



MECHINFO

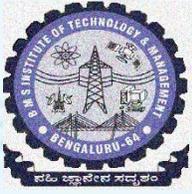


VOLUME-12 | ISSUE-01 | AUG-2021 TO FEB-2022

Biannual Department News letter



Biannual Department News letter



ಬಿಎಂಎಸ್ ತಾಂತ್ರಿಕ ಮತ್ತು ನಿರ್ವಹಣಾ ಮಹಾವಿದ್ಯಾಲಯ



BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Autonomous Institute, Affiliated to VTU

Accredited by NAAC with 'A' Grade, 7UG/PG Programmes accredited by NBA, NIRF Ranking
152. Platinum Category Institutes as per AICTE-CII Survey

DEPARTMENT OF MECHANICAL ENGINEERING

AVALAHALLI, DODDABALLAPURA MAIN ROAD

YELAHANKA, BENGALURU-560 064



For more information please visit: www.bmsit.ac.in

Phone Number: 080 - 2952 1171 / 6873 0444



Vision of the Department

To develop technically competent Mechanical Engineering professionals for the benefit of the



Mission of the Department

- Impart quality education in Mechanical Engineering and allied areas by state of the art infrastructure and dedicated faculty.
- Provide conducive environment for both students and faculty to pursue higher education & research and to work ethically for the benefit of society.

Program Educational Objectives (PEOs)

Graduates of the program will:

PEO-1: Be successful professionals in the field of Mechanical Engineering and allied areas.

PEO-2: Exhibit skills to work effectively and ethically in multiple domains of engineering as part of a team.

PEO-3: Excel in higher studies, research and adapt in a world of constantly developing technology.

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HODs Desk:

I am extremely happy to share with you about the progress, Department of Mechanical has made during the year 2020. The programme is affiliated to Visvesvaraya Technological University (VTU), Belagavi and approved by All India Council for Technical Education (AICTE). The UG programme is accredited by the National Board of Accreditation (NBA), New Delhi and also Permanently Affiliated to Visvesvaraya Technological University (VTU), Belagavi. The Post-Graduation in Machine Design was started during the academic year 2014-15 with an approved intake of 18 students. The Department is recognised as a Research Center by Visvesvaraya Technological University(VTU), Belagavi where the number of research scholars registered stands at 21. Department has 20 well qualified and dedicated faculty members with 10 faculty holding Doctoral Degree and 10 faculty pursuing their doctoral degree.



The Department is supported by 09 well trained Technical staff. Department of Mechanical Engineering is happy to inform that Mr. Arun D (1BY16ME010) has secured I Rank and 7 Gold medals in the Mechanical Engineering. He was topper among 14803 mechanical engineering graduated students under VTU Belagavi. The Department of Mechanical Engineering has state-of-the-art laboratories. These laboratories not only satisfy the curriculum requirements of the students very lucidly, but also provide additional facilities to enhance the practical knowledge. The Department has Memorandum of Understanding (MoU) with Industries, Research and Academic Institutes. Department of Mechanical Engineering has established a State-of-the-art Centre of Excellence in collaboration with M/s. Toyota Kirloskar Motor Pvt. Ltd., Bengaluru.

DEPARTMENT ADVISORY BOARD (DAB)



Faculty – Department of Mechanical Engineering**Dr.Mohan Babu G N**

Principal and Professor

**Dr.H.K Govinda Raju**

Vice Principal and Professor

**Dr.K.M Sathish Kumar**

Professor and Head

**Mr.Praveen Kumar T N**

Associate Professor

**Mr.O.Gurumurthy**

Assistant Professor

**Mr.Chandra Sekhara Reddy**

Assistant Professor

**Dr.Anantha Krishna**

Assistant Professor

**Dr.Shripad Diwakar**

Assistant Professor

**Mrs.S.Nithya Poornima**

Assistant Professor

**Mr. Sriganesh T G**

Assistant Professor

**Mr. Sundaresh S**

Assistant Professor

**Dr. Jagadeesh Y. J**

Assistant Professor

**Mr. Madhu M.C**

Assistant Professor

**Dr. Keerthi Kumar. N**

Assistant Professor

**Mr. Kiran M.D**

Assistant Professor

**Dr. Sangmesh B**

Assistant Professor

**Dr. Santosh Kumar**

Assistant Professor

**Dr. G. Avinash**

Assistant Professor

**Mrs. B. J. Tejaswini**

Assistant Professor

TECHNICAL STAFF – DEPARTMENT OF MECHANICAL ENGINEERING**Mr.P.K.Ramurthy**

Foreman

**Mr.Ananda.R**

Instructor

**Mr.R.Venkatesha**

Instructor

**Mr. Umashankar.S**

Assistant Instructor

**Mr.Srinivasa**

Assistant Instructor

**Mr.Abdul Razak**

Assistant Instructor

**Mr.Pradeep.C**

Mechanic

**Mr.Ashok.G.C**

Mechanic

**Mr.Srinivasa.K.A**

Mechanic



MoUs / Awards / Recognitions



Prof. Praveen Kumar T N and Team of students Vignesh N ,Samarth Sagar K, Rushil Praveen, Shivam Sundriyal Kartikay Awasthi filed a patent. Titled “A System for a Helmet with an Inflatable Air Bag” whose Application Number is 202141046205 and the date of Filing is 11th October 2021.

Mr Madhu M C, Assistant Professor, Department of Mechanical Engineering was elected as Executive Committee(EC) member for INSTITUTE OF STANDARDS ENGINEERS , BENGALURU SECTION.



Dr. Keerthi Kumar N, Assistant Professor, Received financial assistance of Rs. 5,000/- from VTU, Belagavi, for the final year project titled “Design and fabrication of shredding cum composting machine” on 25th November 2021.

Dr. Keerthi Kumar N, Assistant Professor, has been honoured on occasion of 11th Prathibothasava for the successful completion of Ph.D from “Karnataka Arya Vysya Mahasabha”, Bangalore on 26th December 2021

Mr. O. Gurumurthy, Assistant Professor, has completed his final PhD viva-voce examination at our research centre on 30th December 2021.



Journal Publications



Dr. Keerthi Kumar N, Assistant Professor, has published paper in Energies Journal of MDPI (Scopus and SCIE indexed), title: **“Effect of Parameters Behavior of Simarouba Methyl Ester Operated Diesel Engine”** on 13 th Aug 2021. Details: Energies 2021, 14(16), 4973; <https://doi.org/10.3390/en14164973>.

Dr. Shripad Diwakar, Assistant Professor, has published a research paper entitled **“Performance and emission level studies of Simarouba glauca biodiesel as an alternative fuel for diesel engine”** in International Journal of Advance Research, Ideas and Innovations in Technology (IJARIIT), Vol-7, Issue-4, August 2021, pp 1675-1680 (A T&R Indexed Journal).



Prof. Sundaresh S, Assistant Professor, has published appear in GIS SCIENCE JOURNAL, titled **“Synthesis of Simarouba and Black Seed oil blended Biodiesel and Investigation of its Performance and Emission Characteristics on CI Engine”**, Volume -8, Issue -8, 2021, ISSN 1869-9391, August 2021.

Prof. Sundaresh S, Assistant Professor, has published a paper in GIS SCIENCE JOURNAL, titled **“Chassis Design of Simple Battle Tank”**, Volume -8, Issue -8, 2021, ISSN 1869-9391, August 2021.

Prof. Sundaresh S, Assistant Professor, has published a paper in GIS SCIENCE JOURNAL, titled **“Design and Analysis of E-Bicycle Wheel converted from normal cycle”**, Volume -8, Issue -8, 2021, ISSN 1869-9391, August 2021.



Prof. K Chandra Sekhara Reddy, Assistant Professor, has published a paper in GIS SCIENCE JOURNAL, titled “**Synthesis of Simarouba and Black Seed oil blended Biodiesel and Investigation of its Performance and Emission Characteristics on CI Engine**”, Volume -8, Issue -8, 2021, ISSN 1869-9391, August 2021.

Prof K Chandra Sekhara Reddy, Assistant Professor, has published a paper in GIS SCIENCE JOURNAL, titled “**Chassis Design of Simple Battle Tank**”, Volume -8, Issue -8, 2021, ISSN 1869-9391, August 2021.

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Dr. H K Govindaraju and Prof. Kiran M D Department of Mechanical Engineering has published a paper in Journal of Failure Analysis and Prevention, Springer, titled “**Fracture Analysis and Tensile properties of Equal Channel Angular Pressed Al-Zn Alloy for the Industrial Application**”, <https://doi.org/10.1007/s11668-021-01235-2>, August 2021.

Dr. Shripad Diwakar, Assistant Professor, Department of Mechanical Engineering, published a research paper entitled “**Pyrolysis process to produce fuel from waste plastics**” in GIS Science Journal (Scopus Indexed), Volume 8, Issue 9, September 2021, pp 1204 – 1208.

Prof S.Nithya Poornima, Assistant Professor, Department of Mechanical Engineering, published a research paper entitled “**Quality check of Food Grains using Gas Sensors**” in GIS Science Journal (Scopus Indexed), Volume 8, Issue 10, October 2021, whose paper Id is GSj- 5435.

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering has published paper in materials today proceedings, title “**Dairy scum methyl ester production and its performance testing on a CI engine at different compression ratios**” on 9th Oct 2021, <https://doi.org/10.1016/j.matpr.2021.09.155>.

Dr. Shripad Diwakar, Assistant Professor, Department of Mechanical Engineering published a research paper entitled “**Studies on Simarouba glauca biodiesel as an alternative fuel for diesel engine**” in Pollution Research Journal (Scopus Indexed Journal) , Vol-40, Issue-4, December 2021, pp 1354-1357

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering has published paper titled “**Effect of Graphene Nanoparticles on Engine Operated using Simarouba**” on 31st Dec 2021, in Journal of Mines Metals and Fuels, Vol. 69, No.12A, ISSN : 002-2755,

PAPER PRESENTATION IN CONFERENCE

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering has presented paper titled, “**Influence of Nanofluid on Solar Flat Plate Collectors**” in 7th International Conference on Recent Trends in Engineering & Technology (ICRTET 2021)-Virtual Conference, organized by SNJB's K B Jain College of Engineering, Chandwad, Maharashtra in association with IFERP on 16th November 2021.

REVIEWER



Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering has reviewed paper for journal “Pollution”, titled “**Impact of Cobalt Oxide Nanoparticles Dispersed in Water in Diesel Emulsion in Reduction of Diesel Engine Exhaust Pollutants**”, Manuscript ID: POLL-202109-1198 on 29/09/2021.

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering has reviewed paper for journal “Advances in Technology Innovation”, titled “**Condition Based Maintenance Prediction Incorporating Availability as A Function of Vibration: An Experimental Study on Class-I Machine**”, on 08th October 2021.

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering has reviewed paper for journal “Advances in Technology Innovation”, titled “**Effects of the vibration amplitude in vibratory stress relief on the fatigue life of structures**”, on 09th November 2021.

Dr. Nagamadhu, Assistant Professor, Department of Mechanical Engineering has reviewed paper for MDPI Forests, Scopus, SCIE, WOS, Impact factor: 2.634, Q1, SJR 0.676 and Advances in Materials and Processing Technologies, Scopus, ESCI, Impact factor: 0.79, Q3, SJR 0.27.

EXPERT TALK

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering Organized talk from Mr. Mark Brandon, Career Coach from Career Labs Bangalore, Powered by BYJU'S on "Carrier Guidance and Profile Building" for V semester ME students on 28th November 2021. from 2:30pm to 4:30pm, 26 students from V Sem Mechanical Engineering Department have been attended the program.

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering Organized design contest prize distribution and Tech talk programme form Auto Desk, Bangalore, for 7th and 5th semester ME students on 12th November 2021 from 11:50am to 1:30pm, 76 students from Mechanical Engineering Department have been attended the program.

A Guest Lecture/Webinar has been organized for Mechanical Engineering Students entitled Career opportunities for Mechanical Engineering in Computer Aided Engineering by Mr. Rajesh Deshilinge Gowda, Founder Director-Technical/Operations M/s Copes Tech India Private Limited, Bengaluru on 22nd February 2022

BOOK CHAPTER PUBLICATION

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering has published book chapter titled “**Optimization of Vibration-Based Condition Monitoring of Motor Drive End Using Taguchi Technique: A Case Study on Milling Machine**” in Proceedings of Fourth International Conference on Inventive Material Science Applications, ICIMA 2021, Advances in Sustainability Science and Technology, Springer, DOI: 10.1007/978-981-16-4321-7_17, ISBN: 978-981-16-4321-7 , pp 187- 193 on 20th Oct 2021.

WEBINAR

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering has participated in the webinar on “Latex on Research” conducted on 21st Aug 2021, organized by department of Computer Science & Engineering, School of Engineering, Presidency University, Bangalore.

Faculty as a Resource Person

Prof. Praveen Kumar T N, Associate Professor, Department of Mechanical Engineering and Chief Co-ordinator, Intellectual Property (IP) Cell, BMSIT& M was invited as a resource person for the Seminar on “Intellectual Property Rights for Architect: Patents and Industrial Design for faculty members of BMS School of Architecture, Bengaluru Organised by on 27th August 2021.

Prof. Sundaresh S, Assistant Professor, Department of Mechanical Engineering attended five days Online Faculty Development Program (ATAL) on “Novel Applications of Waste Technology Systems for Sustainable future & quot; from 02/08/2021 to 06/08/2021 at M S Ramaiah Institute of Technology, Bengaluru

Prof. Kiran M D, Assistant Professor, Department of Mechanical Engineering attended five days STTP on “**Advanced Research in Nanomaterials and Nanocomposites**” from 20th Sep 2021 to 25th Sep 2021 at PESITM Shivamogga.

Prof. Sundaresh S, Assistant Professor, Department of Mechanical Engineering attended has attended two weeks (40 hours) online Faculty Development Programme on “**MATLAB Programming for Additive Manufacturing and 3D Printing (MPAM)**” jointly organized by the Electronics and ICT Academies at IIT Guwahati, MNIT Jaipur, NIT Patna and PDPM IIITDM Jabalpur during September 20 to October 1, 2021 under the “**Scheme of financial assistance for setting up of Electronics and ICT Academies**” of the Ministry of Electronics and Information Technology (MeitY), Government of India. The programme is recognized by AICTE/UGC.

Dr. Keerthi Kumar N, Assistant Professor, Department of Mechanical Engineering has attended AICTE-ISTE sponsored Virtual Faculty Development Programme on “**Thermoelectric Materials and Applications for Energy Harvesting and power generation**” from 21st to 27th Dec 2021 organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University, Kakryal, Katra-182 320 (Jammu and Kashmir).

Mr. K Chandra Sekhara Reddy, Assistant Professor, Department of Mechanical Engineering has attended AICTE-ISTE sponsored Virtual Faculty Development Programme on “**Thermoelectric Materials and Applications for Energy Harvesting and power generation**” from 21st to 27th Dec 2021 organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University, Kakryal, Katra-182 320 (Jammu and Kashmir).

Prof S.Nithya Poornima, Assistant Professor, Department of Mechanical Engineering has successfully completed one week FDP on Sustainable Product Design and Manufacturing organized by Faculty Development Centre (FDC)-SMVDU under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MOE, GOI, Shri Mata Vaishno Devi University, Katra, Jammu in Collaboration with School of Mechanical Engineering. during January 10-14, 2022

AERO CLUB ACTIVITY

The Aero club conducted a 2 day drone building and flying workshop on 29th and 30th September 2021. Around 30 students participated in the program. The students assembled the parts from the drone kits. The first day morning session included the theory session and later on the drone building started. The next day the drones were flown in the open area in our college. The students were benefitted with the practical knowledge of flight dynamics and drone building and flying. Mr. Sri prasad, Aditya A and Akin were amongst the core members in the student group to train the students of all branches and semesters. Mr. Madhu M.C, Faculty coordinator, coordinated the event



Drone building and flying workshop

INDUSTRY INTERNSHIP

Dr. Keerthi Kumar N, Assistant Professor, has completed 10 days internship from 22nd to 31st Aug 2021 at DigiPix Technology, Yelahanka, Bangalore.

Prof S.Nithya Poornima, Assistant Professor, has completed 10 days internship from 16th to 28th Aug 2021 at Vignesh Vidyuth Controls Bangalore.

Prof Kiran M D, Assistant Professor, has completed 10 days internship from 24th Aug to 3rd Sep 2021 at Micro Mac Engineering, Bangalore.

Prof. Tejaswini B J, Assistant Professor, attended a Ten Days Internship on “Company and Taxation Laws” at Rao & Emmar, Bangalore from 24th August to 3rd September 2021.

Prof K Chandra Sekhara Reddy, Assistant Professor, attended a Ten days Internship at "Unique polymer products", Bengaluru from 24th August to 2nd September 2021

Prof S.Nithya Poornima, Assistant Professor, successfully completed UdeMy course on “An Entire MBA in 1 course: Award winning Business School Prof” on 27th December 2021.

ONLINE COURSE

Prof. Tejaswini B J, Assistant Professor, has successfully completed Lawctopus Law School's online course on 'Legal Research and Writing' conducted from 5th July to 30th August 2021.

Dr. Shripad Diwakar, Assistant Professor, successfully completed NPTEL – Annual Refresher Training Programme in Teaching (ARPIT) - 2021 course “Pedagogical Innovations and Research Methodology” with the score 77/100.

Prof K Chandra Sekhara Reddy, Assistant Professor, completed the course titled ”**Pedagogical Innovations and Research Methodology (Interdisciplinary)**” on SWAYAM for ARPIT2020

Prof B.J Tejaswini , Assistant Professor, completed the course titled ”**Pedagogical Innovations And Research Methodology (Interdisciplinary)** ” on SWAYAM for ARPIT2020

Dr. Shripad Diwakar, Assistant Professor, successfully completed NPTEL online certification course in “**Development Research Methods**” with ELITE grade.

Dr. Ravichandra.K.R Assistant Professor, successfully completed Coursera online certification course on Getting started with Python during 15th November 2021.

Prof S.Nithya Poornima, Assistant Professor, successfully completed Udemey course on “**The Communication Skills and Social Intelligence Masterclass**” on 11th November 2021.

DEPARTMENT COCURRICULAR ACTIVITIES



Mrs. S. Nithya Poornima, Assistant Professor, has organised think pair and share activity for the 5th sem students on Decision Analysis on 2nd November 2021. This activity enabled the students to assess the issue on current trends (PO12) and to improve their communication skills (PO10).

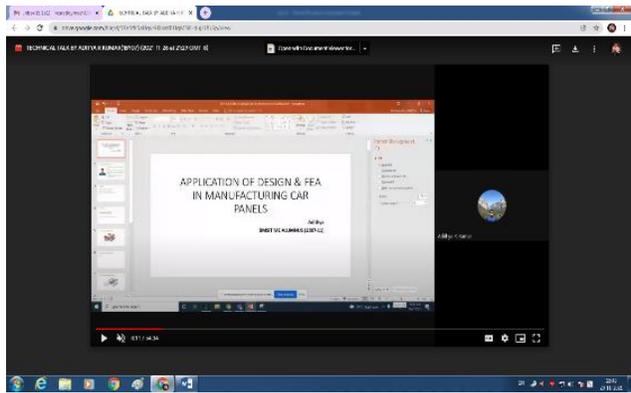
Prof S.Nithya Poornima, Assistant Professor, organised a poster presentation for the VII Semester students for the course Mechatronics (18ME744) on 27th December 2021. This activity enabled the students to work in groups (PO11) and to improve their communication skills (PO10)



ALUMNI TALK 2021-22

Mr Aditya R Kumar, alumnus of Mechanical Engineering Department of 2007 batch, has given a Technical talk on “**Application of Design and Finite Element Analysis in Manufacturing Car Panels**” for 7th, Semester ME on 27th November 2021. This event was coordinated by Prof K.C.S Reddy, Assistant Professor, Department of Mechanical Engineering

Youtubelink: <https://youtu.be/5R85gLvbj0M>



PLACEMENT ACTIVITY

Department of Mechanical Engineering organized a mock interview for the VII semester students by Alumni namely Mr Abdul N Sawad (1BY14), Mr Deepak Narayan(1BY14) and Ashish Ramesh(1BY14) to improve the employability skills from 27th November 2021 to 28th November 2021 in online mode using Google meet.

MULTIROTOR DRONE WORKSHOP

The Club conducted a Multirotor drone fabrication workshop for all its members on 3rd Jan 2020. The participants got hands-on experience. The workshop also highlighted the aerodynamics behind the flight of a drone.





INDEPENDENCE DAY AIRSHOW

Aero Club BMSIT&M conducted an airshow on 15th August, 2021. In the airshow, the core team members did a flypast of three drones, one carrying the national flag of India.





INNOVATIONS BY THE FACULTY IN TEACHING AND LEARNING





Vision of the Institute

To emerge as one of the finest technical institutions of higher learning to develop engineering professionals who are technically competent, ethical and environment friendly for betterment of the society.



Mission of the Institute

Accomplish stimulating learning environment through high quality academic instruction, innovation and industry - institution interface.



BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT

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