



**MANIPAL**  
ACADEMY of HIGHER EDUCATION  
*(Institution of Eminence Deemed to be University)*

MAHE Research Bulletin

July-September 2023



Manipal Academy of Higher Education (MAHE) is among the second top-ranked private university in India according to the Quacquarelli Symonds World University Ranking 2022. In the 18th edition of the rankings, MAHE figures in the 751-800 band, among 1,673 analysed universities and 1,300 institutions ranked from 93 countries. MAHE's performance was noted among the top 58 per cent in the rankings this time.

For the Quacquarelli Symonds (QS), World University Ranking, universities are evaluated on six performance indicators: academic reputation, employer reputation, student-to-faculty ratio, citations per faculty, international faculty ratio, and international student ratio. Four of the indicators are based on hard data, and the remaining two are based on major global surveys – one of the academics and another of employers – each the largest of their kind and for the 2022 Rankings, QS has analysed over 96 million citations from more than 14.7 million recorded publications, before evaluating 1,300 Universities.

## Directorate of Research – MAHE, Manipal



In alignment with the vision of the Manipal Academy of Higher Education (MAHE), the Directorate of Research facilitates and supports the research activities of MAHE. It aims at nurturing and promoting the research of global standards.

**V**ision:  
To nurture and promote research activities of global standards.

**M**ission:  
To facilitate and contribute to research in all disciplines, thereby improving yield in terms of grants, research innovation, intellectual property, and publications.

**O**bjectives:

- To identify research priorities and initiate programs.
- To seek research grants and promote focused research of national importance.
- To foster new collaborations and strengthen existing ones.
- To disseminate research findings in high-impact publications.
- To provide logistics for researchers to implement ideas.
- To support IP related activities and Technology Transfer.

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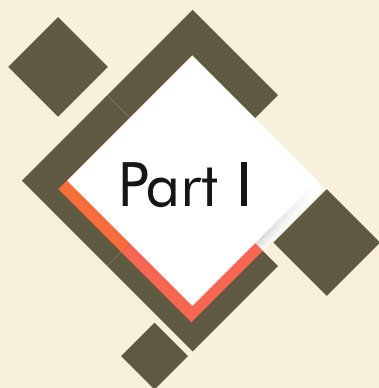
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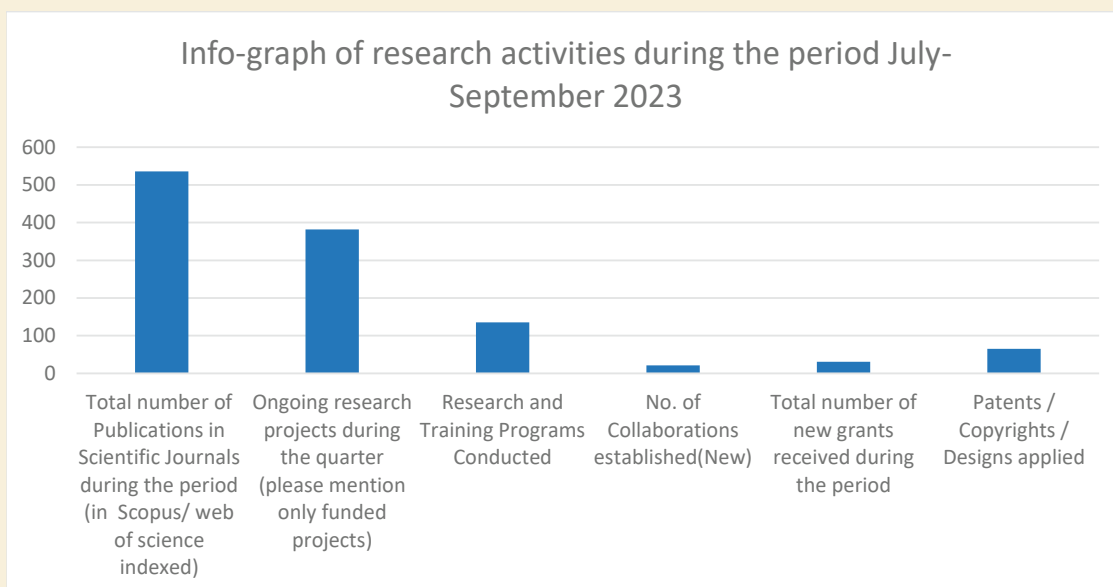
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### **A. MAHE Student's Research Forum (MAHE-SRF) – Activities for the period of July - September 2023**



### A. Info-graph of research activities during the period July-September 2023



### B. Top publications for the period of July - September 2023

No	Publication ID	Title of the Publication	First Author	Institution	Name of the Journal	Month and Year of Publication	Quartile on Incentive
1	JA00017992	Application of machine learning algorithms for predicting the engine characteristics of a wheat germ oil--hydrogen fuelled dual fuel engine	Femilda Josephin Joseph Shobana Bai	Manipal Institute of Technology, Manipal	International Journal of Hydrogen Energy	July 2023	Q1(Top 2-9)
2	19114	A novel approach to generate distractors for Multiple Choice Questions	Ms Archana Praveen Kumar	Manipal Institute of Technology, Manipal	Expert Systems with Applications	September 2023	Q1(Top 2-9)
3	JA00019854	Exercise Training in Pulmonary Hypertension: An updated systematic review with meta-analysis	Akhila Satyamurthy	Manipal College of Health Professions, Manipal	Journal of Cardiopulmonary Rehabilitation and Prevention	July 2023	Q1(Top 2-9)

No	Publication ID	Title of the Publication	First Author	Institution	Name of the Journal	Month and Year of Publication	Quartile on Incentivize
4	JA00019936	Did the COVID-19 pandemic play a role in the spatial and temporal variations of microplastics? Evidence from a tropical river in southern India	Amrutha K	Manipal Institute of Technology, Manipal	Marine Pollution Bulletin	July 2023	Q1(Top 2-9)
5	JA00019953	Factors contributing to the adverse drug reactions associated with the dipeptidyl peptidase4 (DPP4) inhibitors: A scoping review	Swetha R Reghunath	Manipal College of Pharmaceutical Sciences, Manipal	Diabetes and Metabolic Syndrome: Clinical Research and Reviews	July 2023	Q1(Top 2-9)
6	JA00020055	Enhanced Vehicle Re-identification for Smart City Applications Using Zone Specific Surveillance	Ashutosh Holla	Manipal Institute of Technology, Manipal	IEEE Access	July 2023	Q1(Top 2-9)
7	JA00020366	Research in higher education governance: past performance and an agenda for the future	Dr Rajasekharan Pillai K	Manipal Institute of Management, Manipal	Educational Review	July 2023	Q1(Top 2-9)
8	JA00020435	2D-3D Facial Image Analysis for Identification of Facial Features Using Machine Learning Algorithms With Hyper-parameter Optimization for Forensics Applications	Gangothri Sanil	Manipal Institute of Technology, Manipal	IEEE Access	July 2023	Q1(Top 2-9)
9	JA00020488	A comprehensive investigation of Genotype-Environment interaction effects on seed cotton yield contributing traits in <i>Gossypium hirsutum</i> L. Using multivariate analysis and artificial neural network	Amol E Patil	Vasantrao Naik Marathwada Agriculture University,	Computers and Electronics in Agriculture	August 2023	Q1(Top1)
10	JA00020495	A Lightweight Authentication Framework for Fault-Tolerant Distributed WSN	Kollu Siva Sai	Manipal Institute of Technology, Manipal	IEEE Access	August 2023	Q1(Top 2-9)
11	JA00020505	Analysis of Rotation Magnetized Direction Permanent Magnet Thrust Bearing for Maximum Characteristics using a Complete Generalized Optimization Procedure and a Computational Framework	Supreeth D K and Dr Siddappa I Bekinal	Manipal Institute of Technology, Manipal	IEEE Access	August 2023	Q1(Top 2-9)

No	Publication ID	Title of the Publication	First Author	Institution	Name of the Journal	Month and Year of Publication	Quartile on Incentive
12	JA00020521	Influence of packing configuration and flow rate on the performance of a forced draft wet cooling tower	Samapth Suranjan Salins	Manipal Institute of Technology, Manipal	Journal of Building Engineering	August 2023	Q1(Top 2-9)
13	JA00020528	Real-time data based thermal comfort prediction leading to temperature setpoint control	Sanjeev Kumar T S	Manipal Institute of Technology, Manipal	Journal of Ambient Intelligence and Humanized Computing	August 2023	Q1(Top 2-9)
14	JA00020594	Effect of hot leg length on the steady-state performance of single-phase natural circulation based tube-in-tube thermosyphon heat transport device with heat sink directly above the heat source	Varun K	Manipal Institute of Technology, Manipal	Applied Thermal Engineering	July 2023	Q1(Top 2-9)
15	JA00020615	Experimental investigation on the effect of soil solarization incorporating black, silver, and transparent polythene, and straw as mulch, on the microbial population and weed growth	Yogesh A Shinde	Manipal Institute of Technology, Manipal	Chemosphere	September 2023	Q1(Top 2-9)
16	JA00020638	Integrated LIBS-Raman spectroscopy: A comprehensive approach to monitor microplastics and heavy metal contamination in water resources	P S Vaisakh and U K Adarsh	MAHE - University Office	Environmental Research	August 2023	Q1(Top 2-9)
17	JA00020665	Recent advances in nanophotocatalysts involved in hydrogen production by water splitting	Louella Concepta Goveas	Manipal Institute of Technology, Manipal	Fuel	September 2023	Q1(Top 2-9)
18	JA00020667	Enhanced adsorption of 2,4-dichlorophenoxyacetic acid using low-temperature carbonized Peltophorum pterocarpum pods and its statistical physics modelling	Adithya Samanth	Manipal Institute of Technology, Manipal	Chemosphere	September 2023	Q1(Top 2-9)
19	JA00020679	Elevating Amodal Segmentation using ASH-Net Architecture for Accurate Object Boundary Estimation	Mr Raghavendra S	Manipal Institute of Technology, Manipal	IEEE Access	August 2023	Q1(Top 2-9)
20	JA00020704	CO <sub>2</sub> uptake by activated hydrochar derived from orange peel ( <i>Citrus reticulata</i> ): Influence of carbonization temperature	K R Deepak	Manipal Institute of Technology, Manipal	Journal of Environmental Management	September 2023	Q1(Top 2-9)
21	JA00020707	Review of the Evolution of Magnetorheological Fluid-Based Rehabilitative Devices: From the Perspective of Modeling, Sensors and Control Strategies	Akhila Bhat	Manipal Institute of Technology, Manipal	IEEE Access	August 2023	Q1(Top 2-9)

No	Publication ID	Title of the Publication	First Author	Institution	Name of the Journal	Month and Year of Publication	Quartile on Incentive
22	JA00020717	A critical review of vegetable oil-based bio-lubricants: Preparation, characterization, and challenges	Rajendra Uppar	Manipal Institute of Technology, Manipal	Environment, Development and Sustainability	September 2023	Q1(Top 2-9)
23	JA00020771	Characterization of microstructure, mechanical and corrosion response in AISI 304L and Ti-stabilized 439 stainless steels weld joints	Santosh Gupta	Manipal School of Architecture and Planning, Manipal	Journal of Manufacturing Processes	September 2023	Q1(Top 2-9)

### C. Patents filed during the period of July - September 2023

Ms Shwetha V of Manipal Institute of Technology, Manipal, filed a patent titled "A Method and System For Gender Identification of Poultry Birds" on 04 July 2023.

Ajeetkumar Patil, Megha Vilas Naik Department of Atomic and Molecular Physics, Manipal, have filed a patent titled "Amino Acid Profiling By High Performance Liquid Chromatography-Laser-Stimulated Fluorescence Detection" on 04 July 2023. Shubham Bhusari, Mohammed Sameer Ahmed, Deshpande Tanay, Poornima Manjrekar Kasturba Medical College, Manipal have filed a patent titled "A Biodegradable Polymer And Method Of Preparation Thereof" on 04 July 2023.

Vijay Tambrallimath, Manipal Institute of Technology, Manipal and Priyansh Agarwal, Agranya Raj Singh, Mukund Kaja, J N Ram, C Siddharth Ganesh, have filed a patent titled "Sleep Alert System And A Method Thereof" on 04 July 2023.

S V Kirthanashri, Manipal Centre for Biotherapeutic Research S Varadharajan, Raviraja N S, Manipal Institute of Technology, Manipal and Vidhi Mathur, have filed a patent titled "Process For Formulation Of A Ink For Printing 3D Tubular Structures" on 06 July 2023.

Kashyap Siddharth, Bhiradi Ishwar, Manipal Institute of Technology, Manipal, have filed a patent titled "A System For Reusing Medical Waste And A Method Thereof" on 06 July 2023.

Krishnananda Prabhu R V, Somasish Ghosh Dastidar, Kasturba Medical College, Manipal Pratibha Gopalkrishna, Manipal College of Dental Sciences, Manipal, Meenatchi Sundaram S Manipal Institute of Technology, Manipal have filed a patent titled "An In-Vitro Method And System Of Detection Of Oral Cancer" on 07 July 2023.

Joseph Abraham, Anne D'Souza, Anil K Bhat, Prasanna L C, Kasturba Medical College, Manipal have filed a patent titled "A Process To Embalm Fetal Cadavers" on 07 July 2023.

Vijay Tambrallimath, Manipal Institute of Technology, Manipal, Shamanthak A B, Madala Chaitanya Sai, Talari Chagi Bestha Manoj Kumar, Kopparapu Veera Venkata Ganesh Rakesh, Maguluri Chandrahaas have filed a patent titled "Self- Protecting Rear View Mirror" on 08 July 2023.

Vidhu Sankar Babu, Nidhi S Mukundan Manipal School of Life Sciences, Manipal have filed a patent titled "A Method For Preparing An Intergeneric Photosynthetic Two-Way Chimera In-Vitro And Product Thereof" on 14 July 2023.

Natasha Joyline Aquinas, Subbalaxmi S, Ramananda Bhat M, Manipal Institute of Technology, Manipal, have filed a patent titled "Production Of Biopolymer Curdlan From A Novel Strain Priestia Megaterium" on 17 July 2023.

Ramyra Nair, Raviraja Neelavar Seetharam, Jahnavy Madhukar Joshi, Manipal Centre for Biotherapeutic Research, Guruprasad Kalthur, Kasturba Medical College, Manipal, have filed a patent titled "Process For The Maturation Of Mouse Preantral Follicles Using Stem Cell Secretome" on 21 July 2023.

Divya Dhatri Kara, Manipal Institute of Technology, Manipal, Pragathi Devanand Bangera, Mahalaxmi Rathnanand Manipal College of Pharmaceutical Sciences, Manipal have filed a patent titled "Green Synthesis Of Ibrutinib Cocrystals Through Hot Melt Extrusion Technology For Enhancing Its Oral Bioavailability" on 25 July 2023.

Tusar Kanti Mishra, Manipal Institute of Technology, Manipal, Arka D E, Sameeksha Saraf have filed a patent titled "A System For Automation Of Water In-Flow Control And A Method Thereof" on 30 July 2023.

Shwetha V, Manipal Institute of Technology, Keerthana Prasad, Manipal School of Information Sciences, Manipal, Chiranjay Mukhopadhyay, Kasturba Medical College, Manipal, have filed a patent titled "A System And A Method For Detecting Bacteria Species" on 30 July 2023.

Ajeetkumar Patil, Bhavana Anchan, Suresh D Kulkarni, Department of Atomic and Molecular Physics, Manipal, Shounak D E, Manipal Institute of Technology, Keerthana Prasad, Manipal School of Information Sciences, Manipal, have filed a patent titled "A Device For Sensing Vitamin B Mediated By CdTe Quantum Dots" on 08 August 2023.

Srinivas Mutalik, Kiran Avadhani, Jyothsna Manikkath, Manipal College of Pharmaceutical Sciences, Manipal, Nayanabhirama Udupa have filed a patent titled "Polymeric Nanoparticle For Sunscreen Formulation And Their Method Of Preparation Thereof" on 10 August 2023.

Nirmal Mazumder, Pooja, Nafisa Yeshmin Ahmed, Neha P Santhosh, Ishita Chakraborty, Krishna Kishore Mahato Manipal School of Life Sciences, Manipal, Sib Sankar Mal have filed a patent titled "A Method For The Preparation Of Starch-Based Bioplastic Film With Activated Carbon" on 23 August 2023.

Sanjay Singh Manipal Institute of Technology, Manipal, Abishek, Shivani G Aithal, have filed a patent titled "Training Summarization Models" on 24 August 2023.

Chithra A, Manipal College of Dental Sciences, Manipal, Anuhya Jayanthi, Hargun Kochhar, Utkarsh Anand, Sandra Elizabeth George, R Sethuraman, have filed a patent titled "Smart Scrubs With Posture Correction" on 24 August 2023.

Ashwath Rao B, Narendra V G, Musica Supriya, Manipal Institute of Technology, Manipal, have filed a patent titled "System And Method For Automated Sandhi Identification And Splitting" on 29 August 2023.

Ekta, Suvarna G Kini, Runali Sankhe, Manandhar Suman, Raghu Chandrashekar H, K Sreedhara Ranganath Pai, Manipal College of Pharmaceutical Sciences, Manipal, have filed a patent titled "1,3-Diphenylurea Substituted Heterocyclic Compounds, Method of Preparation and its Pharmaceutical Composition Thereof" on 30 August 2023.

P Kalyana Chakravarthy, Manipal College of Dental Sciences, Manipal, Chenna Deepika, Shamee Shastry, Kasturba Medical College, Manipal have filed a patent titled "Device To Reduce The Risks Or Complications Associated With Venepuncture" on 31 August 2023.

Madhushankara Maila, Manipal School of Information Sciences, Manipal, Somashekara Bhat, Manipal Institute of Technology, Manipal, Venkataraja Udipi Aithal, Manipal College of Health Professions, Manipal, Sawan Ramesh Hegde have filed a patent titled "Wearable Electrolarynx" on 01 September 2023.

Manish Varun Yadav, Swati Varun Yadav, Manipal Institute of Technology, Manipal have filed a patent titled "An Antenna With Trident Shape Radiator For Multiple Communication" on 04 September 2023.

Bhisham Narayan Singh, Ankitha S, Manipal School of Life Sciences, Manipal have filed a patent titled "Scaffold For Skin Tissue Engineering And A Method Of Synthesizing Thereof Communication" on 04 September 2023.

Krishnananda Prabhu, Kasturba Medical College, Manipal R V have filed a patent titled Coconut Grater on 08 September 2023.

Nirmal Mazumder, Pooja, Krishna Kishore Mahato, Manipal School of Life Sciences, Manipal have filed a patent titled "A Thermoplastic Starch (TPS) Film and a Method for Preparing the Same" on 08 September 2023.



Ravikiran Ongole, Manipal College of Dental Sciences, Manipal, Purva Rasane, Priyanka K, Sreya Dutta, have filed a patent titled "A Vacuum-Operated and Handheld Spittoon Integrated with Suction Units of a Dental Chair" on 11 September 2023.

Mrs Atheena P V, Mr Rajesh K M, Dr Ritu Raval, Dr Tiluttama Mudoj, and Dr Keyur Raval, Manipal Institute of Technology, Manipal have filed a patent titled "A method for production of bioethanol from coffee husk" on 13 September 2023.

Varalakshmi Velagacherla, Usha Yogendra Nayak, Yogendra Nayak, Manipal College of Pharmaceutical Sciences, Manipal, Pharmaceutical have filed a patent titled "Compositions For Treating Idiopathic Pulmonary Fibrosis Comprising Self-Assembled Nintedanib Mixed Micelles And Preparation Thereof" on 16 September 2023.

Afiya Eram, Aman Pratap Singh, Manipal College of Dental Sciences, Manipal, Laxmikant G Keni, Mohammad Zuber, Manipal Institute of Technology, Manipal have filed a patent titled "Endodontic Plugger Device" on 16 September 2023.

Saurabh Kumar, Rashmi Nayak, Manipal College of Dental Sciences, Manipal Laxmikant G Kini, Chethan K N, Manipal Institute of Technology, Manipal have filed a patent titled "An Intra-Oral Device For The Reduction Of Aerosol In Dentistry" on 21 September 2023.

B S Satish Rao, Manasa Manjunath Hegde, Manipal School of Life Sciences, Manipal Srinivas Mutalik, Manipal College of Pharmaceutical Sciences, Manipal, Jayant Sastri Goda have filed a patent titled "Active Agent(S) Loaded Multifunctional Lipidic Nanovesicles For Glioblastoma Therapy And The Method Of Preparation Thereof" on 25 September 2023.

Rozy Kamal, Manipal College of Health Professions, Manipal have filed a patent titled "For Contrast And Theragnostic Agent Comprising Spions And Method Of Preparation Thereof" on 25 September 2023.

#### **D. Grants Office, Directorate of Research, MAHE, Manipal**

Manipal Academy of Higher Education has always considered research a fundamental component of its mission. In the present Knowledge Era, it has established itself as a leading university that prioritizes Research and Innovation. The university's objective is to support and encourage research projects that meet global standards.

As of March 2023, there were 382 ongoing projects with a total sanction of over 111.21 crores, of which 67.48 crores had been received. Newly added projects for this quarter, July to September, are 27 with a sanctioned amount of 5.57 crore, and the total newly added projects for this financial year up to September are 61 with a sanctioned amount of 10.09 crore. For the quarter, along with the ongoing and newly added projects, we have received funding for 139 projects in this quarter worth 10.56 crore. As per RMS, the grant application for this quarter is 124. We are being funded by well-known government and non-government organizations such as ICMR, DST, DBT, SERB, CSIR, and private organizations.

The Directorate of Research (DoR) at MAHE plays a pivotal role in managing the complete grant process, encompassing pre-award planning and post-award reporting. While seeking grants can present challenges, especially for novice researchers, effective management, the right resources, and a streamlined workflow can lead to the successful administration of even the most intricate research initiatives. At DoR, our primary objective is to guarantee the seamless execution of research grant projects in full compliance with the policies of both funding bodies and MAHE.

In order to manage the entire grant process from pre-award planning to final reporting, MAHE's administration has established a Grants Office (GO) at the central Directorate of Research. The Grants Coordinator oversees the operations of the Grants Office. Our primary objective at GO is to enhance the quantity and quality of research funding, as well as to assist academic and research scholars in improving their research output at MAHE.

We consistently keep our researchers informed about the latest grant possibilities through diverse channels, including funding institutions, the Grants Management portal, and emails. Our aim is to assist faculty and

researchers in fulfilling our goals. Additionally, the Grants Coordinator (GC) will serve as the primary point of contact for essential discussions concerning finance, legal, and HR issues. The GC will also act as an intermediary between the institution and the funding entities. It is mandatory for all MAHE research grant applicants to ensure that their project information remains current in the RMS portal.

Note: From now on, the Directorate of Research should receive any paperwork that needs to be signed by the Registrar in connection with applications for research grants. Send an email with the document in Word format that needs to be signed by the registrar to grants.mu@manipal.edu.

Contact Details:

Mr Royal Monteiro, Coordinator - Grants Office, MAHE, Manipal.

DBT/Wellcome Trust India Alliance IRMI Research Management Fellow

Member of National Council of University Research Administrators, Washington, DC

Email: grants.mu@manipal.edu

Phone: 0820-29-37733



## **A. Faculty and institution achievements**

### **Institution Achievements**

1. “International chair of Bioethics” was inaugurated at Manipal Tata Medical College (MTMC), Jamshedpur under the leadership of the Dean, Dr G Pradeep Kumar on 24 July 2023.
2. “Student Research Forum” was inaugurated at Manipal Tata Medical College, Jamshedpur under the leadership of the Dean, Dr G Pradeep Kumar on 24 July 2023.
3. “Mantatva” Official E-newsletter of Manipal Tata Medical College Jamshedpur was inaugurated under the leadership of the Dean, Dr G Pradeep Kumar on 25 September 2023.



Dr G Arun Maiya, Professor, Department of Physiotherapy and Dean – Manipal College of Health Professions (MCHP) and Chief-Centre for Podiatry and Diabetic Foot Care and Research, MAHE, Manipal has been nominated as a member of the Board of Studies- Physiotherapy and Prosthetics and Orthotics, MGM Institute of Health Sciences, Navi Mumbai.

Dr John Solomon M, Additional Professor and Head, Department of Physiotherapy, MCHP was invited to be a Physiotherapy Expert Working Group member to develop standard protocols for people with disabilities, formed by the Government of Tamil Nadu.





Dr Abraham Samuel Babu, Associate Professor, Department of Physiotherapy, MCHP, has been appointed as the Vice-Chair of the International Council of Cardiovascular Prevention and Rehabilitation (ICCPR). He has also been selected for the position of "Deputy Editor" for the journal - Global Heart: Journal of the World Heart Federation. The journal has an impact factor of 3.7 (Web of Science) and is a Q1 (Scopus) journal with a percentile of 88%.

Dr Preetha R, Associate Professor has been appointed as a member of the Associate Editors of the European Journal of Physiotherapy.



Dr Senthil Kumaran D, Associate Professor, Department of Physiotherapy, MCHP has been appointed as the Deputy Editor to the editorial board of Physiotherapy Research International Journal.

Dr Ratnesh Sinha, Assistant Professor, Community Medicine, MTMC nominated as Associate Editor in National Indian Association of Preventive and Social Medicine (IAPSM) e-Bulletin.

Dr Seelora Sahu, Assistant Professor, Department of Anaesthesia, won first prize in a specialist paper at the 61st half-yearly conference of the Clinical Society in Jamshedpur on 22 to 23 September 2023.

Dr Vijayendra Pandey, Professor and HOD, Department of Dentistry, Manipal Tata Medical College, Jamshedpur, won first prize in the Scientific Poster competition at the 7th International Conference on Corticobasal Implantology organized by the International Implant Federation, Germany, on 25 July 2023.

- Dr Madhu Veeraraghavan, faculty at TAPMI (also Dr TMA Pai Endowment Chair in Management Research, T A Pai Management Institute); T A Pai Chair Professor of Finance and Pro Vice Chancellor [Management, Law, Humanities and Social Science, Manipal Academy of Higher Education] has been appointed as Co-editor of Journal of Contemporary Accounting and Economics (JCAE). JCAE is an A-ranked journal in the ABDC rankings.



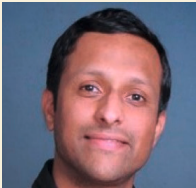

Name of the faculty - Remya Tressa Jacob





Designation - Assistant Professor

Name of the department and institution, TAPMI, MAHE

Award detail: Remya Tressa Jacob and co-authors have been declared second runner-up (third place) at the Emerald Ceeman Case Writing Competition, presented by the Emerging Markets Case Studies Collection. "Cracking the Conundrum of e-Cargo Logistics: Curious Case of LoadExx," July 2023.



<p>Dr Ramesh Holla, Associate Professor, Department of Community Medicine, KMC, Mangalore won the Young Scientist award at KACHCON-23, held from 11 to 12 August 2023.</p>	
<p>Dr Rohith M, Assistant Professor, Department of Community Medicine, KMC, Mangalore, won the Best Paper award at KACHCON-23, held from 11 to 12 August 2023.</p>	

<p>Dr Preetie Shetty A, Assistant Professor, Department of Audiology and Speech-Language Pathology, KMC, Mangalore, has been selected for the prestigious World Federation for Neurorehabilitation (WFNR) Mentorship Program. She has been selected as a mentee and will be under the guidance of Dr Michael Thaut, who holds the position of Professor at the Faculty of Music and Faculty of Medicine, Institute of Medical Sciences and Rehabilitation Science Institute.</p>	
<p>Dr Prateek Rastogi, Professor and HOD, Department of Forensic Medicine, KMC, Mangalore, was awarded second prize in the faculty category for the poster presentation titled "Burns on the Railway Track: Case Report" at the 19th Annual National Conference of the South India Medico-legal Association (SIMLA-2023) at Coimbatore Medical College, held from 09 to 10 September 2023.</p>	
<p>Dr Deviprasad D, Professor and Head, Department of Otorhinolaryngology, won first prize in the poster presentation titled – "Tripple Trouble-Managed Single Handedly" at SEO-CON-2023, organised by Sushrut ENT Hospital and Dr Khan ENT Research Centre and DY Patil Medical College, Pimpri, held from 01 to 03 September 2023.</p>	
<p>Dr Jithin Surendran won the second prize for the scientific paper presentation for a scientific e-poster titled "A cross-sectional study on the tripartite model of attitudes regarding emergency medical services among public transport drivers in urban Mangalore" at the 3rd IAPSM Karnataka state chapter conference held from 15 to 16 September 2023, held at BLDE Medical College, Vijayapura.</p>	

Dr Babitha K S and her team at Manipal School of Life Sciences, MAHE, secured first prize for the oral presentation at the "International Conference on Synthetic and Pharmaceutical Chemistry (ICSPC 2023)" organized by The Lovely Professional University, Jalandhar, Punjab.



Dr Sandesh Upadhyaya, Assistant Professor-Senior Scale, Department of Civil Engineering, Manipal Institute of Technology, Manipal, has received a grant of 1,60,000 INR from the Science and Engineering Research Board (SERB) for organizing the International Conference on New Horizons in Civil Engineering (NHCE-2023). The conference will be held at MIT from 13 to 14 October 2023.



Dr Karunakar A Kotegar and Dr Anitha, Professor, Department of Data Science and Computer Applications, MIT, MAHE, received a SPARC grant of 80,07,906 INR from the Ministry of Education.

Dr Manjunath K N, Associate Professor, Department of Computer Science and Engineering, MIT, MAHE, Manipal, received a grant of 2600 USD for travel and registration to the Medical Image Computing and Computer Assisted Intervention (MICCAI) annual conference to be held in Vancouver, Canada from 08 to 12 October 2023. The grant name is *Reinforce Inclusiveness and Diversity and Empower Minority Researchers in Low-Middle Income Countries (LMIC)*.

Dr Rajesh V, Associate Professor, and Dr Sonal Sekhar M, Assistant Professor-Selection Grade of the Department of Pharmacy Practice, MCOPS, have received a partial scholarship from the International Society for Pharmacoepidemiology (ISPE) to attend the ISPE's 15th Asian Conference on Pharmacoepidemiology (ACPE), held on 26 to 28 October 2023, at the Sheraton Grand, Bengaluru, Karnataka. A partial scholarship was awarded. ISPE's full scholarship covers one-year ISPE membership, travel expenses, and complimentary registration fees to attend the conference, whereas the partial scholarship covers one-year ISPE membership and complimentary registration fees to attend the conference.



Dr Rajesh V



Dr Sonal Sekhar M

- a. Professor LVG Nargund Research Excellence Award in Pharmaceutical Chemistry Awarded to Dr Suvarna G Kini: 02 September 2023:

Dr Suvarna G Kini, Professor and Head, Department of Pharmaceutical Chemistry, was awarded the Professor LVG Nargund Research Excellence Award in Pharmaceutical Chemistry by APTI during the 26th APTICON 2023, held in Kanpur on 02 and 03 September 2023, for research contribution in the field of Pharmaceutical Chemistry. This award is given to pharmaceutical scientists and teachers who are pursuing research and also working in the pharmaceutical industry, research institutions, universities, and PCI/AICTE recognized institutions, who have a BPharm/MPharm/PhD from a recognized university or any other equivalent qualification recognized by the Pharmacy Council of India and have ten years of teaching experience after completion of MPharm with an age above forty years as on last date of submission of the application prescribed by APTI. The candidate should be a life member of APTI for a minimum period of five years. The award carries a cash prize of 10,000 INR, a memento, and a citation. Dr Kini received this prestigious award from PCI President, Dr Montu Patel as well as from the President and Vice President of APTI.



- b. Dr Madhavan Nampoothiri G wins the P K Abdul Gafoor Memorial Young Scientist Best Researcher Award 2023: 10 September 2023:

Dr Madhavan Nampoothiri G, Assistant Professor-Selection Grade, Department of Pharmacology, Manipal College of Pharmaceutical Sciences, Karnataka, received the P K Abdul Gafoor Memorial Young Scientist Best Researcher Award 2023 at the MESCON 2023 National Conference held on 09 and 10 September 2023, at MES Medical College, Perinthalmanna, Kerala. The Best Researcher Award recognizes individuals who have demonstrated outstanding research activities, encompassing a prolific publication record, impactful papers presented, and active participation in international conferences. The award consists of a certificate, a memento, and a cash award of 20,000 INR.



- c. Dr Madhavan Nampoothiri Receives the Best Paper Award in MESCON 2023: 10 September 2023

Dr Madhavan Nampoothiri G received the award for best paper presentation (Category: Faculty Oral Presentation) for the paper titled "Modulatory role of Substance-P against neuroinflammation-induced learning and memory deficit" authored by Madhavan Nampoothiri, Prasada Chowdari Gurram, Sairaj Satarker, and Jayesh Mudgal, Department of Pharmacology, Manipal College of Pharmaceutical Sciences, Karnataka during the National Conference MESCON 2023 held on 09 and 10 September 2023 at MES Medical College, Perinthalmanna, Kerala. The award consists of a certificate, a memento, and a cash award of 3,000 INR.



Dr Karthik Shetty, Professor and Head of the Department of Conservative Dentistry and Endodontics, MCOADS, Mangalore, was awarded the "Distinguished Researcher Award" by the Association of Conservative Dentistry and Endodontics, Karnataka at the 2nd ACE Karnataka conference held in Oxford Dental College Bangalore on 11 August 2023.



Dr Manuel Thomas, Associate Professor, Department of Conservative Dentistry and Endodontics, MCOADS, Mangalore, won the Best Paper Award for his paper titled "Irrigant dynamics of a recently introduced irrigating needle in root canals with various tapers: a computational fluid dynamic study". The National Conference of the Indian Endodontic Society will be held in Bhuvaneshwar from 29 September 2023 to 01 October 2023.



Name of the faculty: Dr Shruthi Acharya

Designation: Associate Professor

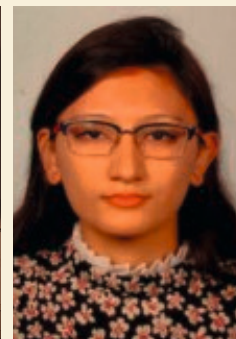
Name of the Department: Oral Medicine and Radiology, MCOADS, Manipal

Date with Grant details: Dr Shruthi Acharya has been sanctioned a grant amount of 18,00,000 INR (18 lakhs for 18 months) for her project under the IDEA2PoC Grant scheme (ELEVATE 2023) of Karnataka Startup Policy KITS, Department of Electronics, IT, BT, and S&T Government of Karnataka dated 19 September 2023.

Ar Rutuja Sunil Ulhe, Assistant Professor, Manipal School of Architecture and Planning, was awarded the Architect Fellowship for the UIA World Congress of Architects 2023, an International Conference at Copenhagen World Congress Sustainable Futures – Leave No One Behind held in Copenhagen, Denmark, from 02 to 06 July 2023, for presenting the paper entitled "A behavioural analysis of the intersectionality of gender in housing among Indian middle-class families".

### B. Achievements by research scholars and students

Dr Srijan Deshpande, a former PhD student of MCH, MAHE, was awarded the New India Fellowship for his research titled, "The Life and Music of Kumar Gandharva". He will receive a stipend of 18 lakhs for one year.



Ms Shristi Shakya, Dr TMA Pai PhD scholar, Department of Physiotherapy, MCHP, received the American Academy for Cerebral Palsy and Developmental Medicine (AAPDM) Student Travel Scholarship for her attendance in the 77th Annual Meeting for the AAPDM conference taking place from 10 to 13 September 2023, at the Chicago Marriott Magnificent Miles in Chicago, Illinois, United States of America. This scholarship covers the cost of her conference registration fee, which amounts to 300 USD.

ICMR STS research proposal (ICMR-2023-13662) of Mr Subhankar Sachin Patil, third year MBBS student, Department of General Surgery, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.

ICMR STS research proposal (ICMR-2023-02119) of Ms Nidhi Priya, second year MBBS student, Department of Physiology, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.

ICMR STS research proposal (ICMR-2023-03082) of Mr Shouray Dey, second year MBBS student, Department of Physiology, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.

ICMR STS research proposal (ICMR-2023-13180) of Ms Ananya Bharadwaj, third year MBBS student, Department of Pathology, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.

ICMR STS research proposal (ICMR-2023-11715) of Ms Harini Narayanan, third year MBBS student, Department of Ophthalmology, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.

ICMR STS research proposal (ICMR-2023-09192) of Mr Shrihari Amruta Dalai, third year MBBS student, Department of Forensic Medicine and Toxicology, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.

ICMR STS research proposal (ICMR-2023-07186) of Mr Arsh Pervez, third year MBBS student, Department of Community Medicine, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.







ICMR STS research proposal (ICMR-2023-06447) of Ms Riya Mahajan, third year MBBS student, Department of Community Medicine, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.

ICMR STS research proposal (ICMR-2023-04233) of Ms Sanskriti Sanyal, second year MBBS student, Department of Biochemistry, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.







ICMR STS research proposal (ICMR-2023-14208) of Ms Roopal Dwivedi, third year MBBS student, Department of Microbiology, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, was approved on 23 August 2023.

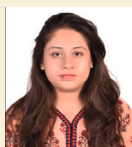
Ms Samreen Parveen, third year MBBS student, Department of Pharmacology, Manipal Tata Medical College, Jamshedpur, MAHE Manipal, won first prize in an oral research paper presentation at the 2nd MediSAFEcon (Medication Safety Conference) 2023 Conference held in Kolkata on 16 September 2023.

Ms Pratima Sahoo, third year MBBS student, MTMC, won second prize in the scientific poster making competition and Mr Avijit, first year MBBS student, MTMC, won third prize in the quiz competition in BIOFEST-2023 (Eastern zone quiz and poster making competition) conducted by the Department of Biochemistry, Manipal Tata Medical College, Jamshedpur, on 09 September 2023.

<p>Dr Aayush Srivastav, Department of Psychiatry, KMC Mangalore, won second prize in the case Presentation Competition on Women's Mental Health at the Indian Psychiatry Society (IPS) held on 23 July 2023.</p>	
<p>Dr Vivek Hari, Department of General Medicine, KMC Mangalore, won third prize in the State Level National Haematology Quiz 2023 at the Indian Society of Haematology and Blood Transfusion (KC-ISHBT) held on 19 July 2023.</p>	
<p>Dr Shreevatsa Acharya (INTERN), Janet K Joy (MBBS), Meera B N (MBBS), KMC Mangalore, won the quiz competition Neoplasia-second prize at A J Institute of Medical Sciences, Mangalore held on 09 July 2023.</p>	 
<p>Dr Nipun Vattathode Murali, Department of Community Medicine won first prize in the oral presentation session: Food insecurity, its impact on mental health and its determining factors among people seeking healthcare in the urban PHC of Mangalore at the 3rd IAPSM Karnataka State chapter conference held from 15 to 16 September 2023 held at BLDE Medical College, Vijayapura.</p>	
<p>Dr Shreya R, Dr Shreevatsa Acharya B, KMC Mangalore won the third prize in the Quiz on Gestational Trophoblastic Disorders at the Karnataka State Chapter Association of Gynaecologic Oncologists in India held on 10 September 2023.</p>	



Mr Akash Agrahari, KMC Mangalore won second prize in Medical Quiz Cureosity at Goa Medical College held on 01 September 2023.	
Dr Pranav Rajasekharan, Department of Orthopaedics, KMC Mangalore won Best Paper in OASIS PG Gold Medal at the Orthopaedic Association of South Indian States held on 01 September 2023.	
Dr Sneha R, Department of Anaesthesiology, KMC Mangalore, won second prize in the poster competition at MOSC Medical College, Kolenchery, held on 09 September 2023.	
Dr Anika Tikku, Department of Anaesthesiology, KMC Mangalore, won Best Creative Poster at the 23rd KCACON, Manipal, held from 15 to 16 September 2023.	
Ms Navya Bhardwaj, KMC Mangalore won first prize in the Micro Das Plakat - poster making competition at the Department of Basic Medical Sciences, MAHE held on 23 September 2023.	
Dr Shreevatsa, Dr Nischal, KMC Mangalore won first prize in the RotoQuiz 2023 district level and second prize in the RotoQuiz 2023 state level at Rotary Club Bangalore held on 25 September 2023.	



Ms Ishita Chakraborty, PhD Scholar–Travel Grants from the organizer of the conference SERB Financial Assistance for participating in the 73rd Annual Australasian Grain Science Conference, Australia (26 to 29 September, 2023).

Mr Manikanth Karnati, BSc Biotechnology, was selected for the JSAP-Optica Travel Award to participate in the JSAP-Optica Joint Symposia 2023 dated 18 to 24 September 2023.



Mr Ashutosh Jha, BTech 2021-2025, Department of Electronics and Communication Engineering, Manipal Institute of Technology, MAHE, Manipal, received the first prize for the “Best Project in Intel Unnati Industrial Training-Summer 2023”, which was held online during June and July 2023. He worked on the project titled “Conquering Fashion MNIST with CNNs using Computer Vision”, as part of this National Level training program for students from various universities.

Ms Deeksha Venugopalan of MSc, (Medicinal Biotechnology) student of Manipal School Life Sciences did her final project thesis “Microbial Molecular Profiling Using Localized Surface Plasmon Resonance” at the Research Laboratory for Plasmonics, Department of Electronics and Communication Engineering, under the guidance of Dr Bhavanari Mallikarjun (Guide); Dr VHS Moorthy (Co-Guide); Dr Nirmal Mazumder (Co-Guide); Dr Bharat Prasad A S (Co-Guide). Ms Deeksha Venugopalan received the Best Poster Presentation Award at the International Conference on Translational Research and Biophotonics (ICTRB) held from 3 to 5 August 2023 at Manipal School of Life Sciences, Manipal.

Ms Atheena P V (Dr TMA Pai, PhD Scholar), Department of Biotechnology, MIT, MAHE, was selected as a PMRF Scholar in the July 2023 batch of The Prime Minister’s Fellowship Scheme for Doctoral Research by the Science and Engineering Research Board, Department of Science and Technology, Government of India.





Mr Tushar Mishra, final year BTech Biotechnology student, received the prestigious Mitacs Globalink Research Internship Award 2023. He worked on a research project entitled Investigating the Determinants of Spindle Assemble Checkpoints during June-August 2023 under the guidance of Professor Sabine Elowe, at Université Laval, Quebec City, Canada.

Ms Samrakshini M, third year BTech Biotechnology student, received the prestigious Summer Research Fellowship 2023 from the Indian Academy of Sciences in association with NASI and INSA. She worked for two months (05 June-31 July 2023) under the guidance of Professor Dr Som Dutt at the Central Potato Research Institute, Shimla.



Mr Mihir Agarwal, Prajna Prabhu, Smeet Dedhia, and Yaswanth Biruduraju, seventh semester 2023, BTech DSE, Department of Data Science and Computer Applications, MIT, MAHE, Manipal, has emerged as the First Runner Up in the highly competitive and exhilarating HackRx 4.0 hackathon (24-hour) conducted at Symbiosis Institute of Technology, Pune (August 2023). The project they worked on: "To create an end-to-end system for the processing and analysis of graphical data".



Mr Nishad, seventh semester 2023, BTech DSE, Department of Data Science and Computer Applications, MIT, MAHE, Manipal, was ranked among the top 100 in the World Cube Championship held in South Korea from 13 to 15 August 2023.



Ms Vidya Kamath, the full-time research scholar at the Department of Computer Science and Engineering, MIT, MAHE, Manipal, received the best paper award for an oral presentation at the MaiTRI Summit 2023 which was held from 01 to 03 September at NIT Jalandhar, Punjab.

Mr Muhammed Rashid won the Best Pharmacist of the Year 2023 Award. Mr Muhammed Rashid, Research Scholar, Department of Pharmacy Practice, MCOPS has been honoured with the award "Best Pharmacist of the Year 2023" by Adichunchanagiri University, BG Nagara, as part of the World Pharmacist Day Celebration 2023. This award is presented by considering his outstanding contribution to the Clinical Pharmacy through academic and research excellence. Currently, Mr Rashid serves as ISPOR Student Network-Asian Regional Lead and ISPE Student Council-Networking and Communication Lead.

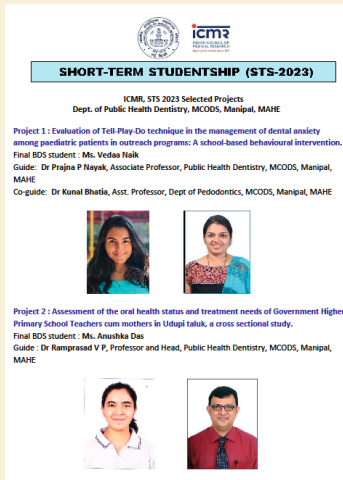


MCOPS Research Scholars were awarded a partial scholarship from the International Society for Pharmacoepidemiology (ISPE) to attend the ISPE's 15th Asian Conference on Pharmacoepidemiology (ACPE), held from 26 to 28 October 2023 at Sheraton Grand, Bengaluru. Mrs Swetha R Reghunath, Mrs Sowmya Pujari, Ms Malakapogu Pravachana, Ms Harsimran Kaur, Ms Shravya C, Ms Shwetha Somakumar, Ms Irene Lalhruaimawii, and Mr Muhammed Rashid P P (Research Scholars) received partial scholarship. ISPE's full scholarship covers one year membership of ISPE, travel expenses, and complimentary registration fees to attend the conference, whereas the partial scholarship covers one year membership of ISPE and complimentary registration fees to attend the conference.

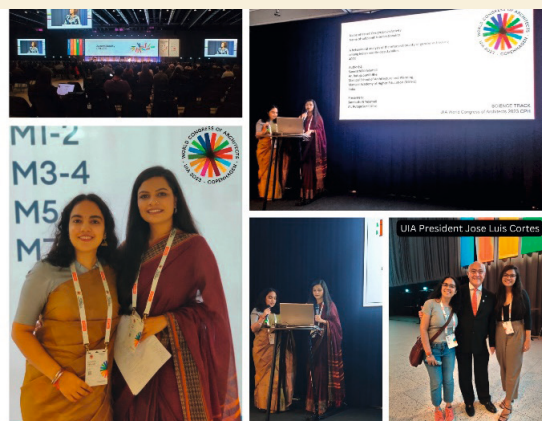


<p>Dristi Kedia and Meera Manoj, Interns, MCOADS Mangalore, have won second place in Poster Presentation for their poster titled "From Pixels to Perfection: Transforming Endodontics with 3D Printing" at the second Manipal Dental Conference held at Manipal Dental College, Manipal from 10 to 11 August 2023, under the guidance of Dr Janina Loren Dsouza, Senior Lecturer, Department of Conservative Dentistry and Endodontics.</p>	
<p>Ms R Divya Lakshmi and Ms Adheena Madhu, Interns, MCOADS, Mangalore have won first place in the poster presentation at the Manipal Dental Conference 2023, held at Dr TMA Pai Halls, Manipal from 10 to 11 August 2023 on the topic-Collating Deep Caries Management Modalities Among Dental Professionals: An International Insight under the guidance of Dr Praveen Jodalli, Associate Professor, Department of Public Health Dentistry, MCOADS, Mangalore.</p>	
<p>Dr Vighnesh M, first year postgraduate, Department of Conservative Dentistry and Endodontics, MCOADS, Mangalore secured second place for poster presentation at the 2nd ACE Karnataka Conference, 2023 held at Oxford Dental College, Bengaluru from 10 to 12 August 2023.</p> <p>Topic: Art of Digital Aesthetics, under the guidance of Dr Kartik Shetty Professor and Head Department of Conservative Dentistry and Endodontics.</p>	
<p>Ms Muskan Sharma and Ms Pooja Natarajan, Interns, MCOADS, Mangalore won third place in the E-Poster competition held on the occasion of World Entrepreneurs Day, titled "Future of Innovation in Dentistry" at the A B Shetty Memorial Institute of Dental Sciences, Mangalore on 25 August 2023.</p> <p>Topic: Coding the future: Exploring the Power and Potential of Artificial Intelligence in Reshaping Dentistry under the guidance of Dr Charisma Thimmaiah, Reader, Paediatric and Preventive Dentistry.</p>	

- Dr Ramprasad V P and Dr Shashidhar Acharya are conducting a multi-country study for the assessment of oral health care delivery in the community. MCOODS, Manipal in alliance with QMUL.
- 50,000 INR each ICMR-STs
  1. Dr Prajna Nayak
  2. Dr Ramprasad V P



Sanmathi Yelamali (BArch), Manipal School of Architecture and Planning, was awarded the Student Fellowship for the UIA World Congress of Architects 2023, an International Conference at Copenhagen World Congress Sustainable Futures – Leave No One Behind held at Copenhagen, Denmark from 02 to 06 July 2023 for presenting the paper entitled “A behavioural analysis of the intersectionality of gender in housing among Indian middle-class families”.





Mr Aravind M, PhD Scholar, (Year of registration: 2020), Department of Atomic and Molecular Physics, MAHE, Manipal, received the best poster prize (Sponsored by Analytical Chemistry, ACS Publications) at the first Indian Conference on Micro nano fluidics (ICOM 2023), which was held from 29 September 2023 to 01 October 2023 at Indian Institute of Technology Madras, Tamil Nadu.

1. C. Research Activities: Workshops, Programs, Webinars, Conferences and Awards and accolades.



Dr G Arun Maiya, Professor, Department of Physiotherapy and Dean-MCHP and Chief-Centre for Podiatry and Diabetic Foot Care and Research, MAHE, Manipal was invited as Chief Guest for the 30th year celebration of Sri Ramachandra College of Physiotherapy, Chennai and was felicitated by Pro Vice Chancellor, Sri Ramachandra Deemed University for the achievement and contribution for Research and Innovation in Physiotherapy on 04 August 2023.

Dr Aditya Mohan Jadhav, Professor and Dean at TAPMI Bengaluru, MAHE, Manipal was honoured with the "Late Prof Y K Bhushan Most Influential Professors" award at the World Education Congress 2023, held in Mumbai on 13 and 14 July 2023.

<p>Dr Gatha M Upadya, Professor and Head, Department of Dermatology, Venereology, and Leprosy received an IADVL Karavali travel grant of INR 1.2 lakh to attend the World Congress of Dermatology in Singapore held from 03 to 08 July 2023.</p>	
<p>Dr Deepti D'Souza, Associate Professor, Department of Dermatology, Venereology, and Leprosy received an IADVL Karavali travel grant of INR 1.2 lakh to attend the World Congress of Dermatology in Singapore held from 03 to 08 July 2023.</p>	

Dr Chiranjit Ghosh, Assistant Professor-Research, Department of Biotechnology, MIT, MAHE received the ACBI Young Scientist Bursary Award from the Association of Clinical Biochemists of India, held from 14 to 16 September 2023.



Mr Rajesh, Assistant Professor-Senior Scale, Department of Biotechnology, MIT, MAHE received the Young Scientist Award from B S Abdur Rahman Crescent Institute of Technology, Chennai, India during the International Conference on Application of Natural Products Nanomaterials and Nanopharmaceuticals held on 09 and 10 August 2023.



Dr Praveen Shetty, Assistant Professor, Centre for Intercultural Studies and Dialogue (CISD), Manipal Centre for European Studies, MAHE, Manipal was honoured with the 'Best Script Writing Award' for the video documentary on 'Yakshagana' produced as a part of CISD project-Discerning India: Living Cultures of Tulunadu. The award is given to the select documentaries submitted to the CEC-UGC National Level Educational Video competition.



## A. MAHE Student's Research Forum (MAHE-SRF) – Activities for the period of July - September 2023

### Summer School Program 2023

Manipal Academy of Higher Education-Student Research Forum (MAHE-SRF) under the aegis of the Directorate of Research, Manipal Academy of Higher Education (MAHE) organized a **"Summer School Program 2023"** for **about 13 weeks** from 01 May 2023 to 31 July 2023. The courses are divided into two categories: Category-1 with 35 courses and Category-2 with six hands-on courses. More than 45 distinguished resource persons from both MAHE and non-MAHE institutions conducted the courses.

There are 298 participants registered for the different courses from MAHE and non-MAHE institutions. Around 560 registrations are done in both course categories (1 and 2). There are 54 faculties, 97 research scholars, and 136 students of postgraduate and undergraduate levels along with 13 others, who joined the Summer School Program 2023. Around 415 certificates are issued to the participants.

There are 11 courses from category-1 and two hands-on courses from category-2 were held in the month of July 2023.

Manipal Institute of Technology conducted six offline courses which were coordinated by SRF members Mr Abhilash H N and Ms Vaidehi R. The course on Data Visualization And Analysis Using Python was held from 10 to 12 July 2023 by Dr Narendra V G, Material Characterization Tools and Application in Research course on 25 July 2023 by Dr Vishwanath Managuli and Dr Shivamurthy R C, on 21, 22, 28, 29 July 2023 by Dr Abdul Khader, Zero power sensors and energy harvesting using piezoelectric materials on 26 July 2023 by Dr Nagaraja K K and Introduction to Nonlinear Finite Element Method on 27 **July 2023 by Dr Guruprasad T Shetty. All the resource persons are from Manipal Institute of Technology, MAHE, Manipal.**



**Hands -on experience and theoretical sessions during the course held at DBMS, MAHE.**

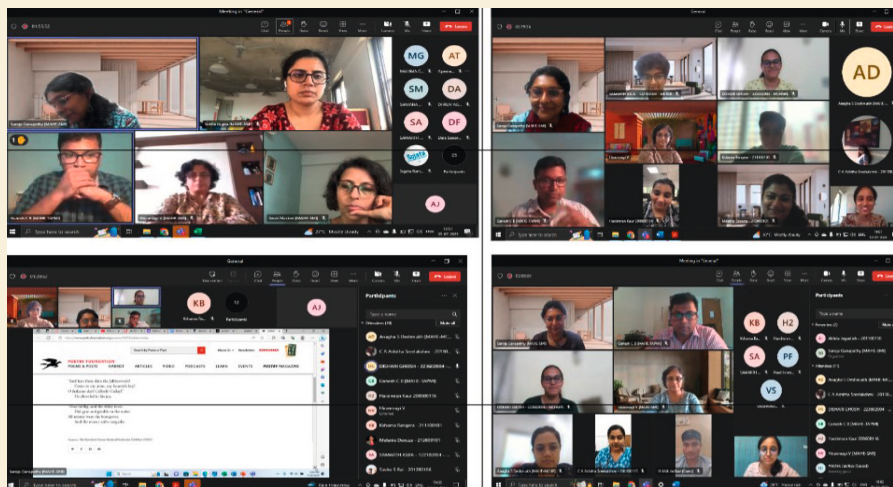
The Department of Basic Medical Sciences, MAHE, Manipal, conducted two hands-on courses under category-2 coordinated by SRF member Ms Diksha Shroff. The course on **Principle techniques and guidelines to design successful 'Gene Expression' and 'Protein Expression' assays using qPCR and Western Blot techniques for Basic and Clinical Research Studies** was held on 03, 04, and 05 July 2023 by Dr Ritu Raval, Dr Ujjal Bose, Dr Prasanna Hannover, and others. The course on **Demonstration of ELISA** by Dr Nagalaksmi N and Mr Manoj from DBMS, MAHE, Manipal was held on 06 July 2023.

Under category-1, there are two hands-on courses offered by the MCNS, MAHE, Manipal and coordinated by the SRF member Mr Ananathamoorthy. The two courses **"Design of Space Payloads and Developmental Approach"** and

“Introduction to Astronomy and Space Sciences” were held on 05, 07, 10, 12, and 14 July 2022, and were conducted by Dr P Sreekumar and Dr Debbijoy Bhattacharya from MCNS, MAHE, Manipal respectively.

The five days online course on **Health Insurance and Universal Health Coverage** was conducted from 24 to 28 July 2023 by Dr Naveen Kumar KMC, MAHE and coordinated by the SRF member Dr Wasiur Rehman Choudhury.

The five days online course on **Academic Writing: A Foundational Course** was conducted on 03, 05, 07, 10, and 12 July 2023 by Dr Saroja Ganapathy from Srishti Manipal Institute of Art Design and Technology, Bengaluru, and the course was coordinated by the SRF members Ms Akhila Jagadish and Ms Ashitha Sreelakshmi.



The six days hybrid course on **Current Trends and Future Perspectives in Virology** was conducted from 17 to 22 July 2023 by Dr Sudhesh N and colleagues and was coordinated by the SRF member Ms Trupti Kadni.

The summer school program concluded on the 29 July 2023 with the offline course by MIT, MAHE, Manipal. At the end, feedback was collected, and the participants received the participation certificates.

## Editorial Team

1. Dr Satish Rao B S, Director - Research, MAHE, Manipal.
2. Dr Bharti Chogtu Magazine, Deputy Director Research (Health Sciences), MAHE, Manipal.
3. Dr Santhosh K V, Deputy Director Research (Technical Sciences), MAHE, Manipal.
4. Jisha B Krishnan, Research Associate, Directorate of Research, MAHE, Manipal.

