MLRIT
Raising Engineers
MLR INSTITUTE OF TECHNOLOGY

MECHANICAL ENGINEER'S CLUB

MLR INSTITUTE OF TECHONOLOGY
SAEINDIA
Society of Automotive Engineers INDIA
COLLEGIATE CLUB

MECH TIMES

JANUARY -2025

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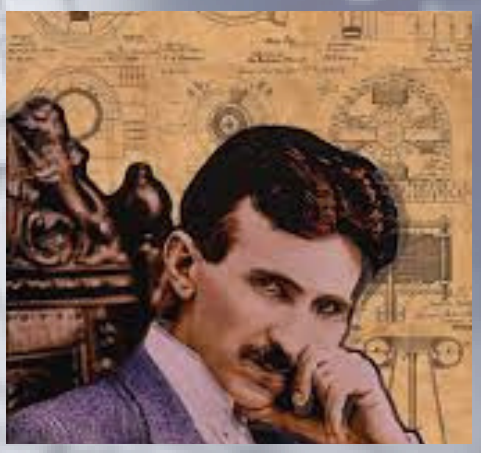

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"You have to dream before your dreams can come true."

DEPARTMENT OF MECHANICAL ENGINEERING

MARRI LAXMAN REDDY - CHAIRMAN

Sri MarriLaxman Reddy, the founder Chairmanof MLR Institutions has been in the field of education for the last 22 years with the aim of spreading quality education among children at the school & college levels. MLR Institute of Technology is the culmination of his dreams. He is also founder chairman of Marri Laxman Reddy Institute of Technology & Management, MLR Institute of Pharmacy, St. Martin's Engineering College and St. Martins Schools at Balanagar, Chintal and Malkajgiri. He is a veteran athlete of international repute.

MARRI RAJASEKHAR REDDY – SECRETARY

Sri Marri Rajashekar Reddy, the Secretary of MLR Institutions has the distinction of establishing the Institute of Aeronautical Engineering, MLR Institute of Technology, MLR Institute of Pharmacy Vardhaman Engineering College, Vidyanjali Grammar School at L.B.Nagar and Institute of Aircraft Maintenance Engineering, approved by DGCA.

He is also Treasurer of Indo US Collaboration for Engineering Education of A.P. Chapter. Mr. M. Rajasekhar Reddy, a person with remarkable abilities and great acumen and a dynamic leader. He is known to be the dynamic mentor of MLR Institute of Technology who is always on the sprit to take the institute to newer levels in every aspect of an "Ideal Institution" and strives hard to make every dream a reality. He likes his father Mr. M. Laxman Reddy, who has a credit of establishing Institute of Aeronautical Engineering adding a new flavor to St. Martins group of Institutions and Vidyanjali Grammar School.

Dr. K. SRINIVAS RAO - PRINCIPAL

It is my privilege to welcome you to the big family of MLRIT which was established in 2005 and has been imparting higher education in the fields of Electronics Engineering(ECE), Communication Computer Science Engineering(CSE),Mechanical Engineering(ME), Aeronautical Engineering(AE), Information Technology(IT), Master of Business Administration (MBA), Aerospace Engineering, Embedded Systems, Digital Systems and Computer Electronics, Computer Science, Software Engineering, CAD/CAM and Thermal Engineering. In the 14 years of existence MLR has established itself as a premier Institution and I consider its my privilege to be associated with such a prestigious Institution.

MESSAGE BY HOD:

It gives me great pleasure to meet all of you through this news letter. It is a wonderful media through which the department achievements can be brought to the notice of all of you. The department of mechanical engineering strives continuously for involving the students in the designing, studying, development and construction of all the physical devices and systems. The objective is to prepare the manpower that is globally best. To achieve this, the Department of Mechanical Engineering provides various platforms for the students and staff to excel. A news letter like this will help in a long way to highlight the achievements of both the students, staff and the department as a whole. I wish all the best for the team of members who are bringing this news letter to foray. With best wishes

Dr J KRISHNA RAJ Professor and HOD
Department of Mechanical Engineering

ABOUT MLRIT

MLR Institute ofTechnology was established in the year 2005 with the virtue of providing quality education to all sections of society. The college is run by KMR Educational Society under the chairmanship of Mr. Marri Laxman Reddy. The college is approved by All India Council for Technical Education (AICTE) besides being affiliated to Jawaharlal Nehru Technological University, Hyderabad and re-accreditated by NBA and is currently autonomous. The campus is spread over 35 acres of land with sophisticated infrastructure for curricular and co-curricular activities and for conducting UG and PG Programmes.

VISION OF THE INSTITUTE

Promote academicexcellence,research, Innovation, and entrepreneurial skills to produce graduates with human values and leadership qualities to serve the nation.

MISSION OF THE INSTITUTE

Providestudent-centric education andtraining on cutting-edge technologies to make the students globally competitive and socially responsible citizens. Create an environment to strengthen the research, innovation and entrepreneurship to solve societal problems.

ABOUT THE DEPARTMENT

The department of Mechanical Engineering was established in the year 2009 with an initial intake of 60 students and with a consequent rise in intake to 120 and 180 respectively in the years 2012 and 2013 and from 2022 decreased to 30 till date.

The department is also offering M.Tech programs in Thermal engineering with an annual intake of 6 students.

The department currently has 1 professors, 6 Asociate professors and 15 Assistant professors having research/ academic/ consultancy/ industrial experience. Faculty research experience covers a wide range of core and extended fields like alternate fuels and IC engines, Manufacturing& Welding Technology, Robotics and CAD/CAM.

VISION OF THE DEPARTMENT

The Mechanical Engineering Department endeavors to be recognized globally for outstanding education and research leading to well qualified engineers, who are innovative, entrepreneurial and successful in advanced fields of mechanical engineering to cater the ever changing industrial demands and social needs.

MISSION OF THE DEPARTMENT

Impart highest quality education to the students to build their capacity and enhancing their
skills to make them globally competitive mechanical engineers and successful entrepreneurs.

Provide the students with academic environment of excellence, state of the art research
facilities, leadership, ethical guidelines and lifelong learning needed for a long productive
career.

PROGRAMM EDUCATIONAL OBJECTIVE'S (PEO'S)

PEO 1 To prepare the students to excel in undergraduate and post graduate in Mechanical engineering to mould their careers for successful employment in industry, academic and entrepreneurial activities

PEO 2 Graduates of the Mechanical engineering program will analyze and synthesize data and apply technical concepts which lead to the design of new products, improve upon existing products and systems and develop technical problem-solving skills

PEO 3 Graduates will excel in a wide range of Mechanical engineering fields such as Design, Analysis, multi-disciplinary areas

PEO 4 Graduates will have excellent oral and written communication skills, cooperative learning skills, ethical attitude and an ability to relate engineering issues to broader social environment.

PEO 5 Toprovide a passionate academic environment for students that encourage learning of emerging technologies, acquire leadership qualities and guidelines needed for a successful career and engage in lifelong learning.










FACULTY DEVELOPMENT PROGRAMME

FUSION 360: GENERATIVE AI AND SIMULATION is a 2 day faculty dvelopment programme was oraganized by the department of mechanical engineering on 26th July 2024, every faculty had successfully parcticipated in the programme and made it successful.

FACULTY ACHIEVEMENTS

Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

VEMURI VENKATA PHANI BABU

for successfully completing the course

Patent Drafting for Beginners

with a consolidated score of 63 %

Online Assignments	19.75/25	Proctored Exam	43.5/75

Total number of candidates certified in this course: 728

Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jul-Aug 2024
(4 week course)

Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL24HS95S336804140 To verify the certificate No. of credits recommended: 1 or 2

Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

VEMURI VENKATA PHANI BABU

for successfully completing the course

Teaching and Learning in General Programs: TALG

with a consolidated score of 62 %

Online Assignments	20.83/25	Proctored Exam	41.25/75

Total number of candidates certified in this course: 787

Prof. G. L. Sivakumar Babu
Chairman, Center for Continuing Education
IISc Bangalore

Jul-Aug 2024
(4 week course)

Prof. L. Umanand
NPTEL Coordinator
IISc Bangalore

Indian Institute of Science Bangalore

swayam

Roll No: NPTEL24GE38S136800911 To verify the certificate No. of credits recommended: 1 or 2

VEMURI VENKATA PHANI BABU , senior associate professor, Mechanical Engineering, MLR Institute of technology, has been awarded certificate of course completion NPTEL funded by the MoE, Govt. of India. The course that he has completed is on ‘Patent Drafting for Beginners ’and ‘Teaching and learning in General Programs’ and it is a 4 week course between July and August 2024. Phani Babu got 63% and 62% marks that is 43.5/75 and 41.25/75 . The total number of candidates certified in this course 141. The faculty of mechanical department, MLRIT, appreciated his achievement.

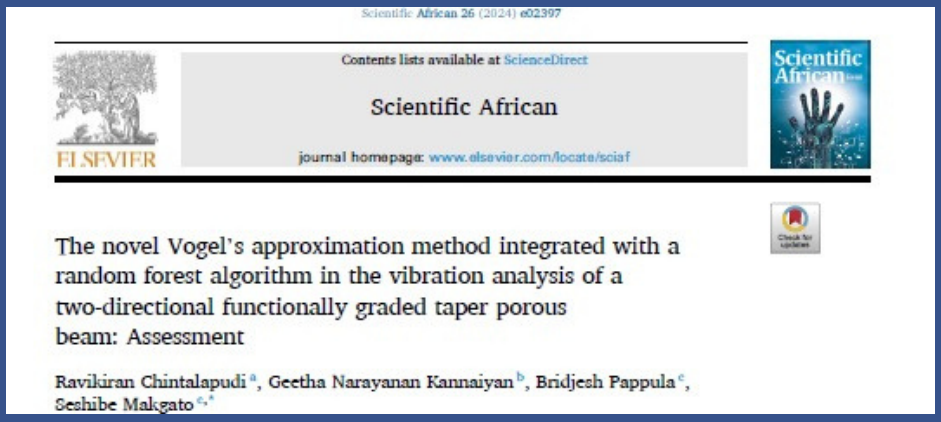
FACULTY ACHIEVEMENTS

Journal Pre-proof

Experimental and Simulation study of American Saffron Seed Oil Blended with Diesel

Valiveti Sivaramakrishna, Shaik Hussain, Chintalapudi Ravi Kiran, Jayashri N. Nair, Irfan Anjum Badruddin, Abdul Saddique Shaik, Sarfaraz Kamangar, M. Mahmood Ali, Muhammad Nasir Bashir

Heliyon



Scientific African 26 (2024) e02397

Contents lists available at ScienceDirect

Scientific African

journal homepage: www.elsevier.com/locate/sciaf

ELSEVIER

The novel Vogel's approximation method integrated with a random forest algorithm in the vibration analysis of a two-directional functionally graded taper porous beam: Assessment

Ravikiran Chintalapudi [a], Geetha Narayanan Kannaiyan [b], Bridjesh Pappula [c], Seshibe Makgato [c,*]

ACADEMIC JOURNAL OF MANUFACTURING ENGINEERING, VOL.22, ISSUE 2/2024

ON NUMERICAL ANALYSIS OF REFINED HIGHER ORDER SHEAR DEFORMATION THEORY FOR FREQUENCY RESPONSES OF TWO-DIRECTIONAL FUNCTIONALLY GRADED TAPER BEAMS

G. Chandra MohanaReddy[1], CH. Ravi Kiran[2], S. Nagaraju[3],P. Bridjesh[4]

[1,2,3,4]Department of Mechanical Engineering, MLR Institute of Technology, Hyderabad, India,500043

cmreddy115@gmail.com

Ch Ravi Kiran , S Nagaraju , G. Chandramohan Reddy, Y Balram ,faculty of mechanical engineering department , MLR Institute Of Technology had successfully published their jounals in

1) Experimental and Simulation study of American Saffron Seed Oil Blended with Diesel (CHINTALAPUDI RAVIKIRAN)

2) The novel Vogel's approximation method integrated with a random forest algorithm in the vibration analysis of a two-directional functionally graded taper porous beam (CHINTALAPUDI RAVIKIRAN)

3) ON NUMERICAL ANALYSIS OF REFINED HIGHER ORDER SHEAR DEFORMATION THEORY FOR FREQUENCY RESPONSES OF TWO-DIRECTIONAL FUNCTIONALLY GRADED TAPER BEAMS(G. Chandra MohanaReddy, CH. Ravi Kiran, S. Nagaraju,P. Bridjesh)

FACULTY ACHIEVEMENTS


Contents lists available at ScienceDirect

Journal of Materials Research and Technology

journal homepage: www.elsevier.com/locate/jmrt

Mechanical characterization and microstructural evolution of Inconel 718 and SS316L TIG weldments at high temperatures


ORIGINAL RESEARCH ARTICLE

Comparative Studies on Mechanical Properties and Microstructural Changes of AA5052 and AA6082 Dissimilar Weldments Developed by TIG, MIG, and FSW Techniques

4)Mechanical characterization and microstructural evolution of Inconel 718 and SS316L TIG weldments at high temperatures(Y BALRAM)
5)Comparative Studies on Mechanical Properties and Microstructural Changes of AA5052 and AA6082 Dissimilar Weldments Developed by TIG, MIG, and FSW Techniques(Y BALRAM)


1st Edition

Friction Stir Spot Welding

Metallurgical, Mechanical and Tribological Properties

16. Nano Particles Reinforcements Via Friction Stir Processing (FSP)

Harikishor Kumar, Rabindra Prasad, Parshant Kumar, and Lokasani Bhanuprakash

Harikishor Kumar and L Bhanuprakash had written chapter in the part of Friction Stir Spot Welding (chapter 16: Nano Particles Reinforcements Via Friction Stir Processing (FSP))

STUDENT ACHIEVEMENTS

Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India

This certificate is awarded to

KUMMARI SRINIVAS

for successfully completing the course

Fundamentals of Electronic Device Fabrication

with a consolidated score of 60 %

Online Assignments	20.42/25	Proctored Exam	40.01/75

Total number of candidates certified in this course: 197

Prof. Andrew Thangaraj, Chair, Centre for Outreach and Digital Education, IITM

Jul-Aug 2024

(4 week course)

Prof. Vignesh Muthuvijayan, NPTEL Coordinator, IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL24MM25S436800988 To verify the certificate No. of credits recommended: 1 or 2

Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India

This certificate is awarded to

SAINI VISHNUVARDHAN

for successfully completing the course

Selection of Nanomaterials for Energy Harvesting and Storage Application

with a consolidated score of 75 %

Online Assignments	20.58/25	Proctored Exam	54/75

Total number of candidates certified in this course: 194

Prof. Kaushik Ghosh, Professor(Chemistry) Coordinator CEC

Jul-Aug 2024

(4 week course)

Prof. Ranjana Pathania, Professor (BSBE) Coordinator (NPTEL)

Indian Institute of Technology Roorkee

swayam

Roll No: NPTEL24ME79S436801908 To verify the certificate No. of credits recommended: 1 or 2

Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India

This certificate is awarded to

VANKAYALA MANIKANTA

for successfully completing the course

Fundamentals of Electronic Device Fabrication

with a consolidated score of 61 %

Online Assignments	20.83/25	Proctored Exam	40.5/75

Total number of candidates certified in this course: 197

Prof. Andrew Thangaraj, Chair, Centre for Outreach and Digital Education, IITM

Jul-Aug 2024

(4 week course)

Prof. Vignesh Muthuvijayan, NPTEL Coordinator, IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL24MM25S436801078 To verify the certificate No. of credits recommended: 1 or 2

Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India

This certificate is awarded to

GATTU NISHITHA

for successfully completing the course

Fundamentals of Electronic Device Fabrication

with a consolidated score of 63 %

Online Assignments	20.83/25	Proctored Exam	42/75

Total number of candidates certified in this course: 197

Prof. Andrew Thangaraj, Chair, Centre for Outreach and Digital Education, IITM

Jul-Aug 2024

(4 week course)

Prof. Vignesh Muthuvijayan, NPTEL Coordinator, IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL24MM25S45010011 To verify the certificate No. of credits recommended: 1 or 2

The 3rd year students of mechanical engineering , MLR Institute Of Technology had attempted NPTEL course examination, 11 students had certified the exam and in the 11 certified students 4 students had received the elite certificate from the NPTEL.

STUDENT DEVELOPMENT PROGRAMME

GrowOwn

The 2nd year students of mechanical engineering , MLR Institute Of Technology had attended and gained experince on EV vehicle technology by GROW OWN EV Training.

PLACEMENT CELL

10 students of Department of Mechanical Engineering being placed in various organizations in previous six months , the details of the best MNCs in the world with high package data as shown in Below.

SNO	NAME	ROLL NUMBER	PLACED COMPANY	PACKAGE	SUBMITTED DOCUMENT
1	G.SRINIVAS	21R21A0308	SCHNEIDER ELECTRIC PVT LTD	5.5 LAKH	PAYSLIP
2	B.VAMSHI	21R21A0304	MEHTA INDUSTRIES PVT LTD	4 LAKH	OFFER LETTER
3	K.CHAITHANYA SAI	22R25A0309	STEEL INFRA SOLUTION PVT LTD	3.6 LAKH	PAYSLIP
4	K.RAHUL	22R25A0311	STEEL INFRA SOLUTION PVT LTD	3.6 LAKH	PAYSLIP
5	OST MURUGAN	22R25A0317	SRINSOFT TECHNOLOGIES PVT LTD	3 LAKH	OFFER LETTER
6	AMAR	21R21A0320	SICKLE INNOVATION PVT LTD	4 LAKH	OFFER LETTER
7	K.NIRANJAN	22R25A0312	SCHNEIDER ELECTRIC PVT LTD	3 LAKH	OFFER LETTER
8	MALYALA RAJ KUMAR	22R25A0313	Marut Air System	3 LAKH	OFFER LETTER
9	Pothu Kruthik	22R25A0319	Marut Air System	3 LAKH	OFFER LETTER
10	BANDI NANDITHA	22R25A0302	Safran	1.8 LPA	Internship

PROGRAM OUTCOMES -PROGRAM OUTCOMES ARE NARROWER STATEMENTS THAT DESCRIBE WHAT STUDENTS ARE EXPECTED TO KNOW AND BE ABLE TO DO BY THE TIME OF GRADUATION. THESE RELATE TO THE SKILLS, KNOWLEDGE, AND BEHAVIORS THAT STUDENTS ACQUIRE IN ENGINEERING EDUCATION.

PO1. Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO2. Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

PO3. Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

PO4. Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO5. Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations
to solve complex engineering problems. (WK2 and WK6)

PO6. The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PO7. Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

PO8. Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9. Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences.

PO10. Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one’s own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO11. Life-Long Learning: Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

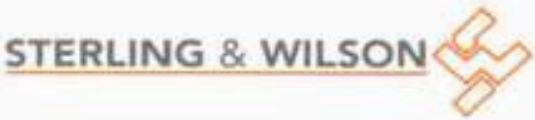
PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: To solve complex mechanical engineering problems which enables students employable in reputed industries or self-entrepreneurs.

PSO2: To develop the new products/systems in collaboration with research & development centers and to continue higher education.

SUCCESS CONTINUES...

Recruiters at MLRIT



and 80 more success companies