

Er.PERUMAL MANIMEKALAI POLYTECHNIC AN ISO 9001:2015 CERTIFIED INSTITUTION

VOLUME 7: ISSUE 7





About the Institution

"PMC TECH – Group of Institutions is uniquely positioned to provide the Vision, Leadership and Intellectual Capital that underwrite progress in the 21st Century"

Established in the year 1996 under the dynamic leadership of Er. P Perumal, Founder Chairman and bannered by "Er. Perumal Manimekalai Telugu Minority Educational and Charitable Trust", the Institutions is a sunrise hub for providing quality education in the region. PMC TECH has been envisioned to be an Educational Institutions promoting academic and professional excellence, nurturing and sustaining conducive ambiance for sculpting budding talents into technology and management leaders of tomorrow and inculcating in them professional ethics, cultural values, sensitivity and sense of service towards society

Department Activities ...

Guest Lecutre & VAC

COLLEGE

- Industrial visit
- Agapori...
- Motivational Programme
- Engineers day
- NSS
- EDC...
- Independence Day...
- Extra curricular activities

CONTENT...

Vision

PMC Tech Polytechnic College shall emerge as a premier Institute for valued added technical education coupled with Innovation, Incubation. Ethics and Professional values

Mission

- To foster the professional competence through excellence in teaching and learning.
- To nurture overall development of students by providing Quality Education & Training.
 To provide innovative environment to learn, innovate and create new ideas for the
- To provide innovative environment to learn, innovate and create new ideas for th betterment of oneself and society.



From Founder's Desk

"Any place that anyone can learn something useful from someone with experience is an Educational Institution"

Time has now come to realize your dream to be in the main stream of your professional career and must be a great feeling to be a part of most prestigious one. PMC TECH has a history of more than 15 years. In recent years degree in the technical education like Engineering, has become the foremost academic qualification for all leading Industries, Government and Non-Government sectors. Academicians and Industrialists alike have recognized the value of the degree in the developing challenges of the rapidly changing technical environment. One of the strength of our campus is the diversity of programs and members background and experience. The range of functional, professional and vocational skills and knowledge that participants bring to the program allow the lecturing faculty to test the validity of theoretical concept against of rich background of personal and organizational outlooks. The Campus environment and work culture will encourage individuals from all walks of life and from all special and economic backgrounds. To be Engineers and other technical – based professionals, can all benefit from the experience at this beautiful campus.

From Chairman's Desk

"The object of education is to prepare the young to educate themselves throughout their lives"

True Education indeed paves the path for the children to learn new things in a correct manner. It heals them, broadens their perspectives and enriches their knowledge to face the globally competitive era. PMC TECH- Polytechnic started in 1996 with an objective to provide quality education and excellence in ever changing field of technical education. Technology is moving at a very fast pace. What was breakthrough yesterday is obsolete today. This has made it imperative that future technocrats must be familiar not only with technical skill but also with the technology of tomorrow. The maximum "survival"

of fittest" is more relevant now than ever before. We believe in value based quality education and faculty Members at PMC TECH – Polytechnic are striving hard for it

From Secretary's Desk

"Education is a progressive discovery of our own ignorance"

At PMC TECH, we value every individual and it is our aim to provide the best possible environment where students can succeed. Our campus has grown from its inception in 2002 to accommodate almost 3000 pupils in first-class teaching facilities which are amidst beautifully kept grounds. We are fortunate to have a talented, highly committed teaching and supporting staff here to ensure the learning environment of our students is the best it can be.

From Director's Desk

Er.Peurmal Manimekalai Polytechnic College is an institution that aims at the complete development of the student and our staff are a hand picked and trained to ensure that the students are given every possible support in all their Endeavour's academic or otherwise it is a multi disciplinary institution and this also ensures that the students have ready access to a wide range of academic material.

Our brand of education does not have narrow horizons, we believe in exposure. Our students are encouraged to widen their knowledge base and study beyond the confines of the syllabus.

From Principal's Desk

Er.Perumal Manimekalai Polytechnic College is continuously strive to impart Quality Education along with high ethical and Moral values which enable us, not only to mould our students as successful Diploma Engineers but also as disciplined citizens of our Nation. Also, we continuously upgrade and maintain world class infrastructure keeping in pace with the rapid technological developments.

We are committed to innovation and continuous improvement. We seek to wok closely in partnership with the students and their parents to maximize student performance and success regardless of their ability levels..

ABOUT OUR DEPARTMENT

- Department of Mechanical Engineering was established in the year 1996 to offer a quality education for the students hailing from rural area and meet the industrial demands.
- Mechanical Engineering is the branch of engineering that applies the principles of physics and material science for analysis, design, manufacturing and maintenance of mechanical system.
- The engineering field requires an understanding of core concept including mechanics, thermodynamics, material science, Design, CNC programming.
- Mechanical engineers use these core principles along with the machinery like computer aided manufacturing, computer integrated manufacturing, product life cycle management to design and analyse plants, equipments and machineries.
- Employment opportunities available for Mechanical engineering diploma holders are found across the entire spectrum of manufacturing industry.
- Different carrier opportunities available for a diploma holder in mechanical engineers, Quality control engineers, Production engineers, Maintenance engineers, and CNC programmer and Design engineers.
- Higher studies opportunities are they can go for Mechanical Engineering, Production engineering, Aeronautical engineering and Post diploma in plastic technology offered by CIPET and Post Diploma Tool Design offered by NTTF.

VISION OF THE DEPARTMENT

 "Achieve excellence in Mechanical Engineering by imparting technical and professional skills along with ethical values".

MISSION OF THE DEPARTMENT

- Educate, prepare and mentor the students for successful careers in their domain of interest.
- Provide infrastructure and conducive environment to get good knowledge and professional skills.
- Motivate the students to follow ethical values and to develop innovative technologies to cater societal needs.

QUALITY POLICY

PMC TECH is committed to create quality professional to meet the emerging industrial and social needs through.

- Innovative teaching
- Industry institute interaction
- Placing faith in human values
- Meeting regularity requirements and aiming continual improvement in all activities.

Program Educational Objectives

- Have strong foundation in the mathematical, scientific and mechanical engineering fundamentals to solve complex engineering problems
- Have successful careers in mechanical industry that meets the need of the society
- Have conducive environment to explore innovation and professional skills
- Become a successful entrepreneur with social responsibilities and ethics to serve the society

Program Specific Outcomes

- Ability to produce mechanical engineering components with the acquired knowledge.
- Ability to design, develop need based products in mechanical engineering.
- Ability to function various domains of mechanical engineering related with Manufacturing Process, Thermal Engineering, Automobile Engineering and Design Engineering.

AWARENESS PROGRAMME

 Our Department NCC Students participated in the program Sasame Tamilnadu and provided necessary assistance to the differently able people there on 08.10.2023.





Drug Awareness Program:

Our Third Year and Second Year students participated in the anti drug awareness program and took the drug addiction pledge on 11.08.2023



MOTIVATIONAL PROGRAM

Third year students attended motivational program of Mr.Ragunath, director., relax institute chennai on 24/7/2023



ENTREPRENEURSHIP – INSTITUTE INNOVATION COUNCIL

Date: 20.09.2023

Year / Sem : III / V

Resource Person: Mr Mohanraj

Head of the Department / Master of Business Administration Er Perumal Manimekalai Polytechnic College, Hosur.

- Our Third year students participate Entrepreneurship innovation council training program able to learn With that in mind, another goal of entrepreneurship education is to equip aspiring entrepreneurs with the knowledge and sense to navigate the business world.
- Relevant business acumen factors include: Leadership skills, like commitment, time management, and









GUEST LECTURE









Topic: Metal Injection Moulding

Year / Sem : III / V

Date: 11.08.2023

Resource Person: Mr Joel Fernades

Group Leader (Marketing) INDO – MIM Pvt Ltd, Hoskote Bangalore

The Metal Injection Molding (MIM) process combines the design flexibility of Plastic Injection Molding with the strength and integrity of wrought metals to offer cost-effective solutions for highly complex part geometries.

The MIM process is typically explained as four unique processing steps (Compounding, Molding, De-binding, and Sintering) to produce a final part.











Topic : Additive Manufacturing

Year / Sem : III / V

Date: 17.08.2023

Resource Person : Dr Viswas Puttige

Business Head

M/s AMACE Solutions Bangalore

Additive manufacturing (AM) is defined by a process of joining materials to make objects from 3D model data, usually layer upon layer, as opposed to subtractive manufacturing methodologies"

VALUE ADDED COURSE :

Name of the Training Program: Smart Manufacturing Technique - 3D Printing

Duration: 18-08-2023 to 21-08-2023 (3 Days)

Training Coordinator: Mr. N. Arunkumar, Mr. A. Ezhil Silamban

Participant Details: Diploma in Mechanical Engineering - II YEAR A (PMC Tech)

About the Training Program:

Smart manufacturing has revolutionized the way industries operate by integrating advanced technologies to optimize processes and increase efficiency. Among these technologies, 3D printing stands out as a game-changer in the manufacturing sector. This training program on "Smart Manufacturing Technique - 3D Printing" aims to equip participants with the knowledge and skills needed to harness the potential of 3D printing in modern manufacturing.

The "Smart Manufacturing Technique - 3D Printing" training program provides a comprehensive and hands-on learning experience for individuals and professionals seeking to leverage 3D printing technology in their manufacturing processes. By the end of this training, participants will be equipped with the knowledge and skills required to integrate 3D printing into their organizations, improve efficiency, reduce costs, and stay competitive in the rapidly evolving world of smart manufacturing.

Objectives:

- Participants will Understand the principle of Additive manufacturing technology
- Participants will be able to operate a 3D printer
- Participants will be able to Print CAD models and develop products using FDM techniques

Total No. of Participants Attended : 55

No. of Participants eligible for Certification : 49



INDUSTRIAL VISIT

Industry Name: Mettur Thermal Power Plant, Mettur

Visiting Date: 01.08.2023 & 02.08.2023

Company Profile:

This is the first inland Thermal Power Station of Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO Ltd.). The plant is located on the left flank of the Ellis surplus course of Mettur Reservoir. It is situated at an altitude of +212 mats, above MSL. The first unit was commissioned on 07.01.87 and the other 3 units were commissioned on 01.12.1987, 22.03.1989 and 27.03.1990respectively The boilers of the Mettur thermal Power Station-I, capable of producing 700tonnes of steam per



hour at 540°C and 137 kg/cm 2 pressure were supplied by M/s. BHEL, Trichy. The Turbo Generators were supplied by M/s. BHEL, Haridwar. The turbine is a three stage turbine and the generator is capable of generating210 MW at a generation voltage of 15.75 kV. Chimney of 220m Height to takecare of environmental and ecological needs. State of art Distributed Control Systemfor process control in Units I, II, III & IV. From Talcher Collieries in Odisha State. Also imported coal is being received from Indonesia. 4 Nos. Wagon tipplers unload the coal wagons.

Description:

The technical talk on Thermal power plant fundamentals and Industrial visit organized by Department of Mechanical Engineering at Mettur Thermal Power Plant, Mettur. It was a memorable experience for all the students. The students were able to visualise and understand the working of Thermal Power plants, sensors, Power Generation techniques, etc... 110 students and 4 faculty members from Er. PERUMAL MANIMEKALAI POLYTECHNIC COLLEGE attended the technical talk on basics of thermal power generation, followed by the plant visit to Mettur Thermal Power Plant. Mettur.

AGAPORI

 The Second and Third year students from our department participated in the Agapori program on 21.07.2023



HOSUR RUN



EXTRA -CURRICULAR ACTIVITIES



Our Students participated on a regional level inter polytechnic volley ball tournament at KAR Polytechnic College, Vellore on 15.09.2023

Engineer's Day

 The Students of our department participated in the Engineers day program organized by the Institution of Engineers and introduced the new technologies in the field of engineering and gave a special speech about engineers on 15.09.2023



Yoga Program:

Year : I & H (Lateral Entry)

Date: 12.09.2023 to 16.09.2023

Yoga is a practice that connects the body, breath, and mind. It uses physical postures, breathing exercises, and meditation to improve overall health. Yoga was developed as a spiritual practice thousands of years ago

Our First Year and Second Year(Lateral Entry) students from our department participated in the yoga program and received yoga training



Blood Camp:





Independence Day Celebration :



Independence Day is celebrated annually on 15 August as a public holiday in India commemorating the nation's independence from the United Kingdom on 15 August 1947

The Students of our department participated in the 77 th independence day function held in our college and conduct mime show on 15.08.2023

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STUDENTS

Mr. Arunkumar. K, Student/III MECH

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Mr.Ruddr.R, Student/I MECH

Mr.Raghav choudhary, Student/I MECH

website: www.pmctechpoly.org

e-mail: pmcpolymechanical@gmail.com