



PRIYADARSHINI ENGINEERING COLLEGE, VANIYAMBADI-635751

(Approved by AICTE, New Delhi, Affiliated to Anna University-Chennai)

Mechanical Newsletter

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About the Institute:

Priyadarshini Engineering College, the flagship of Jai Barath Charitable Trust, was established in 1995 at Vaniyambadi in Vellore district of Tamilnadu. The College has been approved by All India Council for Technical Education, New Delhi and Affiliated to Anna University, Chennai. Priyadarshini Engineering College situated in the rural area of Vaniyambadi, Vellore District is committed to the vision of developing itself into a multi campus, Inter - disciplinary Institution of Excellence through symbiotic efforts and innovative practices of management and faculty to provide the student with an ambient academic environment, ideal for the pursuit of knowledge and development carrier.

Vision of the Institute:

To inculcate in the young rural minds the aptitude to compete with the world class technocrats.

Mission of the institute:

- ✚ To instill technical skills to compete in the sustainable world.
- ✚ To impart holistic value based technical education.
- ✚ To intensify research and development (R&D) activities in technological development.
- ✚ To imbibe core values of love for motherland, performance of duty, compassion, tolerance, honesty and integrity.

Motto

PERSEVERANCE, ENDURANCE, COMMITMENT

"கற்றலும், கற்றவை கேட்டலும், கேட்டதன்கண் நின்றலும்"



Department of Mechanical Engineering

Mechanical Engineering is a reputed Department in PEC which serving more than 16 years to the rural background students. The Department was first started with the intake strength of 40 seats in 1999. After that, the intake was increased to 60 seats in 2004. At present the Department offers 120 seats from 2014. Throughout its history, the department has provided a strong technical foundation to prepare students to meet the changing needs of industry. Most of our Alumnus are working in reputed organizations as a Design Engineer, Project Engineer, Quality Engineer and Site Engineers. Students benefited through ICTACT / NPTEL / ISTE / Spoken Tutorial / R & D Cell. Department have various Professional Societies in our department like MEA, SAE, IWS, ISTE, NPTEL, ICTACT and British Council.

Vision of Mechanical Engineering

To produce competent Mechanical Engineers specifically from rural based population to confront the latest technological innovations.

Mission of Mechanical Engineering

- ✚ Imparting quality education and training to nurture competitive Mechanical Engineers.
- ✚ Motivating innovations in the various fields of Mechanical Engineering with better infrastructure facilities to meet the industrial and societal requirements.
- ✚ Inculcating ethical values in their careers for their successful life

Programme Educational Objectives(PEOs):

PEO 1. Core Competence:

Graduates will Excel in their Professional Career with Strong Fundamental Technical Background.

PEO 2. Breadth:

Graduates will be able to demonstrate their Technical Skills in Designing, Fabrication and Installation of New Mechanical Components.

PEO 3. Professionalism:

Graduates will be Competent to Exhibit their Multidisciplinary Skills in Related Fields of Mechanical Engineering.

PEO 4. Teaching & Research:

Graduates will Pursue Higher Studies in Mechanical Related Disciplines to work in the field of Teaching and Research.

Programme Outcomes(POs):

PO 1: Engineering Knowledge:

Apply the knowledge of mathematics, science, engineering fundamentals and core engineering for complex engineering problems.

PO 2: Problem Analysis:

Identify, formulate and analyze complex engineering problems.

PO 3: Design & Development of Solutions:

Design and develop solutions for complex engineering problems.

PO 4: Investigations of complex problems:

Use research based knowledge to conduct investigations of complex problems.

PO 5: Modern Tool Usage:

Apply appropriate modern tools and techniques to tackle Mechanical Engineering problems.

PO 6: Engineer and Society:

Provide solutions to Mechanical Engineering problems relevant to societal needs.

PO 7: Environment and Sustainability:

Acquire contemporary knowledge to sustain in the ever changing environment.

PO 8: Ethics:

Apply professional ethics.

PO 9: Individual and Team work:

Exhibit individual and leadership qualities in multidisciplinary group.

PO 10: Communication:

Comprehend and communicate effectively in a team.

PO 11: Lifelong Learning:

Engage independently in lifelong learning.

PO 12: Project Management and Finance:

Plan and manage a project in a cost effective manner.

Events Organized by the Department

S.NO	NATURE OF CONTEST	RESOURCE PERSON	DURATION
1	Inauguration of Indian Welding Society Student Chapter	Mr.M.Sivakumar. Dy.General Manager, BHEL, Ranipet	23 rd April 2016
2	Workshop on “Welding Technologies”	Mr.N.BalaMurugan, Sr.Engineer, BHEL, Ranipet.	23 rd April 2016
3	Conference on "RIETMA 2016"	Dr.T.Narendiranath Babu, Ph.D Associate Professor of Design & Automation School of Mechanical Engineering, VIT , Vellore	15 th April 2016
4	Work Shop on “Advanced Injection Molding Techniques”	Mr.S.Hariharan Quality Engineer Motharson Automotive Pvt. Ltd, Chennai	28 th March 2016
5	Technical Symposium ”MEXION 2K16”	Dr.I.Rahamathullah, Assistant Professor/Mech, Government College of Engineering, Bargur	7 th Mar 2016

Student Achievements:

Paper Presentation/Journal Publication:

- ✚ S.Mohan of IInd Year M.E(Engineering Design) Presented a paper titled “Design and analysis of Composite drive shaft for automotive applications” in RIETMA 2016 at Priyadarshini Engineering College ,Vaniyambadi on 15th April 2016 and Published this paper in Middle-East Journal of Scientific Research 110-116, 2016.
- ✚ R.Ramkumar and B.Lokesh of IInd Year M.E(Engineering Design) Presented a paper titled “Design and analysis of functionally graded material Hip Prosthesis” in RIETMA 2016 at Priyadarshini Engineering College ,Vaniyambadi on 15th April 2016 and Published this paper in Middle-East Journal of Scientific Research 124-132, 2016.
- ✚ G.Siva of IInd Year M.E(Engineering Design) Presented a paper titled “Design and analysis of a Car to improve Performance” in RIETMA 2016 at Priyadarshini Engineering College ,Vaniyambadi on 15th April 2016 and Published this paper in Middle-East Journal of Scientific Research 133-140, 2016.
- ✚ M.Govindraj of IInd Year M.E(Engineering Design) Presented a paper titled “Improving Engine Life by Weight Reduction of Four wheeler (Diesel Engine)” in RIETMA 2016 at Priyadarshini Engineering College ,Vaniyambadi on 15th April 2016 and Published this paper in Middle-East Journal of Scientific Research 104-109, 2016.
- ✚ M.Sivanesan of IInd Year M.E(Engineering Design) Presented a paper titled “Thermal behavior and Optimization of piston coating material (Al-Si)used in petrol Engine” in RIETMA 2016 at Priyadarshini Engineering College ,Vaniyambadi on 15th April 2016 and Published this paper in Middle-East Journal of Scientific Research 141-147, 2016.
- ✚ M.Boopathy of IInd Year M.E(Engineering Design) Presented a paper titled “Re-Design and Analysis of Cone type Clutch cum brake” in RIETMA 2016 at Priyadarshini Engineering College ,Vaniyambadi on 15th April 2016.
- ✚ M.Balasubramaniyam of IIIrd Year Student Presented a paper and Won Ist Prize in Saraswathi Velu College of Engineering held on 31st March 2016.

Workshops:

- ✚ R.Vignesh of IInd Year student Participated in One Day International Level Workshop on “Future Trends in IC Engines” held at ICSA seminar Hall, Chennai on 6th February, 2016.
- ✚ R.Jothilingam of IIIrd year student participated in Two Day Workshop on “Green Manufacturing Concepts” at Anna University, Chennai on 16th and 17th February, 2016.
- ✚ K.Sathiya and J.Thirupathi of Ist Year M.E(Engineering Design) participated in one day workshop on “Recent Advanced in Machining Technology” held at VIT University, Vellore on 5th March 2016

Technical Symposium (Events):

- ✚ G.Thirupathi of IInd Year student has participated in the event of Machinist and Free Hand Sketching in One Day National Level Technical Symposium at Saraswathi Velu College of Engineering on 31st March, 2016.
- ✚ S.Suriya Kumar of IInd Year student won Second Prize in Free Hand Sketching in One Day National Level Technical Symposium at Saraswathi Velu College of Engineering on 31st March, 2016.
- ✚ R.Vignesh of IInd Year student won Third Prize in One Day National Level Technical Symposium in the event of Techno Quiz and also participated in CAD Modeling and Free Hand Sketching at Saraswathi Velu College of Engineering on 31st March, 2016.
- ✚ R.Jothilingam of IIIrd Year student Participated in One Day National Level Technical Symposium in the event of CAD Modeling and Presented a paper at Saraswathi Velu College of Engineering on 31st March, 2016.

Editorial Board Committee

Patron : Dr.P.Natarajan M.E.,Ph.D

Chief Patron :M.S.Tharaknath M.Tech.,

Faculty In charge(s) : Mr.A.AvinashKumar M.Tech., Mr.Ashfaque Ahmed M.Tech.,

Final Year Students : Prasanth.R

Third Year Student : Gnanavel.G

Second Year student :Nandha Kumar.D

Technical Achievements of Students

S.No	Name	Year	College Name	Event Name & Status	Date
1	G.Panbazhi	II	MIT Campus, Chennai	Technical Quiz, Problem Solving, How Stuff works & Polymer King Participated	5 th & 6 th Mar 2016
2	R.Hariprathap				
3	S.Elavarasan				
4	S.Jagan Kumar				
5	B.Gokulnathan				
6	M.Hemankuma				
7	B.Praveen Kumar				
8	G.Praveen Kumar				
9	P.Prathap	III		Attended Workshop on “Automotive Engine”.	
10	S.Sudhagar				
11	S.Shalman				
12	R.Sendhil Kumar				
13	V.Thamodharan				
14	R.Veeramani				
15	R.Vijayan				
16	V.Yogesh				
17	R.Jothilingam	III	VIT University, Vellore	Attended Workshop on “Recent Trends in Reverse Engineering-Multi Disciplinary Applications”.	19 & 20 th Mar 2016
18	M.Thangaraj	II			
19	S.Jagankumar	II			
20	D.Arun Kumar	III	Podhigai College of Engineering & Technology	Short Film Participated	24 th March 2016
21	G.Abineshwaran			Water Rocketry Participated	
22	T.Ezhil Vanan			Paper Presented	
23	S.Prabhakar			Water Rocketry Participated & Paper Presented	
24	P.Dinesh Kumar			CAD Modeling Participated & Paper Presented	
25	R.Karthick Kumar			Ad Zap Participated	
26	M.Pradeep			Ad Zap Participated	
27	M.Balasubramaniyam			Paper Presented	
28	D.Kaburannan			CAD Modeling Participated	
29	J.Sridhar			CAD Modeling Participated	
30	S.Ashok			CAD Modeling, Technical Quiz Participated & Paper Presented	

Faculty Achievements

Dr.P.Natarajan

- ✦ Published a paper titled “An Efficient Bridgeless (BI) Isolated Interleaved Zeta Converter for Led Lamp Driver Application”, in Research Journal of Applied Sciences, Engineering and Technology,11(10);1103-1113,2015,DOI: 10.19026/rjaset.11.2125.
- ✦ Published a paper titled “Fuzzy Logic Controller Based Bridgeless Isolated Interleaved Zeta Converter for LED Lamp Driver Application”, in International Journal of Power Electronics and Drive Systems (IJPEDS) Volume 7 Issue 2.
- ✦ Published a paper titled “Energy Efficient High Power Led Lighting System Using Intelligent Solar Tracking for Street Light Application”, in International Journal of Emerging Technologies And Applications In Engineering, Technology And Sciences (Ij-Eta-Ets). Vol 9, Iss 1 ISSN: 0974-3588.
- ✦ Presented a paper titled “Design and Implementation of Fuzzy Logic Controller based Bridgeless (BL) Isolated Interleaved Zeta Converter for high power LED Lamp Driver Application”, in the Proceedings of International Conference on Electrical, Electronics & Computer Engineering March 2016, ISBN 9789381830956. Paper No. 108.
- ✦ Presented a paper titled “Isolated AC/DC Offline High Power Factor Single-Switch LED Driver using Fuzzy Logic Controller”, in the Proceeding of the 2nd National Conference on Recent Innovations in Engineering, Technology, Management & Applications (RIETMA-2016), in Priyadarshini Engineering College, Vaniyambadi on April 2016, 330-335.
- ✦ Presented a paper titled, “Zigbee Based Energy Efficient Led Lighting System”, in the Proceedings of International Conference on Computation of Power, Energy Information and Communication, in Adhiparasakthi Engineering College Melmaruvathur, on April 2016.

Dr. M. Rajagopal

- ✦ Published a paper titled “Experimental Investigation on phase change material based thermal energy storage system for waste heat recovery from IC engine exhaust” in International Journal of Applied Engineering Research (IJAER) 10 (30),22909.
- ✦ Published a Paper titled “Analysis of Free Cooling Potential For Thermal Energy Management of a Commercial Building in Jaipur City, India”, in International Journal of Applied Engineering Research in 10 (30) 22943.
- ✦ Published a Paper titled “Free Cooling

Dr.M.Rajagopal

- ✦ Participated in One day Workshop on “Energy Recovery & Sustainable Development” organized by SSN College of Engineering, Chennai on 26th Feb 2016.
- ✦ Published a Paper titled “Experimental Investigation of Phase Change Material based Modular Heat Exchanger for Thermal Management of a Building” in the Journal of Taylor & Francis in May 2016.

Mr.M.Tharaknath

- ✦ Participated in “Autodesk Fusion 360-Faculty Development Workshop” at Hotel Le Royal Meridian Chennai on 3rd May 2016.
- ✦ Presented a paper titled “Design and analysis of Polymer Metallic Hip Prosthesis by using FGM” in the national level Conference on RIETMA 2016 at Priyadarshini Engineering College ,Vaniyambadi on 15th April 2016 and Published this paper in Middle-East Journal of Scientific Research 124-132, 2016.

Publications of Faculties:

- ✦ Mr.Ashfaque ahmed Presented a paper titled “Preparation and single cylinder 4S Compression Ignition Engine performance Analysis using Cow Fat Based Biodiesel” in the national level Conference on RIETMA 2016 at Priyadarshini Engineering College ,Vaniyambadi on 15th April 2016
- ✦ Mr.U.Dhivagar and Mrs.K.Bharathi Presented a paper titled “Experimental Evaluation of Helical Coil Tube in Tube Heat Exchanger” in the national level Conference on RIETMA 2016 at Priyadarshini Engineering College ,Vaniyambadi on 15th April 2016
- ✦ Mr.V.Loganathan Published a paper titled “Design and analysis of a Car to improve Performance” , in Middle-East Journal of Scientific Research 133-140, 2016.

Mr.C.Vinothkumar Published a paper titled “Thermal behavior and Optimization of Piston Coating Material (Al-Si) used in Petrol Engine”, in Middle-East Journal of Scientific Research 141-147, 2016.

Mr. S. Tharaknath

- ✦ Published a paper titled “Preparation & Characterization of Coir, Luffa Reinforced Polypropylene Composites” in International Journal of Engineering Trends and Technology(IJETT) Volume 1, Issue 3 Page 12-18.
- ✦ Participated in FDP titled “Engineering Graphics and Techniques”, in Jaya Engineering College, Chennai from 15th June 2015 to 19th June 2015.
- ✦ Participated in one day workshop on “Emerging Application of Laser Technology in Manufacturing” on 13th of Feb 2015 at VIT

Feasibility of a Typical Commercial Building in Pune city, India” in International Journal of Applied Engineering Research , Volume 10 No 30 (2015).

✚ Inaugurated R& D Cell in Priyadarshini Engineering College, Vaniyambadi on PEC on 25th Feb 2015

✚ Organized one day Workshop on “Research Methodology and Recent Sciences” at Priyadarshini Engineering College, Vaniyambadi on 13th May 2015.

Mr.M.Vinoth

✚ Published a paper titled “Active vibrations control of Aluminium Beam using Smart Materials”, in International Journal of Applied Engineering Research, Vol page 10 No 30

✚ Participated in FDP titled “Data Acquisition Systems”, in Kingston Engineering College, Vellore from 22th June to 24th June 2015.

Mr. R. Prabhakaran

✚ Presented a paper titled “Analysis of Heat Transfer Coefficient of CuO Nano Fluids using Shell & Tube Heat Exchanger” in national level conference (RIEMTA 2015) on 26 & 27th April 2015.

Participated in FDP titled “Engineering Graphics Techniques”, in Jaya Engineering College Chennai

15th June to 19th June M.Vinoth Published a paper titled “Design and analysis of Composite shaft for Automotive Applications”, in Middle-East Journal of Scientific Research 110-2016.

✚ Mr.T.Sateesh Participated in AICTE Sponsored 7 Days FDP on “Engineering

Thermodynamics” in Kalaignar Karunanithi Institute of Technology Coimbatore from 13th June to 19th June 2016.

University, Vellore.

✚ Presented a paper titled “An Analysis of Forced convection heat transfer over a flat plate using Nano Fluids” in national level conference (RIEMTA 2015) on 26 & 27th April 2015.

Mr. M. Thamaraiselvam

✚ Presented a paper titled “Active vibrations control of Aluminium Beam using Smart Materials” in national level conference (RIEMTA 2015) on 26 & 27th April 2015 and also Published this paper in International Journal of Applied Engineering Research, Vol 10 No 30.

✚ Participated in FDP titled “Engineering Graphics and Techniques”, in Jaya Engineering College, Chennai from 15th June to 19th June.

Mr. S. Ashfaque Ahmed

✚ Presented a paper titled “Preparation and Performance Characteristics of Helianthus Annus Cooked Oil Based Biodiesel on a Single Cylinder Four Stroke CI (Kirloskar) Engine” in national level conference (RIEMTA 2015) on 26 & 27th April 2015 and also Published this paper in International Journal of Applied Engineering Research, Vol 10 Page No 30.

✚ Presented a paper titled “Design and analysis of four stroke petrol engine cooling fins” in International Conference, at Ganesh College of Engineering ,Salem on Jan 2015.

Mr. M. Anandan

✚ Participated one day Workshop on “Research Methodology and Recent Sciences” in Priyadarshini Engineering College, Vaniyambadi on 13th May 2015

✚ Attended FDP titled “Emerging applications of Laser technology in Manufacturing at VIT University, Vellore.”on 13th Feb

✚ Mr.T.Sateesh Participated in Workshop on “Recent Trends in Reverse Engineering-Multi Disciplinary Applications”, in VIT University, Vellore on 19th & 20th March 2016.

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