



**VELAMMAL**  
**INSTITUTE OF TECHNOLOGY**  
Chennai - Kolkatta Highway, Panchetti, Ponneri



# Department of Mechatronics Engineering

Presents

# ROBONEIR

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July 2023 – December 2023

Volume 2 , Issue 1

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## Editor's Note.....

It is with immense joy and pride that I extend my warmest greetings to you on behalf of Velammal Institute of Technology, as we proudly unveil another edition of Roboneir, the Newsletter of the Department of Mechatronics Engineering. Serving as the Editor-in-Chief for this issue has been a journey marked by excitement, entertainment, and profound enlightenment.



This edition stands as a true fusion of fresh ideas and the dedicated efforts of numerous competent writers and designers from the Department of Mechatronics Engineering. Our team has delved into a myriad of topics, ranging from the cutting-edge advancements in technology to the intricacies of navigating higher studies after graduation. Roboneir, in essence, serves as an open forum for the exchange of ideas, knowledge, and technical transfer. It reflects our commitment to creating a space where innovation and intellectual discourse thrive. We encourage you to immerse yourself in the diverse content presented in this newsletter, fostering a spirit of collaboration and exploration.

I extend my deepest gratitude to everyone involved in the creation of this edition, from writers to designers, for their dedication and passion. Together, we have crafted a publication that not only highlights the achievements of our community but also serves as a source of inspiration for future endeavors.

I sincerely hope that you enjoy reading this edition of Roboneir as much as we enjoyed bringing it to life.

**Dr. N. Balaji**  
**Principal, VIT**

## Editor's Note.....

It is with great pleasure and excitement that I extend my warm greetings to you on behalf of Velammal Institute of Technology. I am delighted to present to you "Roboneir," a newsletter that offers a vibrant glimpse into the dynamic world of the Department of Mechatronics Engineering. This edition of Roboneir stands as a testament to the remarkable achievements, active participation, and successful outcomes of the various activities within our department. It serves not only as a record of our accomplishments but also as a platform for budding engineers to engage in the exchange of innovative ideas.



As you peruse through the pages of this newsletter, I hope you gain a comprehensive understanding of how our department is charting the course for both technical and non-technical excellence. It is our belief that Roboneir not only informs but also inspires, providing valuable insights into the rich tapestry of experiences and accomplishments within our academic community.

Roboneir is more than just a newsletter; it is a reflection of the passion, dedication, and innovation that define mechatronics department. I encourage you to explore the wealth of knowledge and creativity encapsulated within these pages, and I trust that this newsletter will serve as a source of inspiration for all.

Thank you for your continued support, and I hope you enjoy delving into the world of Roboneir.

**Dr. S. Soundararajan**  
**Vice-Principal, VIT**



## From the HOD's Desk.....

This edition encapsulates the commendable accomplishments of the Department of Mechatronics Engineering during this semester, reflecting the collective efforts and achievements of our vibrant academic community. Within these pages, you will find a comprehensive overview of our participation in various competitions, workshops, and paper publications.



The department has been actively involved in organizing workshops on the latest technologies, and I extend my sincere appreciation to the organizers for their dedication and hard work in making these events successful. I would like to acknowledge and commend our students for their continuous contributions to the growth of the department. Their active participation in both technical and non-technical events showcases their enthusiasm and commitment to excellence.

What makes this edition particularly special is the diversity of our accomplishments. It is evident that the students and faculty members of our department excel in a wide range of activities, demonstrating their versatility and dedication. From workshops to competitions, our department continues to make its mark in every endeavor.

As we reflect on the achievements of this semester, I am optimistic about the promising future that lies ahead. The success of our department is a result of the collective efforts of each member, and I am confident that this momentum will carry us forward into a very successful upcoming quarter.

**Dr. D. Magesh Babu**  
**HOD – Mechatronics, VIT**



# TEAM MEMBERS



## Editors-in-Chief

**Dr. N. Balaji, Ph.D.,**

Principal, Velammal Institute of Technology

**Dr. S. Soundararajan, Ph.D.,**

Vice - Principal, Velammal Institute of Technology

## Associate Editor

**Dr. D. Magesh Babu, Ph.D.,**

Professor & Head / Mechatronics Engineering,

Velammal Institute of Technology

## Editors

**Dr. B. Madhu, M.E., Ph.D.,** Asso. Prof./Mechatronics/VIT

**Dr. V. Ramasamy, M.E., Ph.D.,** Asst. Prof./Mechatronics/VIT

**Mr. G. M. Pradeep, M.E., (Ph.D),** Asst. Prof./Mechatronics/VIT

**Mr. R. Ohmsakthi vel, M.E., M.Tech., (Ph.D),** Asst. Prof./Mechatronics/VIT

**Mr. S. Vijayan, M.E., (Ph.D),** Asst. Prof./Mechatronics/VIT

## Student Coordinators

**Mr. H. L. Arun Prasad,** IV Yr Mechatronics, VIT

**Mr. V. Vishnu,** IV Yr Mechatronics, VIT

**Mr. V. Dinesh Kumar,** IV Yr Mechatronics, VIT

**Ms. R. Kaviya,** III Yr Mechatronics, VIT

**Mr. B. Mohankanth,** III Yr Mechatronics, VIT

**Mr. R. S. Prakash,** III Yr Mechatronics, VIT

**Mr. M. B. Buvaneshwaran,** II Yr Mechatronics, VIT

**Mr. M. Jagadeesh,** II Yr Mechatronics, VIT

**Ms. S. Mohana Priya,** II Yr Mechatronics, VIT



# CONTENTS



## Department Activities

Events Organized

Industrial Visits

MoU Signing Ceremony

Placement & Training

Infrastructure Development

## Faculties Corner

Individual contribution

## Students Corner

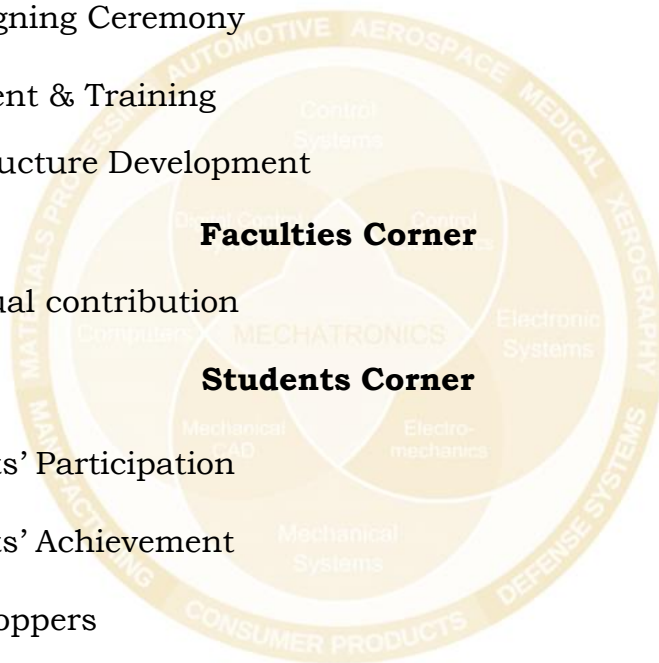
Students' Participation

Students' Achievement

Class Toppers

Students' Projects

## Out - of - Class Activities



# Department Activities





## One Week Value Added Course on “Industrial Automation”

The Department of Mechatronics Engineering, Velammal Institute of Technology and UniversalTech Automation Pvt Ltd. Jointly organised one week value added course on “Industrial Automation” from 17.07.2023 to 22.07.2023 for III Year and IV Year Mechatronics Engineering Students at Mechatronics seminar hall with an objective to enrich knowledge on PLC, SCADA and DCS. The lecture was delivered by Mr. R. Ohmsakthivel, Velammal Institute of Technology and Mr. G. Muthukrishnan, Managing Director, UniversalTech Automation Pvt Ltd.

**VELAMMAL**  
INSTITUTE OF TECHNOLOGY

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Department of Mechatronics Engineering  
Organizing  
Six Days Value Added Course  
on  
**Industrial Automation**  
for III<sup>rd</sup> and IV<sup>th</sup> Year Mechatronics Engineering  
in association with  
UniversalTech Automation

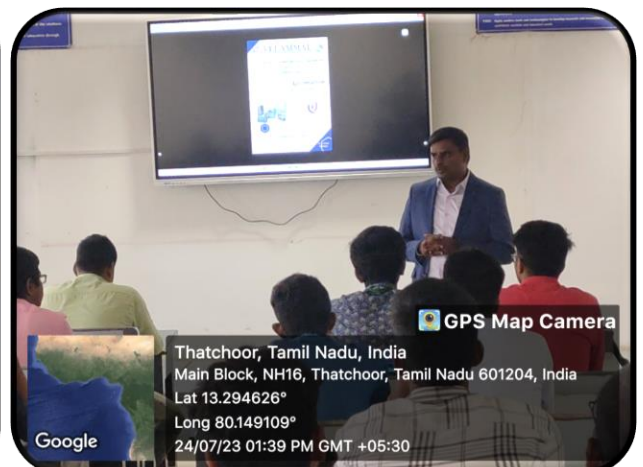
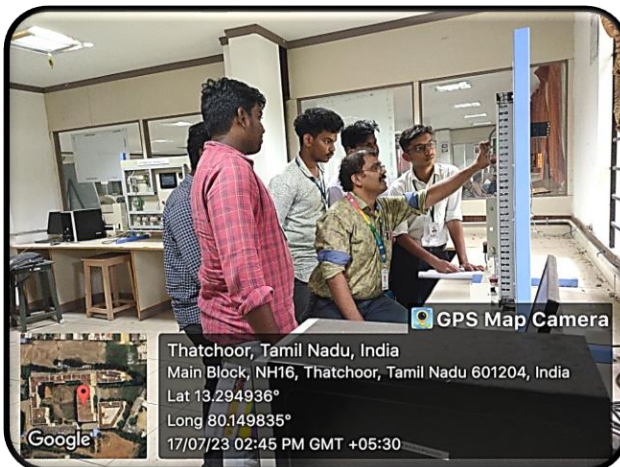
Duration  
17.07.2023 to 22.07.2023

Dr. D. Magesh Babu  
HOD/Mechatronics Engg.

Dr. S. Soundararajan  
Vice Principal

Dr. V. Balaji  
Principal

Value Added Course





## Industry Expert Talk on “Cobots for Industrial Applications”

The Department of Mechatronics Engineering, Velammal Institute of Technology and UniversalTech Automation Pvt Ltd. Jointly organised expert talk on “Cobots for industrial applications” on 24.07.2023 for III Year and IV Year Mechatronics Engineering Students at seminar hall with an objective to inculcate the robotic technology and the inclusion of cobots for various industrial applications among students. The lecture was delivered by Mr. G. Muthukrishnan, Managing Director, UniversalTech Automation Pvt Ltd.

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CIE 823 DEL/19/ECOP Accredited by NBA & NAAC  
"National Knowledge Park", Chennai - Kallakurichi Highway, Pinneri - 601 204

**Department of Mechatronics & Mechanical Engineering**  
*in association with*  
**UniversalTech Automation**  
*jointly Organize*

**INDUSTRY EXPERT TALK ON**  
**Cobots for Industrial Applications**

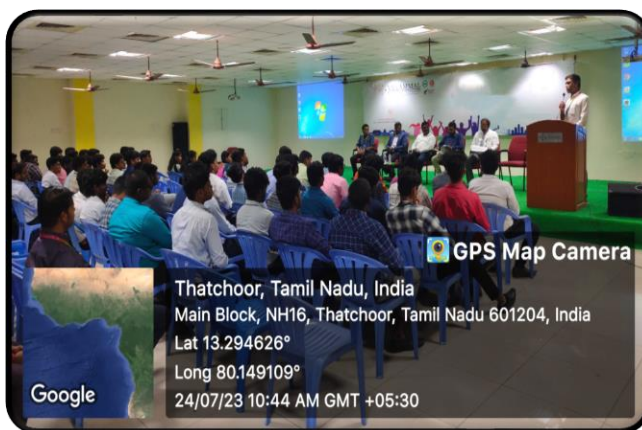
24-07-2023 10am-12.30pm

**Expert Speaker**  
**Mr. Muthukrishnan G**  
Managing Director  
UniversalTech Automation  
Coimbatore-641035  
**Venue**  
First Floor Seminar Hall

**Coordinator**  
Mr. R. Ohmsakthi Vel-Asst. Prof/MTS  
Mr. S. Socrates-Asst. Prof/MECH

**Convenors**  
Dr. D. Magesh Babu HoD/Prof. MTS  
Dr. S. Soundararajan Vice-Principal  
Dr. N. Balaji Principal  
Dr. S. Kaliappan HoD/Prof. MECH.

Industry Expert Talk



## One Day Workshop on “Road Safety Awareness”

The Department of Mechatronics Engineering, Velammal Institute of Technology organised one day workshop on “Road Safety Awareness” from 25.07.2023 for all Engineering Students at Seminar hall, Third Floor with an objective to give awareness on road safety measures. The lecture was delivered by Mr. R. Ohmsakthi vel, Velammal Institute of Technology and Mr. K. Jeevanandham, Assistant Engineer (Retired), Tamil Nadu State Transport Corporation (TNSTC), Thiruvannamalai.

Workshop





## One Day Workshop on “Future of Making Things with Autodesk Fusion 360”

The Department of Mechatronics Engineering, Velammal Institute of Technology and USAM Technology Solutions Jointly organised one day workshop on “Future of Making Things with Autodesk Fusion 360” on 28.07.2023 for III Year and IV Year Mechatronics Engineering Students at Mechatronics seminar hall with an objective to inculcate the design concepts using Autodesk Fusion 360. The lecture was delivered by Mr. M. Mahesh, Manager – Technical, USAM Technology Solutions, Chennai.

**VELAMMAL INSTITUTE OF TECHNOLOGY**  
Departments of EEE, Mechanical & Mechatronics Engineering  
in association with  
**USAM**  
Delivering IT Solutions To Suit Every Need  
Jointly Organizes  
**One Day Workshop on**  
**Future of Making Things with "Autodesk Fusion 360"**  
28-07-2023 09.30am - 03.15 pm CAD Lab

**Resource Person**  
Mr. Mahesh M  
Manager Technical  
USAM Technology Solutions,  
Chennai

**Coordinators**  
Dr. V. Ramasamy-Asst. Prof/MCT  
Mr. M. D. Rajkamal-Asst. Prof/MECH

**Convenors**  
Dr. S. Kaliappan Prof./HOD-MECH. Dr. D. Magesh Babu Prof./HOD-MCT Dr. S. Muthukruppasaamy Prof./HOD-EEE  
Dr. S. Soundararajan Vice-Principal Dr. N. Balaji Principal

**Workshop**



# One Day Hands-on Training on “Robot Programming using RoboDK Software”

The Department of Mechatronics Engineering, Velammal Institute of Technology organised one day Hands-on Training on “Robot Programming using RoboDK Software” on 03.08.2023 for III Year and IV Year Mechatronics Engineering Students at Mechatronics seminar hall with an objective to enrich knowledge on Robotic Programming. The lecture was delivered by Mr. R. Ohmsakthi vel, Velammal Institute of Technology.

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Velammal Knowledge Park, Chennai - Kakkata Highway, Porur - 601204

**Department of Mechatronics Engineering**  
Organises  
**One Day Hands-on Training on Robot Programming using RoboDK Software**

**RESOURCE PERSON**  
Mr. R. Ohmsakthi vel  
Assistant Professor  
Dept. of Mechatronics Engineering  
Velammal Institute of Technology

03.08.2023 08.30 am - 03.15 pm

Mechatronics Seminar Hall

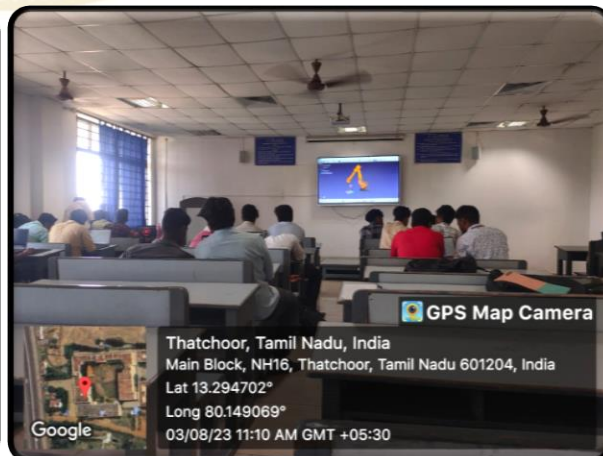
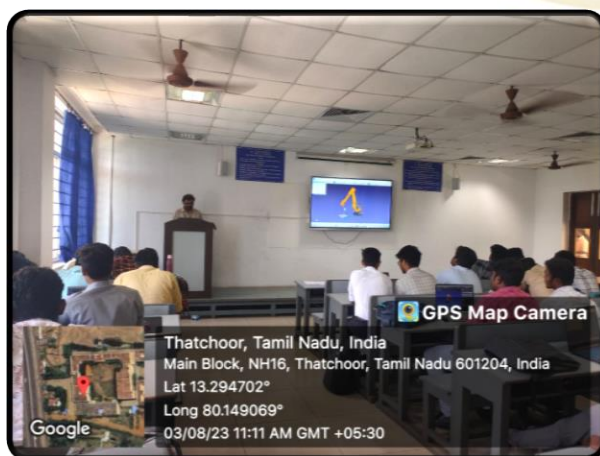
III Year & IV Year Mechatronics Engineering Students

**COORDINATORS**  
Dr. V. Ramasamy Asst. Prof./MTS  
Mr. S. Dharaga Vineeth Asst. Prof./MTS

**CONVENORS**  
Dr. D. Magesh Babu Prof & Head/MTS  
Dr. S. Soundararajan Vice-Principal  
Dr. N. Balaji Principal

RoboDK

Workshop





## One Day Hands-on Training on “Exploring the Integration of ESP32 with IOT Field Devices”

The Department of Mechatronics Engineering, Velammal Institute of Technology organised one day Hands-on Training on “Exploring the Integration of ESP32 with IOT Field Devices” on 25.11.2023 for II Year Mechatronics Engineering Students at Mechatronics seminar hall with an objective to inculcate the programming and interfacing knowledge of ESP32 for various real time applications. The Session was handled by our Third Year Mechatronics Engineering Students.

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"Velammal Knowledge Park", Chennai - Kolkatta Highway Ponneri - 602004

**Department of Mechatronics Engineering**  
Organizes

**ONE DAY HANDS-ON TRAINING**  
**EXPLORING THE INTEGRATION OF ESP32 WITH IOT FIELD DEVICES**

**Participants**  
II Year Mechatronics Engineering Students

**Date**  
25.11.2023

**Time**  
9.00 am to 3.00 pm

**COORDINATOR**  
Mr. R. Ohmsakthi vel  
Asst. Prof./MTS

**CONVENORS**  
Dr. D. Magesh Babu Prof & Head/MTS  
Dr. S. Soundararajan Vice-Principal  
Dr. N. Balaji Principal

# Workshop



## Guest Lecture on “Design of Eccentric Loaded Bolted Joints”

The Department of Mechatronics Engineering, Velammal Institute of Technology organised one day Guest Lecture on “Design of Eccentric Loaded Bolted Joints” on 26.09.2023 for III Year Mechatronics Engineering Students at Mechatronics seminar hall with an objective to inculcate the design concepts required for Robot elements. The Session was handled by Mr. T. Balasubramanian, Assistant Professor, Department of Mechanical Engineering, St Joseph's College of Engineering, OMR, Chennai.

**VELAMMAL INSTITUTE OF TECHNOLOGY**  
DEPARTMENT OF MECHANICAL & MECHATRONICS ENGINEERING

**GUEST LECTURE** Design of Eccentrically loaded bolted joints

**Mr. T. Balasubramanian**  
Assistant professor  
Department of Mechanical Engineering  
St. Joseph's College of Engineering,  
OMR, Chennai

**Participants**  
III Year Students

**VENUE : MECHANICAL SEMINAR HALL**

**Date & Time 26-09-2023 & Forenoon**

**Mr. S. Socrates**  
Coordinator  
Assistant Professor

**Dr. M. S. Heaven Dani**  
HoD /Mech  
Associate Professor

**Dr. D. Magesh babu**  
HoD /MCT  
Professor

**Dr. S. Soundararajan**  
Vice Principal

**Dr. N. Balaji**  
Principal

**Velammal I Tech Mechanical**

**Mechteon**

Guest Lecture





## Industry Expert Talk on “TQM Tools and Techniques”

The Department of Mechatronics Engineering, Velammal Institute of Technology organised one day Expert Talk on “TQM Tools and Techniques” on 19.09.2023 for IV Year Mechatronics Engineering Students at First Floor seminar hall with an objective to inculcate the TQM Tools and Techniques in industrial scenario. The Session was handled by Mr. G. Vijaya Kumar, Assistant General manager – QE, Ashok Leyland Ltd., Ennore, Chennai.

Industry Expert Talk


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NATIONAL BOARD OF ACCREDITATION  
  
NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

**Department of Mechatronics and Mechanical Engineering**  
*Jointly Organizes*  
**Industry Expert Talk**  
 on  
**“TQM TOOLS AND TECHNIQUES”**

**Expert Speaker**  
**Mr. Vijaya Kumar.G**  
 Asst. General Manager - QE  
 Ashok Leyland Ltd  
 Ennore, Chennai.

On 19.9.2023  
 9.30 to 11.30 am  
**Venue:**  
 First Floor Seminar Hall  
**Audience : IV Year Mech & MTS**

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# Innovation Voucher Program at Anna University

Department of Mechatronics Engineering, Velammal Institute of Technology organized a one day Innovation Voucher Program on 04/08/2023. A team of III & IV year Students of Mechatronics Engineering (40 no's) along with 2 Faculty members took part in the program at Centre for Entrepreneurship Development, Anna University, Chennai. We started from VIT and reached Anna University at around 10.00 am by our college bus. There, the students interact with incubation officer and enrich their knowledge towards innovation, incubation and startups. Also they detailed various schemes to support financially to kick a startup. Overall, the students are very happy and got benefits in terms of knowledge, skills and societal exposure.

Innovation Voucher Program

**VELAMMAL INSTITUTE OF TECHNOLOGY**  
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"Velammal Knowledge Park" Chennai - Kolkatta Highway, Ponneri - 602004

**Department of Mechatronics & Mechanical Engineering and Entrepreneurship Development Cell**  
in association with  
**Innovation and Entrepreneurship Development Programme (IEDP) Hub**  
Centre for Entrepreneurship Development, Anna University, Chennai.

Jointly organizes  
**INNOVATION VOUCHER PROGRAM**

**Time:** 10.30 am to 12.30 pm  
**Date:** 04.08.2023  
**Venue:** Centre for Entrepreneurship Development, Anna University, Guindy Campus, Chennai - 25

**COORDINATORS**  
Dr. V. Ramasamy, Asst. Prof/MTS  
Mr. S. Socrates, Asst. Prof/Mech

**CONVENORS**  
Dr. D. Magesh Babu, Prof & Head/MTS  
Dr. S. Kaliappan, Prof & Head/Mech  
Dr. S. Soundararajan, Vice-Principal  
Dr. N. Balaji, Principal





## Industrial Visit to K-Lite

Department of Mechatronics Engineering, Velammal Institute of Technology organized a one day Industrial visit to K-Lite Industries on 05/08/2023. A team of III & IV year Students of Mechatronics Engineering (40 no's) along with 2 Faculty members took part in the Industrial visit. We started from VIT and reached K-Lite Industries at around 10.00 am by our college bus. There, the students gained knowledge on Control over materials helps us strike a perfect balance between quality and aesthetics, bringing excellent lighting pieces to life. Also students observed. CNC robotic fabrication, surface mount technology (SMT) line, shot blasting, or 2D/3D milling. Overall, it was very useful for the students and strengthened their knowledge about the Control over luminous light.

Industrial Visit



**VELAMMAL INSTITUTE OF TECHNOLOGY**  
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"Velammal Knowledge Park", Chennai - Kolkatta Highway, Ponnari - 502004

**Department of Mechatronics & Mechanical Engineering**  
in association with  
**K-Lite Industries**  
India's Lighting Company  
Jointly organizes

### Industrial Visit

<b>Participants</b> Mechatronics & Mechanical Engineering Students	<b>Date</b> 05.08.2023
	<b>Time</b> 9.00 am to 3.00 pm

**COORDINATORS**

<b>Mr. R. Ohmsakthi vel</b> Asst. Prof/MTS	<b>Mr. S. Socrates</b> Asst. Prof/Mech
<b>Mr. S. Dharaga Vineeth</b> Asst. Prof/MTS	<b>Mr. K. Balamanikandasuthan</b> Asst. Prof/Mech

**CONVENORS**

<b>Dr. D. Magesh Babu</b> Prof & Head/MTS	<b>Dr. S. Soundararajan</b> Vice-Principal	<b>Dr. N. Balaji</b> Principal
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# Industrial Visit to K-Lite

Department of Mechatronics Engineering, Velammal Institute of Technology organized a one day Industrial visit to K-Lite Industries on 27/10/2023. A team of II year Students of Mechatronics Engineering (40 no's) along with 2 Faculty members took part in the Industrial visit. We started from VIT and reached K-Lite Industries at around 10.00 am by our college bus. There, the students gained knowledge on Control over materials helps us strike a perfect balance between quality and aesthetics, bringing excellent lighting pieces to life. Also students observed. CNC robotic fabrication, surface mount technology (SMT) line, shot blasting, or 2D/3D milling. Overall, it was very useful for the students and strengthened their knowledge about the Control over luminous light.

Industrial Visit





# MoU Signing Ceremony

Department of Mechatronics Engineering signed MoU with two Companies namely **UniversalTech Automation Pvt Ltd.** and **Fluid Machine Control Pvt Ltd.** on 24/07/2023. The purpose of this MoU is to improve and Facilitate the career opportunities, Projects, Internships and Placement to the students.

Memorandum of Understanding (MOU)

INDUSTRY COLLABORATION

## Velammal Institute of Technology

Department of Mechatronics Engineering & Department of Mechanical Engineering

Cordially invites you to the

# MOU Signing Ceremony

with

UniversalTech Automation & Fluid Machine Control Pvt Ltd

# 24 July, 2023

Time: 9:30 am

- Students Exchange
- Faculty Exchange
- Collaborative Research
- Curriculum Designing / Sharing
- Guest Sessions

Velammal Institute of Technology

- Management Development Programs
- Internship & Placement opportunities for students
- Consultancy services by expert faculty
- Sponsorship and Branding opportunities
- Joint CSR projects

**Dr. S. Kaliappan**  
HOD/Mechanical Engg.

**Dr. D. Magesh Babu**  
HOD/Mechatronics Engg.

**Dr. S. Soundararajan**  
Vice Principal

**Dr. N. Balaji**  
Principal



# MoU Signing Ceremony

**Velammal Institute of Technology** signed MoU with **KC Overseas** on 28/07/2023. The purpose of this MoU is to create awareness and facilities to make the students to pursue higher education.



**Velammal Institute of Technology**  
Velammal Knowledge Park, Panchetti, Thiruvallur 601204

Cordially Invites you to the  
*Memorandum of Understanding*  
**Signing Ceremony**





**25** | **KC overseas**  
education

<p><i>Dr. D. Magesh Babu, HoD/MTS</i> <i>Dr. G. Shanmugaraj, Prof./ECE</i> Higher Education Cell Coordinator</p>	<p><i>Dr. S. Soundararajan</i> Vice-Principal</p>	<p><i>Dr. N. Balaji</i> Vice-Principal</p>
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Memorandum of Understanding (MOU)



## Programming on C, C++

Department of Training and Placement, Velammal Institute of Technology organized training programs to II year, III Year and IV Year Mechatronics Engineering students from second year onwards. This cell continuously strives to help students help students in pursuing their career goals by acquiring employment-seeking skills and ultimately to attain desired employment. This is accomplished through building a strong partnership amongst students, alumni, faculty-members and industries. Usually they conduct training program in very first week of the every semester with structured curriculum.

In this semester, Department of Mechatronics Engineering organized a training program on C and C++ for II year, III Year and IV Year Mechatronics Engineering students on every Wednesday through the semester. The session was handled by Mr. Prabu Arokyaraj, Assistant Professor, Department of Computer Science and Engineering, Velammal Institute of Technology.



## Two Days Training on “Placement Support Training Session”

The Department of Mechatronics Engineering, Velammal Institute of Technology organised two days Placement support training program for III Year and IV Year Mechatronics Engineering students from 26.07.2023 to 27.07.2023 at Mechatronics seminar hall with an objective to inculcate the placement culture to the students. The lecture was delivered by Mr. K. Kalaivanan, Mr. S. Somu, Ms. V. Deepa and Ms. K. Manisha Sharma from the Department of English, Velammal Institute of Technology.

**VELAMMAL INSTITUTE OF TECHNOLOGY**  
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"Velammal Knowledge Park", Chennai - Kalkatta Highway, Ponnai - 602004

Department of Mechatronics Engineering and Department of Mechanical Engineering Organizes

**PLACEMENT SUPPORT TRAINING SESSION**

**RESOURCE PERSONS**  
Mr. K. Kalaivanan, AP/English/VIT  
Ms. V. Deepa, AP/English/VIT  
Ms. K. Manisha Sharma, AP/English/VIT  
Mr S. Somu, AP/English/VIT

26.07.2023 & 27.07.2023  
08.45 am - 12.30 pm  
Mechatronics Seminar Hall

Mechatronics and Mechanical Students

**COORDINATORS**  
Mr. R. Ohmsakthi vel, Asst. Prof./MTS  
Mr. S. Dharaga Vineeth, Asst. Prof./MTS

**CONVENORS**  
Dr. S. Kallappan, Prof & Head/Mech  
Dr. D. Magesh Babu, Prof & Head/MTS  
Dr. S. Soundararajan, Vice-Principal  
Dr. N. Balaji, Principal

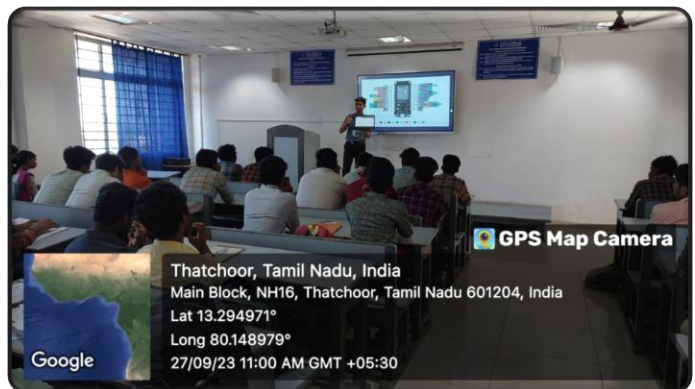
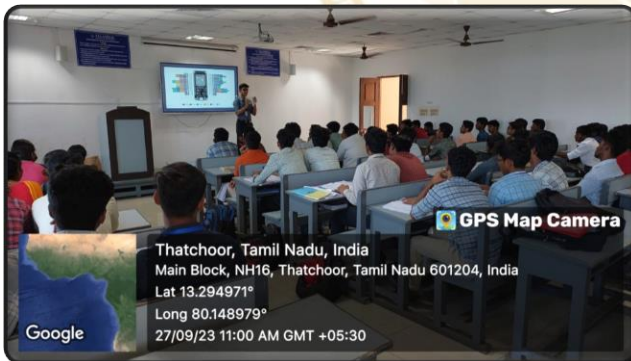
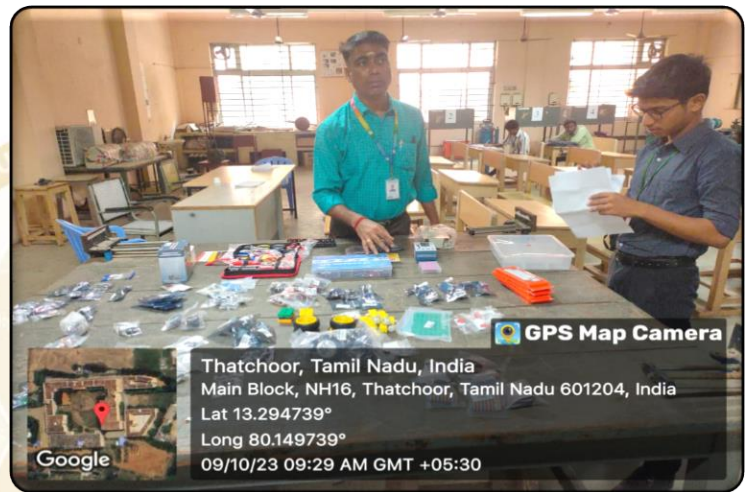
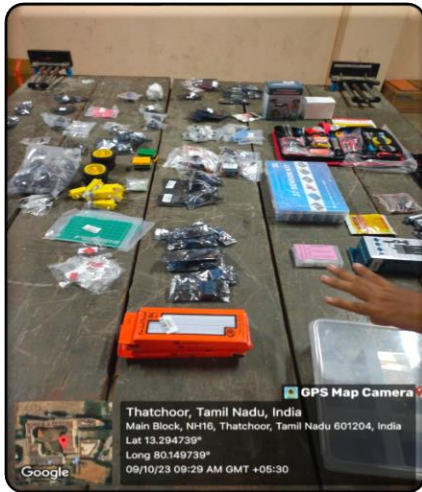
Training Program





# New Lab Installation

Department of Mechatronics Engineering, Velammal Institute of Technology purchased new components to enrich and promote students' technical activities. By this, students can involve themselves in various projects and got exposed in technical competition



Infrastructure Development



# Industry – Institute Interaction

Mr. G. M. Pradeep, AP/Mechatronics visited ARAMS - EV Vehicle, Coimbatore and Risabh Electronic Systems - 3D Printing, Coimbatore. on 16/11/2023. The purpose of this visit is to arrange industrial visit, Project and internships for the Mechatronics Engineering students. They are ready to sign Memorandum of Understanding (MoU) with our college in the view of placement and training.



Industry - Institute Interaction



# Faculty Corner



## Dr. D. Magesh Babu

Professor & Head – Mechatronics Engineering

### Journal

- Girija M.S., Tapas Bapu B.R., **Magesh Babu D.** & Madhu B. (2023). A variance difference method for determining optimal number of clusters in wireless sensor networks. Ad Hoc & Sensor Wireless Networks, 55.3-4, 321-329



### Patents

- A Tungsten-Carbide Tool to Reduce Consumption of Workpieces in Friction Stir Welding (FSW), Journal No. 51/2023 Dated 22/12/2023

### Book / Book Chapters

- Mechatronics System Design and Development – Scientific International Publishing House - ISBN: 9789361323973

### Sponsored / Funded Projects

- Received 13.14 Lakhs from MSME for **Automatic Vibro Polishing Machine** - UC submitted.
- Proposal worth of 85 Lakhs submitted for MSME for **Plant and Machinery for Development of MSME Ideas.**
- Proposal worth of Rs 27 Lakhs submitted for SERB-CRG under the title **3D Printing of Titanium & Magnesium based alloys for Biomedical Applications.**
- Proposal worth of Rs 11.35 Lakhs submitted for DST - TIDE under the title **An Intelligent Kitchen appliance for Elderly people.**
- Proposal worth of Rs 10,000 submitted for TNSCST under the title **Design and fabrication of 3D printing tool for industrial robot.**
- Proposal worth of Rs 10,000 submitted for TNSCST under the title **Design and fabrication of Automated clog removing machine for underground drainage system.**



## Dr. B. Madhu

Associate Professor– Mechatronics Engineering

### Journal

- Girija M.S., Tapas Bapu B.R., Magesh Babu D. & **Madhu B.** (2023). A variance difference method for determining optimal number of clusters in wireless sensor networks. Ad Hoc & Sensor Wireless Networks, 55.3-4, 321-329
- B. Thamarai Kannan, **B. Madhu**, A.E. Kabeel, Amrit Kumar Thakur, R. Velraj, I. Lynch, R. Saidur, Ravishankar Sathyamurthy, Improved freshwater generation via hemispherical solar desalination unit using paraffin wax as phase change material encapsulated in waste aluminium cans, Desalination, Volume 538, 2023, 115907, ISSN 0011-9164,



### R&D Cell Initiatives

- Dr. B. Sridevi, **Dr. B. Madhu**, and Dr. J. Nandhagopal, along with their team, have successfully earned recognition from the Department of Scientific and Industrial Research (DSIR) for Velammal Institute of Technology as a Scientific and Industrial Research Organization (SIRO).

### Patents

- A Tungsten-Carbide Tool to Reduce Consumption of Workpieces in Friction Stir Welding (FSW), Journal No. 51/2023 Dated 22/12/2023

### Book / Book Chapters

- Mechatronics System Design and Development – Scientific International Publishing House - ISBN: 9789361323973

### Sponsored / Funded Projects

- Received 13.14 Lakhs from MSME for **Automatic Vibro Polishing Machine** - UC submitted.
- Proposal worth of 85 Lakhs submitted for MSME for **Plant and Machinery for Development of MSME Ideas.**
- Proposal worth of Rs 5 Crores submitted for ATALACIC for installing **ATAL Incubation Centre**
- Submitted proposal worth of Rs 11.35 Lakhs submitted for SERB-CRG under the title **An Intelligent Kitchen appliance for Elderly people.**
- Submitted proposal worth of Rs 10,000 submitted for TNSCST under the title **Design and fabrication of Autonomous Solar Panel Cleaning.**

## Dr. V. Ramasamy

Assistant Professor– Mechatronics Engineering

### Journal

- Suhas Prakashrao Patil, G. Leela Prasad, Chappeli Sai Kiran, Sanjeev Kumar, **V. Ramasamy**, H. Mohammed Ali, Surface roughness and topography of EDM machining of Inconel 718, Materials Today: Proceedings, 2023, ISSN 2214-7853,
- Ramesh Kumar Ayyakkannu, Sakthi Rajan Chandramurthy, **Ramasamy Veeramalai**, Pradeep Kumar Madhesan. 3D Computational Investigation of Thermal performance on Engine Cylinder: Effect of Different Geometry Fins. 2023, Thermal Science 2023 Volume 27, Issue 4 Part A, Pages: 2947-2956



### Patents

- An Economic Portable Nano Particles Based Sewage Water to Drinking Water Converter, Journal No. 36/2023 Dated 08/09/2023
- A Tungsten-Carbide Tool to Reduce Consumption of Workpieces in Friction Stir Welding (FSW), Journal No. 51/2023 Dated 22/12/2023

### FDP Attended

- Attended 7 Days FDP on Dynamics of Machinery at Easwari Engineering College, Chennai from 21.7.23 to 27.7.23.
- Attended 5 Days FDP on Product Design and Manufacturing 3D Surface Modelling at Madras Institute of Technology, Chennai.

### Sponsored / Funded Projects

- Proposal worth of Rs 27 Lakhs submitted for SERB-CRG under the title **3D Printing of Titanium & Magnesium based alloys for Biomedical Applications.**



## Mr. G. M. Pradeep

Assistant Professor– Mechatronics Engineering

### Journal

- Gokilakrishnan, G., Meenakshi, R., **Pradeep, G.M.** et al. Implementation of lean six sigma (LSS) techniques for tyre manufacturing in small and medium-sized enterprises. *International Journal of System Assurance Engineering and Management*, 14, 1208–1217 (2023).
- R. Kamala Kannan, **G. M. Pradeep**, K. Naran Raj, V. Naveenkumar, D. Ramesh Aravinth, G. Ravindranath Reddy; Influences of habitat on agriculture spatial assessment and economic evaluation for harm reduction. *AIP Conf. Proc.* 22 May 2023; 2492 (1): 050026.
- R. Kamala Kannan, **G. M. Pradeep**, V. Jagadeesh, R. Jagadeesh, S. Kavim, Sri Ram Shivakumar; An autonomous seed material generation device for sugarcane, mechatronically integrated: A field of economic importance. *AIP Conf. Proc.* 22 May 2023; 2492 (1): 050025.
- Ponnusamy, Prasanth & Pon, Maheskumar & Mohanraj, A & **Pradeep, G** & Nanthakumar, S & Shaik, Hasane & Girimurugan, R. (2023). Optimization on the mechanical parameters and impact of welding parameters of pulsed TIG welding of Aluminium-Zinc-Magnesium alloy. *Journal of Physics: Conference Series*. 2603. 012039.



### Patents

- An Economic Portable Nano Particles Based Sewage Water to Drinking Water Converter, Journal No. 36/2023 Dated 08/09/2023
- A Tungsten-Carbide Tool to Reduce Consumption of Workpieces in Friction Stir Welding (FSW), Journal No. 51/2023 Dated 22/12/2023

### FDP Attended

- Attended 6 Days FDP on Five Day FDP on CO PO mapping and CO PO Attainment at Greater Kolkata College of Engineering & Management, West Bengal from 10.07.23 to 14.07.23.

### Book / Book Chapters

- Joshua Gnana Sekaran, J., Gokilakrishnan, G., **Pradeep, G.M.**, Saravanan, R., Girimurugan, R. (2023). Experimental Explorations on Mechanical Performance of Waste Marble Dust Powder and Banana Fibre Strengthened Hybrid Bio-composites. In: Nayak, R.K., Pradhan, M.K., Mandal, A., Davim, J.P. (eds) *Recent Advances in Materials and Manufacturing Technology*. ICAMMT 2022. Lecture Notes in Mechanical Engineering. Springer,

## Mr. R. Ohmsakthi vel

Assistant Professor– Mechatronics Engineering

### Journal

- **Ohmsakthi vel R**, Sharma S, Srinivas O PB, Ragul S,. 2023. Enhancing Mechanical Properties of Composite Resin/Hydroxyapatite Nanocomposite for Dental and Orthopedic Applications: Synthesis, Characterization, and Bioactivity Assessment. NanoWorld J 9(4): 152-156.



### Patents

- A Tungsten-Carbide Tool to Reduce Consumption of Workpieces in Friction Stir Welding (FSW), Journal No. 51/2023 Dated 22/12/2023

### FDP Attended

- Attended 6 Days FDP on Digital Transformation for Smart factories at Madras Institute of Technology, Chennai from 30.10.23 to 04.11.23.
- Attended 5 Days FDP on AI in Robotics and Automation for innovative initiatives in digital era at Sri Krishna College of Engineering and Technology, Coimbatore from 04.12.2023 to 08.12.2023.

### Book / Book Chapters

- Mechatronics System Design and Development – Scientific International Publishing House - ISBN: 9789361323973

### Sponsored / Funded Projects

- Proposal worth of Rs 11.35 Lakhs submitted for DST - TIDE under the title **An Intelligent Kitchen appliance for Elderly people.**
- Proposal worth of Rs 10,000 submitted for TNSCST under the title **Design and Fabrication of AI based surveillance system for women - safety in public transport system.**
- Proposal worth of Rs 10,000 submitted for TNSCST under the title **Design and Fabrication of an intelligent system to check quality of the rice in ration shop.**



## Mr. S. Vijayan

Assistant Professor– Mechatronics Engineering

### Journal

- S. Vijayan, Ravishankar Sathyamurthy, Esmail M.A. Mokheimer, R. Sathish Kumar, Performance enhancement and emission reduction of CRDI diesel engine fueled using Manilkara Zapota biodiesel blend with TiO<sub>2</sub> nanoadditive, Fuel Processing Technology, Volume 248, 2023, 107842, ISSN 0378-3820,



### Patents

- A Tungsten-Carbide Tool to Reduce Consumption of Workpieces in Friction Stir Welding (FSW), Journal No. 51/2023 Dated 22/12/2023

### Book / Book Chapters

- Mechatronics System Design and Development – Scientific International Publishing House - ISBN: 9789361323973

### FDP Attended

- Attended 5 Days FDP on AI in Robotics and Automation for innovative initiatives in digital era at Sri Krishna College of Engineering and Technology, Coimbatore from 04.12.2023 to 08.12.2023.

### Sponsored / Funded Projects

- Proposal worth of Rs 10,000 submitted for TNSCST under the title **Design and development of light weight smart stick for elderly people**

# **Students Corner**





- **Ms. S. Shrimukhi** from II Year Mechatronics Engineering has attended “Workshop on Industrial Automation” on 26<sup>th</sup> September 2023 organized by Department of Mechanical Engineering at Chennai Institute of Technology, Sarathy Nagar, Chennai.
- **Ms. S. Shrimukhi** from II Year Mechatronics Engineering has attended “Workshop on Robotics” on 26<sup>th</sup> September 2023 organized by Department of Mechanical Engineering at Chennai Institute of Technology, Sarathy Nagar, Chennai.
- **Mr. R. Mukesh, Mr. S. Navin Babu, Mr. M. Pugazhenth, Mr. R. Syed Haseebur Rahman, Mr. J. Jerine Selvakumar**, from III Year Mechatronics Engineering has attended Technical Symposium on 02<sup>nd</sup> September 2023 organized by Department of Mechanical Engineering at St Josph’s College of Engineering, OMR, Chennai.
- **Mr. A. Goutham**, from III Year Mechatronics Engineering has attended Technical Symposium and won Third Prize in Paper Presentation on 28<sup>th</sup> October 2023 organized by Department of Mechanical Engineering at T. J. S. Engineering College, Kavaraipettai, Thiruvallur.



Mr. V. Dinesh Kumar from IV year Mechatronics Engineering has undergone one month internship at Metro Composite Testing Lab, Ambattur, Chennai from 04.10.2024 to 04.11.2023



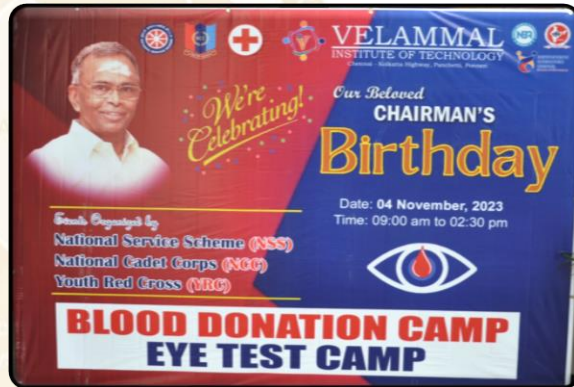
Our Yukthi team projects (Robots for healthcare applications) from **Mechatronics students** are participating in the IIC Regional meet at crescent institute of science and technology



Students' Participation



Velammal Institute of Technology organized one day Blood Donation Camp and Eye Test Camp on 04.11.2023. our department students actively participated in that camp and donated 20 units of blood.



Students' Participation



**Mr. B. Harish** from III Year Mechatronics Engineering has cleared NPTEL Examination in the domain of Data Base Management System



**Mr. G. S. Arunachaleswaran** from III Year Mechatronics Engineering has cleared NPTEL Examination in the domain of Automation in manufacturing

**Mr. Mohan Babu** from IV Year Mechatronics Engineering and **Mr. Bhuvanesh** from II Year Mechatronics Engineering have secured Runners in the Anna University Zone-1 Cricket Tournament.



**Mr. Vinish** and **Mr. R. Gowtham** from III Year Mechatronics Engineering have secured Runners in the Anna University Zone-1 Kabbadi Tournament.



**Mr. B. Mohankanth** from III Year Mechatronics Engineering was honored with the **Dr. APJ Abdul Kalam Young Scientist Award** (Sponsored by Education Today) by His Excellency Dr. A. Kalanidhi, the former Vice Chancellor of Anna University.



**Mr. B. Mohankanth** from III Year was honored with the “Rookie of the Year” award by OTOMATIKS, Chennai at Vellore Institute of Technology



# Anna University Examinations April/May 2023

## II<sup>nd</sup> Semester



**M. Jagadeesh**  
Rank : 1<sup>st</sup>  
GPA : 8.87



**S. Lokeshwaran**  
Rank : 2<sup>nd</sup>  
GPA : 8.83



**R. S. Mohanapriya**  
Rank : 2<sup>nd</sup>  
GPA : 8.83



**M. B. Bhuvaneshwaran**  
Rank : 3<sup>rd</sup>  
GPA : 8.78



**D. Dinesh**  
Rank : 4<sup>th</sup>  
GPA : 8.65



**R. Keerthika**  
Rank : 5<sup>th</sup>  
GPA : 8.61

Class Toppers



# Anna University Examinations April/May 2023

## IV<sup>th</sup> Semester



**B. Harish**  
Rank : 1<sup>st</sup>  
GPA : 9.70



**G. Roshini Jasmine**  
Rank : 2<sup>nd</sup>  
GPA : 9.65



**R. Kaviya**  
Rank : 3<sup>rd</sup>  
GPA : 9.52



**L. Keerthana**  
Rank : 4<sup>th</sup>  
GPA : 9.39



**A. Goutham**  
Rank : 5<sup>th</sup>  
GPA : 9.13

Class Toppers

# Anna University Examinations April/May 2023

## VI<sup>th</sup> Semester



**V. Dinesh Kumar**  
Rank : 1<sup>st</sup>  
GPA : 8.83



**H. L. Arun Prasad**  
Rank : 2<sup>nd</sup>  
GPA : 8.57



**A. R. Mohammed Nafiz**  
Rank : 3<sup>rd</sup>  
GPA : 8.43



**V. Vishnu**  
Rank : 4<sup>th</sup>  
GPA : 8.17



**D. Mohanbabu**  
Rank : 5<sup>th</sup>  
GPA : 8.04

Class Toppers

# **Out-of-Class Activities**





17 Students from III Year Mechatronics Engineering have undergone the one week Hands-on Training program on Electric Vehicle at TVS Training and Services, Ambattur from 11.09.2023 to 15.09.2023

Out-of-Campus Activities



**Roboneir**  
**Volume 2 Issue 1**



*Thank You*