



MANIPAL

ACADEMY of HIGHER EDUCATION

(Deemed to be University under Section 3 of the UGC Act, 1956)

MAHE Research Bulletin

Jan-Mar 2018



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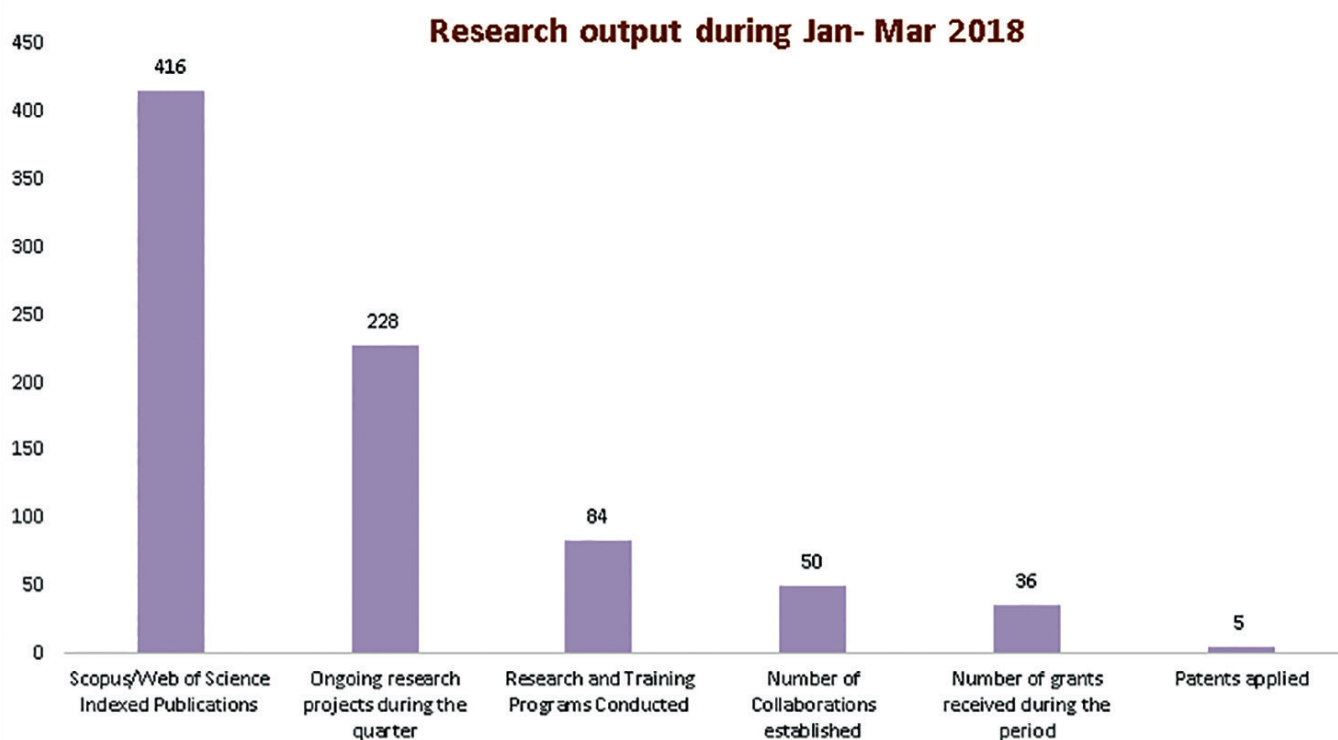
Activities of MAHE Students' Research Forum (MAHE-SRF)

Part I



Manipal Academy of Higher Education (MAHE) is one of the premier higher education institutions in India. MAHE considers both academics and research, equally important for the betterment of the institution. The faculty members and the research scholars at MAHE have embraced the research culture. They publicize their research work in scientific publications, through presentations in various conferences, by obtaining patents and research grants, etc. In this report, we present to you an overview of the research activities by MAHE, during the period Jan-Mar 2018.

A. Details of research activities of Manipal Academy of Higher Education for the period Jan-Mar 2018



B. Faculty and institution achievements

1. Dr (Brig) Sankar Prasad Gorthi conducted Evidence Based Medicine workshop from February 28 to March 1, 2018 at AIIMS, New Delhi. This program was organized by the Clinical Epidemiology unit of AIIMS, New Delhi.
2. The paediatrics department of Kasturba Medical College (KMC) had a great head start in the first quarter of 2018 in its pursuit of quality research. The department lab extended its collaborations with Ocshner University with their faculty on board as adjunct visiting professors to our students. The crux of paediatric research in this quarter was new advances in Neonatal care, infectious diseases and rare genetic syndromes. In addition, extending its network in collaborated research with Manipal College of Nursing School (MCONS) and MAHE has been the department's primary focus. As novel ventures, funded projects on electronic birth

registry and nomograms on Vitamin D levels in infants are underway by young and leading faculty of the department.

3. A Memorandum of Understanding (MoU) was signed between MAHE, Manipal and Schrödinger, LLC, New York, USA for setting up a Center of Excellence in Molecular Simulation in Manipal. The centre is named as "Manipal - Schrödinger Centre for Molecular Simulations." This is for the first time, Schrödinger, LLC is signing such a MoU with a University in India. As per the understanding, Schrodinger will provide guidance and training to the scientists of MAHE in MAHE's efforts towards becoming a pioneer in the field of molecular simulations.



MAHE has subscribed Schrodinger package in total, a first of its kind in any Universities in India. The Manipal - Schrödinger Centre for Molecular Simulations aims at developing a few New Chemical Entities (NCEs) for the treatment of cancer, infectious diseases, Alzheimer's disease and to take them to clinical trials in the next five years. Besides, the centre will provide opportunities for faculty members, research scholars and postgraduate students to be trained in the area of molecular simulations through workshops and seminars. The centre is coordinated by Dr G Gautham Shenoy, Professor and Head, Department of Pharmaceutical Chemistry, Manipal College of Pharmaceutical Sciences, MAHE, Manipal.

4. In March 2018, David Karas, Dept of European Studies, MAHE, Manipal presented the paper titled "Diverging Developmental Strategies Beyond Lead Sectors on the EU's Periphery: Variation in public and private developmental agency in the Hungarian and Polish dairy sectors." It is a co-authored paper with Professor Laszlo Bruszt (Scuola Normale Superiore, Florence). It is scheduled for publication in a 2018 special issue of the top academic journal in the field of political economy - Review of International Political Economy (RIPE). The article is based on his PhD and fieldwork in Hungary and Poland between 2011 and 2014.

5. Dr K Balakrishna, Professor, Dept of Civil Engineering, Manipal Institute of Technology (MIT), MAHE had an experience of his lifetime when he spent 95 days at the Indian research bases, Bharati and Maitri in Antarctica. Along with 40 other scientists from IMD, GSI, IIG, BARC, BSI, ISRO, NCAOR and logistics personnel from the Indian Army, Border Roads Organization, Dr Balakrishna was the only scientist from a deemed private University for the expedition initiated by the Ministry of Earth Sciences, Government of India.



6. Dr Ujjwal Verma, Assistant Professor, Department of Electronics and Communication Engineering, MIT received the "ISCA Young Scientist Award" for the year 2017-18 at the 105th Indian Science Congress Association, Kolkata held at Manipur University, Imphal on March 16-20, 2018.



C. Achievement by research scholars and students

1. Dr Nikhil V Mathew, postgraduate, Department of ENT, KMC, Manipal won runners-up in the Dr Anoop Raj Chopra E-poster competition on fibrous dysplasia of external auditory canal during annual conference of Otolaryngologist of India, January 4-7, 2018 held at Indore, MP, India.
2. Dr Thasneem Jainulbdeen (postgraduate) participated in FABULOUS FESS 2018 International CME and live surgical workshop and won first place in the postgraduate E-poster award session for the poster titled "Rhinofacial Entomophthoromycosis : A report of two cases" at Father Muller Medical College, Mangalore, held from February 9-10, 2018.
3. Dr Ashwini A P, senior resident in OBG, Melaka Manipal Medical College, Manipal was awarded best paper award titled "Effect of thyroid antibody on pregnancy outcome in hypothyroid women – a retrospective comparative study" at AICOG 2018 (61st All India Congress of Obstetrics and Gynaecology) held in Bhubaneswar from January 19-21, 2018.

D. Awards and accolades

1. Dr Radhika Nair K, Assistant Professor of Neurology, has been awarded the second prize for the best poster presentation titled "Obstructive sleep apnea in acute ischemic stroke: Prevalence and functional outcome" at the "XII Indian National Stroke Conference-INSC 2018" from March 16-18, 2018 at New Delhi.
2. Mr Huban Thomas R, Senior Grade Lecturer, Department of Anatomy, KMC, Manipal secured third place for his poster titled "Enhanced foetal development in terms of physical landmarks and developmental reflexes in rats supplemented with choline and docosahexaenoic (DHA) acid during gestation" in the poster competition held at KARNEOCON 2018, 20th Annual State conference of NNF Karnataka organized by NNF Karnataka, Vaidehi Institute of Medical Sciences, IAP Karnataka, IAP Bangalore on March 3-4, 2018.
3. Dr Girisha K M, Department of Medical Genetics, KMC, Manipal received Dr TMA Pai Gold medal for excellence in medical research for the year 2017 at the college day function of KMC Manipal on March 28, 2018 for the paper titled "Mutations in EBF3 disturb transcriptional profiles and cause intellectual disability, ataxia and facial dysmorphism."
4. Dr Navin Ashok Patil, Department of Pharmacology, KMC, Manipal was declared the most proficient faculty of India for the year 2018. He was recognized as the most productive author/researcher in the field of pharmacology, pharmaceuticals and toxicology with 76 publications in 2015-2017 and a cumulative of 10 citations. He was awarded cash prize and a citation at New Delhi from the honourable HRD minister Shri Prakash Javdekar.

5. Dr Laxmiprasad G, Department of Neurosurgery, KMC, Manipal was selected for a one-year fellowship in cerebrovascular neurosurgery Ontario, Canada.
6. Dr Anitha Nileshwar, Professor and Head, Dr Manjunath Prabhu, Dr Krishna H M, Professors, Department of Anaesthesiology, KMC, Manipal were conferred the honorary fellowship of Paediatric Anaesthesia by the Indian Association of Paediatric Anaesthesia (IAPA) during the annual meet at Hyderabad in February 2018.
7. Dr Rashmi K S, Department of Physiology, KMC, Mangalore has been sanctioned a travel grant by IBRO.
8. Dr Animesh Jain, Department of Community Medicine, KMC, Mangalore has been invited to chair the History committee for The Network: Towards Unity for Health (TUFH) for the upcoming Network: TUFH 40th anniversary celebration. The Network TUFH is an international organization aiming to foster equitable community-oriented health services education, research and policy, founded in Ghent, Belgium, now headquartered in Philadelphia, USA. It brings together innovative health care organizations, universities, educational institutions and individuals from all over the world. The Network: TUFH is a NGO, in official relationship with the WHO.
9. Dr Keshava Pai, Professor and Head, Department of Psychiatry, KMC, Mangalore received the certificate of excellence for being the co-author in the publication titled "The validity and reliability of the sense of coherence scale among Indian university students" which was awarded the Dr TMA Pai gold medal for research.
10. Dr Jayashree S Bhat, Department of Audiology and SLP, KMC, Mangalore received Padmashree Kameshwaran Endowment award at ISHACON 50 held at Mysore from January 5-7, 2018.
11. Dr Kaushalendra Kumar, Department of Audiology and SLP, KMC, Mangalore attended the first Bihar branch of Indian speech and hearing association conference from March 10-11, 2018 in Patna, Bihar and gave oral presentation on "Test retest reliability of vestibular evoked myogenic potential across different age groups". The presentation received best audiology oral presentation award.
12. Dr Kalyan Chakravarthy, Associate Professor, Department of Public Health Dentistry, MCOODS, Manipal has been identified by Careers 360 as one among the top 10. most outstanding researchers in the field of dentistry. This selection was based on a composite score generated by evaluating his academic output in Scopus indexed journals for the year 2015-17, his citation count and h-index.





13. Mr Anil Raj A, Lecturer, Department of Medical-Surgical Nursing, Manipal College of Nursing, Manipal, MAHE won the best paper and poster award at the National Conference on "Ageing: A biological reality; let us embrace". The two-day conference was organized by MIMS College of nursing, Calicut on February 9-10, 2018. The best paper award was for the paper titled "Does computer-based cognitive training is effective in improving gait and balance among elderly: A systematic review of randomized controlled trials" and the best poster award was for the paper titled "Profiles of elderly residing in old age home: A descriptive cross-sectional survey".



14. Dr Sudarshan S, Associate Professor, Department of Anatomy, MMMC, Manipal was awarded for the best paper titled " Duplication of femoral artery: A rare developmental anomaly" at fourth ICHLSR Dubai - International Conference on Healthcare and Life - Science research, held in Dubai on February 21-22, 2018.
15. Mrs Banumathe K R, School of Allied Health Sciences, MAHE, Manipal was awarded with Gazala Makda trophy for best scientific paper in paediatrics presented in the 55th National Conference of AIOTA (OTICON 2018) held in Nagpur from February 16-18, 2018.
16. Mrs Shalini Quadros, School of Allied Health Sciences, Manipal was awarded with Vijay Suple trophy for best scientific paper in mental health presented in the 55th National Conference of AIOTA (OTICON 2018) held in Nagpur from February 16-18, 2018.
17. Mr Nikhil S Kohale, Associate Professor, Faculty of Architecture, was awarded for the best poster award titled "Whose line is it anyways?", an International conference "Paradox to Paradigm: Architecture in the age of network society" held in Nagpur on March 9-10, 2018.
18. Dr Anish Kumar Warriar, Assistant Professor (senior scale), Department of Civil Engineering, MIT, MAHE has been selected for one of the travel awards sponsored by the Tinker Foundation to attend the POLAR2018 conference in Davos, Switzerland. He is one of the ten recipients of a special travel award sponsored by the Tinker Foundation to celebrate the 10th anniversary of the Tinker Muse Prize for science and policy in Antarctica.

A. Featured scientist of MAHE

Dr Shama Prasada Kabekkodu

Associate Professor
Department of Cell and Molecular Biology,
School of Life Sciences (SOLS),
Manipal Academy of Higher Education (MAHE), Manipal



Dr Shama Prasada Kabekkodu obtained his Bachelor's degree in chemistry, botany and zoology and Master's degree in biosciences from Mangalore University, Karnataka, India. He completed his doctoral degree in cancer epigenetics from MAHE. Dr Prasada is the recipient of young scientist award from Indian Society of Human Genetics (2011), International travel fellowship by DBT, Government of India (2012), Young Investigator award at 10th APCHG, Kuala Lumpur, Malaysia (2012), Dr TMA Pai gold medal for best researcher (2015) and Young Scientist award by VIFRA, India (2015). He is a life member of Society of Biological Chemists, India and Life member of Society for Mitochondrial Research and Medicine, India. He is part of several ongoing research activities funded by DBT and DST, Government of India at School of Life Sciences, MAHE. He served as Editorial Manager for Journal of Public Health. He has visited National Institute of Radiological Sciences, Chiba, Japan under Indo-Japanese collaborative research activity in 2014.

Dr Shama Prasad's areas of expertise include cancer epigenetics and molecular cell biology. In particular, his research interests are identification of aberrant epigenetic changes responsible for carcinogenesis and translation of clinically relevant biomarkers for diagnostic, prognostic and therapeutic purposes. Additionally, delineation of key cell and molecular events responsible for carcinogenesis and designing novel therapeutic strategies for patient care has been his main domain of research. His core areas of research also include cancer biology and signalling with special expertise in epigenetics and its translation. He is an expert in molecular biology, microscopy and cell culture techniques, viz., next generation sequencing, microarray and confocal microscopy. Dr Prasad is equally competent when it comes to developing in vitro (cell lines) and in vivo (nude mice) models for cancer research with strong interpretation and experimental skills. Generation of big data for translation research needs a special mention, which is of prime importance.

Since 2009, he is involved in teaching undergraduate and postgraduate students at department of cell and molecular biology, SOLS. He is currently mentoring three PhD students as guide and seven candidates as co-guide. Under his guidance, over fifteen masters' and bachelor students have pursued their projects.

To his credit, he has grants for two projects as Principal Investigator and six projects as co-investigator from Government of India in the frontier area of human health under highly competitive Extra Mural Research category. He holds one US patent in the area of methylation markers for breast cancer and four Indian patents are under examination.

Prolific researcher, Dr Prasad, has an h-index of 12, total impact factor 82.4 and 351 citations. He has 32 research articles, seven conference proceedings and two book chapters to his credit.

His message to young researchers is "Ever changing research environment sets new challenges and requires implementation of innovative approaches and solutions for problems. Moreover, the existing



knowledge needs deliberations to understand its suitability and sustainability. Next generation researchers should focus on multidisciplinary and collaborative approach to address their research problems. Young researchers should keep abreast by reading literature in their thrust areas and implement their knowledge accordingly. Budding scientists should be ready to the ever-changing research environment to sustain and contribute significantly to the benefit of the society.”

His plan for future research is identification of aberrant epigenetic changes responsible for carcinogenesis and translation of clinically relevant biomarkers for diagnostic, prognostic and therapeutic purposes. Additionally, delineation of key cell and molecular events responsible for carcinogenesis and designing novel therapeutic strategies for patient care has been Dr Prasada’s main domain of research.

B. Top publications for the period Oct-Dec 2017

Title of the publication	Author name (MAHE affiliated)	Institution/Department	Journal	Month and year of publication	1-yr impact factor
Environmentally benign green inhibitor to attenuate acid corrosion of 6061 Aluminum-15% (v) SiC(P) composite	Charitha B P, Padmalatha Rao	Department of Chemistry, Manipal Institute of Technology, Manipal 576104, Udupi, Karnataka, India	Journal of Industrial and Engineering Chemistry	Feb 2018	4.421
Removal of metal ions and humic acids through polyetherimide membrane with grafted bentonite clay	Raghavendra S Hebbar 1, Arun M Isloor 1, Balakrishna Prabhu 2, Inamuddin 3,4, Abdullah M Asiri 3,4 and A F Ismail 5	1 Membrane Technology Laboratory, Department of Chemistry, National Institute of Technology, Karnataka, Surathkal, Mangalore, 575 025, India, 2 Department of Chemical Engineering, Manipal Institute of Technology, MAHE, Manipal, Karnataka, 576 104, India, 3 Chemistry Department, Faculty of Science, King Abdulaziz University, Jeddah, 21589, Saudi Arabia, 4 Centre of Excellence for Advanced Materials Research, King Abdulaziz University, Jeddah, 21589, Saudi Arabia, 5 Advanced Membrane Technology Research Centre (AMTEC), Universiti Teknologi Malaysia, 81310, Skudai, Johor Bahru, Malaysia	Scientific Reports	Mar 2018	4.259
DNA methylation regulated microRNAs in human cervical cancer	Vinay K Varghese 1, Vaibhav Shukla 1, Shama P Kabekkodu 1, Deeksha Pandey 2, Kapaettu Satyamoorthy 1	1 Department of Cell and Molecular Biology, School of Life Sciences, MAHE, Manipal, Karnataka, India, 2 Department of Obstetrics and Gynaecology, Kasturba Medical College, MAHE, Manipal, Karnataka, India	Molecular Carcinogenesis	Mar 2018	4.185

Title of the publication	Author name (MAHE affiliated)	Institution/Department	Journal	Month and year of publication	1-yr impact factor
Modelling of low frequency dynamics of a smart system and its state feedback based active control	Mohit Kant, Arun P Parameswaran	Department of Electrical and Electronics Engineering, Academic Block 1, MIT Manipal, Udupi, Karnataka 576104, India	Mechanical Systems and Signal Processing	Jan 2018	4.116
Reprogramming mouse embryo fibroblasts to functional islets without genetic manipulation	Bhawna Chandravanshi, Ramesh Bhonde	School of Regenerative Medicine, GKVK Post, Allalasanra, Yelahanka, Bangalore, Karnataka, India	Journal of Cellular Physiology	Feb 2018	4.08

Part III

Part III

MAHE Students' Research Forum (MAHE-SRF)

The new Executive Council (EC) of MAHE-SRF was inducted on Jan 2, 2018. The EC of MAHE-SRF is constituted for the period of one year. The council has four faculty members, two each from health sciences and technical sciences, as mentors. Dr Harish K S, Professor, MIT, MAHE, Manipal and Dr Prema K V Professor, MIT, MAHE Manipal were appointed as faculty mentors for technical sciences while Dr Manikandan, Associate Professor Department of Physiotherapy, School of Allied Health Sciences, MAHE, Manipal and Dr Usha Y Nayak Associate Professor, Manipal College of Pharmaceutical Sciences, MAHE, Manipal were identified as faculty mentors for Health Sciences.

The new council members of MAHE-SRF are listed below:

	Governing council	Name	Institution
1	President	Mr Parameshwar	SOAHS
2	Vice President	Ms Sudipta Patra	KMC
3	Vice President	Geethu Madhusoodanan	MIT
4	Vice President	Ms Mahima Gupta	KMC Mangalore
5	Vice President	Ms Divya Gopalan	MCOPS
6	Vice President	Mr Manik Vohra	SOLS
7	General Secretary	Mr Prabhjeet Singh	MCODS, Manipal
8	General Secretary	Ms Tenzin Phagdol	MCON Manipal
9	General Secretary	Mr Deepak Hebbar	DAMP
10	Joint Secretary	Ms Ayshwarya Muralidharan	MCODS, Mangalore
11	Joint Secretary	Ms Swathi Sreeshan	SOM Manipal
12	Joint Secretary	Ms Shirin Sheik	FOA Manipal
13	Joint Secretary	Shiva Kumar Reddy	MMMC Manipal
14	Web Master	Mr Shaurya Malik	MIT
15	Financial Coordinator	Mr Kevin S Johnson	Dept of Commerce
16	PRO	Ms Priya Poojary	Dept of European Studies
17	Executive Member	Ms Maria Mathews	Dept of Statistics
18	Executive Member	Mr Santosh N Vasist	SOIS
19	Executive Member	Sananda Mukherjee	SOC

20	Executive Member	Meghna Kar	SOC
21	Executive Member	Mr Roshanjit Singh	MMMC
22	Executive Member	Mr Sachin S	MIT
23	Executive Member	Elvin Shawn D'Souza	MIT
24	Executive Member	Ms Anwasha Basu Mallik	WGSHA
25	Executive Member	Sanna Gulati	MCNS
26	Executive Member	Mr Sudheesh N	Dept of Virus Research
27	Executive Member	Ms Anchal Purohit	SOM

2. MAHE-SRF changed its logo with caption "Research is creating new knowledge" which was designed by Ms Shirin Sheik from Faculty of Architecture, Manipal.





Editorial Team

1. Dr N Udupa, Director Research (Health Sciences)
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