

# MAHE Research Bulletin

April – June 2022





# Directorate of Research - MAHE, Manipal



In alignment with the vision of MAHE, the Directorate of Research facilitates and supports the research activities of MAHE. It aims at nurturing and promoting the research of global standards.

/ision:

To nurture and promote research activities of global standards.

ission:

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

# 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.

"Research is seeing what everybody else has seen and thinking what nobody else has thought."

- Albert Szent-Györgyi

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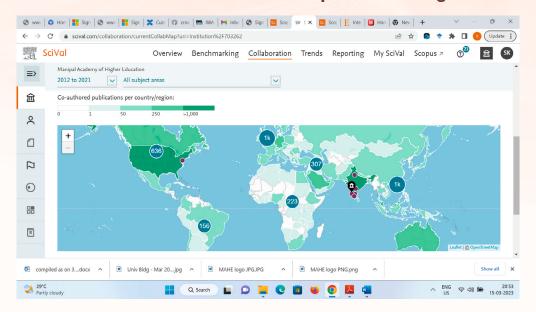
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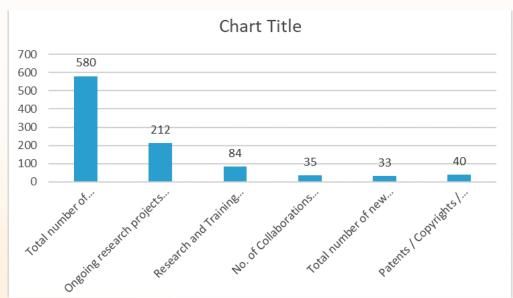
 A. MAHE Student's Research Forum (MAHE-SRF) – Activities for the period of April to June 2022



# A. MAHE Research Data Network Visualization: Top Collaborating Countries



# B. Infograph of research activities during the period April to June 2022



# C.Top publications for the period of April to June 2022

SI No	Title	Authors	Institute	
1	Healthrelated quality of life among oral and oropharyngeal cancer patients: An exploratory study	Dr Almas Binnal Dr G Rajesh Dr Prakash Saxena P U Dr Sourjya Banerjee Dr Ceena Denny Santosh Kumar Tadakamadla	MCODS, Mangalore	
2	Development and validation of a novel corpus of 269 verb pictures in Kannada based on an argument structure taxonomy	Dr Gopee Krishnan Wasim Ahmed	Manipal College of Health Professionals	
3	Potential Risk Factors of Smokeless Tobacco Consumption Among Adolescents in South India	Dr Muralidhar M K Dr Veena Ganesh Kamath Dr Asha Kamath Sarah Lewis Ilze Bogdanvica Manpreet Bains Jo Cranwell Andrew Fogarty Monika Arora Gaurang P. Nazar Dr Kirthinath Ballala A B Ashwath K. Naik Dr Rohith Bhagawath John Britton	Kasturba Medical College, Manipal	
4	A Tunable LED Daylight Luminaire for Textile and Printing Light Booth Application with Optimum LEDs	Ms Sowmya R Dr Srividya R Dr Ciji Pearl Kurian	Manipal Institute of Technology, Manipal	
5	Optimal fuzzy based economic emission dispatch of combined heat and power units using dynamically controlled Whale Optimization Algorithm	Dr Vinay Kumar Jadoun G Rahul Prashanth Siddharth Suhas Joshi K. Narayanan Hasmat Malik Fausto Pedro García M´arquez	Manipal Institute of Technology, Manipal	
6	Spectroscopy: A promising tool for plastic waste management	Adarsh U K V K Kartha Dr Santhosh Chidangil Dr Unnikrishnan V K	Department of Atomic &	
7	Analysis of the effect of copper concentration on the structural, spectroscopic, and electrical properties of Cu:ZnO thin films	Dr Mahesha M G Ganesha Kriskna V S	Department of Sciences, Manipal Institute of Technology, Manipal	
8	Metastatic suppression by DOC2B is mediated by inhibition of epithelialmesenchymal transition and induction of senescence	D. Shama K Prasada, Divya Vaibhav Shukla Dr Guruprasad K P Dr Shama K Prasada Dr Satyamoorthy Kapaettu	Manipal School of Life Sciences, Manipal	
9	Pixeldriven computation of parallel and fanbeam projections of a digital image based on pixel representation using a new formula.	Dr Ramesh R Galigekere	Manipal Institute of Technology, Manipal	

SI No	Title	Authors	Institute
10	Effect of stacking sequence on the structural ordering and phase formation in the sequentially deposited copper zinc tin sulfide thin films	Nagabhushan Jnaneshwar Choudhari Raviprakash Sajan D George	Department of Sciences, Manipal Institute of Technology, Manipal
11	An Insight into the Gelatinization Properties Influencing the Modified Starches Used in Food Industry: A review	M S Murari Ishita chakravorty Dr Nirmal Mazumder Pooja Sib Sankar Mal Uttam C Paul Md Hafizur Rahman	Manipal School of Life Sciences, Manipal
12	Deep learningbased image processing in optical microscopy	SINDHOORA K M Dr Nirmal Mazumder Dr Raghu A R Dharshini Gopal Shweta Chakrabarti Anirudh Ameya Kashyap	Manipal School of Life Sciences, Manipal
13	Parametric analysis of orifice plates on measurement of flow: A review	Ms Sravani Vemulapalli Dr Santhosh K V	Manipal Institute of Technology, Manipal
14	Molecular simulation of copper based metalorganic framework (CuMOF) for hydrogen adsorption	Shaswat Srivastava Dr Shanmuga Priya S Sachin Praveen Shet Sudhakar K Muhammad Tahir	Manipal Institute of Technology, Manipal
15	Superparamagnetic hematite spheroids synthesis, characterization, and catalytic activity	Dr Ramesh V Yash Patnaik P Brijesh Deepa Prabhu Melisha Quadras Shraddha Pai Manoj Kumar Narasimhan K Kaviyarasu Dr Thivaharan V Dr Raja S	Manipal Institute of Technology, Manipal
16	The integration of flexible dyesensitized solar cells and storage devices towards wearable selfcharging power systems: A review	Dheeraj Dr Selva Kumar M Dr Prakasha Shetty Dr Mysore Sridhar Santosh	Manipal Institute of Technology, Manipal
17	Theta and gamma oscillatory dynamics in mouse models of Alzheimer's disease: A path to prospective therapeutic intervention	Sonam Fathima Mehak Dr Gireesh G Apoorva B S Sparsha Kumari Bhadra Muralidharan	Manipal School of Life Sciences, Manipal
18	Artificial neural network and statistical modelling of biosorptive removal of hexavalent chromium using macroalgal spent biomass	Dr Ramesh V Niyam Dave Dr Thivaharan V Natarajan Rajamohan Mika Sillanpää Ashok Kumar Nadda Muthusamy Govarthanan Dr Raja S	Manipal Institute of Technology, Manipal

SI No	Title	Authors	Institute	
19	Experimental investigation on dynamic and static transverse behaviour of thin woven Carbon/Aramid hybrid laminates	Sojan Andrews Zacharias Dr Dayananda K Pai Dr Satish Shenoy B Jaison Kunju Kunju Jayan	Manipal Institute of Technology, Manipal	
20	Hybrid nanostructures: Versatile systems for biomedical applications	Swapnil Mehta, Suresh AKHIL Dr Usha Yogendra Nayak Reema Narayan Dr Yogendra Nayak	Manipal College of Pharmaceutical Sciences, Manipa	
21	Synergetic influence of hydrogen peroxide emulsification and MWCNT nanoparticles to reduce engine exhaust emissions using B20 biodiesel blend	Sooraj Mohan Dr Dinesha P Aiswarya V	Manipal Institute of Technology	
22	Differential Gene Expression and Withanolides Biosynthesis During in vitro and ex vitro Growth of Withania somnifera (L.) Dunal	Thorat Sachin Ashok Melissa Rangel Kiran K R Dr Manjunath B Joshi Dr Padmalatha S Rai Anna-Maria Botha Dr Muthusamy A Arya K Poornima Poojari Shashikala Tantry	Manipal School of Life Sciences, Manipal	
23	Advancements in cell membrane camouflaged nanoparticles: A bioinspired platform for cancer therapy	Dr Dhas Namdev Laxmanrao Dr Srinivas Mutalik Ritu Kudarha Monica C Garcia Abhijeet Pandey Nikam Ajinkya Nitin Divya Gopalan Gasper Joseph Fernandes Soji S Sanjay Kulkarni Dr Raviraja N S Ruchi Tiwari Sarika Wairkar Chandrakantsing Pardeshi	Manipal College of Pharmaceutical Sciences, Manipa	
24	Adherence to home exercises and rehabilitation (ADHERE) after stroke in lowtomiddleincome countries: A randomized controlled trial	Amreen Mahmood Dr John Solomon M Dr Manikandan N Ms Anagha S Deshmukh Dr Shashikiran U Pradeepa Nayak Coralie English	Manipal College of Health Professions, Manipal	
25	Experimental demonstration of the performance of the novel thermosyphon heat transport device and comparison with CFD predictions	K Varun Dr Arunachala U Chandavar P K Vijayan	Manipal Institute of Technology	
26	Improved energy conversion of a photovoltaic modulethermoelectric generator hybrid system with different cooling techniques: Indoor and outdoor performance comparison	Chandan D Dr Arunachala U Chandavar K Varun	Manipal Institute of Technology	

SI No	Title	Authors	Institute
27	Effect of Maleic Acid Root Conditioning on Release of Transforming Growth Factor Beta 1 from Infected Root Canal Dentin	Dr Vasudeva Ballal N Dr Raj Kumar Narkedamalli Nikita B Ruparel Dr Padmaja A Shenoy Dr Vinutha Bhat R Dr Vijetha Shenoy Belle	Manipal College of Dental Sciences, Manipal
28	Artificial intelligence in differentiating tropical infections: A step ahead	Shreelaxmi Shenoy Asha K Rajan Muhammed Rashid Pp Viji P C Pooja Gopal Poojari Dr Vijayanarayana K Dr Dinesh Acharya U Dr Sreedharan Dr Muralidhar Varma D Dr Girish Thunga P	Manipal College of Pharmaceutical Sciences, Manipa
29	MMP9 Levels and NaOCI Lavage in Randomized Trial on Direct Pulp Capping	Dr Vasudeva Ballal N Daniel Wiedemeier Dr Namith Rai Dr Vijetha Shenoy Belle Dr Vinutha Bhat R Dr Matthias Zehnder Dr Henry Duncan Dr Prateek Jalan	Manipal College of Dental Sciences, Manipal
30	OrganonChip platforms to study tumor evolution and chemosensitivity	Venzil Lavie Dsouza Raviprasad K V Dr. Shama K Prasada Dr. Sanjiban Chakrabarty	Manipal School of Life Sciences, Manipal
31	DOC2B is a negative regulator of Wnt/Bcatenin signaling pathway in cervical cancer	Divya Samatha Bhat Dr Sanjiban Chakrabarty Dr Shama K Prasada	Manipal School of Life Sciences

# D. Institutional data during the period April to June 2022

Sr No	Name of The Institution	Total number of Publications in Scientific Journals during the period	Ongoing research projects during the quarter (please mention only funded projects)	Research and Training Programs Conducted	No. of Collaborations established (New)	Total number of new grants received during the period
1	Kasturba Medical College, Manipal	96	23	13	5	6
2	Manipal College of Dental Sciences, Manipal	26	1	2	2	0
3	Manipal College of Dental Sciences, Mangalore	36	24	17	0	16

		Total	Ongoing research			Total
Sr No	Name of The Institution	number of Publications in Scientific Journals during the period	projects during the quarter (please mention only funded projects)	Research and Training Programs Conducted	No. of Collaborations established (New)	number of new grants received during the period
4	Manipal College of Pharmaceutical Sciences , Manipal	33	17	2	1	1
5	Manipal School of Life Sciences, Manipal (MSLS)	33	26	8	2	0
6	Melaka Manipal Medical College, Manipal	15	8	0	1	0
7	Manipal College of Nursing, Manipal	5	17	5	1	0
8	Manipal College of Health Professions, Manipal	37	34	0	1	1
9	Manipal Institute of Regenerative Medicine, Bangalore	7	12	1	7	2
10	Manipal Institute of Virology	5	4	4	1	2
11	Prasanna School of Public Health	12	12	2	0	0
12	Division of Ayurveda	1	1	0	0	0
13	MCBR	4	1	0	1	0
14	Manipal Institute of Technology	209	19	1	4	5
15	Dept. of European Studies	1	0	3	0	0
16	Dept. of Commerce	4	0	1	0	0
17	Mnipal Centre for Humanities, Manipal	1	0	1	2	0
18	Manipal Centre for Natural Sciences & MARG	3	2	2	6	0
19	Welcomgroup Graduate School of Hotel Administration (WGSHA)	3	1	0	0	0

Sr No	Name of The Institution	Total number of Publications in Scientific Journals during the period	Ongoing research projects during the quarter (please mention only funded projects)	Research and Training Programs Conducted	No. of Collaborations established (New)	Total number of new grants received during the period
20	Manipal School of Architecture and planning (MSAP)	21	6	17	0	0
21	International Centre for Applied Sciences	5	1	0	0	0
22	TAPMI, Manipal	11	0	2	0	0
23	MIT BLR	11		3	1	0
	Total	580	212	84	35	33

# E. Patents filed during the period April to June 2022

Sajan Daniel George, Department of Atomic and Molecular Physics have been filed for a patent titled "A Method For Producing Oleophilic, Superhydrophobic, And Superhemophobic Articles, And Uses Thereof" on 01/04/2022.

Asha Udaya Rao, Department of Civil Engineering, Manipal Institute of Technology, Manipal, Radhika Panambore Bhandary, Narayana Sabhahit, Adithya Tantri, Muralidhar Vaman Kamath & Sreehari Kadagath Naranthatta have been filed for a patent titled "Construction Material Composition And A Method For Preparing Thereof" on 03/04/2022

Gurumurthy B M, Department of Mechanical and Industrial Engineering, Manipal Institute of Technology, Manipal, Ananda Hegde, Department of Mechanical and Industrial Engineering, Manipal Institute of Technology, Manipal, U Achutha Kini, Department of Mechanical and Industrial Engineering, Sandeep Nambiar S, Sathyashankara Sharma, have been filed for a patent titled "Method Of Determining Phase Fraction Of A Solid Phase In Microstructure Of An Alloy System" on 11/04/2022.

Priyak Sanyal, Gautham Jeppu, Department of Chemical Engineering, Manipal Institute of Technology, Manipal, have been filed for a patent titled "A Portable Filter Straw for Water Purification", on 14/04/2022.

Salunkhe Pramod Balwantrao, Department of Aeronautical and Automobile Engineering, Manipal Institute of Technology, Manipal Nagmule Siddharth, have been filed for a patent titled "System For Thermal Management Of A Lithium-Ion Battery" on 12/04/2022

Santhosh Chidangil, Department of Atomic and Molecular Physics, Reena V. John, Sphurti S. Adigal & V B Kartha have been filed for a patent titled "System and Method Facilitating Detection and Analysis of Analytes in a Sample" on 22/04/2022.

Krishnananda Prabhu RV, Kasturba Medical College, Manipal have been filed for a patent titled "Aerodynamic Fan with Higher Wind Output" on 25/04/2022.

Santhosh Krishnan Venkata, Department of Instrumentation and Control Engineering Manipal Institute of Technology, Manipal, Bhagya Rajesh Navada have been filed for a patent titled "L-Shaped Capacitance Pressure Sensor with High Sensitivity" on 28/04/2022.

Dr S S Mutalik, Department of Pharmaceutics have been filed for a patent titled "Multifunctional Engineered Nano-Carriers for Oral Delivery of Proteins" on 21/04/2022

Krishnananda Prabhu RV, Department of Kasturba Medical College, Manipal have been filed for a patent titled "Angulated Blades Incorporated in The Ceiling Fan Assembly" on 09/05/2022

Keerthana Prasad, Manipal School of Information Sciences, Manipal Shyamala Guruvare, Leander Melroy Maben have been filed for a patent titled "Device and Method for Detecting Cervical Abnormality" on 07/05/2022.

Rashmi R, Keerthana Prasad, Manipal School of Information Sciences have been filed for a patent titled "System and Method For Detection of Breast Cancer From Breast Histopathological Images" on 09/05/2022.

Mohammad Zuber, Department of Aeronautical and Automobile Engineering, Manipal Institute of Technology, Manipal, Satish Shenoy B, Department of Aeronautical and Automobile Engineering, Manipal Institute of Technology, Manipal, Leslie Edward S Lewis, Department of Paediatrics, Kasturba Medical College, Manipal, Sciences John Valerian Corda, have been filed for a patent titled "Bellow Arrangement Incorporated in a Respiratory Resuscitation Apparatus' on 19/05/2022

Sajan Daniel George, Department of Electrical and Electronics Engineering, Manipal Institute of Technology, Manipal Vineeth P Department of Electrical and Electronics Engineering, Manipal Institute of Technology, Manipal have been filed for a patent titled "A Method For Fabricating Plasmonic Wettability Contrast Droplet Assay Platform, And Uses Thereof" on 09/06/2022.

Usha Yogendra Nayak, Department of Pharmaceutics, Manipal College of Pharmaceutical Sciences, Manipal Reema Narayan, Shivaprasad Gadag, have been filed for a patent titled "Epsilon- Caprolactone Based Glyconanoparticles for Drug Delivery Applications" on 02/06/2022.

Ciji Pearl Kurian, Department of Electrical and Electronics Engineering, Manipal Institute of Technology, Manipal, Veena Mathew, Nevin Augustine, Department of Instrumentation and Control Engineering, Manipal Institute of Technology, Manipal have been filed for a patent titled "System and method for controlling transition state of a switchable glazing device and led luminaire" on 09/06/2022.

Shaila Lewis, Department of Pharmaceutics Manipal College of Pharmaceutical Sciences, Manipal Vivek Ghate, Amala Maxwell have been filed for a patent titled "Method of Producing Vesicular Delivery Systems" on 16/06/2022

Krishnananda Prabhu RV, Kasturba Medical College, Manipal have been filed for a patent titled "Air Cooler Kit for Ceiling Fan" on 16/06/2022

Krishna Kishore Mahato, Department of Biophysics, Manipal School of Life Sciences, Manipal, Stanley Mathew Professor Department of General Surgery Kasturba Medical College, Manipal, Jackson Rodrigues, Subhash Chandra, have been filed for a patent titled "Optical Device and Method For Breast Lump Preoperative Diagnosis And Intraoperative Breast Tumor Margin Assessment" on 22/06/2022

Dhanya Sunil, Department of Chemistry, Manipal Institute of Technology, Manipal, Suresh D Kulkarni, Department of Atomic and Molecular Physics Prinston Melroy Lewis, P J Anand, Kashmitha Muthamma, have been filed for a patent titled "Dual Emissive Water-Based Security Ink Formulation" on 25/06/2022.

# F. Grants Office, Directorate of Research, MAHE, Manipal

The whole grant management lifecycle at DoR, MAHE, starting with preaward planning and ending with the reporting stage, presents itself as a demanding but worthwhile procedure set up to obtain the best results. Particularly when a researcher starts the grant procedure for the first time, it might be difficult. One may, however, successfully manage any difficult programme with prompt and proactive management, the right tools at hand, and a benevolent workflow strategy in place. Because of this, the grant administration procedure continually enhances and actualizes several lifecycle duties through its unique award stages.

Our Goals at Directorate of Research/Grant Office:

- Smooth administration of projects
- Comply funding body and institute policy
- To garner more funds for research
- Track receipt of funds
- Track utilization of funds
- Better research output

We, in the ethical research community are aware of the occasionally inconvenient nature of the grant lifecycle (with its short application window) as well as the problem of constantly evolving grant regulations and specifications. We are aware of the time constraints placed on meeting deadlines, as well as the exact information required for delivery and the crucial financial transparency required to complete a collaborative mission.

Therefore, to make the process of preaward planning to the final reporting (i.e., identifying, applying, and managing the external research grants without undue administrative delays), the administration of the MAHE has set up the Grants Office (GO) centrally at the DoR. The Grants Office managed by a Grants Coordinator (GC). At the GO, we work to enhance the quality and quantity of research funding while assisting academics and research scholars in improving the research outcomes at MAHE.

In tandem with the objective, we are committed to creating an enabling environment to facilitate our researchers with the following support:

- We are dedicated to aiding researchers and faculty in identifying resources and increasing the quantum and quality of research funding.
- Information regarding grants and funding calls can be accessed through the Funding Institutional, Grants Management portal and Research Management System (RMS) to help faculty and researchers identify new open calls, meet deadlines and make the application process easy by providing all required documents at one click and any project-related help as well as guidance from the Mentor Board.
- Additionally, the Grants Coordinator (GC) will serve as the applicant's single point of contact for all
  essential discussions, policy documents, and meetings with the Mentor Board, Finance, Legal, and HR.
  The GC will serve as the liaison officer between the organization and the funders.

The Grants Management Portal has been updated, and you can now access all calls for proposals, travel grants, workshops and training, SEED funds, fellowships and other conference grants information by visiting this link: <a href="http://muportal/GrantsDetails.aspx">http://muportal/GrantsDetails.aspx</a>

At MAHE for academic and faculty research entering Project details in RMS is mandatory while applying for a new grant to generate a UTN number for proposal submission. The UTN will serve as an identification for your project and finance management. Updating the project status (funded/rejected) in the RMS portal is the responsibility of the Principal Investigator as per the sanction/rejection letter from the concerned funding agency.

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 of the document to be signed by the registrar to grants.mu@manipal.edu in word format.

#### **Contact Details:**

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

Email: grants.mu@manipal.edu

Phone: 0820-29-37733



#### A Featured researcher

**Dr Raghavendra U**, working as Associate Professor in the Department of Instrumentation and Control Engineering, Manipal Institute of Technology, Mani pal. He received BE, and M Tech. degree from Visvesvaraya Technological University Belagavi, Karnataka, India. He received his PhD degree from Manipal University,



Manipal, India in 2014. He was awarded the "Mohan and Latha Bhandarkar Scholarship" from Manipal University for the best research student in 2013. Some of his research interests can be traced to topics such as Biomedical Signal & Image Processing, Medical Image Visualization, and Machine Learning for better healthcare designs. Currently, he is investigating the early detection of various cardiovascular diseases using a novel artificial intelligence approach.

He has published more than 56 journal articles in refereed international SCI-IF journals and a patent to his credit. He is serving as a reviewer for various reputed international journals, such as Ultrasonics, Knowledge Based Systems, Computers in Biology and

Medicine, Computer Methods Programs in Biomedicine, etc. He has received more than 2200 citations with an *h*-index of 25 (Google Scholar). Recently, he has been shortlisted in the top 2 per cent most cited researchers in the world, as announced by Stanford University, USA. In addition to his teaching and research assignments, he also worked as Assistant Director – Academics for four years.

His message to budding researchers is, "Artificial intelligence has played a vital role in emerging technologies such as big data, robotics, and the Internet of Things (IoT). It will continue to act as a technological innovator for the foreseeable future. Exploring this new technology will open new opportunities in the future".

Google Scholar: https://scholar.google.co.in/citations?user=3nzcDREAAAAJ&hl=en

Pure Elsevier: https://manipal.pure.elsevier.com/en/persons/raghavendra-u

Email: raghavendra.u@manipal.edu

Official Website: https://manipal.edu/mit/department-faculty/faculty-list/raghavendra-u/ jcr content.html

Personal Website: <a href="http://raghavendrau.in/">http://raghavendrau.in/</a>

# **B** Faculty and institution achievements

 a. Dr Neeta Inamdar, Professor and Head, Manipal Centre for European Studies, MAHE, Manipal was conferred with Erasmus+ Teaching Mobility Programme by European Commission

Venue: University of Tartu, Estonia Dates: 9 May 2022 to 20 May 2022

b. Pranjali Kirloskar, Lecturer, Manipal Centre for European Studies, MAHE, Manipal was conferred with the **Erasmus+ Teaching mobility programme** by the European Commission

Venue: Talinn University, Estonia

Dates: 21 April 2022 to 13 May 2022

c. Priya Vijaykumar Poojary, Lecture, Manipal Centre for European Studies, MAHE, Manipal was conferred with the **Erasmus+ Teaching mobility programme** by the European Commission

Venue: University of Wroclaw, Poland Dates: 8 May 2022 to 20 May 2022

Dr Anitha J, Assistant Professor, Manipal Institute of Virology, MAHE, received extension for fellowship "Northern Pacific Global Health Fellows program (NIH funded)" under University of Minnesota for 6 months.

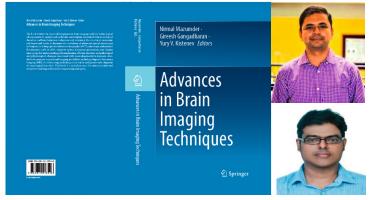
#### Project visit to King Mongkut's University, North Bangkok, Thailand:

Dr Nirmal Mazumder (Principal Investigator, Assistant Professor), Dr K K Mahato (Co-Investigator, Professor and HoD), Ms. Pooja N (PhD Student and Ms. Ishita Chakraborty (PhD Student) are the four scientists from the Department of Biophysics, Manipal School of Life Sciences, Manipal Academy of Higher Education (MAHE), Manipal, Karnataka, India visited the King Mongkut's University of Technology, North Bangkok (KMUTNB), Thailand for scientific research and discussion on the ongoing project entitled, 'Fabrication of a Biodegradable Elastomeric Microfluidic Device' under the Indo-Thailand project. The principal investigator from Thailand is Dr Pornsak Srisungsitthisunti, Assistant Professor, Department of Production Engineering, Faculty of Engineering, KMUTNB. The scientists from India arrived at the KMUTNB campus on 26 April 2022 and returned on 8 May 2022. During their tenure, the visiting scientists were introduced to the Dean of Faculty of Engineering, Associate Prof. Udomkiat Nontakaew, and the Vice President for Research and Information Technology Development, Prof. Somrerk Chandra- ambhorn, KMUTNB, Thailand. Furthermore, the visiting scientists worked on the main goal of the project to fabricate a biodegradable microfluidics device. CO, Laser at the central instrumentation facility of KMUTNB was used for laser engraving starch-based biopolymers developed at the Manipal School of Life Sciences, MAHE. Furthermore, several starch-based biopolymers were characterized using different analytical techniques at the KMUTNB campus, such as differential scanning calorimetry (DSC), thermogravimetric analysis (TGA), Fourier transform infrared spectroscopy, and scanning electron microscopy (SEM). Ms Ishita Chakraborty and Ms Pooja were given complete hands-on training on sample preparation and instrument handling while working in the laboratory at KMUTNB. This visit was fruitful and opened many paths for future active collaborations. Please find some snapshots from the visit to KMUTNB.



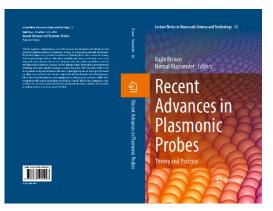
 Book edited by Dr Nirmal Mazumder, Assistant Professor, Department of Biophysics, Dr Gireesh Gangadharan, Assistant Professor, Department of Cell and Molecular Biology, Manipal School of

Life Sciences, MAHE, Manipal, India and Dr. Yury V. Kistenev, Professor, Tomsk State University, Russia, titled "Advances in Brain Imaging Techniques" has been published by Springer Singapore. The book reviews the recent developments in brain imaging and their technological advancements to understand molecular mechanisms associated with neurological disorders and basic behaviours in humans and rodents at the structural, molecular and functional levels. This book is a useful



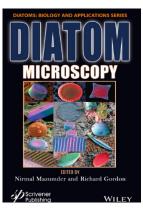
resource for neuroscientists and researchers working in biomedical engineering and optics.

Book edited by Dr Nirmal Mazumder, Assistant Professor, Department of Biophysics, Manipal School of Life Sciences, MAHE, Manipal, India and Dr. Rajib Biswas, Assistant Professor, Department of Physics, Tezpur University, India, titled "Recent Advances in Plasmonic Probes - Theory and Practice" has been published by Springer Singapore. This book provides a comprehensive overview of recent advancements in both the theory and practical implementation of plasmonic probes. Encompassing multiple disciplines, the field of plasmonics provides a versatile and flexible platform for nanoscale sensing



and imaging. This book is designed to cater to the needs of novice, seasoned researchers and practitioners in academia and industry, as well as medical and environmental fields.

Book edited by Dr Nirmal Mazumder, Assistant Professor, Department of Biophysics, Manipal School of Life Sciences, MAHE, Manipal, India and Dr Richard Gordon, Professor, Gulf Specimen Marine Laboratory & Aquarium, Panacea, FL., USA and C S Mott Center for Human Growth & Development, Department of Obstetrics & Gynecology, Wayne State University, Detroit MI., USA, titled "Diatom Microscopy" has been published by Wiley-Scrivener Publishing, Beverly, MA, USA. This book on "Diatom Microscopy" gives an introduction to the wide panoply of microscopy methods being used to investigate diatom structure and biology, marking considerable advances in recent technology, including optical, fluorescence, confocal and electron microscopy, surface-enhanced Raman spectroscopy (SERS), atomic force microscopy (AFM) and spectroscopy, as applied to diatoms.



# 1. Faculty and institution achievements:

**Dr Prajapati Pareshkumar Manharbhai**, Assistant Professor, Manipal Centre for Natural Sciences, MAHE, Manipal is honored with Scientific Associateship by Istituto Nazionale di Fisica Nucleare (INFN, Italy) at Laboratori Nazionali del Sud at Catania, Italy for research activities from 1 May 2022 to 30 April 2023.





**Dr Debbijoy Bhattacharya**, Associate Professor, MCNS, became a member of the International Astronomical Union (IAU), France, on 13 June 2022.

**Dr Jagadeesha Pai, B**, Associate Professor, Department of Civil Engineering, Manipal Institute of Technology, has been selected for the ISRO-NNRMS Sponsored Course on "Remote Sensing and GIS Technology & Applications" organized for the University/College faculty at the Indian Institute of Remote Sensing, ISRO, Dehradun, from May 9 to July 1, 2022. Dr. Jagadeesha Pai was one of the 37 participants selected from all over India.



Dr Manjunath K N, Associate Professor, Computer Science and Engineering, Manipal Institute of Technology, MAHE, Manipal, was granted a 1170 USD travel grant from the National Institute of Health to present his research paper at Image Science, Gordon Research conferences during 5 to 10 June 2022 at Newry, Maine, USA.

Dr Sudha Warrier, Dean and Professor, Manipal Institute of Regenerative Medicine, Bengaluru, BIRAC-DBT chosen for coffee booklet on 75 Biotech Women Entrepreneur released by Hon'ble Minister for S&T Biotech startup Expo, June 9 to 10, 2022.

Dr Manasa Nune, Assistant Professor, Manipal Institute of Regenerative Medicine, Bengaluru was invited to be part of a screening committee of the National Post Doc Symposium (NPDS) 2022 jointly organized by BLiSC and IISER Thiruvananthapuram.

Dr Sagar M S, Associate Professor, Department of ISCCM Critical Care Medicine, KMC, Manipal received certificate of appreciation for his 'Contribution to Indian Certificate of Appreciation Aresented to Society of Critical Care Medicine (ISCCM) as Secretaryis Contribution to Indian Society of Critical Care Medicine a Manipal Branch', held on 20th February 2022. ary - Manipal Bi (National) b) Dr Vishal Shanbhag, Assistant Professor, Department of Critical Care Medicine, KMC, Manipal received ISCCM certificate of appreciation for his 'Contribution to Certificate of Appreciation Aresented to Indian Society of Critical Care Medicine (ISCCM) as DR VISHAL SHANBHAG For his Contribution to Indian Society of Critical Care Medicine as Chairperson - Manipal Branch', held on 20th February 2022. (National) 1-a Kan Dr. Dhruva Chaudhry
Immediate Post President, ISCCM
2021-231
(2021-23) **■** ■ **△** ISBTI Narindra S Bagaria Award c) Dr Shamee Shastry, Professor, Department of Immunohematology and Blood Transfusion, KMC, Dear Dr. Shamee Shastry, Manipal received Narindra S Bagindra Award for selection committee constituted ISBTI awards has chosen you ISBTI Narindra S Bagaria outstanding individuals/institutions for meritorious for ISBTI Narindra S Bagaria Award. Heartiest congratulations. The award would be presented to you in the Valedictory Function of 46th ISBTI Annual work in the field of Blood Donor Motivation, at the 46th Annual National conference of ISBTI, Karnataka Chapter held on 13th March 2022. (National) d) Dr Vinu Rajendran, Senior Resident, Department of Immunohematology and Blood Transfusion, KMC, Manipal received JR Jolly Award for significant Greetings from ISBTI! contribution in research, teaching and training in the ISBTI Awards has chosen you for J.R. Jolly Award for the year 2021.Heartiest Congratulations. field of Transfusion Medicine, at the 46th Annual The award has been announced on 13.03.2022 during Valedictory Function of National conference of ISBTI, Karnataka Chapter held 13.03.2022 during valencitory Function or 46th Virtual Annual National Conference of ISBTI held at Bangalore and shall be presented to you in the inaugural ceremony of 47<sup>th</sup> ISBTI National Conference to be held at Jammu on 11.11.2022. You are kindly requested to grace the occasion and receive your award. on 13th March 2022. (National) ← ∨ Reply

e) Dr Chythra R Rao, Associate Professor, Department of Community Medicine, KMC, Manipal received Bishnupriya Devi Award for Best original article & Best Award Article published in IJDVL 2021, DERMACON 2022 held between 4<sup>th</sup> to 6<sup>th</sup> February 2022. (National)



f) Dr Sharada Mailankody, Associate Professor, Department of Medical Oncology, KMC, Manipal is recognized for best 'Review of an article for ecancermedicalscience' on 10th May 2022. (International)



## C. Achievements by research scholars and students

• Mr Raviprasad, PhD scholar in the Department of Cell & Molecular Biology, working in the lab of Dr Sanjiban Chakrabarty at the Manipal School of Life Sciences, investigating the function of mitochondrial genome-encoded microRNAs in mitochondrial perturbation. Raviprasad Kuthethur is the first author on 'Expression analysis and function of mitochondrial genome-encoded microRNAs', published in JCS in April 2022 and was selected for the first-person interview for his work in JCS. First Person is a series of interviews with the first authors of a selection of papers published in Journal of Cell Science, helping early-career researchers promote themselves alongside their papers.



#### https://journals.biologists.com/jcs/article/135/8/jcs260115/275107/First-person-Raviprasad-Kuthethur

 Mr Akshay Ware Pramod has been awarded an ICMR SRF Fellowship for the project entitled "Functional regulation of copy number variation (CNV)-driven clustered microRNA expression in human cancers" under the guidance of Dr. Bobby Paul, Head of the Department of Bioinformatics, MSLS, Manipal

The following students have been awarded the ICMR- STS 2022 awards (**photographs attached with this email**):

 Nikunj Gupta. 2nd year MBBS Student. "Title: Knowledge and perception of nutritional fact labels and effectiveness of "front of package (FOPL) on packaged food on parental decision of choosing food items for children in Jamshedpur City."





Guide: Dr Sreeshma Pavithran, Assistant Professor, Department of Community Medicine, MTMC

2.**Sayan Sain.** 2nd year MBBS Student. "Title: Assessment of School-going children for 2Ds and adolescent health using RBSK Screening tools in East Singhbhum district of Jharkhand- A comparative cross-sectional study."

Guide: Dr Khushboo Juneja, Associate Professor, Department of Community Medicine, MTMC





3. **Shreya Das Gupta.** 2nd year MBBS Student. "Title: Change in diet pattern and physical activity among school children and its effect on mental health and behaviour during the COVID-19 pandemic."

Guide: Dr Sachin Kumar Patil, Assistant Professor, Department of Community Medicine, MTMC

4. **Ananya Jain**. 2nd year MBBS Student. "Title: Study of linguistic and paralinguistic cues to deception detection among Indians."

Guide: Dr Vijay Kautilya Dayanidhi, Professor and Head, Department of Forensic Medicine, MTMC





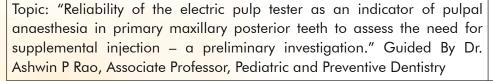
5. **Isha Vasudev.** 2nd year MBBS Student. "Title: Environmental effect of Jadugoda mines complex over its adjacent villages and its clinic- epidemiological correlates".

Guide: Dr Ashim Mishra, Professor, Department of Forensic Medicine, MTMC

Ms Tantri Keerthi Dinesh, Research scholar, received the best paper award in the track Human Resource Management for the paper titled "Effectiveness of Dispositional Mindfulness on Mental Health Markers and Wellbeing in Employees of Service Industry: A Systematic Evidence Synthesis" presented in Symbicon-22, the International Conference on 'Neo Business Practices for the Evolving World' organized by SIBM Nagpur from 04th to 06th April, 2022

Ms. Komal Jenifer Dsouza, a research scholar, received the best paper award in the track Marketing Management & Media Studies for the paper titled "The assessment of Locavorism through the lens of Agritourism: The Pursuit of Tourist's Ethereal Experience" presented in Symbicon-22, the International Conference on 'Neo Business Practices for the Evolving World' organized by SIBM Nagpur from 04th to 06th April, 2022

Dr Swati Renuka, 2nd Year Post graduate Student has won the "Best Paper" of the Session at the 18th ISPPD Conference, held from 7th to 9th April 2022.



Dr P Gouri Sachin, Second-year Postgraduate from the Department of Periodontology, awarded the Consolation prize for Poster presentation at the 20th PG Convention 2022 conducted by Indian Society of Periodontology from 22nd to 24th April 2022 at Chandigarh on the Topic- "Nano Surface Modifications of Dental Implants - A New Technological Revolution in the 21st Century."





Dr Dhruy Ahuja, 2nd year postgraduate student, Department of Orthodontics, has won "2nd prize in poster competition" conducted by Mangalore Orthodontic Study Group held on 1st May, 2022 at Mangalore, on the Topic-"Orthodontics best done by an orthodontist under the guidance of Dr Ashith M V, Associate Professor, Orthodontics.



Dr Madhura Rao, Postgraduate student, Orthodontics has won the "Session's Best Presentation" at the 25th IOS National PG Students Convention held from 28th April to 1st May 2022 held at Mangalore, on the Topic- "Multimodal Evaluation Of Pharyngeal Airway Changes Following Two Different Maxillary Protraction Protocols Using Patient Specific Models – A Comparative Study", under the guidance of Dr. Supriya Nambiar, Professor, Orthodontics.



Dr Dhruv Ahuja and Dr Carol Lobo, Postgraduate students, Department of Orthodontics, have won 1st prize in Table Clinic at the 25th IOS National PG Student Convention held from 28th April to 1st May 2022 at Mangalore on the Topic- "Force Vector Control in Bone Anchored Maxillary Protraction Using 3D Printed Models", under the guidance of Dr Siddarth Shetty, Professor, Orthodontics





Ms Simran Agarwalla, Intern, has won Gold Award for the Scientific E-Poster Presentation at Famdent Show Mumbai, from 20 to 22nd May, 2022. The topic titled on "Mouthwash: Boon or Bane" under the guidance of Dr Roma, Reader, Department of Conservative



**Ms Archana Kumari** (Dr TMA Pai PhD Scholar), Department of Biotechnology, MIT, was awarded the best poster presentation award at the 2nd International Conference on Mycotechnology: Present Status and Future Perspectives -MTPSFP -2022.

Mr V Sai Krishna Anand, Research Scholar, Department of Pharmaceutical Quality Assurance, MCOPS under the guidance of Dr Swapnil J Dengale, Assistant Professor, NIPER, Guwahati, bagged first-best e-poster



for the research work entitled "Investigating the influence of physicochemical interactions of coadministered anti-malarial and anti-retroviral medications" in the "National Conference on Pharmaceutical Sciences 2022" held on 8th and 9th April 2022 organized by the Department of Pharmaceutics at JSS College of Pharmacy, Mysuru.

 Mr Dani Lakshman Y, Research Scholar, Department of Pharmaceutical Quality Assurance, MCOPS under the Guidance of Dr Krishnamurthy Bhat, Professor, bagged the second-best e-poster award for the research work titled "Coamorphous Technology a

Strategic Tool: to Improve Solubility, Crystallization Inhibition, and Permeability" under the category of Pharmaceutical Quality Assurance/
Regulatory Affairs in the "National Conference on Pharmaceutical Sciences 2022" held on 8th and 9th April 2022 organized by the Department of Pharmaceutics at JSS College of Pharmacy, Mysuru.



- Mr Naga Thirumalesh Chevala wins "Best PhD Oral Presentation" during MAHE-PhD Conclave 2022
- Dr Prashant Chandra received Best Oral Presentation Award

22 June 2022: Dr Prashant Chandra, Research scholar, Department of Pharmacy Practice, MCOPS, MAHE



received the **best oral presentation** at the 9th International Postgraduate Conference on Pharmaceutical Sciences 2022 (IPoPS 2022), organized by International Medical University, Kuala Lumpur, Malaysia on 22 June 2022 for the research titled "A data-driven approach to predict the length of stay and treatment cost in bacterial infections in an Indian health care setting". Coresearchers of this project were Dr Vandana KE, Dr Chiranjay Mukhopadhyay, Dr Dinesh Acharaya U, Dr Surulivelrajan M, and Dr Rajesh V.

Ms Leenus Tafline, Student, MPH Programme, Department of Health Policy, Prasanna School of Public Health, MAHE, Manipal, won the Social Impact Award with a cash prize of \$1000 CAD in the Global Technology

Solutions-21 program on 05th June 2022 at MAHE, Manipal.

Ms Akhila Satyamurthy, PhD Scholar, Dept. of Physiotherapy, MCHP, MAHE, and the team secured funding worth INR 5 lakhs for a period of 2 years by the Heart Failure Association of India (HFAI) for their proposed work in acute heart failure. The HFAI was formed in 2016 by a group of cardiologists and cardiac surgeons with the aim of promoting awareness of heart failure.

The grant will be conducted by a multidisciplinary team of physiotherapists, cardiologists, and epidemiologists. The team comprises Ms Akhila Satyamurthy and Dr Abraham Samuel Babu (Department of Physiotherapy, MCHP, MAHE, Manipal), Dr Jeemon Panniyammakal (Achutha Menon Centre for Health Science Studies, Sri Chitra Institute of Medical Science and Technology) and Dr Padmakumar R (Department of Cardiology, KMC, MAHE, Manipal), with Ms Akhila Satyamurthy leading the research work.



Ms Calida Pinto, PhD Scholar, Dept of Speech and Hearing, Manipal College of Health Professions, MAHE, Manipal, received Individuals from Low Income Countries Award which provides travel grant of \$1500 from International Society for Autism Research to attend INSAR2022 Annual Meeting

Ms Haritha S Mohan, PhD Scholar, Dept of Speech and Hearing, Manipal College of Health Professions, MAHE, Manipal, received Individuals from Low Income Countries Award which provides travel grant of \$1500 from International Society for Autism Research to attend INSAR2022 Annual Meeting





Ms Apoorva M Shankaranarayana (191100103), PhD scholar, Department of Physiotherapy, MCHP, Manipal, secured a travel grant from the European Stroke Organization (ESO) for the "Department to Department visit". As part of it, she visited the Division of Rehabilitation, School of Medicine, University of Nottingham, UK from 23rd May 2022 to 28th May 2022.

**MANIPAL** 

a)	Reyon Dcunha, PhD Scholar, Department of Reproductive Science, KMC, Manipal received 1st prize in poster presentation at Clinical Embryology Post Covid Era held on 10th April 2022	
b)	Dr Jov Bhatt, PG, Department of Ophthalmology, KMC, Manipal received 2nd Rank in the State Competitive Resident Virtual Session, held on 22nd May 2022. (State)	Women Ophthalmologists Society  Certificate of Participation The extraction amonds by  Dr Jov Bhatt  Prima In the State Congregate Market Vanish In the State Congregate Market Vanish  Karnalaka State Chapter  James Williams  Ramanda State Chapter  James Williams  D. Market North  D. Market Nort
c)	Dr Ekanki Bansal, PG, Department of Orthopaedics, KMC, Manipal is winner for paper presentation at KOACON 2022, held on 06th to 08th May 2022. (National)	AMARIO APERA WINNERS
d)	Dr Avanaeet Singh Sandhu, PG, Department of Orthopaedics, KMC, Manipal is received best poster presentation at KOACON 2022, held on 06th to 08th May 2022. (National)	KOACON  WE SHEET TO STEEL  Or. Ameet S  Samuel Medicin  Trush To same of r  Same of the sam
e)	Dr Sameer Ahmed, 1st year Fellowship in Onco Surgery, Department of Surgical Oncology, KMC, Manipal received 2nd prize in poster presentation at CME on Multi disciplinary approch to Pancreatic Cancer, held on 14th May 2022. (National)	

### D. Research Activities: Workshops, Programs, Webinars, and Conferences

Mukta Srivastava (2022). The Engagement Loop: A twisted tale of electronic word-of-mouth and customer brand engagement. T A Pai Management Institute Manipal (TAPMI) April 23, 2022.

Vagisha (2022). An Investigation of Zipf's Law in Chairperson Speeches. T A Pai Management Institute Manipal TAPMI) June 30, 2022.

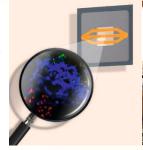


Dr Anice George, Professor & Head – Research & Collaborations, Manipal College of Nursing, Manipal was felicitated for the promotion of Research in Yoga during the International Day of Yoga organized by the Division of Yoga, CIMR, MAHE, Manipal on June 21, 2022.

### New microfluidic-based cancer-on-chip technology to study drug response

A young researcher from Manipal School of Life Sciences, Manipal Academy of Higher Education (MAHE), Dr. Sanjiban Chakrabarty, Assistant Professor, Department of Cell & Molecular Biology, has developed a novel microfluidic cancer-on-chip technology that enables direct assessment of drug response in cancer patient-

derived tumour biopsy material, which provides functional readouts to identify drug-sensitive and drug-resistant tumours. This work is a collaborative exploration with Dr. Dik C van Gent's laboratory at Erasmus University Medical Center, Rotterdam, The Netherlands, and published in a reputed journal, Cancer Research (https://doi.org/10.1158/0008-5472.can-21-0799. Dr Sanjiban and Dr Dik van Gent have established collaboration through the





MAHE-Erasmus MC Centre on Genome Stability at Manipal School of Life Sciences, MAHE, Manipal, India. Dr B S Satish Rao, Director, MSLS, MAHE said that novel microfluidic cancer-on-chip technology has immense translational potential for studies predicting drug response, identification of novel drug targets, understanding of tumor evolution, and targeted drug delivery. Lt Gen (Dr) M D Venkatesh, Vice-Chancellor, MAHE Manipal, said that international collaboration with Erasmus MC will further facilitate the development of a state-of-the-art advanced microfluidic cancer-on-chip technology at MSLS and foster academia-industry collaboration for translational oncology. These findings have immense prospects for managing various cancers in personalized cancer treatment.



**Dr Mukesh H V, Asst Prof Sr scale**, Dept. of Commerce, MAHE, received the best paper award at 3E (ECSB Entrepreneurship Education) CONFERENCE organized by the European Council for Small Business (ECSB) and the Burgundy School of Business, Dijon, France, from 11th May to 13th May 2022. It was an offline conference and was presented by coauthors. The title of our paper is "NEW WINE IN AN OLD BOTTLE: THE DISCORDANCE BETWEEN NEW PEDAGOGY AND OLD ASSESSMENT PRACTICE IN ENTREPRENEURSHIP EDUCATION"

#### 5. Awards and accolades:

a. Dr Anish Kumar Warrier, Associate Professor, Department of Civil Engineering, Manipal Institute of Technology, MAHE, was honored with the Award for Research Publications-2021. The Award was instituted by the Vision Group on Science and Technology, Government of Karnataka. Dr. Warrier received the award at the hands of Dr C N Ashwathnarayan (Minister for Higher Education; IT & BT, Science & Technology, Skill Development, Entrepreneurship and Livelihood, Government of Karnataka) on <sup>29</sup> April 2022 at JNCASR, Bangalore.



b. Dr Shaik Mohammad Abdul Fayaz, Assistant Professor- Senior Scale, Department of Biotechnology, MIT received Best paper award (Oral Presentation) in the 9th International Congress of the Society for Ethnopharmacology, India (SFEC-2022) held at JSS Academy of Higher Education and Research Campus, Mysuru, Karnataka, India during 22 to 24 April 2022.



Dr Gundawar Ravi, Assistant Professor, Department of Pharmaceutical Quality Assurance received consolation Prize for presenting E-poster entitled "Formulation, characterization and evaluation of Eudragit coated Saxagliptin nanoparticles using 3 factorial design modules" during "National conference on Pharmaceutical Sciences-2022" held on 8th and 9th April 2022 organized by Department of Pharmaceutics at JSS College of Pharmacy, Mysuru.



#### Manipal College of Dental Sciences, Manipal



Dr Aditi: Received The MACID seed fund for two lakhs for the project title: "Estimation of salivary and serum IgA antibody response post COVID-19 vaccination: a cross sectional study" has been selected for MAC ID Seed grant award for the year 2022 to 2023. Reference number for Seed grant award is: MAC ID/SGA/2022/93

Dr G Arun Maiya, Professor- Dept of Physiotherapy and Dean, MCHP and Chief- Center for Diabetic Foot Care and Research received the prestigious Fellowship bestowed upon him by Indian Podiatry Association.





Dr Manikandan N, Associate Professor- Sr Scale, Dept of Physiotherapy was awarded the ICON of Physiotherapy Award for excellence in teaching, clinics and research of the physiotherapy profession.

It was awarded in the program KG Nexus, 2nd National Intercollegiate Physiotherapy Meet held from April 22nd to April 24th 2022 in KG College of Physiotherapy, Coimbatore.

Memorandum of Understanding entered into between Manipal Academy of Higher Education and **Central Council for Research in Siddha (CCRS), Ministry of AYUSH, Government of India, Chennai from** <sup>01</sup> June 2022 to <sup>31</sup> May 2027 for Collaborative Research and Training Activities Dr Arul Amuthan, Assistant Professor, Department of Pharmacology, Department of Pharmacology, MMMC, Manipal

- a) Dr Pratap Kumar, Professor, Department of Reproductive Medicine & Surgery, KMC, Manipal received prize 'The Federation of Obstetric & Gynecological Societies of India (FOGSI) – Dr (Mrs) Jagdishwari Mishra prize, for Best presentation of the E-poster entitled "Autologous Blood Cell Derivative (ABCD) improves the endometrial thickness in the FET cycles", at 64th All India Congress of Obstetrics & Gynaecology (AICOG 2022), 4th to 8th April 2022. (National)
- b) Ms. Pooja S P, Lecturer, Department of Reproductive Science, KMC, Manipal won second prize in poster presentation at Clinical Embryology Post Covid Era held on 10th April 2022
- c) Dr Ajay Hegde, Assistant Professor, Department of Neurosurgery, KMC, Manipal received Best paper award for "Performance based surgical logbooks in India – are we there yet? presented at Inaugural Meeting of the Young Neurosurgeon form of Neurological society of India at Chennai held on 12th June 2022. (National)









# A. MAHE Student's Research Forum (MAHE-SRF) Activities for the period of April - June 2022

**The** MAHE Students Research Forum (MAHE-SRF) is a robust and upbeat student-centric body that facilitates the active involvement of undergraduates, postgraduates, and research scholars of the constituent institutions of the MAHE. MAHE-SRF is dedicated to developing research interest among students and is functional under the guidance of Lt Gen (Dr) M D Venkatesh, Honourable Vice Chancellor, MAHE.

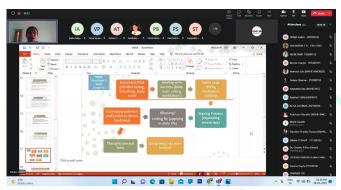
#### Objectives of MAHE-SRF:

- To foster research interest in undergraduate and postgraduate students and to inspire them to take up research as a career.
- To create a network of students among constituent institutions of MAHE to promote and facilitate interdisciplinary research.
- To promote entrepreneurship and innovation among MAHE students.
- To organize research activities.
- To sensitize all the students to MAHE incentive policies for research.

MAHE-SRF provides various opportunities and platforms for scientific interactions and networking in multidisciplinary areas across institutions. It additionally caters to opportunities for interdisciplinary collaborative work amidst eminent researchers by organizing summer school activities, webinars, and conferences. MAHE is functional under the aegis of Directorate of Research (DoR), MAHE, Manipal. MAHE-SRF 2022 was established in January and includes undergraduate, postgraduate, and doctoral research scholars from the constituent institutions of MAHE. This body has a core team of 23 students from the Manipal, Mangalore, and Bangalore campuses. The current President for the forum is Mr Jobin K from Prasanna School of Public Health (PSPH), Manipal. The vice presidents are Mr. Sanket Ledwani from the Department of Commerce (DOC), Manipal, and Ms. Saniya Mariyam Rasheeka, Kasturba Medical College (KMC), Mangalore. This year, MAHE-SRF has three major events, namely, MAHE PhD Conclave - 2022, Summer School Program - 2022, and Interdisciplinary Conference on Healthcare and Technical Research (ICHTR). In addition to the major events, we have monthly activities taking place. These events primarily involve academic lectures, invited talks, poster and oral competitions, and workshops.

#### Monthly Activity: Webinar (April, 2022):

As a part of the monthly activities, on <sup>28</sup> April 2022, MAHE-SRF 2022 successfully hosted a webinar on "mindfulness-based stress management" by Dr M Manjula, Professor, Consultant, Behavioural Medicine Unit, Department of Clinical Psychology, National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore, Karnataka. The event was coordinated Ms. Ashwini T, Executive member MAHE-SRF 2022.



### **MAHE PhD Conclave (May, 2022):**

The MAHE-Student Research Forum and Centre for Doctoral Studies (CDS) under the aegis of the Directorate of Research, Manipal Academy of Higher Education (MAHE) organized a two-day academic event titled "MAHE-PhD Conclave 2022". The MAHE-PhD Conclave 2022 is an academic platform designed for final-year PhD candidates to showcase their PhD work with other PhD candidates. MAHE PhD Conclave 2022 was convened on 27th and 28th May 2022. The event was coordinated by Ms Megha Nataraj, General Secretary of MAHE-SRF.



The organizing committee received more than 100 PhD applicants from all across MAHE institutions and research centres (Manipal, Mangalore, Bangalore) covering all major disciplines, such as the Faculty of Health Sciences (HS), Faculty of Science, Technology & Management (STM) and Faculty of Humanities, Liberal Arts & Social Sciences (HLS). The applications were shortlisted based on the requirement of a minimum of one scientific publication from PhD candidates' research work in a good Scopus-indexed journal. A total of 80 candidates were screened based on the information and thereafter presented their PhD work over the two days of 27th and 28th May 2022. The candidates from Manipal and Mangalore came to the MAHE campus and presented their work at two venues: Sharada Hall, MCHP & 5a Lecture Hall, MMMC. The PhD candidates from outside presented their work through the Online Mode.

The inauguration of the program of MAHE PhD in 2022 was commenced by Lt (Gen) Dr M D Venkatesh, Vice-Chancellor, Manipal Academy of Higher Education (MAHE) at Sharada Hall, Ground Floor, Manipal College of Health Professions, MAHE. A total of 140 (number of people) comprising the Heads of Institutions (HOIs), Heads of Department (HOD), Faculty & Staff, PhD Candidates and attendees were present for the inaugural function.

The Valedictory Function was held on 28th May 2022 at Sharada Hall, MCHP, and the Chief Guest for the event was Dr PLNG Rao, Pro-Vice-Chancellor, MAHE. The welcome address of the program was given by Dr Bharti C Magazine, Deputy Director Research-Health Sciences. The results for the "Best Oral Presenter Award 2022" were announced by Dr Sathish Rao, Director of Research, MAHE. The 5 winners who bagged the awards were Naga Thirumalesh, Ramya Ravi, Archana Kini, Abhishek & Pallavi Chinnu Varghese. They received a Certificate (Best Oral Presenter Award 2022) and book on IPR (Intellectual Property Rights). Dr PLNG Rao, Pro-Vice-Chancellor, and MAHE also announced cash prizes for all 5 winners.

# Summer School Program 2022 (June – August)



Live inaugural function of the Summer School Program on June 13, 2022

The MAHE-Student Research Forum under the aegis of the Directorate of Research, Manipal Academy of Higher Education (MAHE) organized a virtual inaugural function of the "Summer School Program 2022" on 13th June 2022, 3:00 pm at the Board Room, Manipal Academy of Higher Education.

The Summer School Program aims to provide a platform for learners to explore courses from multiple disciplines. The courses will commence on 13 June 2022 and last until 13 August 2022. It offers 12 hands-on training courses and 19 online courses that will be conducted at the MAHE campus. The organizing committee has received a total registration of 810 participants from various MAHE and other institutes. A total of 307 participants enrolled for one course, 192 enrolled for 2 courses and 311 enrolled for more than 3 courses. Participants could choose anywhere between one and seven courses for their knowledge enhancement.

The chief guest for the event was Dr PLNG Rao, Pro-Vice Chancellor, Medical & Dental Sciences, MAHE. The event was also presided over by Dr Sathish Rao-Director Research, Dr Bharti Magazine-Deputy Director Research (Health Sciences), and Dr. Vasudha Devi-Deputy Director (Centre for Doctoral Studies), Manipal Academy of Higher Education.

Ms Ashwini T, Executive member and PhD Scholar from Manipal College of Pharmaceutical Sciences, was the master of the ceremony. Ms. Saniya Mariyam Rasheeka, Event Convenor and Vice President, PhD Scholar from Kasturba Medical College, Mangalore, welcomed the gathering. The invocation was rendered by Ms Megha Nataraj, General Secretary and PhD Scholar, Manipal College of Health Professions. Mr Sanket Ledwani, Vice President and PhD Scholar, Department of Commerce, MAHE delivered the vote of thanks.

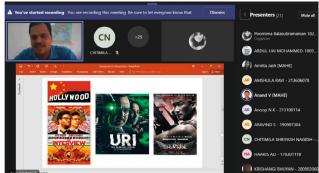


Chief guest, Director & Deputy Directors of Directorate of Research and MAHE SRF members organizing the inaugural function of Summer School Program 2022

The first course on "Design of Experiments" was conducted online by the Manipal College of Pharmaceutical Sciences, Manipal, followed by the virtual inaugural function of the Summer School Program 2022. The course continued from 4:00 to 6:30 pm until 21 June 2022 and was facilitated by SRF member Ms Ashwini T. An offline course on "Handling difficult communication in an advanced illness setting" was conducted at Dr TMA Pai Hall on 14 June from 3:00 to 6:00 pm by the Department of Palliative Medicine and Supportive Care, Kasturba Medical College, Manipal and was facilitated by SRF member Mr Sangthang. An online course on "Introduction to Geopolitics & International Relations" was conducted from 15 to 17 June, 2:00 to 5:00 pm by the Department of Geopolitics and International Relations, Manipal and was facilitated by the substitute SRF member Ms. Poornima.

Resource person Dr Anand V conducting the online course on "Introduction to Geopolitics & International Relations"

An offline course on "Basic analysis of structural and functional brain MRI" was conducted at Digi Lab (MMMC) from June 15 to 17 from 2:00 to 4:00 pm by Melaka Manipal Medical College, Manipal, and was facilitated by SRF member Mr Akheruz.





Resource person Dr Ramesh Babu conducting the offline course on "Basic analysis of structural and functional brain MRI"

Another offline course on "Deep learning" was conducted at the Systems Engineering Lab on 17 June, 2:00 to 5:00 pm by Information and Communication Technology, Manipal Institute of Technology, Manipal and was facilitated by SRF member Mr Supreeth.



Resource person Dr Sumith N conducting the offline course on "Deep learning"

An offline course on "Mathematical modelling & optimization" was conducted at the UG CAD lab on 20 and 21 June, 2:00 to 5:00 pm, by the Department of Mechanical Engineering and Industrial Production, Manipal Institute of Technology, Manipal and was facilitated by SRF member Mr Supreeth. An online course on "Fundamentals of Medical Records Documentation" was conducted from 20 to 25 June, 4:00 to 6:00 pm by the Department of Hospital Administration, Kasturba Medical College, Manipal and was facilitated by SRF member Mr Sangthang. An offline course on "Data analysis without Excel and programming (Introduction)" was conducted at Shringeri Hall on 25 June, 3:00 to 5:00 pm by the Manipal School of Architecture and Planning, Manipal, and was facilitated by SRF member Ms Deeksha. An online course on "Data Visualization using Power BI" was conducted on 25 and 26 June and will be continued on 2nd and 3rd July, 10:00 to 12:30 pm by the Department of Commerce, Manipal, and was facilitated by SRF member Mr Sanket. An online course on "Python Programming" was conducted from 27 June and continued until 3 July, 2:00 to 5:00 pm, by the Department of Computer Science and Engineering, Manipal Institute of Technology, Manipal, and was facilitated by SRF member Mr Supreeth. The remaining 7 offline and 14 online courses will be conducted in the months of July and August 2022.



# **Editorial Team**

- 1. Dr Satish Rao B S, Director Research, MAHE, Manipal.
- 2. Dr Bharti Chogtu Magazine, Deputy Director Research (Health Sciences), MAHE, Manipal.
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