EYANDHIRA'20

NOV 18' – APR' 19

VOLUME 5, ISSUE 2

Karpaga Vinayaga Association of Mechanical Engineers

KARPAGA VINAYAGA | MEDICINE DENTISTRY ENGINEERING NURSING
EDUCATIONAL GROUP

"Dream is not that which you see while sleeping; It is something that does not let you sleep..."

- Dr. A. P. J. Abdul Kalam

KARPAGA VINAYAGA

COLLEGE OF ENGINEERING AND TECHNOLOGY

GST Road, Chinna Kolambakkam, Madhuranthakam Taluk, Chengalpattu District – 603 308, Tamil Nadu

Department of Mechanical Engineering

HOD's MESSAGE

Hello friends! Hope you are all doing well! We are really happy to present you with this issue of our EYANDHIRA newsletter! The department has a rich tradition of pursuing academic excellence and providing congenial environment for the overall development of its students. This newsletter provides a panoramic view of the academic, research, co-curricular activities and achievements of the faculty and students of this Department. I congratulate the editorial team for their sincere effort to bring out the news letter in time. This inaugural issue of newsletter should inspire all of us for a new beginning; enlighten us with hope, confidence and enthusiasm towards the road ahead....

All the best for all your endeavors…

- **Dr.R.M.Alagu,**
Professor & Head
Dept. of Mechanical Engineering.

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Editorial Board

Chief Editor:
Dr.R.M.Alagu
Professor & Head

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Mr.P.Karthick
Assistant Professor

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Mr.Yuvaraj R -IV year Mech.
Mr.Amitkumar A - III year Mech.
Mr.Maharajan D - III year Mech.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering was started in the year 2005 with an initial intake of 60 students. It has since then grown significantly by spreading its academic activities in offering courses at Undergraduate level as well as Post Graduate level. Right from its inception, the department has been focusing on high-quality teaching along with integrated laboratory experience. Its strong and interactive curriculum and hands-on learning will make the students capable of taking their career to the next level, whether it be in the professional engineering practice or in advanced studies. The Discipline of Mechanical Engineering effectively connects teaching of engineering education to active research in different areas. The department has a team of highly qualified and experienced faculty. The department has the most modern infrastructure to undertake high-end teaching, research and developmental activities in its laboratories.

We aim to provide our students with a perfect blend of intellectual and practical experiences that helps them to serve our society and address a variety of needs. With a solid grounding in the principles and practice of mechanical engineering, our undergraduates are ready to engage in ethical approaches to engineering, with concern for society and the environment. Our program at the postgraduate level aligns academic course work with research, to prepare students in specialized areas within the field of mechanical engineering.

VISION OF THE INSTITUTE

Imparting innovative higher education with greater accentuation on high value systems shaping personnel for nation-building.

MISSION OF THE INSTITUTE

M1: To impart quality technical education by providing state-of-art infrastructure with dedicated faculty.

M2: To provide contemporary technical education for facing the needs and challenges of industries and research establishment at global level.

M3: To effect socio-economic transformation of society by inculcating human values and social responsibilities.

VISION OF THE DEPARTMENT

Producing competent mechanical engineers by imparting quality education blended with human values to cater to the growing industrial and societal demands.

MISSION OF THE DEPARTMENT

M1: To provide quality education and learning environment to the students through the state- of-the- art infrastructure in mechanical engineering.

M2: To develop collaborations with various Research & Development organizations and industry for excellence in research and consultancy practices.

M3: To empower our students to gain experience in team work and leadership qualities.

M4: To inculcate entrepreneurial skills, strong ethical values and professionalism among students for contributing towards upliftment of the society.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Graduates will have successful careers in the Mechanical Engineering or allied industries.

PEO2: Graduates will demonstrate their skills in solving challenging problems in Mechanical Engineering and its allied areas.

PEO3: Graduates will exhibit leadership skills to adapt for the changing global scenario.

PEO4: Graduates will have good professional traits and ethical values to lead as responsible citizens.

PROGRAMME OUTCOMES (POs)

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem analysis: Identity, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply to reason informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1: Our graduates will be able to apply knowledge of Design, Manufacturing, Thermal and Materials engineering to solve complex problems in mechanical engineering and its allied areas.

PSO2: Our graduates will be able to analyze, design and simulate mechanical engineering problems with the help of modern CAD/CAM/CAE tools while ensuring best engineering practices.

NEW FACULTIES JOINED IN OUR DEPARTMENT:

Dr.R.M.Alagu
PROF/MECH

Dr.K.Vignesh
PROF/MECH

Mr.P.Raja
AP/MECH

Mr.V.Vishnuprakash
AP/MECH

Mr.D.Sathish
AP/MECH

Mr.N.S.Kishorekuma
AP/MECH

EVENTS ORGANISED:

CONFERENCES

- Third International conference on Recent Trends in Science Engineering & Management (ICRTSEM), Chief Guest: Dr. Venkatesh Mahadevan, Associate Professor and Deputy Head, School of Business, Melbourne Institute of Technology, Australia held on 22nd & 23rd March, 2019.

PROFESSIONAL SOCIETIES ACTIVITIES

- KVAME National Science Day celebrations on Drawing/Painting, Essay writing, Poster presentation, Paper presentation held on 28.02.2019.

GUEST LECTURES

- Guest lecture on Vehicle Dynamics of Electrified Vehicles by Dr. K. Kamalakannan, Professor & Head - Automobile Engineering, Hindustan University, Chennai held on 01/04/2019.

- Guest lecture on Solar Photo voltaic (PV): A Sustainable Solution to Solve Energy Crisis by Dr. P. Thilagan, Professor & Head, Centre for Green Energy Technology, Pondicherry University, Puducherry held on 13/03/2019.

- Guest lecture on Transmission system in automobile engineering by Mr. S. Sellapillai, Assistant manager, Amalgamation Pvt. Ltd, Chennai held on 14.02.2019.

WORKSHOPS

- One day hands on training workshop on Additive manufacturing by Mr. Shanmugam Senior Manager, CADDAM Technologies Pvt. Ltd., Chennai held on 28/02/2019.

- One day Technical Workshop on "Kinematic Simulation & 3D photorealistic Rendering" in association with M/s vector Solution, Pudhucherry held on 28.02.19

VALUE ADDED COURSES:

- Conducted value-added course on Non-Destructive Testing in collaboration with NEST Education & Technologies (P) Ltd, Chennai from 04.02.2019 to 09.02.2019

- Conducted value-added course on Insight into Geometric Dimensioning & Tolerancing using CAE in collaboration with Petricore Technology, Chennai from 04.04.2019 to 10.04.2019.

INDUSTRIAL VISIT:

- Second year students visited the Chennai Rail Museum, South Zone (ICF), Chennai on 22.03.2019

- Third year A section students visited the North Thermal Power Station Chennai on 22.01.2019

- Third year B section students visited the North Thermal Power Station Chennai on 02.02.2019

- Final year B section students visited the North Thermal Power Station Chennai on 05.01.2019

RESEARCH PUBLICATIONS – JOURNALS

- Karthikeyan N, Nandhakumar P V, Ekantha Moorthy J, Selvaraj B (Jan 2019), 'Characterisation Study of Metal Matrix Composite Of Aluminium + Fly Ash + Sic Using Stir Casting Method', International Research Journal of Engineering and Technology (IRJET), Vol. 6, Issue.01, pp.720-723, ISSN: 2395-0056.
- Nandhakumar P V, Karthikeyan N, Selvaraj B, Chellaperumal D (Jan 2019), 'Fabrication Of Composite Plate Using Palm Tree Fiber Reinforced With Glass Fiber And Testing Its Mechanical Properties', International Research Journal of Engineering and Technology (IRJET), Vol. 6, Issue.01, pp.1091-1094, ISSN: 2395-0056.
- Chellaperumal D, Karthikeyan N, Nandhakumar P V, Ekanthamoorthy J (Jan 2019), 'Fabrication And Mechanical Testing On Natural Fiber Composite', International Research Journal of Engineering and Technology (IRJET), Vol. 6, Issue.01, pp.1095-1098, ISSN: 2395-0056.

PAPERS PRESENTED/PUBLISHED IN THE NATIONAL AND INTERNATIONAL CONFERENCES/PROCEEDINGS

- S. Perumal, 2019. Hybrid aluminium metal matrix composites for automobile shaft application, International Conference on Recent Developments in Mechanical Engineering held at S.A. Engineering College, Avadi on 21st & 22nd March 2019.

- P. Karthick 2019. Mechanical Strength of Jute Fiber Reinforced in Composite Material, International Conference on Recent Developments in Mechanical Engineering held at S.A. Engineering College, Avadi on 21st & 22nd March 2019.

- M. Prabu, K. Ragul., 2019. Predictive Maintenance Model Development Using Life Prediction Methodology, International Conference onRecent Trends in Science,Engineering and Management held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- M. Prabu, P.Karthick, 2019. Mechanical Strength of Jute Fiber Reinforced In Composite Material, International Conference on Recent Trends in Science, Engineering and Management held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- M. Prabu, P.Karthick, 2019. Experimental Analysis on Al-Sic Nano Composite Material Prepared by Ultrasonic Probe Assisted Stir Casting Method held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- Ekantha Moorthy J, Selvaraj B 2019. Characterisation Study of Metal MatrixComposite Of Aluminium + Fly Ash +Sic Using Stir Casting Method held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- Chellaperumal D, 2019. Optimization of Process Parameters Onmaching of Monel 404 Materials in EDM Method held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- V Gnanasekaran, 2019. Friction Drilling of Corten Steel Plates- A Feasibility Study held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- Chellaperumal D, 2019. Mechanical Properties of Palf – Reinforced Epoxy Composite held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.

- Selvaraj B 2019. Optimization of Power Coefficient ofVertical Axis Wind Turbine held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- V Gnanasekaran, 2019. Design and Fabrication of Groundnut Plucking Machine held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- Ekantha Moorthy J, M Novasam., 2019. Optimizarion of Drilling Parameters of Oil Hardened Non-Shrinking Steel held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- Ekantha Moorthy J, C.Manikandan., 2019. Investigation on Influence of Dielectric Medium in Electrical Discharge Machining on Monel 400 held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.
- Ekantha S.Perumal, P. Ragupathy., 2019. Water and Power Saving System Using with Microcontroller held at Karpaga Vinayaga College of Engineering and Technology, Chengalpet on 22nd & 23rd March 2019.

STUDENTS EVENTS

CONFERENCES PRESENTATIONS:

- Gokul P, Gokulakannan., Design and analysis of leaf spring by using composite material for light vehicles, ICMSMT 2019, Sri shakthi institute of engineering and technology 12th Apr 2019.

- Sudhakar G, Soundarrajan., Auto groundnut seeding mechanism attachment with plow, VITECON2018, VIT university 31th Mar 2019

- Rajesh L, Rajavarman., Investigate the heat transfer of pin fins, ICRDME 2019, SA engineering college 21st Mar 2019

- Saran V, Sharma., Design and analysis of bevel gear with composite material, ICMMM 2019, VIT university 29 mar 2019

- Anbarasan S, Ajithkumar., Optimization process and analysis of turning process, ICMMM 2019, VIT university 29 mar 2019.

- C.Prasanna, A.Praveenkumar, K.Rajesh., Design and Fabrication of Solid Waste Management From Drainage, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- P Naresh, A.Mavin, S.Mukunthan., Unmanned Ground Vehicle With Robotic Arm, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- D.Dinesh, A.Akash, Adolf Burno, R Dinesh Kumar., Optimization of Power Coefficient of Vertical Axis Wind Turbine, 4th International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- P.Kabilan, A.Kumaran, S.Mugunthan., Design and Fabrication of Scotch Yoke Mechanism For Producing Air, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- Anand.S.N, Arunachalam.S , Dinesh.T., Design and Fabrication of Groundnut Plucking Machine, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- N.Dinesh, Anandhan A, Gokulkumar A., Beach Cleaning Equipment, 4th International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- K.Karthik, H. Arulperumjothi, M.Karthikeyan, A. Chandrasekar., Investigation on Influence of Dielectric Medium in Electrical Discharge Machining on Monel 400, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- K.Harisha, E.Yuvaraj., Water and Power Saving System Using With Microcontroller, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- S.Parthiban, K.Karthick, E.Mathan., Fatigue Analysis of Prototype Sized Pipe Bend, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- P. Arokia Alex Raj, Jr. Jeffrin Marshal, P.L. Manickam., Production Increment of Cylinder Head, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- R.Dhachanamoorthi, N.Rukesh, L.Ranjith, M.RobinRosario., Analysing The Mechanical Properties of Hybrid Aluminium Matrix Composites (Lm 14+Gr+Sic) Using Stir Casting Method, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- S Ajaykumar B Babu, B Paranthaman, S Nithish kumar., Design to Replace Steel Drive Shaft in Automobile With Hybrid Aluminium Metal Matrix Composite,

- International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- A.Vignesh, P.Suryapragash, N.Surya, N.T.Sibu., Gearless Power Transmission For Skew ShaftInternational conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

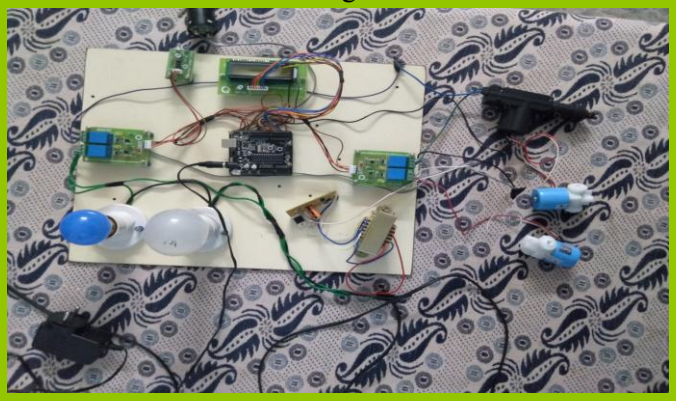
- K.Balasubramanium, S.Dinesh,, R.T.Karthick, K.Meiyappan., Advance Car Door Unlock System During Accident, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- S Vijay Sarathi, S Sundhara manikandan, S Vijay., Exercising Equipment Based Electrical Power Harvester, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

- M Thiyagarajan, M Rajkumar, S Sharma, A Sumesh., Design of an Angle Dressing Unit of A Grinding Wheel for a Broach Tool, International conference on Recent trends in science, engineering and management, Karpaga Vinayaga College of Engineering and technology on 23rd march 2019.

PROJECT EXPO:

- Pravinkumar R, Yuvaraj E, Pravinkumar K of final year Mechanical Engineering students developed a novel product of "Water and power saving system using 8051 microcontroller" under the guidelines of Mr.S.Perumal.



- K.Balasubramanium, S.Dinesh, R.T.Karthick, K.Meiyappan of final year Mechanical Engineering students fabricated an innovative product called "Design and fabrication of peanut plucking machine " under the guidance of Mr.J.Ekanthamoorthy

PLACEMENT DETAILS:

The Department congratulates the following students who got offer in the following company

Name of The Company	No of Students
Broiz Engineers	01
Eureka Forbes	04
Faurecia Interior Systems	07
Hanon Automotive Systems	11
Jai Maruthi Engineering	04
Jbm Auto System Private Limited	17
Ncr Corporation India Private Limited	02
Samy Engineering Tools	05
Shriram Chits	06
Sutherland Global Servies Private Limited	02
Tagro Chemicals India Private Limited	01
Wabco India Private Limited	10

- Congratulations to him!!!

Kindly send your suggestions, criticisms and articles to:
mechkvcet@gmail.com

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7904439915

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