



# FOCUS

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## A SPECIAL TALK BY Dr ANIL KAKODKAR

AICTE Distinguished Chair Professor, Dr Anil Kakodkar, former Chairman, Atomic Energy Commission, delivered a special talk on the topic "Relevance of nuclear energy in achieving net zero CO<sub>2</sub> emission" on 20 October 2022. The event was hosted by Manipal Institute of Technology, Manipal in association with AICTE, New Delhi.

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## ALUMNI MEET 2022

The office of Alumni, Public and International Relations, MIT Manipal organized Alumni meet - Silver Reunion of Batches 1995, 1996, 1997 B.Tech Engineering, and PG Alumni Silver Reunion of Department of Electronics and Communication Engineering in the month of December 2022. The Silver Union witnessed alumni of various engineering branches coming together to the portals of their alma mater with memories of the college days in their heart and wonder about the transformation of the place in their eyes. The highlight was their emotional meeting with teachers who played a part in their lives. The teachers on superannuation were present and happy to receive their warmth and admiration.

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## TECHTATVA'22 RETURNS ON CAMPUS



TechTatva - the annual technical fest of the institute is one of the most anticipated annual events at MIT. Restrictions necessitated by COVID 19 made the last two years of TechTatva a quiet affair with activities going online. However, it was back with a bang in 2022 as things slowly returned to normalcy. MIT geared up for its incredible technical fest, TechTatva 2022 with a renewed vigor and refreshing enthusiasm. The moment the dates were announced; one could sense the anticipation in the air increasing with every passing day.

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“ The highest virtues of a good leader are honesty, dedication, dependability and an enlightened outlook. ”

Dr. T. M. A. Pai

## MANNUPALLA TO MANIPAL - AN EPIC SAGA

### THE LEADERS WHO SHAPED MANIPAL INSTITUTE OF TECHNOLOGY, MANIPAL

*Written by: Prof K J Kamath*

The story of MIT, Manipal transforming itself into an institution of repute is also the story of the people who strived to drive the course of its journey. A key component of this driving force was the personalities who headed the institute over the years. My journey from being a student of the institute way back in 1961 to being a Guest faculty member currently, coincides with the march of the institute. I have seen the growth of this institute at close quarters and have had the opportunity to observe the people at the helm of affairs with admiration and awe.

Each Head of the Institution had a distinct vision for MIT Manipal. Every one of them made sure that the institution moved in the right direction holding on to the values espoused by the founder Dr T.M.A. Pai. The following account is my humble attempt to reflect on the number of ways the leaders of the institute guided its course.

Prof K B Krishna Rao was the first Principal of the engineering college established in the year 1957 as Manipal Engineering College (MEC). The journey had just begun for the institute and it started with its first batch of students under Civil Engineering. Dr Rao ensured that the journey started and progressed in the right direction against all challenges faced by the institution in the early years of its infancy.

Prof R K K Narayan continued the initiative of the founding visionaries during his brief stint for a year as the Principal from 1958 to 1959. The institute laid out plans for admitting more number of students and adding additional branches of Engineering.

Prof M N Kamath was the Principal of the institute during the years 1959-61. Prof. Kamath with his commitment to teaching-learning process and belief in the ideals of Dr T M A Pai ensured that the required scaffolding is provided to the growing institute.

When Prof P V Bhat (Retd Chief Executive Engineer of PWD) took over as the Principal in 1961, the college building was under construction and student intake was 120. Under his leadership, the intake was raised to 240 in 1962, and by the year 1967, the construction of the Main Academic Block of 215,000sqft. area (Current Academic Block 1)

was completed. In addition, the laboratories, workshops, and five hostel blocks to accommodate 1000 students were also completed and MEC became a full-fledged institute. During the tenure of Prof Bhat, the faculty members were deputed to undergo three-year sequential summer schools under QIP in various IITs, leading to Master's degree in the 4<sup>th</sup> year. By the year 1970, the strength of teaching staff (who just numbered 15 in 1957) went up to 120.

Prof B V Krishnamurthy, from Mechanical Engineering discipline, who headed the institution during the early '70s was known for introducing support system to the wellbeing of students. Being a multifaceted personality, he used his knowledge of magic for constructive use. His initiatives related to student counselling and student activities transformed the notion of campus life. It is worthwhile to note that it was during his tenure that Manipal Engineering College was renamed as Manipal Institute of Technology (MIT), Manipal in 1974.

Prof V Chandrashekar brought a touch of class to the office of the Principal with his elegant approach to everyday activities. Being a well-known Rotarian, Prof Chandrashekar brought a culture of professionalism to all activities concerning the institute.

Prof T Radhakrishnan had a brief stint as the Principal of the institute after a longstanding service as the Vice-Principal. With a background in Electrical Engineering and experience as an administrator, he methodically continued the directions set for the institute.

The institute celebrated its Silver Jubilee in 1982 during the period of Prof K V Kamath. The MIT quadrangle attained the beautiful structure due to the vision of Prof K V Kamath. He gave special emphasis on enhancing the infrastructure of the institute including the aesthetics of the campus. He also focused on the modernization of laboratory, classroom facilities and other amenities.

Being a founder faculty member of the institute, Prof U R Kamath on assuming the office of the Principal ensured that the institute grew in multiple directions. His expertise in Civil Engineering enabled him to focus on the activities related to campus development. His initiatives

related to construction and infrastructure development were the major contributions of the period.

Prof Alladi Prabhakar was a dynamic Principal and provided an exemplary transformational leadership during his tenure. With rich professional experience as administrator and teacher at Institute of Armament Studies (Pune), as well as universities at Harvard, Australia, Germany, UK, and Osmania, he set a five-year master plan for an accelerated growth of MIT. Deputation of 10% of teaching staff annually to do M.Tech/PhD in IITs/IISc under QJP; establishing M.Tech courses during 1987-92 (2 in Civil, 2 in Mechanical, one each in CSE, EEE, and ECE) in addition to three new B.Tech courses were some of his accomplished vision. During his tenure, MIT became one of the earliest institutes in India to start unique M. Tech programs such as one in Lighting Science and Engineering (with the support of Philips India) and another in Biomedical Engineering. He also established a new Library Building with reading rooms accommodating 1000 students, centralized computing facility, and individual computer labs in every department. The Department of Continuing Education and Student Counseling was established during his period.

Prof P V Bhandary was known for his razor sharp memory and quick decision-making ability. He introduced new B Tech courses in ICE, M Tech in Digital Electronics and Communication, MCA, and MBA. He also established IT incubation center. He turned MIT to a beautifully wooded campus. In his capacity as a Pro Vice Chancellor of MAHE, he hastened the process of merging MIT into Manipal Academy of Higher Education (MAHE). In the year 2000, Manipal Institute of Technology became a

constituent Unit of MAHE. Above all, it was his unadvertised philanthropic endeavors towards the needy students and non-teaching members that made him unique.

On becoming a constituent unit of MAHE, the institute had its first Director in Dr M N Shetty, the former Professor at the Indian Institute of Technology, Kanpur. His wisdom and vision helped the institute move ahead with ambitious futuristic goals set by the deemed to be university. During his period grading system (04-point credit scheme) was introduced at MIT, Manipal.

Dr B S Prabhu constituted the Institute Steering Committee for managing change. He developed Vision, Core Values, Quality Policy and Quality Objectives for MIT by involving all the faculty members. The vision statement formulated during his period is continued till date. ISO quality initiatives were implemented under his leadership. During his tenure, MIT Manipal obtained academic autonomy by adopting the 10-point credit system for its undergraduate programs. Further, he established interdisciplinary teams to execute focused research in CAE/CAD, Material and Nano Technology, Bio Engineering, and Information and Computer Science. He strengthened industry-institute interaction by executing MOUs with industries such as Quest Global, EMC<sup>2</sup>, Infosys, and INTEL. Further, he introduced MS programs exclusively for engineers of Quest Global. He also initiated consultancy services to BHEL - continuing education programs for working engineers of NPC Kaiga. He took the initiative to build the Innovation Centre. He also planned Golden Jubilee celebration and silver union of the alumni.



Dr B Raghuvir Pai took the responsibility of being the Director of the institute for a brief period. His experience in the field of research and administration helped the institute in aspects related to faculty recruitment, laboratory development and managing the day-to-day activities.

Brig Dr S S Pabla took the brave decision of enhancing student intake and initiated the expansion of infrastructure and other facilities to sustain the growth. He also streamlined UG, PG and PhD programs. Brig Pabla took special interest in improving the campus discipline. Movement of automobiles was restricted inside the campus and the use of bicycles was promoted during his tenure. He established MIT Innovation Centre and MUTBI. Under his leadership, MIT celebrated its Golden Jubilee in 2007. His multitasking capability greatly helped in the exponential growth of the institute and MIT took giant strides under his leadership.

Dr Narayana Sabhahit, after a successful engagement as Joint Director of the institute, assumed the role of the Director for a brief period. Dr Sabhahit continued the initiatives set off at the institute. He also encouraged the student-centric activities and programs.

Brig (Dr) Somnath Mishra furthered the measures initiated by his predecessors through sagacious leadership skills. He strengthened the department activities by promoting organizing of international seminars, workshops and conferences. His period witnessed growth in interdisciplinary collaborations and academic activities. Further, the period also saw an increase in the registration of newer student clubs.

Dr Kumkum Garg brought in a fresh wave of academic orientation to the institute with emphasis on research and pedagogical experiments. The undergraduate program nomenclature was changed from B.E. to B. Tech. during this period. Under her leadership, faculty members were encouraged to reexamine their research focus and have an orientation to attain international standards.

Dr Vinod V Thomas has the distinction of being the first alumnus to become the Director of the institute. From being an Electrical and Electronics engineering graduate of the institute, he went on to serve MIT Manipal in various capacities before becoming its Director. As Director, Dr Thomas streamlined the academic process with a high degree of transparency through AMS (Academic Management System). Dr Thomas initiated curriculum conclaves involving all stakeholders to rationalize UG and PG syllabus to meet the global standards. He steered the process and measures for seeking accreditation from NBA. He introduced

open electives across disciplines for the students to have a holistic approach.

Dr Gopalkrishna Prabhu, popularly known as GKP, brought in a fresh wave of enthusiasm among faculty and students. Being passionate about increasing the visibility of the institute, Dr GKP explored all possible digital media and channels for communicating the institute accomplishments. He built an excellent rapport with both staff and students through formal and informal channels. He formulated the MIT 2020 vision, with a drive to realize the vision of MAHE. In his capacity as Pro Vice Chancellor, MAHE and Director MIT, he initiated many developmental projects in the campus such as Tech Shop, Student Plaza, New Ladies Hostel, Food Court, COE, and many more. MIT celebrated Diamond Jubilee under his leadership in the year 2017.

Dr D Srikanth Rao added a mature and all-time-relevant value in academic and extra-curricular activities. During his tenure the teacher guardian scheme was revamped and student projects were given a new impetus. The much desired digital transformation in teaching-learning process gathered momentum with the use of Lecture Capture Solution for recording of classes and Epad for examination. Extracurricular activities received additional boost with student clubs being streamlined under the Student Council of the institute. Further, the challenges posed by the COVID-19 were successfully addressed with the support of Team MIT under the leadership of Dr Rao.

Cdr (Dr) Anil Rana, who took over the mantle of the institute in June 2021 has been guiding its course to the next level with his vision for the future. Emphasis on research and entrepreneurship has brought newer dimensions to the learning at the institute with experiential learning becoming the buzz word.



Evidently, the institute has taken giant leaps over the last six decades as it has grown both in terms of number of students and programs offered. It is able to establish itself as one of the premier institutes in the country through its varied achievements and it continues to grow. It is appropriate that we recognize the valuable contribution made by eminent personalities who steered its course over the years in this memorable journey.

About the Author: Prof K J Kamath was a student of MIT of the batch 1961-66, when the institute started as Manipal Engineering College (MEC). From being a student Prof Kamath went on to become a faculty member in the department of Mechanical Engineering, Head of the Department, and Associate Director (Placement and Industrial Liaison). He has been associated with the institute as a student (1961-66), as a teacher (1966-2009), and as a guest faculty from 2010-to date.

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## Editor's Musings

Dear Reader,  
Greetings...!

As another calendar year draws to a close, it is with a great sense of hope and anticipation that we look forward to the dawn of the New Year 2023...! Very much like the previous years, the year that went by has left behind with us a mixed bag of memories, many of which are pleasant, and a few not so pleasant. What with every stakeholder putting his/her best foot forward and contributing his/her best, it is no surprise that the good memories outnumber the not-so-good ones by a long shot. Let us celebrate the joyous ones, and look for any lessons to be learnt in the ones that weren't pleasant.

During the year 2022, researchers at MIT comprising the faculty, students, and research scholars scaled a new high, as the number of technical paper publications crossed the 1000 mark in the month of October 2022! It is heartening to note that the number of publications has doubled over the last five years!

On 20<sup>th</sup> October 2022, in association with the AICTE, New Delhi, a special lecture was organized at the Institute on the topic, "Relevance of nuclear energy in achieving net zero CO<sub>2</sub> emission," by AICTE Distinguished Chair Professor Dr Anil Kakodkar, former Chairman, Atomic Energy Commission, Govt. of India. Faculty members, researchers, students from MIT, other constituent units of MAHE and nearby institutes turned out in large numbers at the event.

During this quarter, an expert team from the NBA paid a visit to assess and accredit four B.Tech. programmes, viz., Mechanical, Biomedical, Biotechnology and Chemical Engineering.

It was celebration time for the students during this quarter, with the Annual Day being held in a festive mood, they turned up in large numbers and made merry on and off stage. Also, with the batch of the final year students preparing to leave the portals of the Institute for pursuing their internship/practice school/project work, a Farewell was arranged at the Institute to wish them all well in their future.

During the month of November, the 30<sup>th</sup> Convocation of our University was held, which was an occasion for all teachers, students, and scholars alike to rejoice with a pleasant sense of accomplishment, as over 2500 UG, PG, and PhD degrees were conferred upon the fresh graduates and researchers of MIT, Manipal.

December witnessed a string of alumni meets with batches from 1995, 1996, and 1997 celebrating their Silver Union at our campus. ECE department as a part of the Golden Jubilee of their establishment joined hands to organize PG Alumni Meet.

Team FOCUS wishes all its readers a VERY HAPPY NEW YEAR - 2023...!

Happy Reading...!

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A SPECIAL TALK BY Dr ANIL KAKODKAR**

The talk by Dr Kakodkar revolved around India's commitment to achieve net zero emission by 2070 and the complexities involved in the realization of this vision. He outlined how by 2070, India can surpass annual per capita energy consumption level on par with the best in the world.

The talk outlined how the total assessed renewable energy potential in India, including Solar, Wind, small and large Hydro, Biomass and Tidal etc., is far below the requirements and hence to bridge the gap nuclear energy is the only option.



According to Dr Kakodkar, nuclear energy can meet our needs and is also inevitable for optimum and stable grids. Moreover, as we approach net zero CO<sub>2</sub> emission, nuclear energy proves to be cost effective solution and is necessary for adequate long term clean energy supply.

Dr Kakodkar also emphasised that India needs to develop new technologies even while accelerating approach to net zero for sustainable and cost competitive energy security.

Dr Kakodkar appealed to the youth to focus on finding out-of-the-box solutions to meet the challenges of the future.

Director, Cdr (Dr) Anil Rana stressed the relevance of such eminent and distinguished guest talks to inspire the students to develop research orientation and to inculcate the spirit of enquiry.



The event was graced by Dr Amit Kumar Srivastava, Director, Faculty Development Cell, AICTE. He addressed the audience online from Delhi.

Dr S N Bhat, Associate Director (FD&W) welcomed the gathering and introduced Dr Anil Kakodkar to the audience. Dr Chandrashekar Adiga, Professor and Head of the Department of Electrical and Electronics Engineering, MIT Manipal delivered the vote of thanks. Dr Adithi Shastry, Assistant Director (FD&W) emceed the event.

About 280 participants including faculty members, research scholars and students of MAHE and neighboring institutions attended the event.

The event was live streamed with the help of AICTE for the benefit of students, research scholars and faculty members.

The highlight of the event was the question-answer session that witnessed a lively dialogue between the scientist and the students on varied issues surrounding nuclear energy and the policy issues on energy.



**Continued from Cover Page:  
TECHTATVA'22 RETURNS ON CAMPUS**

The activities started a week early on 08 October with GeeksTalk, where the founder and CEO of Geeks for Geeks, Sandeep Jain, addressed the students. Several workshops were held in the run-up to the fest as part of pre-TechTatva events. The students had a plethora of learning opportunities, from designing rockets or PCBs to tours of the machine shop or learning the basics of website design.



The official commencement of TechTatva'22 took place on 12 October with lighting of the lamp by the Chief Guest Lt Gen (Dr) M D Venkatesh, Vice Chancellor, MAHE and Guest of Honour Mr Premnath Kudva, Member, Board of Directors, Canara Workshop. The members of the Student Council, MIT, the force behind the TechTatva'22 outlined the details of the fest during the event.

The theme “Encircling Creations Where the Elements Collide,” held during 13 to 15 October 2022 explored how we have utilized the resources provided by the four elements of nature, bringing about some positive change in our society. Around 68 events (15 online and 53 offline) and a total of 15 workshops (6 online and 9 offline) were organised to engage students during the fest. The Manipal Conclave 2022 and Manipal Hackathon held during the occasion added wider dimensions to the showcase of technical skills.

M#, Manipal's annual national-level hackathon, also made a highly anticipated return. This flagship event witnessed 2 rounds: An online PPT and abstract submission round and an offline 36-hour hackathon. The second round was conducted at the MIT-KEF R&D Center from the 13 to 15 October 2022. The event saw 17 teams (15 outstation teams) from all over India cracking problem statements from a bag of nine. Students coded with grit and competed for a prize pool of ₹3 lakhs. The highlight of TechTatva'22 was the Conclave. Conclave'22 witnessed a panel of motivating, thought-provoking speakers sharing their knowledge and experience with the students of MIT, Manipal.

The details of the event are as follows:

Major Mohammed Ali Shah, actor and an army veteran shared his experience of following a short service commission in Indian Army where he was also deployed along the Line of Control in Jammu and Kashmir.

Mr Mayur Shetty, Founder and CEO of BlackFrog Technologies, an alumnus of MIT, Manipal who established the company incubated in MUTBI-GOK incubator, shared his ideas on the company's flagship device Emvolio, a portable, battery-powered refrigeration device that helps in vaccine transportation.

Mr Varun Singla, Youtuber, known for his popular channel Gate Smashers, spoke about his 1M+ subscribers base and his journey of helping students to crack GATE, and how his work has transformed many lives.

Mrs Ranjana Jha, GST Head, Karnataka Zone, enlightened the students on the concept of GST and taxes as she has seen all the shades of Indian bureaucracy.

Mr Swapnil Bhaskar, Strategic Head, NIYO Solutions, addressed the crowd on how the company aimed to make banking simpler, more innovative, and safer for over 5 million customers in India.

Ms Shalini Saraswathi, a quad amputee blade runner, athlete, and IT professional shared her story of transforming struggles and problems into opportunities.

Mr Ranjan Raj, an actor, spoke about his JEE preparation days, his college life as an IIT student and his super-hit TV Series 'Kota Factory'.



TechTatva'22 marked its end with valedictory ceremony on 15 October 2022. Joint Director, Dr Somashekara Bhat appreciated the efforts of the Conveners of TechTatva'22. The programme drew to a close with Dr Poornima Panduranga Kundapur, the faculty coordinator of M#, highlighting the efforts of the TechTatva'22 Student organising team.

# EVENTS AT MIT

## ANNUAL DAY 2022

Annual Day 2022 was celebrated at the institute on 07 November 2022. The day was dedicated to cherishing the achievements witnessed during the year. Ideas that bloom into projects, competitions and recreation break the tedium of an otherwise monotonous academic year.

The annual day provided the occasion to celebrate the year's triumphs. From student achievement, department workshops to guest lectures, every initiative to expand one's knowledge was commended. The achievers found their pictures on display as a mark of their academic excellence. Students related their experiences and acknowledged the opportunities the program afforded them. Each branch presented its top student with MIT's "Diamond Jubilee" award. The occasion was graced by the Chief Guest Professor K P Rao. The idea of teamwork and cooperation as the core values of the institute was reiterated by Prof Rao as he remarked "all human development is cooperative development. No man developed humanity as one person. We live for others, with others, by others and in collaboration with others."

## CISCON 2022 - TWO DAY CONFERENCE

Control Instrumentation Systems conference 2022 (CISCON 2022) was organised at the institute during 28 & 29 October 2022. This is the 19<sup>th</sup> edition of the flagship event of the Department of Instrumentation and Control Engineering. About 37 technical papers were presented by participants from all over India and Dubai in hybrid mode during the two days.

Dr Ramakrishnan Raman, Fellow at Honeywell aerospace Bengaluru, inaugurated the conference and delivered the keynote address on the topic "Leveraging Machine Learning Models for Complex System Behavior & Performance Predictions." He



Director MIT Cdr (Dr) Anil Rana congratulated the students on their success and reminded them of the path ahead.

The cultural program that followed the official event witnessed the exhibition of a vast array of talents. Rousing music, rendition of poetry, exciting dance performances, and classical singing were performed by the students.

stressed the importance of the knowledge of basic science of systems for engineering graduates. The talk highlighted that the best performance with optimal cost in modern gadgets is possible by advancement in computational power and modern computational algorithms.

Cdr (Dr) Anil Rana, Director MIT, presided over the function. He urged the participants to make use of the deliberations and shared his experience of control and instrumentation of naval war ships.

During the conference, Dr Prashant Mhaskar, Professor, McMaster University, Canada presented the keynote talk in virtual mode on the topic "From State Space Models and Nonlinear Control to Data Driven Modeling and Control: A Perspective". Dr Chinmay Rajhans, Professor MIT Manipal delivered expert talk on "Model Predictive Control". Dr Sudhiraj K, Professor, Justice K S Hegde Institute of Management, Nitte conducted a post conference workshop on "Design Thinking-Experiments with mindset, skillset, understanding and applications". Mr Ganesh Nayak, was the Convener of the event while Mr Aneesa Acharya and Mr P Chenchu Saibabu, were the co-conveners.



## ICRAFAM 2022 - THREE DAY INTERNATIONAL CONFERENCE

The Department of Mathematics, Department of Aeronautical and Automobile Engineering and Department of Mechanical and Manufacturing Engineering, MIT Manipal jointly organized International Conference on Recent Advances in Fluid Mechanics (ICRFAM-2022) from 04 to 06 October, 2022 at the institute.

The conference was organized with the support of MIT Bengaluru, Manipal University Jaipur, Sikkim Manipal University Sikkim, Manipal International University Malaysia, Manipal Academy of Higher Education Dubai and APPLY Partners.

The conference was also sponsored by the Council of Scientific and Industrial Research (CSIR), SoftPro Business Solutions and Century Farm Products. The combined efforts of the diverse disciplines ensured that ICRFAM-2022 created a forum for practitioners and specialists in the field of fluid dynamics a meaningful platform for deliberations.

The conference, held in a hybrid mode, was inaugurated on 04 October, 2022 in the presence of Guest of Honour Lt Gen (Dr) M D Venkatesh, Chief Guest Dr K Vajravelu Professor, Department of Mathematics, University of Central Florida, USA, Cdr (Dr) Anil Rana, Director, MIT Manipal, the Convener of the conference Dr Manjunatha Gudekote, Associate Professor Senior Scale, Department of Mathematics, co-convenors Dr Nagaraj N Katagi, Associate Director (Student Welfare) and Dr Mohammad Zuber, Professor, Department of Aeronautical & Automobile Engineering, Heads of the three organizing departments and participants of the conference.



During the inaugural address the Vice- Chancellor, MAHE emphasized on the importance of multidisciplinary research. Dr K Vajravelu, the chief guest for the event, highlighted the importance of the application of fluid dynamics in multidisciplinary areas.

Cdr (Dr) Anil Rana, Director, MIT Manipal elaborated on the opportunity and support in MIT Manipal for carrying out multidisciplinary research works. Heads of the three organising departments released the souvenir of the conference.



Key speakers in the conference:

- Prof K Vajravelu, University of Central Florida, USA, “A semi-analytical method and its application to systems of nonlinear ODEs and PDEs arising in science and engineering models”.
- Prof Suman Chakraborty, IIT, Kharagpur, “Materials Engineering Interfaces Microfluidics Towards Probing Cancer Metastasis on a Chip”.
- Prof Shijun Liao, Shanghai Jiao Tong University, China, “Clean Numerical Simulation (CNS) and its applications in 3-body problems and turbulence”
- Prof Irfan Anjum Badruddin Magami, King Khalid University, Kingdom of Saudi Arabia, “Blood flow in Artery: A CFD approach”.
- Prof Oluwole Daniel Makinde, Stellenbosch University, South Africa, “Modelling Hydromagnetic Mixed Convection of Nanofluid within a Concentric Pipe”.
- Prof K V Prasad, VSK University, Ballari, “Numerical Solutions of Coupled Boundary Layer Problems: An Application to Nanofluids with Temperature Dependent Transport properties”.
- Prof Dharmendra Tripathi, NIT, Uttarakhand, India, “A Fluid Dynamical Mathematical Approach for Progression of Novel Coronavirus SARS COV-2”.
- Prof Hakan F ÖZTOP, Firat University, Turkey, “Recent Advances in control of melting time of Phase Change Materials in curvilinear closed spaces”.



The conference received a total number of 370 registrations, 240 abstracts, and 80 full length research papers.

## RCAAI 2022 - THREE DAY INTERNATIONAL CONFERENCE

An International conference on Robotics, Control, Automation and Artificial Intelligence (RCAAI 2022) was organised by the Department of Mechatronics, MIT, Manipal in collaboration with the Department of Mechanical Engineering, National Institute of Technology Karnataka, Surathkal from 24 to 26 November 2022, in Sir M Visvesvaraya Seminar Hall of MIT Campus.



Dr G Satheesh Reddy Scientific Adviser to Raksha Mantri, Ministry of Defence, Government of India inaugurated the Conference. He delivered inaugural address and highlighted the need for engineering institutions to continuously strive to focus and excel in the emerging key areas, and urged the institutions to come out with a roadmap to meet the future expectations in the field of automation, and artificial intelligence.

Cdr (Dr) Anil Rana, Director, MIT, Manipal presided over the inaugural session. Prof S M Kulkarni, Dean (R&C), NITK Surathkal and Dr Ravikiran Kadoli, Professor & Head, Department of Mechanical Engineering, NITK, Surathkal, emphasized the need for such conferences.

Dr D V Kamath, Professor & Head, Department of Mechatronics, MIT Manipal informed that a total of 264 researchers, the industrial fraternity, and academia deliberated and exchanged problems and ideas on the latest trends in Robotics, Control, Automation, etc. during the conference.



As a part of pre-conference tutorial on 23 November 2022, B.Tech and M.Tech students were given hands-on training on the use of Robo Analyzer software for demonstration of Robot Kinematics by Developers of Robo Analyzer and RIDIM software. Participants from United Arab Emirates, USA, Sweden, Canada, Botswana made presentations in their specific research fields and a total of 84 research projects/thesis were presented during technical sessions of RCAAI-2022.

The conference aimed to be in sync with the ongoing research in India as well as abroad in the field of Bio-inspired Robotics, Rescue Robotics, Hybrid Parallel Robots for human-robot interaction, AI & Automation, and Robotics for Rural applications.



Don't make a permanent decision for a temporary emotion.



## CMPA 2022 - TWO DAY NATIONAL CONFERENCE

The Department of Physics organized the Tenth National Conference on Condensed Matter Physics and Applications (CMPA 2022). It was held at the Sir M V Seminar Hall, MIT, from 02 to 03 December 2022. The focus of the conference this year was “Materials for Environmental Sustainability”.

Ever since its inception nine years ago, this annual series of conferences has been attracting delegates and researchers from various parts of the country. About 200 Physics faculty, students, and research scholars from institutes and universities across the country participated in the event. There were six invited talks, and 110 research papers in ten technical sessions during these two days.



Chief guest Lt Gen (Dr) M D Venkatesh, Vice Chancellor, MAHE, Manipal, inaugurated the conference on 02 December, 2022. Cdr (Dr) Anil Rana, Director, MIT, Manipal, presided over the inaugural function.

## INVESTITURE CEREMONY OF STUDENT COUNCIL, MIT 2022-23

The Investiture Ceremony of the new Student Council for 2022-23 was conducted on 15 November 2022. The event marked the handing over ceremony of the responsibilities to the newly elected Student Council of the institute. Cdr (Dr) Anil Rana, Director MIT, felicitated the outgoing Student Council members and congratulated them on their successful tenure. Mr Priyanshu Gupta, President for the term of 2021-22, presented the annual report of the Student Council. Dr Nagaraj Katagi, Associate Director-Student Welfare welcomed the members of the new Student Council to the office. Director Cdr (Dr) Anil Rana and Joint Director Dr Somashekara Bhat presented the Council tag to the new members as they were inducted as office bearers for the year.



Dr N S Vidhyadhiraja, Professor & Dean, JNCASR, Bengaluru and Mr Rama Naik, General Manager, Canara Bank, were the guests of honor at the inaugural event. The conference was concluded on 03 December, 2022 with a valedictory function held at Sir M V Seminar Hall, MIT, Manipal. It was presided over by Dr Ashok Rao, Associate Director-Research and Consultancy, MIT, Manipal.



Dr Nagesh Kini, Co-founder and Chief Technological officer of Vimano EWA Private Limited was present as the chief guest of the event. The two-day national conference gave insight to the aspects of different fields of Physics such as materials for environmental sustainability, semiconductor devices, material characterization, crystal growth and characterization, spintronics materials etc. The event was sponsored by the Science and Engineering Board, SERB, Govt of India.

Cdr (Dr) Anil Rana addressed the student representatives and urged them to act responsibly as they navigate challenging situations ahead. Dr Somashekara Bhat, Joint Director MIT highlighted the significance of the student representatives in the activities of the institute. Mr Tushar Srivastava, President for 2022-23, acknowledged the significance of the assigned role and pledged to uphold the dignity of the office. The event concluded with a vote of thanks presented by the General Secretary, Arnav Agarwal.

*Article written by Janvi Dhanani, Managing Editor MIT Post*



## TWO DAY BIOTECHNOLOGY SYMPOSIUM - SYMBIOT'22

Department of Biotechnology and Institute of Engineers, Biotechnology Chapter (IEBt), Manipal Chapter organized a National Level Symposium, SymBiot'22 during 11 & 12 November 2022. Dr Sharad Bhartiya, Professor, Department of Chemical Engineering, IIT Bombay was the Chief Guest for the inaugural event. Mr Amit Gaurav, Manager, R&D (Downstream), Sun Pharmaceuticals, Gujarat was the Guest of Honor.



Dr Balaji S, Head of the Department of Biotechnology, Dr Ramachandra Murthy V, Professor, Department of Biotechnology and Associate Director (Development), and Dr Subbalaxmi, Assistant Professor Selection Grade and Faculty advisor, IEBt, Manipal Chapter graced the occasion.

The Symposium started off with a talk on “A systems biology perspective to evolutionary differences of the GAL system in cousin yeasts” by Dr Sharad Bhartiya. The talk touched upon the various engineering systems outside biology and explained about similar and more complicated systems in natural systems. It also focussed on the importance of Systems Biology approach to study biological systems.

## ONE DAY WORKSHOP ON DESIGN THINKING

Department of Instrumentation and Control Engineering, MIT Manipal organized a workshop on “Design Thinking - Experiments with mindset, skillset, understanding and applications” on 29 October 2022 as post conference event during CISCON -2022.



The deliberations provided the students insights into the applications of systems biology in various fields such as designing personalised medicine. Mr Amit Gaurav, an experienced bioprocess developer and a registered patent agent (IN/PA-3673) with Indian patent office, Mumbai, gave a virtual presentation on “Strategies for purification of Monoclonal Antibodies and challenges associated with it”. He discussed in detail about the process flow, purification, harvest and clarification strategies, and Stage-Gates of Biosimilar product development.

The second day of the Symposium was a workshop on “Machine Learning Approaches in Biotechnology: A hands-on exposure” by Dr Sharad Bhartiya. It involved a hands-on interactive session in Jupyter Notebook, a web-based computing platform.



The Department of Biotechnology also released its first annual technical Magazine, BioBuzz 2022, during the event. Dr S Balaji was the initiator and motivator to bring forth the magazine. It was the combined effort of the Research scholars, B.Tech and M.Tech students of the Department. Associate Professors Dr Thivaharan V and Dr Subbalaxmi, played a key role as faculty advisors in this venture.

Dr Sudhirraj K, Professor at Justice K S Hegde Institute of Management, Nitte conducted the workshop on design thinking. Through a series of well-researched case studies and examples of relevant success stories, Dr Sudhirraj highlighted the key aspects of design thinking such as identification of problem with proper perspective, need to establish the confidence of end users and so on.

The workshop created awareness on the role of creativity, innovation, success and sustainability and interrelation of these in design thinking. Synergy between innovation and design thinking was outlined with examples. The workshop was attended by faculty members, research scholars, students of the department along with the participants of the CISCON 2022 conference.



### 30<sup>th</sup> CONVOCATION OF MAHE

The 30<sup>th</sup> Convocation ceremony of Manipal Academy of Higher Education, Manipal, was held at KMC Greens, Manipal from 18 to 20 November 2022.

On Day 1, Shri Rajnath Singh Hon'ble Minister of Defence, Government of India, New Delhi was the Chief Guest and Lt Gen (Dr) Madhuri Kanitkar, Vice-Chancellor, Maharashtra University of Health Sciences, Nashik was the Guest of Honour.

Dr G Satheesh Reddy, Scientific Adviser to Raksha Mantri, Ministry of Defence, Government of India, New Delhi was the Chief Guest on Day 2 and Shri Amitabh Chaudhry, Managing Director & Chief Executive Officer, Axis Bank, Mumbai was the Chief Guest on Day 3.

From MIT Manipal 2575 candidates received the degree certificates which includes, 1964 graduates, 461 post graduates and 56 research scholars.

	Received in Convocation	Received in absentia	Total
UG (B.Tech)	1260	704	1964
PG (M.Tech/MCA)	367	94	461
PG (M.Sc)	82	12	94
PhD	49	7	56
<b>Total</b>	<b>1758</b>	<b>817</b>	<b>2575</b>



#### SCAN QR TO VIEW FULL COVERAGE

DAY # 1                      DAY # 2                      DAY # 3  
 18 November 2022      19 November 2022      20 November 2022



## THREE DAY FACULTY DEVELOPMENT PROGRAM DECEMBER 2022

Faculty Development Program on Effective Teaching for the newly joined faculty members of the institute was organized by the office of the Associate Director (Faculty Development and Welfare), MIT Manipal from 28 to 30 December 2022.

Cdr Dr Anil Rana, the Director, MIT Manipal addressed the faculty and Dr Somashekara Bhat, Joint Director, MIT Manipal gave the introductory remarks. Sessions on Roles of a Teacher and Composing MCQ's were handled by Dr Ramnarayan, Pro Chancellor, Sikkim Manipal University and former Vice Chancellor, MAHE.



Dr S N Bhat, Associate Director (Faculty Development and Welfare), delivered sessions on Learning Domains and Styles, Introduction to the Outcome Based Education and conducted group activities for the participants. The detailed overview of Academic Process at MIT was covered by Dr Raviraj Adhikari, Associate Director (Academics), MIT Manipal.

Dr Chandrashekar Bhat, Associate Director, Quality Assurance, MIT Manipal spoke on OBE Paradigm: Attainment of Outcomes. A session on

Classroom Management was conducted by Dr BHV Pai, Professor, in the Department of Civil Engineering, MIT Manipal. Dr Srihari Upadhyaya, Chief Executive Officer, MUTBI, MIT Manipal, gave an overview of the Entrepreneurship Ecosystem at MAHE.



Dr Satish Rao, Director of Research, MAHE, Manipal and Dr Ashok Rao, Associate Director (R&C), MIT Manipal introduced the Research Policies of MAHE and MIT to the participants and urged the faculty to pursue research in their respective field to remain relevant and help improve the ranking of MIT, Manipal and MAHE. Meditation sessions were conducted by Mr Shrikar and Dr Suresh Baliga from Heartfulness meditation on all the three days.

The three-day event concluded with a Valedictory session on 30 December 2022. Dr Somashekara Bhat, Joint Director, MIT Manipal graced the occasion and addressed the faculty members. While Dr S N Bhat gave the summary of the proceedings of FDP, Dr Siddappa I Bekinal Assistant Director (Faculty Development & Welfare) proposed the vote of thanks. Around 70 faculty members actively participated in the three-day FDP on Effective Teaching.



## NATIONAL SERVICE SCHEME (NSS)

Manipal Institute of Technology has been sanctioned with two units (100 students each) under the National Service Scheme (NSS). MAHE is sanctioned with a total of 10 units.

The official poster was released on 01 December 2022 by the Director, MIT Manipal, Cdr (Dr) Anil Rana. The Joint Director, Dr Somashekara Bhat, Program officers of the 2 Units, Dr Asha C S, Associate Professor, Department of Mechatronics Engineering, Dr Laxman Rao Paragonda, Associate Professor in the Department of Electrical & Electronics Engineering, Dr Poornima Bhagavath Assistant Professor Senior Scale in Department of Chemistry, Dr B S Maddodi, Assistant Professor Selection Grade in Department of Civil Engineering MIT Manipal, Associate Director, Faculty Development and Welfare, Dr S N Bhat, Dr Anoop Naha, Coordinator, Department of Pharmaceutics were present at the poster release of NSS- Manipal Unit. The poster contains a QR Code for the registration of students as volunteers.

MIT will function in Two Units, each comprising 100 volunteers. Four program officers are appointed to guide and support the NSS activities with the aim to enhance the experience of the student members towards community service.

NSS, an initiative by Ministry of Youth Affairs and Sports, Government of India, provides an opportunity for the student youth to take part in various government-led community service activities and programs.



## GUEST TALK ON “INDUSTRY 4.0 AND FUTURE OF JOBS”

A guest talk on "Industry 4.0 and Future of Jobs" by Dr Prahlad Vadakkepat, Associate Professor, Department of Electrical & Computer Engineering, National University of Singapore, was organized on 19 December at MIT, Manipal, by the Office of Associate Director (FD&W).



Dr Prahlad Vadakkepat is the founder secretary of the Federation of International Robot-soccer Association (FIRA) and was its General Secretary from 2000-16. Dr Prahlad has over three decades of research expertise in Artificial Intelligence and Robotics. His translational research has led to several start-ups in Robotics, AI and 3D printing in Singapore and India. He is an advisor to the IndVentr consortium developing affordable emergency care ventilators during the COVID-19 pandemic. His research interests and publications cover the topics that include Frugal Innovation, Distributed robotic systems, Humanoid robotics, Biomorphs, Neuro-Fuzzy Controllers and Intelligent Control techniques.

Dr Prahlad highlighted the features of Industry 4.0 and explained the transformation that is taking place due to the advent of technology and other associated factors. The talk revolved around how IoT, AI, Robotics and Automation are transforming

industries to cyber physical systems creating the capabilities needed for smart factories. When industries embrace the industry 4.0 transformation, skill sets in AI, IoT, Robotics and Automation will dominate, and new developments will happen. Moreover, the existing hierarchies will eventually make way for smarter and sustainable industries in the future. As per the World Economic Forum report 2020, by 2025, 85 million jobs may be displaced by a shift in the division of labour between humans and machines. However, at the same time, some 97 million new roles will emerge that are more adapted to the new division of labour among humans, machines, and algorithms. He also opined that increased awareness about Industry 4.0 and sustainability is essential for all.

During the talk, the opening remarks were given by Dr Vinod V Thomas, Registrar Evaluation, MAHE Manipal. Dr S N Bhat, Associate Director (FD&W) introduced the resource person and Dr Siddappa I Bekinal, Assistant Director (FD&W), delivered the vote of thanks. About 50 participants (Students, Research scholars and Faculty members) attended the talk.

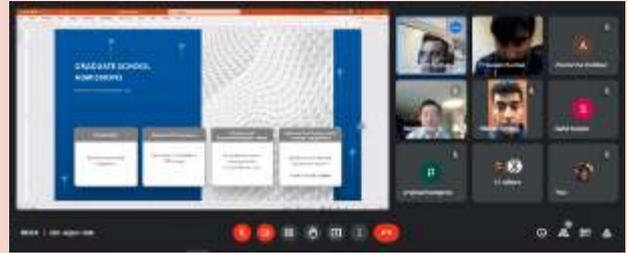


## TALK ON “INTER-DISCIPLINARY OPPORTUNITIES: A HIGHER EDUCATION PERSPECTIVE”

The Department of Chemical Engineering, MIT Manipal conducted an online event on “Inter-disciplinary Opportunities: A Higher Education Perspective” on 29 October 2022.

The speakers during the event were Dr Prashant Kumar, PhD, University of Wisconsin-Madison, MS Ecole Polytechnique, Dr Praveen Kumar, Post Doc, University of Minnesota, PhD, University of Minnesota, Dr Raimundo Ho, PhD, Imperial College London, ME, Imperial College London, Dr Nitesh Mittal, Post Doc, Massachusetts Institute of

Technology, PhD, KTH Stockholm. The purpose of the event was to make students aware of the opportunities abroad.



## PRODUCT SALES AGREEMENT WITH TACTICAL CYBERANGE SIMULATIONS, NOIDA

A Product Sales Agreement has been signed between Manipal Academy of Higher Education and Tactical Cyberange Simulations Pvt Ltd, Noida effective from 23 July 2022 onwards. The purpose of the agreement is to seek assistance from

Cyberange to provide components to establish a Center of Excellence. The initiative is from the Department of Information and Communication Technology, MIT Manipal.

## MEMORANDUM OF AGREEMENT WITH ABAI, BENGALURU

A Memorandum of Agreement has been signed between Manipal Academy of Higher Education and ABAI, (a non-profit organization committed to developing the Animation, VFX and Gaming industry in India), Bengaluru effective from 27 October 2022 and ending on 17 October 2025.

The purpose of the agreement is to jointly conduct Development and Training programs for aspirants who wish to work in the (AVGC) Animation, Visual Effects, Gaming, and comic space. The initiative is from the Department of Media Technology, MIT Manipal.



## MEMORANDUM OF UNDERSTANDING WITH THE STARTUP "CAMPUS EXPRESS”

An MOU was signed on 11 November 2022 between Manipal Academy of Higher Education and the campus home grown startup, "Campus Express".

The MoU is about the ways to serve the entire MAHE community with the experience of friction-free logistics.

Mr Tuneer Biswas, the Chief Branding officer, along with the cofounders Mr Pranay Saboo and Mr Pranav Saboo are alumni of MIT Manipal.



## MR MURALIDHARA HOSAHALLI, L&T TECHNOLOGY SERVICES LTD VISITS MIT

Mr Muralidhara Hosahalli, Global Head - Medical devices and Life Sciences at L&T Technology Services Ltd., Bengaluru visited MIT Manipal on 21 October 2022.

The visit aimed to explore the possibility of collaboration in academics, internship, and research.



Most people would learn from their mistakes, if they weren't so busy denying them.



## BICYCLE TOUR TO AGUMBE

The Adventurer is a 6-week certificate course in Adventure and Outdoor Leadership offered by the Centre for Outdoor Studies, MIT, Manipal. The program has been offered once a semester since 2019 and completed the fifth edition of the program that ran from August to October 2022.

The fifth edition involved 11 participants and 4 student volunteers. During the 6-week course, students trained 4 times a week building endurance and strength through rides around the countryside of Manipal, through several climbing drills and went on extended trips on Sundays.

The club collaborated with several practicing professionals who conducted workshops on Bicycle maintenance and repair, First Aid, Local Ecology

and Birdlife, and Nature Journaling. At the end of the program, the team cycled 300 kms to Kollur and back through Agumbe Nature Reserve. The tour was flagged off by Cdr (Dr) Anil Rana, Director, MIT Manipal and Dr Somashekara Bhat, Joint Director, MIT Manipal.



## SOCIIO ICHOR ORGANIZES “STEM CELL REGISTRY DRIVE”

Sociio Ichor, a student initiative of MAHE that aims to connect donors to patients in need of blood, organized ‘Stem Cell Registry Drive’ in association with DKMS-BMST.

A total of 696 students participated in the noble cause to fight against blood cancer. A single-day contribution from India to the world’s largest Bone Marrow Repository was a record-breaking number of 694.

The organizers collected a postcard with a message from each donor that will be sent to space with the help from Blue Origin. They will be handed over as memorabilia to the respective donors once retrieved.

SCAN FOR MORE  
DKMS-BMST



SCAN FOR MORE  
BLUE ORIGIN



## MIT BIDS FAREWELL TO 2023 BATCH OF UNDERGRADUATES

The B Tech batch of 2023, after a mix of incredible experience of undergraduate learning that included virtual learning during a global pandemic and classroom learning during the pandemic, were the centre of attention on 08 November 2023 at the Farewell Celebration held at MIT quadrangle.

The third year students at the institute along with the Student Council organised the Farewell to their senior students. The final year students dressed up in their best outfits, reflected on their time at MIT for one last time.

Several MIT students graced the stage for a series of dance and musical performances. The attendees were called on stage in pairs for numerous party games and the winners were decided after several rounds of questions and answers. The batch of 2023 put their talents on display with their dance moves to some groovy tracks.

Cdr (Dr) Anil Rana, Director MIT wished success to the students as they are setting eyes on the newer horizons. The FC-1 made the event more nostalgic with a lavish and delicious dinner spread.

With several emotional goodbyes, the air was heavy with chatter of beautiful and heartfelt memories being shared one last time. We wish the batch of 2023 all the best for their future endeavours as they walk out of these doors to take on the world.

*Article written by Shatakshi Mishra, 2<sup>nd</sup> Year, EEE*



## TECHNICAL DISCUSSION WITH A HANDS-ON SESSION ON THE IBM PLATFORM

The Department of Information and Communication Technology, MIT Manipal organized a technical discussion and a hands-on session on “IBM Platform for Data Science” on 04 October 2022.

Mr Akash V Gunjal, Program Manager, Global University Programs, IBM Research, IBM India Pvt Ltd, the resource person for the program, provided an overview of the principles of data science. He guided the participants with a hands-on workshop on utilizing IBM Watson Studio that enables the users to host project-related data, add services to projects and execute various machine learning models.

Further, Mr Gunjal interacted with technology enthusiasts on the questions related to IBM cloud

platform. Around 110 undergraduates from various institutions of MAHE participated in the session. The event was coordinated by Dr Diana Olivia, Assistant Professor Selection Grade, Department of Information & Communication Technology, MIT Manipal.



## MIT MANIPAL CONNECTS WITH YOUNG INDIANS (Yi)

Young Indians (Yi) is a movement for Indian Youth to converge, lead, co-create and influence India’s future. Yi as an integral part of the Confederation of Indian Industry (CII), a non-government, not-for-profit, industry managed organization, has created a platform called YUVA for young Indians to work towards realizing a dream of a developed nation.

The Yi membership includes young progressive Indians between the age group of 21-45 years and comprises of entrepreneurs, professionals, and achievers from different walks of life. It is a great honour and pride to have two of our alumni Mr Ashit B Hegde from Mechanical branch-2003 as Chapter Chair, Young Indians, Mangaluru, and Ms Sameeksha Shetty from Mechanical branch- 2015 as the Chapter Co-chair, Young Indians, Mangaluru.

Manipal Institute of Technology, MAHE, Manipal has signed a Memorandum of Understanding (MoU) with CII YUVA to motivate and provide opportunities to the students to engage in activities and initiatives related to “Youth Leadership”, “Nation Building” and “Thought Leadership”. With this association, students will get a platform to work on various innovative projects, to work in cross functional teams with a broad objective of enhancing their leadership skills and giving back to the nation.



The wind howls, but the mountain remains still.



## GE OFFICIALS VISIT EXPLORES COLLABORATIVE INITIATIVES

As an initiative to strengthen industry and academia collaboration, the officials from GE visited the institute in November 2022. The visit was aimed at exploring collaborative work in the healthcare domain. The discussions during the visit revolved around establishing a research center, initiating postgraduate programs for GE staff and other relevant research projects.



## Dr G SATHEESH REDDY VISITS MANIPAL INSTITUTE OF TECHNOLOGY

Dr G Satheesh Reddy, Scientific Advisor to Raksha Mantri, Ministry of Defence, Govt of India visited Manipal Institute of Technology on 19 November 2022. Dr Reddy was the Guest of Honour for the Convocation Ceremony of MAHE, 2022. Dr Reddy took time off and visited the institute and interacted with the members of the student projects of MIT Manipal.



## TALK ON PREVENTION OF SEXUAL HARASSMENT AT WORKPLACE (POSH) 2022

Collaboration, Understanding and Mutual Respect are essential for the success of any organization. In the present scenario, it is inevitable that we all be aware of the nuances of human behaviors especially those bordering on Sexual Harassment.

To make faculty and students aware of the regulations and to help build a healthy professional workplace, a talk was organized on the topic 'Prevention of Sexual Harassment at Workplace', on 29 November 2022.

Advocate Latha Holla, Holla Associates, Mangaluru shared her rich professional experience on the legal aspects related to prevention of sexual harassment at workplace. In his address, Cdr (Dr)

Anil Rana, Director, MIT Manipal, reiterated the importance of such awareness programs. Director, Student Affairs, MAHE, Dr Geetha Maiyya, Joint Director, Dr Somashekara Bhat, Associate Director, (FD&W), Dr Shankarnarayana Bhat, Heads of various departments, students, and research scholars were present during the occasion.



## TEA WITH THE DIRECTOR

Tea with the Director, an event to recognize the achievement of students, was hosted on 2 December 2022. It is also an occasion to create an opportunity for interaction between the administration and students. Cdr (Dr) Anil Rana

held an informal conversation with the students of B.Tech Honours on challenges faced by them. This session provided an opportunity for students to interact with the head of the institution and provide feedback on the program.



## INTERACTIVE SESSION WITH PROF SHARON HEIDENREICH FROM GERMANY

An interactive session with a faculty member from the Language Center, Institut für Sprachen und Interkulturelle Kompetenz, Technische Hochschule Nürnberg, and Germany was held at MIT, Manipal on 29 November 2022. Prof Sharon Heidenreich from Technische Hochschule Nürnberg interacted with the faculty members of the department who handle Communication Skills in English for B.Tech students. The discussions revolved around the topics on pedagogical practices, curriculum, and assessment practices in the two institutes.

Head of the Department, Dr Yogesh Pai chaired the discussion and thanked Prof Sharon for the interaction with the faculty members of the department.



## LIONS LEADERSHIP CONCLAVE 2022

Lions Leadership Conclave 2022 (LLC-2022) was held in MIT-MAHE-Manipal on 29 October 2022. President of the function Cdr (Dr) Anil Rana, Director of MIT-Manipal, explained the concept of Leadership by citing anecdotes from his days in the defence forces. Dr Somashekara Bhat, Joint-Director, MIT, Guest of honour, explained how Dr T M A Pai had thought and executed CSR activities 60 years back, which is relevant even today. Mr Ram Naik K, GM of Canara Bank, explained the contribution of Canara Bank's CSR activities.

Dr Lopamudra Priyadarshini, Head CSR, Utkal Alumina International Limited, Hindalco Industries Ltd., spoke on the role of Corporates in Building a Sustainable Future. Mr Ketan Deshpande, Ashoka Fellow & Founder Chairman FUEL, talked about the future of the Nation through Skill

Development. Mr Nagesh Tilwani, Managing Director, HYOSUNG T&D India Pvt Ltd, the former board member of GE T&D India Ltd, explained how CSR is a Win-Win Strategy. "Is CSR a missed opportunity?" was the title of the talk by Mr Ramananda Sengupta, who is a Veteran Journalist. Prithvi Tilwani, the President of the Lions Club of Manipal (University Campus), welcomed the gathering and Dr Dasharathraj K Shetty, Associate Professor, Department of DSCA the club's Faculty advisor, proposed a vote of thanks.



## DEPARTMENT OF MEDIA TECHNOLOGY ORGANIZES INDUSTRY TOUR

The Department of Media Technology organized a one-day industry tour for third year and fourth year B.Tech students on 09 November 2022, which included visits to four industries in and around Udupi district related to packaging.

Three faculty members Ms Asha S Pai, Assistant Professor Selection Grade, Ms Bhagya R S, Assistant Professor Senior Scale from Media Technology and Mr Sandeep Nayak Pangal, Assistant Professor Senior scale, Department of Humanities and Management accompanied the students during this industry tour.

The first visit was to Dakshina Kannada Co-op Milk Producers Union Ltd, Uppoor. The students witnessed the processing and packaging of Nandini dairy products and the functions of vertical form-fill seal packaging machines.

The second visit was to Vinayaka Plastic Industries, Koteswara. This Plastic Industry provided opportunity to understand gravure printing (5 color and 7color machine), slitting, die-cutting, laminating, pouch making and sealing.

The third visit was to Vigneshwara Poly Products, Koteswara, where students could explore almost all kinds of plastic packaging processes and applications which included In-mold labelling, blown film extrusion, cast film extrusion, thermoforming of plastic containers, blow and blow extrusion process, shrink labelling and dry-offset printing with UV drying.

Post lunch, students visited Hangyo Ice-creams Pvt Ltd, a factory unit located in Heroor. This ice-cream factory visit provided the students with the opportunity to see the processing of ice-cream and packaging of different forms of Hangyo ice-creams.



You can never leave footprints that last  
if you are always walking on tiptoe.



# FACULTY ACHIEVEMENTS

## Dr SRINIVASULU

Dr Srinivasulu, Associate Professor senior scale, Department of Chemistry, has been honored with a National Award, a Bronze Medal by the Indian Liquid Crystal Society ILCS, Bengaluru during the 29<sup>th</sup> National Conference on Liquid Crystals (NCLC-2022) held at Christ (Deemed to be University), Bengaluru.

Dr Srinivasulu also delivered the Bronze Medal award lecture titled, “Enhanced Mesomorphism through Hydrogen Bonding interactions” during the conference.



Dr Srinivasulu

## Dr BALAKRISHNA MADDODI S

Dr Balakrishna Maddodi S, Assistant Professor Selection Grade, Department of Civil Engineering, was conferred with Atal Achievement Award 2022-“Most Innovative Faculty with excellent pedagogy in Environmental Education and Social Impact”.

Dr Maddodi received the award from Mr Syed Shah Nawaz Hussain, Member of Parliament. The award was conferred in the presence of several ministers and peoples’ representatives held at Vigyan Bhawan, New Delhi.



Dr Balakrishna Maddodi

## Dr KARUNAKAR A KOTEGAR

Dr Karunakar A Kotegar, Professor at DS&CA, Director International Collaborations, MAHE inaugurated ARTIFIX Animation Workshop at Manipal Institute of Communication, MAHE on 03 November 2022.

Dr Kotegar participated in the panel discussion on the topic “Role of Industry-Institute Collaboration in the Context of New Education Policy (NEP 2020)” at the 6<sup>th</sup> IEEE International Conference DISCOVER-2022 at JNNCE, Shimoga.



Dr Karunakar A Kotegar

## Dr G M TUNGESH

Dr G M Tungesh, Associate Professor Senior Scale, Department of Humanities and Management, MIT Manipal, has written a book, titled "Literature and Criticism for beginners", published by (VKP) Vidya Kuteer Publications -New Delhi". The book presents a more explicit, lucid and clearer introduction to literature and criticism for the students of undergraduate programmes.

The book attempts to provide an overview of literature to enable students to use literary knowledge for various productive and creative purposes. Though the book is primarily meant for students interested in literature, the methodological approach will also benefit teachers and researchers working in the field of language pedagogy. Adopting a user-friendly approach, the author has tried to explain literary genres, terms and major literary theories in simplified version. Several literary texts and literary discourses are analyzed with comments. This book intends to inspire students of literature.



## Dr NEELIMA BAYYAPU

Dr Neelima Bayyapu, Associate Professor, Department of Computer Science Engineering has been nominated as General Co-chair of the 29th IEEE International Conference on High-Performance Computing, Data and Analytics (HiPC-22) ([www.hipc.org](http://www.hipc.org)) Bengaluru from 18 to 21 December 2022.

Dr Bayyapu is the first woman general co-chair of this prestigious conference happening since 1993. She is invited to be a Member of the Program Committee for the 23<sup>rd</sup> IEEE/ACM International Symposium on Cluster, Cloud, and Internet Computing, to be held in Bengaluru from 01 to 04 May 2023. She is selected as a Member of the Program Committee, International Conference on Applications and Techniques in Information Security (ATIS 2022-[www.atis2022.com](http://www.atis2022.com)), MIT, Manipal, from 30 to 31 December 2022.



## Dr I THIRUNAVUKKARASU

Dr I Thirunavukkarasu, Associate Professor Senior Scale, Department of Instrumentation & Control Engineering, MIT, was invited as an Examiner for the Ph.D viva voce oral board examination held in SRM Institute of Technology and Management, Chennai, for the thesis titled "Design of Integrated Robotic Control Systems & Evaluation of Drilling Temperature Effects for Dental Implantation Procedures" by Ms Anitha. G under the supervision of Sunitha A, Associate Professor.

Dr I Thirunavukkarasu also participated as an External Board of Studies member for the Department of Electronics and Instrumentation Engineering, Ramaiah Institute of Technology, Bangalore (Autonomous under VTU) for the BOS meeting held on 29th Oct 2022 via online mode for the NEP Syllabus approval. He is appointed as an Executive Committee member for the Automatic Control and Dynamic Optimization Society (ACDOS) under IFAC during 2022-2024, along with the other members from IISc and NITs.



## Mr ASHWATH RAO B

Mr Ashwath Rao B, Assistant Professor Selection Grade, Department of Computer Science and Engineering, has coordinated procuring of cloud GPU service for MIT users from E2E Networks. The GPU chosen is top of the class A100 from NVIDIA.

The faculty members, researchers, and students of MIT, Manipal, can now make use of this facility, especially for running Machine Learning/Deep Learning projects.



## Dr SHOBHA M E

Dr Shobha M E, Assistant Professor Selection Grade, Department of Mathematics and Joint Secretary, Sports Council, MAHE Manipal, teamed up with running enthusiasts, led the OCEAN QUADS - a four-member team from Udupi, along with an alumnus Mr Ganesh Prasad, from Automobile Engineering.

The team completed the 120km+ Adventure Race in 20hrs 45min in the Namma Adventure Race 2.0, a 24-hour multi-sport event organized by nth Adventure, supported by MAHE from 09 to 11 December 2022. The course was in the order of 6kms trekking, 90kms cycling (caving, river running included), 5kms kayaking, 14kms running and solving puzzle activity during the run.



Dr Shobha M E

## Dr DASHARATHRAJ K SHETTY

Dr Dasharathraj K Shetty, Associate Professor, Department of Data Science and Computer Applications, was a resource person for the workshop titled "Creative Thinking, Innovation, and Design Thinking", that was organized by the Department of Electronics and Communication, Mangalore Institute of Technology and Engineering, Moodabidre, Dakshina Kannada.



Dr Dasharathraj K Shetty

## Dr B H V PAI

Dr B H V Pai, Professor, Department of Civil Engineering, participated in a panel discussion on the topic, "Skills currently in demand at the industries." The program was aired LIVE on the TV channel ET Now Swadesh (Times Now Group) in their feature 'Consumer is King' on 16 December, 2022. The others panelist for the LIVE program were Mr Vijay Shivaram, CEO of Qness IT Staffing, Mr Adithya Narayana Mishra, CEO & Director, CIEL HR, and Mr Nikhil Goyal, Founder, Beyond Imagination Technologies.

Scan QR to watch the panel discussion



Dr B H V Pai

## Dr RAMAKRISHNA M

Dr Ramakrishna M, Associate Professor, Department of DSCA, as the resource person delivered a hands-on session on “Image Processing using Python” in a 3-day workshop on “Signal and Image Processing using Python.” The workshop was organized by MITE, Moodabidri on November 23, 2022, in collaboration with IEEE Mangalore Subsection and IEEE MITE Student Chapter.

Dr Ramakrishna is selected as the Co-Coordinator from MIT, Manipal for Center for Photography, MAHE with effect from 01 November 2022.



## Dr SHAILESH K R

Dr Shailesh K R, Associate Professor, Department of Electrical and Electronics, has successfully passed the qualifying exam for National Certification Examination for Energy Managers conducted by the Bureau of Energy Efficiency, Ministry of Power, Govt of India in the month of November 2022.



Cartoon by:  
Prem Shirodkar, 1<sup>st</sup> Year,  
Automobile Engineering



## ENRICHING INSTITUTE LEADERSHIP DIMENSIONS



### **Dr NARAYANA SABHAHIT**

*Pro Vice Chancellor-Technology and Science, MAHE*

Dr Narayana Sabhahit on completion of his tenure as the Registrar, MAHE, Manipal is appointed as the Pro Vice Chancellor - Technology and Science, MAHE, Manipal effective from 01 December, 2022.



### **Dr P GIRIDHAR KINI**

*Registrar, MAHE*

Dr P Giridhar Kini, Director - Admissions and Additional Registrar is appointed as the Registrar, MAHE Manipal effective 01 December, 2022.



### **Dr ISHWAR BHIRADI**

*Assistant Director- Industrial Liaison, Placement and Practice School, MIT*

Dr Ishwar Bhiradi, Assistant Professor Senior Scale, Department of Mechatronics Engineering, is appointed as Assistant Director- Industrial Liaison, Placement and Practice School, MIT as an additional responsibility for a period of one year with effect from 17 September 2022.



### **Dr ASHWINI BHAT**

*Assistant Director - Student Welfare*

Dr Ashwini Bhat, Assistant Professor Senior Scale, Department of Mathematics, has been appointed as Assistant Director - Student Welfare, with effect from 01 October, 2022.



### **Dr ANJAN GUDIGAR**

*Assistant Director - Academics*

Dr Ajan Gudigar, Associate Professor, Department of Instrumentation & Control Engineering has been appointed as Assistant Director- Academics, MIT Manipal an additional responsibility for a period of one year with effect from 02 November 2022.



### **Dr SMITHA N PAI**

*Head, Department of Information & Communication Technology*

Dr Smitha N Pai, Professor & Head, Department of Information & Communication Technology has received an extension as the HoD, for a period of one year with effect from 01 January 2023.



### **Dr BALAKRISHNA PRABHU**

*Head, Department of Chemical Engineering*

Dr Balakrishna Prabhu, Professor & Head, Department of Chemical Engineering has received an extension as the HoD, for a period of one year with effect from 01 January 2023.



**Dr SHREESHA C**

Head, Department of Instrumentation & Control Engineering

Dr Shreeshya C, Professor & Head, Department of Instrumentation & Control Engineering has received an extension as the HoD for a period of one year with effect from 01 January 2023.



**Dr GHANASHYAMA PRABHU**

Assistant Director - Academics

Dr Ghanashyama Prabhu, Assistant Professor Selection Grade, Department of Information & Communication Engineering received an extension as Assistant Director - Academics for a period of one year with effect from 01 December 2022.



**Dr ASHWIN DEVRAJ**

Assistant Director - Academics

Dr Ashwin Devraj, Assistant Professor Selection Grade, Department of Mechanical & Industrial Engineering received an extension as Assistant Director - Academics for a period of one year with effect from 01 January 2023.



**Dr V THIVAHARAN**

Assistant Director, Quality Assurance

Dr V Thivaharan, Associate Professor Senior Scale, Department of Biotechnology received an extension as Assistant Director, Quality Assurance for a period of one year with effect from 07 December 2022.



**Dr MOHANDAS CHADAGA**

Coordinator - Engineering Design Consultancy and Skill Development

Dr Mohandas Chadaga, Professor, Department of Civil Engineering, received an extension of tenure as coordinator for Engineering Design Consultancy and Skill Development with effect to 01 December 2022 for two years.



**Dr KIRAN KAMATH**

Coordinator - Engineering Design Consultancy and Skill Development

Dr Kiran Kamath, Professor, Department of Civil Engineering, received an extension of tenure as coordinator for Engineering Design Consultancy and Skill Development with effect to 01 December 2022 for two years.



**Dr BALACHANDRA C**

Coordinator - Center for Excellence in Cyber Security, MAHE

Dr Balachandra C, Professor, Department of Information and Communication Technology received an extension of tenure as the coordinator, Center for Excellence in Cyber Security, MAHE Manipal for a period of two years with effect from 01 September 2022.



**Dr SHOBHA M E**

Joint Secretary, Sports Council, MAHE

Dr Shobha M E, Assistant Professor Selection Grade, Department of Mathematics has received an extension of tenure as Joint Secretary, Sports Council, MAHE Manipal.



## PHD AWARDEES: FACULTY MEMBERS



### **Dr SRINIVAS SHENOY H**

*Assistant Professor Senior Scale, Department of Mechanical & Industrial Engineering*  
has successfully defended his Doctoral thesis titled “Mechanical & Thermal Characterization of Jute-Flax and Ultra High Molecular Weight polyethylene fiber reinforced hybrid polymer composites” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 21 October 2022. The research work was guided by Dr Raghuvir Pai B, Professor, Mechanical & Industrial Engineering, MIT, Manipal and co-guided by Dr Vijay Kini M, Professor Mechanical & Industrial Engineering. MIT, Manipal



### **Dr BHARATHI R B**

*Assistant Professor Selection Grade, Department of Electrical & Electronics Engineering*  
has successfully defended her Doctoral thesis titled “Development of Tonogonio: A Combined device to Perform Tonometry and Gonioscopy” for the award of PhD degree by Manipal University, Jaipur on 14 October 2022. The research work was guided by Dr G K Prabhu, President, Manipal University, Jaipur and co-guided Dr Ramesh S V, Professor, Department of Optometry, Manipal College of Health Professions, Manipal.



### **Dr ISHWAR BHIRADI**

*Assistant Professor Senior Scale, Department of Mechatronics Engineering*  
has successfully defended his Doctoral thesis titled “Investigations on Energy Storage and Cytotoxicity of In-situ Formed Metallic Nanoparticles Using Micro EDM Process” for the award of PhD degree by the Indian Institute of Technology, Madras, Manipal on 1 November 2022. The research work was guided by Dr Somashekara Hiremath, Professor, IIT Madras.



### **Dr MURALISHWARA K**

*Assistant Professor Senior Scale, Department of Mechanical & Industrial Engineering*  
has successfully defended his Doctoral thesis titled “Evaluation of Surface Properties and Moisture Absorption Behavior of Epoxy Clay Nanocomposite for Coating Application” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 22 November 2022. The research work was guided by Dr Achutha U Kini, Professor, Mechanical & Industrial Engineering MIT, Manipal and co-guided Dr Sathyashankara Sharma, Professor and Head, Mechanical & Industrial Engineering, MIT, Manipal.



### **Dr AHAMED SHAFEEQ B M**

*Assistant Professor Selection Grade, Department of Computer Science and Engineering*  
has successfully defended his Doctoral thesis titled “Soft Computing Based Intelligent Clustering Framework for the Discovery of Patterns from Spatial Data” for the award of PhD degree by the Visvesvaraya Technological University, Belagavi on 10 September 2022. The research work was guided by Dr Zahid Ahemed Ansari, Professor, Department of Computer Engineering, P A College of Engineering, Mangalore.



### **Dr RITESH RAMAKRISHNA BHAT**

*Assistant Professor Senior Scale, Department of Mechanical & Industrial Engineering*  
has successfully defended his Doctoral thesis titled “Experimental and Statistical Evaluation of Drilling Process Parameters in Seawater Immersed Glass Fiber Reinforced Polymer Composite” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 07 December 2022. The research work was guided by Dr N S Mohan, Professor, Department of Mechanical & Industrial Engineering MIT, Manipal and co-guided Dr Sathyashankara Sharma, Professor and Head, Department of Mechanical & Industrial Engineering MIT, Manipal.



### **Dr ADITYA BAKSHI**

*Assistant Professor, Department of Computer Science and Engineering*  
has successfully defended his Doctoral thesis titled “A Secure Face Recognition System with Spoofing Detection Using Image Quality Assessment Parameters” for the award of PhD degree by the Shri Mata Vaishnodevi University Katra on 03 December 2022. The research work was guided by Dr Sunanda, Assistant Professor, Department of Computer Engineering, Shri Mata Vaishnodevi University Katra, Jammu & Kashmir.



### **Dr PATIL PRASAD VINAYAK**

*Assistant Professor, Department of Mechatronics Engineering*

has successfully defended his Doctoral thesis titled “Surface and Underwater Marine Vehicles: Dynamics, Maneuvering and Navigation” for the award of PhD degree by the IIT Kharagpur, West Bengal, India on 12 December 2022. The research work was guided by Dr Vishwanath Nagarajan, Associate Professor, Ocean Engineering and Naval Architecture Department, IIT Kharagpur and co-guided Dr Om Prakash Sha, Professor, Ocean Engineering and Naval Architecture Department, IIT Kharagpur.



### **Dr ANEESHA ACHARYA K**

*Assistant Professor-Senior Scale, Department of Instrumentation and Control Engineering*

has successfully defended his Doctoral thesis titled “Upper Extremity Assessment Using an Instrumented Hand Function Test” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 28 December 2022. The research work was guided by Dr Somashekara Bhat, Professor, Department of Electronics & Communication Engineering, MIT, Manipal, and co-guided by Dr Kanthi M, Professor, Department of Electronics & Communication Engineering, MIT, Manipal.



### **Dr SUCHARITA SHETTY**

*Assistant Professor-Senior Scale, Department of Computer Science and Engineering*

has successfully defended her Doctoral thesis titled “Design of an efficient parallel Framework for Transactional and Analytical Queries” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 27 December 2022. The research work was guided by Dr B Dinesh Rao, Professor, Manipal School of Information Sciences, Manipal and co-guided by Dr Srikanth Prabhu, Associate Professor-Senior Scale, Department of Computer Science and Engineering, MIT, Manipal.



### **Dr GIRISHA SURATHKAL**

*Assistant Professor, Department of Data Science and Computer Applications*

has successfully defended his Doctoral thesis titled “Anomaly Detection and Tracking Using UAV Videos: A Video Analytics Approach” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 20 December 2022. The research work was guided by Dr Manohara M M Pai, Professor, Department of Information & Communication Technology and co-guided by Dr Ujjwal Verma, Associate Professor and Head, Department of Electronics & Communication Engineering, MIT, Bengaluru.

## **PHD AWARDEES: FULL TIME RESEARCH SCHOLARS**



### **Dr GURUKRISHNA K**

*Full-time Research Scholar in the Department of Physics*

has successfully defended his Doctoral thesis titled “Effect of Doping and Stoichiometric Tuning on Thermoelectric Performance Ternary Metal Chalcogenides” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 12 October 2022. The research work was guided by Dr Ashok Rao, Professor, Department of Physics, MIT, Manipal.



### **Dr SOORAJ MOHAN**

*Full-time Research Scholar in the Department of Mechanical and Industrial Engineering*

has successfully defended his Doctoral thesis titled “Experimental Investigation and Kinetic Studies of  $NH_3$  - Selective Catalytic Reduction ( $NH_3$  - SCR) Using Copper Substituted Beal Zeolite Catalyst for NOx Reduction in Light-Duty Biodiesel Engine” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 13 October 2022. The research work was guided by Dr Dinesha P, Associate Professor, Department of Mechanical and Industrial Engineering MIT, Manipal.





### **Dr JAYALAXMI RAJESH HANNI**

Full-time Research Scholar in the Department of Instrumentation and Control Engineering has successfully defended her Doctoral thesis titled “Design of Capacitance Level Sensor with Intelligent Calibration Technique” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 17 October 2022. The research work was guided by Dr Santhosh K V, Associate Professor Senior Scale, Department of Instrumentation and Control Engineering MIT, Manipal.



### **Dr SNEHA KAGATIKAR**

Full-time Research Scholar in the Department of Chemistry has successfully defended her Doctoral thesis titled “Small Molecule Semiconducting Materials for Organic Electronic Devices” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 26 October 2022. The research work was guided by Dr Dhanya Sunil, Associate Professor senior scale, Department of Chemistry MIT, Manipal and co-guided by Dr Dhananjaya Kekuda, Associate Professor, Department of Physics, MIT, Manipal.



### **Dr MURALIDHAR VAMAN KAMATH**

Full-time Research Scholar in the Department of Civil Engineering has successfully defended his Doctoral thesis titled “Micro Characterisation of Alkali Activated Fly Ash-Ggbs-Metakaolin Ternary Binder System Cured at Ambient Condition” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 27 October 2022. The research work was guided by Dr Shreelaxmi Prashanth, Associate Professor, Department of Civil Engineering MIT, Manipal.



### **Dr GANESHA KRISHNA V S**

Full-time Research Scholar in the Department of Physics has successfully defended his Doctoral thesis titled “Investigation on Spray Deposited Zn Based Chalcogenide Thin Films for Optoelectronic Applications” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 28 October 2022. The research work was guided by Dr Mahesha M G, Associate Professor, Department of Physics MIT, Manipal.



### **Dr AISHWARYA S**

Full-time Research Scholar in the Department of Mathematics has successfully defended her Doctoral thesis titled “Structural Aspects of Nearings Based on Derivations and Prime Ideals” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 02 December 2022. The research work was guided by Dr Babushri Srinivas Kedukodi, Associate Professor Senior scale, Department of Mathematics MIT Manipal and co-guided by Dr Syam prasad Kuncham, Professor, Department of Mathematics, MIT Manipal.



### **Dr PATIL SUHAS VIJAY**

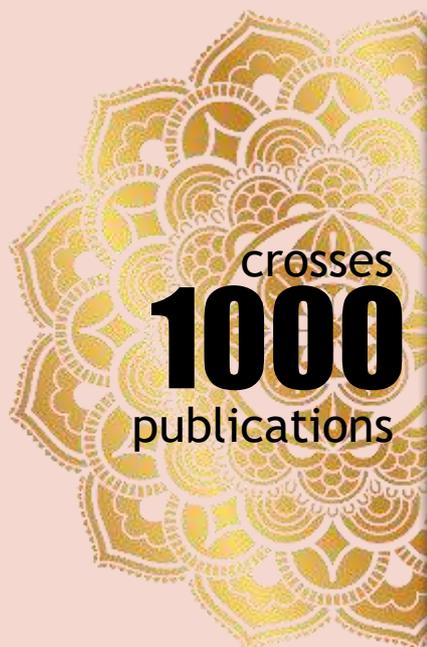
Full-time Research Scholar in the Department of Civil Engineering has successfully defended his Doctoral thesis titled “Developing Design Methodology to Improve the Quality of Recycled Aggregate Concrete” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 06 December 2022. The research work was guided by Dr Balakrishna Rao K, Professor, Department of Civil Engineering, MIT, Manipal and co-guided by Dr Gopinath Nayak, Associate Professor Senior Scale, Department of Civil Engineering, MIT, Manipal.



### **Dr SAHANA NAGAPPA MOGER**

Full-time Research Scholar in the Department of Physics has successfully defended her Doctoral thesis titled “Investigation on Co-Evaporated Ternary Chalcogenide Thin Films for Photodetector Applications” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 07 December 2022. The research work was guided by Dr Mahesha M G, Associate Professor, Department of Physics MIT, Manipal.

# RESEARCH HIGHLIGHTS



During the year 2022, researchers at MIT have performed exceedingly well. The number of publications during the year stood at 1230, an increase of 39% compared to the previous year. About 20% of the publications are in the top 10 percentile journals and about 39% of the publications are in Q1, 30% in Q2, 20% in Q3 and 11% in Q4 journals. Over the last five years the number of publications has doubled.

## Dr POORNESH RECEIVES SERB RECOMMENDATION FOR A GRANT

The committee of Science and Engineering Research Board (SERB) has considered to recommend a grant of ₹50 Lakhs, for the project titled, "Developing printable and ultralow gas sensors in mixed environment using reduced graphene/metal oxide composites," proposed by Dr Poornesh, Assistant Professor Selection Grade, Department of Physics, MIT Manipal.



Dr Poornesh

## Dr ADITYA UDAYRAJ JOSHI RECEIVES DST-SERB RESEARCH PROJECT

Dr Aditya Udayraj Joshi, Assistant Professor, Department of Civil Engineering, MIT has received a sanction order from DST SERB for the Startup Research Grant Project entitled, "Strain distribution and provenance studies on uranium bearing Jaban meta-conglomerate and wacke of Proterozoic Champaner Fold Belt, Western India: Emphasis on tectonics of Rodinia supercontinent assembly". This project is for 2 years and the total allocated budget including overheads is ₹20,60,872.



Dr Aditya Udayraj Joshi



When one door closes, another opens.  
Or you can open the closed door. That's how doors work.



## Dr VIJAY BABU & Dr SREEA RECEIVE GRANT UNDER NIDHI-PRAYAS PROGRAM

The proposed project titled “Development of portable Gnathodynamometer” submitted by Co-founders of SVN Nova Tech Pvt Ltd & Faculty members at MAHE Manipal, Dr Sreea Roy, Assistant Professor, Department of Oral and Maxillofacial surgery, MCODES Manipal & Dr Vijay Babu Koreboina, Assistant Professor, Department of Mechatronics Engineering, MIT Manipal has been selected under NIDHI-PRAYAS program at Manipal Universal Technology Business Incubator, Manipal. The approved amount for the project is ₹10 lakh for a duration of 14 months w.e.f. 27 October 2022.



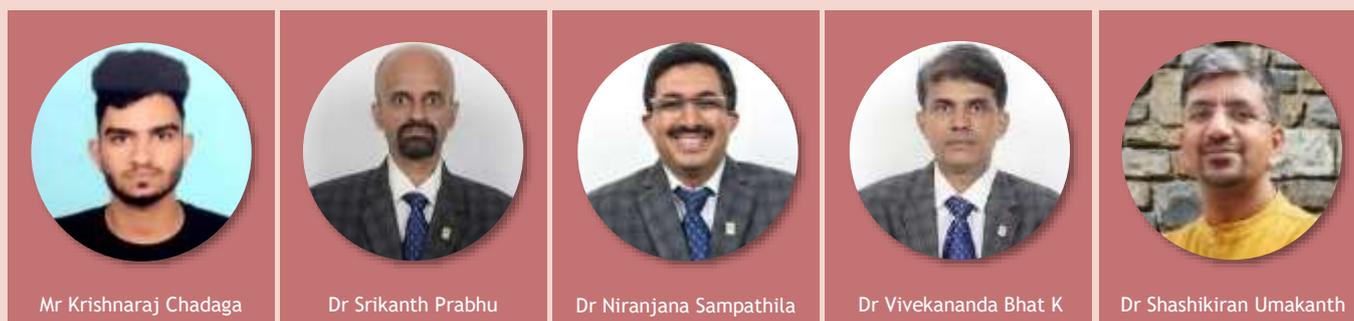
Dr Sreea Roy

Dr Vijay Babu Koreboina

## GERMAN PATENT GRANTED TO INTERDISCIPLINARY TEAM FROM MAHE

A German Patent was granted to Mr Krishnaraj Chadaga, Research Scholar, Department of Computer Science Engineering, Dr Srikanth Prabhu, Associate Professor Senior Scale, Department of CSE, Dr Niranjana Sampathila, Associate Professor Senior Scale, Department of Biomedical Engineering, Dr Vivekananda Bhat K, Associate Professor Senior Scale, Department of CSE, and Dr Shashikiran Umakanth, Professor of Medicine, Dr TMA Pai Hospital Udupi, for the invention titled “A Machine Learning Based System for Medical Diagnosis of Covid-19 Using Clinical and Laboratory Markers”.

A brief summary of the Invention: The present disclosure relates to a machine learning based system for performing medical diagnosis of COVID-19. The disclosure proposes a machine learning-based system that can diagnose and predict COVID-19 by using routine blood tests. The system can be used for assisting doctors in determining the people who should be tested further. It performs a screening of patients before using the standard COVID-19 detection tests.



Mr Krishnaraj Chadaga

Dr Srikanth Prabhu

Dr Niranjana Sampathila

Dr Vivekananda Bhat K

Dr Shashikiran Umakanth

## INTERDISCIPLINARY FACULTY TEAM FROM MIT FILES PATENT

An interdisciplinary faculty team from MIT, Manipal along with SIES school of Packaging Mumbai, filed a patent on their invention “A Composition Forming a Bio-Plastic Film and Method Thereof”, on 25 November 2022, (Ref. number 202241067961). The faculty involved in filing the patent are Dr Nagaraj Kamath, Assistant Professor Selection Grade, Media Technology, Dr Balaji Seetharaman, Head Department of Biotechnology, Dr Srinivas Shenoy, Assistant Professor Senior Scale, Department of Mechanical Engineering, Prof Ramnath Shenoy, Assistant Professor Senior Scale, Department of Humanities and Management and Prof Prasad B Iyer, Director, SIES, School of Packaging, Mumbai. *MAHE and SIES have signed an MoU towards working on Bioplastic materials.*



Dr Nagaraj Kamath

Dr Balaji Seetharaman

Dr Srinivas Shenoy

Prof Ramnath Shenoy

Prof Prasad B Iyer

## Dr VIKAS & Dr ANITHA GET PROJECT APPROVED BY SERB UNDER CORE RESEARCH GRANT

Project titled “Non-invasive 3D vector modeling of depolarization sequences using Magnetocardiography in Cardiomyopathy study” has been approved by Science and Engineering Research Board (SERB) under Core Research Grant.

Principal Investigator of the project is Dr Vikas R Bhat, Department of Biomedical Engineering, and Dr Anitha H, Department of Electronics and Communication Engineering, is the Co-Investigator of the Project.



Dr Vikas R Bhat



Dr Anitha H

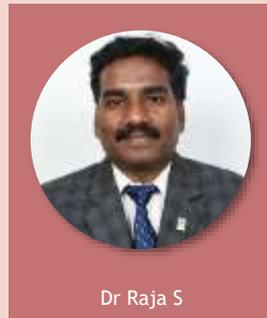
## MIT FACULTY MEMBERS FIGURED IN THE WORLD TOP 2% SCIENTISTS/RESEARCHERS

Four faculty members from MIT have featured in the list of Top 2% Scientists/Researchers in the world as released by Stanford University (USA) and published by Elsevier. Dr Raja S, Associate Professor Senior Scale, Department of Chemical Engineering, Dr Raghavendra U, Associate Professor, Department of Information and Control Engineering & Deputy Registrar, MAHE, Manipal, Dr Tanweer, Associate Professor, Department of Electronics and Communication, and Dr Shiva Kumar, Professor, Department of Mechanical Engineering are the four top researchers who have made it to the list.

Dr Shiva Kumar has joined this elite league in this year, while the other three have repeated this rare achievement for the second consecutive year.



Dr Tanweer



Dr Raja S



Dr Raghavendra U



Dr Shiva Kumar

## IEEE BEST PAPER AWARD

In the recently held DISCOVER (Distributed computing, Communication, VLSI, Embedded systems, Robotics and Healthcare) conference of IEEE Mangalore Subsection held at JNN College of Engineering, Shivamogga, during 14 & 15 Oct, 2022 three of the six Best Paper Awards were bagged by the woman research scholars of MIT, Manipal. The details of the award recipients are:

Ms Shavantrevva Bilakeri, Research Scholar, Department of Data Science and Computer Applications, MIT Manipal, received Best Paper Award for the paper, “Strong Baseline with Auto-Encoder for Scale, Invariant person Re-identification”.

Ms Alla Srija, Research Scholar, Department of Data Science and Computer Applications, MIT Manipal, received Best Paper Award for the paper, “Voltage-Gated Spin-Orbit Torque Magnetic Tunnel Junction model analysis”.

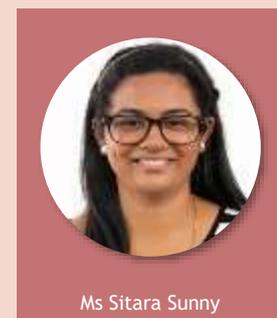
Ms Sitara Sunny, Research Scholar, Department of Data Science and Computer Applications, MIT Manipal, received Best Paper Award for the paper, “A Novel Technique to Mathematically Represent the Human Knee Dynamics through the Application of the Integral Concept”.



Ms Shavantrevva Bilakeri



Ms Alla Srija



Ms Sitara Sunny



## Ms NAYANA RECEIVES FIRST PLACE IN KMC RESEARCH DAY PRESENTATION

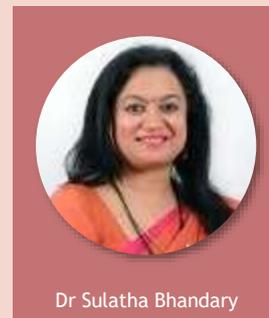
Ms Nayana, Ph.D Scholar in the Department of Biotechnology, working on a collaborative project titled “Dual drug loaded biodegradable implant for post cataract surgery treatment” with Dr Bharath Raja Guru, Professor, Department of Biotechnology, MIT and Dr Sulatha Bhandary, Professor, Department of Ophthalmology, KMC, Manipal received first place for the presentation which is a part of her PhD work, held during the KMC Research Day on 15 November 2022.



Ms Nayana



Dr Bharath Raja Guru



Dr Sulatha Bhandary

## Ms ASHWATHI C AWARDED THE INSPIRE PH.D FELLOWSHIP BY THE DST, GoI

Ms Ashwathi C, has been awarded the INSPIRE Ph.D fellowship by the DST, Government of India. As part of this award, she will be getting a total fellowship of ₹21,64,320, and a contingency amount of ₹1,00,000 over the next five years. Ms Ashwathi is working for her Ph.D under the supervision of Dr Anish Kumar Warriar, Associate Professor, Department of Civil Engineering. Her topic of research is the assessment of microplastics and heavy metals in agricultural soils of coastal Karnataka.



Ms Ashwathi C



Dr Anish Kumar Warriar

## Mr VIPIN RECEIVES BEST POSTER PRESENTATION AWARD AT AMSCA 2022

Mr Vipin Cyriac, Research Scholar, Department of Physics, received best poster presentation award under Energy Storage Materials category, including Entire Volume of Journal of Energy Storage (*Volume 33, January 2021, Elsevier Publications*) worth \$1000 for his paper titled “Effect of NaPF<sub>6</sub> salt on the ion transport properties of sodium carboxymethyl cellulose - Poly (vinyl alcohol) polyblend electrolytes for potential application in energy storage devices” at the International Conference on Advanced Materials Synthesis, Characterization and Applications (AMSCA-2022) organized by the Department of Physics, Savitribai Phule Pune University, Maharashtra, held during 18-20 October 2022. Vipin is carrying out his research work under the guidance of Dr Ismayil, Assistant Professor Selection Grade, Department of Physics, MIT, Manipal.



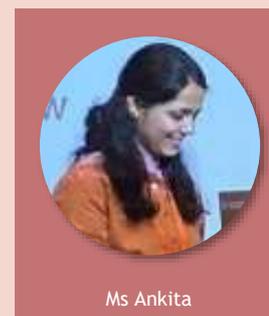
Mr Vipin Cyriac



Dr Ismayil

## Ms ANKITA RECEIVES TRAVEL GRANT

Ms Ankita, Research Scholar in the Department of Electronics and Communication Engineering received a travel grant of US\$1500 from the organizers of the 24<sup>th</sup> IEEE, EPTC Conference, Singapore held on 08 December 2022.



Ms Ankita

## Mr LOZIL MENDONZA RECEIVES RESEARCH DEVELOPMENT GRANT

Mr Lozil Mendonza, Research Scholar from the Department of Physics, has received a Research Development Grant for attending the 66<sup>th</sup> DAE Solid State Physics Symposium Research, Birla Institute of Technology Mesra, Ranchi, organized by Bhabha Atomic Research Center. A grant of ₹357 has been sanctioned by The Royal Society of Chemistry.



Cartoon by:  
Prem Shirodkar, 1<sup>st</sup> Year,  
Automobile Engineering



Think like a proton. Always positive.



# STUDENTS IN ACTION

## "MANIPAL TEAM BIOMACHINES" WON A GOLD MEDAL AT IGEN JAMBOREE COMPETITION



"Manipal Team BioMachines" won a gold medal (one of the 173 gold Medal winners, out of 350 teams) in the iGEM Jamboree for their solution AMPifin. The iGEM Grand Jamboree is an annual event showcasing the projects of 370+ multidisciplinary local teams solving local problems, all over the world. It is an academic competition aimed at improving peoples' understanding of synthetic biology while also developing an open community and collaboration between groups. MIT, Manipal team was amongst the 5 nominees selected for Best Track prize of the 23 teams participating in the Food and Nutrition track at the competition.

## MIT TEAM WINS SMART INDIA HACKATHON

Team iPanda, a student team of MIT Manipal became the Winner (Sharing) of Smart India Hackathon 2022 Grand Finale. The team won a trophy and Cash Prize ₹1 Lakh. The team was led by Arnav Agarwal (II-year B.Tech Computer Science and Engineering), Ishita Saha (Second Year, Data Science Engineering), Nishant Dash (Second year, Computer Science and Engineering), Swamiraju Satya Praveen Varma (Second year, Computer Science and Engineering), Aiswarya Anand (Second year, Computer Science and Engineering) and Divyansh Kulshreshtha (Second year, Electrical and Electronics Engineering). The team was mentored by Dr Girija Attigeri, Faculty Instrumentation and Control Engineering, and Dr Niranjana U C, MDN Manipal. Their problem statement was Heritage & Culture and built application - KalaKart.



## MIT STUDENTS BAG PRIZES AT DASARA CUP 2022



Two MIT students won medals in the State Level Dasara Cup 2022 boxing tournament held at Mysore from 29 Sept to 02 Oct 2022. Ms Reema D'Souza from the Department of Media Technology won first place in women's boxing (welterweight), and Mr Advaith Sundar from the Department of Electrical and Electronics Engineering won the bronze medal under the 86 - 92 kg category.

## TEAM AEROMIT SECURES ALL INDIA RANK #1 IN THE SAE INDIA AEROTHON 2022 COMPETITION

Team AeroMIT secured All India Rank #1 in the SAE Aerothon 022 at S J C Institute of Technology, Chikballapur during 18 & 19 November 2022. The challenge for the final round of the competition involved using an Autonomous Drone system to identify and drop payload on a given target area with accuracy within the shortest possible time. Team won the First position, out of 52 teams participated.



## MIT STUDENT TEAM WINS RUNNER-UP POSITION AT DVCON INDIA 2022 HACKATHON



Project SANAM, a team involving students of MIT, Mr Ayush Kumar (Computer and Communication Engineering), Mr Tushar Upadhyay (Electronics and Communication Engineering), and Mr Yellur Vishal Rao (Electronics and Communication Engineering), won the second runner-up position in DVCon India 2022 Hackathon. The students were awarded certificates, plaques and a cash prize of ₹30,000 for their efforts. The event was conducted online on the 05 and 06 September 2022. The problem statement of the hackathon was “Accelerate AI algorithms on an FPGA.”

## DSCA STUDENT TEAM WINS INTERNATIONAL CYBER SECURITY DATA MINING COMPETITION

Khushee Kapoor, Kunalik Garg, Kartikeya Tiwari and Pratinav Seth, V Sem. B.Tech. students of Data Science and Computer Applications (DSCA) bagged the fifth position at the International Cyber Security Data Mining Competition (CDMC) 2022. The team worked under the guidance of Dr Vidya Rao, Assistant Professor and Dr Poornima Panduranga Kundapur, Associate Professor, Department of Data Science and Computer Applications. They stood 5<sup>th</sup> overall and 1<sup>st</sup> among the Indian participants among the competitors from 52 Universities across the globe.

## TEAM ANALYTICA, MIT STUDENT TEAM WINS GE HEALTHCARE HACKATHON

Team Analytica, a student team of MIT comprising Khushee Kapoor, Shrinidhi Nayak, Shiv Pratap Singh, and Sahaj Singh from the Department of Data Science and Computer Applications has won the third position in the GE Healthcare Hackathon (HACK’E’LTH 2022), bagging a cash prize of ₹50,000. Dr Rohini Rao, Assistant Professor Senior Scale, Department of Data Science and Computer Applications was the mentor of the team.

The event was conducted online with several rounds from 02 September to 03 November 2022 with the problem statement ‘Standard Configurations for Product Optimization using Data Science’.



## SHAVANTREVA BILEKERE BAGS THE BEST PAPER AWARD AT IEEE DISCOVER 2022

Shavantreva Bilekere, Research Scholar, Department of Data Science & Computer Applications has obtained best paper award for the paper entitled “Strong Baseline with Auto Encoder for Scale-invariant Person Re-identification” at the IEEE DISCOVER-2022 organized by JNN College of Engineering, Shimoga, Karnataka.

## Mr JOJU TO PARTICIPATE IN THE 42<sup>ND</sup> INDIAN SCIENTIFIC EXPEDITION TO ANTARCTICA



Mr Joju George Sebastian, Ph D Scholar, from the Department of Civil Engineering has been selected to participate in the 42<sup>nd</sup> Indian Scientific Expedition to Antarctica. Mr. Joju travels to Schirmacher Oasis, East Antarctica from 05 Nov 2022 to 18 Jan 2023, for fieldwork to collect water, soil, and sediment samples for his research work. The entire expenses towards his participation will be funded by the Ministry of Earth Sciences, Government of India. Mr Joju is working on his Ph D under the supervision of Dr Anish Kumar Warriar, Associate Professor, Department of Civil Engineering.



If you let your head get too big, it'll break your neck.



## STUDENTS SELECTED FOR GLOBAL TECHNOLOGY SOLUTIONS (GTS) PROGRAM 2022

Global Technology Solutions (GTS) is a four-month program that unites student innovators from Manipal Academy of Higher Education (MAHE) and University of New Brunswick (UNB), Canada to develop technologies that solve global challenges. This joint program was executed through the Manipal-Government of Karnataka Bioincubator of MAHE Manipal and J Herbert Smith Centre for Technology Management & Entrepreneurship UNB Canada.

Three students of MIT Manipal, Ms Pragya, third year Biomedical Engineering, Mr Geroge Paulson, third year Electronics and Communication Engineering, and Mr Afham Ahmad, first year M.Tech Mechanical Engineering have made it to the list of candidates for the Second Cohort, which starts from 28 November.

## STUDENT TEAM QUALIFIES FOR GRAND FINALE OF QUANTUM SCIENCE & TECHNOLOGY HACKATHON

Three students from the Department of Computer Science and Engineering Mr Gautham Shourya, Ms Sharanya and Ms Aarushi qualified for the Grand finale of Quantum Science and Technology Hackathon 2022. The MIT student team was among the top 16 teams in this hackathon.

## TEAM MANIPAL RACING ELECTRIC PERFORMS AT BAJA 2022

Team Manipal Racing Electric secured the AIR 3 position in the preliminary round of EBAJA 2023 amongst 80 other collegiate teams from all over India. The preliminary round of BAJA 2022 tested the team's innovation, engineering, and design process. All new Electric ATV will participate in BAJA 2023 to be held in Pithampur, Indore.



## STUDENTS PRESENT PAPER IN 73<sup>RD</sup> INTERNATIONAL ASTRONAUTICAL CONGRESS 2022 AT PARIS, FRANCE

Three students from MIT Manipal presented paper in 73<sup>rd</sup> International Astronautical Congress 2022 At Paris, France. Ms Koina Maji from Department of Chemical Engineering presented a paper titled 'An investigation of fast radio bursts and its feasibility as technosignature', Ms Rithika S from Department of Instrumentation and Control Engineering presented a paper titled 'Interstellar space exploration using photon propulsion' and Ms Rithika S from Department of Instrumentation and Control Engineering presented a paper titled 'Demystifying the mysterious properties of Saturn's dead star moon: MIMAS'.

## PROJECT “SWARM” PRESENTED AT IEEE DISCOVER 2022

An in-house project “SWARM: Sanitizer with Attendance through Remote Monitoring,” was completed and presented by the students of Department of Data Science & Computer Applications at IEEE DISCOVER 2022. The project was designed by Mr Sai Anish Malla, Ms Khushee Kapoor, and Mr Adithya Kejariwala under the guidance of Dr Vidya Rao and Dr Poornima Panduranga Kundapur.



## CADET NIYATI KOTIAN APPOINTED AS SENIOR UNDER OFFICER



Cadet Niyati Kotian, fifth Semester student of Data Science Engineering was appointed as SUO (Senior Under Officer) during the investiture ceremony for cadets of 4 KAR ENGR COY, Batch 2022-23.

## TEAM FROM SCHNEIDER ELECTRIC VISITS MIT

Employees of Schneider Electric, Bengaluru, pursuing M.Tech in Software Engineering in the Department of Information Communication Technology, MIT Manipal, visited the campus during 23 to 26 December 2022 to get to know more about the campus and facilities. The program is delivered at Schneider Electric Bengaluru by the faculty members of MIT, Manipal as a part of MoU with Schneider Electric for Academic and Research collaboration. The visited employees of Schneider Electric were the 17 students of the first batch of this M.Tech program.



## Cartoon Corner



Cartoon by:  
Prem Shirodkar, 1<sup>st</sup> Year,  
Automobile Engineering



When tempted to fight fire with fire, remember that the Fire Department usually uses water.



## STUDENT CORNER

Article by: Snigdha Deshmukh (ECE '23) and Parthiv Menon (CSE '23)

*“I wish there was a way to know you were in the good old days before you actually left them.”*

It has been three and a half years since we first set foot in the sleepy yet intriguing town of Manipal as aspiring engineers at Manipal Institute of Technology. The onset of a fresh start after an exhausting 12th grade gave our naive minds and innocent hearts a beacon of hope. We believed this was a place where we could realise our dreams and live our hearts out. Little did we know, Manipal would assume a greater importance in our lives than just a means of forging our careers—it would become our source of comfort.

Manipal has the peace and tranquillity of a small town coupled with the youthful energy of a city. We were awed at the innumerable opportunities that presented themselves as soon as we set foot in college. While there was the constant pressure of performing and delivering one's best, the lush greenery, long winding roads, beautiful sunsets, and pristine beaches made it all seem worthwhile. We soon discovered that Manipal was like a bubble—cut off from the rest of the world and its infinite intricacies. It was in this cocoon of competition that we blossomed into capable individuals.

As much as we lamented that we had to spend a significant portion of our college life at home, we tried to make the best out of the time we got to spend in college. We believe that the Batch of '23 is the batch that has seen it all. It remains the only batch of students that got to experience both a proper offline year before and after Covid struck. In those trying times during the lockdown, we found solace in clubs and student projects. They catalysed the process of exploring our interests and were the oxygen on which we survived the first three years of college. Here, we met like-minded individuals with many ideas—potential teammates with whom we could connect and realise that Manipal had a place for everyone. When the opportunity presented itself, we were proud to uphold the legacy of these clubs that moulded us into becoming better persons.

Over time, we met a wide variety of people from diverse backgrounds who eventually turned into our best college buddies—our hostel mates, the study group that got us through college lectures and labs, the group of people we partied with, and the ones with whom we explored the quaint town. We learned to cope with the grind of

back-to-back sessionals and end-semester exams as our jam-packed academic calendar rushed us through every semester. Sports meets, open mics, street plays, and events organised at the Student Plaza soon became a regular part of our everyday lives.

We went from participating in TechTatva and Revels in our first year to pulling the strings in our third year—a mammoth task where we figured out how to successfully organise a fest from scratch without the guidance of our immediate seniors. Revels '22, held during our third year in college, was also where we witnessed the legendary singer KK perform live. It is etched in our memories as a defining moment of being a Manipalite.

And almost four years later and one step away from graduation, decked up in sarees and suits, we bid adieu to our fellow batchmates one last time on the 8th of November. It was an evening of broad smiles, wistful reminiscing, and heartfelt goodbyes as we looked forward to meeting each other someday in the future. We walked out with our heads held high and eyes brimming with tears holding dear the countless experiences that shaped us into who we are. Just like that, Manipal had become the home we stumbled upon as we made mistakes, learnt from them, laughed, loved, and lived to the fullest. Reflecting upon our times in college and understanding how much we have grown from the first year to the last has been a humbling experience.

It was an ideal combination of people and the unique magic of Manipal that spilt colour onto the proverbial canvas of our college lives. As writers, we find it hard to believe that anyone can accurately summarise the impact our college has had on any student that walks through its halls. Yet, this was an attempt to put into words the bittersweet emotions surging through every fourth year as they close one chapter of their lives and turn over to another.

***Thank you  
for a lifetime of memories, Manipal!!***

***Signing off,  
Batch of '23***

# ALUMNI MATTERS

## Continued from Cover Page: ALUMNI MEET 2022

Each reunion event began at 9:00 am with interaction between all the Alumni and teachers. The formal function that followed involved a floral tribute to the founder MAHE Manipal Dr TMA Pai, welcome to the alumni and Chief Guest's address.

The first Silver Union - 1995 Batch was organized on 16 December 2022. The chief guest of the function was Lt Gen (Dr) M D Venkatesh, Vice Chancellor, MAHE. He elaborated on the changes at MAHE during the past 25 years and how the transformation is aligned with the vision of the founder. The Vice-Chancellor lauded the contribution of the alumni for obtaining the status of institution of Eminence.



The second the Silver Reunion - 1996 Batch was organized on the 20 December 2022. The chief guest was Dr Rohith Singh, Director, Alumni Relations, MAHE. Dr Rohit, urged the alumni to engage with the Alma mater and appealed them to inspire the present generation of students with their success stories.



On the 23 December 2022, Alumni Silver Reunion - 1997 Batch was organized with Dr Narayana Sabhahit, the former Registrar, and the present Pro Vice Chancellor MAHE, Manipal, as the Chief Guest of the function. Reminiscing about his journey as a teacher, Dr Sabhahit highlighted the relevance of connect between the students and teachers. Dr Sabhahit outlined the possibility of alumni supporting the academics of meritorious students of their alma mater.



The elevator to success is out of order.  
You'll have to use the stairs, one step at a time.





The final event the Silver Reunion of Department of Electronics and Communication Engineering, PG Alumni meet was held on 24 December. Dr Narasimha Bhat, CEO and Founder, Manipal Dot Net Pvt Ltd Manipal was the Chief Guest for final event. Dr Bhat observed that amongst his three alma maters' MIT was the least aggressive when it came to seeking contribution from alumni, and urged the organisers to be aggressive in the future. He suggested that MAHE could follow the IISc CSR facility model that makes it very easy for alumni to support the initiatives.

Cdr (Dr) Anil Rana, Director, MIT, Dr Somashekara Bhat, Joint Director, MIT, Dr Giridhar Kini, Registrar, MAHE, Dr Vinod Thomas, Registrar Evaluation, MAHE graced the events on various days of the Reunion.

During the reunion, several teachers who taught the 1995, 1996, 1997 batches were felicitated by the students of each branch. Students applauded the efforts of the teachers and shared their experiences and memories of their times in MIT Manipal. The reunion also witnessed alumni paying homage to the fellow students who had lost their lives due to personal tragedies and due to the pandemic.

The office of Alumni, Public and International Relations, under the leadership of Dr Vijaya Kini, Associate Director, and efficient coordination of Prof Vinod Kamath, Assistant Director, and Dr Krishna Prakash, Assistant Director, Alumni, Public and International Relations ensured that events on all the days lived up to the expectations of the alumni.



## PG ALUMNI MEET ELECTRONICS AND COMMUNICATION ENGINEERING

ECE PG Alumni Meet 2022 was organized on 24 December 2022, as a part of Golden Jubilee Celebration of the Department of Electronics and Communication Engineering. About 45 alumni attended the meet.

The event started with a campus tour in the forenoon to explore the MAHE facilities. The team also visited MARENA and the Experience Theater at MAHE. This was followed by the visit to the ECE department.



An interaction of Alumni with the faculty members, PG students and research scholars of the department was held immediately after the campus tour for about two hours.

The interaction saw brainstorming on a variety of topics as mentioned below:

- Involvement of alumni in 'Industry Connect' and 'Alumni Connect' programs run by the department. The alumni have shown interest in involving in such activities.
- Aligning the PG curriculum with the industry standards. PG alumni who are in core industries have shown interest in contributing their knowledge of the state of the art suitably through an active involvement during the curriculum revision.
- Increase the avenues for internships for students. Alumni have shown interest in referring UG and PG students to the project leads in their respective industries.
- Necessity of innovative teaching learning processes
- A pan India phenomenon of decreasing admission for PG courses. The alumni working in core industries believed skilled Master's graduates are still sought after by the industries. A research component in the curriculum would be a value-addition for an engineering postgraduate.
- Necessity of MoU with industry and existence of industry sponsored laboratories in the department wherein industry relevant work is carried out.

The alumni expressed their deep satisfaction and happiness on the skill sets imparted to them by the



department during their study period at MIT and expressed that those skills matched the industry expectations.

Formal stage program was arranged at the Sir M V Seminar Hall in AB-2. Dr Narasimha Bhat, founder and CEO of Manipal Dot Net Pvt Ltd was the chief guest. The function was presided over by Cdr (Dr) Anil Rana, Director, MIT Manipal.



A few notable dignitaries who were present for the event were Dr Somashekara Bhat (Joint Director MIT Manipal), Dr M V Kini (Associate Director, Alumni, IR and PR), Dr K V Sriram (Associate Director-Industry Liaison, Placement & Practice School), Dr S N Bhat (Associate Director, Faculty Development & Welfare), Dr G S Nayak (Head of the Department, ECE). Moreover, Dr U C Niranjan, adjunct professor of ECE department and Dr K Prabhakar Nayak, former HoD and retired professor of ECE department graced the occasion.

The formal function was followed by an entertainment program by a team of PG alumni and faculty members. A special attraction of this entertainment program was the splendid performance of Mr Gagan Gaonkar, B.Tech student of ECE department and winner of Zee TV - Hindi and Kannada Sa Re Ga Ma Pa Li'l Champs.





### **Dr SUBHAMOY MANDAL**

Dr Subhamoy Mandal an alumnus of MIT from Biomedical Engineering, 2003-2007) has been recently selected as one of the three DAAD Research Ambassadors under the Engineering Category from India. He recently joined IIT Kharagpur in March 2022 as Assistant Professor in the School of Medical Science and Technology. Prior to that, he was associated with Maxer Endoscopy, Stuttgart as Clinical Applications Engineer (Augmented Reality Assisted Surgery).



### **Mr RAAFE KHAN**

Raafe Khan one of our alumni from the Electrical and Electronics Engineering, 2010-2014, has been listed in Forbes under 30, 2022. He is currently Director of Energy Storage, Pine Gate Renewables, Texas, USA. It all began with his desire to work with clean energy in his grandparents' home in India. Regular power cuts and the family's decision to depend on diesel powered generators would only leave several layers of harmful emissions. On the completion of his Masters, Mr Raafe joined hands with Pine Gate Renewables The company has managed to set up the largest project pipeline in the US. With his expertise and his problem solving abilities, he has come out as an energy expert who is currently supervising several projects across the US that are created to generate safe and efficient energy.



### **MS LASKSHATA PRASHAR**

Ms Laskshata Prashar from 2010 Batch, Chemical Engineering, is now associated with the Indian Air Force. She was commissioned in 2012 after training for one and half years at Hyderabad and Bangalore. Ms Laskshata has been flying Multiengine Russian Aircraft Antonov 32 since the training.



### **Ms JYOTSNA BUIDETI**

Our alumna, Ms Jyotsna Budideti (2014, Aeronautical Engineering) is the CEO and Co-Founder, SpaceSense.ai. Congratulations to her for the startup SpaceSense.ai, based in Paris, which is now gaining recognition as one of the 17 European Spacetech startups to gain momentum in recent times. The company uses satellite imagery and AI to aid in monitoring millions of acres of land over 10 countries on a daily basis.



### **Mr MOHIT SAXENA**

Mr Mohit Saxena, an alumnus, (2014, M.Tech Computer Networking), currently the Chief Technology Officer, Infinity Labs Ltd., hosted the inaugural session of the launch of InfiBharat, an indigenous encryption technique developed by Infinity Labs Ltd. The session was inaugurated by Shri Ashwini Vaishnav, Hon'ble Minister for Communications, Electronics & Information Technology and Railways, Government of India. It is a Make in India Security solution launched under Atmanirbhar Bharat drive of the government of India, showcasing Indian technical strength synchronised to global standards. Infinity Labs Ltd is a technology company with a clear vision to Innovate, Automate and Secure the Networks.



### **Mr ANEESH BHARDWAJ**

Mr Aneesh Bhardwaj, B.Tech, Mechanical Engineering, Batch 2014, is appointed as the new Director of Strategy and Partnerships at Siemens Advanta, Bavaria, Germany.



### Dr PARTH KOTAK

Alumnus of MIT Manipal, Dr Parth Kotak, B.Tech Mechanical Engineering (2013-2017) has secured 1st place for presenting his research on TSAM (Twisted Spiral Artificial Muscles) in the 3MT competition 2022, hosted at The University of IOWA - College of Engineering.



### Mr ISHAAN PILAR D'SOUZA

Students of MIT are also making their mark in the streams beyond Engineering. One such example would be of Mr Ishaan Pilar D'Souza, Electronics and Communication, batch, 2022 who has made name for himself by being one of the First-Person-view drone camera operators for the movie Gandhadagudi, the recently released Kannada documentary on Wildlife and Forests in Karnataka. Mr Ishaan is known as one of the best FPV drone cameramen in the country. His expertise has drawn corporates such as Ola, Lamborghini and many other companies for making their promotional videos.



### Mr ANSHUMAN RAO

One of our students from the 2016-2020 CSE Batch has written a book, titled, "Graffiti Gods" published by Techshreshta Solutions Private Ltd. It came out to the readers on 5 November 2022. "Graffiti Gods" is a college drama set in an engineering college in Manipal, a coastal university town in Karnataka. The story revolves around the student clubs and organizations on campus and the power dynamics and competition between them. The author, Mr Anshuman Rao while in college, worked for The MIT Post, the official media body of MIT, as a Writer, a Sub-Editor, and the Managing Editor. He had a brief stint as a reporting intern at the Deccan Herald newspaper in Bangalore. He is a Software Engineer by profession.

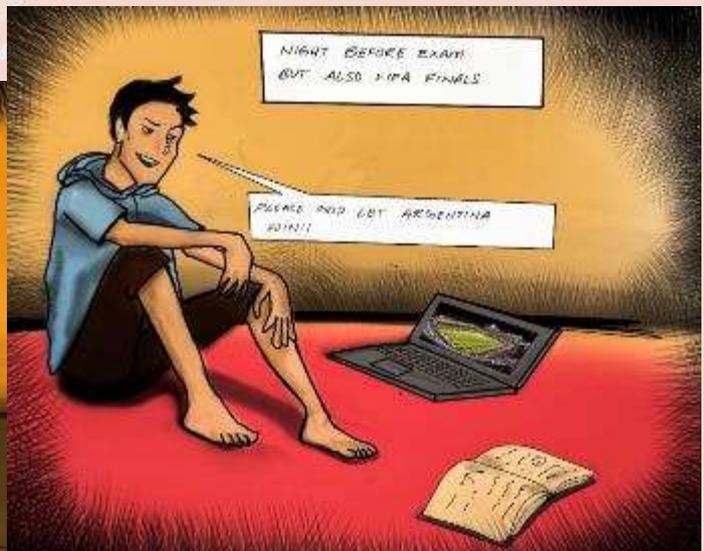
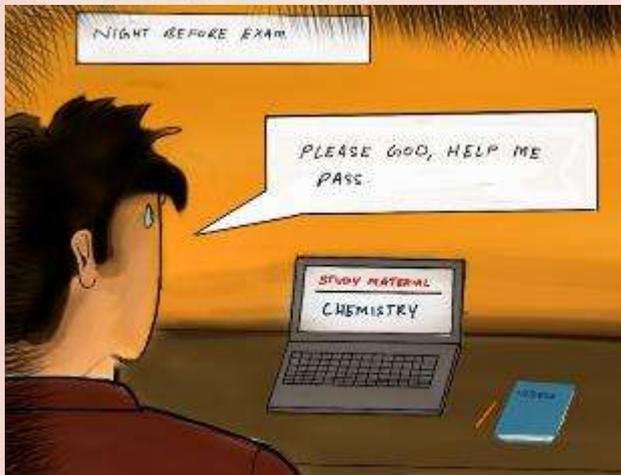


### Mr RAJESH MENON

Mr Rajesh Menon, from Mechanical Engineering, 1982-86 batch visited MIT Manipal on 16th October 2022. He is currently Director (New>Normal) - Global Integrated Delivery - NAWGC Region at Worley, Australia.



Cartoon by:  
Prem Shirodkar, 1<sup>st</sup> Year,  
Automobile Engineering



It is so much easier to suggest solutions when you don't know enough about the problem.



One of our students stood out as not merely an engineer but who paved the way for future students who would now associate themselves with the greater good of society and its needs. A unique product from the Blackfrog Technologies Pvt Ltd (an engineering consultancy firm) came out in the open as the "Best Product against COVID-19". The company was cofounded by Mr Mayur Shetty (2015, Automobile Engineering), MIT Manipal. The product addresses the need for the transportation and storage of vaccines. The company was conferred with Smart Bio Award, 2022, by the Chief Minister of Karnataka, Mr Basavaraj Bommai at the Tech Summit, on 18 November 2022.



Two of our M.Tech students, Ms Shreya Adyanthaya and Mr Ernest Mithun Xavier Lobo have made a mark in the field of Software Engineering. Ms Shreya from the Batch, 2009-2011 is currently the Product Owner at ASML, Eindhoven, Noord-Brabant, Netherlands and Mr Ernest Mithun Xavier Lobo, Batch M.Tech 2007-2008, Software Engineering, is currently the Principal Software Architect at ASML, Eindhoven, Noord-Brabant, Netherlands. Both the Alumni visited MIT during this quarter.



Two of our alumni from 1981-85 B.Tech. Civil Engineering, Mr Sunil Yadav Rao, who is currently General Manager (Retd), Rohan Builders Pvt Ltd, Pune, and Mr Ulhas D Hiray, Director (Planning & Works), Military Engineering Service, Mumbai visited MIT, Manipal on 11 October 2022.



The memories of Manipal never fade away from the minds of the MITians. This was evident when one of our alumni Mr Dinesh Rao, from the 1975 Batch, Electrical Engineering visited us after 47 years, on 28 October 2022.



MIT alumnus Mr Sandeep Sinha (1996, Industrial Production Engineering), Chief Executive Officer, TAFE, India, visited MIT Campus on 05 November, and interacted with the students. Mr Sinha also recalled his nostalgic memories at his alma mater.



Mr Ashish Malhotra, from Mechanical Engineering - 1992 Batch visited MIT Manipal. He is currently the Director of Ashish Mfg Co Pvt Ltd. The company works in the field of Aluminum and Zinc Pressure Die Casting with Complete Tool Room and Machining Facilities.



Mr Atul Choudhary, from the Batch 2016- Aeronautical Engineering visited MIT Manipal. He is presently serving as a Pilot for Indigo Airlines.



Mr Manish Agnihotri from the Batch 2019, from Computer and Communication Engineering visited MIT Manipal. Post B.Tech at MIT, he went on to pursue his Masters in Carnegie Mellon University. He is currently the CEO of Agni Intelligence Inc. The company Agni Intelligence Inc is a Legal-Tech company that provides technical solutions to legal experts.



Mr Suprateem Bhattacharjee from Computer Science Engineering 2009-2013 batch visited MIT, Manipal. He is currently associated with Arizona State University as a Data Scientist.



Meghana Dharmapuri, our alumna (CSE, 2015 - 2019), presently Solution Advisor at Deloitte India (Offices of the US) Bengaluru, visited MIT Manipal, on 22 October 2022. She was Editor in Chief of 'The MIT Post' between 2017-18. During her visit to MIT, she shared her experience being a part of the MIT Post with the present member of the MIT Post, Ms Sagarika.



One of our alumni, Dr Srijib Mukherjee who is presently a Senior Scientist at Joint Faculty University of Tennessee, Bredesen Center, visited MIT, Manipal on 02 December 2022. It was an opportunity for faculty and students to meet Dr Srijib, who shared his experiences.



MIT Newsletter FOCUS completes one year since its re-launch.

*In the year gone by, Team FOCUS could capture the newsworthy achievements of our institute key stakeholders, viz., students, faculty, alumni and support staff, and report to you the same in a succinct manner. The cumulative number of news-articles published in this newsletter exceeded 600, a number that has come as pleasant surprise to all of us at FOCUS...!*

*Team FOCUS wishes to place it on record our sincere thanks to all newsmakers who have made this possible. CONGRATULATIONS...!*

*We solicit your continued support and cooperation in the future too.*

Editorial Team, FOCUS



# MIT NEWS BITES

## CENTRE FOR OUTDOOR STUDIES

Centre for Outdoor Studies under MAHE has been established for the benefit of students with a view to explore life beyond academics. Mr Ganesh Nayak, a trained outdoor activity expert and Assistant Professor, Department of Instrumentation and Control Engineering is the Coordinator of the Centre.

The aim of establishing the Centre is to develop in the students a sense of holistic understanding of the world outside and within. It is hoped to help students explore their potential and learn the requisite skills for life. The center also intends to engage students to come up with ideas for research in the field of outdoor education and organize exhibitions, adventure films, and bring out a bi-yearly magazine.

This would further strengthen the association between the institute and the local community. The center offers certificate courses in Adventure and Outdoor Leadership, Bicycling, Sea kayaking, and expeditions around the Indian Peninsula.

## CENTRE FOR PHOTOGRAPHY

A center for Photography has been established for enthusiasts in photography. This center aims to promote activities related to the field of Photography and facilitate learning through a unique and holistic learning process such as interactions and shared experiences.

Dr Vidya Saraswathi M, Professor, Department of Conservative Dentistry and Endodontics and Associate Dean, Manipal College of Dental Sciences, Manipal is the Coordinator for the newly formed center. Prof Ramakrishna M, Associate Professor, Department of Data Science and Computer Application, MIT Manipal is one of the co-coordinators of the center. The Centre hopes to take the activities surrounding photography on campus to a new level.

- A seminar was organized by the Department of Chemistry for the benefit of research scholars and PG students on 12 October 2022 on the topic "Safety Aspects of Glass Handling." The Head of technical products Glassco Laboratory Equipment's, Mr Santosh Pawar had an interactive session with participants in the stages involved in glassware preparation and its calibration.

- Department of Electronics and Communication Engineering organized a Lecture Series on the topic, System-on-Chip: Current Trends and Future Scope in the month of November 2022. The series of talks was a successful collaboration of Experts from NIT, BITS Pilani and MIT, Manipal on the latest trends and happenings in the field of SoC (System on Chips) and NoC (Network on Chip). The first talk was by Dr Tejasvi Alladi, BITS Pilani, Rajasthan (Next Generation SoC Architectures), on 12 November. The second talk was by Dr Amit Mahesh Joshi, MNIT, Jaipur, Rajasthan (Healthcare SoC), on 15 November. The Third and the Fourth talks were by two of our own faculty from MIT Manipal, Dr Shailendra Kumar Tiwari, MIT (SoC Verification), on 04 November, and Dr Rahul Ratnakumar, MIT (NoC Architectures).

- Department of Electrical and Electronics Engineering, organized a guest lecture on the topic "Denoxtronic System - A Case Study on Measurements and Instrumentation" on 31 October 2022 by Ms Deeksha Nayak, Deputy Manager, System Engineering, Exhaust After Treatment System, Bosch India, Pune.

- Dr S N Bhat, Associate Director (FD&W), delivered an invited talk on "Transaction to Transformation - The Role of Teachers in Higher Education" for the faculty members of Mahatma Gandhi Memorial College Udupi on 14 December 2022. The talk was arranged by the Teaching Learning Center of the college.



- Dr S N Bhat, Associate Director (FD&W), delivered an invited talk on "Fundamentals of Outcome Based Education" for the faculty members of Manipal University Jaipur on 22 December 2022. The talk was arranged by the Teaching Empowerment Center as a part of their Two Day Faculty Development Program held during 22 & 23 December 2022. Dr S N Bhat delivered the lecture in online mode from Manipal.

- Dr Karunakar A Kotegar, Professor at DS&CA, Director International Collaborations, MAHE, delivered a talk on “Academic Bank Credit and NAD/Digilocker” at the FDP organized by UGC Human Resource Development Centre, University of Mumbai during 28 & 29 October 2022.
- Dr Karunakar A Kotegar, Professor at DS&CA, Director International Collaborations, MAHE, delivered a talk on NEP 2020 at “National Builder Award Ceremony” & “Talk on National Education Policy 2020” organized by Rotary Club of Mangalore North.
- Dr Radhika M Pai, Professor and head of DS&CA, was invited to deliver a talk at the 5-day FDP on “Data Analytics and Learning: The Quest” organized by IEEE Circuits and Systems Society, Bangalore Chapter.



- Dr Smitha Nayak, delivered a guest lecture on ‘Marketing Strategy for Digital Era’ at Skill Development Centre, Moodubelle held on 11 November 2022 as a part of Career Development and Awareness Camp for the students of N R A M Ploytechnic Nitte, Karkala.
- Dr Praveen Shetty, delivered a guest lecture on ‘Communication Competence - Insights’ at Skill Development Centre, Moodubelle held on 11 November 2022 as a part of Career Development and Awareness Camp for the students of N R A M Ploytechnic Nitte, Karkala.
- Dr Karunakar A Kotegar, Professor at DS&CA, Director International Collaborations, MAHE, welcomed delegate from Dalhousie University, Canada lead by Prof Deep Saini, President and Vice-Chancellor, for exploring collaboration opportunities for Health Science in the areas of Cancer Research, clinical Trials, Joint Training Programs, Student and Faculty Mobility across the two universities, collaborative Online International learning, Joint programs etc at MAHE, Bengaluru.
- Dr Sudhakar Y N, Assistant Professor, Department of Chemistry participated in a 5-day online Faculty Development Program on ‘Advances in Characterization Techniques’ organized by the Department of Physics and Department of Chemistry, Presidency University, Bengaluru from 10 to 14 October 2022.

- Dr Sudhakar Y N participated in a 3 day online National level seminar on ‘Effective implementation of NEP Multidisciplinary education and strategies’ sponsored by NAAC at Sri Sairam College of Engineering, Bengaluru from 10 to 12 November 2022.
- Dr Poornima Panduranga Kundapur, Associate Professor, Department of DSCA organized Manipal Hackathon 2022, during 01 and 02 October 2022, as a part of TechTatva, the technical fest of MIT Manipal.



- Department of Humanities and Management launched its Newsletter 'Behind the Lines' on 30 November 2022. The quarterly newsletter is designed with unique features. In addition to offering insights into the achievements and activities of the department, this newsletter provides interesting perspectives to the readers as it contains articles on contemporary concerns, excerpts from literary world, and information about the world around. Cdr (Dr) Anil Rana, Director, MIT launched the newsletter in the presence of Dr Somashekara Bhat, Joint Director, Dr Sriram K V, Associate Director (Placement), Dr Yogesh Pai P, Head, Department of Humanities and Management and faculty members of the department.



- Officials from Koenig & Bauer Banknote Solutions visited MIT Manipal in October 2022. The purpose of the visit was to collaborate on activities in the field of academics and research.



## APPRECIATION OF SERVICE

MIT, Manipal recognizes the immense contribution of the following personalities who recently superannuated from service



**Dr NARAYANA SABHAHIT**  
Professor  
Department of Civil Engineering

Date of Joining: 12-10-1988  
Date of Superannuation 30-11-2022



**Dr GOPALAKRISHNA BARKUR**  
Professor  
Department of Humanities & Management

Date of Joining: 04-04-1989  
Date of Superannuation 31-10-2022



**Dr RAVISHANKAR BHAT S**  
Professor  
Department of Mathematics

Date of Joining: 12-02-2008  
Date of Superannuation: 30-11-2022



**Dr MOHAN N S**  
Professor  
Department of Mechanical & Industrial Engg.

Date of Joining: 09-08-1988  
Date of Relive: 30-11-2022



**Dr RAMDEV HERLE**  
Associate Professor Senior Scale  
Department of Mechanical & Industrial Engg.

Date of Joining: 18-03-1987  
Date of Superannuation: 30-11-2022



**Dr NARAYANA SHENOY K**  
Professor  
Department of Civil Engineering

Date of Joining: 03-10-1988  
Date of Superannuation 31-12-2022



**Mr K PHANIRAJ**  
Associate Professor Senior Scale  
Department of Civil Engineering

Date of Joining: 14-02-1990  
Date of Superannuation: 31-12-2022



**Mr SHRIDHARA H**

Director  
Department of Physical Education  
Date of Joining: 22-12-1999  
Date of Superannuation: 30-11-2022



**Ms EVA ESTHER AMANNA**

Senior Clerk  
Department of Computer Science & Engg.  
Date of Joining: 08-01-1990  
Date of Superannuation: 30-11-2022



**Mr SUDHAKAR SHETTY**

Senior Care Taker  
CWO  
Date of Joining: 01-05-1990  
Date of Superannuation: 30-11-2022



**Ms JYOTHI K NAYAK**

Assistant Librarian  
MIT Library  
Date of Joining: 03-09-1991  
Date of Superannuation: 31-12-2022



**Mr NAGESH PRABHU P**

Senior General Duty Worker  
MIT Library  
Date of Joining: 01-04-1981  
Date of Superannuation: 31-12-2022



**Mr ARUN KUMAR SHETTY**

Senior Technician  
MIT Workshop  
Date of Joining: 28-01-1991  
Date of Superannuation: 31-12-2022



**Mr BHASKARA SHENOY**

Technician II (Lab)  
Department of Civil Engineering  
Date of Joining: 01-04-1981  
Date of Superannuation: 31-12-2022



**Mr MAHESHCHANDRA H**

Assistant Engineer  
Department of Aero & Auto Engineering  
Date of Joining: 25-10-2000  
Date of Superannuation: 31-12-2022



**Mr RAVINDRAN NAIR P**

Senior Plumber  
Maintenance Department  
Date of Joining: 28-02-1987  
Date of Superannuation: 31-12-2022



**Mr RICHARD D SILVA**

Senior General Duty Worker  
Department of Civil Engineering  
Date of Joining: 03-03-1987  
Date of Superannuation: 31-12-2022



**Mr SRIDHARA POOJARY**

Senior General Duty Worker  
Security  
Date of Joining: 01-12-1982  
Date of Superannuation: 31-12-2022



**Ms SUMANA**

Senior Housekeeping Staff  
Security  
Date of Joining: 10-06-1991  
Date of Superannuation: 31-12-2022



## **VISION**

*Excellence in Technical Education through Innovation and Teamwork.*

## **MISSION**

*Educate students professionally to face societal challenges by providing a healthy learning environment grounded well in the principles of engineering, promoting creativity, and nurturing teamwork.*

## **VALUES**

*Discipline  
Integrity and Trust  
Holistic Learning  
Ethics and Professionalism  
Concern for Society and Environment*

## **GOAL**

*To be a world class technical institution fostering innovation, leadership and entrepreneurial spirit.*



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