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### A quarterly News Bulletin

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#### From the Editorial Board

Greetings,



I wish to welcome our readers to another issue of Sampige, a quarterly News Bulletin of Ramaiah Institute of Technology through which we keep the college community and beyond abreast of happenings, developments and the great strides achieved by our institution. In the present issue, the features and other highlights of the news include three important functions namely the Diamond Jubilee Inaugural Function, Graduation Day Celebration and Fresher's Day Function (Commencement of I-year classes). This issue also includes the report on the Annual Mega Blood Donation Camp organized by the NSS wing of

our Institution. The blood donation camp witnessed a record collection of 851 plus units of blood distributed to over 11 blood banks located in and around Bengaluru city. I congratulate the NSS coordinator and our entire NSS student volunteers for the great success of the camp. All efforts have been made in presenting the activities of the individual departments and the institute very effectively for the benefit of readers and stakeholders. Hope that you will enjoy reading this issue.

Best wishes **Dr. N. V. R. Naidu** 



Friends,

Greetings and welcome to another issue of Sampige, a quarterly News Bulletin of Ramaiah Institute of Technology, a comprehensive report on various activities held in the institution as well as various departments. In this News Bulletin, we have highlighted Diamond Jubilee Celebration, Graduation day, Fresher's Day celebration and the annual Blood Donation camp. In closing, I would like to acknowledge all the HODs and section Heads for providing a detailed

report of their departments towards finalizing this issue of Sampige. The success of this issue of Sampige depends on your valuable support. I would always appreciate your feedback.

With best wishes **Dr. B. M. Nagabhushana** 



### **RAMAIAH INSTITUTE OF TECHNOLOGY**

#### **VISION OF THE INSTITUTE**

To be an Institution of International Eminence, renowned for imparting quality technical education, cutting edge research and innovation to meet global socio-economic needs

#### MISSION OF THE INSTITUTE

#### RIT shall meet the global socio-economic needs through

- Imparting quality technical education by nurturing a conducive learning environment through continuous improvement and customization
- Establishing research clusters in emerging areas in collaboration with globally reputed organizations
- Establishing innovative skills development, techno-entrepreneurial activities and consultancy for socio-economic needs

#### **QUALITY POLICY**

We at Ramaiah Institute of Technology, strive to deliver comprehensive, continually enhanced, global quality technical and management education through an established Quality Management System complemented by the synergistic interaction of the stakeholders concerned.

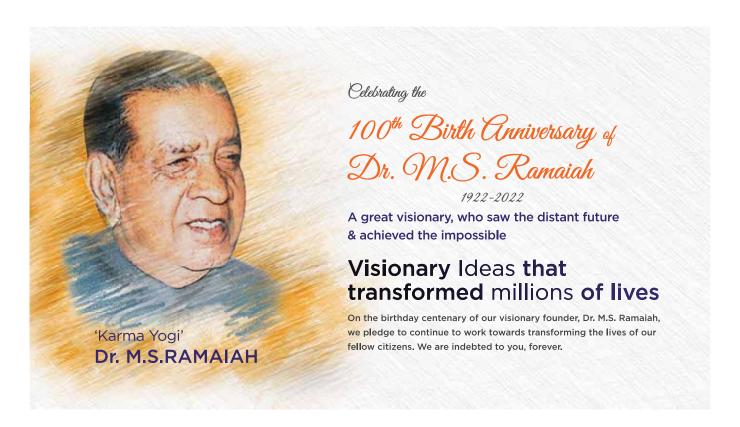


MSRIT is accredited by NAAC with A+ Grade



# **Dr. M.S. Ramaiah** (1922 - 1997)

Founder Chairman, Gokula Education Foundation



We offer our humble tributes to our venerable founder Chairman late Dr. M S Ramaiah, a renowned philanthropist, educationist and visionary who Established the Gokula Education Foundation in 1962 and M S Ramaiah Institute of Technology (MSRIT) was started in the same year envisioning the need for quality technical education towards taking India ahead.

MSRIT is celebrating its Diamond Jubilee year in 2022, at this juncture, we at MSRIT reiterate our commitment to creating world-class technical professionals who strongly reflect the universal human values of integrity, honesty, and character as they go on to contribute to the nation and the world at large.



### TRIBUTE TO A VISIONARY

Celebrating 100 years of this Great Iconic Figure

Dr. Mathikere Sampangappa Ramaiah was born on 20<sup>th</sup> April 1922. This great visionary lives on through his legacy, which continues to illuminate the lives of millions through healthcare, education and philanthropy.

Dr. M S Ramaiah began his career at Indian Testing Laboratories, where he rose in popularity amongst his peers and colleagues. Dr. M S Ramaiah moved on to the Mysore Railway narrow gauge section as a fireman a few days later his father called him back to the family brick manufacturing facility. His zeal to build greater milestones inspired Dr. M S Ramaiah into civil contracting of his first Radhanagiri Hydroelectric Project, building the Ghataprabha left bank canal. The Sharavathi valley and Dharma dam and the renowned Irrigation Project of River Budhi Gandak on the Indo-Nepal border.

Dr. M S Ramaiah's strong connection with nature lured him to the start Gokul dairy farm in 1950 and procure 700 acres of land near Devanahalli which he evolved into a lush green region.

In 1957 Dr. MS Ramaiah took over Tayinadu a local newspaper from Chamrajpet which he enriched with ample resources and passion. In 1963 he launched a monthly called Kailasa and a weekly called Gokula which saw eight years of growing appreciation in the Kannada Literary World.

Dr. M S Ramaiah believed education is the most powerful tool to change the world and this empowered him to set up educational institutions. In 1962 Ramaiah Institute of Technology (RIT) was established, which foresaw India's IT revolution and is continuously grooming the country's leading talent. Today, Ramaiah Institute of Technology has been recognized as one of the premier educational institutions across India and Ranked First among the VTU affiliated Engineering Institutions as per the NIRF, MoE, Government of India. RIT offers courses that are shaping professionals of today and tomorrow with engineering brilliance. Dr. M S Ramaiah focused on all fields and levels of education, i.e., Nursery to Surgery, Foundational courses to building the foundation of the country with lawyers, Artists, Doctors, Managers and Business Analysts.

In 1972 he facilitated water, electricity and innovative agricultural practices to plant

numerous trees. He won an Asian record for being a single individual to nurture so many trees, he was also the first person to implement drip irrigation in private farms.

Dr. M S Ramaiah welcomed industrialization and set up M S Ramaiah industrial estate for running small-scale industries in plastics, agro products, steel & metals and software technology.

Being a patron of art and culture, Dr. M S Ramaiah provided a platform to many artists to showcase their talents. He organised the Kannada Sahithya Sammelana at Kaiwara in the year 1990, for the neoteric and literary minds of Kannada literature to convene.

Dr. M S Ramaiah took over as the Dharmadhikari of Kaiwara temple and oversaw a pristine temple built for Tatayya. Great development works were carried out, including lodging for thousands of daily devotees. The trust arranges Prasad distribution every day for all visitors.

Dr. M S Ramaiah built the pristine Venkateshwara Temple and the magnificent entrance Arch of Raja Rajeshwari Temple, which is still one of the largest arches built.

This charismatic mannourished people's progress through education as well as philanthropy, he set up an education fund to support deserving students irrespective of caste or religion, which today provides impactful assistance of nearly 90 lakhs a year. He even developed affordable residential layouts to house those who could not afford them. Dr. M S Ramaih also developed numerous places of worship community marriage halls and tall trees for mass marriages, and public kitchens and even started a rural health care center to offer free medical and dental treatment by top doctors of Bengaluru city.

Dr. M S Ramaiah's dreams shine on beyond his lifetime and his greatness fondly lives on in the hearts of thousands of people through his numerous impactful initiatives.

Uhat we have done for ourselves alone dies with us.

What we have done for others and the world remains and is immortal. — Dr.M.S.Ramaiah

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#### **GRADUATION DAY - 2022**











The graduation day for the students of the 2018-22 batch of Bachelor of Engineering 2017-2022 batch of Bachelor of Architecture, 2020-2022 batch of M.Tech, MBA and 2019-2022 and 2020-2022 batch of Computer Applications was conducted on 20.10.2022. Prof. Rishikesha T Krishnan, Director, Indian Institute of Management Bangalore was the Chief Guest for the Graduation Day Ceremony and delivered the graduation day address. A total of 72 rank students were honoured with medals. Certificates and mementoes were awarded to students who secured ranks to students who showed excellent academic performance in their respective branches. B.E. honours degree requirements were fulfilled by 28 students of the institute. A total of 1632 students graduated for the year 2022 from the institute. The certificate and mementoes were distributed to all graduating students for the year 2022.



#### **DIAMOND JUBILEE INAUGURATION**















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 The institute is celebrating 60 years (Diamond Jubilee) and the 100<sup>th</sup> Birth Anniversary of our Founder Chairman Late. Dr. M S Ramaiah this year. A spectacular and a grand Inaugural Function for Diamond Jubilee Celebrations was held on the 16<sup>th</sup> October 2022.

The Hon'ble minister Sri. Pralhad Joshi, Parliamentary Affairs, Coal & Mines Gol inaugurated the celebrations. He said India will be the no.1 country in the world if the nation work with unity. He appreciated that the founder Chairman and GEF have contributed immensely to the society by establishing many outstanding educational institutions which are engaged in imparting quality technical education to millions of students. He also said that many people approach him for help to get seat in these reputed institutions as the quality of education imparted at these institutions is par excellence.

Dr. Ashwath Narayana C N, Hon'ble minister of Higher Education, GoK released the documentary and said the sustained growth of society is possible only through quality education. He commented that he had grown up seeing the growth of Ramaiah Institutions. They have provided good quality technical education to many students across the globe. He also said that the students need to utilize the facilities & equip themselves with employable skills for the future challenges.

His Excellency Hon'ble Governor of Karnataka Thawar Chand Gehlot, participated virtually and delivered the presidential address. In his address he highlighted the need of sincere efforts to nurture the talents of todays' youth. He congratulated & wished the institution for its future endeavors.

Hon'ble Chief Minister of Karnataka, Sri. Basavaraj S Bommai in a video message hoped that the tradition of giving back to the society at M.S. Ramaiah continues while Dharmendra Pradhan, union minister for education, in a note said, "it is imperative that our centers of higher learning lay great focus on high –end innovation & research in science & technology".

The function was attended by distinguished members from premier educational institutions, industry, alumni, and heads of sister institutions. Hon'ble Chairman, Vice – Chairman, Secretary, Dr. V.K. Aatre, Dr. H P Khincha & Dr. J N Reddy participated in the function.













#### FRESHER'S DAY











Fresher's day, commencement of classes for First Year BE/B.Arch. programs for UG 2022-23 batch was inaugurated on 30-11-2022. The programme was witnessed by the Chief Guest Prof. S. Sadagopan, Former Director, IIIT Bengaluru and Guest of Honour Sri. Pratap Jayaram, Managing Director, Mantra Racing & Cars and Car Conversations, Distinguished Alumnus of RIT. The event was graced by the Dr. M R. Jayaram, Honorable Chairman, GEF, Sri. M.R. Sitharam, Honorable Vice Chairman, GEF & Director of RIT, Sri. M R Ramaiah, Honorable Secretary, GEF and Director of RIT, Sri. B. S. Ramaprasad, Chief Executive, GEF and General Sciences, Dr. N.V.R Principal, Dr. Pradeep Kumar Dikshith, Vice-Principal, Sri. Thallam Venkatesh, President, RIT Alumni Association and Dr. Archna Registrar Academic.

# DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING



 Department of EEE arranged an industrial visit for V Sem. students to M/S LM Wind Power Blades (India) Pvt Ltd on 4<sup>th</sup> November, 2022.

#### Paper Publications in National/International Journals

- Praveen, M., Karthikeya, G.S., Krishna, R.H., Mamatha, G.M., Manjunatha, C., Khosla, A. and Nagabhushana, B.M 'The role of magnetic nano CoFe<sub>2</sub>O<sub>4</sub> and conductive MWCNT/graphene in LDPE-based composites for electromagnetic interference shielding in X-band'. Diamond and Related Materials, p.109501.DOI:https://doi.org/10.1016/j. diamond.2022.109501.
- Manjappa, P., Rajan, H.K., Mamatha, G.M, Sadananda, K.G., Channegowda, M., Shivashankar, G.K. and Mutt, N.B -. Effective Attenuation of Electromagnetic Waves by Synergetic Effect of α-Fe<sub>2</sub>O<sub>3</sub> and MWCNT/ Graphene in LDPE-Based Composites for EMI Applications' Materials, 15(24), p.9006.
- Poornima, S 'Impact of steady state and impulse excitations on CuSO<sub>4</sub> based memristor', Engineering Science and Technology, an International Journal 37 (2023): 101297.
- Premkumar, M., Sowmya, R., Sridhar, S., Kumar, C., Abbas, M., Alqahtani, M.S. and Nisar, K.S – 'State-of-Charge Estimation of Lithium-Ion Battery for Electric Vehicles Using Deep Neural Network'. CMC-Computers Materials & Continua, 73(3), pp.6289-6306.
- Bibhu Prasad Ganthia, Sudheer Hanumanthakari, Hemachandra Gudimindla, Harishchander Anandaram, M. Siva Ramkumar, Monalisa Mohanty, S. Raja Gopal, Atul Sarojwal, Kibrom Menasbo Hadish – 'Machine Learning Strategy to Achieve Maximum Energy Harvesting and Monitoring Method for Solar Photovoltaic Panel Applications', International Journal of Photoenergy, vol. 2022, Article ID 4493116, 9 pages, 2022. DOI:https://doi. org/10.1155/2022/4493116(Q2)
- Kodeeswara Kumaran G, Mr. P. Rajesh, Mr. Sureshkumar Kumaravel – 'Two Area Power System Stability Analysis by frequency controller with UPFC synchronization and energy storage systems by optimization approach', International Review of Applied Sciences and Engineering.



- Victor George, Pradipkumar Dixit, Soman Dawnee, Kushagra Agarwal, Vismayi Venkataramu, Deeksha B. Giridhar – 'Communication frame work in an electric vehicle charging station supporting solar energy management', Indonesian Journal of Electrical Engineering and Computer Science Vol. 28, No. 1, October 2022, pp. 49~57 ISSN: 2502-4752 DOI:http://doi.org/10.11591/ijeecs.v28.i1.pp49-57 (Q3)
- Rao, Vinayak V, Pradipkumar Dixit, Harikrishna.R and Ramakrishna Murthy. K – 'Performance Evaluation of Nano MgO Filled Polymer Material for High Voltage Insulation', published in the Journal of Surface Investigation: X-ray, Synchrotron and Neutron Techniques, Vol. 17, No. 1, January 2023, pp. 94-103 ISSN 1027-4510.(Q4)

#### Awards Received by the Faculty

- Dr. R. Subha, Assistant Professor, received the following awards
- Certificate of appreciation for being recognized as NPTEL motivated learner from the period July-December, 2022.
- Secured top 1% score and Elite + Gold certificate for the NPTEL course 'Introduction to Machine Learning'.

# DEPARTMENT OF MECHANICAL ENGINEERING



4<sup>th</sup> International Conference on Recent Advances in Engineering Sciences-ICRAES -2022 - The twoday international conference was jointly organized by the Department of Mechanical Engineering, Civil Engineering, Chemical Engineering, Biotechnology and Industrial Engineering & Management, Ramaiah Institute of Technology on 13<sup>th</sup> -14<sup>th</sup> October 2022. This Conference was an interactive platform to bring together leading academicians, scientists, researchers and scholars to share their research findings in new generation materials. Prof. J N Reddy, O'Donnell Foundation Chair IV, Texas A & M University, College Station, USA and Sri. M. Zakiruddin Siddique Distinguished Scientist & Director Gas Turbine Research Establishment, Defence Research & Development Organisation, Ministry of Defence, Bengaluru were the Chief Guests and delivered a key note address.

#### Publications in (National / International) Journals

- Prasad H. Nayak, H.K. Srinivas, P. Rajendra, Madeva Nagaral, M. Raviprakash, V. Auradi - 'Effect of Nano Zirconium Oxide (ZrO<sub>2</sub>) Particles Addition On the MechanicalBehaviour and Tensile Fractography of Copper-Tin (Cu-Sn) Alloy Nano Composites', Structural Integrity and Life, Vol. 22, No 3 (2022), pp. 319–327.
- Sharath D, **Mohandas K N, Sunith Babu L** 'Characterization of drilling damage in glass laminate composites using lock-in thermography nondestructive evaluation method: a feasibility study', Australian Journal of Mechanical Engineering, 2022, DOI: 10.1080/14484846.2022.2133677.
- Ashok Kumar K, N. Kapilan, S Kasthurirengan

   'Comparative Studies on Solar Assisted Silica
   Gel- Water and Activated Carbon-Methanol Based
   Adsorption Refrigeration System', Journal of Mines,
   Metals and Fuels, 70(8A):1-479: 2022:https://doi.org/10.18311/jmmf/2022/31989.
- Pradnya Deshpande, Priyanka Gowda, Jyothilakshmi R and Shanmugapriya N 'Advances in the study of Phase change materials and Ne-PCMs for the storage of Energy Applications', Journal of Mines, Metals and Fuels, 70(8A):1-479: 2022: DOI:10.18311/jmmf/2022/31991.
- Harish N, Lokesha K, Bharath M R, P B Nagaraj, and Shailesh - 'Study on Influence of Process Parameters and Insert Nose Radius on Surface Roughness in Turning Operation', Journal of Mines, Metals, and Fuels, https://doi.org/10.18311/jmmf/2022/32023.
- P B Nagaraj, Lokesha K, Gururaj Lalagi, Vinayaka T

   'Effect of Fuel Additive Concentrations in Diesel on
   Engine Performance and Vibration Characteristics',

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- Journal of Engineering Science and Technology, Vol. 17, No. 5 (2022), pp 3672-3689 October 2022.
- Pravallika J J S, Pannaga S, Yashwanth K, Lokesha K 'Artificial Intelligence in Mechanical Engineering', International Journal of Mechanical and Production Engineering, Vol 10(6), pp72-78, October 2022.

#### Presentation in National/International Conferences

- The following research articles are presented in 4<sup>th</sup> International Conference on Recent Advances in Engineering Sciences-ICRAES -2022, Ramaiah Institute of Technology, Bangalore, 13<sup>th</sup> and 14<sup>th</sup> October 2022.
- Naveen Kumar B.K, Sushma M.S., Neeruganti Jagadeesh, Kulkarni Phaniraj, Halli Anand, Pranav P.S., Praveen Kumar M.R - 'Design, Analysis and Fabrication of Hydroelectric Turbine for open canals of the River'.
- Astle Anthony Dsouza, Mohandas K N, Dinesh P A, Balappa Ukamanal - 'Investigating the effect of knurling on properties - Factors affecting boundary layers' formation', 4<sup>th</sup> International Conference on "Recent Advances in Engineering Sciences, Place??
- D.K. Vishwas, C.N Chandrappa 'Effect of Tungsten Chromium Nickel (W-Cr-Ni), On The Abrasive Wear Behaviour of Al6061 Hybrid Composite'.
- Bijayalakshmi Das, Nikhil B R, Nikhil B Kodikar, Prahlad V, Nikhil Gowda K - 'Experimental analysis of thermal properties of magnesium oxide nanofluids'.
- Deepika R, Sunith Babu L, Pradeep Kumar K V, Sumanth R and Prateek M.U - 'Studies On Effect of Loading Rate of Hybrid Glass/Carbon Composites Subjected to Open Hole Tensile Test'.
- Rajendra P, Phaneesh K R, Ramesha C M, Madev Nagaral and Virupaxi Auradi - 'Effect of The Cooling Condition and Corresponding Microstructure On Tensile and Impact Behavior of Low Carbon Steel (EN8)'.
- Rajesh Yandigeri, Paresh S V, Siddaraju C and Niranjan C A - 'Effect of ECAP on Microstructure and Wear Resistance of Az91 Magnesium Alloy'.
- Nishanth R A, Mohandas K N and Ramesha C M
   'Study on Dimensional Inconsistency of Titanium Alloy (Grade 5) During Machining'.

- K.R.V. Subramanian, Raji George, Nikitha Ramamohana Reddy, Sarvesh Singh V.R - 'Use of Oxide Nanofluids as Electrolytes in Sodium Ion Supercapacitor'.
- Rajeesh S, Anoop Bagali, Bhuvan D, Bose J S and Gnyaneshwar Nayak - 'Analysis Of Al-Li Alloy Machinability Characteristics For Better Surface Smoothness Using The Taguchi Method'.
- Raji George, K Vinita Babu, Adhish Palyam Venkatesh, T Ananda Mukesh, Rakesh Kumar and Prem Ranjan - 'Conceptual Study of Tube Launched Unmanned Aerial Vehicle (Uav)'.
- Sujeet Magi, Ramesha C M, Girish V. Kulkarni, Rajendra P, Anil Kumar P and Mohanraju S - 'A Study of Erosion Rate of Homogenized Structural Al7175 Alloy for Aerospace Application'.
- Nithasree S, Lokesha K, Raji George, Shreeram Murali, Anubhav Kini - 'Path Planning Method for Static Obstacle Avoidance Using Bezier Spline Interpolation in Unmanned Aerial Vehicles'.
- Rohit G K, Sunith Babu L, Jaya Christyan K G Ramesh S Sharma - 'Effect of Thickness On the Failure Analysis of Open Hole Tensile Test'.
- Mahantesh S Matur, Iresh Bhavi G Shashank Lingappa M - 'Design and Fabrication of Low Cost Portable Electric Scooter for Last Mile Connectivity'.
- V Jayalakshmi, K.R.V Subramanian 'Modelling of Super Alloy with Different Alloying Elements Using Multi Scale Designer'.
- Anilkumar T, Sridhar B S, Manju D L, Shashikala A R - 'Sugarcane Bagasse Fiber Sandwich Composites'.
- Sarvesh Singh, K.R.V. Subramanian 'Geometry Driven Hall Effect Analysis for Development of a Sensitive Hall Effect Sensor'.
- Harish Tallalli, Hari Chandra B P, Sandeep N Mannopantar and Hari Prasad R - 'Methods of Preparation, And Characterization of Loha Bhasmas; The Traditional Nano-Metallic Medicines: An Overview'.
- Girish V Kulkarni, Gayatri Kulkarni, Jasbir Singh, Mohd Fahad, Dev Singh, R S Sandha, R S Choudhary-'Design and Analysis of Cooling System for Linear Accelerator (Linac)'.



- P C Arunakumara, Jai Sharma, Jagannath Prasad Sahoo, Kamal Singh Rawat and Deepayan Narayan Choudhary - 'Prognostics On Aircraft Components in The Field of Predictive Maintenance'.
- Sunith Babu L., Bharath M. R., Sanjay H. S., Meghana A., and Ishan Singh - 'Studies on effect of drilling parameters on CFRP laminates using HSS, HSCO and solid carbide drills', AIP Conference Proceedings 2615, 040002 (2022); https://doi. org/10.1063/5.0117942, November 2022.
- Rajeshwari Halagalimath, Jyothilakshmi R, Hemanth Kumar J - 'A study on Nano cellulose from Sugarcane Bagasse waste as sustainable Biodegradable Packaging Material', 12<sup>th</sup> International Conference on Sustainable Waste Management & Circular Economy and IPLA Global Forum 2022, Sri Venkateshwara University, Tirupathi, Andhra Pradesh, November 30, December 3, 2022
- B. Sadashive Gowda, Jyothilakshmi R, N.R, Banapurmath - 'Performance of Dual fuel Engine Powered with Producer gas derived from Sugarcane Bagasse', 12<sup>th</sup> International Conference on Sustainable Waste Management & Circular Economy and IPLA Global Forum 2022, Sri Venkateshwara University, Tirupathi, Andhra Pradesh, November 30-December 3, 2022.
- **B. P. Harichandra** 'Divine Indian Astronomy', ICARES-2022, RIT, 24<sup>th</sup> and 25<sup>th</sup> November, 2022.

#### Guest Lecture delivered by the department faculty

- B. P. Harichandra 'Human Potentials and Health' at the Government Tool room and Training Centre, Bangalore on 17<sup>th</sup> November 2022.
- **B. P. Harichandra** 'Traditional Indian Education System the prospects for future', Global Yoga Summit, Bangalore on 17-18<sup>th</sup> December 2022.
- Mahantesh S Matur 'Novel Method of Design and Analysis for Commercial Transmission Shafts used inthe Industries', 3<sup>rd</sup> December 2022, CIT Gubbi, Tumkur district.

"The beautiful thing about learning is that no one can take it away from you."

- B.B. King

# DEPARTMENT OF CIVIL ENGINEERING

# Paper Presentation in National/International Conferences

- Vivek R Das, Shahazad Azma, Sagar CP –
   'Dynamics of weaving in mixed traffic conditions', 14<sup>th</sup> International conference on Traffic and Granular Flow at Indian Institute of Delhi October 15<sup>th</sup> to 17<sup>th</sup> 2022.
- Manoj M, Vivek R Das, Nitin Kumar 'A fuzzy logic approach on Pedestrian Crossing Behaviour at Unsignalized Intersection', 14th International Conference on Transportation Planning and Implementation Methodologies for developing Countries at IIT Mumbai, 19th to 21st December 2022
- Vijayalakshmi, Nitin Kumar and Vivek R Das 'Study on driver behaviour at unsignalized Intersection using fuzzy logic', 14<sup>th</sup> International Conference on Transportation Planning and Implementation Methodologies for developing Countries at IIT Mumbai, 19<sup>th</sup> to 21<sup>st</sup> December 2022.
- Manoj M, Vivek R Das, Nitin Kumar 'Study on Pedestrian Behaviour at different types of unsignalized intersection', International Conference on Sustainable Construction Technologies and advancements in Civil Engineering, Shri Vishnu College of Engineering, Bhimavaram, Andhra Pradesh, 15th to 17th December 2022.
- Vijayalakshmi, Vivek R Das, Nitin Kumar 'Study on driver Behaviour using critical gaps at different unsignalized intersection', International Conference on Sustainable Construction Technologies and advancements in Civil Engineering, Shri Vishnu College of Engineering, Bhimavaram, Andhra Pradesh, 15th to 17th December 2022.

#### **Presentation in National/International Conferences**

 Manoj M, Vivek R Das, Nitin Kumar – 'Study on Pedestrian Behavior at different types of unsignalized intersection', International Conference on Sustainable Construction Technologies and advancements in Civil Engineering, Shri Vishnu College of Engineering, Bhimavaram, Andhra Pradesh, 15<sup>th</sup> to 17<sup>th</sup> December 2022. Received Best Paper Award.



# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



- Industrial visit: One-day Industrial Visit was arranged to 'U R Rao Satellite Centre (URSC)' on Wednesday 28<sup>th</sup> November 2022 for 5<sup>th</sup> - semester students of Ramaiah Institute of Technology.
- One day workshop on "EMF awareness", 28<sup>th</sup>
  December 2022 jointly with Dept. of ETE, RIT, Fept
  of Telecom (DOT), Karnataka, Govt.of India. It deals
  with the health effects of EMF exposure from mobile
  towers proving large-scale socio-economic benefits
  as also in empowering individual citizens to a large
  extent.
- One day intercollege workshop on "Fire Fighting Robot Workshop" 24th December 2022, jointly organised by IEEE RITB.

#### Publications in (National / International) Journals

- Sara Mohan George, S. Sethu Selvi and J. R. Raol 'Aircraft Parameter Estimation using Gaussian Sum Information Filter with Lyapunov Stability Analysis', International Journal for Vehicle Structures & Systems, Vol. 14 (4), 2022.
- Sara Mohan George, S. Sethu Selvi, J. R. Raol 'Aircraft Parameter Estimation using Feedforward Neural Networks with Lyapunov Stability Analysis', Defence Science Journal, Vol. 72(5), 2022, Pg. 655-664.
- Annapurna K. Y, Deepali Koppad 'Lightweight novel Dynamic Obfuscation-Based mechanism to enhance the hardware security in IoT Devices', Advanced Engineering Science, ISSN: 2096-3246,

- Volume 54(02), Pg. 2239 2257, AES-07-10-2022-335, October, 2022.
- Nagaraj Chinnamadha, Roshan Zameer Ahmed, Kumara Kalegowda – 'Development of health monitoring system using smart intelligent device', Indonesian Journal of Electrical Engineering and Computer Science, Vol.28(3), December 2022, pp.1381-1387.
- Liu Li, Rama Subbareddy, C. G. Raghavendra 'Al Intelligence Chatbot to Improve Students Learning in the Higher Education Platform', Journal of Interconnection Networks, Vol. 22(2), 2022, pp.1-17.

### Paper presentation in National / International Conferences

- Sanket Joshi, K Indira, M. Nagabushanam 'Image Compression and Decompression with Configurable Architecture on FPGA platform', IEEE 2<sup>nd</sup> Mysore Sub Section International Conference (MysuruCon) 2022.
- G. S. Smith, R. Bhatt, L. Shrinivasan, Y. Bagri and S. V. Shrinivas 'Digital Dashboard for Electric Vehicles', 2022 IEEE 4<sup>th</sup> International Conference on Cybernetics, Cognition and Machine Learning Applications (ICCCMLA), 2022 Oct 8<sup>th</sup> 9<sup>th</sup>, pp. 413-418, doi: 10.1109/ICCCMLA56841.2022.9989314.
- L. Shrinivasan and D. Samje 'UPS Power Measurement and Prediction Towards Video Surveillance Systems', 2022 IEEE 4<sup>th</sup> International Conference on Cybernetics, Cognition and Machine Learning Applications (ICCCMLA), 2022, Oct 8<sup>th</sup> 9<sup>th</sup>, pp. 381-385, doi: 10.1109/ICCCMLA56841.2022.9989002.
- Lakshmi S, Akshatha Sarisetti, Alaparthi Keerthi Sai, Sanjay L, Indumati Vastrad 'Car Accident Prevention and Rescue System', XIX Control Instrumentation System Conference CISCON-2022, October 28<sup>th</sup> & 29<sup>th</sup>, 2022 at Manipal Institute of Technology, MAHE, Manipal.
- Bhoomika R, Lakshmi S 'Micromachined Varactors with High Tuning Ratio using Electrostatic and Piezoelectric Actuation Mechanisms', International conference on Smart Generation Computing,



Communication and Networking (SMARTGENCON 2022), Ghousia College of Engineering, Dec 23<sup>rd</sup> and 24<sup>th</sup> 2022.

Suma K V, C. S. Sonali, Chinmayi B S, John Kiran B, Muhammad Easa – 'CNN Models Comparison for Lung Cancer Classification using CT and PET scans', 2022 IEEE 2<sup>nd</sup> Mysore Sub Section International Conference (MysuruCon), 16<sup>th</sup> - 17<sup>th</sup> October 2022, SJCE, Mysuru.

#### **Guest Lecture/s - Invited**

 Mr. Prabhakar Pujeri, Principal Software Engineer at Dell echnology R & D Centre, Bangalore – 'Wealth of Learning from Open Source', 13<sup>th</sup> December 2022.

#### **Guest Lecture delivered:**

 Dr. Sethu Selvi – 'Machine Learning: Basics, Projects and Opportunities, October 2022, IEEE Day, IEEE, Siddaganga Institute of Technology Student Branch, Tumkur, Bangalore

#### **Funded Project:**

 Dr. Deepali Koppad, Principal Investigator, Dr. Niranjan Prabhu, Co-PI, Title - Thermal Profiling and Performance Evaluation of Micro Climate Garment through Embedded Electronic Module. Funding agency LSRB, DRDO, Budget: Rs - 51.374 lakhs.

### Achievements, Awards/Prizes by Faculty and students

- Dr. Sethu Selvi, Coordinator, IEEE SPS K12 Science for Signal Processing, Training the School Teachers and Students, IEEE Signal Processing Society Bangalore Chapter, November 2022.
- Dr. Sethu Selvi Best Paper Award, 4th International Conference on 'Emerging Research in Electronics, Computer Science and Technology', (ICERECT 2022), December 2022.
- Dr. Rajendra Prasad is selected as the Academic Editor at Hindawi (Q2) Journal Wireless Communications and Mobile Computing, 2022.
- Dr. Rajendra Prasad is selected as the Editorial board

member of Advances in Wireless Communications and Networks. 2022-2025

# DEPARTMENT OF CHEMICAL ENGINEERING



 One-daySeminar on 'Climate Change and Role of Engineers' was organised on 13<sup>th</sup> December 2022 with BipinVora, Adjunct Professor, IIIT Chicago as the Chief Guest, Dr. A B Halgeri, Director, Poornaprajna Institute of Scientific Research, Dr. Naresh, Scientist SABIC & Dr. VijayaLakshmi, Scientist, Reliance participated as resource persons,

#### Publications in (National/International) Journals

- Archna Narula, Ahalya Naidu 'Women Researchers: Impact of Pandamic Covid -19', in book titled 'Frontline workers and women as warriors in the Covid-19 Pandemic', Taylor and Francis.
- Rajeswari M. Kulkarni, K. Vidya Shetty, G. Srinikethan 'Biosorption study on Ni (II) and Cd (II) removal in a packed bed column using brewery sludge pellets Biomass Conversion and Biorefnery', Vol. 4, Dec. 2022, Pg. 100328, https://doi.org/10.1007/s13399-022-03623-6, Springer.
- VinuthaMoses, Archna Narula, N.Chetan, Ranjeet Kumar Mishra - 'Hydroxymethyl Furfural (HMF) a High Strength Cellulose Resin for Wood Composite Laminates', Heliyon, Dec'22, https://doi. org/10.1016/j.heliyon.2022.e12081.
- Ranjeet Kumar Mishra, Kaustubha Mohanty -'Pyrolysis of low-value waste sawdust over lowcost catalysts: physicochemical characterization



of pyrolytic oil and value-added biochar, Biofuel Research Journal, Vol. 9(4), Pg.No.: 1736-1749, Dec. 2022, 10.18331/BRJ2022.9.4.4, Green Wave Publishing of Canada.

- Archna Narula and Sravanthi Veluturla –
   'Optimization of ProcessVariables using central composite design for heterotrophic biological denitrification', in book titled 'Environmental Studies and Climate Change', Pg. 179-187, December 2022, 10.1201/9781003220824, Taylor and Francis group.
- Sravanthi Veluturla, Shriya Anand Rambhia & Sindhu Pranavi – 'Process intensification studies in synthesis of biodiesel with a helical coil continuous microreactor', Biofuels, November 2022, https://doi. org/10.1080/17597269.2022.2145754, Taylor and Francis.

#### **Guest Lecture/s - Invited**

• **Mr. Janardhan,** Tyche Investments - "Intraday stocks Trading" on 4<sup>th</sup> November 2022.

#### Publication in (National/International) Conferences

- Ms. Syeda Minnat Chistie and Sneha Ullhas Naik

   'Catalytic pyrolysis of biomass over zeolites for bio-oil and chemical production: A review on their structure, porosity and acidity co-relation', in journal titled Bioresource Technology, ELSEVIER.
- Ms. Dhanyashree J K, Esha Varma, and Srivibha S P 'Microwave assisted glycerol esterification using CeO<sub>2</sub>, ZeO<sub>2</sub> metal oxide catalyst' in an International Conference on Advances in Smart materials, Chemical and Biochemical Engineering (CHEMSMART-22) organized by the Department of Chemical Engineering, NIT Rourkela, during 16<sup>th</sup> to 18<sup>th</sup> December 2022.

# DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

 The International Conference on Recent Advances in Engineering Sciences ICRAES - 2022 was organized on 13<sup>th</sup> & 14<sup>th</sup> October 2022 by the department of Mechanical engineering, Civil engineering, Industrial Engineering and Management, Chemical Engineering & Biotechnology.



#### Publications in (National / International) Journals

 M.R. Shivakumar, S. Hamritha, M. Shilpa, Praveen Sobarad, S. Madhosh Gowda – 'Optimization of Heat Treatment Parameters to Improve Hardness of High Carbon Steel Using Taguchi's Orthogonal Array Approach', Key Engineering Materials, Vol. 933, 2022, pp 129-136. ISSN: 1662-9795, doi:10.4028 / p-1n0414.

#### Guest Lecture delivered by the department faculty

 Dr. R. Shobha – 'Material Behaviour in Severe Plastic Deformation' One-week lecture series on 'Advanced Materials and Applications in Mechanical Engineering', Department of Mechanical Engineering, PES Institute of Technology & Management, Shivamogga, 23-12-2022.

# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

 The Department of CSE conducted GIRLGEEKS 2022 with the theme AI for Social Good on 10<sup>th</sup> November 2022. The keynote Speaker for the session was given by Hemanth Kumar A, Senior Data Scientist, Brillio Technologies Pvt. Ltd.





 The Department of CSE in collaboration with the IEEE Student Branch, RIT conducted a workshop on the basics of computer science for school students from 8<sup>th</sup> to 12<sup>th</sup> November 2022 at RIT.



 Industrial visit was arranged on December 30<sup>th</sup> 2022 at Newtech Aerospace Private Limited, Kiadb Aerospace Park, 69-L, Devanahalli, Bengaluru for pre-final and final year students.

#### Publications in (National / International) Journals

- Sushma B & Dr. Suresh K P et.al., published a paper of title – 'A New Methodology to Comprehend the Effect of El Niño and La Niña Oscillation in Early Warning of Anthrax Epidemic Among Livestock', MDPI Zoonotic Diseases, Volume 2 Issue 4, 2022. DOI: 10.3390/zoonoticdis2040022
- Dr Dayanand R B & Daneshwari A Noola, 'Leaf Segmentation Using The Connected Pixel Approach', Neuroquantology, November 2022, Volume 20, Issue 16, Page 2262-2275, Doi: 10.48047/Nq.2022.20.16. Ng 880225.
- Lalitha Chinmayee M Hurali, Dr. Annapurna
   P Patil 'Application Areas of Information-Centric Networking: State-of-the-Art and Challenges', IEEE Access (Volume: 10), 10.1109/ACCESS.2022.3223667, 21 November 2022

## Paper presentation in National / International Conferences

- Beena K, Sangeetha V, Deepa S R, Vaneeta M –
   'Contemporary Research Trends in Plant Leaf
   Disease Detection', 4<sup>th</sup> International Conference on
   Circuits, Control, Communication and Computing
   (I4c-2022), 21 23 December 2022.
- Pavan G V, Meera Devi, Sangeetha V 'Survey on Security Risks in 5G Private Industrial Networks', 2022 4<sup>th</sup> International Conference on Circuits,

- Control, Communication and Computing (I4c-2022), 21 23 December 2022.
- N Preetham, Dr. Annapurna P Patil 'Agent-based resource scheduling in a cloud environment using the intelligent technique' - 2022 IEEE 19<sup>th</sup> India Council International Conference 24-26 November 2022

#### Guest Lecture delivered by the department faculty

- Mallegowda M 'High Performance Computing', held on 15<sup>th</sup> October 2022 at BMSIT Bangalore, India (Virtual Mode).
- Pallavi N 'Entrepreneurship and Life skill', held on 26<sup>th</sup> December 2022 at St. Claret College, Bangalore.

#### Achievement/s, Awards/Prizes by Faculty/ Staff/ Students

- Dr. Annapurna P Patil was felicitated as a Women Achiever at ICWITE 2022 Conference held at IISC, Bangalore from 1<sup>st</sup> December to 3<sup>rd</sup> December 2022.
- Dr. Annapurna P Patil participated as Research Advisory Group member at RAG meeting of Institute of wood Science and Technology, Bangalore on 15<sup>th</sup> November 2022.

# DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING



- Industrial Visit has been organized for V semester students. The students visited Mysore Sandal Soap Factory on 28/10/2022.
- Technical workshop titled 'MatlabBootcamp: A head
   start in Engineering Projects' was conducted by the



- Dept. of EIE, RIT in association with Mathworks on 02/11/2022 and 03/11/2022.
- Department of EIE has actively participated in organizing the 4<sup>th</sup> International Conference on Circuits, Control, Communication and Computing (I4C-2022), Ramaiah Institute of Technology, 21<sup>st</sup> – 23<sup>rd</sup> December 2022. The Conference was conducted by Electrical Sciences department under the theme Smart and Sustainable Technology for Engineering & Healthcare.

### Faculty Publications in (National / International) Journals

 Nishi Shahnaj Haider, Ajoy K Behera - 'A Brief Overview of the Respiratory Sound Based Detection Of Chronic Obstructive Pulmonary Disease (COPD)' 4th International Conference on Circuits, Control, Communication and Computing (I4C-2022), 21st – 23rd December 2022.

#### **Faculty Achievement**

- Dr. M. J yothirmayi session chair for 4<sup>th</sup> International Conference on Circuits, Control, Communication and Computing (I4C-2022), Ramaiah Institute of Technology, 21<sup>st</sup> – 23<sup>rd</sup> December 2022.
- Dr. M K Pushpa, Dr. H S Niranjanamurthy, Dr M D Nandeesh, Dr. ElavaarKuzahli S, Dr. J V Alamelu

   Reviewers for 4<sup>th</sup> International Conference on Circuits, Control, Communication and Computing (I4C-2022), Ramaiah Institute of Technology, 21<sup>st</sup> 23<sup>rd</sup> December 2022.
- Dr. ElavaarKuzahli S, Dr. J V Alamelu Reviewer for International Conference on 'Smart technologies in computing, electrical and electronics', December 2022, conducted by Reva University.

#### **Funded Project Ongoing**

 Funded project titled 'Estimation of Post-partum blood loss using optical fiber sensor and its correlation to shock index', sanctioned for funding amount of Rs. 18.22 Lakhs by DBT, India.

### Student Publications in (National / International) Journals

 Shiv Narayan, Aswathy, Shivaprakash - 'Design and implementation of Polyphase-based FHSS modulator using GNU Radio and SDR', at 4<sup>th</sup>

- International Conference on Circuits, Control, Communication and Computing (I4C-2022), Ramaiah Institute of Technology,  $21^{st} 23^{rd}$  December 2022.
- Urja Giridharan, Vedya Janardhanan (Classification of fundus images using modified stacking ensemble' at 4<sup>th</sup> International Conference on Circuits, Control, Communication and Computing (I4C-2022), Ramaiah Institute of Technology, 21<sup>st</sup> 23<sup>rd</sup> December 2022.

# DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING



VolSE, ISE department's student organization conducted Ideathon - Advance the Society for the students in the third and fifth semesters on 10th December 2022. The theme was 'Advance the Society - Change Starts Here!'. For this theme, students were supposed to come up with creative ideas addressing societal issues and how to overcome them using their methods. The event had two rounds which were the presentation round and final round. In final round, judges declared "Tragic Bytes" as winners who proposed "Door to Donate" where they designed a plan to receive donations for the underprivileged just by a click on the mobile. "Terminal" was declared as the 1st runner-up for their idea of a "Virtual diary for mental health enhancement" followed by "Byte Hunters" for their idea of "Krishi Sahay". Apart from that, the winners received a cash prize of Rs. 5000. Rs. 3000 was awarded to the 1st runner-ups and Rs. 1000 to the 2<sup>nd</sup> runner-ups.

# Publications in (National / International) Journals (Faculty)

 Sumana Maradithaya, Vaishnavi S – 'Image Verification and Emotion Detection using Effective Modelling Techniques', International



Journal of Advanced Computer Science and Applications(IJACSA), Vol. 13(11), 2022, pp. 472 - 479

 Shastry K A, Sanjay H A – 'Customized decision tree-based approach for classification of soil on cloud environment', Computing, Vol 105 (3), 2022.

# Publications in (National / International) Conferences (Faculty)

- Asrarulhaq Maktedar, Prathima M N 'Third Eye: TTS and Deep Learning-based Assistive Technology for Blind',International Conference on Artificial Intelligence and Data Science (ICAIDS), October 8<sup>th</sup> – 9<sup>th</sup>, 2022.
- Sanjay H A, K. A. Shastry 'Interoperability in Block chain based Healthcare', IEEE 2<sup>nd</sup> Mysore Sub Section International Conference (MysuruCon), October 16<sup>th</sup> – 17<sup>th</sup>, 2022.
- Sheeba Rachel, M Sinthuja 'Smart Watch for Women Safety" IEEE Third International Conference on Power, Energy, Control and Transmission Systems, Chennai, 8th December 2022.
- Chandrashekhar, B N, Sanjay H A 'Accelerating Real-Time Face Detection Using Cascade Classifier on Hybrid [CPU-GPU] HPC Infrastructure', Emerging Research in Computing, Information, Communication and Applications. Lecture Notes in Electrical Engineering, Vol. 928, 2022. Springer, Singapore.

# Achievements /Awards /Prizes by Faculty/Staff// Student



 RAMAIAH's fashion team (INARA)participated in a competition held at IIM Bangalore, in December 2022 and secured an award for best concept & choreography along with third position. This achievement is noteworthy as the team competed against several Nift colleges, in spite being the only engineering college present we succeeded to enter the finals first against 200 colleges all over India.

# DEPARTMENT OF MEDICAL ELECTRONICS ENGINEERING

#### Publications in National / International Journals

- John J P, C K Narayanappa 'Analysis of back-to-back reliable and congestion control transport layer supporting protocol for WSN', published in journal of northeastern university Vol. 25(4), 2022, pg. 1050-1062, ISSN: 1005-3026 https://dbdxxb.cn/
- John J P, C K Narayanappa 'Evaluation and analysis of network lifetime for routing protocol of WSN" published in journal of northeastern university, Vol.25(4), 2022, pg.1063-1073, ISSN: 1005-3026 https://dbdxxb.cn/ https://dbdxxb.cn/

### Paper presentation in National /International Conference

The following papers are presented in 4<sup>th</sup> International Conference on Circuits, Control, Communication and Computing (I4C-2022), 21<sup>st</sup> – 23<sup>rd</sup> December 2022, held at RIT, Bangalore

- Anagha Gopinath, Akshitha H, Arshya Loomba, Ranveer Kumar, C K Narayanappa – 'Data Driven Machine Learning Model for Audiometric Threshold classification'.
- Prakruthi Manjunatha, Vibha Chaithanya Rangappa, Abhishek Varati, C K Narayanappa – 'Automatic Detection of Sleep Stages Using Deep Learning Algorithm'.

#### **Guest Lecture/s Invited**

 Mr. Satish Anand, Member, Career Labs – 'Successful career Planning, Higher Education and Profile Building', on 24.11.2022

#### Guest Lecture delivered by the department faculty

 Dr. Sriraam N – 'How to handle clinical/ biomedical data: Protocols and guidelines', organized by IEEE



EMB Bangalore Chapter and EMB RIT Student Chapter on 14.12.2022

#### Achievements / Awards / Prizes

Sriraam N, Raol Jitendra, B. M. Nagabhushana - A study conducted by Stanford University, USA and the European publisher Elsevier has enlisted three faculty of Ramaiah Institute of Technology among the top 2% of the World Scientists. Published: 10 October 2022|Version 4|DOI:10.17632/btchxktzyw.4

# DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

#### **Publications in International Journals**

- Mamtha V Shetty, Jayadevappa D, and Satish Tunga

   'Optimized Deformable Model-based Segmentation

   and Deep Learning for Lung Cancer Classification',

   The Journal of Medical Investigation, Vol. 69, 2022,
   Page no. 244-245.
- Vanitha K. M., ViswanathTalasila., Arvind Kumar
   G 'Rest and Postural Tremor Analysis Using
   Wearable Device and Machine Learning Techniques',
   NeuroQuantologyl, Vol. 20(6), |Page 3612-3619,
   2022.
- Anil Kumar C, LavanyaVaishnavi D A, Venu K N., Pradeep Kumar B.P – 'Classroom attendance using face and facial organs detection', Advanced Engineering Science journal, ISSN: 2096-3246, Vol. 54(2), November 2022.

#### **Publications in International Conference**

 A S Priyanka, S M Kusuma - 'Edge Computing for Smart Stove in Home Automation' Third International Conference on Smart Electronics and Communication (ICOSEC 2022) IEEE Xplore, 22<sup>nd</sup> November 2022, DOI: 10.1109/ICOSEC54921.2022.9952084, https://ieeexplore.ieee.org/document/9952084

#### Guest Lecture delivered by the department faculty:

Dr. Shobha K R – 'Python Basics and RPI programming', on 17<sup>th</sup> October 2022 at ATAL IDEA Labs, VTU Mudenahalli as part of the one week AICTE FDP program.

#### **Funded Project**

- Dr. B. K. Sujatha 'Centre of Learning for setting up Microwave and Antenna Lab' sponsored by VGST K-FIST Level 2 for 40 lakhs.
- Dr. Shobha K R, Dr. S G Shivaprasad Yadav –
   'Setting up of Internet of things (IoT) based Sensor
   Network Lab', sponsored by VGST K-FIST Level 2 for
   40 lakhs.
- Dr. Viswanatha Talasila 'Enabling functional mobility through advanced gait analysis', sponsored by BIRAC Rs. 21.4 lakhs.
- Dr. Shobha K R, Dr. Parimala P, Nisha S L –
   'Design, Development and Prototyping of High Accuracy NavIC Receiver for Rapid Topographic Survey' sponsored by DST – Device Development Programme Rs. 52.58 lakhs.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING (ARTIFICIAL INTELLIGENCE & MACHINE LEARNING) (CYBER SECURITY)

#### Publications in (National / International) Journals

- Mohana Kumar S 'A Comparative Study of Machine Learning Algorithms on Alz-heimer's Clinical Data Set and Prediction Using CNN with 2D MRI Data', Neuro Quan-tology, Vol.20 Issue.15, (2022), pp 6216-6229.
- Mohana Kumar S 'Health Care Monitoring and Predictive Analytics System Employing IOT', Neuro Quantology, Vol.20 Issue 14, (2022), pp 1304-1311

### Paper presentation in National / International Conferences

 Dr. Mohana Kumar S – 'Credit Card Fraud Detection Web Application using Streamlit and Machine Learning', IEEE International Conference on Data Science and Information System (ICDSIS), Hassan, October 2022.

#### **Patent**

 Dr. Mohana Kumar S: Indian innovation patent submission: 202241074493, 'Design of a communication protocol platform for Individual IOT'



#### **Guest Lecture Guest Lecture/s - Invited**

 Devesh K Hegde, Founder- Flycamp, Bangalore

 'Motivational Talk on My Story How to become a Successful Entrepreneur', 24-Nov-2022.

#### Guest Lecture delivered by the department faculty

 Dr. M N Thippeswamy – 'Problem Solving and Ideathon', Ramaiah Institute of Technology, Bangalore, 03-12-2022

### Achievement/s, Awards/Prizes by Faculty/ Staff/ Students

 Venkatesh R, Sudharshan Reddy, Kushal Ballari, Aniruddh Mantrala, 'First place in the Flagship Event HACKAPHSIA', BMSCE, Bangalore, International Tech. Symposium, 25<sup>th</sup> and 26<sup>th</sup> November. 2022.

#### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING (ARTIFICIAL INTELLIGENCE & MACHINE LEARNING)

 The department is one among the organizing departments for the International Conference on Circuits, Control, Communication and Computing, I4C-2022, during 21-23 December 2022.

#### Publications (National / International) Journals

- Jagadish S. Kallimani, et al 'A Novel Feature Selection with Hybrid Deep Learning Based Heart Disease Detection and Classification in the e-Healthcare Environment', Computational Intelligence and Neuroscience, vol. 2022, Article ID 1167494, 12 pages, 2022. https://doi. org/10.1155/2022/1167494.
- Chandrika C P, Jagadish S Kallimani 'Authorship Attribution on Kannada Text using Bi-Directional LSTM Technique', International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 13, No. 9, 2022.

# DEPARTMENT OF BIOTECHNOLOGY

 The Department of Biotechnology, Department of Mechanical Engineering, Department of Civil



Engineering, Department of Industrial Engg& Management and Department of Chemical Engg, RIT, jointly organized the  $4^{th}$  International Conference on 'Recent Advances in Engineering Sciences' on  $13^{th}$  -  $14^{th}$  October 2022.



- The prestigious Science Academies Lecture Workshop on 'Advances in Cell and Molecular Biology', in collaboration with Indian Academy of Sciences, Bengaluru, Indian National Science Academy, New Delhi & The National Academy of Sciences India, Prayagraj was organized by the Department from 12<sup>th</sup> – 13<sup>th</sup> December 2022.
- An industrial visit to Bangalore Bioinnovation Centre, Bengaluruwas organizedon 4<sup>th</sup> November 2022.

#### **Publications in International Journals**

- Chandraprabha M N& Monika P 'Biomolecule conjugated inorganic nanoparticles for biomedical applications: A review', Biotechnology and Genetic Engineering Reviews (2022): Pg. 1-42.
- Abhijith Shettar 'Experimental Oxidative Stress Breaks Down the Barrier Function of the Corneal Endothelium', Journal of Ocular Pharmacology and Therapeutics (2022).



#### **Funded Projects Ongoing:**

- **Dr. Divyashri G** 'Coffee Waste Utilization for the production of food oligosaccharides', RIT Seed Funding, RIT, Rs. 3.30 Lakhs.
- **Dr. Bindu S** 'Development of an antimicrobial lock therapy solution for control of candida albicans under flow conditions', KSCST, Rs. 4.50 Lakhs.
- Dr. Bindu S & Mrs. Vijayalakshmi V 'Development of a Biocompatible Poly (L-Latic Acid)- Chitosan hydrogel scaffold for neuronal regeneration', Ministry of Science & Technology, DST, Rs. 32.90 Lakhs.
- Dr. Bhavya S G 'An investigation of the role of S-acylation in cardiac hypertrophy – proteomics, site-specific mutation and molecular dynamics simulations approach', DST, SERB- TARE, Rs. 18.30 Lakhs.
- Dr. Chandra Prabha M N & Mrs. Monika P 'A biological strategy to enhance chronic wound healing in patients using Human Autologous Platelet – Rich Plasma'.RIT Seed Funding, RIT, Rs. 2.6 Lakhs.
- Dr. Chandra Prabha M N & Dr. Harikrishna R
   'Design of structurally modified nanoceriawith enhanced haloperoxidase activity to combat sulphate reducing bacteria (SERB) induced biocorrosion: A biomimetic approach to combat microbilogically influenced Corrision (MIC) of marine structures'. DST, CRG, Rs. 41.83 Lakhs.
- Dr. Chandra Prabha M N & Dr. Harikrishna R - 'Designing of Novel Biocompatible and Multifunctional Nano Ceramic Coatings for Medical Implants', VGST-KFIST L2, Rs. 30.0 Lakhs.
- Dr. Lokesh K N 'Stimuli Responsive Polymeric Particles Containing Iron (III) Chelating Bioactive Ligands for Mitigation of Intracellular Labile Iron Pool (LIP)', SERB, DST, TARE, Rs. 18.30 Lakhs.
- Dr. Bindu S & Dr. Dhamodhar P 'BiSEP (Biotechnology Skill Enhancement Programme)', Domain: Biopharmaceutical Technology, KBITS, Govt. of Karnataka, Rs. 162.5 Lakhs.

#### **Guest Lecture/s - Invited**

 Dr. Rustam Shekhar, Applications Engineer II, ComsolMultiphysicsPvt Ltd, Bengaluru, - 'COMSOL Multiphysics for Academic Research', organized

- under the IIChE-Student Chapter, Department of Biotechnology, RIT on 09.11.2022.
- Dr. Rhot Shukla, Research Scientist, Advanced Enzyme Technology Pvt. Ltd, Bengaluru -'Molecular Dynamics Simulationusing GROMACS', on 12.11.2022 organised under RIT Student Chapter of IEI.

#### Guest Lecture delivered by the department faculty

 Dr. Abhijith S R, Assistant Professor, Department of Biotechnology, RIT – 'Hands on training on Animal Cell Culture', on 12.09.2022 at Department of Biotechnology, Ramaiah College of Arts, Science and Commerce.

#### Achievement/s, Awards/Prizes by / Staff/Students

- Bharath P E, VII semester won 1st place in a 'Hockey' VTU Inter collegiate tournament held at Bangalore Central Division on 10<sup>th</sup> November 2022.
- Chandrashekhar C R, VII semester won 1st place in a Football' VTU Inter collegiate tournament held at Bangalore Central Division on 26<sup>th</sup> November 2022.

#### **DEPARTMENT OF MATHEMATICS**



Department of Mathematics, Physics, Chemistry and Humanities Jointly organized International Conference on Applied Research in Engineering Sciences (ICARES 2022) on 24 to 25 Nov 2022.



#### Publications in (National / International) Journals

- Shashi Prabha Gogate S et al 'A computational study of three-dimensional laminar boundary layer flow and forced convective heat transfer in a porous medium', Archive of Applied Mechanics 93.2 (2022): 551-569.
- Sowmya G. et al 'Numerical investigation of efficiency of fully wet porous convective-radiative moving radial fin in the presence of shape-dependent hybrid nanofluid', International Communications in Heat and Mass Transfer. 2022;138:106341.
- Sowmya G. et al 'Significance of thermal stress in a convective-radiative annular fin with magnetic field and heat generation: application of DTM and MRPSM', Propulsion and Power Research. Vol 11, Issue 4, 2022, 527-543
- Sowmya G. et al 'Inspection of thermal distribution through a porous fin of triangular profile with internal heat generation and electromagnetic field', Waves in Random and Complex Media. 2022:1-21. DOI:https:// doi.org/10.1080/17455030.2022.2131935
- Sowmya G. et al 'Significance of non-Fourier heat conduction in the thermal analysis of a wet semispherical fin with internal heat generation', Waves in Random and Complex Media. 2022:1-7. DOI:https:// doi.org/10.1080/17455030.2022.2134601
- Sowmya G. et al 'A novel analysis for heat transfer enhancement in a trapezoidal fin wetted by MoS2 + Fe3O4 + NiZnFe2O4-methanol based ternary hybrid nanofluid', Waves in Random and Complex Media. 2022:1-9. DOI: https://doi.org/10.1080/17455030.20 22.2134605
- Veena B N et al, 'Rayleigh-Bénard convection of water-aluminum and water-AA7075 nanoliquids in a vertically vibrated very-shallow cylinder. Meccanica. 11, 1-7, Nov 2022
- Dinesh P A, Uma M, A. Sreevallabha Reddy, R. Suresh Babu 'Effect of Couple Stress Fluid in an Irregular Couette Flow Channel: An Analytical Approach, Biointerface Research in Applied Chemistry, Volume 12, Issue 4, 4686 4704, 2022

- Dinesh P A 'Fluid Flow in Composite Regions Past a Solid Sphere', Biointerface Research in Applied Chemistry, Volume 12, Issue 4, 4755 – 4769, 2022
- Dinesh P A, Girinath Reddy M, M. S. Basavaraj, A S Arunan - 'Effects of Variable Fluid Properties on Double Diffusive Mixed Convection with Chemical Reaction Over an Accelerating Surface' Biointerface Research in Applied Chemistry, Volume 12, Issue 4, 5161 – 5173, 2022
- Dinesh P A 'Ohmic and Viscous Dissipation Effect on Free and Forced Convective Flow of Casson Fluid in a Channel', Biointerface Research in Applied Chemistry, Volume 12, Issue 1, 132 – 148, 2022
- Dinesh P A, Sandeep N, Girinath Reddy M –
   'Effect of temperature-dependent viscosity on hydromagnetic unallied flow', Proc Mech E Part E: J Process Mechanical Engineering, 1–8, I Mech E, 2022
- Dinesh P A, Sushma S, Neeraja G, Uma M, Nancy Samuel – 'Analysis of Wavering MHD and Chemical Reaction on Casson Fluid Flow over a Stretching Sheet' Mathematical Models and Computer Simulations, Vol. 14, No. 2, pp. 349–356, 2022
- Dinesh P A, Vasudeva Reddy Minnam Reddy, M. Girinath Reddy, N. Sandeep 'Enhanced heat transfer efficiency of PTSC using hydromagnetic cross nanofluid: A hydrogen energy application', International Journal of Hydrogen Energy, 2022 doi. org/10.1016/j.ijhydene.2022.04.106.

#### DEPARTMENT OF CHEMISTRY



 International Conference on Applied Research in Engineering Sciences (ICARES-2022) was organized

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by Department of Physics, Chemistry, Mathematics and Humanities on 24th & 25th, November 2022, as a part of the Centenary birth year celebrations of founder chairman Dr. M. S. Ramaiah and Diamond Jubilee year of MSRIT. The event was inaugurated by the Chief guest Padma Bhusan Prof. P. Balaram and guest of honour Dr. Guruaj Karajagi who graced the function and motivated the participants with their inspiring words.



Department of Chemistry conducted 'Skill Lab' for First Year BE Students (2021-22 batch) on the topic 'Materials for Environmental and Energy Applications'. These students presented five of their research articles in an 'International Conference on Applied Research in Engineering Sciences (ICARES-2022)' organized by Department of Physics, Chemistry, Mathematics and Humanities on 24th & 25th, November 2022,



In association with Department of Chemistry, RIT, Luminescence Society of India: Karnataka Chapter (LSIKC) conducted an outreach program for one year on the research topic 'Research training on Advanced Materials' for B.Sc./MSc. students of Government First Grade College, Yelahanka. These

students presented their seven research papers in 'International Conference on Applied Research in Engineering Sciences (ICARES-2022)' was organized by Department of Physics, Chemistry, Mathematics and Humanities on 24<sup>th</sup> & 25<sup>th</sup>, November 2022.

#### Publications (National / International) Journals

- Mohan S, Sharath P, B M Nagabhushana, Chikkahanumantharayappa & C Shivakumara – 'Electrocoagulation for the efficient removal of Eriochrome Black T from wastewater using copper electrodes', Indian Journal of Chemistry, Vol. 61, October 2022, pp. 1054-1064 DOI: 10.56042/ijc. v61i10.59728.
- M Praveen, GS Karthikeya, **R Hari Krishna**, G M Mamatha, C Manjunatha, Ajit Khosla, B M Nagabhushana 'The role of magnetic nano CoFe<sub>2</sub>O<sub>4</sub> and conductive MWCNT/graphene in LDPE-based composites for electromagnetic interference shielding in X-band', International journal of Diamond and Related Materials, 2022, Pg.No.: 109501.
- Prakruti Acharya, Manjushree Kupendra, Aneesa Fasim, KS Anantharaju, Nagaraju Kottam, V Krishna Murthy – 'Synthesis of nano hydroxyapatite from Hypopthalmichthys molitrix (silver carp) bone waste by two different methods: a comparative biophysical and in vitro evaluation on ...', Journal of Biotechnology Letters, Vol. 44(10), Pg. No. 1175-1188.
- K Gurushantha, Dalal Abdullah Aloraini, Aljawhara H Almuqrin, G Jagannath, AG Pramod, MI Sayyed, K Keshavamurthy – 'Third-order optical nonlinear features of Er<sup>3+</sup> and Pr<sup>3+</sup> activated multicomponent borate glasses in nanosecond pulse regime: A comparative study', Ceramics International journal, 2022/10/13.
- R Hari Krishna, MN Chandraprabha, Prakash Monika, Vishal Chaudhary, C Manjunatha – 'Biomolecule conjugated inorganic nanoparticles for biomedical applications: A review', Biotechnology and Genetic Engineering Reviews, 2022/11/26, Pg. 1-42.
- Khalil M A Qasem, Shabnam Khan, Sampath Chinnam, Hatem AM Saleh, I Mantasha, Mohd Zeeshan, Yahiya Kadaf Manea, M Shahid – 'Sustainable fabrication of Co-MOF@ CNT nano-



composite for efficient adsorption and removal of organic dyes and selective sensing of Cr (VI) in aqueous phase', International journal of Materials Chemistry and Physics, Vol. 291, November 2022, Pg. 126748.

- Mithun Rudrapal, Ismail Celik, Sampath Chinnam, Ulviye Acar Çevik, Trina Ekawati Tallei, Aatika Nizam, Francis Joy, Magda H Abdellattif, Sanjay G Walode

   'Analgesic and Anti-Inflammatory Potential of Indole Derivatives', Journal of Polycyclic Aromatic Compounds, 2022/11/9, Pg. 1-22.
- Shruti Rathore, Vanshika Jain, Sampath Chinnam

   'Role of big data and artificial intelligence for
   COVID-19 and cancer diagnosis and treatments',
   Journal of Artificial Intelligence and Computational
   Dynamics for Biomedical Research, Vol. 8, November 2022, Pg. 117.
- SP Smrithi, Nagaraju Kottam, Archna Narula, GM Madhu, Riyaz Mohammed, R Agilan – 'Carbon dots decorated cadmium sulphide heterojunctionnanospheres for the enhanced visible light driven photocatalytic dye degradation and hydrogen generation', International journal of Colloid and Interface Science, Vol. 627, December 2022, Pg. No. 956-968.
- Vinayak Adimule, Basappa C Yallur, Rangappa Keri, Chinna Bathula, Sheetal Batakurki – 'Microstructure, Photoluminescence and Electrical Properties of Sm<sub>x</sub>Gd<sub>(1-x)</sub>:SrO Hybrid Nanomaterials Synthesized via Facile Coprecipitation Method', Journal of Electronic Materials Letters, December 2022, Pg. 1-20.
- Vinayak Adimule, Vinay S Bhat, Rajeev Joshi, Sheetal Batakurki, Gurumurthy Hegde, Basappa C Yallur 'Enhanced electrical properties of CuO: CoO decorated with Sm<sub>2</sub>O<sub>3</sub> nanostructure for high performance supercapacitor', journal of Solid State Electrochemistry, December 2022, Pg. 1-19.
- Vinayak Adimule, Shashanka Rajendrachari, Rayappa Mahale, Sheetal Batakurki, Basappa C Yallur, Santosh Nandi, Gangadhar Bagihalli – 'Dielectric and Mechanical Properties of Silicone Rubber Composites Reinforced by Conductive Carbon Black

- and Neopentyl Glycol Diglycidyl Ether', Journal of Silicon, 2022/11/11, Pg. 1-18.
- Praveen Manjappa, Hari Krishna Rajan, Mamatha Gowdaru Mahesh, Karthikeya Gulur Sadananda, Manjunatha Channegowda, Girish Kumar Shivashankar, Nagabhushana B M 'Effective Attenuation of Electromagnetic Waves by Synergetic Effect of α-Fe<sub>2</sub>O<sub>3</sub> and MWCNT/Graphene in LDPE-Based Composites for EMI Applications', Journal of Materials, Vol. 15(24), 2022/12/16, Pg. No. 9006.
- K Keshavamurthy, K Gurushantha, M I Sayyed, Nouf Almousa, – 'Silver nanoparticles improved infrared photoluminescence of Nd3+ doped sodium borate glasses', Journal of Infrared Physics & Technology, Vol. 127, 2022/12/1, Pg. No.: 104451.

# Presentation (Oral/Poster) in National/International Conferences

The following research papers are presented in the 'International conference on Applied Research in Engineering Sciences [ICARES-2022]', organized by Department of Physics, Chemistry, Mathematics and Humanities at M.S. Ramaiah Institute of Technology, Bengaluru on 24th and 25th November, 2022.

- B.M. Nagabhushana, V. Channappa, Subramani K, Ravikiran S -.'Dielectric properties of Aluminium and silver doped Zinc Oxide Nano powder prepared by solution Combustion synthesis'
- M. Praveen, R. Harikrishna, B.M, Nagabhushan –
   'EMI Shielding effectiveness of Barium Hexaferrite
   coating on Carbon Fibres in Graphite blended LDPE
   composite'.
- Nagaraju Kottam, Smrithi S.P., Gurushantha K, G.M. Madhu, Sampath Chinnam – 'A short review on the photocatalytic applications of the luminescent Carbon dots'
- Smrithi S.P., Nagaraju Kottam, GM Madhu, Prashanth G, Gurushantha K, Dharmaprakash M S 'Development of Fe (III) sensor system using carbon nanodots derived from Plectranthus amboinoius'.
- Murali Krishna Panchangam, Maitreyi Darbha,
   Jahnavi Yellutla, Shreya Mechri 'Synthesis

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characterization and DNA binding studies of ZnO nanoparticles'

- Murali Krishna Panchangam, K Hussain Reddy

   'Synthesis, characterization and biological applications of mixed ligand Cu (II) complexes derived from [(E)-[[4-(propan-2-yl) phenyl]amino] thiourea / 3-methyl-1-[[4-(propan-2-yl)phenyl] mrthylidene) amino) thiourea and pyridine'.
- Vinuth K, Geetika Pant, Basappa C Yallur, Prasanna Kumar S.G, Vinayak M Adimule – 'Schiff base metal organic frameworks for biological applications: A Review'
- M.N. Manjunatha, Fazlur Rahaman, H.S. Niranjana Murthy, M N Nagaraju – 'Cu (II) complex with 2-(p-thiomethyl phenyl) benzimdazole: synthesis, characterization, and antibacterial activity'
- Maya Pai, Sheethal R batakurki, Basappa C Yallur, V.M Adimule, Raviraj Kusunur -: Bio-inspired synthesis of palladium nanoparticles decorated on magnetic chitosan as novel reusable hybrid nanocatalyst for Suzuki-Miyuara coupling of thiophene'
- Eliza Ahmed, Parasanna Kumar S G, Basappa C Yallur, VM Adimule, Nagesh B,..'Enhanced antioxidant activity of Vitisvinfiera extract encapsulated in nanochitosan'.
- Malathi Challa, Sangeetha, Benakesh N, Arun kunar A, Kiran Kumar H – 'Effect of an alkaline earth metal doping on band gap of ZnAl<sub>2</sub>O<sub>4</sub>'
- Sharanabasappa B Patil, and Anju Mathew 'Pharmacological significance of Elephantopus Scaber: Recent studies'
- Gouramma Patil, Sharanabasappa B Patil, Jyoti G Jain, Mohsin – 'Antimicribial, antioxidant and phytochemical screening of root extracts of L Carnea: from Kalaburagi Region'
- D.L. Monika, R. Hari Krishna, M N Chandraprabha,
   G. Jeevan, J. Shweta 'An overview of europium luminescence in metal oxide-based phosphors'
- Gurushantha K, Keshavamurthy K, Meena
   S, Shashidhar S -.'Facile synthesis of Spinel

- Zinc aluminate for effective photocatalytic dye degradation and electrochemical sensor studies'
- Sampath Chinnam, Malathi Challa, Ambika Madalkote – 'Green synthesis of novel sulfonamindes bearing thiomorpholine: an in vitro biological evaluation'
- Ayesha Desai, Mallika Vellat, Sampath Chinnam, K.N. Lokesh – Copper Oxide nanoparticles: Synthesis, characterization and in vitro anti- bacterial studies'
- Sharanabasappa B. Patil, Shivakumar S Jalde 'Anticancer Activities of Novel Pyrimidine Derivatives: A Review', International Conference on Advances in Chemical and Materials Sciences ACMS-2022, April 14-16, 2022, Organized by Indian Institute of Chemical Engineers, Kolkata In association with National Institute of Technology, Jalandhar, Heritage Institute of Technology, Kolkata Osmania University College of Technology, Hyderabad.
- Gouramma P, Sharanabasappa B. Patil 'Extraction and Phytochemical Screening of Root part of Ipomoea Carnea', International Conference on Advances in Chemical and Materials Sciences ACMS-2022, April 14-16, 2022, Organized by Indian Institute of Chemical Engineers, Kolkata in association with National Institute of Technology, Jalandhar, Heritage Institute of Technology, Kolkata Osmania University College of Technology, Hyderabad. Abstract ID: BSE-PP-036. (Oral).

#### **Funded Project**

- Dr. Nagaraju Kottam 'Design and Development of Carbon dot (C-dot) Based Nanosensors: Detection of Environmentally and Biologically Relevant Metal lons', received grant from VTU, 18.02.2022, Amount: Rs. 700000/-.
- Dr. M.N. Manjunatha received grant from VGST, Govt. of Karnataka - 'Anticancer activity and molecular modeling studies of transition metal complexes with novel substituted benzimidazole derivatives'. Grant: Rs. 20,00,000.00
- Dr. P. Murali Krishna received grant by 'Boeing Research & Technology-India Centre'. 'Environmental friendly coatings: To replace chrome



- based conversion coatings with chrome-free coatings'. Grant: Rs. \$30,865
- Dr. Chandra Prabha M N & Dr. Harikrishna R received grant from DST, CRG, 'Design of structurally modified nanoceria with enhanced haloperoxidase activity to combat sulphate reducing bacteria (SRB) induced biocorrosion: A biomimetic approach to combat microbilogically influenced Corrosion (MIC) of marine structures'. Rs. 41.83 Lakhs.
- Dr. Chandra Prabha M N & Dr. Harikrishna R received grant from VGST-KFIST L2, 'Designing of Novel Biocompatible and Multifunctional Nano Ceramic Coatings for Medical Implants', Rs. 30.0 Lakhs.

#### **Book Chapters**

Shruti Rathore, Vanshika Jain, Sampath Chinnam

 'Role of big data and artificial intelligence for
 COVID-19 and cancer diagnosis and treatments', De
 Grutyer publisher, 07 November, 2022, 8, 117. ISBN:
 9783110762044.

#### **Patents**

- Basappa Chanabasappa Yallur, Adimule, Vinayak, Batakurki, Sheetal, Deshpande, Bhargavi, Nandi, Santosh Shubash, Rajshekar, Nikhila Gowdru, Name of the Invention – 'A system for optimizing the nanochitosan encapsulated phytochemicals and their antioxidant activity using response surface methodology', Application No.: A61K 36/53, Patent Number: 20 2022 105 336, German Patent Published on 2022/10/10.
- Basappa Chanabasappa Yallur, Adimule Vinayak, Bagihalli, Gangadhar, Batakurki, Sheetal Ramappa, Mahale, Rayappa, Siddapur, Nandi, Santosh Shubash, Rajendrachari, Shashanka, Name of the Invention – 'A system for performing synthesis and characterization of silicon rubber polymer composites reinforced by carbon black and Neopentyl Glycol Diglycidyl Ether', Application No.: CO8J 3/20, Patent number: 20 2022 105 325, German patent published on 2022/10/6.
- Karthika Paul, Nagaraju Kottam, Sampath Chinnam, Gurushantha K, Smrithi S P, Ahmad Salawi, Name of the Invention – 'Design grant patent

- title: User-friendly photocatalytic reactor', Patent number: 367109-001. Indian patent published on 2022/10/6.
- Rajat Singh M, Vijaykumar Kadappa, Rajeshwari Devi DV, Divijendranatha Reddy Sirigiri, Sampath Chinnam, Name of the Invention – 'Heart disease prediction using a novel deep dense neural network'. Application number: 202241063523, Indian patent published on 2022/11/18.
- Salawi Ahmad, Natania Arina, Farid Arshad, Farzana Bijili Arifa, Rudrapal Mithun, Almuhayawi Mohammed Saad, Meeran Mushira Banu Ahmed, Chinnam Sampath, Selim Sami Sakakah, Shivakumar Sangeetha, Name of the Invention – 'Title of German grant patent: A method for the synthesis and biological evaluation of new sulfonamide analogues', Patent Number: 202022106287, German Patent published on 2022/12/1.

#### **Guest Lectures – Delivered by Department Faculty**

- Dr. B. M. Nagabhushana 'Nanomaterials and their applications' 5-day Faculty development programme on "Hybrid materials for multifunctional applications" to be scheduled from 11<sup>th</sup> - 15<sup>th</sup> October 2022 by the department of Physics, BMSIT & M, Bengaluru.
- Dr. R. Hari Krishna has served as a Resource Person in the International Conference on Scientific and Technological Advancements for Reliable and Sustainable - future (STARS), organized by the Deanery of Academics and Science Dept. at Bishop Heber College (Autonomous), Tiruchirapalli, during 16th - 18th November 2022.

#### **DEPARTMENT OF PHYSICS**





• International Conference on Applied Research in Engineering Sciences (ICARES-2022) was organised by Department of Physics, Chemistry, Mathematics and Humanities on 24<sup>th</sup> & 25<sup>th</sup>, November 2022, as a part of the Centenary birth year celebrations of founder chairman Dr. M. S. Ramaiah and Diamond Jubilee year of MSRIT. The event was inaugurated by the Chief guest Padma Bhusan Prof. P. Balaram and guest of honour Dr. Guruaj Karajagi who graced the function and motivated the participants with their inspiring words.

#### Publications in (National/International) Journals

B. N. Samartharama, N. Nagaiah, M. R.Ambika, T. Demappa, Ismayil, VipinCyriac 'Studies on structural and electrical properties of NaI doped PEO/CMC blend solid polymer electrolyte', Journal of Polymer Research, 29, (2022) doi.org/10.1007/s10965-022-03299-6.

#### **Funded Projects**

- Dr. Ambika M R 'Flexible and Graded polymer composite radiation shields for medical applications' RIT SEED GRANT(Ongoing)
   Grant: Rs. 3.90 lakhs.
- Dr. Sandhya K L 'Liquid crystal as matrices for nanomaterial assembly-manipulation', Science and Engineering Research Board (SERB) (Ongoing)
   Grant: Rs. 29.52 lakhs
- Dr. Sandhya K L 'Experimental investigations on developing LC nanocomposites for energy storage applications', VGST(Ongoing)
   Grant: Rs. 15 lakhs.

# Achievement/s, Awards/Prizes by Faculty/ Staff/ Students:

 Dr. Kalpana Sharma, participated and got first place in workshop Assessment test in the DST-STUTI training programme organized by Centre for Application of Radioisotopes and Radiation Technology (CARRT), Mangalore University on 'Applications of Radiation and Radioisotopes in Physical, Materials, Chemical and Biological Science Research', held during October 10<sup>th</sup> - 16<sup>th</sup> 2022.

#### **DEPARTMENT OF HUMANITIES**

#### Publications in (National / International) Journals

Dr. Udayakumar H M – 'Digital workplace: A conceptual model for better performance in the IT industry', Human Systems Management- an interdisciplinary, international, refereed journal, ISSN: 01672533, IOS Press BV Publication, pp. 1-11, December 2022, DOI: 10.3233/HSM-211593.

# Paper presentation in International /National Conferences

- The following research articles are presented in the International conference on Applied Research in Engineering Sciences [ICARES-2022], organized by Department of Physics, Chemistry, Mathematics and Humanities at M.S. Ramaiah Institute of Technology, Bengaluru on 24<sup>th</sup> and 25<sup>th</sup> November 2022.
- Dr. Udayakumar H M, Diwakar P, Dr. Premila
   Swamy D 'Emotional Intelligence levels in government and private secondary school teachers of Bangalore urban and rural: a comparative study'.
- Diwakar Prahaladaiah, Dr. Udayakumar H M 'Impact of corporate communication on employee performance'.
- Diwakar Prahaladaiah 'Technology integration in teaching and learning Englishphonetics'.

# MASTER OF COMPUTER APPLICATIONS





The department of MCA organised a workshop on 9<sup>th</sup> and 10<sup>th</sup> December 2022. The Speaker of the event was Mr Jatinder Verma an Enterprise Agile Coach, who helps organizations to attain Business Agility by training and coaching teams, scrum masters, and leaders.

#### Publications (National / International) Journals

- Nithya BN, D Evangelin Geetha, Manish Kumar
   'Optimization-assisted personalized event recommendation for event-based social networks', Advances in Engineering Software, Volume 176, 103368, ISSN 0965-9978, https://doi.org/10.1016/j. advengsoft.2022.103368.
   (https://www.sciencedirect.com/science/article/pii/
- Santhosh K. Aiitha S. Sushma Pradeep, Kuralyanapalya Putta Honnappa Suresh, Sharanagouda S Patil, Shiva Prasad Kollur, and Chandan Shivmallu - 'Artificial intelligence and Machine Learning based Techniques in Analyzing the COVID-19 Gene Expression Data: A Review', International Journal on Health and Allied Sciences 2022: 11:83-89.

#### Conferences (Paper presented Oral / Poster)

S0965997822002691)

 S. Ajitha, Shonit Aric T, Hrithik S Hottagi – 'Augmented Reality Applications for Special Kids, International Conference on Circuits, Communication, Controls and Computing on 21<sup>st</sup> to 23<sup>rd</sup> December 2022, at Ramaiah Institute of Technology.

# DEPARTMENT OF MANAGEMENT STUDIES

#### Publications in (National /International) Journals

- Dr. A. Mahalakshmi 'Integrated artificial intelligence effect on crisis management and lean production: structural equation modelling framework', International Journal Syst Assur Eng. Mang, Vol.1(8), https://doi.org/10.1007/s13198-022-01679-1.
- Dr. Y.M. Satish 'Emerging role of Nanotechnology in Engineering education', Journal of Engineering

Education Transformations, Vol. 36(2), pp.2349-2473, 2022.

### Paper presentation in International /National Conferences:

- Dr. P.V. Raveendra & Dr. Y.M. Satish 'A feasibility study for implementation of water recycle equipment at community level for reuse of wastewater'.
- Dr. Rizwana. M 'A study to measure the level of Demand of Solid Biomass fuel with special reference to Briquettes in Bangalore'.
- Dr. Deepak. R 'Business value and business fit of Engineering projects by private organization: An exploratory study', at ICREAS-2022.
- **Dr. G. Vijayakumar** 'A feasibility study of smart card ticketing services in Public Transport'.
- Dr. G. Vijayakumar & Dr. Arunkumar D.C 'A feasibility study for implementation of water recycle equipment at community level for reuse of wastewater'.
- Dr. Deepak. R, Dr. Jyothi. E. Singh 'A study on prospect theory during pandemic period in Indian Capital Market", in the 4th international conference on 'Recent Advances in Engineering Sciences'.
- Dr. Deepak. R 'A Conceptual Review of Religious Freedom for Employed Women's Contributions to Family Investment Decision-Making in India', at the International Conference Freedom of Expression, Hate Speech, and Religious Freedom: A Human Rights Perspective, at 777 United Nations Plaza, New York, NY on December 8<sup>th</sup> - 9<sup>th</sup>, 2022.
- **Dr. Deepak. R** 'Investigate whether machine learning models can be used in prediction of future IPOs performance based on CM ratings', at the 4<sup>th</sup> Rajagiri conference on Economics and Finance (RCEF 22) jointly organized by Rajagiri Business School and Rajagiri College of Social Sciences (Autonomous), Kochi in association with University of Economics and Human sciences in Warsaw, Poland on 28<sup>th</sup> and 29<sup>th</sup> November, 2022.
- Dr. Deepak. R 'A Relative Analysis of forecasting accuracy on broader and sectoral indices using

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classical econometric models, Machine Learning models and a Single Layered Neural Network Model in Indian stock market', at the 4<sup>th</sup> Rajagiri conference on Economics and Finance (RCEF 22) jointly organized by Rajagiri Business School and Rajagiri College of Social Sciences (Autonomous), Kochi in association with University of Economics and Human sciences in Warsaw, Poland on 28<sup>th</sup> and 29<sup>th</sup> November 2022.

- Dr. Deepak. R 'Pedagogical and Learning Interventions in to Creating Startup Ecosystem in Higher Educational Institutes: Revisiting the Factors and Its Applicability', in the 12<sup>th</sup> Asian Society for Innovation and Policy (ASIP) 2022, organized by IISC in collaboration with Ramaiah University of Applied Sciences (MSRUAS), DISTEP and ASIP from 24<sup>th</sup> to 26<sup>th</sup> November 2022.
- Dr. Deepak. R 'Evaluating start-ups IPO performance: Identifying the disclosure mandates for 2022 onwards', in the 12th Asian Society for Innovation and Policy (ASIP) 2022, organized by IISC in collaboration with Ramaiah University of Applied Sciences (MSRUAS), DISTEP and ASIP from 24<sup>th</sup> to 26<sup>th</sup> November 2022. [Awarded second best paper.]
- Dr. Deepak. R 'Ultratech Cement: Juggad way to sustain business momentum Amidst pandemic and Russo-Ukrainian War', in the Two-days International conference on 'Transforming Business practices through Disruptive Technologies' organized by Department of Management Studies, Nitte Meenakshi Institute of Technology (NITTE), Bengaluru on 25<sup>th</sup> and 26<sup>th</sup> November 2022. [Awarded best case study]
- Dr. Deepak. R-'Effectiveness of Online classes during covid-19: Opinion approach based on polarity and sentiment analysis using Twitter student generated content', in the Two-days International conference on 'Transforming Business practices through Disruptive Technologies', organized by Department of Management Studies, Nitte Meenakshi Institute of Technology (NITTE), Bengaluru on 25th and 26th November, 2022. [Awarded second best research paper]

- The following research articles are presented in the International conference on Applied Research in Engineering Sciences [ICARES-2022], organized by Department of Physics, Chemistry, Mathematics and Humanities at M.S. Ramaiah Institute of Technology, Bengaluru on 24<sup>th</sup> and 25<sup>th</sup> November, 2022:
- Dr. A. Mahalakshmi 'English proficiency enabling financial literacy-A study with reference to students of Post Graduate Management Programmes in Bangalore District'
- Dr. Deepak. R, Dr. Vaijanath Babshetti & Dr. Jyothi.
   E. Singh 'Cluster Analysis and Discount Policy: a strategic relationship in gaining visible ground'
- Dr. Deepak. R 'Impact of fire mishaps on customer perception of green vehicles: a pre and post outcome analysis'.
- 'Impact of mother tongue effect on spoken English: an empirical study with reference to management graduates'.
- Dr. A. Mahalakshmi 'Digital and Financial Literacy amongst Micro-Entreprenuers during Post Covid in the District of Bangalore Rural', at M S Ramaiah University of Applied Sciences from 24<sup>th</sup> to 26<sup>th</sup> November 2022.
- Dr. T. Mohanasundaram 'Machine Learning and its Application using Python', at EDUXLABS from 10<sup>th</sup> to 26<sup>th</sup> Oct 2022.

#### **Guest Lectures Invited**

 Mr. Rohit Saraswathi, Freelance Story Teller – 'If you can dream it you can do it', on 14<sup>th</sup> December, 2022.

#### Faculty achievements

- Dr. Deepak. R Won Best Research Paper award and Best Case Study award with cash prize at NMIT case conference held on 25<sup>th</sup> & 26<sup>th</sup> November 2022.
- Dr. Deepak. R Won Second best research paper award with cash prize of Rs. 20,000 at 12 Asian Society for Innovation and Policy organized by IISc from 24<sup>th</sup> to 26<sup>th</sup> Nov 2022.



#### **PLACEMENT & TRAINING**

The Main Highlights - 2023 batch

Companies visited: 271

Total Offers: 946

· Highest Stipend:

Atlassian: 1,30,000/- Per month

#### (Selected Students)

- 1) Anmol Pandita (1MS19CS021)
- 2) Sahil (1MS19CS103)
- 3) Sai Akash Pothepalli (1MS19CS104)
- 4) Ansh pasari (1MS19EC018)

#### · Highest CTC:

Fivetran 50LPA

#### (Selected Students)

- 1) Adrika Gupta (1MS19CS007)
- 2) Inaguri Muni Sai Haneesh (1MS19IS047)
- 3) Shubham Prasad (1MS19CS118)

#### International Placement:

Sobha Constructions LLC Dubai 5000 AED / per month

#### (Selected Students)

- 1) Swapna (1MS19IM053)
- 2) Mohammad Jawed A A (1MS19ME093)
- 3) Nimit Agrawal (1MS19CV070)

#### **NSS**









The National Service Scheme of Ramaiah Institute of Technology organized National Service Scheme Day on 16<sup>th</sup> December 2022. Shri M R Seetharam, Shri Sri. B S Ramprasad, Shri B G Ramachandra, Dr. N V R Naidu, grace the occasion. A brief description of NSS-RIT was given. Dr.Putta Bore Gowda, NSS Officer shared valuable insights and made each one of the NSS volunteer feel the essence of being a proud part of NSS. Twelve NSS final year students were honored by Shri M R Seetharam for their constant contribution and endless efforts and encouraged all the volunteers with his words of wisdom. Dr. Putta Bore Gowda was felicitated by our dignitaries for his contribution in NSS for past 24 years. Dr. N V R Naidu

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put forth words of encouragement and shared his thoughts followed by Sri B S Ramprasad who gave words of enlightenment.









The **24**<sup>th</sup> **Annual Blood Donation Camp** organised by NSS, RIT on 1<sup>st</sup> December 2022. The event was coordinated by the NSS officers and the student coordinators. Each team was allotted a blood bank

and they had to guide the volunteers in their work and assist the blood bank personnel. There were 11 blood banks joined hands in the blood collection and successfully collected 851 units of blood. Through the support of students, staff and the general public this was able to organize and run this event efficiently.

#### **DEPARTMENT OF SPORTS**



Mr. I Ganashyama Prabhu of VII Semester EIE took part in 36<sup>th</sup> National Games Competitions held at Ahmedabad, Gujarat from 26<sup>th</sup> Sept. to 3<sup>rd</sup> Oct. 2022 and participated in Roller Skating Event and Won Bronze Medal 1000 Mtrs. Relay Event



TABLE TENNIS [MEN]: WINNERS - VTU Bangalore Central Division Badminton Tournament held at HKBKCE, Bangalore on 3<sup>rd</sup> Nov.2022.



 RUNNERS - VTU State Level Badminton Tournament held at VVCE, Mysore on 5<sup>th</sup> & 6<sup>th</sup> Nov. 2022.



- BADMINTON [MEN]: WINNERS VTU Bangalore Central Division Badminton Tournament held at BMSCE, Bangalore on 6<sup>th</sup> Nov. 2022.
- WINNERS VTU State Level Badminton Tournament held at BMSCE, Bangalore on 8<sup>th</sup> & 9<sup>th</sup> Nov.2022



- BADMINTON [WOMEN]: RUNNERS VTU
  Bangalore Central Division Badminton Tournament
  held at BMSCE, Bangalore on 6<sup>th</sup> Nov. 2022.
- **RUNNERS** VTU State Level Badminton Tournament held at BMSCE, Bangalore on 8<sup>th</sup> & 9<sup>th</sup> Nov. 2022



 HOCKEY [MEN]: WINNERS - VTU Bangalore Central Division Badminton Tournament held at CMRIT, Bangalore on 10<sup>th</sup> & 11<sup>th</sup> Nov. 2022.



 FOOTBALL [MEN]: WINNERS - VTU Bangalore Central Division Football Tournament held at MSRIT, Bangalore on 25<sup>th</sup> & 26<sup>th</sup> Nov.2022. RUNNERS - VTU State Level Football Tournament held at GNDEC, Bidar on 3<sup>rd</sup> to 5<sup>th</sup> Dec. 2022





- BASKETBALL [MEN]: WINNERS VTU Bangalore Central Division BASKETBALL Tournament held at NHCE, Bangalore on 29<sup>th</sup> & 30<sup>th</sup> Nov. 2022.
- WINNERS VTU STATE LEVEL BASKETBALL Tournament held at NMIT, Bangalore on 2<sup>nd</sup> & 3<sup>rd</sup> Dec. 2022
- WINNERS BMSCE STATE LEVEL BASKETBALL Tournament held on 28th & 29th Dec. 2022



Organized VTU Bangalore Central Division Football (Men) Tournament on 25<sup>th</sup> & 26<sup>th</sup> Nov. 2022 in Ramaiah Ground, around 16 teams of Bangalore Central Division have participated in the Tournament. Ramaiah Institute of Technology, secured Winners Position and New Horizon College of Engineering secured Runners Up Position and both the teams have qualified for State Level Tournament.

#### **DECA**



- Kannada Rajyotsava has always been the most celebrated event during an odd semester. Kannada Rajyotsava 2022 was no less, as it was organized, publicized and executed to perfection. This edition of Kannada Rajyotsava was held on 15th to 19th of November 2022. The events conducted during these 5 days were well received and appreciated by the college faculty and students. The event was flagged off by a performance by the music team and the following main stage events (19-11-2022)
- Dr. Aneesh Vidhyashankar, he's also known as the "walking violinist", a great stage performer and has worked in movies like Pushpaka vimana and Kavaludaari etc.
- Dr. Shamitha Malnad, she's a popular playback singer of the sandalwood industry who is popularly known for her melodious voices in the songs of the movies Kempegowda, Sarathi etc
- Sri. Amoghavarsha. he's the director of the most anticipated movie "Gandhadhagudi" starring Power Star Puneeth Rajkumar.

#### **LIBRARY**

 NATIONAL LIBRARY WEEK - 2022: Ramaiah Institute of Technology in coordination with GEF (Engg. & GS) Institution Libraries organized a workshop on "Publishing Research and scholarly communications: Helpful tips for Faculty, Students



and Librarians" on eve of NATIONAL LIBRARY WEEK-2022 on 14th November 2022. Inaugural address by Shri B.S. Ramaprasad, Chief Executive, GEF (Engg. & GS). Guest of Honour Shri. G. Ramachandra, Chief of Finance, GEF (Engg. & GS), presidential address by Dr. N.V.R. Naidu, Principal. Dr. P.V. Konnur, Chief Advisor-Library, GEF (Engg. & GS) spoke about how research communication and how it's useful for faculty and students as well as its important for all research scholars. Dr. Aruna S.T, Chief Scientist, Surface Engineering Division, CSIR-NAL, Bangalore spoke about Research Manuscripts and the perspective from an editor and their expectations. Dr. Shivaram B.S. Joint Head, ICAST, CSIR-NAL, Bangalore spoke about finding a right Journal for research communication tips and tools.

#### **NEW APPOINTMENTS**

#### **Department of Computer Science & Engineering**



Sushma B joined as an Assistant Professor in Computer Science Department. Her areas of interest include Data mining, Machine Learning, Data Structures and Database Systems.



Chetan D S is joined as an Assistant Professor in the Computer Science & Engg Department. He has 14 years of teaching experience. His areas of interest include Computer Networking, Programming (C and

Nandini S B is joined

Computer Science Department.

Professor

in

Assistant

Python), Data Communications and Machine Learning



Her areas of interest include Computer Graphics, Unix Shell Programming, Artificial Intelligence and Machine



Mamatha A is joined as Assistant Professor Department of Computer Science and Engineering. She has a professional experience of 1.5 decades. She is a member of ISTE and IAENG. Her areas of interest

include Image Processing, Network Security, Artificial Intelligence and Machine Learning.



**Soumya C S** is joined as an Assistant Professor in the Computer Science. She has a professional experience of about 8 years in academia and industry. Her areas of Interest include Deep Learning, Machine Learning, Data

Mining, Cryptography and Algorithms.



Pallavi N is joined as an Assistant Professor in the Computer Science Department. She has a professional experience of over 12 years, that footholds academia. Her areas of Interest include Algorithms, Data Structure, Al

and ML, RPA and Deep learning.



Manjula L is joined as an Assistant Professor in the Computer Science Department. She has a professional experience of over 12 years, that footholds academia. She has been awarded with "Silver Elite" by NPTEL for

Ethical Hacking Course. Her areas of interest include Internet of Things, Cyber Security, Machine Learning, Computer Networks and Data Communication.

"If a country is to be corruption free and become a nation of beautiful minds, I strongly feel there are three key societal members who can make a difference. They are the father, the mother and the teacher."

-A P J Abdul Kalam





Akshata S. Bhayyar. is joined as an Assistant Professor in the Computer Science Department. Her areas of interest include Data Mining and Data Warehouse, Big Data Analytics, Software Architecture and Design Pattern,

Data structures, Computer graphics. She is a member of IEEE and IEEE Women in Engineering.



Vishwachetan D is joined as an Assistant Professor in Computer Science Department. His areas of interest include Cyber-Security, Computer Networks, IoT, Operating Systems and Web Technologies.

Department of Computer Science & Engineering (Artificial Intelligence & Machine Learning) (Cyber Security)



Akshatha G C – Joined as an Assistant Professor in the Department of CSE (AI & ML) at RIT. She has overall of 8 years teaching experience. She is persuing Ph.D. under VTU in Distributed data analytics domain.

Her key area of research interests includes Distributed systems, Bigdata Analytics, Machine learning and Data mining.

"Education is the most powerful weapon which you can use to change the world."

-A P J Abdul Kalam

#### PHOTO GALLERY - DIAMOND JUBILEE INAUGURATION









#### Highlights of Ramaiah Institute of Technology

- Strategically located in the heart of Bengaluru City offering excellent connectivity and convenience.
- Proven track record spanning 60 years, in Engineering Education.
- Outstanding placement record up to 90-95% accomplished year on year.
- Faculty-Student the ratio of 1:15 among the best in the industry.
- Highly qualified and committed faculty, constantly evolving teaching-learning methodology.
- · State-of-the-art infrastructure and facilities are comparable to international standards.
- Focus on all-round development to enable professionals to deliver in a dynamic ecosystem.
- Industry oriented instructional content to ensure strong synergy with the changing requirements.
- Several departments involved in various prominent projects.
- · A solid association with leading names in the industry.

#### Various Institutions / Centres Under Gokula Education Foundation (GEF)

Ramaiah Advanced Testing Laboratory

Ramaiah Memorial Hospital

Ramaiah Medical College Hospital

Ramaiah Institute of Nursing Education & Research

Ramaiah Institute of Physical Medicine & Rehabilitation (Physiotherapy)

Ramaiah Medical College

Ramaiah College of Law

Ramaiah Institute of Management

Ramaiah College of Education

Ramaiah Composite Pre-University College

Ramaiah College of Arts, Science & Commerce

Ramaiah Polytechnic

Ramaiah Institute of Technology

Ramaiah High School

Ramaiah Vidyaniketan

Ramaiah University of Applied Sciences

Ramaiah International Centre for Public Health Innovation

Ramaiah Quality Assurance Cell

Ramaiah Officers IAS Academy

Ramaiah Sunshine Ayurveda Centre, Penang, Malaysia Ramaiah Innovation Centre for Healthcare Technologies

Ramaiah Public Policy Centre

Ramaiah Clinic

Ramaiah Neha Prakash Hospital

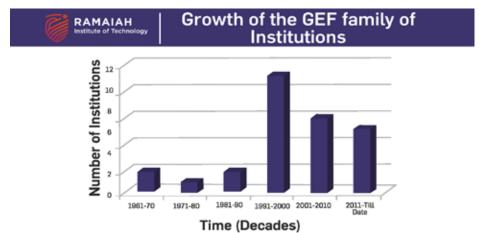
Ramaiah Leena Hospital

Ramaiah Harsha Hospital

Ramaiah Clinical Research Centre

Ramaiah INDIC Speciality Ayurveda

Ramaiah International Medical School



A total of 29 Institutions are established under the umbrella of Gokula Education Foundation