



FOCUS

MIT Newsletter | Issue : March 2022 | Volume: 1

MIT WELCOMES FIRST YEAR B.TECH. STUDENTS ON CAMPUS

The bustling corridors, the animated crowd in front of Innovation Centre, the spirited group of students around the coffee shops, and the energetic gait of the teachers around the classrooms are back at MIT after the prolonged lull caused by the pandemic. The campus is coming alive once again. The buzz that is distinct to MIT, Manipal is back with students getting ready to attend offline engagement after nearly two years of virtual classes.



Over 2000 first year B.Tech. students along with their parents were invited in two phases to MIT campus for resumption of the academic activities. Phase I was from 14 to 17 March 2022 and Phase II was from 21 to 25 March 2022. About 29% of students reported to the campus in the first phase and remaining 71% reported during the second phase.

To mark the momentous occasion, a formal inauguration was held at the New Lecture Hall Complex on 14 March 2022. Lt. Gen. (Dr.) M. D. Venkatesh, Vice Chancellor of Manipal Academy of Higher Education, Manipal inaugurated the proceedings in the presence of Cdr. (Dr.) Anil Rana, Director-MIT, Dr. Somashekara Bhat, Joint Director-MIT, faculty, staff and students.

Continued on page iii

MANIPAL ENTREPRENEURSHIP SUMMIT (MES) 2022

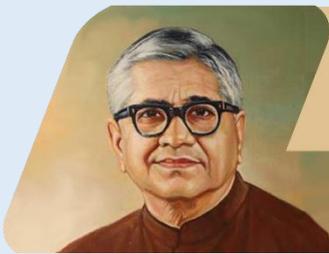
Fifth Edition of Manipal Entrepreneurship Summit (MES), an annual flagship event of Manipal Academy of Higher Education (MAHE), was launched on 17 March 2022 at Manipal. It was jointly organized by the MUTBI, Entrepreneurship Cell of MIT, Manipal incubators and various Innovation and Entrepreneurship (InE) supporting units of MAHE. Diverse online programs like webinar on Metaverse, case study analysis of startups/companies, debates on various topics related to economics, interactive sessions with entrepreneurs and workshop on Entrepreneurship were held from 17 to 30 March, 2022.

Dr. Venkatraya M Prabhu, Pro Vice Chancellor (Health Sciences), the Chief Guest for the event highlighted the importance of entrepreneurship by quoting the example of Manipal and the vision of the founder Dr. T M A Pai. He cited how MAHE transformed Manipal from a barren sleepy village to an International University town and a prominent educational hub. In his address, Cdr. (Dr.) Anil Rana, Director-MIT highlighted the promotion of developmental attributes for successful entrepreneurship.



MES finale was held on 1 and 2 April 2022. About eight entrepreneurs (who are alumni of MIT, MCOPS, TAPMI, and WGHS) at various stages of their unique entrepreneurial journey and spread across India, participated as resource persons.

Continued on page iii



Let us accept the challenges that arise in life, not run away from them.



Dr. T. M. A. Pai

MANNUPALLA TO MANIPAL - AN EPIC SAGA

The Beginning of Mahatma Gandhi College (MGM), Udupi

The idea of setting up a college in Udupi, named after the Father of the Nation, Mahatma Gandhi, was conceived by our founder Dr. T M A Pai in the year India achieved its independence. It was Dr. Pai's way to pay respect to the Mahatma and to serve the new-born nation in his own inimitable way through community based educational initiatives. During those times, people around the region had no access to higher education institutions. The nearest possible college was in Mangalore. Dr. T M A Pai wished to build an institute that would provide the aspiring young students in the region a chance to study under-graduation at Udupi.

The task was by no means comprehensible to the ordinary. There were hassles of every possible kind - administrative, financial, and social. In 1947, the Government of Karnataka was yet to be born. Monetary help was not forthcoming from any recognized local and government institutions. Worse, Dr. T M A Pai was compelled to return the personal donations to the donors as adverse and unfounded rumours put the project at jeopardy.

But, Dr. T M A Pai was not an ordinary person to give up the dream in the face of challenges. By 1947, Dr. Pai already had his encounters with challenges that shape the destiny in numerous ways. His experience of reviving his old school - Hindu Higher Elementary School in Kallianpur, which was on the verge of closing down, helped to believe in the possibility of realising the dream. Earlier, during his studies at the St Aloysius College, Mangalore, Dr. Pai heard the news of his elementary school closing down for lack of funds and non-availability of teachers. In a bid to save the school, Dr. Pai dropped out of the college, assumed the non-paid Head Master's role, recruited four local boys as teachers, wrote textbooks for the classes six to eight, persuaded the local carpenters to build furniture to the school, and raised money from people drawn from all walks of life. His relentless efforts and enthusiasm egged the local people on, and with their support the young Madhav Pai was able to save the school in about a year by clearing all its debts and ensuring there was money to run it further. This community approach to education was the beginning of Dr. Pai's future foray into diverse fields, and this experience of saving the school drove Dr. Pai towards making the dream of a college in Udupi a reality, daring against all odds.

Despite the hurdles and lack of funds, Dr. T M A Pai decided to go ahead with the idea of the MGM College in Udupi and applied for affiliation to Madras University. He mortgaged his own property to make the initial payment as a sign of his commitment. In a show of support, a number of donors sent their contributions back to Dr. Pai. People of the region, that included a good number of women, started a campaign in support of the initiatives through exhibitions and donation collection. On many Sundays, Dr. Pai along with his family members personally worked at the construction site with crowbars, shovels and baskets. This act caught the imagination of the community and voluntary support began to pour in as people offered help in diverse ways. Slowly, the financial support began to flow from individual donors and organisations. A matching grant was contributed by the State of Madras, and by June 1951, Mahatma Gandhi Memorial College completed all the requirements laid down by the affiliating Madras University. The college, which seemed a farfetched idea in 1947, emerged in bricks and stone as a functioning institute in 1951. Today, MGM College Udupi stands tall as an educational centre that has transformed the lives of countless students of the region.



The journey was certainly arduous, but for Dr. T M A Pai it was a lesson in community education approach. A lesson that would later enable him to turn the barren land of Manipal into an educational town of international repute.

Source:

Kharkongor G. Christo (2016), *Manipal and Beyond: Ramdas Pai and The Landscape of Indian Education*, Penguin Enterprise, India.

PATRONS

Cdr. (Dr.) Anil Rana

Director, MIT

Dr. Somashekara Bhat

Joint Director, MIT

PUBLISHER

Dr. Shankaranarayana Bhat

Associate Director (FD&W),

Associate Prof - Senior Scale (ECE)

CHIEF EDITOR

Dr. B. H. V. Pai

Professor (Civil)

ASSOCIATE EDITOR

Dr. Praveen K Shetty

Assistant Prof - Selection Grade

(Humanities)

ASSISTANT EDITORS

Dr. P. C. Siddalingaswamy

Associate Prof - Senior (CSE)

Assistant Director (FD&W)

Dr. Siddappa I. Bekinal

Associate Prof (Mech & Manufacturing Engg.)

Assistant Director (FD&W)

Dr. Sandhyalaxmi G Navada

Assistant Prof - Selection Grade

(Mechatronics)

Dr. Swapna K. S.

Assistant Prof - Senior Scale

(Humanities)

Mr. Vinayak Srivastava

Student (ICT)

Ms. Snigdha Deshmukh

Student (ECE)

Ms. Shrijani Manna

Student (ECE)

PAGINATION & DESIGN

Mr. Sandeep Nayak Pangal

Assistant Prof - Senior Scale (Media)

CIRCULATION IN-CHARGE

Mr Ashok Kumar Nayak

Sr. GDW, Office of ADFD

CONTENTS

| | |
|----------------------------|----|
| Events at MIT | 1 |
| Faculty Achievements | 10 |
| Research Highlights | 17 |
| Students in Action | 19 |
| Alumni Matters | 23 |
| MIT News Bites | 25 |

Editor's Musings

Dear Reader,

Greetings!

As the pandemic, that just about ravaged the world for close to two years, shows sure signs of waning, it is heartening to note that the trademark MIT vibrancy has finally returned to the Campus. The last two years were challenging times when our tenacity and endurance were put to test in multiple ways. Academic delivery and assessments were thrown out of gear, but not for long. The teachers and the students were quick to adapt to the changes and before long, online mode of delivery came to be regarded as the new normal. Thankfully, with improvement in the conditions, the offline mode has been reinstated in its entirety at the Institute. Consequently, teachers and students are found to be busying themselves with their research, lecture and laboratory classes. At this stage, let's all pause and spare a thought to all the immensely committed health-care professionals and frontline warriors who worked tirelessly risking their own lives in fighting the virus and its multiple variants.

A BIG THANKS TO THESE BRAVEHEARTS!

This edition of FOCUS carries a brief account of the numerous events held at the Institute, and also the achievements of our faculty and students, during the first three months of the year 2022. Also, with this edition, we are beginning a regular featured column titled, "Mannupalla to Manipal - An Epic Saga" which would carry a series of interesting short anecdotes (a few well-known and a few not so well-known), recounting the humble beginnings in the making of Manipal. This issue carries a brief account of the numerous hurdles and challenges faced, and successfully overcome by our revered founder Dr. TMA Pai in starting a degree college for the benefit of the people of our district in the late 1940s.

Happy Reading...!

Continued from front page: MIT Welcomes First Year B.Tech Students on Campus

All the required arrangements were put in place to ensure the first year students find the transition smooth and comforting. The faculty members and staff of MIT effectively coordinated the process related to the Screening Centre, Document Verification, Contact with Teacher Guardians and Familiarization to the campus. The counters were setup for issue of clearance cards, document verification and submission, collection of admissions orders, e-pad biometric registration, issue of ID cards, and hostel information. Student Council- MIT setup a counter to provide information of various technical and non-technical clubs associated with the Institute. The First Year students were also introduced to the various wings of NCC at MIT, Manipal.

Continued from front page: Manipal Entrepreneurship Summit (MES) 2022

Various sessions of the finale included keynote talk by industry experts, story of entrepreneurs, panel discussion of essentials of entrepreneurship, business & finance, pitch tank and startup fair. More than 40 startups, teams which developed innovative products and various Innovation and Entrepreneurship (InE) units of MAHE were part of the startup fair.

To strengthen its InE ecosystem, MAHE has declared 2022 as the year of Innovation and Entrepreneurship on the momentous occasion of the 75th year of India's Independence.

EVENTS AT MIT

SMART INDIA HACKATHON (SIH 2022)

Manipal Institute of Technology (MIT), MAHE organized an internal hackathon on 12 March 2022. Director of MIT, Cdr. (Dr.) Anil Rana, inaugurated this event. Dr. Somashekara Bhat, Joint Director, MIT, Manipal, Chief Guest Mr. Pradeep Udupi, Senior Vice President - Engineering Global Technologies Pvt., Ltd., Dr. Smitha N. Pai, Head of the Department, Information & Communication Technology, MIT and Dr. Sucheta V Kolekar, Associate Professor of Information & Communication Technology and SPOC SIH 2022 witnessed the event along with the participants.



The Internal Hackathon for Smart India Hackathon (SIH 2022) was organized as a preliminary round to select and nominate the best 15 teams. The nominated teams will participate in the Fifth Edition of Smart India Hackathon (SIH 2022) during June-July 2022.

students. A total of 26 teams (6 members per team with a mandatory female member) participated in the event. The teams selected their problem statements from a list of statements that were provided by various industries and government agencies. Among the 26 teams, 16 teams selected software-related problem statements and the remaining 10 teams selected problem statements related to hardware domain.

The Internal Hackathon was organized for a duration of 12 hours, from 8.00 AM to 8.00 PM, for MIT

FELICITATION OF MS. TANULA TARUN AND MS. GARIMA VISHAL ON INTERNATIONAL WOMEN'S DAY CELEBRATION

Two women of varied background but of similar spirit were celebrated for their remarkable service and commitment to society. The efforts of Ms Tanula Tarun from Hosabelaku Ashrama, Udupi, and Ms. Garima Vishal, the Director of Dejawoo School of Innovation, Muzaffarpur, Bihar, were recognized by MIT-FOA Faculty Club during the International Women's Day Celebrations held at MIT, Manipal on 8 March 2022.

Somashekara Bhat, Joint Director, MIT, Director of MSAP Dr. N Ramadevi and Dr. K Arathi Bhat, Secretary of Faculty Club.



Ms. Garima Vishal, an engineering graduate from Manipal Institute of Technology, and an MBA graduate from IIM Lucknow, is the Director of Dejawoo School of Innovation. The school founded by Ms Garima Vishal in 2014 aims to educate the under privileged children with an education system that is different from the one that is currently being followed in the country. The school has received national recognition for its commendable ways of teaching and training of teachers. Ms. Garima Vishal, shared her experience with the audience in the virtual media platform. President of the Faculty Club, and Cdr. (Dr.) Anil Rana Director, MIT, and Dr. Somashekara Bhat, Joint Director, MIT expressed their appreciation for her exemplary contribution to social services and congratulated Ms. Garima on her achievement.

Ms. Tanula has dedicated her life to the service of impoverished and orphans of the region in and around Manipal. The Hosabelaku Ashrama founded by her takes care of the orphans, the sick and the destitute, often picking them up from the streets and restoring a sense of balance to their life. At present, there are around 68 people in the Ashrama. It also cares for the orphaned and injured cattle. Cdr. (Dr.) Anil Rana, Director, MIT, presided over the event and felicitated Ms. Tanula in the presence of Mrs. Shikha Rana, Dr.



Creativity is allowing yourself to make mistakes. Art is knowing which ones to keep.



MIT STUDENT COUNCIL INVESTITURE CEREMONY

The Office of Associate Director (Student Welfare) organized the Investiture Ceremony for the newly elected office bearers of MIT Student Council on 22 March 2022. The Chief Guest of the program was Dr. Vinod V Thomas, Registrar Evaluation, MAHE, Manipal. Cdr. (Dr.) Anil Rana was the president of the function. Dr. Somashekara Bhat delivered the

opening remarks. Dr. Nagaraja Katagi, Associate Director (SW), and Assistant Directors (SW) - Dr. Rajesh Nayak, Dr. Manjunath Shettar, Dr. Poornima P. Kundapur and Dr. Priyanka Desai Kakade, congratulated the students on their roles as Student Council Representatives.



SENIOR COUNCIL MEMBERS

| | |
|---------------------|---------------------|
| President | Priyanshu Gupta |
| General Secretary | Yashvardhan Singh |
| General Secretary | Piyushi Goyal |
| Cultural Secretary | Vedangi Mittal |
| Cultural Secretary | Aagam Shah |
| Treasurer | Mrigesh Kumar Gupta |
| Sports Secretary | Chandraraj Singh |
| Sports Secretary | Sukanya Dubey |
| Technical Secretary | Anmol Agarwal |
| Technical Secretary | Aashrayi Ranjan |
| Placement Secretary | Avinash Murali |
| Placement Secretary | Jahnvi Singh |

JUNIOR COUNCIL MEMBERS

| | |
|-----------------------------|-------------------|
| Vice President | Iza Singh |
| Joint Secretary | Siddhant Singh |
| Joint Secretary | Paridhi Gupta |
| Joint Cultural Secretary | Tushar Srivastava |
| Joint Cultural Secretary | Vasudha K |
| Joint Technical Secretary | Spandana Erukulla |
| Joint Sports Secretary | Atharva Nigam |
| Joint Sports Secretary | Dimitra Shenoy |
| Vice President (MTech) | Akash A Acharya |
| Placement Secretary (MTech) | Madhura Nakadi |
| Placement Secretary (MCA) | Chandana B K |

THE MIT POST

| | |
|-----------------|------------------|
| Editor-in-Chief | Snigdha Deshmukh |
| Managing Editor | Shrijani Manna |

EDITORIAL BOARD

| | |
|------------------|----------------------|
| Editor-in-Chief | Laaboni Mukherjee |
| Managing Editors | Radosh Rajpopat |
| | Anushka Bhattacharya |

IEEE OUTSTANDING MEDIUM STUDENT BRANCH AWARD 2021 - IEEE STUDENT BRANCH

IEEE Student Branch Manipal (SBM) bagged OUTSTANDING MEDIUM STUDENT BRANCH AWARD 2021 from R10 - IEEE Bangalore section.

The Award was presented to Dr. Pallavi R Mane, Branch Counselor - IEEE SBM, Manipal in IEEE Bangalore Section Award Ceremony on 20 March 2022 by Shree B. S. Bindhumadhava, Senior Director, at Centre for Development of Advanced Computing (C-DAC), Ministry of Electronics and Information Technology (MeitY), Govt. of India, past Chair IEEE Bangalore section.

IEEE SBM, is one among the 130 plus student branches in Karnataka under IEEE Bangalore section. IEEE SBM has organized 30 plus activities in the form of workshops, webinars, competitions, hackathons,

etc., in the year 2021. IEEE SBM - Manipal has various student chapter societies: IEEE EMBS, IEEE CAS, IEEE RAS, IEEE ComSoc, IEEE SP, IEEE RAS, IEEE Computer, and affinity groups: IEEE SIGHT and IEEE WiE.



MIT RECEIVES APPLAUSE FOR 100% E-NOMINATION OF EPF MEMBERS

Manipal Institute of Technology has successfully completed the target of 100% e-nomination of its members and has received the award for being one of the top three exempted establishments.

The award - an insignia and a citation - signed by Central Provident Fund Commissioner was handed

over in a virtual function on 12 March 2022. Cdr. (Dr.) Anil Rana, Director, MIT & Chairman, MIT EPF Trust, and Ms. Chethana S, Junior Management Executive, HR, MIT received the award. Ms. Chethana and Ms. Soumya were felicitated during the occasion for spearheading the e-nomination drive at MIT.



ROYAL ENFIELD DONATES MOTORCYCLE TO AUTOMOBILE ENGINEERING LABORATORY

Royal Enfield (A Unit of Eicher Motors Ltd.) donated a motorcycle (CLASSIC 350 ASH) to Manipal Institute of Technology, Manipal under the CSR initiative of the company.

Royal Enfield regularly recruits students of MIT, Manipal and has constructive association with the

institute. As a goodwill gesture, Royal Enfield delivered the motorcycle on 18 December 2021.

The motorcycle is handed over to the Automobile Engineering laboratory at MIT and will be used for enhancing technical expertise among students.



NATIONAL MATHEMATICS DAY

The Department of Mathematics, MIT, MAHE Manipal has been celebrating National Mathematics Day as an annual event on every 22 December since 2012, to commemorate the Indian mathematical genius, Shree Srinivasa Ramanujan.

This year, Prof. TES Raghavan from University of Illinois, Chicago delivered a talk on the topic 'Squaring a Circle' on this occasion at MIT Manipal. The Director, Cdr. (Dr.) Anil Rana and the Joint Director, Dr. Somashekara Bhat graced the occasion with their presence.



Life is like looking for your phone. Most of the time, it's in your hand.



INTERNATIONAL CONFERENCE ON MAINTENANCE AND INTELLIGENT ASSET MANAGEMENT

The International Conference on Maintenance and Intelligent Asset Management (ICMIAM2021) was jointly organized by the Federation University, Australia, IIT Kharagpur and Manipal Academy of Higher Education, from 12 to 15 December 2021. It was supported by the Asset Management Council, Australia, the Institute of Rural Management, Anand, Lulea University of Technology, Sweden, the University of Huddersfield, UK, and the technical sponsorship by IEEE Victoria Section, Australia.



The delegates who registered from 16 countries were from Australia, New Zealand, India, Sweden, UK, Bangladesh, Canada, Ireland, Indonesia, Kuwait, South Africa, Ecuador, USA, Philippines, Taiwan, Portugal and many others. Full papers were reviewed and accepted based on reviews in line with the requirements of the technical sponsor IEEE's rigorous quality assurance process.

Professor Dr. B. Raghuvir Pai, Joint Chair of ICMIAM2021 and Professor Dr. Harekrishna Misra, Institute of Rural Management, Anand (IRMA) welcomed the participants to ICMIAM 2022. The welcome message was delivered by Prof Syed Islam, the Acting DVC Research and Innovation, and Dean School of SEITPS, Federation University Australia; Inauguration and welcome address was delivered by Prof Duncan Bentley, Vice Chancellor and President, Federation University Australia. The session was then followed by messages from Cr Daniel Moloney, Mayor,

City of Ballarat and Mr Jason Wood, the honorable Assistant Minister for Customs, Community Safety and Multicultural Affairs. Opening remarks were delivered by Mr Dave Daines, National Chair, Asset Management Council and Head of Campus Association Prof. Sam Henson.

Prof Virendra Kumar Tewari, Director, IIT Kharagpur; Lt Gen (Dr) M D Venkatesh, Vice Chancellor, MAHE; Prof Umakant Dash, Director, IRMA and Dr. Enamul Haque, Institute of Electrical and Electronics Engineers (IEEE) Power and Engineering Society, Victoria Chapter, Australia shared their views on the event. Earlier during the programme, Prof Joarder Kamruzzaman, from the Centre for Smart Analytics, Federation University Australia welcomed the delegates to the technical sessions.



The closing session was addressed by the Indian Consulate General Melbourne Honorable Mr. Raj Kumar, Mr. Dave Daines, Dr. Harpreet S Kandra and Professor Jhareswar Maiti thanked the delegates on behalf of the Organising Team.

TRAINING ON TWINCAT 3 SOFTWARE BY BECKHOFF AUTOMATION INDIA PVT LTD

The Department of Mechatronics, MIT conducted a three-day training program from 15-17 December 2021 for the faculty members on the TwinCAT 3 software by Beckhoff Automation India Pvt. Ltd., Bangalore. The resource person, Mr. Manoj Bahuguni, Senior Application and Support Engineer provided the training with hands-on exercises on Beckhoff hardware components. The training aimed to enhance the faculty skills in the IIoT lab. This is tuned to the requirement of PC based automation components for Industrial automation, which is useful to the VI semester B.Tech. and II semester M. Tech. students of the department. The topics covered in the training included creation of input and output parameters using the EL1008 and EL2008 modules provided by Beckhoff, creation of timers, counters and structures for control of processes in industrial automation, creation of HMI screens for remote monitoring of process variables, and establishment of ADS communication between two PCs to demonstrate the interoperability of systems.



TWO DAY SKILL DEVELOPMENT WORKSHOP SERIES FOR NON-TEACHING STAFF

A two-day skill development workshop series for the non-teaching staff members working in MIT Hostels was organized by the office of Associate Director (FD&W) in the month of February. The junior and senior caretakers working in MIT hostels, along with the hostel office staff participated in the workshop. The workshop was aimed at enhancing the skills in MS Office with a focus on MS Excel, and appreciating the importance of communication skills. It was conducted in five batches of two days each from 3-18 February 2022. A team of faculty members from Department of Humanities & Management of MIT Manipal handled the sessions on Effective Communication Skills and Email Etiquette. The Non-teaching staff from various units of MIT handled the sessions on MS Office. A total of 236 non-teaching staff members of MIT Hostels participated in the workshop.

The workshop was designed in three categories considering the proficiency and exposure of the participants to the topic. Essential skills in MS Office were administered to batches 1 and 2. The level of skills was moderately increased for batch 3, and relatively advanced features in MS Office were taught

for batches 4 and 5. The first three sessions of the workshop were reserved for topics on MS Office, and the final session focused on Effective Communication Skills and Email Etiquette.

Lt. Col. Suresh Kumar B, Chief Warden, MIT Hostels made the opening remarks during the workshops for the first three batches. The workshop for the third batch was inaugurated by Cdr. (Dr.) Anil Rana, Director, MIT Manipal. Dr. Somashekara Bhat, Joint Director, MIT Manipal inaugurated the final batch. The overview of the workshop was delivered by Dr. S N Bhat, Associate Director (FD&W) for all the five batches.

The valedictory function was organized on 18 February 2022. Lt. Col. Suresh Kumar B, Chief Warden, MIT Hostels was the Chief Guest and Dr. Somashekara Bhat, Joint Director, MIT presided over the function. Dr. S N Bhat, Associate Director, Faculty Development & Welfare presented the summary of the workshops. The dignitaries addressed the gathering and gave away mementos as a token of appreciation to the resource persons.



BATCH 1: 3RD & 4TH FEB 2022

BATCH 2: 7TH & 8TH FEB 2022

BATCH 3: 10TH & 11TH FEB 2022

BATCH 4: 14TH & 15TH FEB 2022

BATCH 5: 17TH & 18TH FEB 2022



DIGITAL TWINS FOR INDUSTRY 4.0

Department of Mechatronics Engineering organized a technical session on “Digital Twins for Industry 4.0” in the department. The event was held on 22 March 2022 at Robotics Lab, Mechatronics Department.

Mr. Sachin Shirke, Senior Manager, Siemens Industry Software (India) Pvt. Ltd., Pune delivered the lecture.



Even if you are on the right track, you'll get run over if you just sit there.



TWO-DAY WORKSHOP PING 2.0.2.2 ON "ARTIFICIAL INTELLIGENCE & COGNITIVE SCIENCE: AN INDUSTRY PERSPECTIVE"

Department of Information & Communication Technology, Manipal Institute of Technology, Manipal organized a two-day workshop ping 2.0.2.2 during 25 and 26 March 2022 on the theme "Artificial Intelligence & Cognitive Science: An Industry Perspective".

In the opening ceremony, Lt. Gen. (Dr.) M. D. Venkatesh, Vice Chancellor, MAHE, Manipal, highlighted the significance of such workshops in the academic environment. Mr. Gautam Bhat (Vice President, Head of Cloud Architecture & AI, Deutsche Bank, Bengaluru) provided details about the sessions and outlined the importance of each session.

Dr. Madhusudhan Govindaraju (Professor, Department of Computer Science & Vice Provost for International Education and Global Affairs (IEGA), Binghamton University, New York) briefed the audience on the opportunities available for MAHE students and faculty at Binghamton University.

Dr. Smitha N. Pai, (Professor & Head, Department of I & CT, MIT), Dr. Manohara Pai M. M. (Professor, Department of I & CT, MIT) and faculty members of the department encouraged the participants to actively engage in ping 2.0.2.2.

THREE DAY HANDS-ON WORKSHOP ON QGIS

The Centre for Engineering Design, Consultancy and Skill Development, Department of Civil Engineering, MIT organized a workshop on "A hands on training in Open-Source GIS software - QGIS" from 25 to 27 March 2022 at the MIT-KEF R&D Center.

Cdr. (Dr.) Anil Rana, MIT, Manipal inaugurated the Workshop. Prof. Radhakrishnan T, Digital University, Thiruvananthapuram, Vanilakshmi R, Department of Data Science, PSPH, and Dr. Jagadeesha Pai B., Department of Civil Engineering were the resource persons. It was coordinated by Dr. Mohandas Chadaga & Dr. Kiran Kamath, Professors, Department of Civil Engineering, MIT.

The Valedictory function was conducted on 27 March 2022. Dr. S. N. Bhat, Associate Director (Faculty



In his presidential address, Cdr. (Dr.) Anil Rana, Director, MIT shared his experience with a recent artificial intelligence project and highlighted the relevance of such workshops. Dr. Preetham Kumar (Deputy Registrar-Academics (Technical), MAHE & Professor, Department of I&CT, MIT) thanked all the invited guests and participants.

Topics covered during the two days included Threat Modelling in AI, Critical Thinking & Decision making with ML Model, AI & ML Models in practice on AWS Cloud, Prediction model for influencer propagation.

CORPORATE TRAINING PROGRAM ON "MECHATRONICS SYSTEM DESIGN" TO MAHINDRA TRACTORS DIVISION, CHENNAI

Dr. Deepak D, Associate Professor, and his team from the Department of Mechatronics Engineering successfully conducted the corporate training program on "Mechatronics System Design" from 24 to 30 March 2022 to the employees of Mahindra Tractors Division, Chennai.



Welfare & Development) was the Chief Guest. Dr. Purushotham G Sarvade, Professor and Head, Department of Civil Engineering presided over the function. A total of 54 participants attended the workshop.

A team of faculty from MIT was involved in preparing the lecture material and delivering the contents. About 25 employees from the R & D section of Mahindra Tractors Division, Chennai, received training under this program.

FAREWELL TO Dr. D. SRIKANTH RAO

Department of Mechanical and Manufacturing Engineering organized a farewell function to honour Dr. D. Srikanth Rao, former Director and Professor in the department, who retired from active service on 31 January, 2022.

The function was held on 5 March, 2022 at M.V. Seminar hall and was presided by Cdr. (Dr.) Anil Rana, Director, MIT. Dr. S.S. Sharma, HOD, welcomed the gathering. Dr. Somashekara Bhat, Joint Director, Prof. K. J. Kamath, former HOD & senior most visiting faculty of MIT, Dr. B.H.V. Pai former Joint Director of MIT and other faculty members shared their memories of association with Dr. Srikanth Rao. Dr. Raghuvir Pai B., former Director of MIT and senior most professor of the department read the citation.

Mr. Suhas Kowshik rendered the invocation and Mr. Vishal Shenoy proposed the vote of thanks. The



program was compered by Mr. Augustine Barboza. Mrs. Swathi Rao, spouse of Dr. Srikanth Rao graced the occasion.

INDUSTRIAL TRAINING ON SOLID WORKS

Department of Mechatronics Engineering, MIT, in association with Beacon India Pvt. Ltd. Bangalore, organized a three-day industrial training on Solid Works. The training was held during 21-23 March 2022 in the IOT Lab.

There were 6 training sessions spread across three days dedicated for installation, introduction to software, 2D modeling, 3D modeling, assembly and animations, 3D to 2D conversion and other available facilities in the Solid Works software.

The rigorous hands-on training included design and drafting of mini projects and exploring online support



sources from Solid Works. Upon successful completion of training, around 11 faculty and student participants were awarded the completion certificates by Beacon India Pvt. Ltd., Bangalore.

WEBINARS HELD

- Department of Instrumentation and Control Engineering organized a Webinar on "Integrated vehicle health monitoring" by Mr. Prasanna Ramamurthy, Senior Principal System Engineer-Avionics, Global Engineering Centre-Indian Collins Aerospace, Bengaluru on 18 February 2022.
- Department of Instrumentation and Control Engineering organized an expert talk by Prof. Soumyo Mukherjee, Institute Chair Professor, Indian Institute of Technology, Bombay, on the topic, "Biosensors: Before & Beyond" on 25 February 2022.
- Department of Instrumentation and Control Engineering organized a Webinar by Dr. Gaurav Dubey, Principal Application Engineer, Mathworks, Bengaluru, on "Model-Based Systems Engineering with MATLAB and Simulink" on 26 February 2022
- Department of Electronics and Communication Engineering organized a technical talk on the topic, "Planar Antennas for 5g-Based Remote Monitoring"

by ComSoc Bangalore Execom Team on 16 February 2022.

- Department of Information and Communication Technology, organized a technical talk on 22 February 2022 by Abhishek Rhisheekesan, Founder, MD, aiRender Technology Pvt Ltd. The session introduced the world of 3D computer graphics and the typical 3D graphics-rendering pipeline.
- Department of Computer Science and Engineering, in association with Salesforce, organised an online information session on Mulesoft and its training and certification programme on 25 February 2022.
- Department of Computer Science and Engineering, in association with the Sabre Travel Technologies Pvt. Ltd, organized an online industrial engagement talk for M.Tech students on 31 January 2022. The session provided a brief overview of Sabre Technologies and the benefits of industrial engagement program offered to the students.



Always forgive your enemies; nothing annoys them so much.



LAGAAN 2022 CRICKET TOURNAMENT - HOSTED BY MIT-FOA FACULTY CLUB

Faculty Club of Manipal Institute of Technology and Faculty of Architecture organized a tennis ball cricket tournament named Lagaan 2022 on 6 March 2022 for the faculty members. A total of eight teams participated in the tournament. The final match was played between Mechanical stream and Computer science stream. Mechanical Stream won the tournament and retained the title following a nail-biting finish.

Dr. Laxmikant Keni of Aeronautical and Automobile Dept was declared Man of the Match in the finals. He was also awarded with the title Best Batsman of the Tournament. Dr. Arun Kumar of the Computer Science Dept was declared as the Best Bowler of the Tournament.

Dr. Gurumurthy of Physics Dept was declared as the Man of the Tournament.

The Chief Guest for the Valedictory Function was Dr. Srikanth Rao D, Director-Planning and Monitoring, MAHE. In a well-attended Ceremony, Dr. Rao gave away the prizes to the winners in the presence of the Director MIT, Cdr. (Dr.) Anil Rana, Joint Director MIT, Dr. Somashekara Bhat, and other dignitaries and participants.



LAGAAN 2022 VOLLEYBALL, THROW BALL AND TENNIS BALL CRICKET FOR FEMALE FACULTY MEMBERS - HOSTED BY MIT-FOA FACULTY CLUB

Faculty Club of Manipal Institute of Technology and Faculty of Architecture organized a tennis ball cricket tournament, volleyball tournament and throw ball tournament named Lagaan 2022 on 6 March 2022 for the female faculty members.

The Cricket match was won by the team led by Dr. Pallavi R Mane, Professor, Department of Electronics & Communication Engineering.

The volleyball and throwball events were won by the team led by Dr. Yashoda M P, Professor Department of Chemistry.



PATRIOTIC RUN AT MANIPAL BY MITIANS

MIT organized Patriotic Run on 26 January 2022 as a part of the Republic Day Celebrations at Manipal. A total of 54 participants took part in the event and the event gathered appreciable attention of the people in the town.



FACULTY ACHIEVEMENTS

MIT HONOURS Dr. D SRIKANTH RAO, DIRECTOR - PLANNING AND MONITORING, MAHE

Manipal Institute of Technology Manipal celebrated the appointment of Dr. D. Srikanth Rao, former Director of MIT, Manipal as the Director - Planning and Monitoring, MAHE, Manipal by honouring Dr. Rao on campus.

Dr. Rao served as Director, MIT, Manipal, from January 01, 2018 to July 15, 2021 and has led the institute admirably especially during the most trying times of the outbreak of COVID 19 pandemic, along with providing necessary solace to all the stakeholders of the institute in a very sensitive manner.

Prior to taking charge as the Director, MIT, Dr. Rao gained rich administrative experience working in different capacities during his three-decade long tenure at the Institute and University. Dr. Rao, served as the Associate Director, Practice School and Public Relations and also as Associate Director, Industrial Liaison & Placements.

Later, he was assigned the challenging task of being a part of the team for setting up of Manipal University Jaipur as its founding Registrar during 2011 - 2012. He was then called on to support MIT Manipal as the Joint Director between 2012 to 2015. Following this very successful tenure, the University appointed Dr. Rao as the Director - Admissions, MAHE, Manipal between 2015 to 2018.

On completion of his tenure as Director, MIT, Dr. D



Srikanth Rao has been appointed as the Director-Planning and Monitoring, MAHE.

A special event to honour Dr. D Srikanth Rao was held at MIT, Manipal on 31st January 2022. The heads of the departments and special invitees witnessed the event. During the ceremony, Dr. Vinod V Thomas, Registrar Evaluation reminisced on his association with Dr. Rao. Cdr. (Dr.) Anil Rana, Director, MIT and Dr Somashekara Bhat, Joint Director, MIT felicitated Dr. D Srikanth Rao and conveyed the delight of the institution at his appointment as Director - Planning and Monitoring, MAHE. Former Joint Director, Dr. B H V Pai former Joint Director and Prof. Civil Engg. recalled his memorable exchanges with Dr. Rao and wished him all the best in his future endeavours.

Dr. VIVEKANANDA BHAT K AND MR. ASHWATH RAO B SECURE A GRANT WORTH \$10200

Dr. Vivekananda Bhat K, Associate Professor-Senior Scale (as Principal Investigator) and Mr. Ashwath Rao B, Assistant Professor-Selection Grade (as Co Principal Investigator), both from Department of Computer Science & Engineering secured a grant worth of \$10200 for their proposal titled, "COVID-19 diagnosis and assessment using quantum machine learning," from the National e-Governance Division Ministry of Electronics and Information Technology, New Delhi, in March 2022.



Dr. Vivekananda Bhat



Mr. Ashwath Rao B

BEST SHORT FILM AWARD TO Mr. NITESH KUMAR, ASSISTANT PROFESSOR, DEPARTMENT OF MEDIA TECHNOLOGY

A short film, Stranger in the City, produced and directed by Mr. Nithesh Kumar, Assistant Professor, Department of Media Technology, MIT won the Best Short Film Award at the Lakecity International Film Festival. It is also officially selected for screening at the Kaleidoscope Indian Film Festival of Boston, USA and Jaipur International Film Festival.



Mr. Nithesh Kumar

Dr. NARENDRA V.G, Mr. ASHWATH RAO B AND Ms. MUSICA SUPRIYA RECEIVE FUNDING FOR NATIONAL LANGUAGE MISSION

Dr. Narendra V.G, Mr. Ashwath Rao B and Ms. Musica Supriya received a funding support to execute National Language Translation Mission funded by Department of Electronics and Information Technology.

The Project titled “Indian Language to Indian Language Machine Translation” has IIIT, Hyderabad as lead institute. MIT Manipal and CDAC Bengaluru are chosen for Kannada language vertical in this project. Project outlay for MIT Manipal is Rs. 80.14 lakhs and outlay for CDAC Bengaluru is Rs.43 lakhs. Principal Investigator is Dr. Narendra V G and Co-Principal Investigator is Mr. Ashwath Rao B.

The Project titled “Discourse Integrated Dravidian Language to Dravidian Language Machine Translation” has Lead Institute Anna University, K B Chandrashekar Research Centre(AUKBC), Chennai. MIT Manipal is chosen for Kannada language vertical. Project outlay for Manipal is Rs. 188.7 lakhs. Principal Investigator is Mr. Ashwath Rao B and Co-Principal Investigator is Ms. Musica Supriya.



Dr. Narendra V.G



Mr. Ashwath Rao B



Ms. Musica Supriya

MIT MANIPAL FACULTY TEAM WINS ANNUAL INTER COLLEGIATE STAFF TOURNAMENT IN BADMINTON AT PES UNIVERSITY

MIT Manipal faculty team represented by Dr. Gurumurthy S C(Physics), Dr. Chethan K N (Aero & Auto), Mr. Akshay M J (I & CT) & Dr. Prateek Jain (E & E) has bagged the position of Winners in the Annual Inter Collegiate Staff Tournament in badminton team event organised by PES University, Bangalore from Feb 25th-27th 2022.



“SPECIAL MENTION OF THE JURY” AWARD TO Dr. SAMEENA BEGUM PATHAN

Dr. Sameena Begum Pathan, faculty in the Department of Information and Communication Technology, has been awarded for the “Special Mention of the Jury” Award 2020 for her thesis titled “Automated Detection of Melanocytes Related Pigmented Skin Lesions Using Image Processing”.

The award is issued by the Board for IT Education Standards (BITES), a non-profit society constituted by

Govt. of Karnataka.

She has carried out her research under the guidance of Dr. P. C. Siddalingaswamy, Associate Professor-Sr in the Department of Computer Science & Engineering. The award ceremony was held at “Siddaganga Institute of Technology”, Tumkur on 18 March 2022.



There is no dress rehearsal for life.



SAMSUNG PRISM AWARD

Samsung PRISM has announced "Certificate of Excellence" to two worklets mentored by MIT Manipal lead by Dr. Ramya S, Associate Professor, Department of Electronics & Communication and Mr. Govardhan Hegde, Asst. Professor-Sel. Grade, Department of Computer Science & Engineering. Samsung also announced rewards for their achievement.



Dr. Ramya S



Mr. Govardhan Hegde

Dr. B. RAGHUVIR PAI ELECTED AS THE PRESIDENT OF ASSET MANAGEMENT SOCIETY (AMSI), INDIA.

Dr. B. Raghuvir Pai, Professor, Department of Mechanical and Manufacturing Engineering, MIT, Manipal, has been elected as the President of Asset Management Society (AMSI), India. AMSI, is a not-for-profit organization which provides professional assistance to organisations and individuals in the domain of asset management and to lead good practice for effective community and infrastructure asset management for public and industry good.



Dr. B. Raghuvir Pai

Dr. POORNALATHA - THE CHAIR OF IEEE MANGALORE SUB SECTION

Dr. Poornalatha, Associate Professor - Senior scale, Department of Information & Communication Technology, MIT, Manipal is the Chair for 2022 of IEEE Mangalore Sub Section. The first lady Chair of IEEE MSS took charge in the virtual AGM held on 16 January 2022. She also received the "Outstanding Women in Engineering Volunteer Award" during the virtual AGM, in recognition of her outstanding contribution to IEEE MSS activities.



Dr. Poornalatha

Dr. SRIKANTH PRABHU DELIVERED KEY NOTE ADDRESS AT DEAKIN UNIVERSITY, MELBOURNE, AUSTRALIA

Dr. Srikanth Prabhu, Associate Professor - Senior scale, Department of CSE delivered a Key Note Address at Deakin University, Melbourne, Australia, on Biometrics and Cyber Security, designed through Artificial Intelligence on 17 December 2021. The event was sponsored by Springer, Monash University, Australia, Deakin University, Australia, IIT Hyderabad and Chinese Academy of Sciences, Beijing, China.



Dr. Srikanth Prabhu



Cartoon by:
PREMANSHU JHA

Dr. CHANDRASHEKHARA BHAT **ASSOCIATE DIRECTOR** **QUALITY ASSURANCE**

Dr. Chandrashekhara Bhat, Professor and former Head of the Department of Mechatronics has been appointed as Associate Director-Quality Assurance, MIT, Manipal. Dr. Bhat took charge of the office of Associate Director on 1 January 2022.



Dr. DAYANANDA PAI **HEAD OF THE DEPARTMENT** **AERONAUTICAL AND AUTOMOBILE ENGINEERING**

Dr. Dayananda Pai, Professor, Department of Aeronautical and Automobile Engineering has been appointed as Head of the Department. Dr. Dayananda Pai took over the charge on 15 December 2021 from Dr. Sathish Shenoy who served as the Head of the Department from 11 October 2014 to 14 December 2021.



Dr. D V KAMATH **HEAD OF THE DEPARTMENT** **MECHATRONICS ENGINEERING**

Dr. D V Kamath, Professor, Department of Electronics & Communication has been appointed as Head of the Department Mechatronics Engineering. Dr. D V Kamath took over the charge on 15 December 2021 from Dr. Chandrashekara Bhat, who served as the Head of the Department from 25 July 2012 to 14 December 2021.



Dr. BALAJI **HEAD OF THE DEPARTMENT** **BIOTECHNOLOGY**

Dr. Balaji, Associate Professor - Senior Scale, Department of Biotechnology has been appointed as Head of the Department of Biotechnology. Dr. Balaji took over the charge on 1 January 2022 from Dr. Ramananda Bhat who served as the Head of the Department from 1 January 2019 to 31 December 2021.



Dr. SUMA A RAO **HEAD OF THE DEPARTMENT** **CHEMISTRY**

Dr. Suma Rao, Professor, Department of Chemistry has been appointed as Head of the Department of Chemistry. Dr. Suma Rao took over the charge on 1 March 2022 from Dr. Prakash Shetty who served as the Head of the Department from 1 March 2018 to 28 February 2022.



Dr. V THIVAHARAN
Assistant Director (Quality Assurance)



Dr. V Thivaharan, Associate Professor - Senior scale, Department of Biotechnology, Deputy QMR, is re-designated as Assistant Director (Quality Assurance), on 1 December 2021.

Dr. SHAILESH K. R.
Assistant Director (Quality Assurance)



Dr. Shailesh K R, Associate Professor, Department of Electrical & Electronics Engineering, Deputy QMR, is re-designated as Assistant Director (Quality Assurance), on 1 December 2021.

Dr. GHANASHYAM PRABHU
Assistant Director (Academics)



Dr. Ghanashyam Prabhu, Assistant Professor - Selection Grade, Department of Information & Communication Technology is appointed as Assistant Director (Academics), on 1 December 2021.

Dr. ASHWIN KUMAR DEVARAJ
Assistant Director (Academics)



Dr. Ashwin Kumar Devaraj, Assistant Professor - Selection Grade, Department of Mechanical & Manufacturing Engineering is appointed as Assistant Director (Academics), on 1 January 2022.

Dr. MANJUNATH SHETTAR
Assistant Director (Student Welfare)



Dr. Manjunath Shettar, Assistant Professor - Senior Scale, Department of Mechanical & Manufacturing Engineering is appointed as Assistant Director (Student Welfare), on 17 January 2022.

Dr. PRIYANKA DESAI KAKADE
Assistant Director (Student Welfare)



Dr. Priyanka Desai Kakade, Assistant Professor-Senior scale, Department of Electronics & Communication Engineering is appointed as Assistant Director (Student Welfare), on 17 January 2022.

Dr. SIDDAPPA I. BEKINAL
Assistant Director (Faculty Development & Welfare)



Dr. Siddappa I Bekinal, Associate Professor, Department of Mechanical & Manufacturing Engineering is appointed as Assistant Director (Faculty Development & Welfare) on 1 January 2022.

Dr. POORNESH P.
Assistant Director (Collaborations & Funded Projects)



Dr. Poornesh P, Assistant Professor - Selection Grade, Department of Physics is appointed as Assistant Director (Collaborations and Funded Projects) on 1 January 2022.



PhD AWARDEES FACULTY MEMBERS

Dr. Ashwin Kumar Devaraj

Assistant Professor - Selection Grade, Department of Mechanical and Manufacturing Engineering has successfully defended his Doctoral thesis titled “Numerical Investigation of the Effects of Medial Meniscal Tears and Meniscectomies on Biomechanics of Human Knee Joints” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 13 December 2021. The research work was guided by Dr. Raviraja Adhikari, Professor, Department of Mechanical & Manufacturing Engineering MIT, Manipal and co-guided by Dr. Kiran Kumar V. Acharya, Professor, Dept. of Orthopaedics, Kasturba Medical College, Manipal.



Dr. Suhas Y. Nayak

Assistant Professor-Senior Scale, Department of Mechanical & Manufacturing Engineering has successfully defended his Doctoral thesis titled “Experimental Investigation of Ballistic Characteristics of Epoxy Based Hybrid Composites for Armours” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 1 February 2022. The research work was guided by Dr. Satish Shenoy B, Professor, Department of Aeronautical & Automobile Engineering, MIT, Manipal and co-guided by Dr. Mohamed Thariq Bin Hameed Sultan Head-Laboratory of Biocomposite Technology Institute of Tropical Forestry and Forest Products (INTROP) Universiti Putra Malaysia and Dr. Chandrakanth Kini, Professor, Department of Aeronautical & Automobile Engineering, MIT, Manipal.



Dr. Shahista

Assistant Professor, Department of Mathematics has successfully defended her Doctoral thesis titled “Chain, Antichain and Complete (2, 2) Bipartite Graphs” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 10 February 2022. The research work was guided by Dr. Sudhakara G, Professor & Head, Dept. of Mathematics MIT, Manipal.



Dr. Thara Reshma I. V.

Assistant Professor, Department of Aeronautical & Automobile Engineering, has successfully defended her Doctoral thesis titled “Weak Shock Wave Reflections and Transitions” for the award of PhD degree by the Indian Institute of Technology, Madras on 20 January 2022. The research work was guided by Prof. G Rajesh, Department of Aerospace Engineering, IIT Madras.



Dr. Srinivas G.

Assistant Professor-Senior Scale, Department of Aeronautical & Automobile Engineering has successfully defended his Doctoral thesis titled “Evaluation and Enhancement of the Performance of Axial Flow Compressor under Distorted Phenomena in Transonic Flow Conditions” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 24 March 2022. The research work was guided by Dr. Raghunandana K, Professor, Department of Mechanical and Manufacturing Engineering MIT, Manipal and co-guided by Dr. Satish Shenoy B., Professor, Aeronautical & Automobile Engineering, MIT, Manipal.



Dr. Sandhya S Pai

Assistant Professor, Department of Mathematics has successfully defended her Doctoral thesis titled “A Study on Soft L-Topological Spaces” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 14 March 2022. The research work was guided by Dr. Baiju T Associate Professor- Senior scale, Dept. of Mathematics MIT, Manipal.



PhD AWARDEES RESEARCH SCHOLARS



Dr. Anusha Prabhu B

Full-time Research Scholar in the Department of Biotechnology has successfully defended her Doctoral thesis titled “Development of Paper and Thread-Based Microfluidic Devices for the Detection of Candida Albicans” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 17 December 2021. The research work was guided by Dr. Naresh Kumar Mani, Associate Professor Department of Biotechnology MIT, Manipal.



Dr. Rashmi Kumari

Full-time Research Scholar in the Department of Chemistry has successfully defended her Doctoral thesis titled “Hypoxia Sensitive Nanoparticle Conjugates for Targeted Drug Delivery Against Cancer” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 3 February 2022. The research work was guided by Dr. Dhanya Sunil, Associate Professor-Senior Scale, Department of Chemistry, MIT, Manipal and co-guided by Dr. N. V. Anil Kumar, Associate Professor, Department of Chemistry MIT, Manipal.



Dr. Abhilash K Pai

Full-time Research Scholar in the Department of Data Science & Computer Applications has successfully defended his Doctoral thesis titled “Motion Pattern Segmentation for Crowded Scene Analysis” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 13 January 2022. The research work was guided by Dr. Karunakar A. Kotegar, Professor & Head Data Science & Computer Applications MIT, Manipal and co-guided by Dr. Raghavendra U., Associate Professor, Department of Instrumentation & Control Engineering MIT, Manipal.



Dr. Josy Eisa Varghese

Full-time Research Scholar in the Department of Information & Communication Technology has successfully defended her Doctoral thesis titled “Design of an Efficient Intrusion Detection System for Detecting Denial of Service Attacks in Software Defined Networks” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 12 February 2022. The research work was guided by Dr. Balachandra, Professor, Department of Information & Communication Technology, MIT, Manipal.



Dr. Praveen Kumar Reddy

Full-time Research Scholar in the Department of Civil Engineering has successfully defended his Doctoral thesis titled “A study on the occurrence of pharmaceuticals and personal care products (PPCPS), drugresistant bacteria and removal efficacy of PPCPS in the waste water treatment plants” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 31 January 2022. The research work was guided by Dr. K. Balakrishna, Professor, Department of Civil Engineering MIT, Manipal and co-guided by Dr. Vandana K. E., Professor and Head Department of Microbiology KMC, Manipal.



Dr. Hari Prasad Uppara

Full-time Research Scholar in the Department of Chemical Engineering has successfully defended his Doctoral thesis titled “Development of Novel Perovskite mixed Oxide Materials for Soot Oxidation Applications” for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 10 March 2022. The research work was guided by Dr. Harshini Dasari, Associate Professor, Department of Chemical Engineering MIT, Manipal.



RESEARCH HIGHLIGHTS

Dr. TMA PAI GOLD MEDAL FOR OUTSTANDING RESEARCH PUBLICATION

Dr. Shiva Kumar, Associate Professor - Senior scale, Mechanical and Manufacturing Engineering, bagged the 2021 Dr. TMA Pai Gold Medal. This is the Third Gold Medal in a row for Dr. Shiva Kumar.

The research paper titled “Effect of injection pressure on the combustion, performance and emission characteristics of a biodiesel engine with cerium oxide nanoparticle additive” published in the Energy Journal of Elsevier was awarded the gold medal in 2019. The research paper titled “Combined effect of oxygenated liquid and metal oxide nanoparticle fuel additives on the combustion characteristics of a biodiesel engine operated with higher blend percentages” published in the Energy Journal of Elsevier was awarded the gold medal in the year 2020.

Cdr. (Dr.) Anil Rana, Director, and Dr. Somashekara Bhat, Joint Director presented the medals and certificates to the winner. Dr. Ashok Rao, Associate Director (R & C) and Dr. Santhosh K.V., Dy. Director (Research-Technical), MAHE, presented the certificates of appreciation to the co-author, Dr. Dinesha P, Associate Professor, Mechanical and

Manufacturing Engineering, in a programme organised on 07 December 2021, at MIT, Manipal.



To promote quality research at the University, MAHE has constituted the Dr. TMA Pai Gold Medal for the best research publication. The gold medal is awarded to the first author of high quality original research work published in every calendar year from its constituent institutions. The award helps to recognize and reward every year, the best researcher affiliated to MAHE, and carries an eight-grams gold medal and a certificate.

Dr. K. S. SIVANANDAN FILE PATENT

Dr. K. S. Sivanandan, Professor Department of Biomedical Engineering, successfully filed a patent on “System and method for operating a prosthetic limb” on 19 January 2022.



Dr. K.S. Sivanandan

Dr. M. SELVAKUMAR & Mr. RAMAKRISHNA NAYAK FILE PATENT

A team of MIT faculty members and students successfully filed Patent on “A supercapacitor and a method of fabrication thereof” on 17 December 2021. Faculty involved are Dr. M. Selvakumar, Assistant Professor (Sel. Grade) Dept. of Chemistry and Mr. Ramakrishna Nayak, Assistant Professor (Senior Scale), Dept of Media Technology. Student involved are Achintya Dutta, Third Year, Electronics and Communication Engineering and Aditya Arun Nirmale, Third Year, Electronics and Communication Engineering.



Dr. M. Selvakumar



Ramakrishna Nayak



Achintya Dutta



Aditya Arun Nirmale



ACHINTYA DUTTA RECEIVES ALL INDIA ISSS UG RESEARCH STUDENT AWARD

Achintya Dutta, third year student of Electronics and Communication Engineering received the All India ISSS UG Research Student Award from ISSS, IISc, Bangalore for the research work titled Sensitivity Tuned PANI/Graphite Nanoparticle based Humidity Sensor Powered by Cu/Graphite Micro-Supercapacitor with PVA/PVP Polymer Electrolyte. This work was carried under the guidance of M. Selvakumar, Assistant Professor (Sel. Grade) Dept of Chemistry and Mr. Ramakrishna Nayak, Assistant Professor (Senior Scale), Dept. of Media Technology.



Achintya Dutta



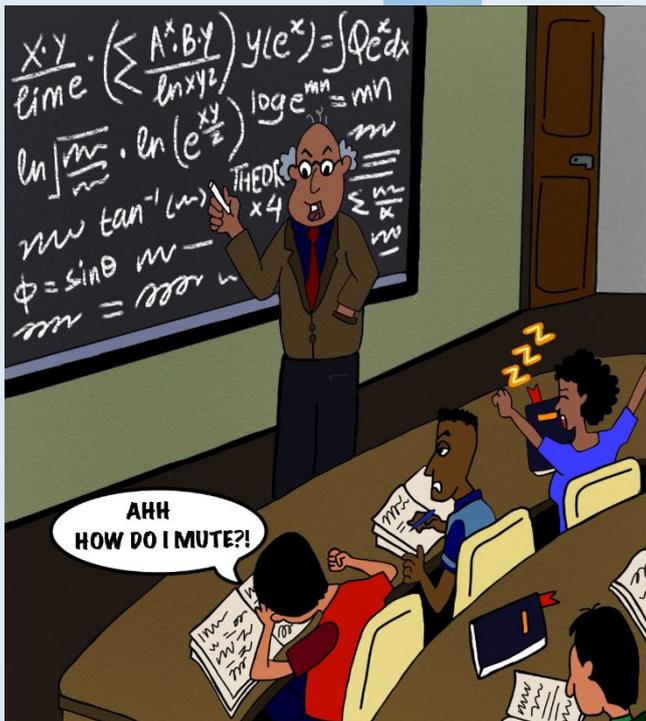
Dr. M. Selvakumar



Ramakrishna Nayak



Cartoon by:
SARA SINHA



STUDENTS IN ACTION

WOMEN TRANSFORMING INDIA 2021 AWARD

Chahat Vasal, an eighth semester student of Mechatronics co-founded a startup, NerdNerdy. It is a research-driven, technology and product-oriented solution provider, aiming to bridge the various gaps in the special needs and education sector. She has been awarded the 'Women Transforming India 2021' award as the co-founder of NerdNerdy. This is a flagship event hosted by NITI Aayog (Govt. of India) along with the United Nations.

In January 2022, the startup was declared as the finalists in the National Startup India Awards.



MAHE TEAM COMPRISING MIT STUDENTS WINS NATIONAL INNOVATION CONTEST

Dr. Mahima Mishra from Manipal College of Dental Sciences (MCODS), Mangaluru, and her team won the National Innovation Contest (NIC) conducted by the Central Ministry of Education. Her interdisciplinary team included Soumik Roy and Ruchit Bhakti, BTech students of MIT Manipal.

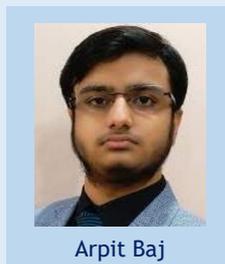
The mentors were Dr. Arun Shanbhag, Chief Innovation Officer, MAHE and Dr. Dilip G Naik Pro-Vice-Chancellor MCOCS, Mangaluru.

NIC began with 9000+ prototypes scouted from more than 900 institutes across India. After multiple rounds of evaluation, mentoring, training and business plan development and pitching, 45 teams were shortlisted for funding and incubation linkage support.



ARPIT BAJ SECURES FIRST RUNNER UP IN TRANSFORMERS 2021

Arpit Baj, second year student from Department of Electronics & Communication Engineering secured First Runner Up in TRANSFORMERS 2021 (global youth social innovation challenge), a social entrepreneurship competition organized by TALSCOUTS, a Santa Clara, California based organization. The challenge is mainly conducted in US, India, UK, Canada and Australia. It was a three-month-long competition with over 4000+ participants across 350+ institutions.



ADITYA PRADHAN RECEIVES BEST PAPER AWARD

The paper titled "Acute-on-Chronic Liver Failure Mortality Prediction using an Artificial Neural Network" by Aditya Pradhan, Department of CSE, MIT Manipal has been selected as one of the best papers of 2021, published in Scopus Indexed Quartile 1 - Engineered Science Journal. He worked under the mentorship of Dr. Dasharathraj K Shetty, Associate Professor, Humanities & Management.



The difference between fiction and reality... Fiction has to make sense.



MIT PARTICIPATION IN THE BLENDED INTENSIVE PROGRAM (BIP), ANTWERP

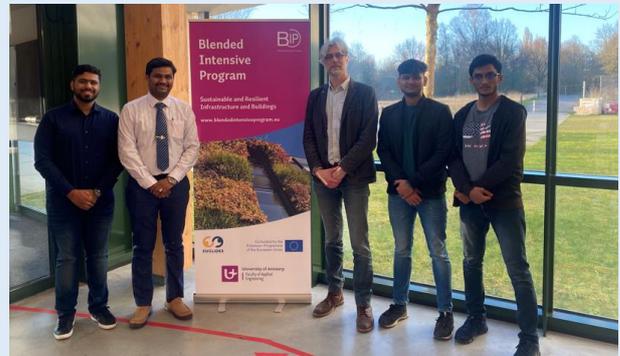
The International Week of Blended Intensive Program was held from 14 to 18 March 2022 in the city of Antwerp, Belgium. It was conducted on the topic 'Sustainable and Resilient Infrastructure and Buildings' organized by the University of Antwerp, Belgium.

The Blended Intensive Program (BIP) was scheduled between 1 February and 30 April 2022. The learning activities of the students were organized in virtual mode from 01 February to 11 March 2022. The offline mode was held in two slots from 14 to 18 March 2022, and from 21 March to 30 April 2022.

The Blended Intensive Program was jointly organized by the University of Antwerp, Belgium (coordinator), Manipal Academy of Higher Education, University of Girona, Spain, University of the Basque Country, Spain, Aristotle University of Thessaloniki, Greece, Instituto Superior de Engenharia do Porto, Portugal & Faculdade de Engenharia da Universidade do Porto, Portugal, and University of Minho, Portugal.

A total of 49 students from the organizing universities participated in the program. Thirty-nine students

travelled to the University of Antwerp, and the remaining attended the international week through online mode. Fourteen students of MIT (9 from M.Tech. and 5 from B.Tech) along with Dr. Raghavendra Holla, Associate Professor, Department of Civil Engineering, participated in the event. Dr. Holla delivered a lecture on the topic 'The application of building information modeling and augmented reality in sustainable construction'.



Of the 14 students, three students namely Mehul Karamchandani, Girish Patra and Suhail Sheikh travelled to Antwerp, and the remaining students presented their part through online mode.

TEAM MIT SECURES SECOND RUNNERS UP HACK'E'LTH 2021, GE HEALTHCARE DIGITAL TECHNOLOGY

TEAM MIT students, under the guidance of Dr. Ramya S., Associate Professor, Electronics and Communication, won the Second Runners up position in a national level competition HACK'E'LTH 2021 organized by GE Healthcare Digital Technology.

In the event, TEAM MIT, worked on the challenge "Development of Progressive Web App (PWA)" which can seamlessly work with any device (IOS, Android or desktop), with a highly responsive and easy to maintain codebase. The work has been appreciated by GE and it is likely to be integrated with GE technology.

Following are the team members: Ishan Kumar, Information Technology, Pranshul Goyal, Computer Science Engineering, Rhea Adhikari, Computer Science Engineering and Adit Luhadia, Information Technology



Dr. Ramya S.



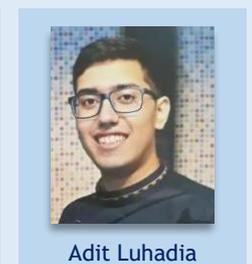
Ishan Kumar



Pranshul Goyal



Rhea Adhikari



Adit Luhadia

SHREESHA S AND GIRISHA S SECURE BEST PAPER AWARD AT IEEE TENCON 2021

Shreesha S, and Girisha S, Research Scholars of MIT Manipal received the Best Paper Award at IEEE TENCON 2021. The award was presented for their paper titled "Behavioural Pattern Analysis of Fishes for Smart Aquaculture: An Object Centric Approach". Dr. Manohara Pai, Research Guide for the project, and co-guides Dr. Radhika and Dr. Ujjwal mentored the scholars on this study. The team worked on the project highlighting the development and deployment of IoT systems for smart Aquaculture.



Shreesha S



Girisha S

TEAM IE AEROSPACE WINS THIRD PRIZE AT NATIONAL LEVEL CAD CLASH COMPETITION

Team IE Aerospace, MIT, Manipal comprising Aditya Katkuri, Manaswi Jadhav, Dheeraj Chettiar, Suryansh Sunil secured the Third place in National level CAD CLASH Competition organized by Simulacra Technologies and Aeronautical Department of ACS College of Engineering from January 9 to 24, 2022, for their design.



Aditya Katkuri



Manaswi Jadhav



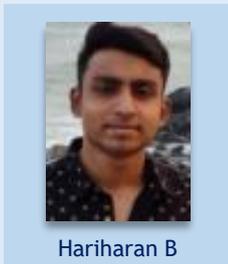
Dheeraj Chettiar



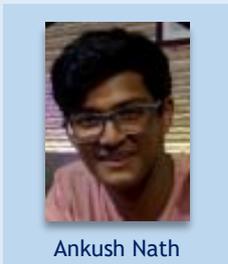
Suryansh Sunil

INTERNATIONAL HACKATHON-FORMULA AI HACK 2022

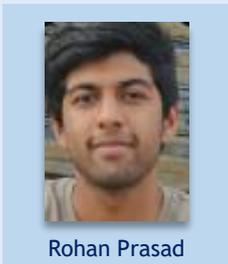
The team "MIT Boys" has secured global 2nd Place in the "Formula AI Hack 2022" hackathon, conducted from 18 to 22 February 2022. The hackathon was a 4-day global competition event with over 2000 participants, 140 teams and a price pool of 60,000 AUD, held in celebration of the racing culture built by Red Bull Racing. The #Formula AI 2022 Hackathon brought together innovators, mentors and sponsors to solve some real-world racing challenges. The team was led by Hariharan B (CSE). Rohan Prasad (CSE), Sankeerth Sankar (CCE), Gautam Prabhu (CCE), and Ankush Nath (IT) were the team members.



Hariharan B



Ankush Nath



Rohan Prasad



Gautam Prabhu

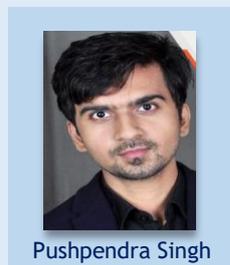


Sankeerth Sankar

'GOLDEN BIRD EDUCATION' - START UP BY PUSHPENDRA SINGH (ECE)

Pushpendra Singh, final year student of B.Tech. E & C Engineering, MIT, Manipal, has founded a startup by the name, Golden Bird Education.

Golden Bird Education is an educational platform to teach school students about technology and to provide college students an industry level training. The startup, conceived during the pandemic, currently has over one lakh students in the panel.



Pushpendra Singh



E-BIKE DESIGN COMPETITION - TEAM MOTOMANIPAL

MIT MotoManipal team has finished as the Overall Winner of the E-Bike Design Competition, Season-1 organized jointly by Sri Ramakrishna Institute of Technology, Coimbatore, and Mechatron Motors. In addition to "Overall Winner" of the competition, the team secured the "Best Business Plan" award.



LAKSHYA - THE AGRI CLUB AT INDIA INNOVATION HUB, WORLD EXPO, DUBAI - 2020

The team of students led by Pratik Shewkani, President, Lakshya - The Agri Club, was invited to represent its works at the India Innovation Hub, World Expo 2020, Dubai on 3 March 2022. They displayed their works on hydroponics and showcased its developments to the global audience.



Do not worry if plan A fails. There are 25 more letters in the alphabet.



I-DRONE: ICMR VACCINE DELIVERY INITIATIVE BY MIT STUDENTS

A student team comprising three students of MIT, Manipal initiated the project I-drone that supports the delivery of vaccine to remote areas in Nagaland.

Details of the students:

- Anshul Sharma, Aeronautical Engineering, 2016
- Arunabha Bhattacharya, Electronics and Communication Engineering, 2016.
- Rishabh Gupta, Mechatronics Engineering, 2015

ICMR launched the I- drone service in Nagaland for vaccine deliveries. It took about 16 mins to cover the distance which would normally take 2 hours by road. The project I-drone was supported by Redwing Aerospace, a last mile healthcare logistics company.



SOUMITH GANJI DEVELOPED THE PLATFORM DOTFOOD

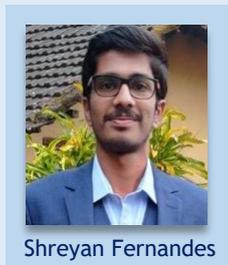
Soumith Ganji, B.Tech Third Year IT branch has developed the platform named DotFood which has gained over 3,600 downloads in a very short time.

DotFood is a platform that unites students in MIT Manipal with the various food courts, food messes, food joints, juice lounges and restaurants within the campus. Aimed at reducing the wait to place an order, the DotFood app provides an easy-to-use interface to select from multiple restaurants and place an order within minutes.

Users can avail a variety of offers, discounts and even be exempted from delivery and packaging charges.



Soumith Ganji



Shreyan Fernandes



Akshat Ghosh



Chirag Goel

SHREYAN FERNANDES AWARDED GOLD MLSA BY MICROSOFT

Shreyan J D Fernandes, a student of final year Biomedical Engineering has been awarded with the title Gold MLSA, the highest milestone in the Microsoft student ambassador program. This is in recognition of hard work and dedication as a Gold member of student Ambassadors team since 2019.

AKSHAT PURUSHOTTAM GHOSH SELECTED FOR NATIONAL DEFENCE ACADEMY

Akshat Purushottam Ghosh (Second Year Electrical and Electronics Engineering) MIT Manipal has been selected for admission to National Defence Academy. He secured rank 81 out of 517 candidates.

STUDENT RESEARCH STORIES:

CHIRAG GOEL, MECHANICAL & MANUFACTURING ENGINEERING (2018 - 2022)

- Awarded the MITACS Globalink Research Internship award
- Worked with Prof. Alexandre Robichaud, Université du Québec à Chicoutimi, and Prof. Paul-Vahe Cicek, Université du Québec à Montreal.
- Worked on Designing and simulating a Capacitive micromachined ultrasonic transducer (CMUT) with ultra-low operating voltage and eigenfrequency for applications in medical imaging.
- Mentored by Dr. Dinesha P, Associate Professor, Mechanical & Manufacturing Engineering at MIT,

Manipal.

- Journal Paper: Goel, Chirag, Sooraj Mohan, and P. Dinesha. "CO2 capture by adsorption on biomass-derived activated char: A review." *Science of The Total Environment* 798 (2021): 149296. (Impact Factor - 7.963)
- Journal Paper: Goel, Chirag, and G. Srinivas. "Mechanisms and applications of vibration energy harvesting in solid rocket motors." *Microsystem Technologies* (2021): 1-7. (Impact Factor - 2.276)

ALUMNI MATTERS

Mr. SHYAMPRASAD KAMATH MUNDKUR

Mr. Shyamprasad Kamath Mundkur, an alumnus of Manipal Institute of Technology (Chemical Engineering 1985 - 89 batch) has been appointed as Executive Director (Refinery) of Mangalore Refinery and Petrochemicals Limited (MRPL) with effect from 1 June 2022. A native of Mangalore, Mr Kamath is currently holding the post of Group General Manager (Technical Services) at MRPL.



Mr. ATUL BATRA

Mr. Atul Batra, an alumnus of MIT (Computer Science and Engineering, batch 1993) is the Chief Technical Officer (CTO) of Algomomy. Algomomy is a global market leader for SaaS based analytics and AI products used by retail and consumer businesses in over 25 countries to drive better decision making. He is also Chair of NASSCOM Product Council and a member of the NASSCOM Executive Council. His career has spanned across analytics and AI, enterprise software and middleware, consumer internet and search, as well as enterprise mobility. Earlier, he held leadership roles at Yahoo!, Good Technology, Motorola, Sun Microsystems, iPlanet, and has advised start-ups in Silicon Valley and Bangalore.



Dr. YOGANANDA JEPPI

"Fellow" at Honeywell Technology Solutions. Dr. Yogananda Jeppu, an alumnus of MIT (Electronics and Communication Engineering, 1986 batch) has been elevated as a "Fellow" at Honeywell Technology Solutions. Dr. Yogananda has been serving as Adjunct Faculty at MIT since the last six years in the Department of Instrumentation & Control Engineering.



Ms. MEENAKSHI SINGH

Ms. Meenakshi Singh, an alumna of Manipal Institute of Technology (2005 - 2009 Batch, Computer Science Engineering) is the CEO of Synapsica, India's leading AI-based radiology reporting startup. The startup is focused on using Artificial Intelligence (AI) to find a faster and more efficient solution to reduce workload for doctors and radiologists. Over 500 hospitals and diagnostic centers



have used the solution to examine over 550,000 patients till now. The company has also launched spine and chest reporting solutions. Its algorithm can automatically report degenerative (age-related) pathologies in MRI scans of the spine. Synapsica has raised \$4.2 million from Silicon Valley-based incubator Y Combinator, and VC funds IvyCap Ventures and Endiya Partners. The start-up is a winner of the Nasscom Emerge50 Award 2021.

Mr. CHANDRA BHUSHAN

Mr. Chandra Bhushan selected as Jury member of Earth Care Awards. Mr Chandra Bhushan, Chief Executive Officer - International Forum for Environment, Sustainability & Technology (iFOREST) and an alumnus of MIT Manipal (Civil Engineering 1993), has been selected as a jury member at the prestigious 10th Earth Care Awards, sponsored by JSW and Times of India. The awards highlight locally evolved climate-friendly practices in the production and consumption regimes across multiple sectors with reference to climate change and sustainability. It also recognizes the actions, initiatives, and innovations towards climate change mitigation and adaptation by communities, entrepreneurs, companies, enterprises and leadership.



Mr. UTKARSH SINHA

Mr. Utkarsh Sinha becomes the Director of Engineering and Management at Bucolic Kailash Agritech and FMCG Pvt Ltd. Utkarsh Sinha, an alumnus of Manipal Institute of Technology (batch of 2012-2015, Electronics & Communication Engineering) is the Director of Engineering and Management at Bucolic Kailash Agritech and FMCG Pvt Ltd, Manipal. The firm manufactures futuristic agricultural computers that make owning and scaling Aquaponics Farm easy. Recently he was involved in the development of an unprecedented unique system that grows 100 kilograms of mushroom every three-square feet in about 60 days.



Ms. MALINI MITRA

Ms. Malini Mitra, an alumna of MIT (Electrical and Electronics Engineering, 2007 batch), has secured Siemens Wener Von Siemens Award 2021.

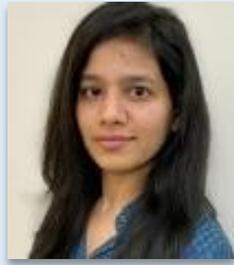


The world is changed by your example, not by your opinion.



Ms. JYOTSNA BUDIDETI

an alumna of MIT (Aeronautical Engineering, 2014 batch) has established the entrepreneurial venture SpaceSense.ai in Paris and this has been recognized as one of the top 17 European Spacetech startups.



Mr. AJAY KUMAR SAHU,

an alumnus of MIT (M Tech - Microelectronics, 2019-21) won the Second Runner Up of ISSS PG Student award for the project titled "ASIC RTL Design of MAC Engine for 2-D Image Convolution"



Mr. SOURAV P

Sourav P, an alumnus of MIT (2014-2018) Mechanical Engineering is the CEO & Founder at IUVA FOODS PVT LTD, a start-up in Biotechnology domain. Present estimation of his start-up is at INR 30 Crore.

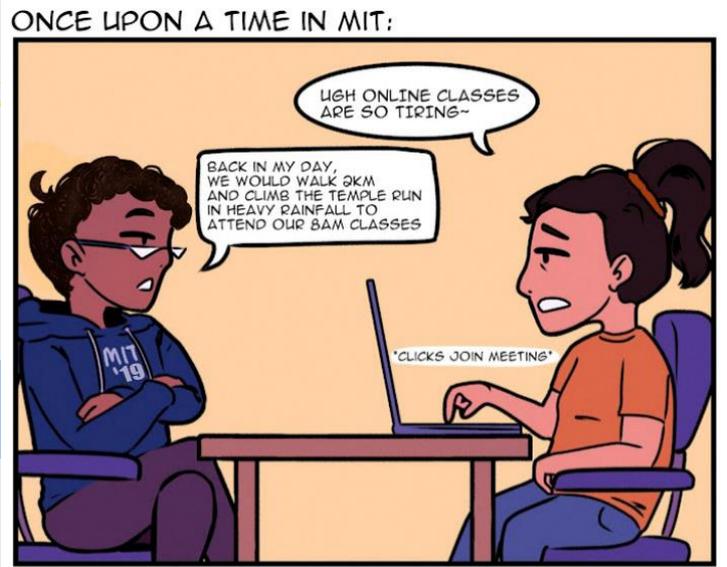


Mr. PRATYUSH ANAND

Mr. Anand, an alumnus of MIT (Instrumentation and Control Engineering, 2017-2021 batch) has joined the Indian Naval Service through the Short Service Commission Technical entry category.



Cartoon by:
KAVYA P KUDVA



A WEEK BEFORE EXAMS...



MIT NEWS BITES

SENSITIZATION WORKSHOP ON “CO-PO ATTAINMENT AND IET DOCUMENTS”

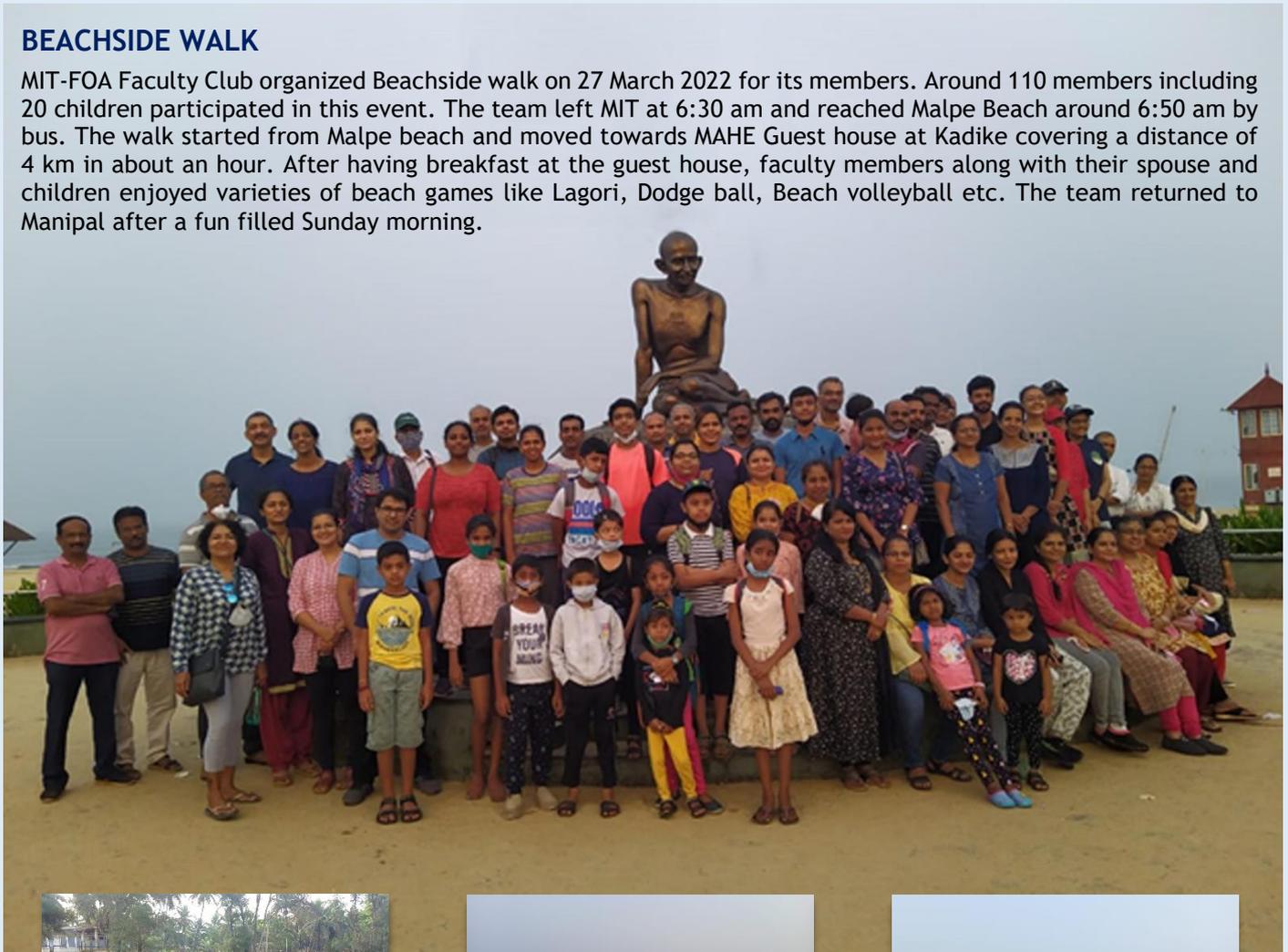
The Office of Quality Assurance, MIT conducted a half-day Sensitization Workshop on “CO-PO Attainment and IET Documents” for the benefit of all the NBA and IET coordinators of the teaching departments. The workshop, conducted on March 18, 2022, began with the inaugural remarks by Cdr. (Dr.) Anil Rana, Director, MIT, followed by Dr. Somashekara Bhat, Joint Director, MIT. Dr. Chandrashekhara Bhat, Associate Director (Quality Assurance) served as the resource person and conducted detailed sessions on CO-PO Attainment, Course Articulation Matrix, IET Module Commentary as well as LO Mapping and Delivery Strategy. The program proved to be very effective with a lot of discussion and suggestions.

DEMO SESSIONS ON IMPARTUS LCS FACILITY FOR TEACHING STAFF AND STUDENTS

The office of Associate Director (FD &W) organized demo sessions in virtual mode in March on the use of Impartus for faculty members and students of MIT, Manipal. The demo sessions aimed at enhancing the skillset of participants in using Impartus for teaching learning process. The sessions were conducted by Mr. Rahul from upGrad. Two repeat sessions for faculty members and three repeat sessions for students were conducted so as to reach all concerned.

BEACHSIDE WALK

MIT-FOA Faculty Club organized Beachside walk on 27 March 2022 for its members. Around 110 members including 20 children participated in this event. The team left MIT at 6:30 am and reached Malpe Beach around 6:50 am by bus. The walk started from Malpe beach and moved towards MAHE Guest house at Kadike covering a distance of 4 km in about an hour. After having breakfast at the guest house, faculty members along with their spouse and children enjoyed varieties of beach games like Lagori, Dodge ball, Beach volleyball etc. The team returned to Manipal after a fun filled Sunday morning.



Follow your heart, but take your brain with you.



APPRECIATION OF SERVICE

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

Dr. SHIVAPRASAD H C

Professor,
Department of Humanities & Management



Date of Joining : 05-08-1992
Date of Superannuation : 31-12-2021

Dr. PADMALATHA RAO

Professor,
Department of Chemistry



Date of Joining : 01-09-1989
Date of Superannuation : 31-03-2022



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.

GOAL

Our goal is to be a world class technical institution fostering innovation, leadership and entrepreneurial spirit.



MIT NEWSLETTER, MARCH 2022 EDITION

PUBLISHED BY

Dr. S. N. Bhat, Associate Director (FD&W), and Associate Professor – Senior Scale (ECE)
Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal 576104, Karnataka

✉ focus.mit@manipal.edu