

PMC TECH

**Er Perumal Manimekalai Polytechnic College,
Hosur-635117**



Department of Mechanical Engineering (Tool&Die)

Academic Report, ODD Semester 2023-2024

Er.PERUMAL MANIMEKALAI POLYTECHNIC COLLEGE

Vision of the Institution:

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

Mission of the Institution:

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

DEPARTMENT OF MECHANICAL TOOL & DIE ENGINEERING

Vision of the Department:

To Develop eminent, innovative professional Tool and Die Diploma holders by imparting value added education, embedded with employable skills

Mission of the Department :

- To provide competency based quality Tool and Die Engineers by strong theoretical and practical training.
- To provide breeding ground for innovation and leadership through skill development in Tool Design.
- To enhance continual career development and improve employability skills.

PROGRAMME EDUCATIONAL OBJECTIVES

Our Diploma students will be able to

- PEO1:** Have a successful career in the field of the Tool and Die Engineering Design, Manufacturing, Maintenance and Inspection.
- PEO2:** Become a skilled technician in handling various convention and non convention machines by adopting new technologies.
- PEO3:** Fulfill the demands of industries with good communication, positive attitude and team spirit.

PROGRAMME SPECIFIC OUTCOMES

- PSO1:** Prepare Tool drawing and make Die Mould part by operating Conventional and Non conventional machines.
- PSO2:** Design and fabricate jigs, fixtures, press tools and plastic moulds for customer needs.
- PSO3:** Apply knowledge and skills with design and development of a project work in the field of Tool and Die making.

PROGRAMME OUTCOMES

- PO1: Basic and Discipline specific knowledge:** Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.
- PO2: Problem analysis:** Identify and analyse well-defined engineering problems using codified standard methods.
- PO3: Design/ development of solutions:** Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.
- PO4: Engineering Tools, Experimentation and Testing:** Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.
- PO5: Engineering practices for society, sustainability and environment:** Apply appropriate technology in context of society, sustainability, environment and ethical practices.
- PO6: Project Management:** Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
- PO7: Life-long learning:** Ability to analyse individual needs and engage in updating in the context of technological changes.

Content:

S.No	Name of the Content	Page No
1	Faculty Details	5
2	Students Name List	6
3	Guest Lecturer Program	11
4	Value Added Course	14
5	Industrial Visit	17
6	In Plant Training	19
7	Naan Muthalvan	20
8	Industrial Careers Program	23
9	Auditing Course for First Year	24
10	Entrepreneurship – Institute Innovation Council	25
11	Best Faculty Award	26
12	Hosur Reading	26
13	Engineers Day	27
14	Yoga Program	28
15	Blood Camp	29
16	Independence Day	29
17	Motivational Program	30
18	Agappori	30
19	Drug Awareness Program	31
20	NCC Activity	31
21	Hosur Run	32
22	Sports	32

Faculty Details :

The following faculty's are working in this Department in the year of 2022-2023

S.No	Name and Designation	Photo
1	Mr R.Ramachandran, M.E., HOD (Admin)	
2	Mr C.Prakash, M.E., HOD (Academic)	
3	Mr P.Vinoth Kumar, M.E., Lecturer/ Academic Coordinator	
4	Mr P.Rajasekar Lecturer	
4	Mr P.Rajasekar Lecturer	

Students Name List :**I – Year**

S.No	Reg No	Name of the Students
1	24219869	ABISHEK V
2	24219870	ANAND Y
3	24219871	ANILKUMAR C
4	24219872	APSARKHAN Y
5	24219873	ARAVINDAN S
6	24219875	ASWANTH S
7	24219876	ASWIN M
8	24219877	ATUL S
9	24219878	BHARATH Y
10	24219879	BOOPATHI G
11	24219880	CHANDRU S
12	24219881	DHANANJAI D
13	24219882	DHARSHAN M
14	24219883	DILIP K
15	24219884	DINAGARAN C
16	24219885	GANESHKUMAR P
17	24219886	GNANAPRAKASH M
18	24219887	GOKUL S
19	24219888	HARIHARAN N
20	24219889	HARIHARASUDHAN L
21	24219890	HARISH S
22	24219891	HEMANTH S
23	24219892	JEEVA KRISHNAN H
24	24219893	KARTHICK K
25	24219894	KARTHICK K
26	24219895	KEERTHAN KUMAR G

27	24219896	KISHAN V
28	24219897	KISHORE M
29	24219898	LIKITH M
30	24219899	LOKESH L
31	24219900	MADESH V
32	24219901	MAGESHKUMAR S
33	24219902	MANUCHARAN C
34	24219903	MOHAMMED RAFFIQ H
35	24219904	MOHAN MURALI R
36	24219905	MUTHU SELVAN N
37	24219906	MUTHUVEL B
38	24219907	NETHAJI M
39	24219909	PARTHA SARATHI S
40	24219911	PUNITKUMAR S
41	24219912	PURUSHOTHAMAN K
42	24219913	PUSHPALINGAM A
43	24219914	RAGHUL R
44	24219915	RAKESH RAM P
45	24219916	REEHAN I
46	24219917	ROHITH M
47	24219919	SAKTHIVEL V
48	24219920	SALMAN KHAN S
49	24219921	SANTHOSH S
50	24219922	SATHISH S
51	24219923	SELVARAJ S
52	24219924	SIVAKUMAR N
53	24219926	SRIKANTH R
54	24219927	SRIKANTH V
55	24219928	SUGAVANAM T
56	24219929	SUJITH M

57	24219930	SUMAN P
58	24219931	SURESH E
59	24219932	UDHAY K
60	24219933	UDHAYA KUMAR A
61	24219934	VEDADRI P
62	24219935	VINAY KUMAR M
63	24219936	VINAY S
64	24219937	YASWANTH R
65	24219938	YESHWANTH N
66	24219939	YESWANTHA I
67	24219940	YUVARAJ S
68	24219941	YUVARAJ T

II- Year

S.No	Reg No	Name of the Students
1	23223051	ARUN KUMAR R
2	23223054	DILIP R
3	23223055	DINESH G
4	23223056	GANESH KUMAR S
5	23223057	GNANAPRAKASH G
6	23223058	HEMA KUMAR V
7	23223060	KIRAN KUMAR V
8	23223061	KISHORE K
9	23223062	KISHORE R
10	23223063	LEELADHARAN S
11	23223064	MAHADEVAN S

12	23223065	MANIGANDAN R
13	23223066	MANOJKUMAR B
14	23223067	MOHAN K
15	23223069	NARESH M
16	23223070	NAVEEN KUMAR M
17	23223072	NIRANJAN M
18	23223073	NIRMAL KUMAR V
19	23223074	NITHISHKUMAR N
20	23223076	PRAKASH G
21	23223077	PRAVEEN KUMAR M
22	23223079	PUGAZENTHI P
23	23223081	RAJAMANICKAM R
24	23223082	SANJAY Y
25	23223083	SHRAVAN S
26	23223084	SIVARAJKUMAR K
27	23223085	SRIDHAR A
28	23223086	SRIKANTH C
29	23223087	SUJITH N
30	23223089	SUWIN SALAMAN RAJU S
31	23223091	THILAK KUMAR B
32	23223092	THULASINATHAN S
33	23223094	VIGNESH T
34	23296825	DINESHKUMAR C
35	23296826	NARAYANAN V
36	23296827	RAGAVENDHIRAN V
37	23296830	YESWANTH E

III Year

\	Reg No	Name of the Students
1	22219401	ARUN R
2	22219402	DHARSHAN M
3	22219403	DHESIAN D
4	22219404	DINESHKUMAR V
5	22219405	GUNA A S
6	22219406	JAYANTHRAJ S
7	22219409	KEERTHIVASAN M
8	22219410	LIKETH M
9	22219412	NANDISH S
10	22219413	PRAVEEN KUMAR V
11	22219415	PRAVEENKUMAR S
12	22219417	PUNITH KUMAR N
13	22219418	RAHUL V
14	22219419	RAJESH J
15	22219420	RUDRESH R
16	22219421	SASIKUMAR M
17	22219422	SATHYANARAYANAN S
18	22219423	SATHYAPRAKASH M
19	22219424	THARUN D
20	22219425	THIRUMALAI K
21	22219426	VIGNA VIDYAKAR A
22	22219427	VIJAY S
23	22219428	YUGESH S A
24	22219429	YUVARAJ M
25	22297850	BHARATHKUMAR S
26	22297851	JAGAN C
27	22297852	LOKESH G
28	22297853	PRABUDASS A

Guest Lecturer Program :

Topic : Additive Manufacturing

Year / Sem : III / V

Date : 07.06.2023

Resource Person : Mr K. Udayakumr

Assistant Professor

Er Perumal Manimekalai Polytechnic College, Hosur

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



Guest Lecturer Program :

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.



Guest Lecturer Program :

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 :

Topic : Lean Manufacturing

Year / Sem : II / III

Date : 01.09.2023 to 02.09.2023

Resource Person : SVAIC Team

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Lean manufacturing is a methodology that focuses on minimizing waste within manufacturing systems while simultaneously maximizing productivity



Value Added Course :

Topic : CAM for Plastic Mould Design

Year / Sem : III / V

Date : 23.08.2023 to 29.08.2023

Resource Person : SVAIC Team

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Computer-aided manufacturing (CAM) plays a critical role in the field of plastic mold design, enabling efficient and precise manufacturing processes. This training program, "CAM for Plastic Mold Design," is designed to equip participants with the knowledge and skills necessary to use CAM software effectively in designing molds for plastic components



Value Added Course Certificate Distribution :

III Year :



II Year :



Industrial Visit :

Year / Sem : III / V

Industry Name : ALF Engineering Pvt Ltd, Shoolagiri, Hosur

Visiting Date : 19.08.2023

Company Profile :

Alf Engineering Pvt Ltd is a leading OE manufacturer of automotive Chassis, and currently manufactures over 1400 frames/day from its plants across India.

Alf Engineering Pvt Ltd is also the largest manufacturer engaged in the indigenous design and development of hydroformed components for the automotive industry. A Hydroforming facility is operational at Nasik, with a design centre to support customers in design & development.

ALF also manufacturers and supplies assemblies and parts for suspensions - both front and Rear. They include cradles, control arms & links.

Growing recognition...In the recent years more companies have come to accept the competence and commitment of ALF to develop critical Hydroformed components /assemblies for chassis & suspension.



Industrial Visit :

Year / Sem : II / III

Industry Name : Steel Engineering Pvt Ltd, Hosur

Visiting Date : 24.08.2023

Company Profile :

"Steel EGINEERING Enterprises" was established In 1999 with 12 Employee & we are the manufacture of Gray Cast Iron, Industrial Castings, Metal Castings, SG Iron Casting. They also provide various facilities like sand plant, sand reclamation machine, stress relieving furnace and testing laboratories. We have established our clientele worldwide. We have four manufacturing units equipped with cutting edge technology tools for manufacturing superior range of equipments.

We have all the resources to provide the quantity of castings as per the customer requirements & specifications. Due the good quality of castings and prompt delivery, we have gained a huge client network all over India.



In Plant Training :

To enhance the employability skills in the students and make them job-ready with real corporate exposure.

Company : Ashok Leyland

Company Profile:

Ashok Leyland is an Indian multinational automotive manufacturer. It is owned by the Hinduja Group. It was founded in 1948 as Ashok Motors which became Ashok Leyland in the year 1955 after collaboration with British Leyland. Ashok Leyland is the second largest manufacturer of commercial vehicles in India, the third largest manufacturer of buses in the world, and the tenth largest manufacturer of trucks.

III Year

S.No	Register.No	Name of the Student	Name of the Company
1	22219403	DHESIAN D	Ashok Leyland Pvt Ltd, Hosur
2	22219404	DINESHKUMAR V	
3	22219410	LIKETH M	
4	22219412	NANDISH S	
5	22219417	PUNITH KUMAR N	
6	22219422	SATHYANARAYANAN S	
7	22219423	SATHYAPRAKASH M	
8	22219428	YUGESH S A	
9	22219429	YUVARAJ M	
10	22297853	PRABHUDASS A	



Naan Muthalvan :

Topic : Basic English for Employability

Date : 11.09.2023 to 20.09.2023

Year / Sem : I / I

Objective :

In today's globalized economy, English has become a lingua franca, allowing people to communicate and work together across borders. This means that learning English for employability is a highly desired skill. English is the global language of communication and a key factor in helping businesses succeed



Naan Muthalvan :

Topic : Employability Skills

Date : 11.09.2023 to 19.09.2023 & 09.10.2023 to 20.10.2023

Year / Sem : II / III

Objective :

- ✓ To help students explore their values and career choices through individual skill assessments.
- ✓ To make realistic employment choices and to identify the steps necessary to achieve a goal.
- ✓ To develop and practice self management skills for the work site.
- ✓ To explore and practice basic communication skills.



Naan Muthalvan :

Topic : Industry 4.0

Date : 08.08.2023 to 03.09.2023

Year / Sem : III / V

Objective :

Industry 4.0 refers to a trend or concept in the current manufacturing industry that focuses on automation of processes and data exchange.

- ✓ Modeling and simulation.
- ✓ IoT and sensor data integration.
- ✓ Data analysis and visualization.
- ✓ Cybersecurity.
- ✓ Artificial Intelligence and Machine Learning.



Campus to Industrial Careers Program (TNS Foundation)

Date : 12.09.2023 to 15.09.2023

Year / Sem : III / V

Objective :

It has developed a Campus to Corporate Careers Program which aims to usher under-resourced college-going youth into the formal workforce by upskilling them in 21-century , advanced technical, digital and industrial skills and thereby unlocking their economic potential.



Auditing Course :

Integrated Learning experience training program for First Year students addressed by Nammadhu Nambikai Trainer on 29.09.2023



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 organization.



Best Faculty Award :

They honoured Mr R. Ramachandran HOD (Admin) Department of Mechanical Engineering (Tool & Die)with the best faculty award at the Indian Medical Association , Hosur Teachers day function on 09.09.2023



Hosur Reading :

The students of our department also participated in the reading awareness program held in our college on the topic Hosur Reading and created an awareness about the importance of reading books on 12.07.2023



Engineers 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 & II (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 :

Students and Faculty of our department participated in the blood donation camp organized by our college Youth Red Cross and Government Medical College Hospital Krishnagiri and donated blood on 08.09.2023



Independence Day Celebration :

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



Motivational Program

Year : III

Date : 24.07.2023

Resource Person : Mr Raghunath
Relax Training, Chennai

The Third year students of our department participated in the training program and learned about the morals to follow in the life and the necessary ways to progress in life



Agapori :

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



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



NCC Activity :

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



Hosur Run :

Students from our department participated in the Marathon Run held in Hosur on 04.06.2023



Sports :

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

