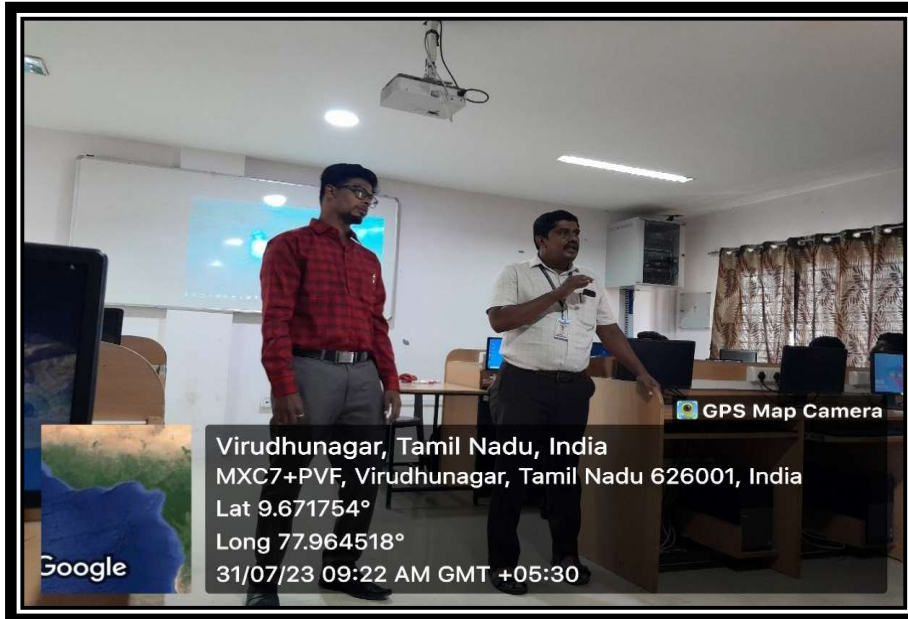
- **No. of Industrial/Inplant Training attended – 185**
- **No of Internship attended – 115**
- **No of Value added courses completed - 07**
- **No of students got Elite + silver NPTEL courses – 3**
- **No of students got Elite in NPTEL Courses - 27**

First year Mechanical engineering Students (2022-23) got Spring board Infosys Certification for successful completion of Python Fundamentals course.

All second year Mechanical engineering Students (2022-23) completed the micro learning course on ORTHOGRAPHIC PROJECTION FOR MECHANICAL COMPONENTS offered by the L&T Edu Tech Micro learning Initiative.

Third year Mechanical engineering Students (2022-23) got Spring board Infosys Certification for successful completion of Finite Element Analysis course.

Co-Curricular Activities	II Year Mech Students (Total Strength 31)	III Year Mech Students (Total Strength 43)	IV Year Mech Students (Total Strength 48)
Participation of Paper Presentation in Symposium	31	15	-
Patent filling by Students	-	43	-
Technical and Non technical events participation	31	20	-
Paper presentation in Conference (National/ International)	-	9	48



42 III Year Mechanical Engineering Students successfully completed the Value added course on “CATIA” from 31.07.2023 to 05.08.2023.

Resource person : Er. Jaffar, Application Engineer, Inventatec, Chennai.



31 II Year Mechanical Engineering students successfully completed the Value-added course on “CAD using Unigraphics-NX” from 13.02.2024 to 19.02.2024.

Central Institute of Petrochemicals Engineering & Technology CIPET Madurai and Department of Mechanical Engineering , KCET Jointly organised this Value added Programme.

Industries Visited By Students



II year mechanical engineering students visited viswesaraya industrial and technological museum and Customised Technologies Pvt Ltd, Bangalore on 27.10.2023.



II year mechanical engineering students visited “HAL Aerospace Museum Bangalore” on 28.10.2023.



III Year Mech students attended a one day "workshop on 3D printing" conducted by PSG-Tifac Core in Product design and also visited the Automation and 3D printing labs on 30.10.2023.



III year mechanical Engineering students visited the Sea blue ship yard and Anna Aluminium Cochin, Kerala on 05.10.2023.



III year Mechanical Engg Students attended MADITSSIA'S INDEXPO 2023 – Industrial Exhibition on 22.07.2023 organized by IDA-SCUDDER TRADE CENTRE at Velammal Medical College campus, Madurai.

Placement Details

Total No of Students : 48
No of Students Placed : 37
Average Salary : 2.43 lakhs



Our Recruiters



YOUNG SHIN
AUTOMOTIVE



Faculty Achievements

5 of our faculty members are listed in world scientist list released by AD scientific Index 2023



Dr.S.Senthil
Prof/Mech



Dr.S.Thangakasi Rajan
ASP and HOD/Mech



Dr.P.Senthamarai
Kannan
AP /Mech



Dr.M.Prithviraj
AP /Mech



Dr.K.Muruganandam
AP/Mech



Dr. P. Narayanasamy
ASP/ Mech received
outstanding reviewer award
from IOP publication for the
year 2023



Dr. B. Balavairavan
AP/Mech Received
appreciation form journal of
polymer testing for
volunteering as a reviewer
in the Year 2023.

Thank you for volunteering to review in 2023

Dear balavairavan balasubramanian,
 Reviewers and peer review play a crucial role in academic publishing, and we sincerely thank you for your time and expertise. Your ongoing support is invaluable to the advancement of science.


Open access

Letter from the Elsevier Journals Leadership Team

"Peer review, a task often performed behind the scenes and not always given its due recognition, stands as a vital pillar for elevating the quality of global research. On behalf of all our journal editorial teams, it is my privilege to express our sincere appreciation. We are thankful for the time you dedicate to improving the quality of research featured in Elsevier journals. Your commitment to the progress of research in your field is truly commendable.

As we move forward into 2024, our commitment remains steadfast in continuously improving the peer review process by providing enhanced support and ensuring that review invitations align closely with your expertise.

Thank you for your valuable contributions as a peer reviewer."

 **Laura Hassink**
 Managing Director Elsevier Journals

Once again, we extend our sincere gratitude for your continued support, and we wish you all the best in 2024.

2023 Journal Highlights

Thanks to your contribution as a reviewer, the median review time has improved by 11% since 2022.*


*Please note that editorial review times are subject to change.



Dr. B. K. Parthipan has
been elected as
executive member by
Institution of
Engineers Madurai
local chapter for two
years from 2023 to
2025.

Elite

NPTEL Online Certification
(Funded by the MoE, Govt. of India)




This certificate is awarded to
SAKTHIVEL MURUGAN R
for successfully completing the course

Engineering Graphics and Design


with a consolidated score of **90** %

Online Assignments	24/25	Proctored Exam	66/75
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Total number of candidates certified in this course: **66**


Prof. Devendra Jalihal
Chairperson,
Centre for Outreach and Digital Education, IITM

Jul-Oct 2023
(12 week course)


Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



Indian Institute of Technology Madras



Roll No: NPTEL23ME144S550000266

To verify the certificate 

No. of credits recommended: 3 or 4

Mr. R. Sakthivel Murugan AP/Mech
has successfully completed the
**NPTEL course “Engineering
Graphics and Design” with Gold and
Topper category.**

Elite

NPTEL Online Certification
(Funded by the MoE, Govt. of India)




This certificate is awarded to
PALANI KUMAR D
for successfully completing the course

Introduction to Industry 4.0 and Industrial Internet of Things

with a consolidated score of **71** %

Online Assignments	24.78/25	Proctored Exam	46.5/75
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Total number of candidates certified in this course: **9534**


Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Jul-Oct 2023
(12 week course)



Indian Institute of Technology Kharagpur



Roll No: NPTEL23CS82SS50000123

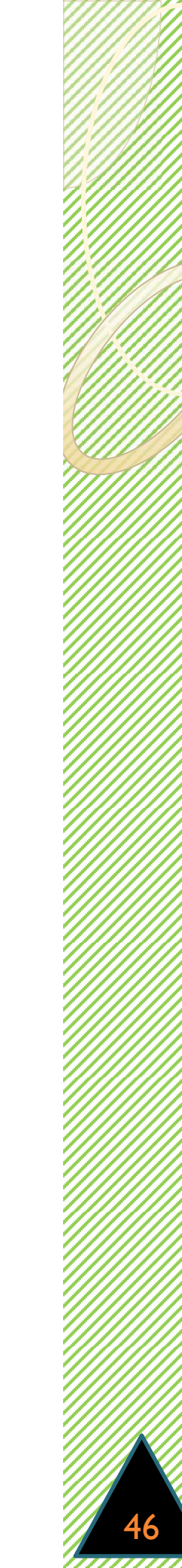
To verify the certificate 

No. of credits recommended: 3 or 4

Mr. D. Palani kumar AP/Mech has
successfully completed the NPTEL
course **“Introduction to Industry 4.0
and Internet of things” with ELITE
category.**



Mr. B. K. Parrthipan, AP/ Mech
successfully completed the NPTEL
Course “Corporate Finance” with Elite
Category. This course comes under
AICTE approved FDP course.



Dr.S.Thangakasi Kasi Rajan ASP &HoD /Mech received Faculty seed money grand of Rs.30000/- for the Project titled “Design and fabrication of two fold adjustable solar panel external attachment on the top of E-Vehicle for charging battery”.

Mr.R.Sakthivel Murugan AP/Mech and Mr.N.R.Madhan AP/Mech received Faculty seed money grand of Rs.20000/- for the Project titled “Design and Development of Effective low cost Engineering Graphics Teaching Models using 3D Printing”.

Dr.P.Narayanasamy ASP/Mech and Mr.B.K.Parrthipan AP/Mech received Faculty seed money grand of Rs.3500/- for the Project titled “An Innovative Design for smart projector using Raspberry Pi”.

Scholars of Eminence



Dr.A.Ganeshbabu
Public viva voce held at
27.10.2023

Supervisor

Dr. S.S.Saravanakumar
ASP /Mech, SSCE
Research Coordinator

Dr.B.Balavairavan
AP/Mech , KCET



Dr.B.K.Parrthipan
Public viva voce held at
19.06.2024

Supervisor Incharge

Dr.S.Senthil
Prof/Mech , KCET
Supervisor

Dr.P.Narayanasamy
ASP/Mech , KCET

Faculty Interactions



Dr.K.Muruganathan AP/Mech attended two training program for “ **Mentor of Standard Club**” organized by **BUREAU OF INDIAN STANDARDS**” Madurai Branch from 20.07.2023 to 21.07.2023.



Mr. B. K. Parrthipan AP/Mech attended “**Niral Thiruvila - problem statement workshop**” organized by **Tamilnadu Skill Development Corporation, GDP Hall, Collectorate, Virudhunagar** on 07.11.2023.



Mr. B.K. Parrthipan AP/Mech attended as guest of honour and as **EXecutive member** of **IE Madurai chapter** , on 02.12.2023 at **Srividhya college of Engineering and Technology**.



Dr. P. Narayanasamy , ASP/Mech , Attended **PMU-B Brainpower Congress 2023 Frontier Research to Future Industries by I** **CONNECT WITH YOU 18-20 Dec 2023** in **Dusit Thani Hua Hin Hotel, Cha-am Petchburi 76120, Thailand**.



Dr.S.Thangakasi rajan ASP&HoD/Mech Visited the CIIC Executive Director Prof. M. PARVEZ ALAM on 07.02.2024.



Dr.S.Thangakasi rajan ASP&HoD/Mech Visited the IQAC Director Dr. A. Abhuthahir and Vice chancellor Prof. Dr. Thanabalan Murugesan of B. S. Abdur Rahman Crescent deemed University, Chennai on 07.02.2024.



Dr.S.Thangakasi rajan ASP&HoD/Mech Visited MSME office, Chennai along with Mr. A. Ravikumar on 07.02.2024.



Dr.S.Thangakasi rajan ASP&HoD/Mech Visited Center for Research, Anna University, Chennai on 07.02.2024



Dr. S. Muthu Natarajan AP/Mech has Delivered a “guest lecture on Engineering Mechanics” at Sri Vidya college of Engineering and Technology Virudhunagar on 20.10.2023.



Dr. S. Thanga Kasi Rajan ASP&HoD/Mech attended one day Engineering Education Seminar “Empowering Next Generation Engineers” organised by ASME, Anna University and TNSDC at Anna University, Chennai, Date : 24.01.2024.



Dr. B. Balavairavan AP/ Mech acted as Resource person for the “one day Guest Lecture on Heat and Mass Transfer” at Srividya College of Engineering ,Sivakasi on 21.2.2024.



Dr. S. Thanga Kasi Rajan ASP&HoD/Mech acted as session chair for the “International Conference on Sustainable Development in Engineering and Technology - ICSDET '24” at K. L. N. College of Engineering, Madurai on 05.04.2024



Mr.B.K.Parrthipan AP/ Mech acted as a session chair cum judge for the event paper presentation contest organized by the institution of engineers (India), Madurai local centre, Madurai on 22.03.24

Dr. B. Balavairavan AP/Mech Delivered online webinar on “Eco-friendly Bio Films for Packaging Applications” on 04.08.2023, organised by Institute Innovation Council (IIC) Vaigai College of engineering Madurai.



Dr.S.Thangakasi Rajan ASP&HoD delivered guest lecture on “Ideas For Innovative Projects” for the students of Arasan Ganesan Polytechnic college Sivakasi at their premise on 27/07/2023

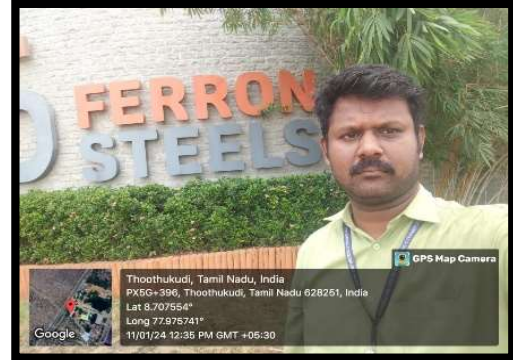


Dr. S. Thanga Kasi Rajan, ASP&HoD delivered Guest Lecture on the topics “ Sizing the drive system: Matching the electric machine and the Internal Combustion engine” and “Pedagogical Issues – OBE, Question paper setting and Development of E-content” on 10.02.2024 in the six days Anna University CFPD Sponsored Faculty Empowerment Programme (FEP) on CME 336 – Hybrid and Electric Vehicle Technology held at Government College of Engineering, Sengipatti, Thanjavur from 05.02.2024 to 10.02.2024.

Industry Institute Interactions



Dr. M. Prithviraj
AP/Mech visited **Ruby**
industry on **11.07.2023**
for consultancy work.



Mr. A. Sankaranarayana
Murthy AP/Mech has visited
M/s. FERRON STEELS, Tuticorin
Dist. Today (**11.01.2024**) for
placement.



Mr. R. Sakthivel Murugan AP/Mech,
Dr. K. Muruganathan AP/Mech
Mr. N. R. Madhan AP/Mech,
Mr. D. Palanikumar AP/Mech and
Mr. B.K. Parrthipan AP/Mech visited
V.P.S.A Thillais Masala Industry,
Virudhunagar on **10.02.2024**.



Dr. M. Prithiviraj AP/Mech
visited M/s. Raini Industries ,
Chennai on 19.02.2024.



Dr. B.Balavairavan and
Mr.B.K.Parrthipan visited the
BIGSO Engineering Industry,
Madurai on 07.06.2024.



Dr. S. Thanga Kasi Rajan
ASP&HoD/Mech and **Dr. M.**
Prithiviraj AP/Mech visited **TVS**
Eurogrip Tyres, Madurai on
09.04.2024.



Dr. S. Muthunatarajan
AP/Mech, visited **TVS**
Sundaram Fasteners, Aviyur
on **23.05.2024** and met the
manager **Mr.Nazer Hussian** for
internship and placement.

DESIGN AND FABRICATION OF HARDWARE INTERFACE TO GENERATE ELECTRIC POWER FROM PARKED ELECTRIC VEHICLES

S. No.	Roll No.	Name of the student
1	21UME006	P.VEERENDRA SEVAK
2	21UME026	O.B. KAUSIK
3	21UME028	K.SAFIQ AHAMED

Project Supervisor - **Dr.M.Prithviraj M.E., Ph.D.**

ABSTRACT

The integration of wind power into electric vehicle (EV) charging systems represents a transformative initiative aimed at reducing carbon footprints and advancing sustainability in transportation. By harnessing renewable energy sources, particularly wind, this project seeks to revolutionize global green transportation efforts. Electric vehicle owners stand to benefit significantly from access to sustainable charging solutions that not only decrease carbon emissions but also diminish the dependency on traditional power grids.

While initial setup costs pose a consideration, the long-term economic savings and substantial environmental benefits justify the investment in renewable energy infrastructure for EV charging. The project's foundation on an electric Golf Cart design serves as a practical demonstration of its feasibility and scalability in renewable energy-powered transportation solutions.

Further refinements and advancements in technology could potentially drive widespread adoption of wind-integrated EV charging systems, thereby significantly impacting global efforts to combat climate change. The innovative approach of this project not only addresses current environmental challenges but also opens new avenues for market expansion in sustainable transportation solutions.



The project team is selected as Runner for Mini Techno vision 2K24 on 18.04.2024



Veerandra Sevak P



Kausik O B



Shafiq Ahamed K

Guided By



Dr.M.Prithviraj

Project Title : Design And Fabrication Of Hardware Interface To Generate Electric Power From Parked Electric Vehicle

DESIGN AND FABRICATION OF A NOVEL SPIKE WEED PULLER WITH PIGEON ANTERIOR VIEW PROFILED STRUCTURE FOR PULLING OUT OF PLANT AND UNWANTED GRASS

Team Members

S. No.	Roll No.	Name of the student
1	21UME003	M. SAKTHI VEL
2	21UME005	K.VISHNU VARDHANP
3	21UME018	C.DEEPAK KUMAR

Project Supervisor - **Mr.N.R.Madhan., M.E., (Ph.D).**

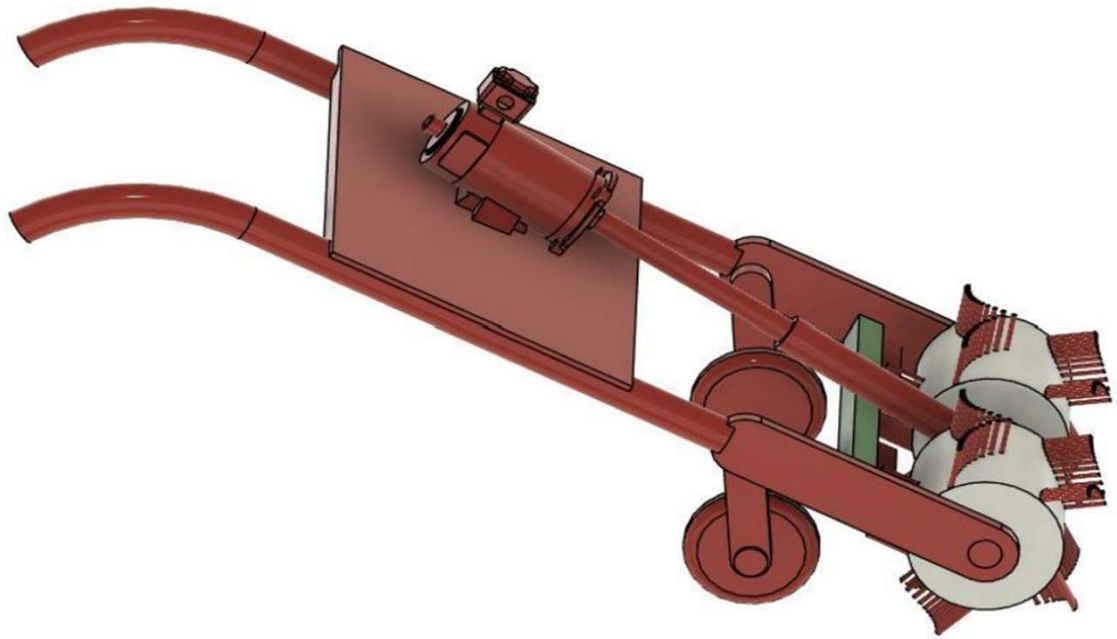
ABSTRACT

In Indian agriculture, tractors or cultivator machines are often employed for the purpose of ploughing. Prior to employing this technology, farmers utilized traditional methods that were labor-intensive, time-consuming, and expensive. We are unveiling a novel machine.

This agricultural machine is of a significantly greater scale and is beneficial for usage in India. Although machines for agriculture are highly priced, they are not affordable for farmers. We have developed a new machine specifically designed to enhance the maximum weed removal capability of the tiller blade in the new design.

We have incorporated supplementary components into this machine to enhance its optimum efficacy in removing weeds. The first component to be removed consists of three lengthy tiller blades used for tilling operations, which create an optimal environment for crop growth. The second component is a cutter attachment designed for cutting crops and grass. This machine is capable of doing both tilling and sand ploughing operations.

Keywords: Agricultural machines, tilling ploughing, and sand ploughing



The project team is selected as Winner for Mini Techno vision 2K24 on 18.04.2024



Sakthivel M



Deepak Kumar C



Vishnuvardhan K

Guided By



Mr.N.R.Madhan

Project Title : Design And Fabrication Of A Novel Spike Weed Pillar With Pigeon Anterior View Profiled Structure For Pulling Out Of Plant And Unwanted Grass

Technical Article

Importance of Seatbelt and Airbag Safety Awareness

When it comes to road safety, two key devices are very important: **Seatbelts and Airbags**. These two safety features work together to protect people during accidents. However, not everyone uses them properly. This article will explain why seatbelts and airbags are important, clear up some common misunderstandings, and stress the need for more safety awareness.

How Seatbelts and Airbags Work Together

Seatbelts and airbags are designed to protect you in different ways:

- 1. Seatbelts:** These are the first line of defense. They keep you in your seat, spread out the force of an accident across stronger parts of your body, and reduce the chance of being thrown out of the car.
- 2. Airbags:** These provide extra protection. They inflate quickly during a accident to cushion you and prevent you from hitting hard parts of the car, like the dashboard or steering wheel.

Why Seatbelts Are Important

Seatbelts are the most basic and essential safety feature in any car. Their benefits include:

- **Reducing Fatalities:** Using seatbelts can reduce the risk of death for front-seat passengers by 45-60% and cut the risk of serious injury by 50%.
- **Preventing Ejection:** In serious accidents, seatbelts keep you inside the car, reducing the risk of being thrown out, which can be deadly.
- **Spreading Force:** Seatbelts spread the force of the impact over the stronger parts of your body, like your pelvis and rib cage, reducing injury to more delicate areas.

Why Airbags Are Important

Airbags add an extra layer of protection:

- **Frontal Airbags:** These inflate during head-on collisions to protect your head, neck, and chest.
- **Side-Impact Airbags:** These protect you during a side collision, shielding your chest and head.
- **Curtain Airbags:** These come down from the roof lining to protect you during a rollover or side-impact collision, preventing head injuries.

The Importance of Using Both Seatbelts and Airbags

For airbags to work properly, you need to wear your seatbelt:

- **Preventing Airbag Injuries:** Without a seatbelt, you can be thrown forward into an airbag with too much force, which can cause serious injuries or death. Seatbelts keep you in the right position for the airbags to protect you properly.
- **Maximizing Safety:** When you use both seatbelts and airbags, the risk of serious injury is much lower. Airbags provide extra protection when you're already secured by your seatbelt.

Seat belts ON

BELT UP!
Wearing a seat belt will hold you in your seat if you crash.
This means... You won't hit the inside of the vehicle or be thrown out of the vehicle.
And... It will hugely increase your chances of surviving a crash.

SEAT BELTS ARE ONE OF THE MOST EFFECTIVE SAFETY FEATURES
Wearing a seat belt can reduce the risk of death in a serious crash by **UP TO 50%**

But some people still choose NOT to use them
On average more than a fifth of car occupants killed in road crashes in Britain are not wearing a seat belt.
Half of young drivers aged 18-24 admit being in a car with someone who wasn't wearing a seat belt.

IT'S THE LAW
▶ Wearing a seat belt is a legal requirement for ALL drivers and passengers.
▶ Drivers are responsible for making sure children under 14 wear a seat belt.
▶ Passengers aged 14 and above are responsible for their own belts.
▶ Children MUST use a child car seat until they are 12 years old, or 150cm tall, whichever comes first.
▶ Drivers caught not wearing a seat belt can be fined up to £100.

NOT JUST FOR DRIVERS
Wearing a seat belt protects passengers and drivers.
In a crash a backseat passenger not wearing a seat belt can be thrown forward with enough force to kill the person in front of them.
Only 91% of back-seat passengers in England and Scotland wear seat belts, compared with 98% of drivers and 97% of passengers in the front seat.

WHAT CAN YOU DO?
Be secure
Always wear your seat belt in any vehicle where available.
Protect other people
Make sure everyone else wears their seat belt, on every journey. Children smaller than 150cm should use a child car seat.
Spread the word
Explain the risks of not wearing a seat belt to friends and family.

SEAT BELT REMINDERS
New vehicle technology can help reduce the risk of death and injury in a road crash. Seat belt reminder systems and sensors and alerts to remind drivers and passengers to buckle their seat belt. Under new European laws, these systems will soon be compulsory for all seats in new cars.



Er. Kumaran A

Subject matter expert in Safety and Restraints,
TATA Technologies
European Innovation & Development center,
United Kingdom.

Editorial Team

Roll No.	Name	Year
22UME014	AATHI.V	III-MECH
22UME020	ANIKET LAKRA	III-MECH
22UME022	NAVEEN SARATHI.V	III-MECH
21UME029	ALITA B ALMEDA	IV-MECH
21UME037	THIRU KUMARAN.S	IV-MECH



Co Editor – Mr. SIVA SETHURAJAN.B
(21UME025 – IV MECH)



Editor – Dr.B.K.Parrthipan
parrthipanmech@kamarajengg.edu.in