

Jan' 21 – Aug' 21



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Jan' 21 – Aug' 21

**Chief Editor:** Dr. C. Krishnaraj

**Editor:** Mr. V. V. Arun Sankar

**Co – Editor:** Mr. V. Vijai Kaarathi

**Student Editorial Board:** Akash A (18M103), Deepta V (18M108), Arul Praveen A (18M304)

#### **WARM WELCOME TO**

- Mr. Prabhakaran T joined as Assistant Professor on 16th February 2021.
- Mr. Vijai Kaarathi V joined as Assistant Professor on 07th April 2021.

#### **DEPARTMENT ACTIVITIES**

##### **Guest Lectures**

- Mr.N.Kaviyarasu, Design Engineer, Salcomp Manufacturing India Pvt Ltd, delivered a guest lecture for a total of 50 participants on 20th May 2021.
- Mr.N.Viswanathan, Project Manager, ESAB Welding and Cutting systems India Ltd, delivered a guest lecture for a total of 42 participants on 22nd May 2021.

##### **Professional Societies / Chapter Events**

- Organized a Guest Lecture as a part of Indian Society of Technical Education (ISTE) Chapter Event on “HR Management in organizations” on 03rd January 2021.
- Organized a Workshop Series as a part of Society of Automotive Engineers (SAE) Chapter Event titled “Design Now Challenge by ICT Academy in association with Auto desk” on 12th and 19th January 2021.
- Organized a Skill Development Workshop as a part of Society of Automotive Engineers (SAE) Chapter Event titled “Dismantling and Assembling of Four Stroke Engine” on 18th March 2021.
- Organized a one day Virtual Workshop as a part of Indian Society of Technical Education (ISTE) Chapter Event on “Additive Manufacturing” on 27th March 2021.
- Organized a one day Workshop as a part of Indian Society of Technical Education (ISTE) Chapter Event on “Converting waste plastic to ultra-clean low Sulphur fuel” on 12th April 2021.
- Organized a one day Workshop as a part of Indian Society of Technical Education (ISTE) Chapter Event on “Recent advances in manufacturing processes” on 23rd April 2021.
- Organized a Virtual Hands on Training as a part of Indian Society of Technical Education (ISTE) Chapter Event on “Optimization Techniques using MINITAB” on 24th April 2021.
- Organized a Guest Lecture as a part of Indian Society of Technical Education (ISTE) Chapter Event on “Total quality management and statistical Process control” on 15th April 2021.
- Organized a Guest Lecture as a part of Indian Society of Technical Education (ISTE) Chapter Event on “Scope of Engineering in Aviation” on 30th April 2021.
- Organized a Guest Lecture as a part of Indian Society of Technical Education (ISTE) Chapter Event on “Design Engineer: Industry Expectations” on 20th May 2021.
- Organized a Guest Lecture as a part of Indian Society of Technical Education (ISTE) Chapter Event on “Preparing young minds for Industry 4.0: Challenges and Changes” on 22nd May 2021.

##### **Miscellaneous Events**

- Organized a Workshop on “Space frame Chassis in CATIA” on 12th January 2021.
- Organized One day Hands on Training Workshop on “Polymer Composite” on 13th February 2021.
- Organized a Live Webinar on “AIMA – MAT – How to CRACK it? – An interaction with MAT Scorer” on 06th May 2021.
- Organized a Live Webinar on “Service Selection Board (SSB) – How to CRACK it?” on 11th May 2021.
- Conducted a Live Session on “Design Engineer: Industry Expectations” on 20th May 2021.
- Conducted a Live Webinar on “Multi-body Dynamics using SOLIDWORKS Motion” on 11th June 2021.
- Organized a Live Webinar on “Build your own Business – An Entrepreneurship Workshop” on 18th June 2021.
- Conducted a Live Session on “Design Engineer: Industry Expectations” on 27th June 2021.

##### **NATIONAL / INTERNATIONAL LEVEL PROGRAMMES (Conducted)**

- Organized International Conference on Modeling Simulation and Control-ICMSC-2021” from 28th February to 1st March 2021.
- Organized an Expo titled One day National Level Project Model Display on “Science and Technology –MEXHIBIT’20” on 12th April 2021.
- Organized a Five Days Online FDP on “Advanced Manufacturing Technology” from 15th to 19th June 2021.

## **FACULTY ACHIEVEMENTS**

### **Journal Publications**

#### **Dr. N.V. Dhandapani, Professor**

- Published a paper titled "Design and analysis of tractor roll over protective structure for the influence of deformation, stress distribution and strain energy", Journal of Physics: Conference Series, Vol.10, No. 1088, 2021, International (Scopus).

#### **Dr. S. Vimal Anand, Associate Professor**

- Published a paper titled "Dynamic Characteristics of Woven Flax/Epoxy Laminated Composite Plate", Polymers, Vol.10, No. 3390, pg. 209, 2021, International (WoS).

#### **Dr. Titus Thankachan, Associate Professor**

- Published a paper titled "Machine Learning and Statistical Approach to Predict and Analyze Wear Rates in Copper Surface Composites", Metals and Materials International, Vol.10, No. 1007, pp. 220-234, 2021, International (WoS).

#### **Mr. N. Subramani, Assistant Professor**

- Published a paper titled "Fabrication of Hybrid (Al6061/SiCp/B4C) Composites using FSP Method and Analysing the thermal Behaviour in the Weld region", Materials Today: Proceedings, Vol.10, No. 1016, 2021, International (Scopus).

#### **Mr. V. V. Arun Sankar, Assistant Professor**

- Published a paper titled "Mathematical and matlab based optimization of process parameters using simulated annealing algorithm for wire electrical discharge machining of EN31", Materials Today: Proceedings, Vol.10, No. 1016, 2021, International (Scopus).

#### **Mr. R. Mahesh, Assistant Professor**

- Published a paper titled "Design and fabrication of 3D metal printer using fused deposition modelling", Gorteria, Vol.34, No. 4, 2021, International (Referred).

#### **Mr. R. Arul Murugan, Assistant Professor**

- Published a paper titled "Classification of Rice Grains Based on Quality Using Probabilistic Neural Network", Lecture Notes in Mechanical Engineering, Vol.10, No. 1007, pp. 867 - 886, 2021, International (Scopus).

#### **Mr. M. Rajesh, Assistant Professor**

- Published a paper titled "Performance and Emission Characteristics of Diesel Engines powered by Dual Blended Biodiesel", Annals of the Romanian Society for Cell Biology, Vol.25, No. 6, pp. 13879 - 13886, 2021, International (Scopus).

#### **Mr. R. Haridass, Assistant Professor**

- Published a paper titled "Design and Analysis of Radial Impeller with Nylon66 and White Acrylic.", Elementary Education Online, Vol.20, No. 1, pp. 2021 - 2030, 2021, International (Scopus).

#### **Mr. P. Muraleedharan, Assistant Professor**

- Published a paper titled "Dual Ramshaper to Reduce Lead time and Increase Material Removal rate", Elementary Education Online, Vol.20, No. 1, pp. 2037- 2046, 2021, International (Scopus).

#### **Mr. R. Periyasamy, Assistant Professor**

- Published a paper titled "Comparative Experimental Analysis of Temperature Distribution in Mini Size Permeable and Non-Permeable Varying Salt Density Solar Pond", International Journal of Heat and Technology, Vol.39, No. 2, pp. 486 - 492, 2021, International (WoS).

#### **Mr. S. Chitharthan, Assistant Professor**

- Published a paper titled "Experimental study on mechanical properties of hybrid metal matrix composites using stir casting process", Materials Today Proceeding, Vol.10, No. 1016, 2021, International (Scopus).

#### **Mr. J. Mohanraj, Assistant Professor**

- Published a paper titled "Comparative Analysis on Effect of Various Filler and Groove Angle on TIG Welded AA6082", Annals of the Romanian Society for Cell Biology, Vol.25, No. 6, pp. 5279- 5287, 2021, International (Scopus).

#### **Mr. R. Sathish, Assistant Professor**

- Published a paper titled "Analysis of Suitable CNC Machine Chuck Pressure by ANSYS", Annals of the Romanian Society for Cell Biology, Vol.25, No. 4, pp. 12024- 12028, 2021, International (Scopus).

### **Book Publications**

#### **Dr. C. Krishnaraj, Professor and Head & Dr. Titus Thankachan, Associate Professor**

- Published a book titled "Proceedings on Modelling, Simulation and Control (ICMSC 2021)", ISBN: 978-93-5407-514-8

### **Patent Publications**

#### **Dr. R. Manimaran, Associate Professor, Dr. K. Ananthakumar, Associate Professor & Mr. P. Muraleedharan, Assistant Professor**

- Published a patent titled "Friction Stir Welding of Dissimilar Aluminium Alloys Using Tapered Threaded Tool Profile", Patent No.: 202141005812, 19th February 2021.

## **Paper Presentation - National / International Conferences**

### **Dr. J. Devaraj, Professor**

- Presented a paper titled "Comparison of modal analysis on flywheel", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021.

### **Dr. G. Padmanabhan, Professor**

- Presented a paper titled "Mechanical and Wear Characterization of Basalt Fiber Reinforced Vinyl Ester Composites", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021.

### **Mr. E. Vignesh, Assistant Professor**

- Presented a paper titled "Comparison of modal analysis on flywheel", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021.

### **Mr. S. Sathish Kumar, Assistant Professor**

- Presented a paper titled "Mechanical and Wear Characterization of Basalt Fiber Reinforced Vinyl Ester Composites", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. V. Balamurali, Assistant Professor**

- Presented a paper titled "A Review on Reconfigurable Manufacturing System in Production Scheduling", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. L. N. Prabhakaran, Assistant Professor**

- Presented a paper titled "Performance Characteristics of IC Engine with the producer gas obtained from the Downdraft NSC Gasifier", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. T. Prabhakaran, Assistant Professor**

- Presented a paper titled "A Review on Reconfigurable Manufacturing System in Production Scheduling", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. R. Naveen Raj, Assistant Professor**

- Presented a paper titled "A FEA study on heat of ceramic and steel roller bearings", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. K. Govindaraj, Assistant Professor**

- Presented a paper titled "A FEA study on heat of ceramic and steel roller bearings", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. P. Rajasekhar, Assistant Professor**

- Presented a paper titled "Performance Characteristics of IC Engine with the producer gas obtained from the Downdraft NSC Gasifier", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021.

### **Mr. R. Prakash, Assistant Professor**

- Presented a paper titled "Self Inflating Tyre Systems", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. R. Rajmurugan, Assistant Professor**

- Presented a paper titled "Self Inflating Tyre Systems", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. K. Vinod, Assistant Professor**

- Presented a paper titled "Enhancement on Dynamic Behaviour of Chemical Treated Natural Fiber Composite", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. S. Sarathi, Assistant Professor**

- Presented a paper titled "Enhancement on Dynamic Behaviour of Chemical Treated Natural Fiber Composite", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. K. Govindaraj, Assistant Professor**

- Presented a paper titled "A FEA study on heat of ceramic and steel roller bearings", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Mr. K. Govindaraj, Assistant Professor**

- Presented a paper titled "A FEA study on heat of ceramic and steel roller bearings", International Conference on Intelligent System and Control (ISCO) 2021 at Karpagam College of Engineering from 9<sup>th</sup> to 10<sup>th</sup> January 2021

### **Dr. E. Baburaj, Professor**

- Presented a paper titled "Parameter Monitoring and Control during Petrol Transportation using PLC based PID Controller", International Conference on Electrical, Electronics, Instrumentation and computer communication E2IC2 2021 at Karpagam College of Engineering from 25<sup>th</sup> to 26<sup>th</sup> January 2021.

#### **Mr. P. Sundaram, Associate Professor**

- Presented a paper titled "Design and analysis of optimized Elevator to improve aerodynamic effects", International Conference on Electrical, Electronics, Instrumentation and computer communication E2IC2 2021 at Karpagam College of Engineering from 25th to 26th January 2021.

#### **Mr. T. Akilan, Assistant Professor**

- Presented a paper titled "Design and analysis of optimized Elevator to improve aerodynamic effects", International Conference on Electrical, Electronics, Instrumentation and computer communication E2IC2 2021 at Karpagam College of Engineering from 25th to 26th January 2021.

#### **Mr. P. Karthikeyan, Assistant Professor**

- Presented a paper titled "Numerical Analysis on 36cm<sup>2</sup> PEM Fuel Cell for Performance Enhancement", International Conference on Electrical, Electronics, Instrumentation and computer communication E2IC2 2021 at Karpagam College of Engineering from 25th to 26th January 2021.

#### **Mr. Ilyas Hussain, Assistant Professor**

- Presented a paper titled "Numerical Analysis on 36cm<sup>2</sup> PEM Fuel Cell for Performance Enhancement", International Conference on Electrical, Electronics, Instrumentation and computer communication E2IC2 2021 at Karpagam College of Engineering from 25th to 26th January 2021.

#### **Mr. T. Thirunavukkarasu, Assistant Professor**

- Presented a paper titled "Parameter Monitoring and Control during Petrol Transportation using PLC based PID Controller", International Conference on Electrical, Electronics, Instrumentation and computer communication E2IC2 2021 at Karpagam College of Engineering from 25th to 26th January 2021.

#### **Mr. J. Joel Simon Franklin, Assistant Professor**

- Presented a paper titled "Fetal ultrasound image based on smoothing algorithm for Fetal femur sub-challenge team", International Conference on Electrical, Electronics, Instrumentation and computer communication E2IC2 2021 at Karpagam College of Engineering from 25th to 26th January 2021.

#### **Mr. N. Subramani, Assistant Professor**

- Presented a paper titled "Fabrication of Hybrid (Al6061/SiCp/B4C) Composites using FSP Method and Analysing the thermal Behaviour in the Weld region", International Conference on Futuristic Research in Engineering and Smart Materials at CMR Institute of Technology, Bengaluru from 23rd to 24th April 2021.

#### **Seminars / Workshops / FDPs / STTPs - Presented / Attended**

- Dr. C. Krishnaraj, Professor and Head attended NPTEL AICTE FDP on Fundamentals of Welding Science and Technology organized by IIT Guwahati from 18th January to 12th March 2021.
- Dr. C. Krishnaraj, Professor and Head attended AICTE Sponsored Online Short Term Training Programme on Moral, Values, Attitude and Behaviour Sciences organized by Department of EEE, GL Bajaj Institute of Technology & Management, Noida, from 08th February to 13th February 2021.
- Dr. C. Krishnaraj, Professor and Head attended AICTE Sponsored One Week Short Term Training Programme on Recent Advances in Industrial Automation and Robotics organized by Kumaraguru College of Technology, Coimbatore from 15th February to 20th February 2021.
- Dr. C. Krishnaraj, Professor and Head attended AICTE Sponsored Online Short Term Training Programme on Moral, Values, Attitude and Behaviour Sciences (Phase II) organized by Department of EEE, GL Bajaj Institute of Technology & Management, Noida, from 22nd February to 27th February 2021.
- Dr. C. Krishnaraj, Professor and Head attended NITTR Quality Improvement Programme on Blended and Flipped Mode of Teaching organized by NITTR Chennai from 01st March to 05th March 2021.
- Dr. C. Krishnaraj, Professor and Head attended AICTE Sponsored Online Short Term Training Programme on Moral, Values, Attitude and Behaviour Sciences (Phase III) organized by Department of EEE, GL Bajaj Institute of Technology & Management, Noida, from 08th March to 13th March 2021.
- Mr. R. Naveen Raj, Assistant Professor attended Ten hours of Faculty Development Programme on Creative Thinking conducted by ICT Academy from 16th March to 20th March 2021.
- Mr. T. Prabhakaran, Assistant Professor attended Ten hours of Faculty Development Programme on Creative Thinking conducted by ICT Academy from 16th March to 20th March 2021.
- Mr. R. Mahesh, Assistant Professor attended Six Day Faculty Development Programme entitled Machine Tools Building, Finishing Processes and Export Management organized by Karpagam Academy of Higher Education from 19th April to 24th April 2021.
- Mr. R. Arul Murugan, Assistant Professor attended Six Day Faculty Development Programme entitled Machine Tools Building, Finishing Processes and Export Management organized by Karpagam Academy of Higher Education from 19th April to 24th April 2021.
- Mr. V. Vijai Kaarthi, Assistant Professor attended Six Day Faculty Development Programme entitled Machine Tools Building, Finishing Processes and Export Management organized by Karpagam Academy of Higher Education from 19th April to 24th April 2021.
- Mr. S. Chitharthan, Assistant Professor attended 12 Hours of Faculty Development Program on Product Design using Fusion 360 organized by ICT Academy from 19th April to 24th April 2021.
- Mr. R. Periyasamy, Assistant Professor attended 12 Hours of Faculty Development Program on Product Design using Fusion 360 organized by ICT Academy from 19th April to 24th April 2021.
- Mr. S. Chitharthan, Assistant Professor attended 6 Days Induction Program on Recent Advances in Heating, Ventilation and Air Conditioning organized by Nitte Meenakshi Institute of Technology, Bengaluru from 27th April to 03rd May 2021.
- Dr. S. Vimal Anand, Associate Professor attended One Week FDP on Research Methods in Science, Engineering and Technology (RMSET) organized by Vishwatmak Om Gurudev College of Engineering, Thane from 02nd May to 06th May 2021.
- Mr. R. Periyasamy, Assistant Professor attended One Week FDP on Research Methods in Science, Engineering and Technology (RMSET) organized by Vishwatmak Om Gurudev College of Engineering, Thane from 02nd May to 06th May 2021.
- Mr. R. Sathish, Assistant Professor attended One Week FDP on Research Methods in Science, Engineering and Technology (RMSET) organized by Vishwatmak Om Gurudev College of Engineering, Thane from 02nd May to 06th May 2021.



- Mr. R. Mahesh, Assistant Professor attended AICTE Sponsored Online STTP Make in India: Through 3D Printing and Industry 4.0 for Indian Industries – Phase III organized by Kamaraj College of Engineering and Technology Chennai from 03rd May to 08th May 2021.
- Mr. R. Arul Murugan, Assistant Professor attended AICTE Sponsored Online STTP Make in India: Through 3D Printing and Industry 4.0 for Indian Industries – Phase III organized by Kamaraj College of Engineering and Technology Chennai from 03rd May to 08th May 2021.
- Mr. R. Sathish, Assistant Professor attended Online Training Programme on Implementation of OBE and Online Teaching organized by NITTTR Chennai from 10th May to 15th May 2021.
- Mr. T. Prabhakaran, Assistant Professor attended 15 Hours of Faculty Development Program organized by ICT Academy on Fundamentals of AI and ML from 10th May to 14th May 2021.
- Dr. C. Krishnaraj, Professor and Head attended Online AICTE Recognized Faculty Development Program on NBA Accreditation and Examination Reforms organized by NITTTR Chandigarh from 17th May to 21st May 2021.
- Dr. Titus Thankachan, Associate Professor attended Online AICTE Recognized Faculty Development Program on NBA Accreditation and Examination Reforms organized by NITTTR Chandigarh from 17th May to 21st May 2021.
- Mr. V. V. Arun Sankar, Assistant Professor attended Online AICTE Recognized Faculty Development Program on NBA Accreditation and Examination Reforms organized by NITTTR Chandigarh from 17th May to 21st May 2021.
- Mr. P. Muraleedharan, Assistant Professor attended Online AICTE Recognized Faculty Development Program on NBA Accreditation and Examination Reforms organized by NITTTR Chandigarh from 17th May to 21st May 2021.
- Mr. M. Rajesh, Assistant Professor attended Online AICTE Recognized Faculty Development Program on Research Methodology organized by NITTTR Chandigarh from 17th May to 21st May 2021.
- Mr. R. Haridass, Assistant Professor attended 10 Hours of Faculty Development Program organized by ICT Academy on Product Simulation using Fusion 360 from 17th May to 21st May 2021.
- Mr. J. Mohanraj, Assistant Professor attended Online FDP organized by Karmaveer Kakasaheb Wagh Polytechnic, Nashik on Environment, Energy, Health and Safety: Trends & Industrial Aspects from 17th May to 21st May 2021.
- Mr. V. Vijai Kaarathi, Assistant Professor attended Online AICTE Recognized Faculty Development Program on Structural Health Monitoring organized by NITTTR Chandigarh from 24th May to 28th May 2021.
- Dr. S. Vimal Anand, Associate Professor attended Six Days Faculty Development Program on Recent Innovations in Design and Manufacturing organized by Malla Reddy Engineering College, Hyderabad from 17th May to 21st May 2021.
- Dr. C. Krishnaraj, Professor and Head attended Online Training Program on Quality Assurance through NAAC Accreditation Process organized by NITTTR Chennai from 31st May to 04th June 2021.
- Dr. Titus Thankachan, Associate Professor and Head attended Online Training Program on Quality Assurance through NAAC Accreditation Process organized by NITTTR Chennai from 31st May to 04th June 2021.
- Mr. V. V. Arun Sankar, Assistant Professor attended Online AICTE Recognized Faculty Development Program on NBA Accreditation and Examination Reforms organized by NITTTR Chennai from 17th May to 21st May 2021.
- Mr. N. Subramani, Assistant Professor attended Online Elementary Faculty Development Program on Recent Trends in Precision Agriculture organized by Sant Longowal Institute of Engineering and Technology, Longowal from 31st May to 04th June 2021.
- Mr. M. Rajesh, Assistant Professor attended Online AICTE Recognized Faculty Development Program on Effective Teaching Learning using Social Media organized by NITTTR Chandigarh from 31st May to 04th June 2021.

#### **NPTEL Certifications**

Se. No.	Course Name	Roll Number	Name
1	Fundamentals of Welding Science and Technology	NPTEL21ME12S11340714	C.Krishnaraj
2	Properties of Materials (Nature and Properties of Materials: III	NPTEL21MM11S23320028	Titus Thankachan
3	Fundamentals of Welding Science and Technology	NPTEL21ME12S11341265	V.V.Arun Sankar
4	Fundamentals of Automotive Systems	NPTEL21DE02S13364074	R. Periyasamy
5	Fundamentals of Welding Science and Technology	NPTEL21ME12S11341532	S. Chitharthan
6	Nature and Properties of Materials	NPTEL21ME59S11364087	R. Sathish

#### **Coursera Certifications**

Se. No.	Name of the Faculty	Name of the Course	Course Offered By
1	Dr.R.Manimaran	Introduction to Machine Learning	Duke University
2	Dr.R.Manimaran	Introduction to Engineering Mechanics	Georgia Institute of Technology
3	Dr.R.Manimaran	Material Processing	Georgia Institute of Technology
4	Dr.S.Vimalanand	Introduction to Machine Learning	Duke University
5	Dr.S.Vimalanand	Introduction to Engineering Mechanics	Georgia Institute of Technology
6	Dr.S.Vimalanand	Portfolio Optimization using Markowitz Model	Project Network
7	Dr.S.Vimalanand	Ferrous Technology I	Pohang University of Science and Technology

8	Dr.S.Vimalanand	Ferrous Technology II	Pohang University of Science and Technology
9	Dr.K.Ananthakumar	Quantum Mechanics	University of Colorado Boulder
10	Dr.K.Ananthakumar	Safety in the Utility Industry	University at Buffalo
11	Dr.K.Ananthakumar	Introduction to Engineering Mechanics	Georgia Institute of Technology
12	Dr.K.Ananthakumar	Municipal Solid Waste Management in Developing Countries	École Polytechnique Fédérale de Lausanne
13	Dr.K.Ananthakumar	Portfolio Optimization using Markowitz Model	Project Network
14	Dr.K.Ananthakumar	Differential Equations for Engineers	The Hong Kong University of Science and Technology
15	Dr.K.Ananthakumar	Introduction to Basic Vibrations	Korea Advanced Institute of Science and Technology
16	Dr.Titus Thankachan	Introduction to Engineering Mechanics	Georgia Institute of Technology
17	Dr.Titus Thankachan	Portfolio Optimization using Markowitz Model	Project Network
18	Dr.Titus Thankachan	Ferrous Technology I	Pohang University of Science and Technology
19	Dr.Titus Thankachan	Ferrous Technology II	Pohang University of Science and Technology
20	Dr.Titus Thankachan	Advanced Functional Ceramics	Yonsei University
21	Mr.V.V.Arun Sankar	Solar Energy Systems Overview	University at Buffalo
22	Mr.R.Mahesh	MBSE: Model Based Systems Engineering	University at Buffalo
23	Mr.R.Mahesh	Material Processing	Georgia Institute of Technology
24	Mr.R.Mahesh	Autodesk Fusion 360 Integrated CAD/CAM/CAE	Autodesk
25	Mr.R.Mahesh	Intro to Digital manufacturing with Autodesk Fusion 360	Autodesk
26	Mr.R.Mahesh	Ferrous Technology I	Pohang University of Science and Technology
27	Mr.R.Mahesh	Ferrous Technology II	Pohang University of Science and Technology
28	Mr.R.Arulmurugan	Natural Gas	University at Buffalo
29	Mr.R.Arulmurugan	Initiating and Planning Projects	University of California
30	Mr.R.Arulmurugan	Materials Science: 10 Things Every Engineer Should Know	University of California, Davis
31	Mr.R.Arulmurugan	Six Sigma Advanced Analyze Phase	University System of Georgia
32	Mr.R.Arulmurugan	Introduction to Machine Learning	Duke University
33	Mr.R.Arulmurugan	Introduction to Engineering Mechanics	Georgia Institute of Technology
34	Mr.R.Arulmurugan	Material Behavior	Georgia Institute of Technology
35	Mr.R.Arulmurugan	Material Processing	Georgia Institute of Technology
36	Mr.R.Arulmurugan	Intro to Digital manufacturing with Autodesk Fusion 360	Autodesk
37	Mr.R.Arulmurugan	Ferrous Technology I	Pohang University of Science and Technology
38	Mr.R.Arulmurugan	Ferrous Technology II	Pohang University of Science and Technology
39	Mr.R.Arulmurugan	Introduction to Basic Vibrations	Korea Advanced Institute of Science and Technology

40	Mr.R.Arulmurugan	Advanced Functional Ceramics	Yonsei University
41	Mr.R.Haridass	Solar Energy Systems Overview	University at Buffalo
42	Mr.R.Haridass	Material Processing	Georgia Institute of Technology
43	Mr.R.Haridass	Differential Equations for Engineers	The Hong Kong University of Science and Technology
44	Mr.M.Rajesh	Digital Thread: Components	University at Buffalo
45	Mr.P.Muraleedharan	Programming for Everybody (Getting Started with Python)	University of Michigan
46	Mr.J.Mohanraj	Solar Energy Systems Overview	University at Buffalo
47	Mr.J.Mohanraj	Quantum Mechanics	University of Colorado Boulder
48	Mr.J.Mohanraj	Introduction to Machine Learning	Duke University
49	Mr.J.Mohanraj	Introduction to Engineering Mechanics	Georgia Institute of Technology
50	Mr.J.Mohanraj	Material Processing	Georgia Institute of Technology
51	Mr.R.Periyasamy	Solar Energy Systems Overview	University at Buffalo
52	Mr.R.Periyasamy	Quantum Mechanics	University of Colorado Boulder
53	Mr.R.Periyasamy	Introduction to Machine Learning	Duke University
54	Mr.R.Periyasamy	Introduction to Engineering Mechanics	Georgia Institute of Technology
55	Mr.R.Periyasamy	Material Processing	Georgia Institute of Technology
56	Mr.R.Periyasamy	Differential Equations for Engineers	The Hong Kong University of Science and Technology
57	Mr.R.Sathish	Solar Energy Systems Overview	University at Buffalo
58	Mr.R.Sathish	Quantum Mechanics	University of Colorado Boulder
59	Mr.R.Sathish	Material Processing	Georgia Institute of Technology
60	Mr.R.Sathish	Municipal Solid Waste Management in Developing Countries	École Polytechnique Fédérale de Lausanne
61	Mr.R.Sathish	Ferrous Technology I	Pohang University of Science and Technology
62	Mr.S.Chitharthan	Solar Energy Systems Overview	University at Buffalo
63	Mr.S.Chitharthan	Quantum Mechanics	University of Colorado Boulder
64	Mr.S.Chitharthan	Introduction to Machine Learning	Duke University
65	Mr.S.Chitharthan	Material Processing	Georgia Institute of Technology
66	Mr.S.Chitharthan	Differential Equations for Engineers	The Hong Kong University of Science and Technology

**Innovations by the Faculty in Teaching and Learning**

Se.No.	Course Name	Mode
1	Kinematics of Machinery	ICT
2	Strength of Materials	ICT + Smart Class
3	Thermal Engineering	ICT
4	Engineering Metallurgy	ICT + Smart Class



5	Machine Drawing	ICT
6	Design of Transmission Systems	ICT
7	Gas Dynamics and Jet Propulsion	ICT
8	Unconventional Machining Processes	ICT
9	Metrology and Measurements	ICT
10	Design for Manufacture and Assembly	ICT
11	Power Plant Engineering	ICT
12	Principles of Management and Engineering Ethics	ICT
13	Aircraft Systems	ICT
14	Industrial Robotics	ICT

#### Value Added Courses

Se.No.	Course Name	No. of times offered during the same year	Duration of the Course	Number of Students Enrolled
1	Design thinking	2	45 Hrs	177
2	Geometric Dimensioning and Tolerancing	1	45 Hrs	123
3	Basics of boundary element method	1	45 Hrs	123

#### Industry Offered Courses

- Infosys Limited offers partial delivery of lectures as a part of the course, "Aircraft Structures"
- Infosys Limited offers partial delivery of lectures as a part of the course, "Aircraft System"
- Tech flow Engineers offers partial delivery of lectures as a part of the course, "Entrepreneurship Development"

#### Visiting Faculty

Se.No.	Name of the Visiting or Adjunct Faculty	Designation of the Faculty	Course Handled	Duration (Hours/Semester)
1	G. Prasath	Senior Engineer Design and Development, Aquasub Engineering	Fluid Mechanics and Machinery	16
2	M.Dharani Kumar	Proprietor, AV Engineering, Coimbatore	Heat and Mass Transfer	16

#### STUDENT ACHIEVEMENTS

##### Student Paper Publications

##### Sridharan. P, Vignesh. R, Gowtham. M

- Published a paper titled, "Mathematical and matlab based optimization of process parameters using simulated annealing algorithm for wire electrical discharge machining of EN31", Materials Today:Proceedings, Vol.10, No. 1016, 2021, International (SCOPUS).

##### Pramodh. S, Prem Anand A

- Published a paper titled, "Mechanical Strength Analysis of Al 6061&Al2024 Based Metal matrix Composite prepared through Stir Casting Method", Materials Today:Proceedings, Vol.10, No. 1016, 2021, International (SCOPUS).

##### Rohit. D, Yeshwanth Kumar M, Magudeeswaran M, Senthilraj, S

- Published a paper titled, "Analysis of Suitable CNC Machine Chuck Pressure by ANSYS", Annals of the Romanian Society for Cell Biology, Vol.25, No. 4, pp. 12024 – 12028, 2021, International (SCOPUS).

##### Vignesh. S, Subash. S, Vallarasu. S, Vijayarasan A

- Published a paper titled, "Comparative Analysis on Effect of Various Filler and Groove Angle on TIG Welded AA6082", Annals of the Romanian Society for Cell Biology, Vol.25, No. 6, pp. 5279 – 5287, 2021, International (SCOPUS).

**Balamurugan. M, Dhanush. R, Gunaseelan S, Suriya D**

- Published a paper titled, "Fabrication of Carbon Steel Plate Re- Grinding Machine for Automatic Flour Machine", Annals of the Romanian Society for Cell Biology, Vol.25, No. 4, pp. 13124 – 13133, 2021, International (SCOPUS).

**Online Certifications**

- In the academic year 2020-2021
  - Total number of NPTEL Certifications from Students: 77
    - Elite + Silver: 4
    - Elite: 1
    - Successful Completion: 72
  - Total number of Coursera Certifications from Students: 478
  - Total number of Design Certifications from Students: 103
  - Total number of IT Certifications from Students: 99

**Placement, Higher Studies and Entrepreneurship**

- In the academic year 2020 - 2021,
  - Out of the 196 final year students, 157 students are placed in companies inclusive of Government Jobs.
  - A total of 14 students from the Department of Mechanical Engineering, have been admitted to higher studies with valid qualifying scores.
  - Two of our students have turned into Entrepreneurs in the field of Engineering/ Technology.

**On Job Training**

Se.No.	Company Name	Date	Number of Students
1	ICT Academy and Autodesk	12.01.2021 & 19.01.2021	40

**Internship**

- In the academic year 2020 - 2021, 161 students from the Department of Mechanical Engineering have successfully completed their Internship.

**Co-Curricular Activities**

- Student Participation in inter-institute events for the academic year 2020-21
  - Within the state
    - A total of 59 students Participated in Workshop
    - A total of 22 students Participated in Design Contest
    - A total of 21 students Participated in Conferences