



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

MAHE Research Bulletin

October – December 2021



Directorate of Research – MAHE, Manipal



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

Vision:

To nurture and promote research activities of global standards.

Mission:

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

Objectives:

- 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.

“I would rather have questions that cannot be answered than answers that cannot be questioned.”

**– Richard Feynman
[Theoretical Physicist: 1918-1988]**

INDEX

Part I

- A. MAHE Research Data Network Visualization: Top Collaborating Countries
- B. Info-graph of Research Activities during the period October-December 2021
- C. Quartile Distribution of Publication for the period of October-December 2021
- D. Subject wise distribution of publications October-December 2021
- E. Top publications for the period October-December 2021
- F. Patents filed during the period October-December 2021

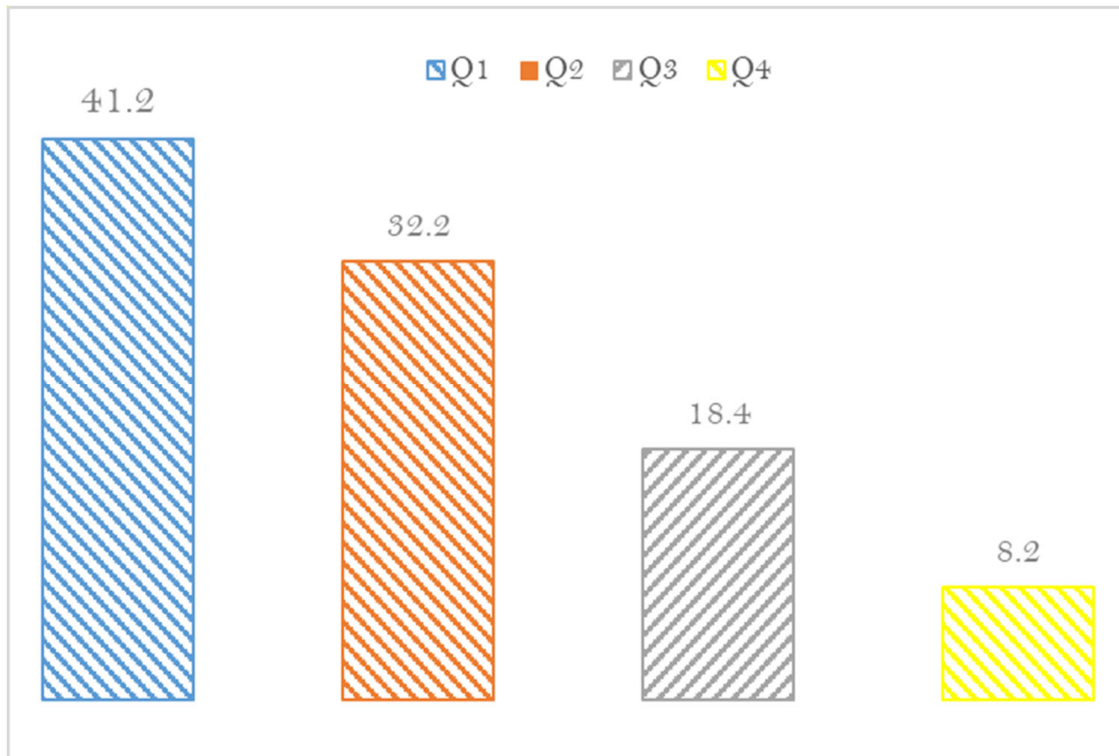
Part II

- A. Featured Researcher of MAHE
- B. Faculty and Institution Achievements
- C. Achievements by Research Scholars and Students
- D. Research Activities: Workshops, Programs, Webinars, and Conferences

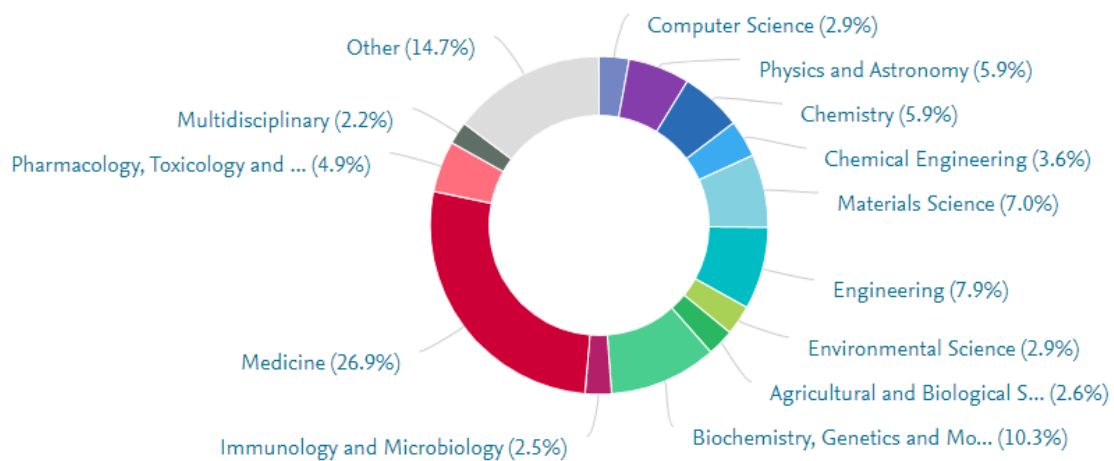
Part III

MAHE Student's Research Forum (MAHE-SRF) – Activities for the period of October-December 2021

C. Quartile Distribution of Publication for the period of April-June 2021



D. Subject wise distribution of publications



E. Top publications for the period October - December 2021

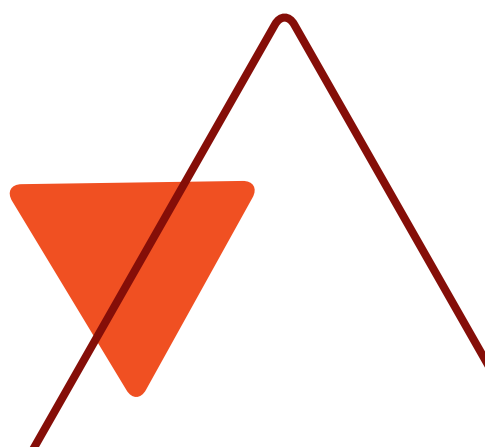
Serial No	Title of the Publication	Authors	Institution	Name of the Journal (Publishers)	Month and Year of Publication	Journal Quartile - Q1 (Top 10 percentile)
1	Pathogenesis of atherosclerosis and its influence on local hemodynamics: A comparative FSI study in healthy and mildly stenosed carotid arteries	- Aditya Bantwal - Nitesh Kumar* - Aditya Singh - Abhay Ramachandran Menon	Department of Mechanical Engineering, Manipal Institute of Technology, Manipal	International Journal of Engineering Science (Elsevier)	October 2021	99%
2	Relationship between physical activity, objective sleep parameters, and circadian rhythm in patients with head and neck cancer receiving chemoradiotherapy: A longitudinal study	- Rachita Gururaj - Stephen Rajan Samuel* - K. Vijaya Kumar - Anupama Hegde - P.U. Prakash Saxena - Ravishankar Nagaraja - Oxana Palesh	Laryngoscope investigative otolaryngology (Wiley-Blackwell)	Laryngoscope investigative otolaryngology (Wiley-Blackwell)	October 2021	99%
3	Toward closedloop drug delivery: Integrating wearable technologies with transdermal drug delivery systems	- Jyothsna M - J. Anand Subramony*	Department of Pharmaceutics, Manipal College of Pharmaceutical Sciences, Manipal	Advanced Drug Delivery Reviews (Elsevier)	December 2021	99%
4	Safe in the City? Negotiating safety, public space and the male gaze in Kolkata, India	- Sanghamitra Roy - Ajay Bailey*	Department of Architecture, Manipal School of Architecture and Planning, Manipal	Cities (Elsevier)	October 2021	98%
5	Comparative performance analysis of a static & dynamic evaporative cooling pads for varied climatic conditions	- Shiva Kumar - Sampath Suranjan Salins* - S.V. Kota Reddy - Prasanth Sreekumar Nair	Department of Mechanical Engineering, Manipal Institute of Technology, Manipal	Energy (Elsevier)	October 2021	98%
6	Effect of climatic conditions on the performance of a multistage dynamic dehumidifier test rig	- Shiva Kumar* - Sampath Suranjan Salins - S.V. Kota Reddy	Department of Mechanical Engineering, Manipal Institute of Technology, Manipal	Building and Environment (Elsevier)	November 2021	98%
7	UltraMassive Multiple Input Multiple Output Technologies for 6G Wireless Networks	- Ravilla Dilli* - Ravi Chandra M L - Deepthi Jordhana	Department of Electronics & Comm Engineering, Manipal Institute of Technology, Manipal	Engineered Science (Engineered Science Publisher)	November 2021	98%
8	Influence of Temperature on Mechanical Properties and Machining of Fibre Reinforced Polymer Composites: A Review	-Shahabaz S M -Nagaraja Shetty* -Sathyashankara Sharma -S. Divakara Shetty -M. C. Gowrishankar	Department of Mechanical Engineering, Manipal Institute of Technology, Manipal	Engineered Science (Engineered Science Publisher)	November 2021	98%

Serial No	Title of the Publication	Authors	Institution	Name of the Journal (Publishers)	Month and Year of Publication	Journal Quartile - Q1 (Top 10 percentile)
9	COVID19 Mortality Prediction among Patients using Epidemiological parameters: An Ensemble Machine Learning Approach	- Krishnaraj Chadaga - Srikanth Prabhu* - Shashikiran Umakanth - Vivekananda Bhat K - Niranjana Sampathila - Rajagopala Chadaga P - Krishna Prakasha K	Department of Computer Engineering, Manipal Institute of Technology, Manipal	Engineered Science (Engineered Science Publisher)	October 2021	98%
10	A Study on the Effect of Radiometric variations on a Fuzzy Stereo matching algorithm: A Statistical Analysis	- Akhil Appu Shetty - Navya Thirumaleshwar Hegde* - Raviraj Shetty - Aldrin Claytus Vaz - C R Srinivasan	Department of Aeronautical & Automobile Engineering, Department Manipal Institute of Technology, Manipal	Engineered Science (Engineered Science Publisher)	October 2021	98%
11	Electric Propulsion for Fixed Wing Aircrafts – A Review on Classifications, Designs, and Challenges	- Aravind Karthik - Dundesh Shivalingappa Chiniwar* - Mayukh Das - Prashanth Pai M - Phalguni Prabhu - Prashant A Mulimani - Kaustubh Samanth - Nithesh Naik	Department of Mechatronics Engineering, Manipal Institute of Technology, Manipal	Engineered Science (Engineered Science Publisher)	October 2021	98%
12	Effect of Camshaft Speed and Packing Thickness on a Multistage Reciprocating Dehumidifier using Analytical Approach	- Shiva Kumar* - Sampath Suranjan Salins - S.V. Kota Reddy	Department of Mechanical Engineering, Manipal Institute of Technology, Manipal	Engineered Science (Engineered Science Publisher)	November 2021	98%
13	Effect of Thickness of Various Restorative Materials and Hybrid Layer on Stress Distribution of Direct Cervical Restorations of Teeth Using a Three Dimensional Structural Finite Element Analysis	- Swathi Pai - Shashi Rashmi U* - Nithin Nayak - Swethank Awasthi - B Vishal - Vathsala	Department of Conservative Dentistry, Manipal College of Dental Sciences, Manipal	Engineered Science (Engineered Science Publisher)	November 2021	98%

Serial No	Title of the Publication	Authors	Institution	Name of the Journal (Publishers)	Month and Year of Publication	Journal Quartile - Q1 (Top 10 percentile)
14	Deficiency of TMEM53 causes a previously unknown sclerosing bone disorder by dysregulation of BMP/SMAD signaling	- Girisha K M* - Long Guo - Aritoshi Iida - Gandham SriLakshmi Bhavani - Kalpana Gowrishankar - Zheng Wang - Jing-yi Xue - Juan Wang - Noriko Miyake - Naomichi Matsumoto - Takanori Hasegawa - Yusuke Iizuka - Masashi Matsuda - Tomoki Nakashima - Masaki Takechi - Sachiko Iseki - Shinsei Yambe - Gen Nishimura - Haruhiko Koseki - Chisa Shukunami - Shiro Ikegawa	Department of Medical Genetics, Kasturba Medical College, Manipal	Nature Communications (Springer Nature)	October 2021	97%
15	Engrafted stem cell therapy for Alzheimer's disease: A promising treatment strategy with clinical outcome	- Salwa - Lalit Kuma*	Department of Pharmaceutics, Manipal College of Pharmaceutical Sciences, Manipal	Journal of Controlled Release (Elsevier)	October 2021	97%
16	Estimating the Impact of the Pandemic on Children's Physical Health: A Scoping Review	- Mr. Baskaran C* - Mansoor Rahman	Department of Exercise and Sports Sciences, Manipal College of Health Professions, Manipal	Journal of School Health (Wiley-Blackwell)	November 2021	97%
17	Randomized control trial evidence for the benefits of massage and relaxation therapy on sleep in cancer survivors—a systematic review	- Stephen Rajan Samuel - Vijaya Kumar K* - Rachita Gururaj - K. Vijaya Kumar - Prina Vira - P. U. Prakash Saxena - Justin William Leslie Keogh	Department of Physiotherapy, Kasturba Medical College, Mangalore	Journal of Cancer Survivorship (Springer Nature)	October 2021	96%
18	Optical spectroscopy and microscopy techniques for assessment of neurological diseases	- Mridula Sunder- - Nirmal Mazumder* - Neha Acharya, - Smitha Nayak	Department of Biophysics, Manipal School of Life Sciences, Manipal	Applied Spectroscopy Reviews (Taylor & Francis)	October 2021	96%
19	Modelling of fermentative bioethanol production from indigenous <i>Ulva prolifera</i> biomass by <i>Saccharomyces cerevisiae</i> NCFCC1248 using an integrated ANNGA approach	- Niyam Dave, - Ramesh V* - Raja S, - Thivaharan V	Department of Chemical Engineering, Manipal Institute of Technology, Manipal	Science of the Total Environment (Elsevier)	October 2021	96%

Serial No	Title of the Publication	Authors	Institution	Name of the Journal (Publishers)	Month and Year of Publication	Journal Quartile - Q1 (Top 10 percentile)
20	Breath analysis for the screening and diagnosis of diseases	- Nidheesh V. R. - Santhosh Chidangil* - Aswini Kumar Mohapatra, - Unnikrishnan V. K. - Rajeev Kumar - Sinha - Rajesh Nayak - Vasudevan Baskaran Kartha	Department of Atomic & Molecular Physics, Manipal	Applied Spectroscopy Reviews (Taylor & Francis)	November 2021	96%
21	CO2 capture by adsorption on biomass derived activated carbon: A review	- Chirag Goel - Dinesha P* - Sooraj Mohan	Department of Mechanical Engineering, Manipal Institute of Technology, Manipal	Science of the Total Environment (Elsevier)	December 2021	96%
22	Crosstalk Between Covid19 and Associated Neurological Disorders: A Review	- Anu K R - Alex Joseph* - Subham Das	Department of Pharmaceutical Chemistry, Manipal College of Pharmaceutical Sciences, Manipal	Current Neuropharmacology (Bentham)	October 2021	96%
23	Pd catalysed general access to 7 membered N/O heterocyclic compounds as potential agents against inflammation	- B. Thirupataiah - Guntipally Mounika - Gangireddy Sujeevan Reddy - Jetta Sandeep Kumar - Kazi Amirul Hossain - Jayesh Mudgal - Jessy E. Mathew - Gautham G. Shenoy - Marina Rajadurai - Kishore V.L. Parsa - Manojit Pal*	MU Research Centres	Chemical Communications (Royal Society of Chemistry)	October 2021	95%
24	Experimental investigation of the influence of vapor compression refrigeration in a multistage reciprocating dehumidifier test rig	- Shiva Kumar* - Sampath Suranjan Salins - S.V. Kota Reddy	Department of Mechanical Engineering, Manipal Institute of Technology, Manipal	Applied Thermal Engineering (Elsevier)	November 2021	95%

*Corresponding author



E. Patents filed during the period Oct - December 2021

- Dr J Venkata Rao and Mr Mridul Tiwari, from Manipal College of Pharmaceutical Sciences, have been granted a patent titled "A FORMULATION OF COPPER AND RISEDRONATE COMBINATION FOR TREATMENT OF BONE DISORDERS THROUGH TOPICAL DELIVERY" on 30/11/2021.
- Dr Ramesh S V, Professor, Department of Optometry, Krithica Srinivasan, Associate Professor, Department of Optometry, Vijay Varada, Nijil, from Manipal College of Health Professions, Manipal have been granted a patent titled "WEARABLE OCULAR HEALTH MONITORING DRESS PART AND THEREOF" on 03/12/2021.



A. Featured Researcher of MAHE



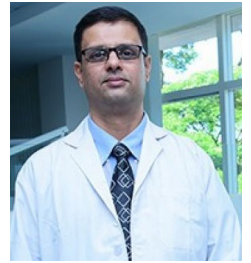
Dr S Raja, Armed with the best of both chemical engineering and biotechnology, Dr S Raja, a Senior Associate Professor in the Dept of Chemical Engineering, has a wide spectrum of knowledge through his academic pursuits. After graduating in B.E. Chemical Engineering from Annamalai University in 2000, he completed M.Tech. Biotechnology from Anna University, in 2003 Thereafter, Dr. Raja joined the Department of Biotechnology at SASTRA University, Tanjore for a period 3 years, teaching B. Tech and M. Tech students. His true calling in the research domain came up when he then joined as a Lecturer in MIT, MAHE where he was instrumental in setting up the Department of Biotechnology, right from its formative years. In 2013, MAHE conferred upon him the PhD degree for his work on extraction of biomolecules from waste waters using aqueous two phase systems. Fresh from the research mode, Dr. Raja continued his momentum by foraying into nanotechnology. He specializes in the green synthesis of nanoparticles and applying the same to a plethora of uses covering biomedical and environmental fields. Currently, his research team works on the development of nanocomposites for the removal of emerging pollutants from wastewater. His work was further bolstered with a VGST project (Government of Karnataka) that sanctioned him a sum of five lakh rupees. His research acumen and deep sense of commitment is the driving force behind his long list of peer-reviewed publications (cumulative impact factor > 200) in the topmost journals. A crowning glory to his dedication came in the form of an announcement that catapulted him among the world's top 2% emerging scientists. He is a reviewer for many journals and has also reviewed 5 PhD theses. With an enviable h-index of 22, Dr Raja has a total of 55 SCI/Scopus indexed publications and 1 book chapter to his credit, with many more in the pipeline. He is currently supervising 5 candidates towards their PhD. He is very active in driving student publications, which alone account for 40 % of his total publications, thereby enhancing the research profile of his students too. He is an active research collaborator across many countries and is ever open to discussions that can forge new dimensions in research across MAHE.

B. Faculty and Institution Achievements

Dr Satheesha Nayak B, Professor of Anatomy at Melaka Manipal Medical College, Manipal Academy of Higher Education (MAHE) Manipal, fortifies the distinction of, being recognized in the top 2 percentile rank of scientists worldwide in a study conducted by researchers from Stanford University in 2021. In the last year's survey, he had secured a world ranking of 117 in the category "Anatomy and Morphology". With a massive leap, he has secured the 79th rank (career ranking) in the recently updated list of scientists. In the annual ranking for the year 2020 alone, he has secured the 89th world rank.



Dr Shashidhar Acharya, Professor, Dept of Public Health Dentistry from Manipal College of Dental Sciences, is recognized in the top 2 percentile rank of scientists worldwide in a study conducted by researchers from Stanford University in 2021. The list of the top scientists was generated by professor John P A Ioannidis from Stanford University and his research collaborators based on the single-year impact of the research work in the year 2020 extracted from Scopus on August 1, 2021. The exhaustive list includes the top 2 percentile scientists of the world from different fields based on scientific publication standardized citation indications and was assessed based on parameters like the number of citations, H -Index, co-authorship, and a composite indicator. This research and database has been published recently by Elsevier titled 'Updated Science-wide Author Databases of Standardized Citation Indicators'.



Dr Ramesh S Ve, Associate Professor & Head, Department of Optometry, School of Allied Health Sciences, MAHE, has been named in the top 200 scientists' category in the field of Optometry according to the Global Optometrist Top 200 Research Ranking survey. This ranking has been published in the Clinical Experimental Optometry Journal. Dr Ramesh's research interests range from studies in public health and epidemiology of eye diseases to visual impairment and age induced ocular changes, as also the development of cost-effective eye care technology to enhance tele optometric practice.



Dr Gayathri Prabhu and Dr Nikhil Govind, Associate Professors, MCH, MAHE, Manipal, were conferred with the "Best Cover Design" at the Atta Gallata, Bengaluru Literature Festival on 17th Dec 2021 for their book: "Shadow Craft: Visual Aesthetics of Black and White Cinema."



Dr Thirunavukkarasu, Associate Professor – senior scale, Department of Instrumentation and Control Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education received the "Best Paper Award" for the work titled "Validation of Split Range Control Algorithm on a Laboratory Scale Batch Reactor Heating System" in the 5th International Conference on Emerging Technologies: Micro to Nano (ETMN 2021) jointly organized by MAHE Jaipur, India, and Universite Du Quebec En Outaouais, Canada. The event was held between 8 - 9th October 2021.



Dr Girish Pai K, Faculty – Dept of Pharmaceutics & Coordinator – Centre for cGMP, MCOPS, MAHE, received the “*First Prize*” in the Oral Presentation category at the International Conference on Advances in Pharmaceutical & Health Sciences (APHS-2021) organized by KIET School of Pharmacy and CSIR-Indian Institute of Toxicology Research, Lucknow. Dr Pai presented his work titled “Investigation of a Critical Manufacturing Defect Present in Pharmaceutical Sterile Preparation”. The virtual International Conference was held between October 7-8 2021.



Dr Lalit Kumar, Assistant Professor-Selection Grade in the Department of Pharmaceutics, MCOPS, Manipal, received the “*Young Scientist Award*” in honor and recognition of his significant contribution to the society and the profession of pharmacy, by approval of Central Executive Council (CEC), Society of Pharmaceutical Education & Research (SPER), during the 10th Annual International Conference & Exhibition [SPER 2021], October 8th - 9th, 2021 held at Ganpat University, Mehsana.



Dr Nirmal Mazumder, Assistant Professor, Department of Biophysics, Manipal School of Life Sciences, Manipal, was the FAOBMB Young Scientist Programme (YSP) awardee, 2021, at the 16th Congress of the Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB), New Zealand, held between 22-25 November 2021.



Dr Karuna YM, Reader, Dept of Pediatric and Preventive Dentistry, MCODS, Mangalore, was awarded the “*Best Paper Award*” at the 42nd ISPPD National Conference, Bhuvaneshwar for the paper titled “Personal Protective Equipment Related Challenges Faced by Pediatric Dentists during the Behavioral Management of Children: A qualitative study”. The conference was held between 25th to 27th November 2021.



Mr Mahesh BS, Assistant Professor in Clinical Psychology, Dept. of Psychiatry, KMC, Mangalore, Manipal Academy of Higher Education, Manipal, was honored with the “*Prof. Mehdi Hasan Award*” in the “*Best Research Presentation*” category at the 3rd International Conference on Healthcare Well-being: Current Trends & Challenges, organized by Indian Mental Health and Research Centre and Shia P. G. College on 30-10-2021.



Dr Sajjan Daniel George, Professor, Department of Atomic and Molecular Physics, Manipal Academy of Higher Education, is elected as *Fellow of the Indian Chemical Society*, one of the oldest Chemical Society in India established in 1924, for his contribution in the field of Interface Nanoscience and Photonics.



C. Achievements by Research Scholars and Students

Ms Nikitha S, PhD Scholar, Manipal Institute of Virology, MAHE, Manipal, was awarded the “*Best Paper Award*” in the oral presentation category at the Interdisciplinary Conference on Healthcare and Technical Research (ICHTR) 2021 organized by MAHE Students Research Forum under the aegis of Directorate of Research, MAHE, Manipal, from November 11 to 13, 2021.

Ms Tapatee Sahoo, Research Scholar of Dept. of Mathematics, Manipal Institute of Technology, MAHE Manipal, has been awarded the AMU prize for the year 2021 by the Indian Mathematical Society – IMS. The award was announced on 7 Dec 2021 during the 87th session of IMS - An International Meet, under the presidentship of Prof. Dipendra Prasad (TIFR, Mumbai). The award is the highest in the presentations category (constituted for Algebra and Analysis) of the IMS. Ms Tapatee presented her research work entitled: Partial order.



Mr Jayakrishna Kanhangad Shenoy, 1st year Research Scholar and Mr Gopal CM, 3rd year Research Scholar, Department of Civil Engineering, Manipal Institute of Technology, MAHE, Manipal, jointly received the “Best Poster Award” in the “DAE Second National Symposium on Current Trends in Analytical Chemistry”, held during October 20-23, 2021 online. A cash prize of Rs 2000 was paid to them.



Mr Prashant Chandra, Research Scholar, Dept. of Pharmacy Practice, MCOPS received “First Best Oral Presentation Award” under the category ‘Health Economics and Outcomes Research/ Epidemiological Studies’ for the research work entitled ‘Estimating the Cost Burden Associated with Antimicrobial Resistance in a Tertiary Care Hospital’ during the 2nd International Virtual Conference on Advances in Health Economics and Outcomes Research jointly organized by ISPOR Nitte (Deemed to be University) Student Chapter and Dept. of Pharmacy Practice, NGSIM Institute of Pharmaceutical Sciences, Mangaluru, Karnataka, India held on 21 and 22 October 2021.



Ms Salwa, Research Scholar (AICTE-NDF), pursuing her doctoral research under the guidance of Dr Lalit Kumar, Assistant Professor (Selection Grade), Department of Pharmaceutics, and the co-guidance of Dr C Mallikarjuna Rao, Head of the Institution and Professor, Department of Pharmacology, MCOPS, bagged the “First Prize” in the oral presentation category for the topic titled “Quality by Design approach to the stability indicating method development for the quantification of rivastigmine hydrogen tartrate in nano-formulations using HPLC” at the International Symposium on Medication Therapy Management-2021 held between 12-14 November, 2021, jointly organized by Sultan-Ul-Uloom College of Pharmacy and CliMed Research Solutions in collaboration with Indian Pharmaceutical Association, World Youth Heart Federation-India, Association of Community Pharmacists of India and the International Federation for Medical Therapy Management. The research work presented was co-authored by Srinivas Reddy Jitta, Navya Ajithkumar Bhaskaran, Dr Lalit Kumar and Dr C Mallikarjuna Rao.



Ms Pooja YT, Nair AS, Rodrigues J, Nagiri SK, Umakanth S, Jasti DB, and Joshi MB won the “Best Poster Award” for the topic “Homocysteine and its chemical modifications induce bidirectional activation of neutrophils and platelets during pathogenesis of stroke” at the 90th annual meeting of Society of Biological Chemists (SBC-I), organized by Amity University, Haryana, between 16-19th December 2021.

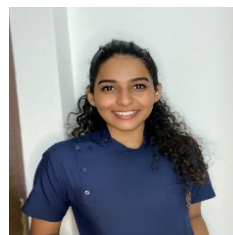
Mr Edwin RK, Acharya L, Joshi MB, K Satyamoorthy, KVL Parsa, and P Misra won the “Best Poster Award” for the topic “PRIP-interacting protein with methyltransferase domain (PIMT) regulates lipid

metabolism and adipogenesis” at the 90th annual meeting of Society of Biological Chemists (SBC-I), organized by Amity University, Haryana, between 16-19th December 2021.

Dr Aishwarya Rai, 2nd year Post Graduate student, Department of Public Health Dentistry, MCOADS, Mangalore, received the “Best Poster Award” in the General Category at the 25th IAPHD National Conference held on 18-21 November, 2021. The title of the poster was “Pandemic of Infodemic- Impact of Infodemic in Public Health-An Overview.”



Dr Shradha Bhutoria & Dr Rashmitha Rathnakar, 2nd year post graduate students, Department of Prosthodontics and Crown & Bridge, MCOADS, Mangalore, won the session best for their oral paper presentation on the topic “Smile designing - Redesigning dental esthetics one smile at a time” at the 49th IPS Indian National Virtual Conference, held from 1-5 December 2021.



Mr Pranay Javeri, student of M. Sc. Clinical Psychology, Dept. of Psychiatry, KMC, Mangalore, Manipal Academy of Higher Education, Manipal, was honored with the “Prof. Mehdi Hasan Award” for the “Best Research Presentation” at the 3rd International Conference on Healthcare Well-being: Current Trends & Challenges, organized by the Indian Mental Health and Research Centre and Shia P. G. College on 30-10-2021.



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



Dr G Arun Maiya, Professor and Dean, Manipal College of Health professions, MAHE, Manipal, is the principal investigator and mind behind a new laser shoe technology which provides a novel approach in treating Diabetic Peripheral Neuropathic Pain. Speaking about the project, Dr Maiya highlighted the need for developing such cost effective non-pharmacological treatment for treating neuropathic issues so as to reduce pain and improve the micro-circulation. He also highlighted that this product is clinically validated and is now ready for commercialization.

The laser technology product was officially launched on 19th November 2021 at Manipal by Pro Chancellor, Dr H S Ballal, MAHE, Vice Chancellor, Lt Gen MD Venkatesh, MAHE, Dr Anita Aggarwal,

Scientist - “F” & Associate Head, Technology Development Program, Technology Development & Transfer Division, Department of Science & Technology, Ministry of Science and Technology, Government of India along with Dr PLNG Rao Pro-Vice Chancellor, Dr Narayan Sabhahit Registrar, Dr Sharath Kumar Rao, Dr G Arun Maiya and Mr Vishwanathan, Managing Director, Techno Med Electronics, Chennai.

The expert team members involved in augmenting the technology are as follows: Dr. Manjunath Hande, Professor, Medicine, Dr Sharath Kumar Rao, Dean, KMC, Mr. Hrishikesh, Research scholar, Mr Karthik, Managing Director, TechnoMed Electronics, Chennai, and Engineer (Electronics).

The laser technology product is developed with the research grant support from Technology Development Program, Technology Development & Transfer Division, Department of Science & Technology,

Ministry of Science and Technology, Government of India.

The Laser Shoe innovation has additionally received 'the best product award for the year 2021' in an event organized by the NITTE-AIC and Karnataka Bank, i.e., in a competition titled Kaun Banega Udyamapathi (KBU), December 2021.



Mayo Clinic Cancer Centre, Manipal Academy of Higher Education, along with Tata Memorial Centre, Markey Cancer Centre and Saroj Gupta Cancer Centre and Research Institute, organized the 1st Annual Global Cancer Conference, that was conducted by the Global Cancer Consortium held on December 2th-4th, 2021. The conference received sponsorship from Torrent Pharmaceuticals and Alkem Laboratories. The program's panelists were Mahadev Rao, Vivek M Ragnekar, Dev Mukhopadhyay and Erin Oakley. More than 280 participants from 15 different countries participated in the conference. There were 15 speakers from 15 different institutes across the world.



MAHE Students' Research Forum (MAHE-SRF)



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 MAHE. MAHE SRF is dedicated to developing research interest among students and is functional under the guidance of Lt. Gen. (Dr) M.D. Venkatesh, Honorable 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 about MAHE incentive policies for research.

MAHE-SRF provides various opportunities and platforms for scientific interactions and networking in multi-disciplinary 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 DoR, MAHE, Manipal. MAHE-SRF 2021 was established in January which includes undergraduate, postgraduate, and doctoral research scholars from the constituent institutions of MAHE. This body has a core team of 28 students from Manipal, Mangalore, and Bangalore campuses. The current President for the forum is Mrs Athira Rajagopal V from Welcomgroup Graduate School of Hotel Administration (WGSHA), Manipal. The Vice Presidents are Mr Nidheesh V R from the Department of Molecular and Atomic Physics (DAMP), Manipal, and Dr Madhu Keshava Bangera, Manipal College of Dental Sciences (MCO DS), Mangalore, respectively. This year MAHE-SRF is set on three events, namely: the MAHE Research Colloquium (MRC), a Summer Training Program, and an Interdisciplinary Conference on Healthcare and Technical Research (ICHTR). These events primarily involve academic lectures, invited talks, poster and oral competitions, and workshops.



**Manipal Academy of Higher Education –
Student Research Forum**
MAHESRF

The Manipal Academy of Higher Education – Student Research Forum is a body that strives to inculcate interest for disciplined research work and harness the existing research potential among undergraduate students.

MAHESRF spreads awareness about the opportunities and steps involved in structured research work by organizing lectures, talks and seminars. MAHESRF aims to harness the research potential amount undergraduate students, while orienting them toward scientific method of research, allowing for an overall, holistic learning experience.

Interdisciplinary Conference on Healthcare and Technical Research (ICHTR) 2021

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

MAHE-SRF
RESEARCH IS CREATING NEW KNOWLEDGE

ICHTR-2021

Interdisciplinary Conference on Healthcare and Technical Research

November 11-13, 2021

Theme : “Interdisciplinary sustainable research - global crisis and the way forward”

Organized by

Manipal Academy of Higher Education (MAHE) – Student Research Forum (SRF)

Directorate of Research, MAHE, Manipal – 576104, Karnataka, India

The Interdisciplinary Conference on Healthcare and Technical Research (ICHTR) 2021 was organized by the Manipal Academy of Higher Education – Student Research Forum (MAHE-SRF) under the aegis of the Directorate of Research, MAHE, Manipal. The theme of ICHTR 2021 was Interdisciplinary Sustainable Research – Global Crisis and the Way Forward. The Conference was inaugurated by Professor H.P. Khincha. Prof Khincha is Chairman, Karnataka State Innovation Council Member Board of Management MAHE, Manipal, Professor (Retd), Department of Electrical Engineering, Indian Institute of Science, Bengaluru, India. Prof Khincha stressed on inter-disciplinary research which makes it very convenient for researchers to think of new areas of activities and discipline creation and fosters greater scope for renewed research. Dr PLNG Rao, Pro Vice-Chancellor, Faculty of Health Sciences, MAHE, Manipal was the Guest of Honour for the inauguration. Dr Rao emphasised on the role of research, whereby it provides solutions to the issues faced by the community. Following the Inaugural Session, the Key Note Address was given by Prof H.P. Khincha in which he discussed the opportunities that will open with the medical and health sciences working together with engineers. After that, the plenary session on “addressing the priorities of innovation in interdisciplinary research in contemporary times” was given by Dr Sandeep Shastri - ViceChancellor, Jagran Lakecity University, Madhya Pradesh, India.

On day 2, Mr Dinesh C Sharma – Science Journalist, Jawaharlal Nehru Fellow, New Delhi, India gave a plenary session on “Indian research and innovations in the interdisciplinary community in light of the current global crisis and implications”

The event witnessed one more excellent session on Preparing for the Future: Impact of Future Technology in Infrastructure and Capacity Building in Academia and Industry by Dr Chinmay Hegde - CEO & MD, Astrikos consulting Pvt. Ltd., Bengaluru, India.

In ICHTR 2021 witnessed a large gathering of researchers from MAHE and non MAHE was observed. Around 252 papers were presented at these papers were categorized into Health Science, Basic Science, Technical Sciences and Management Sciences and the Scientific Committee of ICHTR announced a total of 12 best paper awards. Two Best Paper Awards in Management Sciences were awarded to Sushmita Roy and Vaishnavi Vetsa from Manipal Centre for European Studies and Manipal Institute of Mangement respectively. Two Best Paper awards in Technical Sciences were awarded to Susan Simons from Manipal School of Architecture and Planning, and Krishnaraj Chadga from Manipal Institute for Technology. Three Best Paper Awards in Basic and Applied Sciences were awarded to Aswathy S Nair from Manipal School of Life Sciences, Sandeep Mallya from Manipal School of Life Sciences, and Nikitha S from Manipal Institute of Virology. Three Best Paper Awards in Health Sciences were awarded to Shristi Shakya from Maanipal College of Health Professionals, Suzan Pinto from KMC, Mangalore, Sheethal V from A.J. Institute of Dental Science, and Shubham Das from Manipal College of Pharmaceutical Science.

The 3-day conference ended with valedictory function. The Chief Guest of the Valedictory Ceremony was Dr Dilip G Naik Pro Vice Chancellor, Mangalore Campus, MAHE. Dr Naik in his address put forth that accessibility and affordability are two important aspects to be borne in mind of a researcher.



The screenshot shows a Zoom meeting interface. The main content area displays the following text:

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

MAHE-SRF
RESEARCH IS CREATING NEW KNOWLEDGE

Valedictory function

ICHTR-2021

Interdisciplinary Conference on Healthcare and Technical Research

11- 13 November 2021

Theme : “Interdisciplinary sustainable research - global crisis and the way forward”

Chief Guest
Dr. Dilip G Naik
Pro Vice Chancellor
Mangaluru Campus, MAHE

The right sidebar shows a grid of participants, including a woman in a red sari and a man in a suit. The bottom status bar shows the time as 12:20 / 39:21.

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. Dr Manthan D Janodia, Professor and Head, Department of Pharmacy Management, Manipal College of Pharmaceutical Sciences, MAHE, Manipal.
5. Ms Sheeba Pakkan, Bibliometrician, Directorate of Research Office, MAHE, Manipal.
6. Ms Anupa Lewis, Assistant Professor – Senior Scale, Department of Media Studies, Manipal Institute of Communication, MAHE, Manipal.
7. Ms Ramya S, Associate Professor, Electronics and Communication Engineering, MIT – MAHE, Manipal.

