PERIYAR CENTENARY POLYTECHNIC COLLEGE

PERIYAR NAGAR - VALLAM -THANJAVUR - 613 403

AUTONOMOUS INSTITUTION

DEPARTMENT OF MECHANICAL ENGINEERING

ACTIVITIES REPORT –2021 -2022

Awards and Achievement

Best Outgoing student award Selvan **S.Tamilkumaran**-III rd MECHANICAL for the year 2021-2022

Best Library User Awards for the year 2021-2022 – **M.Sanjai**, III Year Mechanical Engineering.

Best Project Award

Best Project Award for the year 2021-2022 - **Rajkumar M, Ranjith Kumar R, Sakthivel T, Steeban J, Sudharsan S & Sundar N**

BEST NCC Cadet Award

Best NCC Cadet Award for the year 2021-2022 – **I.Thiruselvan**, III Year Mechanical Engineering.

Periyar Techno Meet – 2022

S. No.	Date	Name of the Students	Year / Sem.	Topic/Venue	Prize / Presented
1	23.12.21	MOHAMMED ISMAIL S CHRISTO CHARLES S	III / V	Nani Electro-Mechanical system, PCPC, Vallam	II Prize
2	23.12.21	ALAMEEN S EDWIN B	III / V	Cryogenic, PCPC, Vallam	Presented
3	23.12.21	HARAN P MAHENDRAW ARMA R	III / V	Industrial Internet of Things(IIOT), PCPC, Vallam	Presented
4	23.12.21	SARATHI R BHARANIABISEIK V	III / V	Industrial Internet of Things(IIOT), PCPC, Vallam	Presented
5	23.12.21	TAMILKUMARAN S SHEIK ABDULLA A	III / V	Nani Electro-Mechanical system, PCPC, Vallam	Presented
6	23.12.21	PRASANTH K SANJAI M	III / V	Industrial Internet of Things(IIOT), PCPC, Vallam	Presented
7	23.12.21	MOHAMMED ISMAIL S CHRISTO CHARLES S	III / V	Nani Electro-Mechanical system, PCPC, Vallam	II Prize
8	23.12.21	MOHAMMED RAFI AJITH A	II / III	Nani Electro-Mechanical system, PCPC, Vallam	Presented
9	23.12.21	RAJKUMAR M VISHWA R	II / III	Nani Electro-Mechanical system, PCPC, Vallam	Presented

Sports Activities

S.No	Name of the Students	Name of the Event	Venue / Date	Possession
1	Gokul Varathan S	200 Mts	PCPC/ 22.03.22	1st Place
2	Vignesh C	High Jump	PCPC/ 25.03.22	1st Place
3	Vignesh C	Long Jump	PCPC/ 25.03.22	1st Place
4	Sakthivel T Venkatesh B Priyadharsan R Jeswin A.B Subash V Barath Kumar	KHO-KHO	PCPC/ 25.03.22	1st Place

Guest Lecture Programmes

S. No	Date	Year / Sem.	Topic	Resource Person	No. of Students attended
1	1.11.21	III / VI	Design of machine elements	Mr.V.Pandiyarajan, Associate professor, PMIST, Vallam	127
2	8.04.22	II / IV	Production Quality Management	Mr.J.Madhan M.Tech Director /JSM Engg. Thanjavur.	131

Industrial Visits

Industrial Visit at Periyar Maniammai Institute of Science & Technology, Vallam

S. No	Date	Year/ Sem.	Name of the Industry Visited	Content Beyond Syllabus	No. of Beneficiaries
1	07.12.2021	III / VI	PLC and SCADA Periyar Maniammai Institute of Science and Technology, Vallam	HYDRAULICS AND PNEUMATICS	127
2	08.12.2021	II / IV	Measuring Instruments Periyar Maniammai Institute of Science and Technology, Vallam	MEASUREMENTS AND METROLOGY	131

Employability Skill Course

S. No	Date	Topic	Resource Person with Designation	No. of Students Present
1	30.09.2021	Project Development & Startups	Mr. Amirtha Ganesh, Director/ARMADA, Thanjavur.	127

Personality Development Programme

S. No	Date	Topic	Resource Person with Designation	No. of Students Present
1	07.10.2021	Personality Development Programme	Mr. R. Ayyanathan, Manager.III	121

Placement

Royal Enfield Academy, Chennai

S. No	Name of the Company	No. of Students Selected
1	Sakthi Auto Component Ltd, Tirupur	19
2	Delfi TVS, Chennai	28
3	Royal Enfield Academy for Technical Skills, Chennai	11
4	SK Enterprises, Chennai	9
5	Apollo Tyres, Chennai	11
6	Sakthi Auto Component Ltd, Tirupur	19
7	Saint Gobain, Chennai	2
8	Lucas TVS, Pondicherry	48

Faculty Development Programme (Online Mode)

S. No	Name of Faculty	Name of the training Programme	Duration	Venue
1	Mr.K.Saravana kumar Lecturer/Mech	"Make in India", Though 3D Printing and Industry 4.0 for Indian Indian Industries – Phase IV	14.06.2021 to 19.06.2021	Kamaraj College of Engineering and Technology (Autonomous), Madurai (Online Mode)
		Entrepreneurship Development & Startups"	04.10.2021 to 08.10.2021	NITTTR Chennai, (Online Mode)
2	Mr.R.Vivek Lecturer/Mech	Smart Manufacturing	21.02.2022 to 25.02.2022	NITTTR Chennai, (Online Mode)
3	Mr.K.Gopi Lecturer/Mech	"Make in India", Though 3D Printing and Industry 4.0 for Indian Indian Industries – Phase IV	14.06.2021 to 19.06.2021	Kamaraj College of Engineering and Technology (Autonomous), Madurai (Online Mode)
		Innovation & Entrepreneurship Development	21.10.2021 to 27.10.2021	EDII/TN (Online Mode)
		"Electric Vehicle Engineering"	17.01.2022 to 21.01.2022	NITTTR Chennai, (Online Mode)
4	Mr.D.Rajkumar Lecturer/Mech	Entrepreneurship Development & Startups"	04.10.2021 to 08.10.2021	NITTTR Chennai, (Online Mode)
5	Mr.M.Kumar Lecturer/Mech	Computer integrated manufacturing	02.08.2021 to 06.08.2021	NITTTR Chennai, (Online Mode)
6	Mr.D.Muthukumaran Lecturer/Mech	Patent commercialization Methods and Strategy	19.06.2021	Francis Xavier Engineering College. (Online workshop)
7	Mr.L.Viveknijanthan Lecturer/Mech	"Make in India", Though 3D Prinding and Industry 4.0 for Indian Indian Industries – Phase IV	14.06.2021 to 19.06.2021	Kamaraj College of Engineering and Technology (Autonomous), Madurai (Online Mode)
8	Mr.K.Ganesan Lecturer/Mech	"Online Teaching Tools for Educators"	14-06-2021 to 20-06-2021	Murugappa Polytechnic College, Chennai (Online Mode)
9	Mr.J.Subramanian Lecturer/Mech	Fusion 360 AudoDesk	26.05.2022 to 27.05.2022	PMIST, Vallam
10	Mr.M.Shanmuga Priyan Lecturer/Mech	Fusion 360 AudoDesk	26.05.2022 to 27.05.2022	PMIST, Vallam

APEX MEETING on 1.5.2021

The APEX team explored a broad range of innovative ideas for the Chamber Technology

Entrepreneurship Management Development Programme (EMDP)

EMDP Conducted on 26.10.2021

S. No	Date	Year / Sem.	Topic	Name and address of the Resource Person	No of Students benefited
1	09.10.2021	II/III	Industrial Safety	Mr.J.Madhan M.Tech Director /JSM Engg. Thanjavur	132
2	11.10.2021	II/III	Manufacturing Technology I	Mr.G.Senthil kumar PRIM-TECH THANJAVUR	132
3	26.10.2021	III/V	Thermal power plant	Mr.C.Prabhu, Senior Engineer, Cethar limited, Trichy	128
4	06.04.2022	III/VI	Successful Startup Entrepreneur	PRIM Engineering, Coimbatore.	125
5	19.05.2022	III/VI	Awareness on Project Development & Startups	ARHA Metals & Tech Solution, Pudhupatti, Thanjavur.	125

Parents Teachers Meet on 20.5.22 & 21.5.22

To help them realize their respective roles in promoting integrated education. To train them in the techniques and methodologies involved in teaching visually impaired students.

ANTI RAGGING COMMITTEE MEETING ON 18.5.2022

ANTI DRUGS COMMITTEE AWARENESS PROGRAMME CONDUCTED N 26.5.2022

Conducted By : **J.SUBRAMANIAN .,ME HOD/Mech**
Periyar centenary polytechnic college , vallam

ALUMNI MEETING CONDUCTED ON 28.5.2022

MOU MEETING 25-05-2022

NCC & NSS ACTIVITIES

COVID-19 VACCINATION CAMP ON 05.01.2022
No of Students Benefited -46- II year Mechanical
38- II year Mechanical

TREE PLANTATION

WORLD ENVIRONMENT DAY

World Environment Day On 5.6.2022

Student Article

FABRICATION OF MAIZE DE-HUSKER

BEST PROJECT AWARD OF OUR PROJECT on PERIYAR TECHNO EXPO-2022
Rajkumar M, Ranjith Kumar R, Sakthivel T, Steeban J, Sudharsan S & Sundar N

Fabrication of Maize de-Husker- Maize is becoming the third major crop of the country after rice and wheat. De-husking and shelling of the maize cob are done mostly by the farm women in the country. This operation is mostly performed by the traditional method. To provide options for small and hill farmers, a hand operated maize de-husker-Sheller has been designed, developed, fabricated and evaluated. Farm women could easily operate the machine with right or left hand. The output capacity with the machine was about 60 kg/h at a feed rate of 80 kg un-de-husked cob per hr. The de-husking efficiency was 100 %, shelling efficiency 98.8 % and grain breakage 0.3 % at a peripheral cylinder speed of 5.6 m s-1. Two farm women (one for hand cranking and another for feeding the cob) were required during operation of the machine. Both the workers could be shifted during operation to increase the continuity in operation.

Sakthivel T

III Year- Mech

Faculty Article

I AM A BIG FAN- WIND MILL

WIND MILL- "Most renewable energy is derived directly or indirectly from the sun. Sunlight can be captured directly using solar technologies. The sun's heat drives winds, whose energy is captured with turbines. Plants also rely on the sun to grow and their stored energy can be utilized for bioenergy."

windmill, device for tapping the energy of the wind by means of sails mounted on a rotating shaft. The sails are mounted at an angle or are given a slight twist so that the force of wind against them is divided into two components, one of which, in the plane of the sails, imparts rotation.Like waterwheels, windmills were among the original prime movers that replaced human beings as a source of power. The use of windmills was increasingly widespread in Europe from the 12th century until the early 19th century. Their slow decline, because of the development of steam power, lasted for a further 100 years. Their rapid demise began following World War I with the development of the internal-combustion engine and the spread of electric power; from that time on, however, electrical generation by wind power.

Inspired by these kind of energies and considering few more ,my students and I have made a model windmill with some unnecessary parts and kept it on the college lawn.

J.Subramnain ,M.E
HOD/MECH

Student Messages

"Most renewable energy is derived directly or indirectly from the sun. Sunlight can be captured directly using solar technologies. The sun's heat drives winds, whose energy is captured with turbines. Plants also rely on the sun to grow and their stored energy can be utilized for bio-energy."

Eeswaramoorthy E
III Year mech

"The contribution of this paper is to present the processing operations of an aluminum work piece, which will be performed on a CNC with 3 axIs. The main part is the difference between manually programming a machine and programming it using CAD / CAM software on a computer. To be successful, we need basic knowledge, such as the composition and strength of the tools used and the material to be processed. After acquiring this knowledge, the operations will be programmed to obtain from a raw material, the work piece according to the requirements of the technical drawing. Key words: CNC, Processing, Programming"

Tamilkumaran S
III Year MECH

*"The modern automobile is usually driven by a water-cooled, piston-type **internalcombustion engine**, mounted in the front of the vehicle; its power may be transmitted either to the front wheels, to the rear wheels, or to all four wheels. Some automobiles use air-cooled engines, but these are generally less efficient than the liquid-cooled type. In some models the engine is carried just forward of the rear wheels; this arrangement, while wasteful of space, has the advantage of better weight distribution. Although passenger vehicles are usually gasoline fueled, **diesel engines** (which burn a heavier petroleum oil) are employed both for heavy vehicles, such as trucks and buses, and for a small number of family sedans. Both diesel and gasoline engines generally employ a four-stroke cycle."*

Sheik Abdul Ajees
III Year MECH

Faculty Messages

MECHANICAL- INNOVATION OF IDEAS

Mechanical engineering combines creativity, knowledge and analytical tools to complete the difficult task of shaping an idea into reality. Mechanical engineering is one of the broadest engineering disciplines. Mechanical engineers design, develop, build, and test.

K.Saravanakumar .,B.E
Lecturer/Mechanical

INDUSTRY 4.0-

Digitization and intelligentization of manufacturing process is the need for today's industry. The manufacturing industries are currently changing from mass production to customized production. The term Industry 4.0 stands for the fourth industrial revolution which is defined as a new level of organization and control over the entire value chain of the life cycle of products

R.Vivek.,B.E
Lecturer/Mechanical

NANO TECHNOLOGY-NEW TREND

Nanotechnology can be defined as the science and engineering involved in the design, synthesis, characterization, and application of materials and devices whose smallest functional organization, in at least one dimension, is on the nanometer scale or one billionth of a meter. At these scales, consideration of individual molecules and interacting groups of molecules in relation to the bulk macroscopic properties of the material or device becomes important, as it has a control over the fundamental molecular structure, which allows control over the macroscopic chemical and physical properties.[1] Nanotechnology has found many applications in medicine and this articles outlines some such applications.

S.Jeevanandham.,M.E
Lecturer/Mechanical

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