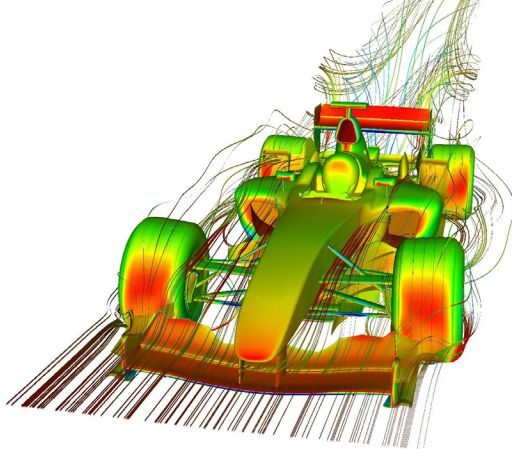
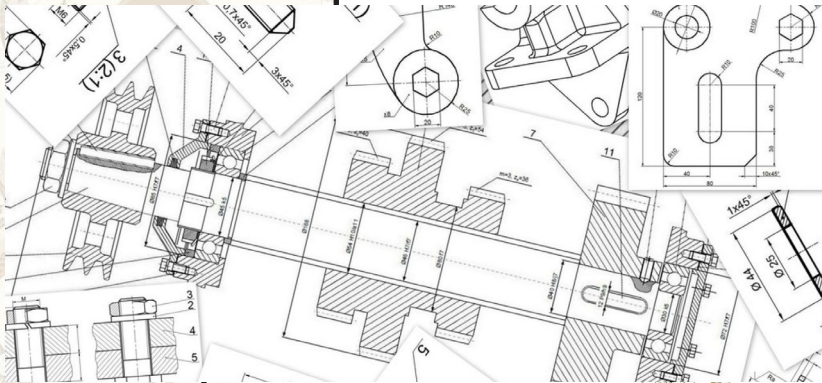
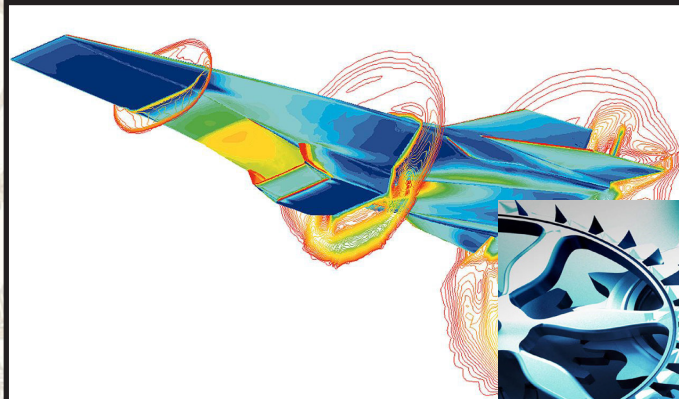
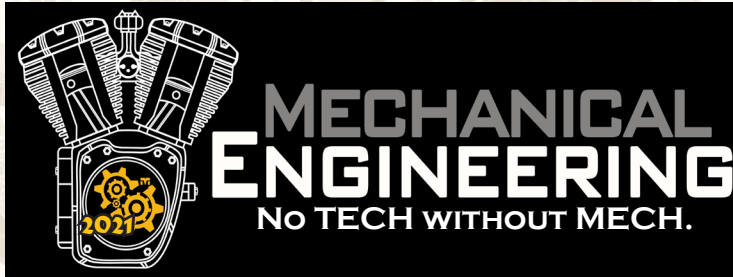


# MECH MIRROR

VOLUME 10, ISSUE 1, FEBRUARY 2021

News Letter



# CANARA

## ENGINEERING COLLEGE

canarait@gmail.com | [www.canaraengineering.in](http://www.canaraengineering.in)

## From the editor's desk

### Research & Development Centers - The Need of the Hour

Dear reader,

Happy to hear that CEC is planning to start a research Centre functioning in major thrust areas of research in the college. The research planned in the field of electrical vehicles, Desalination of water, Agricultural equipment's development, recycling of plastics and biogas will boost research activity in the campus. It will help students and faculties to work in the area of their interest, also help in project work and publications. The government's policies for the startups, research and setting up incubation center is also encouraging. I wish research activities in these renewable energies and pollution-free technologies will bring funded projects and in turn good name to the college. Hope activities planned under National Innovation and start-up policy (NISP) is will also encourage the research activities in the campus. I wish all the success for the efforts put by the department in this regard and also to the final year students in their future endeavours.

#### EDITORIAL BOARD

##### Staff Advisors:

Dr. B Krishna Prabhu, HOD  
Dr. Venkatesh N, Professor

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Mr. Sandesh Kumar Rai  
Assistant professor

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SriHariRamachndra

3rd semester

Ramprasasd Rai

5th semester

Arshaq M.G.

7th sem A section

Prajwal

7th sem B section

##### Design By:

Mr. Subrahmanya V  
Instructor



Prof. Sandesh Kumar Rai  
Chief editor



## **Department Vision :**

To impart state of the art quality mechanical engineering education and create competent professionals.

## **Department Mission :**

**M1:** Imparting engineering education through experienced faculty, good infrastructure and a systematic teaching-learning process.

**M2:** Providing an environment for the application of gained knowledge to design and develop products for society, industries and research activities.

**M3:** Promoting high standards of professional ethics and accountability

## **HOD speaks**

COVID-19 pandemic has created problems all over the world but it has also opened up new areas of media/ modes of communications using Google meets, zoom etc to teach the students remotely. Revolutions in digital communications have helped people especially during this pandemic in industries to work and control machines from remote places. With the encouragement of govt to make India a manufacturing hub under Atma Nirbhar Bharath schemes have resulted in making safety kits to an air-independent propulsion system for submarines have shown a new ray of hopes in mechanical industries.

In this regard, our efforts are continuing with our Project proposal titled “Development of filaments for 3D printing and other applications from recycled PET bottled and other plastic waste” has been applied for financial support under DST and expecting a positive response for the same. In this regard, I appreciate the effort put by our teaching, technical staff and students for providing all sorts of support for the project. Last but not least my congratulations to the publication team for bringing MechMirror newsletter successfully



Dr. B. Krishna Prabhu  
Professor and Head

## STUDENT NEWS

## PLACEMENT ACTIVITY

The Placement process is ongoing and a total of 10 offers from various companies to the mechanical final year students till the end of the odd semester.

Company	No of the students placed
TCS	01
INFOSYS	03
COGNIZANT	03
TECHNOLOGICS GLOBAL	02
JARO EDUCATION	01

## CO-CURRICULAR ACTIVITIES

### Alumni Entrepreneurs Interaction

An interaction with two alumni Entrepreneurs was arranged on 2-11-2020 in Mangalore. The Company Stella Designs started by Sumanth Shenoy (E&C) and Suhas Kamath (Mech.) are into 3D printing and component manufacturing. The Company Meta Studios started by Vignesh Kamath (Mech), Jeevan Kamath (Mech, 7th SEM) in Digital Marketing, E-commerce, Social media advertisements etc. Our student Raghavendra (7th SEM), who also joined them and supporting in modelling and other allied facilitates using Mechanical software. HOD Dr. Krishna Prabhu organized and coordinated the event.



## CURRICULAR ACTIVITIES-TECHNICAL TALKS & WEBINARS

### Webinar on Importance of design Automation- parametric design

A webinar by Mr. R Ravikumar, senior adviser for DCS Pvt. Ltd and the General Secretary of SSTMH, a techno-management society for staff and students, was arranged on 29-10-2020. The Webinar highlighted the need for Parametric design for mechanical engineers. He spoke on how tools like Excel can be integrated with design software like catia, solidworks, Creo and to understand the need for upgrading the knowledge with a new perspective. 112 students along with staff participated from the department. Dr. Venakteash N coordinated the event.

### An Approach to Industrial Automation and Project Planning

Mr. Himanshu, The Director, Indwell Automation, Mangaluru gave a webinar to the students to understand the various aspects of Industry 3.0. and the role of mechanical engineering in automation in particular skills and training required to develop as an automation engineer. Later job prospects for PLC-based projects and how to develop projects was also explained. Faculties and students appreciated the event and 96 students participated in the webinar. The event was organized on 10-10-2020 by Faculty Mr. Naveen Kalal.

**CANARA ENGINEERING COLLEGE**  
Benjanapadavu, Bantwal D.K.-574219  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
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**An initiative to adapt Industry 4.0 in academics**

Chapter-6  
**Importance of Design Automation Parametric Design**

**SPEAKER**  
  
**Mr. Ravi Kumar R**  
General secretary, SSTMH

**DATE: 29-10-2020**  
**TIME: 3.30 PM to 4.30 PM**

**COORDINATOR**  
  
**Dr. Venkatesh Nagaraja**  
Professor, Mech. Engg.

**You are cordially invited**

**Dr. Ganesh V Bhat**  
Principal, CEC

**Dr. B.Krishna Prabhu**  
HOD, Mech. Engg.

**Mr. Satish S Nadig**  
Chief Coordinator

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Chapter-4  
**An approach to Industrial Automation and Project planning**

**SPEAKER**  
  
**Mr. Himanshu Kumar**  
Director  
INDWELL Automation, Mangaluru

**DATE: 10-10-2020**  
**TIME: 2 PM to 4 PM**

**COORDINATOR**  
  
**Mr. Naveen Kalal**  
Asst. Professor, Mech. Engg.

**You are cordially invited**

**Dr. Ganesh V Bhat**  
Principal, CEC

**Dr. B.Krishna Prabhu**  
HOD, Mech. Engg.

**Mr. Satish S Nadig**  
Chief Coordinator

## Alumni Talk on Role of mechanical engineers in Oil and Gas industries.

Alumni interaction with Mr. Akshay Kamath, Marketing and sales executive-LPG division, Total oil and gas, Bengaluru was organized on 03-10-2021. The webinar is to help the current final year students to understand the various aspects of the oil and gas industries and how to prepare for the interviews of the same. Mr Akshay gave a brief talk about his company and required skills that fresh graduates need to possess to get into core industries. 119 students participated and got benefitted from the interaction. The webinar was coordinated by faculty Mr. Srinvas Shenoy.



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**Chapter - 3**  
**Role of Mechanical Engineers in Oil and Gas industries**

**SPEAKER**  
  
**Mr. Akshay Kamath**  
Marketing & Sales Executive-LPG division  
Total oil India, Bengaluru

**DATE: 03-10-2020**  
**TIME: 2 PM to 3 PM**

**COORDINATOR**  
  
**Mr. Srinivas Shenoy**  
Asst. Professor, Mech. Engg.

**You are cordially invited**

**Dr. Ganesh V Bhat**  
Principal, CEC

**Dr. B.Krishna Prabhhu**  
HOD, Mech. Engg.

**Mr. Satish S Nadig**  
Chief Coordinator

## Employability skills training on Geometric Dimension and Tolerance (GD&T)

A Seminar by Mr Preetham Senior Executive Officer IMTMA Technology Center, Bangalore on the importance of GD&T, its characteristics and its role in the Manufacturing sector was held on 02-10-2020. Later he briefed about how to evaluate GD&T characteristics and conducted hands-on GD&T problems.



## Webinar on Placement Opportunities in Mechanical Industries

Alumni Mr Vishwanath Bhat, Engineer, Strategic Sourcing, Automotive Axles Ltd, Mysore addressed the students on the Initiative to adopt Industry 4.0 in academics on 27-9-2020. The webinar was organised by the Department of Mechanical Engineering. Later in this webinar series "Placement Opportunities in Mechanical Industries, requirements of companies into the core mechanical companies was also held. 46 Students and Faculties have participated in the webinar. The webinar was coordinated by Mr Srinivas shenoy.

## An introduction to the Industrial Internet of Things (IIOT)

Webinar Series on an Initiative to adopt Industry 4.0 in academics organised by Department of Mechanical Engineering on 19-09-2020. Resource person Mr. Somasundaram N, Managing Director, Finixel Technologies Pvt Ltd, Bengaluru spoke on how the technologies are changing with time in automation. Formal Function was inaugurated by Mr. Vinayak kamath, CEO Auto CNC, Bengaluru and presided by Mr. M Padmanabh Pai, Correspondent, CEC. Students and Faculties nearly 70 people from the department participated in the webinar.



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An initiative to adapt Industry 4.0 in academics

**SPEAKER** Chapter - 2  
**Placement Opportunities in Mechanical Industries**



**DATE: 27-09-2020**  
**TIME: 11 AM to 12 PM**

**Platform**  
Google Meet

**Mr. Vishwanath Bhat**  
Engineer Strategic Sourcing  
Automotive Axles Ltd., Bengaluru

*You are cordially invited*

**Dr. Ganesh V Bhat**  
Principal, CEC

**Dr. B.Krishna Prabhu**  
HOD, Mech. Engg.

**Mr. Satish S Nadig**  
Chief Coordinator

**Mr. Srinivas Shenoy**  
Coordinator



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**DEPARTMENT OF MECHANICAL ENGINEERING**  
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Invite you for the Inaugural function of Webinar Series

An initiative to adapt Industry 4.0 in academics



**President**  
**Sri M. Padmanaba Pai**  
Entrepreneur, Engineer  
Correspondent, CEC



**Inauguration by**  
**Mr. Vinayak Kamath**  
CEO, Auto CNC,  
Ace Micromatic Group,  
Bengaluru



**Chief Guest**  
**Mr. Somasundaram N**  
Managing Director  
Finixel Technologies  
Pvt. Ltd., Bengaluru

**DATE: 19-09-2020**  
**TIME: 2:00 PM**

**Chapter - 1**  
**An introduction to Industrial Internet of things (IIOT)**

*You are cordially invited*

**Dr. Ganesh V Bhat**  
Principal, CEC

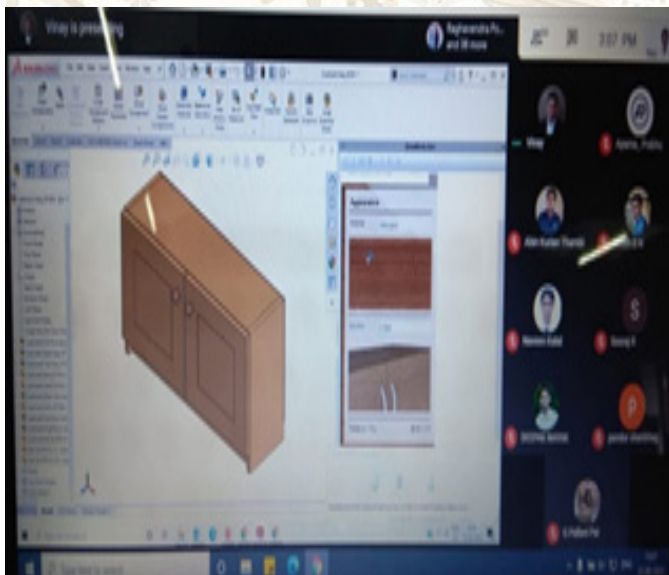
**Dr. B.Krishna Prabhu**  
HOD, Mech

**Mr. Satish S Nadig**  
Chief Coordinator

**Platform**  
Google Meet

## Webinar on Industry needs from Engineering Graduates.

Webinar by Mr. Vinay. S, Manager, Conceptia, a Multinational engineering and CAD & CAE consulting firm based in India was organized on 12-09-2020. He explained software tools are easy to learn, can able to deliver faster, efficient and cost-effective. Conceptia Konnect is an award-winning Authorized reseller for solidworks software used in the modelling, simulation, flow Simulation, Composer, plastics, electrical, product Data Management and DraftSight. 50 students participated in the webinar.



## Hands-on online FDP on introduction to PLC and automation

3 days FDP was organized from 31-07-2020 for faculties to understand the basics of PLC's and automation. Hands-on training taught for the faculty members by CODESYS software. A total of 25 participants actively participated in this FDP. PLC and related application in industries was also discussed. Chief Guest: Mr. Vinod Kumar B, Assistant Professor, Dept of E&E, CEC. President: Dr. Ganesh V. Bhat, Principal CEC. Convener: Dr. B. Krishna Prabhu, HOD Mechanical Engineering were also present. Resource Persons Mr. Naveen A Kalal, Mr. Srinivas Shenoy, Mr. Sandeep S, Mr. Vinod Kumar M V of mechanical department trained faculties on different modules of PLC. 25 faculties participated and gained knowledge on PLC's and automation.



## CANARA ENGINEERING COLLEGE

DEPARTMENT OF MECHANICAL ENGINEERING  
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### 3 DAYS ONLINE, HANDS-ON FDP

on

### "Introduction to PLC & Automation"

a step towards Industry 3.0...

**Date**  
31<sup>st</sup> JULY to  
2<sup>nd</sup> AUGUST  
2020

**Time**  
2:00pm to  
3:00pm



Google Meet  
Platform



**Resource Persons:**

- 1) Mr. Naveen A Kalal
- 2) Mr. Srinivas Shenoy
- 3) Mr. Sandeep S
- 4) Mr. Vinod Kumar MV

Faculty, Department of Mechanical Engineering  
Canara Engineering College

**President**  
**Dr. Ganesh V Bhat**  
Principal

**Convener**  
**Dr. B. Krishna Prabhu**  
HOD, MECH

## Hands-on FDP on Introduction to Python Basics

One week of hands-on FDP was organized from 23-07-2020 to make faculty to understand the basics of Python and to have hands-on experience for the faculty members of CEC and other colleges across the globe. Resource Person Mr. Vayusutha M. Assistant Professor of E&CE, CEC Bantwal conducted a week-long session with hands on very interestingly. Faculty as well as industrialists, from India and abroad, were also joined in this FDP. A total of 147 participants actively participated in this FDP. FDP was inauguration by Mr. Vinayak Kamath, CEO Auto CNC, Ace Micromatic Group Bengaluru, Shri. M. Padmanabha Pai, Correspondent CEC were present. Dr. Ganesh V. Bhat, Principal CEC and Convener Dr. B. Krishna Prabhu, HOD Mechanical were also present in the webinar.

## Webinar on "Job opportunities for mechanical graduates in system application & products (SAP) in data processing"

The webinar was arranged on 28-11-2020 for the benefit of the students about Job opportunities in system application & products (SAP) in data processing. Resource persons Mr. Shivakumar H.S, Senior product manager, SAP labs India Pvt Ltd, Bengaluru Mr. Prakash Karkhihallimata, Senior product manager, SAP labs India Pvt Ltd, Bengaluru have explained about the openings in SAP modules that will fit mechanical engineers and to get into the SAP field. SAP has a wide area and data processing system in more than 100 countries. They also explained the process involved in the recruiting process.



**CANARA ENGINEERING COLLEGE**  
DEPARTMENT OF MECHANICAL ENGINEERING  
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**ONE WEEK ONLINE, HANDS-ON FDP**  
ON  
**Introduction to Python Basics**

**23rd to 29th JULY 2020**  
Time: 2:00pm to 3:00pm

Resource Person:  
**Prof. Vayusutha M**  
Department of ECE,  
Canara Engineering College.

Google Meet Platform  
python

Free Registration Link:  
<https://forms.gle/6r3bEcAnAjak2WG7>

**"Virtual inauguration on 23rd July 2020 at 2:00 pm"**

<b>Inauguration by</b> Sri M. Padmanaba Pai Correspondent, CEC	<b>President</b> Dr. Ganesh V Bhat Principal
<b>Chief guest and Keynote addressee</b> Mr. Vinayak Kamath CEO, AutoCNC, ACE Micromatic Group Bengaluru	<b>Convener</b> Dr. B. Krishna Prabhu HOD, MECH
<b>Special Invitee</b> Dr. Rajalaxmi Samaga, HOD, ECE	<b>Chief Coordinator</b> Dr. N. Sathesh Kumar Department of MECH



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**Job opportunities for mechanical graduates in system application & products (SAP) in data processing**

<b>SPEAKER</b>  <b>Mr. Shivakumar H.S.</b> Senior Product Manager, SAP Labs India Pvt Ltd, Bengaluru	<b>DATE: 28-11-2020</b> <b>TIME: 2 PM to 3 PM</b> Platform Google Meet	<b>COORDINATOR</b>  <b>Mr. Sandesh Kumar Rai</b> Asst. Professor, Mech. Engg.
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**You are cordially invited**

<b>Dr. Ganesh V Bhat</b> Principal, CEC	<b>Mr. Sunil Kumar BV</b> Chief Coordinator	<b>Dr. B. Krishna Prabhu</b> HOD, Mech. Engg.
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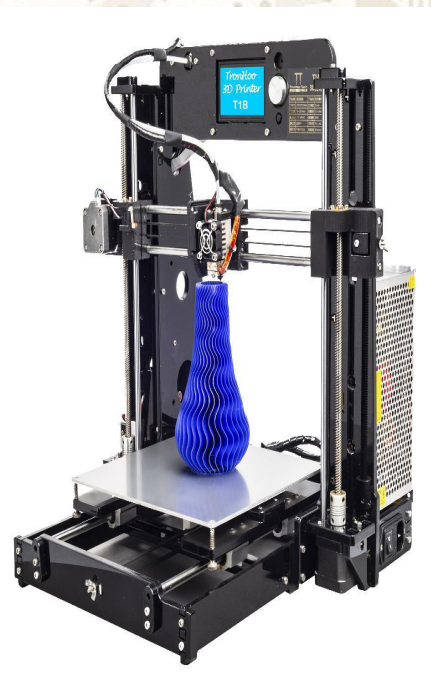
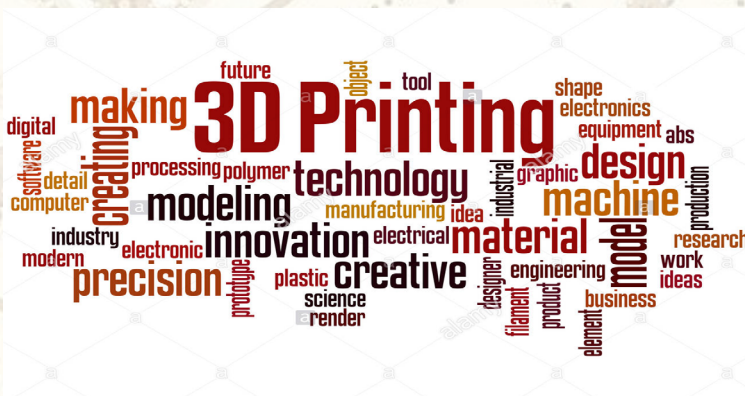
## FDP webinar on “Green Tribology and Sustainability Engineering”

One Week Online Faculty Development Programme Under AICTE Training and Learning (ATAL) Academy was organized from 22nd to 26th February 2021. Mr. Ajith Joshi was the convener for the FDP and 158 participants have participated from educational institutes.



## FDP webinar on “Advancements and Entrepreneurial Opportunities in Additive Manufacturing”

One Week Online Faculty Development Programme Under AICTE Training and Learning (ATAL) Academy was organized from 8th to 12th February 2021. Mr. Navin Kalal was the convener of the FDP. 122 faculties from educational institutes participated in it.



## FACULTY ACHIEVEMENTS:

- Mr. Vinod Kumar from the mechanical department nominated for National Innovation and start-up policy implementation
- Mr. Vinod Kumar visited MUTBI, Manipal Campus on 3rd Jan 2021 to discuss NISP implementation and Incubation support from MUTBI to CEC

## CONFERENCE, WORKSHOPS ATTENDED AND PAPER PRESENTED BY FACULTY

### Book Chapter Published

- **Ajith G. Joshi**, Assistant Professor, In Ed.: Nature-Inspired Optimization in Advanced Manufacturing Processes and Systems; ANN Modelling of Surface Roughness and Thrust Force During Drilling of Sic Filler Incorporated Glass/Epoxy Composites, Taylor & Francis (CRC Press), 2020

### Journal/Conference Papers

- **Ajith G. Joshi**, Assistant Professor, Investigation on Influence of SiCp on Three-Body Abrasive Wear Behaviour of Glass/Epoxy Composites, Frattura ed Integrità Strutturale, 2021 (article in press)

- **Ajith G. Joshi**, Assistant Professor, Wear Performance Optimization of SiC-Gr Reinforced Al Hybrid Metal Matrix Composites Using Integrated Regression-Antlion Algorithm, Silicon, 2020 (article in press)
- **Vasanth Kumar S.N.**, Characterization of Chemically Treated Limonia Acidissima (WoodApple) Shell Powder: Physicochemical, Thermal, and Morphological Properties, Journal of Natural Fibers, 2021 (article in press)
- **Ajith G. Joshi**, Assistant Professor, Experimental Investigation on Tool Wear in AISI H13 Die Steel Turning Using RSM and ANN Methods, Arabian Journal for Science and Engineering, March 2021, Vol. 46 (3), Page No.2311–2325
- **Vasanth Kumar S.N.**, Assistant Professor, Raw and chemically treated bio-waste filled (Limonia acidissima shell powder) vinyl ester composites: Physical, mechanical, moisture absorption properties, and microstructure analysis, Journal of Vinyl and Additives, Feb 2021, Vol. 27, Issue 1, Page No. 97-101
- **Sunil Kumar B.V.**, Assistant Professor, Experimental investigation on Mode-I fracture toughness of Carbon-Carbon composites fabricated by preformed yarn method, Materials Today: Proceedings, January 2021, Vol. Special Issue, Page No.1-5

- **Niranjan Rai**, Assistant Professor, Thermal performance enhancement of a helical coil- in -shell heat exchanger with circular finned turbulator and Alumina nanofluid- An experimental study and correlation development, International Journal of Enhanced Heat Transfer, January 2021, Vol. 31, Page No.33-62
- **Sandesh Kumar Rai**, Assistant Professor, Role of Zn in tuning the structural, morphological and optical properties of V<sub>2</sub>O<sub>5</sub> nanostructures deposited by spray pyrolysis, Materials Today: Proceedings, April 2021, Vol. 35, Part 3 <https://doi.org/10.1016/j.matpr.2020.03.028>, Page No. 469-473
- **Sunil Kumar B.V.** Assistant Professor, Experimental investigation on Mode-I fracture toughness of Carbon-Carbon composites fabricated by preformed yarn method, International Conference on Smart and Sustainable Developments in Materials, Manufacturing and Energy Engineering, Nitte, 22-12-2021 to 23-12-2021
- **Ajith G. Joshi**, Assistant Professor, Investigation on Slurry Erosion of Al<sub>2</sub>O<sub>3</sub> Incorporated Glass/Epoxy Composites, International Journal of Surface Science and Engineering, December 2020, Vol. 14 (4), Page No.257-273
- **Sandeep S**, Assistant Professor, A Review On Natural Fiber, National conference HE Recent Advances in Mechanical Engineering and Materials - RAMEM - 2020, East Point College of Engineering and Technology, 11-12-2020 to 12-12-2020
- **Dr. N. Venkatesh**, Associate Professor, IOT:A new tool for productivity improvement, International Conference on Advances in IOT, High Performance and Edge Computing (ICIHPE 2020), ICT Academy, 14-10-2020 to 17-10-2020
- **Niranjan Rai**, Assistant Professor, Thermal performance enhancement studies on a circular finned Coil-in-Shell heat exchanger using graphene oxide nanofluid, International Journal SN Applied Sciences, August 2020, Vol. 2, Page No.1613
- **Vasanth Kumar S.N.**, Assistant Professor, Synthesis of Limonia Acidissima (Wood Apple) Shell Micro and Nanoparticles via Top-Down Approach, the International research journal of engineering and technology (IRJET), June 2020, Vol. 7, Special Issue | June 2020, Page No. 273-279
- **Vasanth Kumar S.N.**, Synthesis of Limonia Acidissima (Wood Apple) Shell Micro and Nanoparticles via Top-Down Approach, International Conference on Recent Trends in Engineering and Technology, ATME, Mysore, 17-06-2020 to 18-06-2020
- **Niranjan Rai**, Assistant Professor, A modified correlation to predict heat transfer coefficient in a horizontal ‘coil in shell heat exchanger’ with circular fins using nanofluids, AIP Conference Proceedings, May 2020, Vol. 2236, Page No.030009-1-9

- **Sandesh Kumar Rai**, Effect of Mg on structural, morphological and optical properties of Mg-doped V2O5 nanostructures. Materials Today: Proceedings, February 2021(Article in press)
- **Naveen A. Kalal**, Assistant Professor, Fused Deposition Modeling, International Research Journal of Engineering and Technology (IRJET), March 2020, Vol. 07 Issue: 03, Page No. 2301-2305
- **Sunil Kumar B.V.**, Assistant Professor, Influence of cryogenic and corrosive environment on fracture toughness of aluminium 6082/h-30 alloy, Global Conference on Advanced Smart And Sustainable Technologies in Engineering, Mangalore Institute of Technology and Engineering, 30-01-2020 to 31-01-2020
- **Mr. Vinod Kumar**, Assistant professor, “Design and fabrication of extrusion machine for recycling plastics” published in IOP conference series: Material science and engineering.



## STUDENTS ACHIEVEMENTS IN NPTEL EXAMS

- 23 students of the department have taken NPTEL exam and cleared subjects successfully and 5 of them with an elite certificate.

