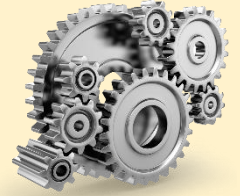




NEWS LINKS



March 2023 | Volume 5 | Issue 1

A BI-ANNUAL E-NEWSLETTER OF THE DEPARTMENT OF MECHANICAL & INDUSTRIAL ENGINEERING,
MANIPAL INSTITUTE OF TECHNOLOGY, MANIPAL ACADEMY OF HIGHER EDUCATION, MANIPAL

MESSAGE FROM HEAD OF THE DEPARTMENT



Wishing all the readers a very happy and prosperous New Year 2023. I am delighted to present to you the current issue of 'Newslinks' showcasing the important happenings of the Dept. of Mechanical & Industrial. Engg. in the second half of 2022. Academic normalcy has definitely been restored at MIT after a gap of almost three years. The 2022-23 odd semester was abuzz with many activities like Orientation Programs, Techtatva, Annual Day Celebrations, NBA Expert Team Visit, Convocation, Alumni Reunion etc. On this occasion I am happy to inform you that we have successfully facilitated the assessment by expert team from National Board of Accreditation in the month of November and B. Tech. - Mechanical Engg. program of the department has received 3 years' extension of accreditation from NBA. My sincere appreciation and gratitude to all the faculty members, students and alumni who have toiled to achieve this feat and look forward to their continual support in all our future endeavours. Wishing all the students and faculty members a fruitful semester ahead.

Dr Sathya Shankara Sharma

DEPARTMENT NEWS

- **3rd International Conference on Maintenance and Intelligent Asset Management (ICMIAM-2022)**



The 3rd International Conference on Maintenance and Intelligent Asset Management (ICMIAM-2022) was jointly organized by the Department of Mechanical and Industrial Engineering, Manipal Institute of Technology (MAHE) Manipal, Institute of Rural Management Anand (IRMA), Gujarat, Federation University, Australia and Asset Management Council, Australia from 12th to 15th December 2022 at the IRMA campus Anand. **Dr. Anne Gibbs**, CEO, Asset Management Council, Australia, was the Chief Guest during the inauguration of the conference. **Lt Gen (Dr) M D Venkatesh**, Vice Chancellor, MAHE and **Prof. Duncan Bentley**, Vice-Chancellor and President, Federation University Australia gave their video message's during the inaugural ceremony.

EDITORIAL BOARD

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DEPARTMENT NEWS

There were invited talks by **Dr. Sanjeev Kumar Patjoshi**, IPS, Joint Secretary, Ministry of Panchayat Raj who did the presentation on Digital Governance and Public Service: Role of PSUs, **Dr. Kiran Amin**, Chair, IEEE Gujarat Section, Deputy Pro Vice-Chancellor, Ganpat University, **Dr. Syed Islam**, Deputy Vice Chancellor (Research), Federation University, Australia, **Mr. Umakanthan Anand**, Head – Reliability, Static Equipment at Reliance Industries Limited and **Mr. Vilas Vishnu Shinde**, Chairman and Managing Director, Sahyadri Farms Post Harvest Care Limited.

Keynote lectures were presented by **Prof. Uday Kumar** and **Col. Aditya Parida** from Lulea Technological University, Sweden, **Dr. Gopinath Chattopadhyay**, Post Graduate Program Coordinator, Federation University, Australia, **Dr. Raghuvir Pai**, Professor, Dept. of Mechanical & Industrial Engg., MIT Manipal, **Prof. Khanindra Pathak**, Dean, Infrastructure, Indian Institute of Technology, Kharagpur and **Prof. Rakesh Mishra**, University of Huddersfield, UK

A total of 69 papers were presented in 10 parallel sessions in the areas of Reliability, Availability and Maintainability (RAM) and Maintenance, Asset Management and Systems, Safety Engineering and Analytics (SEA), Socio Economic Assets & SDG, Digital Assets Governance and SDG's and Rural Infrastructure, Services, & SDG's. Delegates from India, Australia, New Zealand, Spain, Mexico, South Africa, and USA attended the conference. The papers have been selected based on a review process and will be published in IEEE Explore proceedings.

This event was possible due to joint collaboration with the various institutions and Federation University, Australia with expertise from Asset Management Council, Australia, especially **Dr. Anne Gibbs**, **Dr. Dave Daines**, **Prof. H K Misra** Chair of ICMIAM2022, **Dr. Gopinath Chattopadhyay**, Joint Chair, Federation University, Australia. and **Dr. Raghuvir Pai** Joint Chair & Professor of Mechanical & Industrial Engg., MIT Manipal.

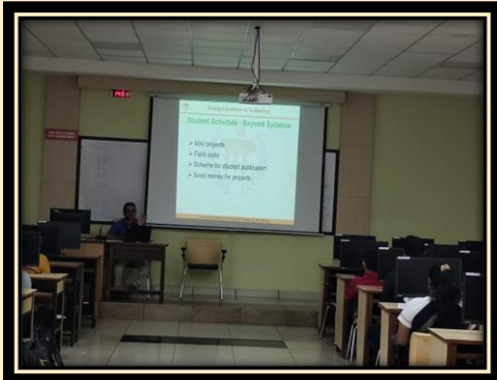
• Dept. Familiarization Programme for 1st Sem. B.Tech. Students

Dept. of Mechanical & Industrial Engg. organized an “Department Familiarization Programme” for 1st year B. Tech. students belonging to Mechanical Engg. & Industrial Engg. streams on Saturday, 3rd September, 2022. The total strength of around 300 students were divided into 4 batches and parallel lecture sessions were conducted for two batches and parallel visit to institute facilities were held for remaining two batches in the morning between 9.30 to 12 noon. The same set of activities were swapped in the afternoon session between 2.30 to 5pm. The following items were covered during the lecture session

1. Dept. Introduction- By HOD, **Dr. S.S. Sharma**
2. Importance of Research in Undergraduate Education- By **Dr. Raghuvir Pai B.** & **Dr. Vishwanath Managuli**
3. Introduction to Different Streams of Mechanical & Industrial Engg. - By a team of Senior Professors from the department.
4. Address by club representatives of ASME, IE(Mech.) and Research Society of MIT - By respective student representatives.



DEPARTMENT NEWS



*Dept. Introduction by
Dr. S. S. Sharma, HOD*



*Importance of research by
Dr. Raghuvir Pai B.*



Address by student club representatives



Visit to facilities

For field visit students were taken around the institute and were shown the 5 academic blocks, Physics & Chemistry Labs, Graphics Lab, PSUC Lab, Central Workshop, Library and other facilities of the institute. The students well appreciated the day long familiarization programme.

APPRECIATION OF SERVICE



Dr. N.S. Mohan

(09/08/1988 - 30/11/2022)

Dr. N.S. Mohan, Professor, retired on 30-11-2022 after serving the department for more than 34 years. He is a doctorate in Composite Materials from Manipal Academy of Higher Education. His research interests are in the areas of Composites, Material Manufacturing, Machining and Processing, Recycled Materials and Renewable Energy Systems. He has guided one Ph D student and presently guiding one more in the area of Composite Materials. He has published several research articles in prestigious journals and national & international conferences. He is a reviewer for several journals and a member of several professional bodies. Presently he is the Editor-in-Chief of "Journal of Computers, Mechanical & Management".



Dr. Ramadev Herle, Associate Professor (Senior scale) retired on 30-11-2022 after serving the department for more than 35 years. He is a doctorate in Corrosion Engg. from Manipal Academy of Higher Education. His research interests are in the areas of Manufacturing Engineering, Materials Engineering and Corrosion Engineering. He has several publications to his credit in reputed scopus indexed journals and conferences. He is a life member of IE- Mechanical and Indian Society for Technical Education.



Dr. Ramadev Herle

(18/03/1987 - 30/11/2022)



Mr. Pramod Mallar, Assistant Professor (Senior Scale) resigned on 21-07-2022 after serving the department for nearly 11 years. Mr. Mallar made significant contributions to the department as a key member of the NBA committee, developing teaching aids, coordinating with MAHE finance during organization of different conferences and workshops, faculty mapping for AMS and later SLCM, to name a few. Apart from all these he was a passionate teacher and most importantly a wonderful human being who always cared for the students. His passion for his work and his dedication to the department have been an inspiration to many. The department is grateful to him for his contributions and wishes him all the best in his future endeavours.

Mr. Pramod Mallar

(05/08/2011 - 21/07/2022)

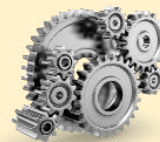
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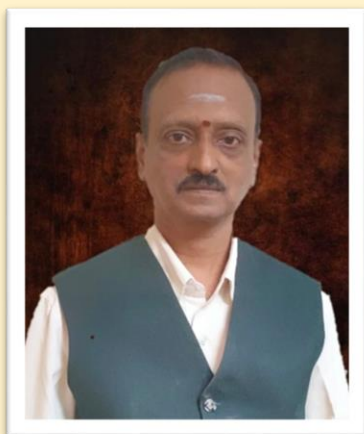
Prof. B. Ramesh Pai

(01/11/1931 - 05/08/2022)

Prof. B Ramesh Pai, one of the founding teachers of MIT and the Dept. of Mechanical & Industrial Engg. expired on 5th August, 2022 after a brief illness. Prof. B. Ramesh Pai had joined the Department of Mechanical Engineering, MIT, Manipal as a lecturer on 2nd Dec 1957 and served the department in various capacities for a period of about 40 years and retired on 31st May 1997. He has served as the Head of the Department from 1981 till 1985.



Prof. Pai was instrumental in establishing Heat Engines, Metrology and Fluid Mechanics Laboratories of the department. Prior to setting up these labs he used to accompany the students for conducting the lab sessions to B. V. B. College of Engineering and Technology, Hubli. He has handled almost all the subjects related to Mechanical Engineering. After establishing the labs, he had taken keen interest in upgrading the equipment's and facilities in a phased manner. He had attended several quality improvement programs organized by IIT's and other premier institutes. Throughout his association with MIT, he had extensively contributed to the development of the department. Prof. Pai was a distinguished teacher, a fountainhead of knowledge, a man with great vision and compassion who has offered immense and valuable contributions to the Institute. He is survived by 5 children, 3 sons, and 2 daughters. His eldest son, Dr. Raghuvir Pai, former HOD of the department, former director of MIT, ICAS, Dubai Campus and former Research Directorate of MAHE is currently serving as Professor in the Dept. of Mech. & Industrial Engg. The department deeply mourns the sad demise of Prof. B. Ramesh Pai and prays Sadgati for the departed soul.



Shri S. Narayanan
(16/11/1965 - 19/07/2022)

Shri S. Narayanan, who had retired as Assistant Professor (Senior scale), expired on 19th July, 2022 after a brief illness. He had joined MIT as a Lecturer in the Department of Mechanical & Industrial Engineering on 17 September 2007 and has served the department for a period of 14 years before opting for voluntary retirement on 30th November, 2021. Shri Narayanan has handled many subjects and labs relating to Manufacturing Technology and took active part in many departmental activities during his association with the institute. He was a friendly, soft spoken and a helpful individual always dedicated to his profession. Shri Narayanan has left a lasting impression in the minds of not only the faculty members and non-teaching staff of the department but also with many of his associates in the institute. The department deeply mourns the sad demise of Shri S. Narayanan and prays Sadgati for the departed soul.

Mr. Vemula Sudarshan Chowdary, a student of 5th semester B.Tech. Mechanical Engineering expired on 11th October, 2022 after meeting with a tragic road accident in Manipal. His parents **Vemula Alekha Prasad** and **Vemula Mahima Devi**, decided to donate his organs to three needy patients. Accordingly, his liver, lungs & one kidney were sent to hospitals in Mangaluru and Bengaluru. The other kidney, corneas and skin were retained by Kasturba Hospital in Manipal for the registered patients. The Department appreciates the noble deed of Sudarshan's parents and prays Sadgati for the departed soul and implores God's blessings on his parents to bear the irreparable loss.

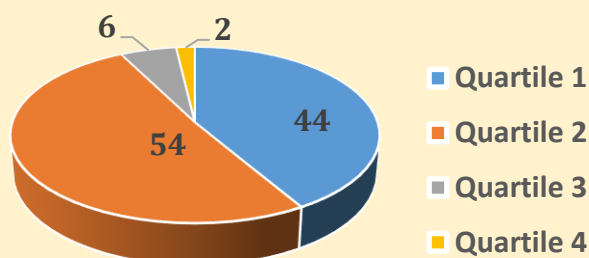


**Mr. Vemula Sudarshan
Chowdary**
(06/02/2003 - 11/10/2022)

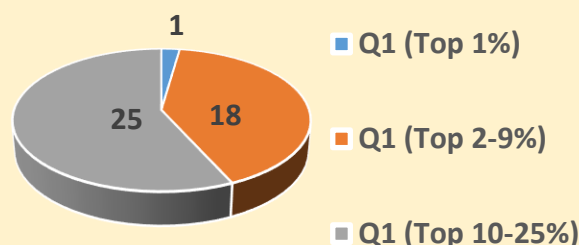


FACULTY ACHIEVEMENTS

Journal Publications



Breakup of Q1 Journals



- Publications:** Faculty members of the department have published 106 research articles in Web of Science/Scopus indexed journals and 17 papers have been presented in various international/national conferences held during July to December, 2022.
- High Impact Factor/ Cite Score Publications:**

 - Dr. Arunachala U. C**, Professor along with **Ms. Malavika Agarwal**, B.Tech. Mechanical Engg. graduate from the class of 2022 and **Mr. K. Varun**, research scholar has co-authored a research paper titled “Sustainable passive cooling strategy for photovoltaic module using burlap fabric-gravity assisted flow: A comparative Energy, exergy, economic, and enviro-economic analysis” published in “Applied Energy” Vol. 326, 120036 (Q1-99%) in November 2022 having an Impact Factor of **11.446** and Cite score of **20.4**.
 - Dr. Arunachala U. C**, Professor along with **Mr. K. Varun**, research scholar and **Dr. Vijayan P.K.**, Professor, IIT, Jammu has co-authored a research paper titled “Sustainable mechanism to popularise round the clock indoor solar cooking – Part I: global status” published in “Journal of Energy Storage”, Vol. 54, 105361 Q1(Top 10-24) in October, 2022 having an Impact Factor of **8.907** and Cite score of **8.4**.
 - Dr. Dinesha P.**, Associate Professor along with **Dr. Sooraj Mohan**, PhD graduate, has co-authored a research paper titled “Performance and emissions of biodiesel engine with hydrogen peroxide emulsification and cerium oxide (CeO₂) nanoparticle additives” published in “Fuel”, Vol.319, 123872, (Q1, Top 2-9) in July 2022 having an Impact Factor of **8.035** and a Cite Score of **11.2**.
 - Dr. Ritesh Ramakrishna Bhat**, Assistant Professor (Senior Scale) has published a research paper titled “Multiparametric optimization of wired electrical discharge machining process to minimize damage cause in steel - a soft computing based Taguchi grey relation analysis approach” in “Engineered Science”, Vol. 20, 267-274, Q1(Top 2-9) in December, 2022 having a Cite Score of **16.6**.
 - Dr. N. S. Mohan**, Retired Professor has published a research paper titled “Statistical evaluation of machining parameters in drilling of glass laminate aluminium reinforced epoxy composites using machine learning model.” in “Engineered Science”, Vol. 20, 244-251, Q1(Top 2-9) in December, 2022 having a Cite Score of **16.6**.



- **Dr. Dinesh P.**, Associate Professor, **Mr. Augustine B. V. Barboza**, Associate Professor (Senior Scale) and **Dr. Sooraj Mohan**, PhD Graduate have co-authored a research paper titled “On reducing the emissions of CO, HC, and NO_x from gasoline blended with hydrogen peroxide and ethanol: optimization study aided with ANNPSO” published in “Environmental Pollution” Vol. 310, 119866, Q1(Top 2-9) in October, 2022 having an Impact Factor of **9.988** and a Cite Score of **12.7**.
- **Mr. Nithesh Naik**, Assistant Professor (Senior Scale) has published a research paper titled “Magneto resistive and piezo resistive polyaniline nano arrays in-situ polymerized surrounding magnetic graphene aerogel” in “Advanced Composites and Hybrid Materials”, Vol. 5, Issue 2(Q1, Top 2-9) in July 2022 having an Impact Factor of **11.806** and a Cite Score of **8.8**.
- **Mr. Nithesh Naik**, Assistant Professor (Senior Scale) has published a research paper titled “Overview of MXene and conducting polymer matrix composites for electromagnetic wave absorption” in “Advanced Composites and Hybrid Materials”, Vol. 5, Issue 2(Q1, Top 2-9) in July 2022 having an Impact Factor of **11.806** and a Cite Score of **8.8**.
- **Mr. Harishkumar Kamat**, Assistant Professor (Senior Scale) has published a research paper titled “Two way fluid structure interaction analysis of single pad externally adjustable fluid film bearing” in “Engineered Science”, Vol. 20, 352-363, Q1(Top 2-9) in December, 2022 having a Cite Score of **16.6**.
- **Dr. Dinesha P.**, Associate Professor along with **Dr. Sooraj Mohan**, PhD graduate, has co-authored a research paper titled “ANNPSO aided selection of hydrocarbons as working fluid for low temperature organic Rankine cycle and thermodynamic evaluation of optimal working fluid” published in “Energy”, Vol.259, 124968, (Q1, Top 2-9) in November 2022 having an Impact Factor of **8.857** and a Cite Score of **13.4**.
- **Dr. Suhas Y. Nayak**, Assistant Professor (Senior Scale) has published a research paper titled “Experimental investigation into mechanical properties of coconut shell powder modified epoxy/3D E glass composites” in “Engineered Science”, Vol. 20, 306-320, Q1(Top 2-9) in December, 2022 having a Cite Score of **16.6**.
- **Dr. Shah Mohammed Abdul Khader**, Associate Professor (Senior Scale) has published a research paper titled “Investigating the effect of a single peristalsis wave on unobstructed ureter using a computational technique” in “Engineered Science”, Vol. 20, 330-340, Q1(Top 2-9) in December, 2022 having a Cite Score of **16.6**.
- **Dr. Shivamurthy B.**, Associate Professor (Senior Scale), **Mr. Nithesh Naik**, Assistant Professor (Senior Scale) and **Mr. Aman Gupta**, B.Tech. (Mechanical Engg.) graduate from the class of 2020 have co-authored a research paper titled “A review on processing methods and characterization techniques of green composites” in “Engineered Science”, Vol. 20, 80-99, Q1(Top 2-9) in December, 2022 having a Cite Score of **16.6**.



- **Patent Awarded:**

- **Dr. Vishwanath Managuli**, Assistant Professor (Sl. Grade) along with other inventors from different institutes across India have been awarded patent for their invention titled ***“Sheer And Compression Tester Tool For Soft Materials”*** by the Office of the Controller General of Patents, Designs & Trade Marks, The Patent Office, Government of India in December, 2022.

- **Patent Published:**

- The patent filed by **Dr. G. Divya Deepak**, Assistant Professor (Sl. Grade) titled ***“Double Ring Electrode Based Plasma Jet System”*** (Application No. 202241055752) has been published by the Office of the Controller General of Patents, Designs & Trade Marks, The Patent Office, Government of India in October, 2022.

- **Patent Filed:**

- **Dr. Raghuvir Pai B.**, Professor along with **Dr. Ramesh S Ve**, from MCHP, Manipal, **Dr. Manali Hazarika** from Dept. of Ophthalmology, KMC, Manipal, **Dr. Shah Mohammed Abdul Khader**, Associate Professor, **Dr. Girish H.**, Assistant Professor, **Dr. Meenatchi Sundaram**, Associate Professor (Senior Scale), Dept. Instrumentation & Control Engg., **Mr. Rakshath Poojary**, JRF, Dept. of Mech. & Indl. Engg., **Mr. Abhilash H. N.**, research scholar Dept. of Mech. & Indl. Engg., & **Mr. Manasa** from MCHP and **Ms. Harshitha Bangera** from MCHP have filed a patent for the invention titled ***“In Vitro Test Setup for Measuring Performance of an Ocular Surface”*** with the Indian Patent Office, Chennai in (Application No. 202241077540).
- **Dr. Raviraj Shetty**, Associate Professor (Senior Scale), has filed 2 patents for the inventions titled ***“Nozzle for Water Jet Machining”*** (Application No. 368629-001: August, 2022) and ***“Radial Blade Bowl Piston Head”*** (Application No. 374611-001: November, 2022) with the Indian Patent Office, Kolkata.
- **Dr. Suhas Y Nayak**, Assistant Professor (Senior Scale) along with other inventors from sister institutions of MAHE has filed a patent for the invention titled ***“A Composite Material for Radiation Shielding and a Method for Preparing the Composite Material”*** with the Indian Patent Office, Chennai in December, 2022 (Application No. 202241073484).
- **Dr. Kirana Kumara P.**, Assistant Professor (Senior Scale) has filed 3 patents for the inventions titled ***“A Coconut Cutting Machine Using Swivel and Weight”*** (Application No. 202241076734), ***“A coconut cutting machine having a sharp-edged component and a vertical guide rod”*** (Application No. 202241076974) and ***“A Machine for Chopping Areca-Nut Leaves”*** (Application No. 202241077714) with the Indian Patent Office, Chennai in December, 2022.
- **Dr. Srinivas Shenoy H.**, Assistant Professor (Senior Scale) along with other inventors from sister departments of MIT and SIES, School of Packaging, Mumbai has filed a patent for the invention titled ***“A Composition Forming a Bio-Plastic Film and Method Thereof”*** with the Indian Patent Office, Chennai in November, 2022 (Application No. 202241067961).



- **Grants Applied:** 12 faculty members of the department have applied for research grants worth ₹ 4,85,76,250.00/- from DST, SERB, KSCST and other research organizations during July-Dec 2022.
- **Seed Funding:** 07 faculty members of the department have been granted seed funding of ₹ 2,88,000/- by MAHE for various projects during July-December 2022
- **FDP/Workshops Attended:** A total of 30 faculty members of the department have participated in 52 various international/national level workshops/FDP's/Trainings held during July - December, 2022.
- **Reviewers:** 09 faculty of the department have served as reviewers for 55 various international/national Journals & Conference articles during July - December, 2022.
- **Book/Book Chapter Authoring:**
 - **Dr. Kirana Kumara P.**, has authored a book titled "**Development of Surgical Simulators using Open Source and Free Software**" in published in December 2022. ISBN: 978-93-5780-694-7
 - **Dr. Raghuvir Pai B.**, has co-authored a book chapter titled "**Extraction of Coir Fibres by Different Methods (Chapter2)**" in "Coir Fibre and its Composites", Processing, Properties and Applications, Woodhead Publishing Series in Composites Science and Engineering, 2022, Pages 19-42, <https://doi.org/10.1016/B978-0-443-15186-6.00022-9> in August 2022.
 - **Dr. Sawan Shetty**, has co-authored a book chapter titled "**Polymer Nanocomposites Based Wearable Smart Sensors**" in "Progress in Polymer Research for Biomedical, Energy and Specialty Applications", CRC Press, USA, 2022, published in October 2022. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781003200710-14>.
- **Conference Session Chair:**
 - **Dr. Raghuvir Pai B.**, Professor, has chaired a session at CII-AMSI First Joint webinar on "Smart Asset Management Next Gen Framework for Resource Efficient Systems" organized by CII Institute of Quality, Bharat Nagar, Magadi Road, Bengaluru, on 16th September 2022.
 - **Dr. Dinesha P., Dr. Dolfred Vijay Fernandes, Dr. Madhwesh N.**, Associate Professors and **Mr. Arunkumar H. S.**, Assistant Professor (Senior Scale) have chaired sessions at "International Conference on Recent Advances in Fluid Mechanics, ICRAFM – 2022" jointly organized by Dept. of Mathematics, Dept. of Mechanical & Industrial Engg. and Dept. of Aeronautical & Automobile Engg., MIT, Manipal from 4th to 6th, October, 2022.
 - **Dr. Vijay G. S.**, Professor and **Dr. Madhwesh N.**, Associate Professor have chaired sessions at "4th International Conference on Smart and Sustainable Developments in Materials, Manufacturing and Energy" organized by NMAMIT, Nitte, from 22nd to 23rd December, 2022.
- **BOS Membership:**
 - **Dr. Sathya Shankara Sharma**, Professor & HOD and **Dr. Manjunath Shettar**, Assistant Professor (Sl. Grade), have served as external committee members for the BOS/BOE at various institutes for UG and PG engineering programs during July-December 2022.



• **PhD Assessment:**

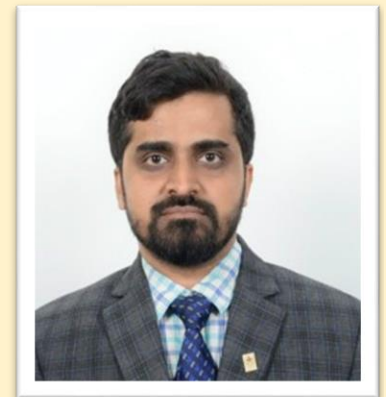
- **Dr. Sathya Shankara Sharma**, Professor & Head has served as the external examiner for the Pre PhD-Comprehensive viva voce held at SMVITM, Bantakal, Udupi on 16th July 2022.
- **Dr. Gururaj Bolar**, Assistant Professor (Sl. Grade) has served as the external examiner for the PhD thesis defence titled "Development and Study of Tribological and Thermal Epoxy/Eglass/Carbon Composite Material" for VTU, on 7th Dec 2022.

PhD AWARDEES



Dr. Srinivas Shenoy H., Assistant Professor (Senior Scale), was awarded Doctoral degree for his thesis titled "Mechanical & Thermal Characterization of Jute-Flax and Ultra High Molecular Weight Polyethylene Fiber Reinforced Hybrid Polymer Composites" by Manipal Academy of Higher Education, Manipal in October 2022. The research work was carried out under the guidance of Dr Raghuvir Pai B, Professor and co-guided by Dr Vijay Kini M, Professor, Dept. of Mechanical & Industrial Engineering, MIT, Manipal

Dr. Muralishwara K., Assistant Professor (Senior Scale), Department of Mechanical & Industrial Engineering was awarded Doctoral degree for his thesis titled "Evaluation of Surface Properties and Moisture Absorption Behaviour of Epoxy Clay Nanocomposite for Coating Application" by Manipal Academy of Higher Education, Manipal in November 2022. The research work was carried out under the guidance of Dr Achutha U Kini, Professor, and co-guided by Dr Sathya Shankara Sharma, Professor & Head, Dept. of Mechanical & Industrial Engineering, MIT, Manipal.



Dr. Ritesh Ramakrishna Bhat, Assistant Professor (Senior Scale), Department of Mechanical & Industrial Engineering was awarded Doctoral degree for his thesis titled "Experimental and Statistical Evaluation of Drilling Process Parameters in Seawater Immersed Glass Fiber Reinforced Polymer Composite" by Manipal Academy of Higher Education, Manipal in December 2022. The research work was carried out under the guidance of Dr N S Mohan, Professor (Retired), and co-guided by Dr Sathya Shankara Sharma, Professor & Head, Dept. of Mechanical & Industrial Engineering, MIT, Manipal.



NEW FACES OF THE DEPARTMENT

Dr. G. Divya Deepak, has joined the department as Assistant Professor-Selection Grade on 1st August 2022. He did his Ph.D. in the area of cold plasma titled "Modelling and Characterization of Atmospheric Pressure Plasma Jet Based on Dielectric Barrier Discharge" from Mody University, Rajasthan in collaboration with Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani. He has completed his M.Engg-Thermal Engineering from University of Windsor, Canada. His research interests are in the areas of dielectric barrier discharge based plasma for industrial and biomedical applications which include- Plasma Medicine, Medical Implants, Surface Coatings, Material Characterization, Food, Agriculture, and Microbial Disinfection.



Dr. Sawan Shetty, has joined the department as Assistant Professor-Senior Scale on 5th July 2022. He did his Ph. D. in the area of Functional Nanofibers titled "Development of Flexible Piezoelectric Nanogenerators from Electrospun Nanofabrics of PVDF/Nanosheets Composites" from National Institute of Technology Karnataka, Surathkal. His research interests are in the areas of Electrospinning, Synthesis of Nanomaterials, Polymer Nanocomposites, and Piezoelectric Materials.

Dr. Nidhul K., has joined the department as Assistant Professor on 11th July 2022. He did his Ph. D. in the area of Solar-Thermal Engineering titled "Computational and Experimental Study of Solar Air Heater With Various Duct Cross-Sections and Artificial Roughness" from National Institute of Technology, Karnataka. His research interests are in the areas of Renewable Energy, Heat Transfer, CFD, Aerodynamics and Propulsion.



Dr. Santosh Kumar Senapati, joined the department as an Assistant Professor on 26th July 2022. He did his Ph.D. in the area of Computational Two-Phase Flow titled "Gas-Solid Two-Phase Flow in Sudden Expansion Pipes, Diffusers and Orifices-A Computational Study" from the Indian Institute of Technology Kharagpur. He has completed his M.Tech (Honours) in Thermal Engineering from the National Institute of Technology, Raipur. His research interests are in the areas of Computational Multi-Phase Flow & Heat Transfer, Computational Natural Convection, Forced Convection, Mixed Convection, and Conjugate Heat Transfer.



Dr. Gajanan Anne, has joined the department as Assistant Professor on 1st August 2022. He did his Ph.D. in the area of severe plastic deformation titled “Development and Characteristics of Ultrafine-Grained Mg-Zn/Al Multilayer Composites by Accumulative Roll Bonding Process” from National Institute of Technology Karnataka, Surathkal. He has completed his M.Tech in Manufacturing Science and Engineering from M S Ramaiah Institute of Technology Bengaluru. His research interests are in the areas of Processing of Materials, Advanced Materials Characterization, Additive Manufacturing, Surface Modification, Tribology and Corrosion.



Dr. Kulamani Mehar, has joined the department as an Assistant Professor on 5th August 2022. He has completed his Ph.D. in the area of Smart Composite Material and Structure titled “Nonlinear Thermoelastic Analysis of Graded CNT-Reinforced Sandwich Structure Embedded with SMA Fibre- Theoretical and Experimental Verification” from NIT Rourkela. He has completed his M.Tech. in Machine Design from central university Guru Ghasidas Vishwavidyalaya, Bilaspur. His research interests are in the areas of Nonlinear Structural Analysis of FGM & Sandwich Structure, Finite Element Analysis, Shape Memory Alloy and CNT.

Dr. Shashi Kumar C. M., has joined the department as an Assistant Professor on 15th September 2022. He worked as a Postdoc Fellow on the research topic “Numerical Investigation of Different Geometric Structures of Nickel Based Catalysts For Improving The Hydrogen Production Using Steam Methane Reforming” at National institute of technology Karnataka, Surathkal. He did his Ph.D. in the area of Thermal Engineering titled “Experimental and Numerical Studies on Savonius Rotor For Hydropower Utilisation” from National Institute of Technology Karnataka, Surathkal. He has completed his MTech in Thermal Engineering from the National Institute of Technology Karnataka, Surathkal. His research interest are in the areas of Vertical Axis Hydrokinetic Turbines, Wind Turbines, Steam Methane Reforming, Computational Fluid Dynamics, Sliding Mesh Technique and Turbulent Free Jet Flow.



Dr. Ashish Agrawal, has joined the department as Assistant Professor on 19th October 2022. He did his Ph. D. in the area of Computational Heat Transfer titled "Numerical Simulation of Heat Transfer During Drying of Wet Iron Ore, and Production of Lime and Rutile Titanium Dioxide in Rotary Kilns" from Indian Institute of Technology Kanpur, India. He has completed his M.Tech. in Fluid and Thermal Sciences from Indian Institute of Technology Kanpur, India. His research interest are in the areas of Analytical and Computational Fluid Flow, Heat Transfer, Fluid Machines, Heat Exchanger Design, Refrigeration, Air-Conditioning and Renewable Energy.



ALUMNI ACHIEVEMENTS



Mr. Vishal Sharma, an alumnus from the 1992 batch of B. Tech. Mechanical Engg. has recently joined Godrej Group as CEO at Godrej Industries (Chemicals) India. Prior to this he has served as Senior Vice President of India, Middle East and Africa (IMEA) region at Ecolab, Dubai, UAE and as Global Vice president at Diversey, Amsterdam, Netherlands.



Mr. Bill Shukla, an alumnus from the 1995 batch of B. Tech. Mechanical Engg. has been appointed as CEO of Milacron India. Milacron India is part of Milacron LLC, USA, a Global Leader in areas of Plastics Processing Technologies. Prior to this he has served as Executive Vice President – Industrial Products at Thermax Ltd.

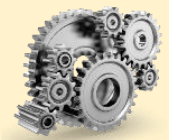


Mr. Rahul Sahai, an alumnus from the 2007 batch of B. Tech. Industrial and Production Engg. has been appointed as the Chief Executive Officer (B2B Businesses) by Kirloskar Oil Engines Limited. Prior to this he has served as Director for Marketing & Engineering (Distribution & NRP Business) at Cummins India Ltd.

STUDENT ACHIEVEMENTS

• **Technical Article Publications:**

- **Dr. Sooraj Mohan**, PhD graduate has co-authored a research paper with **Dr. Dinesha P.**, Associate Professor, titled “Performance and emissions of biodiesel engine with hydrogen peroxide emulsification and cerium oxide (CeO₂) nanoparticle additives” published in “Fuel”, Vol. 319, 123872 (Q1, Top 2-9) in July 2022.
- **Mr. Justin Aral Gonsalves**, M.Tech.(Manufacturing Engg.) graduate from the class of 2020 and **Ms. Sadvidya N. Nayak**, B.Tech. (Mechanical Engg.) graduate from the class of 2021 have co-authored a research paper with **Dr. Gururaj Bolar**, Assistant Professor (Sl. Grade) titled “Experimental investigation on the performance of helical milling for hole processing in AZ31 magnesium alloy” published in “Journal of King Saud University, Engineering Sciences”, Vol. 34(5), pp.366-374. (Q1, Top 2-9) in July 2022.
- **Dr. Sooraj Mohan**, PhD graduate has co-authored a research paper with **Dr. Dinesha P.**, Associate Professor and **Mr. Augustine B.V. Barboza**, Associate Professor (Senior Scale), titled “Influence of hydrogen peroxide emulsification with gasoline on the emissions and performance in an MPFI engine” published in “International Journal of Hydrogen Energy”, Vol. 47(59), pp.25034-25043. (Q1, Top 2-9) in July 2022.
- **Mr. Pranav Hegde & Mr. Ajith Kamath**, B.Tech. (Mechanical Engg.) graduates from the class of 2020 have co-authored a research paper with **Dr. Raghuvir Pai B.**, **Dr. Vijaya Kini M.**, Professors and **Dr. Srinivas Shenoy H.** Assistant Professor (Senior Scale), titled “Damage characterization of ultra-high molecular weight polyethylene/ flax/jute fiber reinforced melamine formaldehyde hybrid composites using cone beam computed tomography” published in “Non-destructive Testing and Evaluation” Vol. 37(4), pp.400-426. Q2(Top 25-49) in July, 2022.



• **Technical Article Publications:**

- **Mr. Doddapaneni Srinivas**, research scholar has co-authored a research paper with **Dr. Sathya Shankara Sharma**, Professor & HOD, **Dr. Gowri Shankar M. C.**, Associate Professor, and **Dr. Manjunath Shettar**, Assistant Professor (Sl. Grade) titled “Experimental investigation to confirm the presence of TiB₂ reinforcements in the matrix and effect of artificial aging on hardness and tensile properties of stir cast LM4TiB₂ composite” published in “Crystals” Vol. 12(8), p.1114. (Q2, Top 25-49) in August 2022.
- **Mr. Jaideep J. P.**, student, M.Tech.(Manufacturing Engg.). & **Mr. Siddharth Joshi**, B.Tech. (Mechanical Engg.) graduate from the class of 2022 & **Dr. Sridhar T.**, PhD graduate, have co-authored a research paper with **Dr. Anupama Rajendra Hiremath**, Associate Professor and **Dr. Suhas Y. Nayak**, Assistant Professor (Senior Scale), titled “Hybridization effect on the mechanical properties of basalt fiber reinforced ZnO modified epoxy composites” published in “Polymer Composites”, Vol. 43(8), p.5704 - 5714. (Q2, Top 25-49) in August 2022.
- **Mr. Rahul Nanda** & **Mr. Akshit Narayanan**, B. Tech. (Mechanical Engg.) graduates from the class of 2021 have co-authored a research paper with **Dr. Shiva Kumar**, Professor, titled “Application of hybrid cooling technique for lithium-ion battery pack” published in “Computational Thermal Sciences”, Vol. 14(6). Q3(Top 50-74) in August, 2022.
- **Mr. Calvin Noronha**, B.Tech. (Mechanical Engg.) graduate from the class of 2022 & **Ms. Diya Sharma**, student, 5th Sem. B.Tech.(Mechatronics) have co-authored a research paper with **Mr. Nithesh Naik**, Assistant Professors (Senior Scale), titled “Role of three-dimensional (3D) printing in endourology: An update from EAU young academic urologists (YAU) urolithiasis and endourology working group” published in “Frontiers in Surgery” Vol. 9, p.862348. Q2(Top 25-49) in August, 2022.
- **Mr. Sowrabh B. S.**, research scholar has co-authored a research paper with **Dr. Sathya Shankara Sharma**, Professor & HOD, **Dr. Shivaprakash Y.M.** Associate Professor, **Dr. Gurumurthy B.M.**, Assistant Professor (Sl. Grade) & **Dr. Pavan Hiremath**, Assistant Professor (Senior Scale), titled “Spider web approach hardness validation of peak aged Al6061/SiC/hBN composite and related mechanical characterization” published in “Manufacturing Review” Vol. 9, p.24. Q2(Top 25-49) in August, 2022.
- **Mr. Doddapaneni Srinivas**, research scholar has co-authored a research paper with **Dr. Sathya Shankara Sharma**, Professor & HOD, **Dr. Gowri Shankar M. C.** Associate Professor, **Dr. Ananda Hegde**, Assistant Professor(Sl. Grade) & **Mr. Karthik B. M.**, Assistant Professor, titled “Effect of weight of reinforcement and coating thickness on the hardness of stir cast Al7075 nickel coated duralumin powder MMC” published in “Journal of Applied Engineering Science/Istrazivanja i Projektovanja za Privredu” Vol. 20(3), pp.900-907. (Q2, Top 25 - 49) in September, 2022.
- **Mr. Srinivasa V Prabhu**, B.Tech. (Mechanical Engg.) graduate from the class of 2022 has co-authored a research paper with **Dr. Suhas Y Nayak** & **Dr. Srinivas Shenoy H.**, Assistant Professors (Senior Scale), titled “Influence of alkali and silane treatment on the physico mechanical properties of grewia serrulata fibres” published in “Journal of the Korean Wood Science and Technology” Vol. 50(5), pp.325-337. (Q2, Top 25 - 49) in September, 2022.



• **Technical Article Publications:**

- **Dr. Elton Dylan Nazareth** PhD graduate has co-authored a research paper with **Dr. Arunachala U Chandavar**, Professor and **Dr. Vijayan P.K.**, Professor, IIT, Jammu titled “Stability performance of series coupled natural circulation system with different operating procedures” published in “International Journal of Thermal Sciences” Vol. 179, p.107693. Q1(Top 2-9) in September, 2022.
- **Dr. Sooraj Mohan**, PhD graduate has co-authored a research paper with **Dr. Dinesha P.**, Associate Professor, titled “Thermal dissociation kinetics of solid ammonium carbonate for use in NH₃SCR systems” published in “Chemical Papers” Vol. 76, 6551-6556, Q2(Top 25-49) in October, 2022.
- **Mr. Y. Shiriraj Rao**, research scholar has co-authored a research paper with **Dr. Nagaraj Shetty**, Associate Professor, **Dr. Shivamurthy B.** Associate Professor (Senior Scale) and **Dr. Mohan N. S.**, Professor, titled “Influence of hBN and MoS₂ fillers on toughness and thermal stability of carbon fabric epoxy composites” published in “Frattura ed Integrita Strutturale” Issue. 62, p. 240-260, Q3(Top 50-74) in October, 2022.
- **Dr. Elton Dylan Nazareth** PhD graduate has co-authored a research paper with **Dr. Arunachala U Chandavar**, Professor and **Dr. Vijayan P.K.**, Professor, IIT, Jammu titled “Stabilization of single phase rectangular natural circulation loop of larger diameter using orifice plate” published in “International Communications in Heat and Mass Transfer” Vol. 137, p.106216. Q1(Top 10-24) in October, 2022.
- **Mr. M.P. Kishore**, M.Tech.(Tribology & Maintenance) graduate from the class of 2021 has co-authored a research paper with **Mr. Vishal Shenoy P.**, Assistant Professor (Senior Scale) and **Dr. R. C. Shivamurthy**, Assistant Professor (Sl. Grade), titled “Effect of polymer seal’s chemical and mechanical properties on automotive sealed chain’s transmission loss” published in “Tribology - Materials, Surfaces and Interfaces” Vol. 16(4), pp.333-341. Q2(Top 25-49) in October, 2022.
- **Mr. Samhit Nayak, Mr. Sriram Pai** and **Mr. Pranith Prabhakar**, B.Tech. (Mechanical Engg.) graduates from the class of 2020 have co-authored a research paper with **Mr. Gowrava Shenoy B.**, Assistant Professor (Senior Scale), titled “Modelling the enablers of quality management practices using ISM” published in “International Journal of Productivity and Quality Management” Vol. 37(3), pp.405-421. Q2(Top 25-49) in November, 2022.
- **Mr. Dhruv Deshwal**, M. Tech (CAAD) graduate from the class of 2021 has co-authored a research paper with **Dr. Siddappa I. Bekinal**, Associate Professor, and **Dr. Vijay G.S.**, Professor, titled “Optimized multi-layer radial permanent magnet bearing with an eddy current damping systems” published in “Journal of the Brazilian Society of Mechanical Sciences and Engineering” Vol. 44(11), p.542. Q2(Top 25-49) in November, 2022.
- **Mr. Adithya Lokesh Hegde**, research scholar has co-authored a research paper with **Dr. Raviraj Shetty**, Professor and **Mr. Nithesh Naik**, Assistant Professor (Senior Scale), titled “Optimization and prediction of mechanical characteristics on vacuum sintered Ti6Al4VSiCp composites using Taguchi’s design of experiments, response surface methodology and random forest regression” published in “Journal of Composites Science” Vol. 6(11), p.339. Q2(Top 25-49) in November, 2022.



• **Technical Article Publications:**

- **Mr. Advith K. Sridhar**, B.Tech. (Mechanical Engg.) graduate from the class of 2020 has co-authored a research paper with **Dr. Gururaj Bolar**, Assistant Professor (Sl. Grade), titled "Comprehensive experimental investigation on drilling multimaterial carbon fibre reinforced aluminium laminates" published in "Journal of King Saud University, Engineering Sciences" Vol. 34, p. 391-401, Q1(Top 2-9) in November, 2022.
- **Mr. Mohammed Sabraz Sabir Ali**, M.Tech (Tribology & Maintenance) graduate from the class of 2021 and **Mr. Adithya Hegde**, research scholar have co-authored a research paper with **Dr. Raviraj Shetty**, Professor, **Dr. Jamaluddin Hindi** & **Mr. Nithesh Naik**, Assistant Professors (Senior Scale), titled "Processing, mechanical characterization, and electric discharge machining of stir cast and spray forming based AlSi alloy reinforced with ZrO₂ particulate composites" published in "Journal of Composites Science" Vol. 6(11), p.323. Q2(Top 25-49) in November, 2022.
- **Mr. Pranav Hegde** & **Mr. Ajith Kamath**, B.Tech. (Mechanical Engg.) graduates from the class of 2020 have co-authored a research paper with **Dr. Raghuvir Pai B.**, **Dr. Vijaya Kini M.**, Professors and **Dr. Srinivas Shenoy H.** Assistant Professor (Senior Scale), titled "Investigation of the mechanical properties of flax/jute/UHMWPE reinforced melamine formaldehyde composites using cone beam computed tomography" published in "Journal of Natural Fibers" Vol.19(15), pp.12280-12294. Q1(Top 10-24) in November, 2022.
- **Dr. Sooraj Mohan**, PhD graduate has co-authored a research paper with **Dr. Dinesha P.**, Associate Professor, titled "ANNPSO aided selection of hydrocarbons as working fluid for low temperature organic Rankine cycle and thermodynamic evaluation of optimal working fluid" published in "Energy" Vol. 259, p.124968. Q1(Top 2-9) in November, 2022.
- **Mr. Joel Ivan Felix Passanha**, B.Tech. (Mechanical Engg.) graduate from the class of 2022 has co-authored a research paper with **Dr. Sathya Shankara Sharma**, Professor & HOD, **Dr. Gowri Shankar M. C.**, Associate Professor, **Dr. Ananda Hegde**, **Dr. Gurumurthy B.M.**, Assistant Professors (Sl. Grade) & **Ms. Bhagyalaxmi**, Assistant Professor (Senior Scale), titled "Experimental and statistical analysis of vegetable oil brine egg yolk emulsion quench on the properties of AISI 4140 steel" published in "Cogent Engineering" Vol. 9(1), p.214662. Q2(Top 25-49) in November, 2022.
- **Mr. Shahabaz S. M.**, research scholar has co-authored a research paper with **Dr. Sathya Shankara Sharma**, Professor & HOD, **Dr. Pradeep Kumar Shetty**, Associate Professor (Senior Scale), **Dr. Nagaraj Shetty**, Associate Professor and **Mr. Nithesh Naik**, Assistant Professor (Senior Scale), titled "Effect of alumina and silicon carbide nanoparticle infused polymer matrix on mechanical properties of unidirectional carbon fibre reinforced polymer" published in "Journal of Composites Science" Vol. 6(12), p.381. Q2(Top 25-49) in December, 2022.
- **Mr. Adithya Lokesh Hegde**, research scholar has co-authored a review paper with **Dr. Raviraj Shetty**, Professor, **Dr. Rajesh Nayak**, Associate Professor, **Mr. Udaya Kumar Shetty S. V.**, Assistant Professor (Sl. Grade) and **Mr. Nithesh Naik**, Assistant Professor (Senior Scale), titled "Processing and mechanical characterisation of titanium metal matrix composites: a literature review" published in "Journal of Composites Science" Vol. 6(12), p.388. Q2(Top 25-49) in December, 2022.



• **Technical Article Publications:**

- **Mr. Chandan D.**, M.Tech. (TSES) graduate from the class of 2021, & **Mr. K. Varun**, research scholar have co-authored a research paper with **Dr. Arunachala U Chandavar**, Professor, titled “Adequacy of binary fluid and turbulator based natural circulation loop in parabolic trough collector” published in “International Journal of Renewable Energy Research” Vol. 12(4), pp.1819-1830. Q2(Top 25-49) in December, 2022.
- **Mr. Doddapaneni Srinivas**, research scholar has co-authored a research paper with **Dr. Sathya Shankara Sharma**, Professor & HOD, **Dr. Gowri Shankar M. C.**, **Dr. Rajesh Nayak**, Associate Professors, **Dr. Manjunath Shettar** Assistant Professor (Sl. Grade) & **Dr. Nitesh Kumar** Assistant Professor (Senior Scale) titled “Optimization and prediction of the hardness behaviour of LM4Si3N4 composites using RSM and ANN a comparative study” published in “Journal of Applied Engineering Science/Istrazivanja i Projektovanja za Privredu” Vol. 20(4), pp.1214-1225. Q2(Top 25-49) in December, 2022.
- **Ms. Preeti Maurya**, research scholar has co-authored a research paper with **Dr. Vijay G.S.**, Professor & **Dr. Raghavendra Kamath C.**, Associate Professor (Senior Scale), titled “Investigation on performance and kerf characteristics during cryogenic assisted suspension type abrasive water jet machining of acrylonitrile butadiene rubber” in “Journal of Composites Science” Vol. 6(12), Q2(Top 25-49) in December, 2022.
- **Ms. Preeti Maurya**, research scholar has co-authored a research paper with **Dr. Vijay G.S.**, Professor & **Dr. Raghavendra Kamath C.**, Associate Professor (Senior Scale), titled “A proposed modification to the JAYA optimization algorithm-application to an abrasive water suspension jet machining process” in “International Review of Mechanical Engineering”, Vol. 16(8), Q2(Top 25-49) in December, 2022.
- **Dr. Sandeep Nambiar S.**, PhD graduate has co-authored a research paper with **Dr. Sathya Shankara Sharma**, Professor & HOD and **Dr. Murthy B. R. N.**, Associate Professor (Senior Scale), titled “Martensitic transformation and magnetic properties of NiMn quinary heusler alloy” in “Journal of Composites Science” Vol. 7(1). Q2(Top 25-49) in December, 2022.
- **Dr. Sandeep Nambiar S.**, PhD graduate has co-authored a research paper with **Dr. Sathya Shankara Sharma**, Professor & HOD and **Dr. Murthy B. R. N.**, Associate Professor (Senior Scale), titled “Investigation on magnetization, magnetocalory, magnetoresistance, and electric properties of NiMn based heusler alloy” in “Journal of Composites Science” Vol. 7(1). Q2(Top 25-49) in December, 2022.
- **Mr. Doddapaneni Srinivas**, research scholar has co-authored a research paper with **Dr. Sathya Shankara Sharma**, Professor & HOD, **Dr. Achutha U. Kini**, Professor, **Dr. Gowri Shankar M. C.**, Associate Professor & **Dr. Manjunath Shettar** Assistant Professor (Sl. Grade) titled “Effects of solutionizing and ageing alteration on tensile behavior of stir cast LM4Si3N4 composites” published in “International Journal of Automotive and Mechanical Engineering” Vol. 19(4), pp.10121-10131. Q2(Top 25-49) in December, 2022.



• **Technical Article Publications:**

- **Mr. Pranesh G.**, student, 7th Sem. B.Tech. (Mechanical Engg.), **Mr. Amritanshu Jain**, student, 5th Sem. B.Tech. (Mechanical Engg.), **Ms. Jeswanthi Tirupathi**, student, 5th Sem. B.Tech.(Aeronautical Engg.) and **Mr. U. Rohan Sharma**, M.Tech.(CAAD) graduate from the class of 2022 have co-authored a research paper with **Dr. Raviraj Shetty**, Professor, **Dr. Pavan Hiremath** & **Mr. Nithesh Naik**, Assistant Professors (Senior Scale), titled “Influence of thermal and thermomechanical stimuli on dental restoration geometry and material properties of cervical restoration: a 3D finite element analysis” published in “Journal of Composites Science” Vol. 7(1), p.6. Q2(Top 25-49) in December, 2022.

B.TECH. (HONOURS) AWARDEES

Mr. Joel Ivan Felix Passanha and **Mr. Siddharth Joshi** have successfully completed B.Tech.(Honours) in Mechanical Engg. in July, 2022. They belong to the first batch of B.Tech.(Honours) programme instituted by MIT for the 2018 onwards admitted batches. The department congratulates them and wishes them best of luck in their future endeavours.



Mr. Joel Ivan Felix Passanha



Mr. Siddharth Joshi

CLUB ACTIVITIES

• **ASME:**

ASME Manipal Student Chapter hosted an internal “Fusion 360 workshop” designed to teach the members how to effectively use the software for 3D modeling, Structural Simulations and CAM Toolpath Generation. Participants in the workshop were introduced to the basic functionalities of the software and then progressed to more advanced topics such as creating assemblies, simulations, and animations. This made all club members ready for competitions with an ability to understand materials and the manufacturing processes required. The participants in the club look forward to using the skills acquired in the workshops and have an idea of “Setting the Standard” for a workshop of their own.





Alongside this, a Board Transfer took place on the 11th of September 2022, where the Board of ASME 21-22 transferred the responsibilities to the new Board of ASME Manipal 22-23. Major recruitment soon followed this in the consecutive months of October and November for the Managing committee and a Working committee which grew the club to 50+ Local Members. The new members are from 8+ branches with different skill sets and are very motivated towards mechanical engineering and growing with the club.

• **IE MECHANICAL:**

Technical Talk:

IE Mechanical students' chapter in collaboration with the Department of Mechanical & Industrial Engineering, MIT organised a Technical talk on "A Foundry Perspective in Tape Out Operations" by **Mr. Sripad Nagarad**. The seminar was attended by M.Tech students along with many B.Tech students from Mechanical & Electrical streams. The participants were informed about the current state of the semiconductor industry and various procedures of chip-manufacturing especially Tape-out operations.



Techtatva-22

IE Mechanical Students' Chapter, Manipal hosted a category, Mechanize, in the institute's technical fest - Techtatva 2022. The category involved a two-day machine shop workshop where the participants were taught basic manufacturing processes via a tour of the MIT Machine Shop along with a CAD modelling competition - Clash Of CADs - which was the flagship event of the category followed by a bridge building contest named "Bridge-It-Up" where the participants had to build the sturdiest bridge possible made of popsicle sticks and an fun and exhilarating informal nutsticking event: Nutstacker.