



We Make You Shine
St. JOSEPH'S INSTITUTE OF TECHNOLOGY
(An Autonomous Institution)
St. Joseph's Group of Institutions
Jeppiaar Educational Trust
OMR, Chennai - 119



DEPARTMENT OF MECHANICAL ENGINEERING

News Letter (2022-23 EVEN SEM)

Brief report on the Semester activities undertaken by **Mechanical department** for the month of **NOVEMBER 2022** to **MAY 2023** year

VALUE ADDED COURSE

S.No	Events with photo	Remarks
1	<p>Value Added Course – I : Welding Inspection & Non Destructive Testing</p> 	<p>Date of the event : 24.1.2023 to 30.1.2023 Title : Welding Inspection and Non Destructive Testing Resource Person : Mr.Sivaperumal No of Participants : 50 students Sponsoring Agency : Shri Sai NDT & Inspection Services Venue : Mechatronics Lab Objectives : The Value Added Courses offered to students for 5 days to mould them to make job oriented training on Non destructive testing methods using ultrasonics, liquid penetrants, magnetic particles etc. This training makes them students to understand various testing methodologies in heavy engineering industries, piping industries and oil refineries which make them to get jobs abroad in gulf countries.</p>
2	<p>Value Added Course – II: 3D Printing</p> 	<p>Date of the event : 24.1.2023 to 30.1.2023 Title : 3D Printing Resource Person : Mr.G.Nagendran No of Participants : 52 students Sponsoring Agency : CADDAM Technologies Private Limited. Venue : CAD/CAM Lab Objectives : The Value Added Courses offered to students for 5 days to mould them to make job oriented training on Additive Manufacturing. Students are trained</p>



to model in CATIA and convert it into STL file for additive manufacturing. This job oriented course makes students to build parts on medical and biomedical applications.

INSTITUTION INNOVATION CELL Event -1



Title: ENTREPRENEURSHIP AND INNOVATION AS CARREER OPPORTUNITY

Objective of the Event: The objective of the event is to improve the awareness among the youngsters regarding the importance on investment/ funding opportunities for Entrepreneur.

Speaker Details: Mr. ARUN / FOUNDER- DIRECTOR FLY HIGH INDIA PVT LTD

Event Start Date: 25/1/2023

Duration of the Event (in Minutes): 1:30 Min

Number of Student Participants: 28

Number of Faculty Participants: 5

Number of External Participants: Nil

Mode of Session Delivery: Offline

INSTITUTION INNOVATION CELL Event -2



Title: WORKSHOP ON ENTREPRENEURSHIP SKILL, ATTITUDE AND BEHAVIOUR DEVELOPMENT

Objective of the Event: The objective of the event is to improve the awareness among the youngsters regarding the importance on investment/ funding opportunities for Entrepreneur.

Speaker Details: Mr.G. Nagrndran/ DIRECTOR CADDAM Technologies Pvt Ltd

Event Start Date: 23/2/2023

Duration of the Event (in Minutes): 1:30 Min

Number of Student Participants: 28

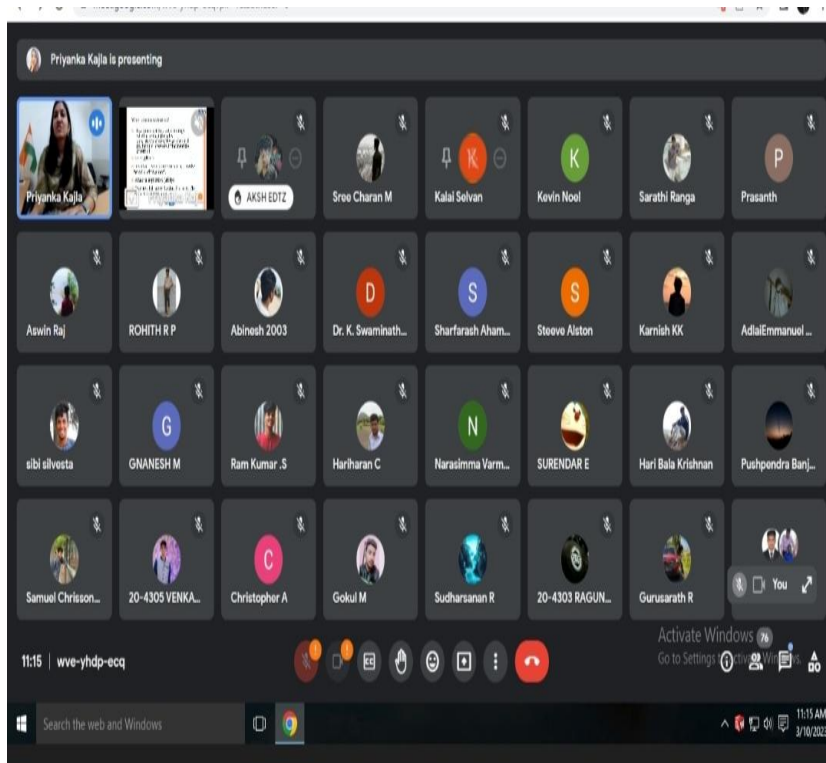
Number of Faculty Participants: 5

Number of External Participants: Nil

Mode of Session Delivery: Offline

INSTITUTION INNOVATION CELL Event -3

WORKSHOP



Date of the event : 10/03/23

Title : IPR AWARENESS PROGRAM

Resource Person : Ms. Priyanka

Examiner of patents & Design

Ministry of Commerce & Industry

No of Participants : All II & III year students (80 students)

Sponsoring Agency : Institution Innovation Cell

Mode: Online

Objectives: The objective of the event is to improve the awareness among the youngsters regarding the importance of patent in designed product and also to file patent rights for product.

INDUSTRIAL VISIT

II & III YEAR INDUSTRY VISIT



We had an opportunity to visit **Neyveli Lignite Corporation**, it is the government organization which produces electrical energy. It's a leading power plant in Tamil Nadu. It works on coal and steam is the main fluid which is utilized to produce electricity...

The visit was planned and executed on **15-02-2022**. **Mr. D. ARTHUR JEBASTINE SUNDERRAJ** and **Mr. S. PRATHAP SINGH** are the faculties who went along with **50+18 (68) students** of **II & III year mechanical engineering**. The visit started at 4:30am from college campus and reached the NLC plant at 9:30am. The industry is located at **Neyveli**. The visit was fruitful to students as they learned a lot of industrial activities and process of power plant and various equipment used in power plant.

Main objective of the visit is to impart knowledge to students about the industrial activities and working of power plant.

The major outcome of the visit is that students learned much about the industrial activities and power plant working principle. In addition to that specifically about the various sub-assembly components of power plant and its application in mechanical field.

The industry provided the visitors maximum safety and two industrial staff **Mr. Rajan & Mr. Magesh** explained the concepts to the students in an understandable manner.

After completing the visit the students were provided lunch that was arranged outside as it was a long industrial visit. The students were then dropped at a convenient location to reach their home safely.

II YEAR INTRAMURAL SPORTS DAY (24-01-2023)

Our 2nd year students participated in various indoor and outdoor games of sports day conducted on 24-01-2023. Following are the winners and runners' details of our students.

S.No.	Student Name	Register No.	Year/ sec	Name of the Sports / Cultural	Prize Details
1.	SENTHURVELAN	312421114043	II/A	BASKETBALL	WINNER
2.	ROSHIN.V.J	312421114040	II/A		
3.	ILAMARAN.K.N	312421114019	II/A		
4.	ASWIN RAJ.S	312421114008	II/A		
5.	KEERTHAN S	312421114030	II/A		
6.	MADESH.S	312421114305	II/A		
7.	SUDHARSANAN .R	312421114047	II/A		

S.No.	Student Name	Register No.	Year/ sec	Name of the Sports / Cultural	Prize Details
1.	AJITH VS	312421114003	II/A	KABADDI	RUNNER
2.	ARIVAZHAGAN M	312421114005	II/A		
3.	HARI BALAKRISHNAN S	312421114018	II/A		
4.	JONNALAGADDA PARIPOORNAM Y	312421114025	II/A		
5.	KEERTHAN S	312421114030	II/A		
6.	SREE CHARAN M	312421114045	II/A		
7.	SUDHARSANAN .R	312421114047	II/A		

S.No.	Student Name	Register No.	Year/ sec	Name of the Sports / Cultural	Prize Details
1.	SENTHURVELAN	312421114043	II/A	FOOTBALL	RUNNER
2.	ROSHIN.V.J	312421114040	II/A		
3.	ILAMARAN.K.N	312421114019	II/A		
4.	ASWIN RAJ.S	312421114008	II/A		
5.	KEERTHAN S	312421114030	II/A		
6.	MADESH.S	312421114305	II/A		
7.	SUDHARSANAN .R	312421114047	II/A		
8.	LOGESHWARAN D	312421114033	II/A		
9.	PUSHPENDRA BANJARE	312421114039	II/A		
10.	ABI GEORGE V	312421114301	II/A		
11.	KEERTHAN A	312421114029	II/A		

CULTURAL DAY 2022-2023 EVEN SEMESTER

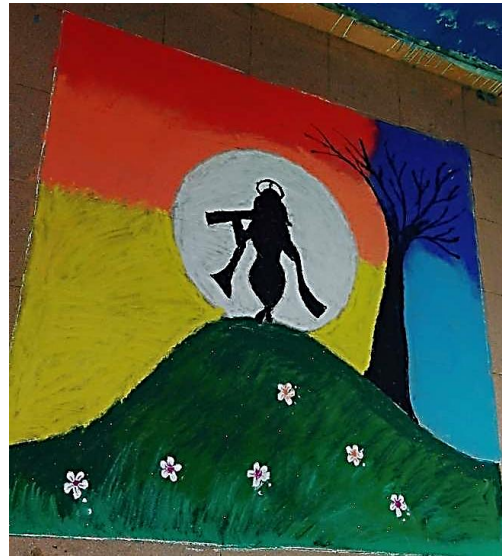


CULTURAL DAY: 24-02-2023

EVENT NAME: RANGOLI

Our III-year students participated in various events of cultural day and came out as winners in the event Rangoli. Secured 1st place with cash prize of 1000 Rs.

1. **SHIJU M S - 312420114013**
2. **SHANTHOSSH D - 312420114012**



COLLEGE DAY 2022-2023 EVEN SEMESTER



COLLEGE DAY: 25-02-2023

Our III-year students performed two fusion dances in college day conducted on 25th feb 2023.

Dance 1 Team members

ROHITH R.P
SHANTHOSSH D
SHIJU MS
MANIKANDAN M
MOHAMMED ISMAIL M K
VAITHIYANATHAN A

Dance 2 Team members

KEVIN P
JAISAN S
RAGUNATH R
NARAYANA MOORTHY S
SHIJU MS
VAITHIYANATHAN A
MOHAMMED ISMAIL M K
VASHIIST KUMAR C
SHANTHOSSH D
VENKATESH B
MANIKANDAN M

COLLEGE DAY 2022-2023 EVEN SEMESTER

COLLEGE DAY: 25-03-2023

Our II-year students performed one fusion dance and one variety dance on the theme of save tiger in college day conducted on 25th march 2023.

Dance 1 Team members

Boys fusion dance

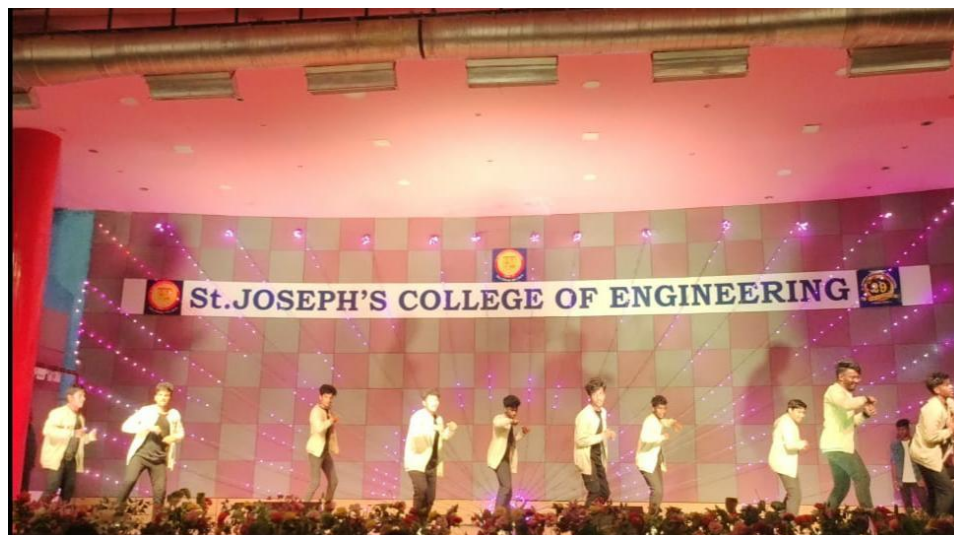
1. Adlai Emmanuel Theo W P
2. Gurusarath R
3. Sree Charan M
4. Sibi Silvesta J
5. Dhanesh R
6. Ilamaran K N
7. Hari Balakrishnan S
8. Pushendra banjare
9. Lavanesh
10. Emayavaramban G
11. John David S
12. Madesh S
13. Manikandan S

Winners with cash prize of
Rs. 3000

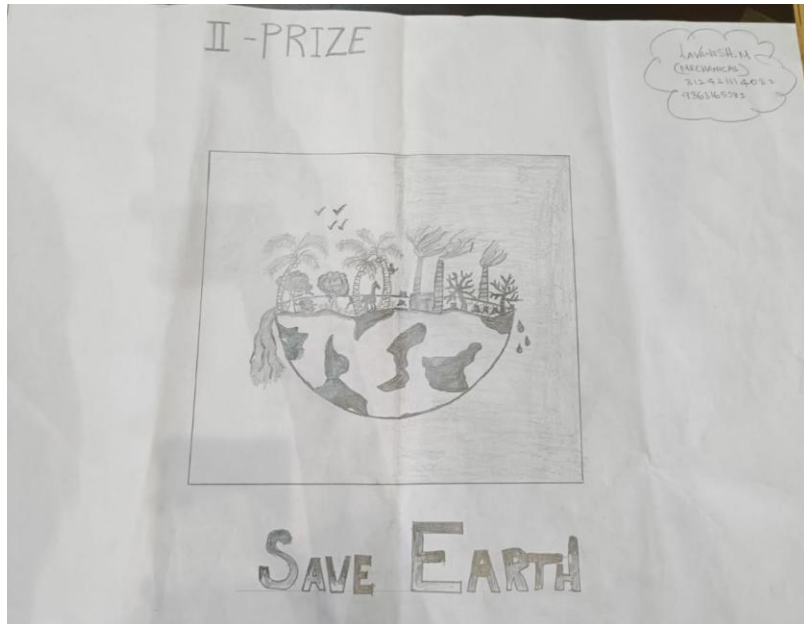
Dance 2 Team members

Save tiger

1. John David
2. Ram kumar
3. Madhesh
4. EMAYAVARAMBAN
5. Guru sarath



CULTURAL DAY 2022-2023 EVEN SEMESTER



CULTURAL DAY: 24-03-2023

Our II-year students participated in various events of cultural day and came out as winners in the following events.

EVENT NAME: PENCIL DRAWING

1. LAVANESH - 2nd Prize - Rs.500/-

EVENT NAME: CREATIVE WRITING ENGLISH

1. KEVIN NOEL - 2nd Prize- Rs. 500/-

EVENT NAME: Dumb-c



1. Adlai Emmanuel Theo W P - 1St prize - Rs.1000

KARNISH

2. John David - 2nd Prize- Rs.500

Ram kumar

GUEST LECTURE

S. No	Description of the Event	Photo
1	<p>Dr. S. VINOTH KUMAR M.E., Ph.D., Key Laboratory of High-efficiency and Clean Mechanical Manufacture, School of Mechanical Engineering, Shandong University, Shandong, China.</p> <p>Dr. N. Thangapandian welcomed the guest and introduce about the Speaker. Dr. S. Vinoth Kumar, Associate Professor, Shandong university delivered a lecture on 10-02-2023 for II and III year Mechanical Engineering Students on material selection and Machining of hard materials. He stated the different types of materials and the need of selecting the proper material with respect to the application. Also, he explained about the different conventional and non conventional machining processes.</p>	
2	<p>Mr. PG. Ramanan, CEO CADDAM, Chennai.</p> <p>Mr. S. Prtahap Singh welcomed the students and guests. Mr. PG. Ramanan, CEO, CADDAM, Chennai visited our college and delivered a lecture on 23.02.23 about Electric vehicles. He explained the advances in Electric vehicles. He also conducted a quiz for the III year students. Dr. N. Thangapandian delivered the vote of thanks.</p>	

NGO VISIT

On 11.02.2023 our III Year Mechanical students (18 Students) visited “Home Happy home”, Perambur, Chennai and shared food and groceries with those who were in the home. Around 45 elderly persons were in the home and were benefitted. Our students interacted with them and made them feel happy. The inmates of the home were very happy and blessed our students. Our staff Mr. Mohammed Abrar accompanied the students and maintained proper decorum among the students. Ms. Nirmala, the contact person in the orphanage, made all the arrangements for this program.



WINNERS IN CO-CURRICULAR ACTIVITIES

II Year

S. No	Name of the student	Name of the Institute	Category of event	Name of the event	Date	Prize won
1	Keerthan A	R. M. K College of Engineering and Technology	National level technical symposium	Technical Quiz	17 - 10 - 2023	Third
2	Ilamaran K N			Technical Quiz		First
3	Sudharsanan R			Technical Quiz		First
4	Christopher A			MR. MACHINIST		Second
5	Joshua Jebaveeran J	Saveetha Institute of Medical and Science Technology	National level technical symposium	Photography	10 - 03 - 2023	First

III Year

S. No	Name of the student	Name of the Institute	Category of event	Name of the event	Date	Prize won
1	Vaithyanathan A	Saveetha Institute of Medical and Science Technology	National level technical symposium	Circuit Debugging	10 - 03 - 2023	First
2	Hameed Farhan					Second
3	Shiju M S			Paper Presentation		First
4	Santhosh D					First

IV Year

S. No	Name of the student	Name of the Institute	Category of event	Name of the event	Date	Prize won
1	Mohan Raj M	St. Joseph's College of Engineering	National level students symposium	Water Rocketry	17 - 09 - 2022	Third
2	Saravanan M					
3	Sankar Ganesh B					
4	Tharun Vaithya D	SRM Valliammai Engineering College	National level technical symposium	IDEA EXPO	29 - 10 - 2022	Second
5	Sadish Kumar T	Saveetha Institute of Science and Technology	National level technical symposium	Technical Quiz	10 - 03 - 2023	Third
6	Nithin B					
7	Sharan Raghavendra R					

FACULTY'S PUBLICATION IN WOS, SCOPUS

S. No	Staff Name	Month and Year	Name of Journal	All Authors Name, Paper Title, volume, month, year of publication	DOI
1	Mr. J. Immanuel Durai Raj	November 2022	AIP Conference Proceedings	N. Aagashram, J. Immanuel Durai Raj, A. Andrew Raymond Raj, S. Prathap Singh, <i>CFDGAN: A generative adversarial network for flow approximation</i> , AIP Conference Proceedings 2446, November (2022).	https://doi.org/10.1063/5.0108335
2	Mr. N. Suresh	November 2022	Journal of Process Mechanical Engineering - SAGE - PART E	N.Suresh, L.Balamurugan, D.Jayabalakrishnan, <i>Influence of SiC, WC reinforcements on mechanical properties of AA6061 Aluminium hybrid composites</i> , Journal of Process Mechanical Engineering, SAGE - PART E	https://doi.org/10.1177/09544089221141353

3	Mr. S. Prathap Singh	November 2022	AIP Conference Proceedings	N. Aagashram, J. Immanuel Durai Raj, A. Andrew Raymond Raj, S. Prathap Singh, <i>CFDGAN: A generative adversarial network for flow approximation</i> , AIP Conference Proceedings 2446, November (2022).	https://doi.org/10.1063/5.0108335
4	Dr. D. Elil Raja	December 2022	International Journal of Lightweight Materials and Manufacture	P. Prabhuraj, S. Rajakumar, Tushar Sonar, Mikhail Ivanov, I. Rajkumar, D. Elil Raja, <i>Effect of retrogression and reaging (RRA) on pitting and stress corrosion cracking (SCC) resistance of stir zone of high strength AA7075-T651 alloy joined by friction stir welding</i> , December 2022	https://doi.org/10.1016/j.ijlmm.2022.12.002
5		December 2022	Journal of Ceramic Processing Research	D. Elil Raja, S. Prathap Singh, V. Rangarajan, M. Chrispin Das, <i>Tribological and characterization studies of aluminium alloy 6061 reinforcement with aluminium oxide and copper metal matrix composites</i> , Vol. 23, No. 6, pp. 926~933 (2022)	https://doi.org/10.36410/jcpr.2022.23.6.926
6		December 2022	Advances in Materials Science and Engineering	D. Elil Raja, S. Panneer Selvan, P. Prabhuraj, Tushar Sonar, <i>Optimization of Drilling Parameters in Sisal-Human Hair Hybrid Composite Using Grey Relational Analysis</i> , December 2022.	https://doi.org/10.1155/2022/4614105
7	Dr. M. Chrispin Das	December 2022	Journal of Ceramic Processing Research	D. Elil Raja, S. Prathap Singh, V. Rangarajan, M. Chrispin Das, <i>Tribological and characterization studies of aluminium alloy 6061 reinforcement with aluminium oxide and copper metal matrix composites</i> , Vol. 23, No. 6, pp. 926~933 (2022)	https://doi.org/10.36410/jcpr.2022.23.6.926

8	Mr. S. Prathap Singh	December 2022	Journal of Ceramic Processing Research	D. Elil Raja, S. Prathap Singh, V. Rangarajan, M. Chrispin Das, <i>Tribological and characterization studies of aluminium alloy 6061 reinforcement with aluminium oxide and copper metal matrix composites</i> , Vol. 23, No. 6, pp. 926~933 (2022)	https://doi.org/10.36410/jcpr.2022.23.6.926
9	Mr. S. Prathap Singh	March 2022	Materials Today Proceedings	S. Prathap Singh , D.X. Tittu George, A. Anitto Joe Xavier, G. Abinicks Raja, <i>Effect of heat treatment on the hardness behaviour of the aluminium 6061 alloy</i> , Materials Today Proceedings, March 2023.	https://doi.org/10.1016/j.matpr.2023.02.345

FACULTY'S PUBLICATION IN NATIONAL & INTERNATIONAL CONFERENCES

S. No	International /National	Date of the Conference	All Authors Name, Paper Title, volume, month, year of publication	Title of the conference and Venue
1	International	02 nd and 3 rd Dec 2022	D. Elil Raja, S. Prathap Singh, V. Rangarajan, M. Chrispin Das, <i>Tribological and characterization studies of aluminium alloy 6061 reinforcement with aluminium oxide and copper metal matrix composites</i> , Vol. 23, No. 6, pp. 926~933 (2022)	3 rd Indo-Japan Bilateral Symposium on Futuristic Materials and Manufacturing for Sustainable Development Goals at IIT Madras Campus, Chennai

FUNDED PROJECT APPLIED BY STAFF MEMBERS

Academic Year	S. No	File No	PI Details	Date	Title	Agency	Scheme	Amount	Status
2023-2024	1	CRG/2023/001649	Dr. N. Thangapandian	14-03-2023	INFLUENCE OF SEVERE SURFACE PLASTIC DEFORMATION ON THE SURFACE INTEGRITY OF WIRE ARC ADDITIVELY MANUFACTURED ALUMINIUM ALLOY	DST-SERB	CRG	22,80,000	Applied
	2	NA		14-03-2023	INFLUENCE OF SEVERE SURFACE PLASTIC DEFORMATION ON THE MICROSTRUCTURAL, MECHANICAL & BIOCOMPATIBILITY OF ADDITIVELY MANUFACTURED STAINLESS STEEL (SS316L)	HIGHER EDUCATION DEPT, TN	CMRG	15,40,000	Applied
	3	CRG/2023/004165	Dr.M.Chrispin Das (PI) Dr.D.Elil Raja (Co-PI)	15-03-2023	Numerical Modeling, Mechanical and Tribological Behavior of Al - SiCp - SiCW Nano Hybrid Composites for High Strength Industrial Applications	DST-SERB	CRG	25,38,200	Applied
	4	CRG/2023/005636	Dr. D. Elil Raja (PI), Dr. M. Chrispin Das (Co-PI)	16-03-2023	FABRICATION AND COMPARISON OF TRIBOLOGICAL BEHAVIOUR OF ALUMINIUM FUNCTIONALLY GRADED METAL MATRIX NANOCOMPOSITE FABRICATED THROUGH DIFFERENT CASTING TECHNIQUES	DST-SERB	CRG	18,10,000	Applied
	5	NA	Dr. D. Elil Raja (PI), Dr. M. Chrispin Das (Co-PI)	15-03-2023	Fabrication and Tribological Behavior Studies on Functionally Graded Metal Matrix Nanocomposite	HIGHER EDUCATION DEPT, TN	CMRG	13,09,000	Applied

STUDENT PUBLICATION IN NATIONAL & INTERNATIONAL CONFERENCES

S. No	International /National	Date of the Conference	All Authors Name, Paper Title, volume, month, year of publication	Title of the conference and Venue
1	International	02 nd and 3 rd Dec 2022	D. Elil Raja, S. Prathap Singh, V. Rangarajan , M. Chrispin Das, <i>Tribological and characterization studies of aluminium alloy 6061 reinforcement with aluminium oxide and copper metal matrix composites</i> , Vol. 23, No. 6, pp. 926~933 (2022)	3 rd Indo-Japan Bilateral Symposium on Futuristic Materials and Manufacturing for Sustainable Development Goals at IIT Madras Campus, Chennai

STUDENT PAPER PUBLICATIONS IN SCOPUS JOURNALS AND CONFERENCES

S. No	Name of the student	Year	Title of the article / Conference	Name of the journal	Indexing	Volume, Issue no, page no	Link
1	Rangarajan V	IV	Tribological and characterization studies of aluminium alloy 6061 reinforcement with aluminium oxide and copper metal matrix composites	Journal of ceramic processing research	SCOPUS, WOS	Volume 23, Number 6, 751-945, December 2022	http://www.jcpr.or.kr/journal/archive/view/2754

WORKSHOP DETAILS

S.No	Events with photo	Remarks
1	  	<p>Date of the event: 6/3/2023 to 7/3/2023</p> <p>Title :Electrical Vehicle, Automotive Engines & Passenger Cars</p> <p>Resource Person : Mr.P.Xavier Jaganathan</p> <p>No of Participants : 68 students</p> <p>Sponsoring Agency : Goodwin Motors</p> <p>Venue : Manufacturing Technology Lab</p> <p>Objectives : Two days student workshop on Automotive Engines, Electrical vehicles and Passenger car given to students which gives basic insights and practical demonstration of working principle of Engine and transmission system of two wheeler, basic exterior functioning and design needs for passenger cars and deep insight of electrical cars and the role of mechanical engineering design in development of electrical cars.</p> 

INTERNSHIPS ATTENDED BY STUDENTS

SI No	Name of the Student	Year	Name of the Company	Dates	Duration
1	Abishek Sriram	IV	Larsen & Tourbo	19/12/22 – 30/12/22	2 weeks
2	T. Hastin Rheninus	IV	Larsen & Tourbo	19/12/22 – 30/12/22	2 weeks
3	M.Sivaram	IV	CADD CENTRE Training Services	07/08/22 - 30/12/22	3 months 15 Days
4	A.Vaithyanathan	III	Change pond Technologies Pvt Ltd	19/12/22 – 30/12/22	2 weeks
5	R.Sudhane	IV	Palmetti Industries (India) Pvt Ltd	26/12/22 – 04/01/22	9 Days
6	Paranthaman	IV	Hanon Automotive Systems	28/12/22 – 04/01/22	One week
7	Sarath Kumar	IV	Hanon Automotive Systems	28/12/22 – 04/01/22	One week
8	Pugalanthee	IV	Hanon Automotive Systems	28/12/22 – 04/01/22	One week
9	Vignesh M	IV	SRI VMS ENGINEERING	22/12/22 – 29/12/22	One week
10	Santhossh D	III	SPIC	19/12/22 – 30/12/22	2 Weeks
11	Sai Saran B	IV	Hanon Automotive Systems	28/12/22 – 04/01/22	One week
12	Rohith R P	III	HONDA	19/12/22 – 24/12/22	One week

INPLANT TRAINING UNDERGONE BY STUDENTS

SI No	Name of the Student	Year	Name of the Company	Dates	Duration
1	Aswin D	III	Creative engineers	18/12/22 – 22/12/22	4 Days
2	L.Samuel Chrisson	III	NLC Tamil Nadu Power Ltd	21/12/22 – 27/12/22	One week

FACULTY DEVELOPMENT PROGRAM ATTENDED BY STAFF MEMBERS

SI No	Staff Name	Title of FDP/ STTP	Funding agency / Sponsoring agency	Venue	Duration (DAYS)	Sponsorship Amount & Agency
1	Mr.S.A.Muhammed Abraar S.A	Smart Manufacturing	AICTE	Visveshwara Institute of Advanced Technology , Bangalore	5 th Jan 2023 to 11 th Jan 2023 (One Week)	Rs 3000 St. Joseph's Institute of Technology

AWARDS AND ACHIVEMENTS BY FACULTY

- Dr. N. Thangapandian, Assistant Professor, Department of Mechanical Engineering has been shortlisted as the reviewer for AICTE project of Technical Books Translation in Tamil Language for 2nd year BE/B.Tech and Diploma courses

Name of Staff	Name of Award	Award Details
Mr.D.Elilraja	Reviwer of the Journal	Reviewer of "Journal of the Mechanical Behavior of Materials" "Development of Ahp Embedded Deng's Hybrid Mcdm Model for Multi-Objective Decision in Micro-Edm Using Carbon Coated Electrode"
Mr.K.Ramesh	NPTEL Disipline star	Awarded by NPTEL for completing courses totals to 50 weeks or more, in a particular discipline, final score in every course must be ≥ 55
Mr.S.Jagadeesh	TNSCST Student Project Report	Design and fabrication of magnetic suspension system along with students S.Dhuvarakanth and V.Dineshkumar

Prepared By,

D. Arthur Jebastine Sunderraj
Department Coordinator

Head of the Department

Dr.D.Elil Raja
HOD- Department of Mechanical