



Jul' 19 – Dec' 19

Chief Editor: Dr. C. Krishnaraj Editor: Mr. V. V. Arun Sankar Co – Editor: Mr. R. Krishnan

Student Editorial Board: N. Dhineshkumar (17M110), A. Venkatarajulu (17M248), K. Vineeth (17M351)

WARM WELCOME TO

- Mr. M. Murugesan joined as Assistant Professor on 08th July 2019.
- Mr. L. N. Prabhakaran joined as Assistant Professor on 30th July 2019.
- Dr. G. Padmanabhan joined as Associate Professor on 02nd August 2019.
- Dr. Titus Thankachan joined as Associate Professor on 23rd August 2019.

DEPARTMENT ACTIVITIES

- **Guest Lectures**
- Dr.G.Swaminathan, Senior Program Manager, Schneider Electric, Bangalore, delivered a guest lecture for a total of 70 participants on 06th July 2019.
- Mr.G.Mahesh Kumar, Managing Director, MR Motors, delivered a guest lecture for a total of 69 participants on 10th July 2019.
- Dr. Ranga Srinivas Gunti, Deputy General Manager, Mahindra research valley, Chennai, delivered a guest lecture for a total of 70 participants on 13th December 2019.
- Mr. S.K.Madeshwara, Technical Manager, Altair Engineering India, Bangalore, delivered a guest lecture for a total of 70 participants on 14th December 2019.

Professional Societies / Chapter Events

- Organized a Workshop as a part of Society of Automotive Engineers (SAE) Chapter Event titled "Hands on training program on Biodiesel production from Waste Cooking Oil" on 03rd July 2019.
- Organized a Workshop as a part of Indian Society of Technical Education (ISTE) Chapter Event on "Application of mathematics in Mechanical Engineering Subjects" from 04th to 05th July 2019.
- Organized a Guest Lecture as a part of Society of Automotive Engineers (SAE) Chapter Event titled "Guest lecture on Automotive Interiors -New Product Development Cycle" on 10th July 2019.
- Organized a Workshop as a part of Society of Automotive Engineers (SAE) Chapter Event titled "Skill development workshop on Dismantling and assembling of Mahindra XUV 300 Petrol and Diesel Engine" from 19th to 20th July 2019.
- Organized a Guest Lecture as a part of Indian Society of Technical Education (ISTE) Chapter Event on "Three days Hands on Training Programme on Automotive Pollution Measurement and Control Report" from 25th to 27th July 2019.
- Organized a Workshop as a part of Indian Society of Technical Education (ISTE) Chapter Event on "Workshop on Impact of electrification and Autonomy in Automobile Industry with Virtual Simulation on MATLAB" on 02nd August 2019.
- Organized a Workshop as a part of Indian Society of Technical Education (ISTE) Chapter Event on "One Day Workshop on Heat Treatment Processes and Its Application" on 16th August 2019.
- Organized a Workshop as a part of Society of Automotive Engineers (SAE) Chapter Event titled "Workshop on Dismantling and Assembly of Engine" from 16th to 17th August 2019.
- Organized a Workshop as a part of Indian Society of Technical Education (ISTE) Chapter Event on "Skill Development workshop on Simulation of Pneumatic, Hydraulic and Electric Circuits using Festo FluidSIM" on 23rd August 2019.
- Organized a Workshop as a part of Indian Society of Technical Education (ISTE) Chapter Event on "Hands on training program on Bio diesel production from Waste Cooking Oil" on 29th August 2019.
- Organized a Guest Lecture as a part of Indian Society of Technical Education (ISTE) Chapter Event on "Webinar on Overview on Digital Manufacturing Using Delmia Solution" on 06th November 2019.
- Organized a Workshop as a part of Society of Automotive Engineers (SAE) Chapter Event titled "Skill development workshop on Dismantling and assembling of two Stroke Engine" from 29th to 30th November 2019.
- Organized a Workshop as a part of Indian Society of Technical Education (ISTE) Chapter Event on "One day workshop on geometric dimensioning & tolerance (GD &T)" on 05th December 2019.
- Organized a Guest Lecture as a part of Indian Society of Technical Education (ISTE) Chapter Event on "Offshore Analysis using Abaqus" on 05th December 2019.
- Organized a Workshop Series as a part of Society of Automotive Engineers (SAE) Chapter Event titled "Skill development workshop on Dismantling and assembling of four Stroke Engine" on 06th, 13th and 14th December 2019.
- Organized a Workshop as a part of Society of Automotive Engineers (SAE) Chapter Event titled "Skill development workshop on Dismantling and assembling of Mahindra XUV 300 Petrol and Diesel Engine" from 13th to 14th December 2019.





Department of Mechanical Engineering, Karpagam College of Engineering, Official YouTube Channel: <u>https://www.youtube.com/channel/UCfbQXNQUT42sUgUnAARzFNw</u>

Miscellaneous Events

- Organized a Research Program titled "Fast Track Research Initiative Program" from 05th July 2019.
- Organized a Guest Lecture on "Automotive Interiors New Product Development Cycle" on 10th July 2019.
- Organized a Guest Lecture on "Digitizing Design Through Transformation and Innovation" on 30th July 2019. .
- Organized a Guest Lecture on "Challenges and Opportunities in Vehicle Dynamics for Mechanical Engineers" on 8th August 2019. .
- Organized a One-week skill development programme on "Basic Skills" from 2nd to 8th November 2019.
- Organized a One-week training programme on "Laboratory Practices" from 11th to 16th November 2019. .

NATIONAL / INTERNATIONAL LEVEL PROGRAMMES (Conducted)

- Organized Two Weeks Faculty Development program on "Technological Application for Managing Solid Wastes from Industries and Educational Institutions for Bio-energy Generation" from 15th to 28th September 2019.
- Organized a Training Program as a part of Indian Society of Technical Education (ISTE) Chapter Event on "Short term training program on CATIA V6 (3D Experience)" from 12th to 14th November 2019.

Career Enhancement Events

- Organized a Guest Lecture on "Expectation of Mechanical industries from fresh Engineering Graduates" as a part of Alumni Supported Career Enhancement Event.
- Organized a Guest Lecture on "Challenges and Opportunities in Vehicle Dynamics for Mechanical Engineers" as a part of Alumni Supported Career Enhancement Event.
- Organized Three Sessions of "Mock Interviews" as a part of Alumni Supported Career Enhancement Event.
- Organized Seven Sessions on the "Advancements in the Varied Domains of Mechanical Engineering" as a part of Alumni Supported Career Enhancement Event.





FACULTY ACHIEVEMENTS Journal Publications

Dr. C. Krishnaraj, Professor and Head

Published a paper titled "Mechanical Characterization of Pineapple, Watermelon, Peel nano particles reinforced carbon, Jute Fabric and its hybrid epoxy composites", Materials Research Express, Vol.10, No. 1088, 2019, International (WoS).

Dr. R. Manimaran, Associate Professor

Published a paper titled "Evaluation of Mechanical properties of hybrid AI7009 nanocomposite", Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Vol.10, No. 1080, pp. 1 - 10, 2019, International (WoS).

Mr. N. Subramani, Assistant Professor

Published a paper titled "Characteristics of A6061/ (Glass Fibre + Al2O3 +SiC+ B4C) Reinforced Hybrid Composite prepared through STIR casting", Advances in Materials Science and Engineering, Vol.10, No. 1155, pp. 1 - 12, 2019, International (WoS).

 Mr. R. Arul Murugan, Assistant Professor
Published a paper titled "High yield strength composite with basalt powder filler", International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), Vol.9, pp. 144 - 150, 2019, International (Scopus).

Mr. S. Sathish Kumar, Assistant Professor

Published a paper titled "Mechanical and Material properties of Areca/ Epoxy composite", International Journal of Innovative Technology and Exploring Engineering, Vol.9, No. 2, pp. 5078 - 5081, 2019, International (Scopus).

Paper Presentation - National / International Conferences

Mr. N. Subramani, Assistant Professor

- Presented a paper titled "Novel Procedure trailed in fabrication superficial composites and analysing the mechanical behaviour of A6061/SICP/B4C by using Friction Stir Process", SEEE Online International Conference on Innovation in Electrical, Electronics and Intelligent Computing ICI2EIC 2019, Online Conference organized by Society for Engineering Education Enrichment on 19th July 2019.
- Presented a paper titled "An investigation on linear analysis of on road vehicle chassis for the various special effects of stress distribution and deformation by Finite Element Method", SEEE Online International Conference on Innovation in Electrical, Electronics and Intelligent Computing ICI2EIC 2019, Online Conference organized by Society for Engineering Education Enrichment on 19th July 2019.

Mr. R. Krishnan, Assistant Professor

Presented a paper titled "Novel procedure trailed in fabrication superficial composites and analyzing the mechanical behavior of A6061/SICP/B4C by using Friction Stir Process", SEEE Online International Conference on Innovation in Electrical, Electronics and Intelligent Computing ICI2EIC 2019, Online Conference organized by Society for Engineering Education Enrichment on 19th July 2019.

Seminars / Workshops / FDPs / STTPs - Presented / Attended

- Mr. R. Krishnan, Assistant Professor attended NPTEL AICTE Faculty Development Programme titled Fundamentals of Surface Engineering: Mechanisms, Processes and Characterizations organized by IIT Roorkee from 15th May to 05th August 2019.
- Mr. M. Rajesh, Assistant Professor attended Two Weeks Faculty Development training program on Technological Application for Managing Solid Wastes from Industries and Educational Institutions for Bio energy Generation organized by Karpagam College of Engineering, Coimbatore from 15th to 28th September 2019.

Department of Mechanical Engineering, Karpagam College of Engineering, Official YouTube Channel: https://www.youtube.com/channel/UCfbQXNQUT42sUgUnAARzFNw

- Mr. N. Subramani, Assistant Professor attended Two Weeks Faculty Development training program on Technological Application for Managing Solid Wastes from Industries and Educational Institutions for Bio energy Generation organized by Karpagam College of Engineering, Coimbatore from 15th to 28th September 2019.
- Mr. V. V. Arun Sankar, Assistant Professor attended Two Weeks Faculty Development training program on Technological Application for Managing Solid Wastes from Industries and Educational Institutions for Bio energy Generation organized by Karpagam College of Engineering, Coimbatore from 15th to 28th September 2019.
- Mr. R. Krishnan, Assistant Professor attended Two Weeks Faculty Development training program on Technological Application for Managing Solid Wastes from Industries and Educational Institutions for Bio energy Generation organized by Karpagam College of Engineering, Coimbatore from 15th to 28th September 2019.
- Mr. J. Mohanraj, Assistant Professor attended Two Weeks Faculty Development training program on Technological Application for Managing Solid Wastes from Industries and Educational Institutions for Bio energy Generation organized by Karpagam College of Engineering, Coimbatore from 15th to 28th September 2019.
- Mr. R. Haridass, Assistant Professor attended Two Weeks Faculty Development training program on Technological Application for Managing Solid Wastes from Industries and Educational Institutions for Bio energy Generation organized by Karpagam College of Engineering, Coimbatore from 15th to 28th September 2019.
- Mr. V. Balamurali, Assistant Professor attended Two Weeks Faculty Development training program on Technological Application for Managing Solid Wates from Industries and Educational Institutions for Bio energy Generation organized by Karpagam College of Engineering, Coimbatore from 15th to 28th September 2019.
- Dr. E. Baburaj, Assistant Professor attended Two Weeks Faculty Development training program on Technological Application for Managing Solid Wates from Industries and Educational Institutions for Bio energy Generation organized by Karpagam College of Engineering, Coimbatore from 15th to 28th September 2019.
- Mr. M. Rajesh, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. R. Mahesh, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. S. Chitharthan, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. P. Muraleedharan, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. J. Mohanraj, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. R. Periyasamy, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. R. Sivakumar, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. Š. Sathish Kumar, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. L. N. Prabhakaran, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. R. Krishnan, Assistant Professor attended a Short Term Training Programme on CATIA V6 (3D Experience) organized by Karpagam College of Engineering, Coimbatore from 12th to 14th November 2019.
- Mr. M. Rajesh, Assistant Professor attended Six day Faculty Development training program on ME8692 Finite Element Analysis organized by Rathinam Technical Campus, Coimbatore from 25th to 30th November 2019.
- Mr. R. Mahesh, Assistant Professor attended Six day Faculty Development training program on CE8395- Strength of Materials for Mechanical Engineering organized by Anna University Regional Campus, Coimbatore from 09th to 14th December 2019.
- Mr. M. Rajesh, Assistant Professor attended Six day Faculty Development training program on CE8395- Strength of Materials for Mechanical Engineering organized by Anna University Regional Campus, Coimbatore from 09th to 14th December 2019.
- Mr. S. Chitharthan, Assistant Professor attended Six day Faculty Development training program on CE8395- Strength of Materials for Mechanical Engineering organized by Anna University Regional Campus, Coimbatore from 09th to 14th December 2019.
- Dr. C. Krishnaraj, Professor and Head attended Faculty Development training program on Recent Trends in Automation and IIOT organized by Vel Tech High Tech, Chennai from 18th to 24th December 2019.
- Dr. K. Ananthakumar, Associate Professor attended Faculty Development training program on Recent Trends in Automation and IIOT organized by Vel Tech High Tech, Chennai from 18th to 24th December 2019.
- Dr. Titus Thankachan, Associate Professor attended Faculty Development training program on Recent Trends in Automation and IIOT organized by Vel Tech High Tech, Chennai from 18th to 24th December 2019.
- Mr. N. Subramani, Assistant Professor attended Faculty Development training program on Recent Trends in Automation and IIOT organized by Vel Tech High Tech, Chennai from 18th to 24th December 2019.
- Mr. S. Sathish Kumar, Assistant Professor attended Faculty Development training program on Recent Trends in Automation and IIOT organized by Vel Tech High Tech, Chennai from 18th to 24th December 2019.
- Mr. P. Muraleedharan, Assistant Professor attended Faculty Development training program on Recent Trends in Automation and IIOT organized by Vel Tech High Tech, Chennai from 18th to 24th December 2019.
- Mr. R. Periyasamy, Assistant Professor attended Faculty Development training program on Recent Trends in Automation and IIOT organized by Vel Tech High Tech, Chennai from 18th to 24th December 2019.
- Mr. R. Sivakumar, Assistant Professor attended Faculty Development training program on Recent Trends in Automation and IIOT organized by Vel Tech High Tech, Chennai from 18th to 24th December 2019.
- Mr. S. Chitharthan Assistant Professor attended Faculty Development training program on Recent Trends in Automation and IIOT organized by Vel Tech High Tech, Chennai from 18th to 24th December 2019.

Industrial Training Undertaken (Faculty)

- Mr. P. Muraleedharan, Assistant Professor attended Industrial Training at Techflow Engineers, Coimbatore from 12th May to 10th June 2019.
- Mr. V. Balamurali, Assistant Professor attended Industrial Training at Techflow Engineers, Coimbatore from 12th May to 10th June 2019.
- Mr. S. Chitharthan, Assistant Professor attended Industrial Training at Mahindra Research Valley, Chengalpat from 08th to 19th July 2019.
- Mr. R. Periyasamy, Assistant Professor attended Industrial Training at Mahindra Research Valley, Chengalpat from 08th to 19th July 2019.
- Mr. J. Mohanraj, Assistant Professor attended Industrial Training at Roots Industries, Coimbatore from 25th to 26th November 2019.
- Mr. V. V. Arun Sankar, Assistant Professor attended Industrial Training at Hirotec India Private Ltd., Coimbatore from 23rd to 31st December 2019.
- Mr. L. N. Prabhakran, Assistant Professor attended Industrial Training at Hirotec India Private Ltd., Coimbatore from 23rd to 31st December 2019.

| Se. No. | Course Nar | ne | Roll I | Number | Name |
|-------------|---|---|------------------------------|-----------------------------|------------------|
| 1 | Fundamentals of Manufacturing Proce | esses | NPTEL20ME67S8 | 31340721 | C.Krishnaraj |
| 2 | Advances in Welding and Joining Tecl | hnologies | NPTEL20ME65S3 | 31340130 | Titus Thankachan |
| 3 | Engineering drawing and computer gra | aphics | NPTEL20ME79S | NPTEL20ME79S51340208 | |
| 4 | The Future of Manufacturing Bu Manufacturing | siness: Role of Additive NPTEL20MG70S41341166 | | Arun Sankar.V.V | |
| 5 | Advances in Welding and Joining Tech | hnologies | ologies NPTEL20ME65S41341243 | | R. Arul Murugan |
| 6 | The Future of Manufacturing Bu Manufacturing | siness: Role of Additive NPTEL20MG70S31341299 | | R. Krishnan | |
| 7 | Fundamentals of Manufacturing Proce | esses | NPTEL20ME67S8 | NPTEL20ME67S82230336 | |
| 8 | Advances in Welding and Joining Tech | hnologies | NPTEL20ME65S | 31340973 | J. Mohanraj |
| 9 | Fundamentals of Manufacturing Proce | esses | NPTEL20ME67S8 | NPTEL20ME67S81340283 | |
| 10 | Introduction to Mechanical Vibration | | NPTEL20ME66S3 | NPTEL20ME66S31340526 | |
| 11 | Fundamentals of Automotive Systems | | NPTEL20DE06S2 | 21340392 | R. Krishnan |
| Innovations | by the Faculty in Teaching and Lear | rning | • | | |
| Se.No. | | ourse Name | | Mode | |
| 1 | Engineering Metallurgy | | | ICT + Smart Class | |
| 2 | Heat and Mass Transfer | | | ICT + Smart Class | |
| 3 | Manufacturing Technology | | | ICT + Smart Class | |
| 4 | Dynamics of Machinery | | | ICT + Smart Class | |
| 5 | Automotive Sensors | | | ICT | |
| 6 | Dynamics of Machinery | | | ICT | |
| 7 | Design of Transmission Systems | | | ICT | |
| 8 | Flexible Manufacturing Systems | | | ІСТ | |
| 9 | Product Life Cycle Management | | | ICT | |
| 10 | Renewable Source of Energy | | | ICT | |
| 11 | Principles of Management and Enginee | ering Ethics | | ICT | |
| 12 | Industrial Robotics | | | ICT | |
| 13 | Aircraft Systems | | | ICT | |
| 14 | Composite Materials | | | ICT | |
| Value Addeo | d Courses | | | L | |
| Se.No. | Course Name | No. of times offered during the same year | Duration of the Course | Number of Students Enrolled | |
| 1 | CNC Programming | 1 | 45 Hrs | 25 | |
| 2 | Introduction to Arduino Micro Controller | 1 | 30 Hrs | 24 | |
| 3 | Training on Certified SolidWorks Associate Programme | 1 | 45 Hrs | 20 | |

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

STUDENT ACHIEVEMENTS

Honors and Awards - Student Participation

- Saravanesh C from the Department of Mechanical Engineering participated and won Third Place in Vahana V4 2019 at Hindusthan College . of Engineering and Technology, Coimbatore held on 17.08.2019.
- Vigneswaran S from the Department of Mechanical Engineering participated and won Third Place in Vahana V4 2019 at Hindusthan College of Engineering and Technology, Coimbatore held on 17.08.2019.
- Jegadeesh R J from the Department of Mechanical Engineering participated and won Third Place in Vahana V4 2019 at Hindusthan College . of Engineering and Technology, Coimbatore held on 17.08.2019.

Industrial Visit

- II year Students from B.E. Mechanical Engineering participated in Industrial Visit to "Karnataka Milk Federation (KMF)", KMF Complex, Kodagu District, Karnataka - 560029 on 07th September 2019.
- Il year Students from B.E. Mechanical Engineering participated in Industrial Visit to "Joy Coffee Curing Works", Hirakolale Road, Chikmangalur, Karnataka - 573217 on 08th September 2019.
- III year Students from B.E. Mechanical Engineering participated in Industrial Visit to "The Western India Plywood Ltd.", Baliapatam, Cannanore, Kerala - 670010 on 09th September 2019.
- III year Students from B.E. Mechanical Engineering participated in Industrial Visit to "RUBCO", Chondam, Thalassery, Kerala 670101 on 09th September 2019.





Online Certifications

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In the academic year 2019 - 2020,

- Total number of NPTEL Certifications from Students: 105
 - Elite + Gold: 3 .
 - Elite + Silver: 27
 - Elite: 34
 - Successful Completion: 41
- Total number of Coursera Certifications from Students: 14
- Total number of Design Certifications from Students: 18 0
- Total number of IT Certifications from Students: 7 0
- Apart from above mentioned list 4 students from the Department of Mechanical Engineering have registered and certified for 4 or more . courses. This has been recognized by NPTEL under the believers' award.

| Se.no. | Roll no. | Name of the students | Number of courses |
|--------|----------|----------------------|-------------------|
| 1 | 17M144 | Sujith.M | 5 |
| 2 | 17M309 | Dhinesh | 4 |
| 3 | 17M110 | Dhineshkumar N | 4 |
| 4 | 17M351 | Vineeth K | 4 |



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Placement, Higher Studies and Entrepreneurship

• In the academic year 2019 - 2020,

- Out of the 209 final year students, 168 students are placed in companies inclusive of Government Jobs.
- A total of 12 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.

Co-Curricular Activities

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Student Participation in inter-institute events for the academic year 2019-2020

- Within the state
 - A total of 70 students Participated in Symposium
 - A total of 164 students Participated in Workshop
 - A total of 18 students Participated in Design Contest
 - A total of 34 students Participated in Conferences
 - Outside the state
 - A total of 43 students Participated in Events outside the State.