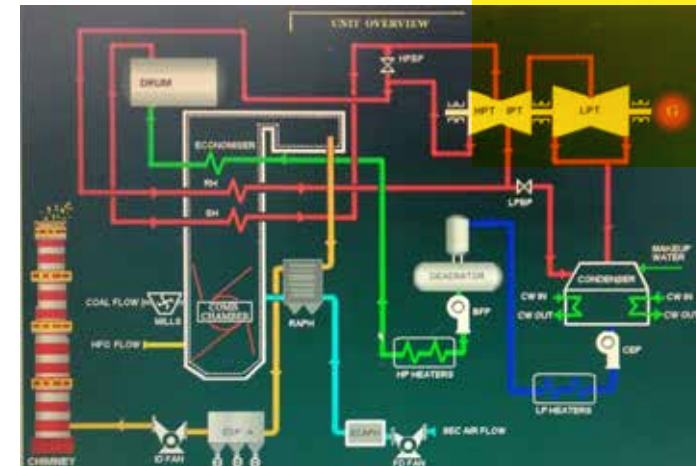


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**Methods in Improving the Efficiency of Lignite Fired**

**Boiler in TPS-II**

**NLC India Limited**

### **PROJECT MEMBERS**

**Mugilan M**

**Revanth M**

**Selvamuthukumaran K S**

**Sivakumar J**

## **GRANTS RECEIVED**

**Design and Fabrication of Solar Air Dryer with Auto-Tracking**

**MAS Solar Systems, Coimbatore.**

**Duration : 4 months**

**Amount Received : Rs 30,000**

**Mr.S.N.Vijayan  
Mr.T.Gunasekaran  
Mr.B.Manup**

## **ABOUT THE DEPARTMENT**



The Department of Mechanical Engineering has been a part of Karpagam Institute of Technology (KIT), one of the top Engineering Institutes in Tamil Nadu, offering an undergraduate degree program (B.E. Mechanical Engineering) since 2009. The Department of Mechanical Engineering is fully committed to creating engineering talent for the Industry and the Community. It has highly qualified, experienced and devoted faculty members as well as a dynamic environment for research activities headed by Professors with Ph.D. degree from prestigious Universities. At the moment, six faculty members are actively involved in research to get their Doctoral degree. The Department has built state of the art facilities to spread emerging advancements by including software for cutting-edge technologies in the fields of Computer Aided Design and Manufacturing. The projects and hands-on training activities are intended to instill an entrepreneurial mindset in students and encourage them to start their own enterprises.

# FROM

## HoD's Desk

Mechanical Engineering is the largest of the engineering disciplines and a large number of mechanical engineers go into manufacturing of computer and electronic products, machinery and transportation equipments. The department cares for student support, mentoring, tutoring, study skills workshops and career development. Mechanical Engineering students culminate their studies with a year-long capstone project requiring design problem solving, creative thinking, project planning and teamwork. A broad selection of technical electives encourages students to pursue special interests in design and manufacturing, energy and environmental issues, thermal and fluid sciences materials, dynamics & controls and robotics.



## PROGRAMS ORGANIZED

Understanding basic concepts of research and its Methodologies

Chief guest

Dr.RajeshRanganathan,  
Professor,  
Department of Mechanical Engineering,  
Coimbatore Institute of Technology  
on 20.01.2020

Coordinator

Mr.P.Prakash AP/Mech  
Mr.S.Rajendran AP/Mech

Intellectual Property and Public Policy Issues

Chief guest

Dr. B. Senthilkumar,  
Associate Professor,  
Department of Mechanical Engineering,  
Kumaraguru College of Technology  
on 19.02.2020

Coordinator

Mr. S.N.Vijayan AP/Mech  
Mr.R.RameshBabu AP/Mech

## INNOVATIVE PROJECT

Performance Analysis of Steam Turbine in TPS-1 Expansion  
(2x210 MW) NLC India Limited

### PROJECT MEMBERS

M.Abinesh

R.Balraj

K.Kaviraj

M.ManojPrabhakar

<p>Author Name</p> <p><b>R.RAMESHBABU, B.BABU, R.HARIKRISHNAN, S.MIDHUN, K.S.NAVIN</b></p>	<p><b>Title of the Paper</b></p> <p>Effect and optimization of machining parameters on MRR &amp; SR for monel 400 material using Taguchi method</p> <p><b>Published Journal</b></p> <p>StudiaRosenthaliana (Journal for the Study of Research)</p> <p><b>Published on January 2020</b></p>
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<p><b>Title of the Paper</b></p> <p>Enhancement of Productivity in Pump Industry Using Taguchi Optimization Technique</p> <p><b>Published Journal</b></p> <p>StudiaRosenthaliana (Journal for the Study of Research)</p> <p><b>Published on January 2020</b></p>	<p>Author Name</p> <p><b>V.KAVINRAJ R.MEENAKSHI, G.MAHESH, P.SATISHKUMAR, VIJAYAN.S.N</b></p>
--	---

<p>Author Name</p> <p><b>G.JAYABALAJI , S.N.VIJAYAN , N.SUBRAMANI</b></p>	<p><b>Title of the Paper</b></p> <p>Characterization of Aluminium Hybrid Composite Reinforced with Rice Husk Ash and Molybdenum Disulfide Processed through Compo Casting</p> <p><b>Published Journal</b></p> <p>Test Engineering and Management</p> <p><b>Published on April 2020</b></p>
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<p><b>Title of the Paper</b></p> <p>Investigation on welding strength of fsw samples using Taguchi optimization technique</p> <p><b>Published Journal</b></p> <p>Journal of Critical Reviews</p> <p><b>Published on 21.05.2020</b></p>	<p>Author Name</p> <p><b>A. DANIEL DAS, S.N. VIJAYAN, N. SUBRAMANI</b></p>
--	--

<p>Author Name</p> <p><b>P SATISHKUMAR N NATARAJAN</b></p>	<p><b>Title of the Paper</b></p> <p>Investigation of process parameters by abrasive assisted electrochemical micro drilling process on Al - 6061with SiC and Fly ash composites</p> <p><b>Published Journal</b></p> <p>Materials Science and Engineering - IOP</p> <p><b>Published on 2020</b></p>
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## VISION

To create innovative, entrepreneurial and socially committed Mechanical Engineers to meet industrial demands.

## MISSION

### CORE COMPETENCY

Developing core competency in Mechanical Engineering through state-of-the-art facilities and effective teaching practices.

### RESEARCH AND ENTREPRENEURSHIP

Encouraging and nurturing research potential and promoting entrepreneurial endeavors.

### SOCIAL RESPONSIBILITY

Instilling social and ethical values through extension activities.

# TECHIE'S DREAMS

## NEWS LETTER

The TECHIE'S DREAMS is a report containing news concerning the activities (Developmental Activities, Achievements of students and faculty members, curricular, co-curricular activities) of the Department of Mechanical Engineering. It is published twice in a year by the Association of Mechanical Engineering Students (Mechnovatorz). The newsletter includes Alumni messages to the current students of the Department.



Success usually comes  
to those who are **too busy**  
to be looking for it.

<b>Author Name</b> VIJAYAN.S.N NAVISHKUMAR, DHANAPAL.P	<b>Title of the Paper</b> Production and Performance Enrichment of Biodiesel from Mustard oil and Blend with Different Volume of Diesel  <b>Published Journal</b> Test Engineering and Management  Published on January - February 2020
---	---

<b>Title of the Paper</b> Numerical and Analytical Investigation of Heat Transfer Enhancement in Flat Plate Solar Collector using internal fins in Absorber Tube and Dissimilar Working Medium <b>Published Journal</b> Journal of Xidian University  Published on May 2020	<b>Author Name</b> SENDHILKUMAR.S, VIJAYAN.S.N
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<b>Author Name</b> VIJAYAN.S.N, DURAIMURUGAN G.K, AND DEEPAK.P	<b>Title of the Paper</b> Performance and Emission Evaluation of Marine Diesel Engine Using Two-Phase Emulsion as Fuel  <b>Published Journal</b> Journal of Xidian University  Published on 2020
---	--

<b>Title of the Paper</b> Physico-chemical and Mechanical Properties of Alkali-Treated Red Banana Peduncle Fiber  <b>Published Journal</b> Journal of natural fiber  Published on Feb 2020	<b>Author Name</b> G PITCHAYYPILLAI, P MANIMARAN, V VIGNESH
--	--

<b>Author Name</b> P.SATISHKUMAR, G.MAHESH, R.MEENAKSHI, S.N.VIJAYAN	<b>Title of the Paper</b> Tribological characteristics of powder metallurgy processed Cu- WC/SiC metal matrix composites  <b>Published Journal</b> Materials Today: Proceedings - Elsevier
--	--

Author Name

**Mr.S.N.VIJAYAN**

**Title of the Paper**

A Study on Ballast Water Management System to Reduce Pollution in Oceansipsum

**Published Journal**

International Journal of Mechanical and Production Engineering Research and Development

**Published on Jun 2020**

**Title of the Paper**

Parametric Optimization on Wear Behaviour of Rice Husk-MoS2 Reinforced Al MMC by Taguchi Approach

**Published Journal**

Test Engineering and Management

**Published on March -April2020**

Author Name

**N.SATHISHKUMAR ,  
K.P.HARSHAVARDHAN,  
R. MURUGAN**

Author Name

**Mr.S.N.VIJAYAN**

**Title of the Paper**

Characterization of Aluminium Hybrid Composite Reinforced with Rice Husk Ash and Molybdenum Disulfide Processed through Compo Casting

**Published Journal**

Test Engineering and Management

**Published on April 2020**

**Title of the Paper**

Investigation of process parameters by abrasive assisted electrochemical micro drilling process on Al-6061 with SiC and Fly ash Composites

**Published Journal**

IOP Conf.Series: Materials science and Engineering

**Published on March -April2020**

Author Name

**P.SATISHKUMAR,  
N.NATARAJAN**

Author Name

**A.J. INFANT JEGAN RAKESH**

**Title of the Paper**

Minimizing the Temperature in Turning of Bagasse Ash And Graphite Reinforced Aluminium Composite

**Published Journal**

Journal of Critical Reviews

**Published on 16 May 2020**

# THE 10 BIGGEST FUTURE TRENDS IN MANUFACTURING

01. The Industrial Internet of Things (IIoT)
02. 5G & edge computing
03. Predictive maintenance
04. Digital twins
05. Extended Reality and the metaverse
06. Automation and dark factories
07. Robots and cobots
08. 3D printing
09. Web3 and blockchain technology
10. Smarter, more sustainable products





# FACULTY MEMBER ONROLL

S.NO.	FACULTY MEMBERS	DESIGNATION
1	Dr.P.Manimaran M.E. Ph.D. MBA	Professor
2	Dr.S.Krishnakumar M.E. Ph.D	Professor
3	Dr.Goshteeswaran M.E. Ph.D.	Associate Professor
4	Mrs.R.Meenakshi M.E. Ph.D.	Associate Professor
5	Mr.A.Saiyathibrahim M.E.	Assistant Professor
6	Mr.S.N.Vijayan M.E.	Assistant Professor
7	Mr.N.suresh M.E.	Assistant Professor
8	Mr.K.MadhanMuthu Ganesh M.E.	Assistant Professor
9	Mr.P.Madhankumar M.E.	Assistant Professor
10	Mr.T.Gunasekaran M.E.	Assistant Professor
11	Mr.K.P.Harshavardhan M.E.	Assistant Professor
12	Mr.K.Santhosh M.E.	Assistant Professor
13	Mr.P.Prakash M.E.	Assistant Professor
14	Mr.U.M.Saravanan M.E.	Assistant Professor
15	Mr.R.Ramesh Babu M.E.	Assistant Professor
16	Mr.K.R.Senthilkumar M.E.	Assistant Professor
17	Ms.S.Karthika M.E.	Assistant Professor
18	Mr.V.Velarasan M.E.	Assistant Professor
19	Mr.A.Prabhakaran M.E.	Assistant Professor
20	Mr.M.Sujith M.E.	Assistant Professor
21	Mr.P.Sathishkumar M.E.	Assistant Professor
22	Mr.A.J.InfantJeganRakesh M.E.	Assistant Professor

# 2020

Participation in  
National & International Conferences

## Mr. A.SAIYATHIBRAHIM

AP/Mechanical Engineering

International Conference on  
Materials Science and Manufacturing  
Technology

Workshop on Future Scope of  
Electrical Vehicle

## Mr.M.SUJITH

AP/Mechanical Engineering

International Conference on  
Materials Science and Manufacturing  
Technology

## Mr.A.J.INFANT JEGAN RAKESH

AP/Mechanical Engineering

International Conference on  
Materials Science and Manufacturing  
Technology

## Mr.S.KARTHIKA

AP/Mechanical Engineering

International Conference on  
Materials Science and Manufacturing  
Technology

## Mr.P.SATISHKUMAR

AP/Mechanical Engineering

International Conference on  
Materials Science and Manufacturing  
Technology

## Mr.R RAMESH

AP/Mechanical Engineering

International Conference on Materi-  
als Science and Manufacturing  
Technology

## Mr.K.R SENTHILKUMAR

AP/Mechanical Engineering

International Conference on  
Materials Science and  
Manufacturing Technology

## Mr.K.P HARSHAVARADHAN

AP/Mechanical Engineering

International Conference on  
Materials Science and  
Manufacturing Technology

## Mr.P.PRAKASH

AP/Mechanical Engineering

Workshop on National Initiative for  
technical Teachers Training

Workshop on Additive Manufacturing

Workshop on Corrosion its Control

Workshop on Challenges & Opportunities  
in FSW of Mg Alloys

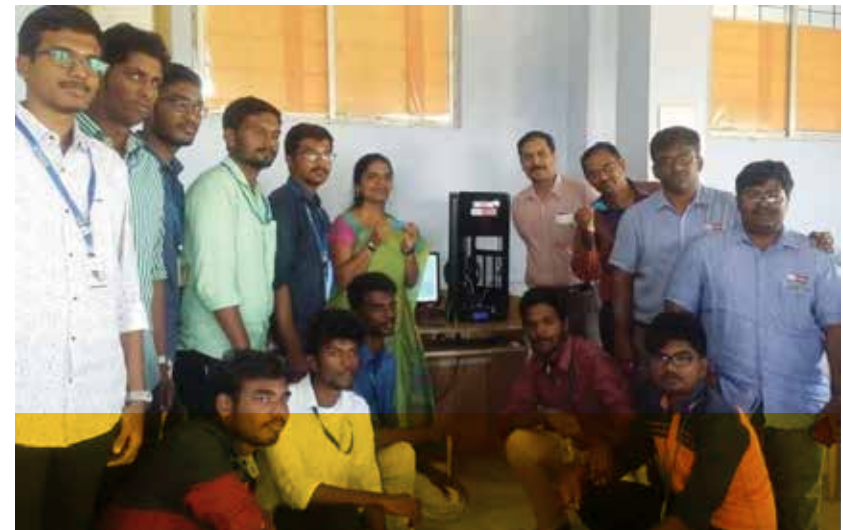
Workshop on Introduction to "CRASH  
Analysis

Workshop on Introduction to "LaTeX

## 3D PRINTING TECHNOLOGY

3D printing, also known as additive manufacturing, is a method of creating a three dimensional object layer-by-layer using a computer created design.

3D printing is an additive process whereby layers of material are built up to create a 3D part. This is the opposite of subtractive manufacturing processes, where a final design is cut from a larger block of material. As a result, 3D printing creates less material wastage.



Installed State of the art 3D Printer Technology  
at Mechatronics Lab

### Mr. A.SAIYATHIBRAHIM

AP/Mechanical Engineering

International Conference on Latest Trends in Science, Engineering and Technology

### Mr.K.P HARSHAVARADHAN

AP/Mechanical Engineering

International Conference on Latest Trends in Science, Engineering and Technology

### Mr.T.GUNASEKARAN

AP/Mechanical Engineering

International Conference on Latest Trends in Science, Engineering and Technology

### Mr.N.SURESH

AP/Mechanical Engineering

International Conference on Latest Trends in Science, Engineering and Technology

### Mr. P.PRAKASH

AP/Mechanical Engineering

International Conference on Latest Trends in Science, Engineering and Technology

### Mr.S.N.VIJAYAN

AP/Mechanical Engineering

International Conference on Latest Trends in Science, Engineering and Technology

Workshop on Research Challenges and Opportunities in Advanced Computational Fluid Dynamics for Engineering Applications

### Mr. N.HARIHARAN

AP/Mechanical Engineering

International Conference on Latest Trends in Science, Engineering and Technology

Workshop on Research Perspectives on "Futuristic Energy Materials and Energy Storing Systems

### Mr. N.SRITHAR

AP/Mechanical Engineering

International Conference on Latest Trends in Science, Engineering and Technology

Workshop on Startup in Welding Technology



# STUDENTS ACHIEVEMENTS

## Best Team Award among the first time participants

Our college Formula Green Team (BRUTALE MOTOR SPORTS) has secured Best Team Award among the First Time Participants also congratulated for the Low Cost Formula Vehicle Fabrication @Karimotor speedways by ISNEE.

Event date: 10th Feb 2020 – 14th Feb 2020

Anna University Inter Zonal Tournament Winner (2019–2020) – Takewondo  
3rd Place.



### Mr.P.PRAKASH

Assistant Professor, Mechanical Engineering, has completed NPTEL course in Principles of casting Technology.

### Mr. A.J INFANT JEGAN RAKESH

Assistant Professor, Mechanical Engineering, Received a certificate for completion of Moodle Test for Teachers Training, conducted by IIT Bombay.

### Mr.M.PRADEEP

Assistant Professor, Mechanical Engineering, has achieved Elite category for the NPTEL course of Advance Machining Processes.

He Received a certificate for completion of Moodle Test for Teachers Training, conducted by IIT Bombay.

**DON'T WAIT FOR OPPORTUNITY,  
*Create it.***

# FACULTY ACHIEVEMENTS

our faculty members are involved in conversations with students, exchanging ideas with their peers and business leaders, and global community. We believe faculty members are the core of our school. Hence, we motivate them to learn and update their knowledge.

## Mr.A.SAIYATHIBRAHIM

Assistant Professor, Mechanical Engineering, has been awarded Doctoral Degree.

## Mr.S.N.VIJAYAN

Assistant Professor, Mechanical Engineering, has published a book "Parabolic Trough Collector and its

## Mr.R.RAMESHBABU

Assistant Professor, Mechanical Engineering, Received a certificate for completion of Moodle Test for Teachers Training, conducted by IIT Bombay.

he has completed NPTEL course in Principles of casting Technology.

has completed NPTEL course in Engineering Metrology.



# FORMULA GREEN





**A.P.ARUN**

It's been fortunate to be a part of the KIT, Bareilly where I got the platform to enrich my skills and henceforth abright light towards my life, with the support and endeavor of my faculty members all the way with my family.



**ALAGAPPAN.A.I**

I am thankful to all the faculty members of the College for their continuous efforts and support. Apart from excellent academic experience, I also gained the benefits of being a part of Cultural Student' body. I cherish every moment spent at Karpagam Institute of Technology.



**TAMILARASU.R**

I would always be grateful to Karpagam Institute of Technology for giving me multi dimensional learning by providing the mix of academics, industry exposure, attitude and leadership. I would also like to thank to the faculty members. The faculty members are all dedicated experts and helpful in their respective subjects. I will always cherish the feeling of studying at an institute which focused on career enhancements along with overall skill development.



**PRAVEEN KUMAR.A**

It is a great privilege for me to be an alumnus of karpagam Institute of Technology, Coimbatore. I began my B.E. course unaware of what I wanted to pursue next. I really thank all the Professors of the Department of Mechanical Engineering for helping me to achieve excellence in engineering education, which allowed me to identify and pursue my interest in research, to learn something new, to hone my problem-solving skills and to challenge myself in new ways.

## ASSOCIATION CONVENOR

**Mr. N.SURESH**

HoD / Mechanical Engineering  
Karpagam Institute of Technology.

## FACULTY COORDINATORS

**Mr.A.SAIYATHIBRAHIM AP/MECH**

**Mr.S.N.VIJAYAN AP/MECH**

## STUDENT COORDINATOR

**SARAN. J**

**RAHUL. S**

## ASSOCIATION PRESIDENT

**P.PRAVEEN KUMAR**

## EDITING TEAM MEMBERS

**SABARESH. S**

**VEERAKARTHICK. V**

## Address :

Karpagam Institute of Technology,  
S.F.No.247,248, L&T Bypass Road, Seerapalayam Village,  
Bodipalayam Post, Coimbatore, Tamil Nadu 641 105.

**EVEN  
SEMESTER**



NEWS LETTER

# TECHIE'S DREAMS

**2019-2020**

**DEPARTMENT OF MECHANICAL ENGINEERING**