KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G.Chidambara Nadar - C.Nagammal Campus
S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF MECHATRONICS ENGINEERING

MECHATRONZ-2023

DEPARTMENT OF MECHATRONICS ENGINEERING

VISION

To make the department of Mechatronics Engineering unique in the field of research and development towards industrial automation & robotics.

MISSION

To impart highly innovative and technical knowledge in Mechatronics Engineering to the urban and unreachable rural students through “Total Quality Education”.

PROGRAMME EDUCATIONAL OBJECTIVES

1. To provide basic knowledge in physics, chemistry, mathematics and necessary foundation in various concepts of mechatronics.

2. To impart training to the students to solve the real time problems related to the field of mechatronics and allied areas faced by the industry and society.

3. To provide an academic environment for the students to develop team spirit, leadership qualities, communication skills and soft skills exhibit professional responsibility with ethical code of conduct.

PROGRAM SPECIFIC OUTCOMES (PSO)

1. To understand and apply the recent technological developments in Engineering to develop products & software to cater the Societal & Industrial needs.

2. To develop solutions for fast learning and successful retention for the entire spectrum of automation technology.

PROGRAM OUTCOMES

Engineering Graduates will be able to:

1. Engineering Knowledge: Apply the knowledge of Mathematics, Science, Engineering Fundamentals, and an Engineering Specialization to the Solution of Complex Engineering Problems.

2. Problem Analysis: Identify, Formulate, Research Literature, and analyze Electrical and Electronics Engineering problems reaching substantiated conclusions using first principles of Mathematics, Natural Sciences, and Engineering Sciences.

3. Design/Development of Solutions: Design solutions for problems in the field of Electrical and Electronics Engineering and Design system components or processes that meet the specified needs with appropriate consideration for public Health and Safety, and Cultural, Societal, and Environmental Considerations.

4. Conduct Investigations of Complex Problems: Use Research-based knowledge and research methods including design of Experiments, Aalysis and Interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern Tool Usage: Create, select and apply appropriate techniques, resources and Modern Engineering and IT tools, including prediction and modeling to complex Engineering activities, with an understanding of the limitations.

6. The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, Health, Safety, Legal and Cultural issues and the Consequent responsibilities relevant to the professional Engineering practice.

7. Environment and Sustainability: Understand the impact of the Electrical and Electronics Engineering solutions in societal and Environmental contexts, and Demonstrate the knowledge of, and need for Sustainable Development.

8. Ethics: Apply Ethical Principles and commit to professional ethics and Responsibilities and Norms of the Engineering Practice

9. Individual and Teamwork: Function effectively as an Individual, and as a Member or Leader in diverse teams, and in Multidisciplinary settings.

10. Communication: Communicate effectively on Electrical and Electronics Engineering activities with the Engineering Community and with the Society, such as, being able to comprehend and write effective Reports and Design documentation, make effective presentations, and give and receive clear instructions.

11. Project Management and Finance: Demonstrate knowledge and understanding of the Engineering and Management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-Long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning the broadest context of technological change.

ABOUT THE DEPARTMENT OF MECHATRONICS ENGINEERING

Our college with a vision to promote quality technical education to the rural folks, kicked of in the year 1998 with four branches. Knowing the importance of core branches, our dream to start Mechatronics branch comes true during the academic year 2014-2015. Mechatronics Engineering is a well recognized course gaining importance in the industrial world. The unique features of the programme when compared with other B.E. programmes are, the students are

1. Well equipped with computer skills

2. Trained in operating micro-controllers and programmable logical controllers.

3. Practiced in handling industrial sensors, hydraulic, pneumatic and electric drives.

4. Experienced in design of mechanical structure and learning of mechanisms in manufacturing process.

This programme gives an exposure to bio-mechatronics, which integrates mechanical parts with a human being. The students of Mechatronics Engineering will do their project work in leading industries which will help them to apply their theoretical knowledge to formulate and solve real life problems. This will be base for handling more challenging projects in an innovative application oriented projects from real life situations. The project work enables students to develop decision making skills and also to adapt to various uncertain situations in teams. Mechatronics Engineering helps the students to be placed in factories related to Robotics & Automation, Smart sensors & Actuators, MEMS & NEMS, Motion control systems, Computational intelligence, Real time embedded systems, Bio-mechatronics and Medical robotics.

ABOUT THE MECHATRONZ'23

- This Newsletter brings the outline of our Department activities of the academic year 2022- 2023.
- DEPARTMENT OF MECHATRONICS ENGINEERING:
- "Integration of Mechanics, Electronics and Intelligent Digital Controlling"
- "The Sensitivity of a Surgeon, The precision of a Watchmaker, The skill of an Artist"

DEPARTMENT OF MECHATRONICS ENGINEERING

FACULTY PROFILE

S.No	Name of the Faculty with Designation	Qualification	Specialization
1	Dr. K. Kannan, Professor & Head	M.E., Ph.D.,	Digital Image Processing, Machine Vision, Embedded System and Robotics
2	Dr.M.Sudalaimani, Associate Professor	M.E., Ph.D.,	Automation and Control Systems
3	Dr. S. Rajesh Babu Assistant Professor	M.E., Ph.D.,	Power Quality, Renewable Energy Systems, Machine Learning.
4	Dr. P. Balasundar, Assistant Professor	M.E., Ph.D.,	Manufacturing, Composite Material, Tribology and Powder Metallurgy
5	Mr. A. Arul Kumar, Assistant Professor	M.E., (Ph.D)	Renewable Energy Source, Power Electronics Drives and Power Quality
6	Mr. S. Wesley Moses Samdoss, Assistant Professor	M.E., (Ph.D)	Robotics, Embedded Systems, IoT, and Machine Learning
7	Mr. A. Ganesan, Assistant Professor	M.E.,	Thermodynamics, Heat Transfer, Fluid Mechanics Refrigeration and Air Conditioning

FACULTY PUBLICATION DETAILS

K Kannan, Enhancement of Proton Density Weighted Magnetic Resonance Images using Singular Value Decomposition in Wavelet Domain, Research & Reviews: Journal of Embedded System & Applications 10 (02),
P.No 10-20.

K Kannan, Application of Partial Differential Equations in Multi Focused Image Fusion, Int. J. Advanced Networking and Applications 14 (01),
P.No 5266-5270.

K. Kannan, All-in-One Focus image using Guided Filters, Research & Reviews: Discrete Mathematical Structures,Vol. 9 No. 2 (2022).

K. Kannan, Multi focused Image Fusion using Fast Adaptive Bilateral Filter, Int. J. Advanced Networking and Applications Volume: 14 Issue: 03 P.No. 5477-5481(2022.

P Balasundar, S Senthil, P Narayanasamy,
T Ramkumar,Mechanical, thermal, electrical, and corrosion properties of microwave-sintered Ti-0.8Ni-0.3Mo/TiB composites, Physica Scripta, Volume 98, Number 6, 2023.

K. Pratheesh, P. Narayanasamy, R. Prithivirajan, T. Ramkumar, P. Balasundar, S. Indran, M.R. Sanjay & Suchart Siengchin Cenosphere filled epoxy composites: structural, mechanical, and dynamic mechanical studies,2023.

P Balasundar, S Senthil, P Narayanasamy, T Ramkumar, Microstructure and tribological properties of microwave-sintered TiO.8Ni-0.3Mo/TiB composites, Ceramics International ,Volume 49, Issue 4, 15,2023, P.No. 6055-6062.

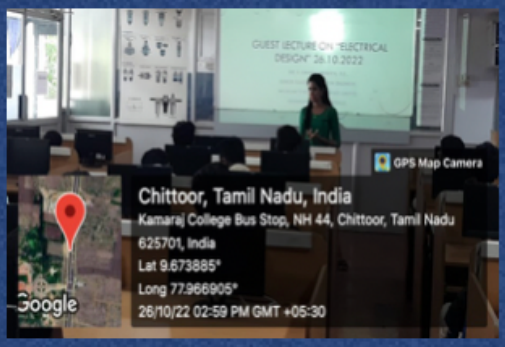
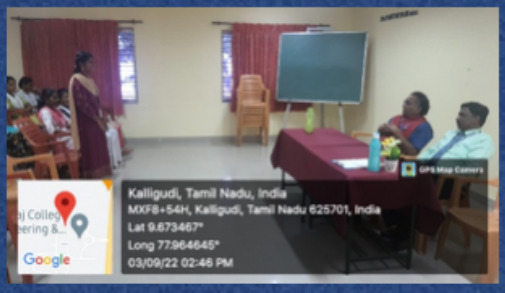
ATTENDED FDPS/STTPS/FELLOWSHIP PROGRAMMES

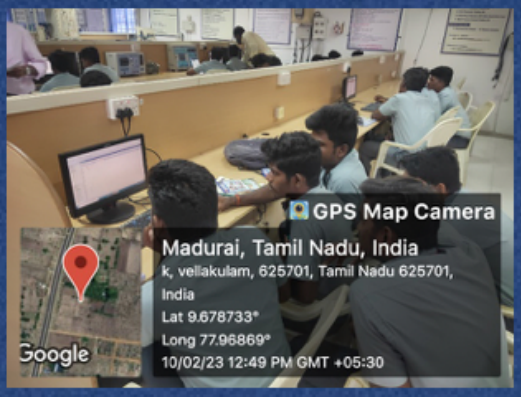
S. No.	Name of the Faculty Member	Name of the Programme	Date
1	Dr.K.Kannan	FDP on AWS	22.08.2022 to 27.08.2022
2	Dr.K.Kannan	FDP on AI & RPA	12.09.2022 to 17.09.2022
3	Dr.S.Rajeshbabu	FDP on Teaching And Learning in Engineering(TALE)	Jan-Feb2023
4	Mr.A.Arulkumar	Automation in Manufacturing	01-07-2023 to 30-10-2023
5	Mr.P.Balasundar	Innovation Trainer Ambassador Training (Foundation Level)	01-10-2022 (30 hrs)
6	Mr.P.Balasundar	ME8594 Dynamics of Machines	21-07-2022 to 27-07-2022
7	Mr.S.David Blessley	FDP "Futuristic Research in Mechanical Engineering"	08.08.2022 to 13.08.2022
8	Mr.S.David Blessley	FDP on ME8594 Dynamics of Machines	21.07.2022 to 27.07.2022
9	Mr.S.Wesley Moses Samdoss	FDP on Problem Solving Using C	05.07.2022 to 12.07.2022.
10	Mr.S.Wesley Moses Samdoss	Kinematics and analysis of Robot Mechanisms: Advanced Simulation and Validation"	16.12.2022 to 23.12.2022
11	Mr.A.Ganesan	Data Science and It's Tools	23.08.2022 to 28.08.2022
12	Mr.A.Ganesan	Innovation & Entrepreneurship	02.07.2022 to 23.07.2022

WORKSHOPS

S. No.	Name of the Faculty Member	Name of the Workshop	Date
1	Mr.S.Wesley Moses Samdoss	Biomedical Engineering and IoT in Healthcare	05-12-2022 to 09-12-2022
2	Mr.S.Wesley Moses Samdoss	Kinematic Analysis of Robot Mechanisms: Fundamentals	09-12-2022 to 15-12-2022
3	Mr.A.Ganesan	Webinar Series on Futuristic Digital Technologies	25.07.2022 to 29.07.2022

ACTIVITIES FOR THE ACADEMIC YEAR 2022-2023

1.	05-11-2022	Workshop on "Industrial Pneumatics"	Er. S. Sasikumar Deputy Manager , Training & Marketing, SMC Corporation (India) Pvt LTD., Chennai.	
2.	26-10-2022	Guest Lecture on "Electrical Design"	Ms. S. Gnanaanusuya, B.E., Senior Electrical Design Engineer, Michelin Tyres India Private Limited, Gummudipoondi, Chennai. (Alumnus	
3.	03-09-2022	Special Program on "Interaction with Expert Dr.R.Umamaheswaran,Ph.D.,Director, Human Space Flight Centre, ISRO Headquarter	Dr.R.Umamaheswaran, Ph.D.,Director, Human Space Flight Centre,ISRO Headquarters , Bengaluru.	
4.	18-08-2022	Guest Lecture on "Programming of Industrial Robots for Various Applications "	Er.P.Ganjendran,Trainee Engineer, CYGNII Automation Pvt Ltd,Pune. (Alumnus 2015-2019 Batch)	

5.	21-07-2022	Guest Lecture on “Personality Development towards Entrepreneurship”	Mr.J.Manohar, Proprietor, Mano Innovations Club, Kovilpatti.	
6.	05-11-2022	Workshop on "Industrial pneumatics"	"Er. S. Sasikumar Deputy Manager, Training & Marketing, SMC Corporation (India) Pvt LTD., Chennai"	
7.	27-02-2023	Workshop on "AUTOSAR"	"Dr.N. Manivannan, Managing Director, Techland Automation, 196 Dindigul main road, Tiruchirappalli – 620001. "	
8.	10-02-2023	Workshop on "Advancement in Engineering" for Diploma Students	"Dr. K. Kannan, Mr. A. Arulkumar, Mr. R. Sakthivel murugan, Dr. A. Rajavel, Mr. K. Hariharan, KAMARAJ College of Engineering and Technology, Virudhunagar"	
9.	01-02-2023 & 02-02-2023	Two days Boot Camp Program on "Automotive design using CATIA V5”	V.Sarangarajan, Trainer , Skill Lync	

10.	09.03.2023 & 10.03.2023	Kamaraj International Conference On Recent Treends In Science, Engineering And Technology (KIRSET 2023)	Key note Speakers: Dr. Loganathan Veeramuthu, National Taipei University of Technology (NTUT), Taipei, Taiwan Dr. A. PANDIKUMAR, Scientist, Electro Organic and Materials Electrochemistry Division, CSIR-Central Electrochemical Research Institute, Karaikudi, Dr.J.Juliet Latha Jeyakumari Dept.of Physics, Sarah Tucker College, Tirunelveli	 

STUDENT'S INTERNSHIP DETAILS (2022-2023)

1	20UMT001	R.NAVEEN	27/06/2022 to 12/07/2022	Vilvam offset Printers, Sivakasi.
2	20UMT002	G.RAHUL	28/06/2022 to 12/07/2022	Star Converters, Vilupuram
3	20UMT003	R.GEMRELTON	28/06/2022 to 12/07/2022	Hi/Tech Services, Virudhunagar.
4	20UMT004	C.VEERANAN	28/06/2022 to 12/07/2022	Star Converters, Vilupuram
5	20UMT005	S.KARTHIKEYAN	28/06/2022 to 12/07/2022	Star Converters, Vilupuram
6	20UMT006	K.SAKTHIBALA	28/06/2022 to 12/07/2022	Gem AC R Service, Virudhunagar
7	20UMT007	R.RAMANAVEL	28/06/2022 to 12/07/2022	Star Converters, Vilupuram
8	20UMT008	M.E.NAVEENPRAKASH	28/06/2022 to 12/07/2022	Jahnvi Motor (P) Ltd., Madurai.
9	20UMT009	V.ANANDAKRISHNAN	28/06/2022 to 12/07/2022	Gem AC R Service, Virudhunagar
10	20UMT010	S.BHUVANESHWARAN	28/06/2022 to 12/07/2022	Star Converters, Vilupuram
11	20UMT011	S.SABARIVASAN	28/06/2022 to 12/07/2022	Gem AC R Service, Virudhunagar
12	20UMT012	R.MANIKANDAN	28/06/2022 to 12/07/2022	Gem AC R Service, Virudhunagar
13	20UMT013	K.HARRISHBABU	26/06/2022 to 10/07/2022	Sunshiv Electronic Solutions, Coimbatore.
14	20UMT014	P.KRISHNA KUMAR	28/06/2022 to 12/07/2022	Gem AC R Service, Virudhunagar
15	20UMT015	V.HARISH RAMACHANDRAN	28/06/2022 to 12/07/2022	Star Converters, Vilupuram
16	20UMT016	R.ESAKKI ANAND	28/06/2022 to 12/07/2022	Gem AC R Service, Virudhunagar
17	21UMT032	K. G. Gokilan	19/12/2022 to 31/12/2022	Quantanics Techserv Pvt. Ltd, Madurai.
18	20UMT003	R. Gem relton	26/12/2022 to 31/12/2022	Anaamalais Toyota, Virudhunagar.

19	20UMT001	R.NAVEEN	27/06/2022 to 12/07/2022	Vilvam offset Printers, Sivakasi.
20	20UMT002	G.RAHUL	28/06/2022 to 12/07/2022	Star Converters, Vilupuram
21	21UMT013	Saroj Kanna	07/06/2023 to 24/06/2023	Madura coats Pvt Ltd, Madurai.
22	21UMT014	Mohammed Ammar.S	08/06/2023 to 24/06/2023	TI Clean Mobility Pvt Ltd, Chennai.
23	21UMT015	Hariharan.B	14/06/2023 to 04/07/2023	J K. Fenner (India) Ltd, Madurai.
24	21UMT016	Subash Chandru.P	07/06/2023 to 22/06/2023	Tuckers Motors Pvt Ltd, Madurai.
25	21UMT017	Aravintha Kumar.S	07/06/2023 to 22/06/2023	Tuckers Motors Pvt Ltd, Madurai.
26	21UMT018	Sivanesakarthic.Ra.K	15/06/2023 to 10/07/2023	Best engineers pumps Pvt Ltd, Coimbatore.
27	21UMT019	Sangeethalakshmi.M	26/06/2023 to 12/07/2023	SRI KALISWARI COLOUR MATCH WORKS, Sivakasi.
28	21UMT020	Lakshman Hari.C	09/06/2023 to 26/06/2023	Tractor and Farm Equipments Ltd, Dindigul.
29	21UMT021	Muthupandi.V	07/06/2023 to 27/06/2023	Pragathi Machines Services, Ramanathapuram.
30	21UMT022	Nilesh.A	07/06/2023 to 23/06/2023	India Tech Industry, Madurai.
31	21UMT023	Poisollan.G.A	07/06/2023 to 24/06/2023	Madura coats Pvt Ltd, Madurai.
32	21UMT024	Karuna Sagar.T	06/06/2023 to 30/06/2023	Mine power, Coimbatore.
33	21UMT025	Aravinth.V	21/06/2023 to 06/07/2023	Techno Moulds, Chennai.
34	21UMT026	Arivishnu.R	15/06/2023 to 10/07/2023	Best engineers pumps Pvt Ltd, Coimbatore.
35	21UMT027	Esakki Bala Karthik.K	06/06/2023 to 30/06/2023	Mine power, Coimbatore.
36	21UMT028	Mithun Kumar.G.S	08/06/2023 to 23/06/2023	Danieli India Limited, Chennai.
37	21UMT029	Arshad Parwesh.S	20/06/2023 to 05/07/2023	The India Cements LTD, Thirunelveli.

38	21UMT030	Kishoure Kumar.D	12/06/2023 to 30/06/2023	TamilNadu Generation and distribution Corporation Limited Valuthur Gas Turbine Power Station, Ramanathapuram.
39	21UMT031	Sathishkumar.K	19/06/2023 to 07/07/2023	Sundaram Associates, Kovilpatti.
40	21UMT032	Gokilan.K.G	10/06/2023 to 26/06/2023	Sri Muthu plastic, Thanjavur.
41	21UMT033	Arunpratop.K	15/06/2023 to 04/07/2023	JK Fenner (India) Ltd, Madurai.
42	21UMT034	Dinesh.K	12/06/2023 to 28/06/2023	Bhargave Rubber Pvt Ltd, Madurai.

PLACEMENT DETAILS (2019-2023 BATCH)

S. No.	Name of the student placed	Enrolment Number	Name of the employer
1	RAJAPRABU.T	920418115019	ZOHO
2	VIKAASH.P	920419115035	ZIFO
3	ARJUN.P	920419115003	DATA PATTERNS
4	ANU AKSHAYAA.R M	920419115001	VINSINFO PRIVATE LIMITED
5	RAMA CHANDRU.T	920419115023	VINSINFO PRIVATE LIMITED
6	ARJUN.P	920419115003	CTS
7	THIRUMALAISELVA.J	920419115033	RENAULT NISSAN
8	PONRAM.R	920419115020	CTS
9	BAWANKALYAN.A.P	920419115006	MANFREE TECHNOLOGIES
10	DEVADHARSHINI.D	920419115007	INDOCOOL
11	KARTHICK NISSANTH N	920419115012	CLOUD SUPPLY CHAIN SOLUTIONS
12	MOHAMED ANAS S	920419115015	SL LUMAX
13	HARI RAJ P R	920419115010	GENCOR PACIFIC AUTO ENGINEERING
14	VIJAYA KUMAR E	920419115034	GENCOR PACIFIC AUTO ENGINEERING
15	HARI HARAN G	920419115009	GENCOR PACIFIC AUTO ENGINEERING
16	BASKARA PANDI P	920419115005	CHAINSYS
17	SANTHOSH S	920419115027	CHAINSYS
18	NALANRAJ SHANMUGAM S	920419115303	RARA GROUPS

20	ARAVIND N	920419115002	RARA GROUPS
21	PRASANNA M	920419115021	RARA GROUPS
22	PRITHIVIRAJAN M	920418115017	SHREE PLASTO TECH
23	SIVA A	920419115032	NOUVEAUX
24	SATHYA K K	920419115030	NOUVEAUX
25	SOLAI RAHUL R	920419115306	NOUVEAUX
26	SELVAKUMARAVEL E	920419115031	MOTHERSON AUTOMOTIVE
27	SATHYA K K	920419115030	MOTHERSON AUTOMOTIVE
28	HARI RAJ P R	920419115010	MOTHERSON AUTOMOTIVE
29	JOTHI VENKATESH K	920419115011	MOTHERSON AUTOMOTIVE
30	SANJEEV K	920419115025	MOTHERSON AUTOMOTIVE
31	RAMVENKADESH S	920419115304	MOTHERSON AUTOMOTIVE
32	SAMUVELKINGSLY I	920419115305	PEARLPORT INDUSTRIES
33	SANTHOSH ELAVARASAN D	920419115028	DOLMATIC GROUP
34	SANKARA NARAYANAN S	920419115026	DOLMATIC GROUP
35	GOWTHAM G	920419115008	DOLMATIC GROUP
36	SIVA A	920419115032	DOLMATIC GROUP
37	MANOJ PRABHU M	920419115014	DOLMATIC GROUP
38	SOLAI RAHUL R	920419115306	DOLMATIC GROUP

HIGHER STUDIES DETAILS (2019-2023 BATCH)

S. No.	Name of the Student	Degree	Name of the Institution
1	DEVADHARSHINI.D	M.E ENGINEERING DESIGN	SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY, COIMBATORE
2	VIKAASH.P	MBA	CHRIST UNIVERSITY, BANGALORE.
3	SANTHOSH S	M.E	SRM, CHENNAI.

STUDENTS NPTEL ONLINE CERTIFICATION DETAILS

Sl. No.	Name of the Student	Course Name
1	NAVEEN R	ENGINEERING METROLOGY
2	RAHUL G	ENGINEERING METROLOGY
3	GEM RELTON R	ENGINEERING METROLOGY
4	VEERANAN C	ENGINEERING METROLOGY

5	KARTHIKEYAN S	ENGINEERING METROLOGY
6	SAKTHIBALA K	ENGINEERING METROLOGY
7	RAMANAVEL R	ENGINEERING METROLOGY
8	NAVEEN PRAKSAH M E	ENGINEERING METROLOGY
9	ANANDA KRISHNAN V	ENGINEERING METROLOGY
10	BHUVANESHWARAN S	ENGINEERING METROLOGY
11	SABARIVASAN S	ENGINEERING METROLOGY
12	MANIKANDAN R	ENGINEERING METROLOGY
13	HARRISH BABU K	ENGINEERING METROLOGY
14	KRISHNA KUMAR P	ENGINEERING METROLOGY
15	HARISH RAMACHANDRAN V	ENGINEERING METROLOGY
16	ESAKKI ANAND R	ENGINEERING METROLOGY
17	NAVEEN R	E-BUSINESS
18	RAHUL G	E-BUSINESS
19	GEM RELTON R	E-BUSINESS
20	VEERANAN C	E-BUSINESS
21	KARTHIKEYAN S	E-BUSINESS
22	SAKTHIBALA K	E-BUSINESS
23	RAMANAVEL R	E-BUSINESS
24	NAVEEN PRAKSAH M E	E-BUSINESS
25	ANANDA KRISHNAN V	E-BUSINESS
26	BHUVANESHWARAN S	E-BUSINESS
27	SABARIVASAN S	E-BUSINESS
28	MANIKANDAN R	E-BUSINESS
29	HARRISH BABU K	E-BUSINESS
30	KRISHNA KUMAR P	E-BUSINESS
31	HARISH RAMACHANDRAN V	E-BUSINESS
32	ESAKKI ANAND R	E-BUSINESS

PRIZES WON LIST IN INTER-INSTITUTE EVENTS

Sl. No.	Name of the Student	Type of the Programme	Date	Organizing Institution	Prizes Won
1	Gem Relton R	Intelligent Discoverer event in the National Level Technical Symposium “Vahana V6”	22/02/2023	HINDUSTHANCOLLEGE OF ENGINEERING AND TECHNOLOGY, Coimbatore.	Second
2	Naveen R	Digi Design	18/03/2023	National Engineering College, Kovilpatti.	Third
3	Sakthibala K	Poster Making	17/02/2023	Mepco Schlenk Engineering College, Sivakasi.	First
4	Sakthibala K	Paper Presentation	15/03/2023	Periyar Maniammai Institute of Science and Technology, Tanjavur.	Third
5	Sangeetha Lakshmi M	Paper Presentation	15/03/2023	Periyar Maniammai Institute of Science and Technology, Tanjavur.	Third
6	Sakthibala K	Paper Presentation	27/09/2022	PSR Engineering College, Sivakasi.	Second

STUDENT INTER-INSTITUTE EVENTS PARTICIPATION DETAILS

Sl. No.	Name of the Student	Type of the Programme	Date	Organizing Institution
1	Aravindh Aarya G	Inter-college Innovative Ideathon Contest	19/08/2023	National Engineering College, Kovilpatti.
2	Esakki Anand R	Inter-college Innovative Ideathon Contest	19/08/2023	National Engineering College, Kovilpatti.
3	Gem Relton R	Inter-college Innovative Ideathon Contest	19/08/2023	National Engineering College, Kovilpatti.
4	Sathibala K	Inter-college Innovative Ideathon Contest	19/08/2023	National Engineering College, Kovilpatti.
5	Sangeetha Lakshmi M	Inter-college Innovative Ideathon Contest	19/08/2023	National Engineering College, Kovilpatti.
6	Hari Krishnan B	International Workshop on IC Engines, Electric Vehicles and Hybrid Vehicles.	23/09/2023	IIT, Madras.
7	Sanjay Kumar M	International Workshop on IC Engines, Electric Vehicles and Hybrid Vehicles.	23/09/2023	IIT, Madras.
8	Guhaneshwar S	International Workshop on IC Engines, Electric Vehicles and Hybrid Vehicles.	23/09/2023	IIT, Madras.
9	Sashwanth S	International Workshop on IC Engines, Electric Vehicles and Hybrid Vehicles.	23/09/2023	IIT, Madras.

STUDENTS' ARTICLE

TOP INDUSTRIES THAT USE ROBOT OPERATING SYSTEM

ROS, or Robot Operating System, is a framework for developing and running software for robots. ROS provides a set of tools, libraries, and conventions that aim to simplify the task of creating complex and robust robot behavior across a wide variety of platforms. ROS is used by many companies in different sectors for various applications, such as:

1.Clearpath Robotics: A Canadian company founded in 2009 that produces robots in the fields of unmanned ground vehicles, unmanned surface vehicles, and industrial vehicles.

2.Fetch Robotics: A US-based company founded in 2014 that specializes in autonomous mobile robots for warehouses and factories.

3.Pal Robotics: A Spanish company that designs and manufactures humanoid robots.

4.AWS: Amazon Web Services is a cloud computing platform that provides a suite of services for building and deploying applications in the cloud. They use ROS for their RoboMaker service.

5.BMW: A German multinational corporation that produces luxury vehicles and motorcycles.

6.Boeing: An American multinational corporation that designs, manufactures, and sells airplanes, rotorcraft, rockets, satellites, telecommunications equipment, and missiles.

7.Intel: An American multinational corporation that designs and manufactures microprocessors and other computer components.
8.Mathworks: A US-based company that provides software for numerical computing, data analysis, and simulation.

9.Amazon Robotics: The e-commerce giant uses ROS to power its warehouse robots, which help to sort, pack, and ship millions of orders every day. ROS enables the robots to communicate with each other and with the central system, as well as to navigate autonomously in the dynamic environment.

10.Cruise: The self-driving car company uses ROS to develop and test its autonomous vehicles, which aim to provide safe and convenient transportation for everyone. ROS helps the vehicles to perceive their surroundings, plan their routes, and control their actions.

11.iRobot: The US company is known for its consumer products, such as the Roomba vacuum cleaner and the Braava mop. iRobot uses ROS to develop and test its robots, which can perform tasks such as cleaning, security, and entertainment.

12.NASA: The US space agency uses ROS to control its robots in space, such as the Robonaut 2 and the Astrobee. ROS allows the robots to perform tasks such as maintenance, exploration, and experimentation in the challenging environment of the International Space Station.

S. BHUVANESHWARAN

(IV YEAR MECHATRONICS ENGINEERING)

Unity among ourselves is what makes the NSS Volunteers are different from others. The endeavour we put into the work which is assigned to us makes us different. The proud and bold feeling we have when we wear our NSS uniform makes us different. All these uniqueness can be solely achieved by only the NSS Volunteers. It is also very important for me to mention the volunteering work which we take part during our NSS life is glorious. We learnt a lot about managing our time, our priority, our strengths, our weakness and so on. I am capable to make a good decision now and my leadership skills got improved. NSS teaches not only to be unity and discipline , it also helps to develop our personality through community service.

It's not sufficient to describe all my thoughts about NSS in just one or two pages. The word NSS itself makes me feel proud and honoured! The very word of NSS is a sea of emotions, that's makes me prim with ecstasy!!!,Finally **"NOT ME BUT YOU"**.

Participated in State Level Events:

1. State Youth Festival(2023)
2. State level adventure camp(2023)

NOT ME BUT YOU

EXOSKELETON

Exoskeletons may look like something from science fiction movies, but they're here now! Some scientists even think that humans will eventually become cyborgs someday by permanently integrating technology into our bodies through implants or other methods (think Iron Man).

Exoskeletons can be used for many different purposes: for example, they are often used in military applications (e.g., lifting heavy equipment), medical applications (e.g., assisting people with severe mobility issues), and industrial applications (e.g., helping workers carry heavy loads), etc.

Exoskeleton Integration into Human body:
the robot performs acts generally precluded by the bio-mechanical constraints of the human body. For example, they can be used to help people with spinal cord injuries or other mobility impairments who would otherwise need constant care from another person.

The Application of Exoskeletons
The most common application is for

Medical

Industrial

Military

Exoskeletons for Medical use:

Exoskeleton robotics are also used to help people who have lost the use of their legs or who suffer from spinal cord injuries. These exoskeletons can assist with rehabilitation and mobility, as well as strength and endurance.

Exoskeletons for industrial use:

Wearable robots have been used in industrial applications for a long time, and they're only getting better.

MITHUN KUMAR G.S

(III YEAR MECHATRONICS ENGINEERING)

" 100KMPL" MILEAGE CAR EXISTS!

VOLKSWAGEN XL1

THIS MACHINE IS POWERED BY A HYBRID POWERTRAIN
1 LITRE DIESEL ENGINE + 20KW MOTOR

The VW XL1's sole reason to go as far as possible is the smaller displacement 1000cc two cylinder diesel engine .

Ferdinand Piech's way of showing the world that it can do Green better than anyone else.

The XL1's sole purpose is to burn as little fuel as possible and deliver a carbon footprint the size of an ant.

VW made only 250 units, and they are all gone into the hands of some very rich and green owners

R. GEM RELTON
IV YEAR – MECHATRONICS ENGINEERING

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