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A quarterly News Bulletin

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From the Editorial Board

Friends,



Greetings, I am extremely happy to present to you yet another issue of the second issue of Sampige. It offers me great pleasure to connect with all our beloved readers of Sampige, a quarterly News Bulletin of RIT with which we keep the college community and beyond abreast of happenings, developments and the great strides accomplished through our Institution. Ramaiah Institute of Technology (RIT) has grown abundantly in the recent past and has secured the 78th rank among 1314 reputed Institutes in India in the NIRF ranking, announced by MHRD, Govt. of India. The School of Architecture secured 23rd rank among the 105 best Architecture Colleges in India. On behalf of the Management, I

congratulate all the teaching and non-teaching staff for all their sincere efforts in making our institution great. This issue especially includes the following events i.e. Inauguration of the National Level Project Competition function and the M.S Ramaiah Memorial Lecture. We heartily congratulate all the prize winners of the Open Day Exhibition Pradarshana-2023 and the Best Outgoing students of the individual department and the Institute with this. I look forward to your continuous support from staff and different stakeholders to further the growth of RIT. Please do feel free to express your views and I look forward to your support in the coming issue.

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



Friends,

It gives us immense joy and satisfaction to place before you our next issue of 'SAMPIGE', a Quarterly News Bulletin of RIT. A lot of effort has gone into the making of this issue. We hope you enjoy reading the News Bulletin. This issue of the News Bulletin highlights proceedings of four important functions held in our institute the Pradarshana 2023- Open Day Project Exhibition, National Level Project Competition function, and M.S Ramaiah Memorial Lecture and the Farewell Function in honour of outgoing students. We want to record our gratitude and heartfelt

thanks to all who have contributed to making this News Bulletin very beautiful. In conclusion, 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 response. 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.

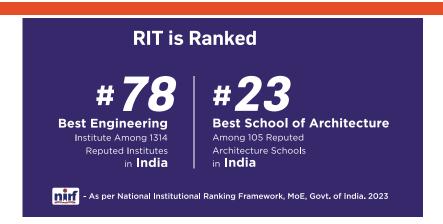
MISSION OF THE INSTITUTE

RIT shall meet the global socio-economic needs through

- 1. Imparting quality technical education by nurturing a conducive learning environment through continuous improvement and customization.
- 2. Establishing research clusters in emerging areas in collaboration with globally reputed organizations.
- 3. 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.



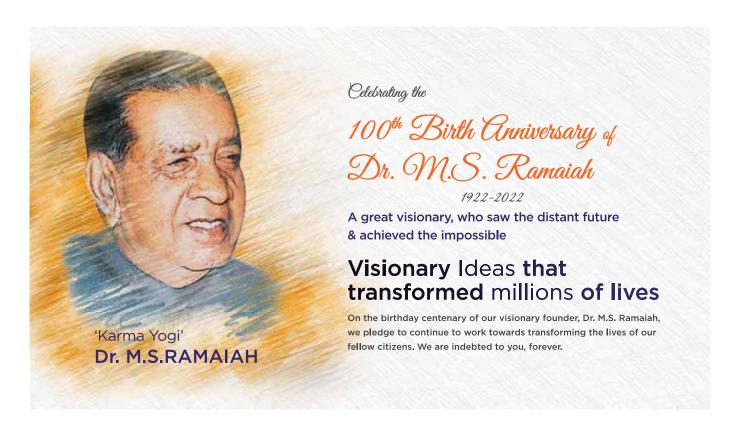


All India Innovation Rank Band 11-50



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 20th 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 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 man nourished 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



Dr. M S RAMAIAH MEMORIAL PARLIAMENTARY DEBATE









• On 1st and 2nd April 2023, the department of Cultural Activities conducted Dr. M S Ramaiah Memorial Parliamentary Debate competition as part of the RIT Diamond Jubilee and Centenary Celebration of Dr. M S Ramaiah. Around 20 teams across India participated in the event.



NATIONAL LEVEL PROJECT COMPETITION







• In view of the Birth Centenary celebrations of our founder Chairman Dr. M S Ramaiah and Diamond Jubilee year celebrations of RIT, the national Level Project competition was organised for the students to exhibit their innovative ideas/ projects / prototypes/ working models in the fields of Engineering and Technology on 20th of April 2023. It was held in two – streams: Stream –A covered Architecture, Mechanical, Biotechnology, Civil and Industrial engineering and Management. Stream – B covered branches of Computer Science, Information Science, Cyber Security, AIML and Electronics Instrumentation. In all, 206 projects were received from states across India. Winners were awarded cash prizes of Rs. 3.0 lakh per stream.

Prof. Y. Narahri, Director, Centre for Brain Research IISc Bangalore was the Chief Guest for the project competition. Dr. Ullas Nmbiar, MD AI Accenture was the guest of Honor. Dr. M.R. Jayaram, Hon'ble Chairman-GEF, Sri. M.R. Seetharam, Vice-Chairman – GEF and Director – RIT, Sri M.R. Ramaiah, Secretary – GEF and Director – RIT, Sri. B.S. Ramaprasad, CE (Engg & Gen.Sci.) and Dr. N.V.R. Naidu, Principal, RIT graced the event by their presence.



PRADARSHANA - 2023











• The open day project exhibition 'Pradarshana – 2023' was held at the Ramaiah Institute of Technology Bengaluru on 15th and 16th May 2023. The exhibition showcases the creative thinking and entrepreneurial capability of the students; it provides a platform which enhances their knowledge and develops their interest to research further on topics beyond their curriculum. The students' holistic growth is promoted through a variety of mediums, including exhibitions, Seminars, Projects, and Presentations, Pradarshana – 2023, established a unique platform for the students to demonstrate their creative ideas into techno – commercial goods and business strategies, thereby unleashing their potential.

The Open day Projects Exhibition Pradarshana - 2023 was Inaugurated on 15th May 2023 by Chief Guests, Dr. Nagahanumaiah, Director, Central Manufacturing Technology Institute (CMTI), Bengaluru, Karnataka and Dr. M.R. Jayaram, Hon'ble Chairman, Gokula Education Foundation (GEF). This year a total of 403 Final Year Projects were displayed in Pradarshana, some industry stalls and we also had few industry stalls displaying their new products, showcasing their new products.



FAREWELL TO OUTGOING STUDENTS









Farewell for the outgoing UG and PG (MBA & MCA) students were conducted on 17th May 2023. In this event Best Outgoing Student from every department and Best Outstanding Graduating Student of RIT for the year 2022-23 have been awarded with a certificate and medal. Sr. R K Jaigopal, Managing Director, Struct Geotech Research Laboratories Pvt. Ltd. and Distinguished Alumnus of RIT was the chief guest and other dignitaries Padmabhushana Dr. V K Aatre, former Scientific Adviser, Rakshana Mantri, Govt. of India, Sri, Tallam Venkatesh, President, MSRITAA and Sri. B S Ramaprasad, Chief Executive, GEF (Engg. & GS) graced the occasion.



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

 In association with Bureau of Indian standards organized a Two - day workshop on 'National Electrical Code of India (NEC) 2023', on 4th and 5th may 2023. The event focused on helping attendees understand and interpret the latest edition of the NEC of India, which is a set of standards for the safe installation of electrical systems.

Paper Publications in National/International Journals

- Ramesh P Nair, Sumangala B Vishwaanath 'The applicability of very low frequency diagnostic testing in the evaluation of thermally aged stator coil', in IEEE Transactions on Dielectrics and Electrical Insulation, https://doi.org/10.1109/TDEI.2023.3237655A.
- Kalaivani C, Umasankar L, Badachi C & Karthikumar K 'An enhanced approach-based grid flexibility analysis for combined heat and power systems with variable renewable energy systems', Energy & Environment, https://doi.org/10.1177/0958305X231153970, 2023.
- Kodeeswara Kumaran G, Rajesh P, Kumaravel S & Irusapparajan G '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, Vol.14(2), 2023, Pg.:270-284. https://doi.org/10.1556/1848.2022.00538.
- Ashwin K. V, Venkata Satya Rahul Kosuru, Sridhar S, P. Rajesh – 'A Passive Islanding Detection Technique Based on Susceptible Power Indices with Zero Non-Detection Zone Using a Hybrid Technique', Int J Intell Syst ApplEng, vol. 11(2), Feb. 2023, pp. 635–647.
- Dutta K. K, Manohar P, Chaluvaraj N, Pranathi E, Ranjitha S & Gupta I 'Electric Vehicle for the Movement of Disabled People', Journal of Mines, Metals and Fuels, Vol. 71(1), 2023, Pg.11–18, https://doi.org/10.18311/jmmf/2023/33349.

International Conference/National Conference

 Lohith B, C Badachi, P. V. H, M Bhat and G. Y. M – 'Design and Development of portable relay Testing kit', 2022 IEEE North Karnataka Subsection

- Flagship International Conference (NKCon), Vijaypur, India, 2022, pp. 1-6, https://doi.org/10.1109/NKCon56289.2022.10126997.
- Nadeem Sheriff B, Ramakrishna Murthy K and S. Shivashimpiger - 'Classification and Prediction Hydrophobicity in Polymeric of Insulator using Convolutional Neural Networks', 2022 IEEE North Karnataka Subsection Flagship International Conference (NKCon), Vijaypur, 1-5,https://doi.org/10.1109/ India, 2022, pp. NKCon56289.2022.10126588
- Harsha K, Kehakeshan Jalal S, Sarita Kumari and K. K. Dutta 'Fuel Gauge Volumetric Measurement And Calibration For Aviation And Watercraft', 2022 IEEE North Karnataka Subsection Flagship International Conference (NKCon), Vijaypur, India, 2022, pp. 1-4, https://doi.org/10.1109/NKCon56289.2022.10126652.
- Shankar B B, Harshitha Bhat, S. Poornima, R. Bharanidharan, M. Sridharan and A. Banik 'Conventional Protection of Power Transformers at Distribution Grid Side using Artificial Neural Network', 2023 Second International Conference on Electronics and Renewable Systems (ICEARS), Tuticorin, India, 2023, pp. 901-906, https://doi.org/10.1109/ICEARS56392.2023.10085631.
- Binshati Chatterjee and Sanjoy Mandal 'Design of Optical Filter using Micro-Ring Resonator with Multiple Output Bus Waveguides', International Interdisciplinary Conference on Mathematics, Engineering and Science (MESIICON), Durgapur, India, 2022, pp. 1-5.https://doi.org/10.1109/ MESIICON55227.2022.10093537.

Published in book chapter

- Lincoln, Lloied Abraham, Chandrashekhar Badachi, and Pradipkumar Dixit – 'loT-Based Condition Monitoring of Busbar', In Proceedings of Third International Conference on Sustainable Expert Systems: ICSES 2022, pp. 293-304. Singapore: Springer Nature Singapore, 2023.https://doi. org/10.1007/978-981-19-7874-6_22
- Raghu N, M. Balamurugan, V. N. Trupti,
 Chandrashekhar Badachi, S. Shriram and Niranjan
 Kannanugo 'Wireless Power Transfer for High End
 and Low End EV Cars', In Al Techniques for Renewable
 Source Integration and Battery Charging Methods in



Electric Vehicle Applications, pp. 48-66. IGI Global, 2023, Scopus, https://doi.org/10.4018/978-1-6684-8816-4.ch006.

- Rahul S G, Neelamsetti Kiran Kumar, Rajinikanth
 'Smart structural health monitoring system using IOT and wireless technology', in 'Recent Advancement of IoT Devices in Pollution Control and Health Applications', Elsevier, 2023, https://doi.org/10.1016/B978-0-323-95876-9.00008-2.
- Manikanta G, Kirn Kumar N, Mani A and Indragandhi V. 'Placement and Sizing of Distributed Generator and Capacitor in a Radial Distribution System Considering Load Growth', In Intelligent and Soft Computing Systems for Green Energy' (eds A. Chitra, V. Indragandhi and W. Razia Sultana), Wiley online library, pp. 1-24 https://doi.org/10.1002/9781394167524.ch1.
- Moyya, P.D., Neelamsetti, K.K. & Thirumoorthy G. Deep – 'Attention Network for Enhanced Hand Gesture Recognition System', SN COMPUT. SCI. 4, Volo. 324 2023, https://doi.org/10.1007/s42979-022-01590-3.

Student Events

 IEEE PES in association with IEEE Ramaiah conducted a Technical Quiz, 'ODYSSEY-2023', on 26th June, 2023. The first round was on theoretical, conceptual and numerical based questions. The second round was descriptive questions. The third round was rapid fire questions. More than 20 teams form the college participated in the event, RIT, Bangalore.

Student achievements

 Ashwanth, Jeevithesh and Sumukha of IV Sem. won 2nd place in Technical Quiz organized as part of 'ODYSSEY-2023', by IEEE-PES and IEEE RITB on 26th June, 2023 held at RIT, Bangalore.

DEPARTMENT OF MECHANICAL ENGINEERING

Publication in (National/International) Journals

 K.R.V, Subramanian, Tejas K, R George, Jay Porwal, Mohammad B Zaid, Yash Kusane - 'Development of multiwalled carbon nanotube flow sensor using

- copper oxide nanofluids', IEEE Sensor Journal (Q1), DOI: 10.1109/JSEN.2023.3284091, Vol. 23, 2023, pp. 16665 16671.
- Hydri, Syed Rayyan, Subramanian, K. R. V., George R 'Thin Multilayer of Graphene as an Alternative to Indium Tin Oxide (ITO) in Touchscreens and Wearable Electronics', Energy and Environment Focus, Vol. 7(1), March 2023, pp. 100-109(10), DOI: https://doi.org/10.1166/eef.2023.1273.
- Subramanian, K. R. V, George R, Ramamohanareddy, Nikitha, V. R Sarvesh Singh - 'Use of Oxide Nanofluids as Electrolytes in Sodium Ion Supercapacitor', Journal of Mines, Metals & Fuels. Vol. 71(3), Mar2023, Pg. 346-350.
- Ashok Kumar K, N. Kapilan, S. Kasthurirangan, Dinesh P.A 'Experimental and Simulation Study of a Solar Assisted Two Bed Adsorption Refrigeration System Using Activated Carbon-Methanol', International Journal of Heat and Technology, Vol. 41(2), April, 2023, pp. 293-303, https://doi.org/10.18280/ijht.410202.
- Hemanth Kumar K.J, B. Sadashive Gowda, Jyothilakshmi R, N. R. Banapurmath - 'Performance of Dual-Fuel (Df) Engine Powered With the Producer Gas Derived From Sugar Cane Bagasse and Diesel Injection', The Journal of Solid Waste Technology and Management, Vol. 49(1), 2023.
- Jyothilakshmi R, Nandeesha H L and Deepak S 'Experimental Study and Analysis of Fretting Wear and its Influence on Functionality of Mechanical Components', Applied Science and Engineering Progress, Vol. 16(3), 2023, http://dx.doi.org/10.14416/j.asep.2023.03.005.
- Naveen Kumar B K, Sushma M S, Neeruganti Jagadeesh - 'Design, Analysis and Fabrication of Hydroelectric Turbine for Open Canal's of the River', Journal of Mines, Metals and Fuels, Vol. 71(1), 2023, Pg. 99-105, DOI: 10.18311/jmmf/2023/33365.
- Naveen Kumar B. K, N. Sandeep, Vasudeva Reddy, Minnam Reddy, Suresh Babu R - 'Comparative analysis to examine the heat transmission enactment of hyperbolic tangent cylindrical flow: An application to PTSC', NUMERICAL HEAT TRANSFER, PART A: APPLICATIONS, https://doi.org/10.1080/10407782. 2023.2175748. Taylor & Francis Group. 2023.



- Vinayak Talugeri, Nagaraj B P, Veeranna Basawannappa Nasi - 'Experimental investigation on a solar parabolic collector using water based multi walled carbon nanotube with low volume concentrations', Scientifc Reports, https://doi. org/10.1038/s41598-023-34529-6, 13, 7398, 2023.
- Jaya Christiyan K. G 'Tribological Behavior on Stir-Casted Metal Matrix Composites of Al8011 and Nano Boron Carbide Particles', Journal of Nanomaterials, vol. 2023, Article ID. 6453166, 2023. https://doi.org/10.1155/2023/6453166.
- Jaya Christiyan K. G 'Machine learning applications for 3D-printed polymers and their composites', Development, Properties, and Industrial Applications of 3D Printed Polymer Composites (A Book Chapter), 2023, pp. 239–260, DOI: 10.4018/978-1-6684-6009-2.ch014
- Jaya Christiyan K. G 'Additive manufacturing developments in the medical engineering field', Development, Properties, and Industrial Applications of 3D Printed Polymer Composites (A Book Chapter), 2023, pp. 86–106, DOI: 10.4018/978-1-6684-6009-2.ch014.
- Jaya Christiyan K. G 'Prediction of weather forecasting using artificial neural networks', Journal of Applied Research and Technology, Vol. 21(2), April 2023, Pg. 205-211, DOI:10.22201/ icat.24486736e.2023.21.2.1698.

Publication in (National/International) Conferences

 Balasubramanya H. S - 'Die casting simulation for a filter cap using Z-cast, National Symposium on Current and Futuristic trends in Nano science and Technology', 12th - 13th April 2023, Presidency University, Bengaluru.

Guest Lecture delivered by the department faculty

 Balasubramanya H.S - 'Die casting simulation – A Case Study', at Kalpataru Institute of Technology, Tiptur, 5th May 2023.

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

 Team Edhitha has been honored with prestigious award at the SUAS Competition 2023 – 'JustJow Sportsmanship Award', The team Editha is a



multidisciplinary student team. The team has participated in the prestigious Student Unmanned Aerial Systems (SUAS at USA, organized by SUAS at USA between June 18th - 23rd 2023. The theme of competition is a new technology, an innovation, or a simple re-configuration that can make our existing products credibly play an active role in delivering a healthier, more hygienic home environment, or even actually help build immunity for our consumers. Team Edhitha has been honored with prestigious award at the SUAS Competition 2023 - 'Just Jow Sportsmanship Award', The team Editha is a multidisciplinary student team. The team has participated in the prestigious Student Unmanned Aerial Systems (SUAS at USA, organized by SUAS at USA between June 18th - 23rd 2023. The theme of competition is a new technology, an innovation, or a simple re-configuration that can make our existing products credibly play an active role in delivering a healthier, more hygienic home environment, or even actually help build immunity for our consumers.

DEPARTMENT OF CIVIL ENGINEERING





 Department Activities: Organized one-day workshop on 'Sustainability in Construction using GGBS & Green Materials', Chief Guest Dr. L R Manjunath, Vice President- JSW Cement LTD, on 22/06/2023.

Publications in National/International Journals

- M. C. Nataraja, H. G. Nahushananda Chakravarthy, R. Shivaprasad and Sujay Raghavendra Naganna -'Self compacting concrete incorporating incinerated biomedical waste ash: a performance assessment', Journal of Engineering and Applied Science Vol.70(22), 2023, https://doi.org/10.1186/s44147-023-00191-y.
- Lakshmikanth Srinivasamurthy, Venkata S Chevali, Zuhua Zhang, Hao Wang – 'Effect of fly ash to slag ratio and Na2O content on leaching behaviour of fly Ash/Slag based alkali activated materials', Construction & Building materials, Elsevier, Vol.383, 2023, pg 131234.
- Anil Kumar R, Krishnagowda Patil & Varun H R –
 'Development of Light Weight Concrete Blocks
 Using Waste Pop & Gypsum Board', Seybold Report,
 Vol 18(06), June 2023, DOI: 10.17605/OSF.IO/R3DE9
- H U Raghavendra, Jyothi M R, & Siddegowoda 'Air pollution directional assessment on disposal sites of Hebbal area, Bangalore using Geoinformatics' Seybold Report, Vol. 18(6), June 2023, pp. 681-692, DOI: 10.17605/OSF.IO/DN9RP.

Publications in National/International Conferences

- M. C. Nataraja and Rajath N Shirahatti 'Studies on the mix design and parametric analysis of alkali activated concrete using Microsoft Excel, Proceedings of the International conference on Cement and Building Koncrete for a sustainable and Resilient infrastructure', CBKR-2023, Department of Civil Engineering, National Institute of Technology, Warangal, Telangana, India.
- Vivek R Das, M. C. Nataraja and B Mallikarjuna -'Fatigue behaviour of high strength fibre reinforced concrete for rigid pavements', Proceedings of the International conference on Cement and Building Koncrete for a sustainable and Resilient infrastructure, CBKR-2023, Department of Civil Engineering, National Institute of Technology, Warangal, Telangana, India.

Guest Lecture Delivered by the Department faculty

 M C Nataraja - How to address competencies in Tier I institutions through refined CO's and effective mapping and other talk on 'Quality publications and research grants', 08/03/2023 on the occasion of NBA Mock visit, VidyaVardhaka College of Engineering, Mysore.

Achievements / Awards / Prizes

 M C Nataraja is the nominated representative member of the Indian Concrete Institute for 'Panel for Aggregates from natural & other sources', CED 2.2, BIS India for 2023.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



 One-day Industrial visit cum Workshop on PCB Design was arranged to 'Centre for Nano Science and Engineering (CeNSE) at IISc', on 27th May and 3rd June 2023 for 4th semester students.



 One-day industrial visit was arranged to U R Rao Satellite Centre (URSC), 21st and 26th June 2023 for 4th-semester students.



Publications in (National / International) Journals

- Lakshmi S, Pasha, L., Prithvi, K.P. et al. 'Optimized designs of piezoelectrically actuated MEMS Varactors for microwave applications', Microsyst Technol, vol. 29, 2023, Pg. 1015–1028.
- Mamtha Mohan, Veena G N, Pavitha U S, Vinod H C - 'Analysis of ECG Data to Detect Sleep Apnea using Deep Learning', Journal of Survey in Fisheries Sciences, Vol. 10(4S), 2023, Pg. 371-376.
- Suma Kuncha Venkatapathiah, Sethu Selvi Selvan, Pranav Nanda, Manisha Shetty, Vikas Mallikarjuna Swamy, Kushagra Awasthi - 'Deep Learning based Object Detection in Nailfold Capillary Images', IAES International Journal of Artificial Intelligence (IJ-AI), Vol. 12(2), June 2023, pp. 931 – 942.
- Suma K. V, Dinesh P. A, Bheemsain Rao 'Multivariate Parametric Study of Nail fold Capillary Images for Disease Detection', Critical Reviews TM Biomedical Engineering, Vol. 51(3), 2023, Pg. 1–19.
- Suma K V, Niranjana Murthy H S, Venu K N 'Parametric Standardization and Quantification of
 EMG Signals for detection of muscle function of
 Knee Osteoarthritis', Journal of Survey in Fisheries
 Sciences (JSFS), Vol. 10(4S), 2023, Pg. 387-395.
- Dharini Raghavan, K.V. Suma, Puneeth N Ganesh -'Assessment of Neuroimaging Data and Identification of Alzheimer's Disease Using Extreme Learning Machines', Journal of Machine Learning for Modeling and Computing, Vol. 4(1), 2023, Pg. 77–93.
- Pavitha U S, Veena G N, Vinod H C, Nikhila S 'An Evaluation of the State-Of-The-Art Bm3ddouble Convolutional Layer Neural Network (C2l-Net) for Denoising, Section', ISSN 2063-5346, Eur. Chem. Bull. 2023, Vol. 12 (Si6), 2023, Pg. 3517 3528.
- Reshma Verma, Lakshmi Shrinivasan and Basavraj Hiremath - 'Machine learning classifiers for detection of glaucoma', IAES International Journal of Artificial Intelligence (IJ-AI), Vol. 12(2), June 2023, pp. 806-814,

"If you think education is expensive, try estimating the cost of ignorance."

—Howard Gardner

Paper presentation in National / International Conferences

- Sethu Selvi, Dharini Raghavan 'SETNET: a Sparse Ensemble Network for Drone Localization and Zero Shot Drone Tracking in Real Time Surveillance Videos', IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2023), a flagship conference of IEEE, Rhodes Island, Greece, June 2023.
- Veerendra D, B. N. Umesh, M. Nagabushanam, Ravindra Babu B – 'Enhanced Direction of Arrival Estimation Via Fast Sensor Array Processing', Sensor signal processing, IEEE sensor letters, Vol. 7, issue 6, June 2023, pp. 1-4, Article no. 7003004.
- Chitra M, Senthilkumar Dhanasekara -'Performance Analysis of NOMA-based Spectrum Sharing System with Imperfect SIC', IEEE Transactions on Vehicular Technology, Vol. 72(6), June 2023, pp. 8198-8203.

Guest Lecture/s - Invited

- P R Nagananda Tejasvi, 'Design Engineer Honeywell, Bangalore –'Design and Application of UAV', 30th June 2023
- Dr. Kireran O' Mahony, Co-founder HUE Learn, A Cognitive Education Company, - 'Harness the Power of Brain', 18th April 2023.

Guest Lecture delivered by the department faculty

 Dr. Rajendra Prasad, - 'Recent Trends in Wireless Communication' organized by T. John Institute of Technology, Bangalore, 30th June 2023.

Funded Project:

 Dr. Suma K V - 'Tissue Oxygen Saturation Monitoring Device' for a period of one year, funding agency: RIT Seed fund, Ramaiah University of Applied Sciences

Grant Amount: Rs. 1.8 L.

Achievements, Awards/Prizes by Faculty and students

 Dr. Rajendra Prasad was an External Board Member for conducting Trade Test (Electronics) under CEPT AM-10 recruitment cycle, DRDO, Govt. of India, Ministry of Defense at GTRE, Bengaluru, 31st March & 6th April 2023.



- Dr. C R Raghunath, Dr. S Sethu Selvi, Sara Mohan George & Athira S. Pillai Indian patent granted, 'Apparatus for determining the Radio Frequency Characterization of Samples and a Method Thereof.
- Dr. V. Anandi has applied for an Indian patent 'Design of high throughput and low latency double precision floating point arithmetic unit for space signal applications,' Issue No. 05/2023
- Dr. V. Anandi has applied for an Indian patent,
 'Artificial intelligence-based intron retention detection and identification for neural diseases':
 Issue No. 25/2023
- Dr. C. G. Raghavendra has applied for an Indian patent, - 'A System and a Method for Autonomous Sorting of Healthy and Diseased Silkworms'.

Student Achievement

Dharini. R, Ajey Kalagi, Supreet B & Bhavani Reddy

 won 1st prize in the preliminary round, 'Sustainable agriculture – with prototype track', YESIST'12 2023 organized by KLE Institute of Technology, Hubballi, June 2023.

DEPARTMENT OF CHEMICAL ENGINEERING



 A one-day symposium on 'Startup 101: How to Plan for Startup and legal & Ethical Steps', on 26th May 2023. Accomplished Chartered Accountant and Entrepreneur. Ms. Shilpa Rajawat, a distinguished professional in the field of finance and business, delivered talk 'talks about the today's opportunity of the startups'.

Publications in (National/International) Journals

- Anam Adil, Brijesh Prasad, Lakshminarayana Rao –
 'Methanol generation from bio syngas: experimental analysis and modeling studies', Environment, Development and Sustainability, Pg. 1-25, https://doi.org/10.1007/s10668-023-03541-1, Springer.
- Halima R and Archna Narula 'Nano-Enzymatic Hydrolysis and Fermentation of Waste Starch Sources for Bioethanol Production: An Optimization Study', Journal of Mines, Metals, and Fuels, Informatics Journals, Vol. 71(3), Pg. 439-445 https:// doi.org/ 10.18311/jmmf/2023/33756,
- H.A. Deepa, G M Madhu, Ravishankar R, Nidhi Pal, Somharsh Patel, Vijetha – 'Performance Evaluation of Organic dyes utilized for 3-G DSSC Applications: A Review', Eur. Chem. Bull, Vol. 12 (Special issue 4), 2023, Pg. 16685-16704, ISSN 2063-5346, European Chemical Bulletin.
- H.A. Deepa, G M Madhu, Ravishankar R, Nidhi Pal, Somharsh Patel, EldhoManoj- 'Synthesis of Titania-ZnO Nanocomposites of diverse morphology for DSSC Applications', Section – A Research paper ISSN 2062-5346, Eur. Chem. Bull, Vol. 12 (special issue 4), 2023, Pg. 16705-16713, European Chemical Bulletin.
- Chaitra Srikanth and Gattumane Motappa Madhu-'Effect of nano CdO-ZnO content on structural, thermal optical, mechanical and electrical properties of epoxy composites', Metallurgy and Materials Science Research Institute (MMRI), Chulalongkorn University, DOI: 10.55713/jmmm.v3312.1590, Journal of Metals, Materials and Minerals, Vol. 33(2), 2023, PP. 38-52.

Guest Lecture/s - Invited

- **Dr. Nitai Basak,** NIT, Jalandhar 'Biofuels the future of sustainability' on 19.06.2023.
- Mr. Karthik Prakash & Mr. Hari Bajpai, Shell Technologies, Bangalore – 'Process and Equipment Design' on 29th April 2023.
- Dr. Prashanth Ravi, Delft University of Technology, Netherlands – 'Career and Research Guidance' on 28th April 2023.



Funded Project:

 Dr. V Sravanthi, Assistant Professor received funding from RIT Seed Funding for the project titled 'Process Intensification Strategy for the Synthesis of Fuel Additive from Biomass Derived Levulinic Acid Via Reactive Distillation', Rs. 5,00,000/.

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

- Ms. Tejhaswini won II prize in Group dance competition, SAPTHARANG, held in Atria Institute of Technology, Bengaluru during 30th June to 1st July 2023.
- Ms. Sarah Fatima has secured I place in Technical quiz event in BIOCHESS 2023 organized by the Department of Biotechnology, SIT, Tumakuru held on 23rd June 2023.
- Mr. Swasthik Singh has secured I place in Technical quiz event in BIOCHESS 2023 organized by the Department of Biotechnology, SIT, Tumakuru held on 23rd June 2023.
- Ms. Sneha Ullahas Naikhas been awarded 'Best Outgoing Chemical Engineering Student Award-2023' from IIChE, Bengaluru Regional Centre organized by Department of Chemical Engineering, DSCE, Bengaluru on 28th June 2023.
- Ms. Shetty AmbikaShekar, Triranajna Ghosh, Roushan Nigam Shaw, and Sushith S Poojary was awarded First Place for Best Project Award for their project titled, 'Improving the activity for Oxygen Evolution reaction by tailoring the Oxidation states of Transition Metals in the Ba₂₊- substituted LacoOSO₃ - type Perovskite Oxides for Alkaline Water Electrolysis for the year 2022-23 through RIT Alumni Association.
- Ms. Sindhu Pranavi, RishithaDupati, Archana R, Shriya Anand Rambhiya secured First Place for the project titled, 'Computational and Experimental studies of Microfluidic Devices for the synthesis of Biodiesel and its Additivies', during the project exhibition "Pradarshana - 2023" held on 15th and 16th May 2023 at RIT, Bengaluru.
- Ms. Laila Nafisa, Hana Fathimalrshad, Mrinalini Ramesh secured First Place for the project titled, 'Synthesis using Heterogenous Metal Oxide Catalyst

- and Fuel Additive Evaluation', in "Pradarshana -2023" held on 15th and 16th May 2023 at RIT, Bengaluru.
- Ms. Esha Varma, Sirivibha S P, and Kavya B V secured Second Place for the project titled, 'Robust and Reliable Nitrification of Recirculating Aquaculture System Effluents' in "Pradarshana 2023" held on 15th and 16th May 2023 at RIT, Bengaluru.
- Ms. Sneha Ullhas Naik was honoured with 'Best Achiever Award' for her distinguished performance in Academics, Co-curricular, Extra-Curricular activities and service to the community, for the period 2019-2023.

DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT



 Industrial Visit: UG 4th semester students visited Chhaperia Electro Components Pvt. Ltd., Bengaluru, on 22/06/2023

Publications in National / International Journals

- M. Shilpa, L Harshith, Shobhini Sekar, Rajeshwar.
 S. Kadadevaramath 'Computerized relationship layout planning for redesign of supermarket layouts', International Journal of Business and Systems Research, Vol.17(5), 2023.
- Kothakula Keerthi, Shashikala A R, B S Sridhar and C.S. Ramesh – 'Electroless Ni-P/nano GO coatings for enhanced corrosion protection applications', Eur. Chem. Bull. Vol. 12(7), 2023, Pg. 780-795.
- Prachi Surendra Parmekar, Sridhar B S and Shashikala – 'Experimentation on 3D Printed Core Material – Application in Automotive Industry', Journal of Mines, Metals and Fuels, Vol. 71(3), 2023,



- Pg. 339-345, DOI: 10.18311/jmmf/2023/33717 Contents available at: www.informaticsjournals.com/index.php/jmmf, Print ISSN: 0022-2755, 2023.
- Nandish V Nyamati, Sridhar B S and Shashikala

 'Bending behaviour of Foam-Packed 3D Printed
 Honeycomb Core and Flax Laminate Sandwich
 Composite for Battery Casing in Electric Cars',
 Journal of Mines, Metals and Fuels, Vol. 71(3), 2023,
 Pg. 333-338, DOI: 10.18311/jmmf/2023/33717.
 Contents available at: www.informaticsjournals.com/index.php/jmmf, Print ISSN: 0022-2755, 2023.
- Sudheer D Kulkarni, Manjunatha, Chandrasekhar U. 'Effect of manufacturing process parameters on the tear strength and compression set of polyvinylnitrile rubber for sealing applications', Eur. Chem. Bull, Vol. 12, 2023, Pg. 245-258.
- Sudheer D. Kulkarni, B. Manjunatha, U. Chandrasekhar, et al. 'Effect of curing temperature and time on mechanical properties of vinyl polymer material for sealing applications in industry using machine learning techniques', Advances in Polymer Technology, Volume 2023, 10 pages.

Publications in National / International Journals (Student)

 Abhishek Vinodh S, Aishwarya R, Preethi M, Sankeerthana K S & Hemavathy S – 'Optimization of inventory management using supplier evaluation', Informatics Journals, Journal of Mines, Metals and Fuels, Vol. 71(3), 2023, Pg. 456-463, Dol: 10.18311/ jmmf/2023/33759.

Paper Presentation in International /National Conferences (Faculty)

- Dr. Sridhar. B S. 'Rice husk reinforced polymer composites – Automobile application', National Symposium on 'Current and Futuristic Trends in Nano-Science and Technology (NSNST – 2023)', Presidency University from 12th to 13th of April 2023.
- Dr. Sridhar. B S. 'Fabrication and evaluation mechanical properties of bamboo fiber reinforced bio-composites', National Symposium on 'Current and Futuristic Trends in Nano-Science and Technology (NSNST – 2023)', Presidency University from 12th to 13th of April 2023.

Guest Lecture/s – Invited

 Shri Thiagarajan R, Director, Finance Actalent -India, Bengaluru – 'Engineers as Financial Managers to Create Value for Profits and Return', 03/06/2023.

Funded Project:

- Dr. M. Rajesh 'Design and development of girth bagging equipment using the principles of ergonomics', Institution of Engineers (India), Rs. 60000/-
- Dr. Sridhar. B. S 'Synthesis and characterization of sugar cane baggase sandwiched polymer composite', Green Manufacturing, Rs. 5,25,000/- 2 yrs - RIT Seed funding.

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

Dr. M. Rajesh, Akriti Singh, MaimaNanaiah, Nidihi Rajendra and Pragnya M D – 'Use of ergonomically designed workstation to enhance the worker productivity at an antenna assembly unit', best papers presented at ICRDME – 2023, SIT, Tumkuru – 2nd prize.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



 The 6th semester students of UG, have visited HPE Private Limited Bangalore, on 25th April 2023. The visit aimed to bridge the gap between theoretical classroom learning and practical applications in a real-world industrial setting.





 Organized a 3-Day Staff Development Programme on 'M S Office and G suite from' 26.06.2023 to 28.06.2023.

Publications in (National / International) Journals

- Siva S, Chaudhari, Shilpa 'Multi-Sized Cumulative Summary Structure Driven Light Weight in Frequent Closed Itemset Mining to Increase High Utility', Journal of Information & Communication Convergence Engineering, Vol. 21(2), 2023, Pg. 117-129.
- Narasimhamurthy, Shreenath Kannughatta, Vasantha Kumara Mahadevachar, and Ram Kumar Thayur Narasimhamurthy – 'A Copy-Move Image Forgery Detection Using Modified SURF Features and AKAZE Detector', International Journal of Intelligent Engineering & Systems, Vol. 16(4), 2023.
- T. N. Ram Kumar, Ganeshayya Shidaganti, Prarthana Anand, Shreya Singh and Sreya Salil – 'Analyzing and Automating Customer Service Queries on Twitter Using Robotic Process Automation', Journal of Computer Science, Vol. 19 (4), 2023, Pg. 514 - 525.

Paper presentation in National / International Conferences

- Ganeshayya Shidaganti, R Sanjana, K Shubeeksh, V.R. Monish Raman, Valmeeki Thakshith 'ChatGPT: Information Retrieval from Image using Robotic Process Automation and OCR', in the 7th International Conference on Intelligent Computing and Control Systems (ICICCS), June 2023, 10.1109/ICICCS56967.2023.10142461.
- Chaudhari, S. S., & Yamini, D. D 'Harris Hawk Optimization-Based Distributed Denial of Service Attack Detection in IoT Networks', in 2023 4th

- International Conference for Emerging Technology (INCET), pp. 1-7, IEEE.
- Bhavana, D., & Chaudhari, S 'Performance Evaluation of Openairinterface's Scheduling Algorithms for 5G Networks'. In 2023, 4th International Conference for Emerging Technology (INCET), pp. 1-4, IEEE.
- Annapurna P Patil, Vaishnavi Somani, Bhawansh Narain Saxena, Harikrishnan V and Sankalp Santosh Shanbhag - "Implementing Non-Fungible Tokens (NFTs) and Blockchain Technology for Real-Time Stock Trading" in 3rd International Conference on Data Science & Big Data Analytics, 16th -17th June 2023.
- Jeevitha J, Sangeetha V 'Exploration on Breast Cancer Prediction and Recurrence Diagnosis using Bio-Inspired algorithms', Springer 3rd International Conference on Soft Computing for Security Applications - ICSCS 2023, Salem, India on 17th and 18th April 2023.
- Anusha Bai R, Sangeetha V 'A Comparative study on Brain Intracerebral Hemorrhage classification using Head CT scan for Stroke Analysis', to 2023 Springer 3rd International Conference on Soft Computing for Security Applications - ICSCS 2023, Salem, India on 17th and 18th April 2023.
- Veena G S, Mamatha A, Srishti Agarwal, Sinchana M L, Sharon Judith Lobo presented the paper titled 'Convolutional Neural Network-Based Real-Time Kannada Sign Language Detection', in the International Conference on Power Engineering and Intelligent Systems held during 24th 25th June 2023.
- A. Parkavi, A. Vaidya, C. S. Prakash and D. Peter

 'Electric Vehicle Charging Station Aggregator
 Application', 2023 2nd International Conference on Smart Technologies and Systems for Next Generation Computing (ICSTSN), Publisher: IEEE, Villupuram, India, 2023, pp. 1-6, doi: 10.1109/ICSTSN57873.2023.10151642.

Guest Lecture/s - Invited

 Ajay Sathyanarayana, Practice Head and delivery Manager, Digital Health Product Engineering Services Tata Elxsi Limited, Bangalore – 'Would



corporates kill my innovation instincts?', on 13th April 2023.

 Shri Abhas Abhinav, Founder of Deep Root Gnu / Linux Mostly Harmless (Opc) Pvt. Ltd., An introductory talk on the occasion of the Opening Ceremony of ACM & Mukti, A FLOSS INITIATIVE on 29th May 2023

Guest Lecture delivered by the department faculty:

- Mamatha A, Assistant Professor Staff Development Programme 2.0 on 'MS Office and G Suite: For Supporting Staff (With Hands-on Session)', from 26th - 28th June 2023, RIT.
- Akshatha Kamath, Assistant Professor 'MS Office and G Suite: For Supporting Staff (With Hands-on Session)', from 26th - 28th June 2023, RIT.

Patents

Dr. Ganeshayya Shidaganti, Dr. Annapurna P Patil,
 Dr. Prakash Sheel Vanthmath – 'Smart Context
 Aware Interactive Metaverse based Teaching and
 Learning', 5th May 2023.

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

 Dr. Annapurna P Patil, Session Chair, International Conference on Data Science & Big Data Analytics, 16th -17th June 2023 held at Sri Aurobindo Institute of Technology, Indore.

DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING



Organized National Technology Day on 11th May 2023, and arranged a Webinar on 'Innovation

- and Advancement in the field of Technology', Mr. Shashank Shirude AI & MLOps Architect from Skill-Lync delivered the lecture.
- Industrial visit to Mysore sandal soap factory and Stellent Systems pvt. Ltd., was organized to the students of III year and II year students.

Publications in (National / International) Journal (Faculty)

- Niranjana Murthy H S, Pushpa M. K 'Prediction of Covid-19 transmission in India using deep learning neural network', AIP conference proceedings, Vol. 2655, Issue 1, pp. 1-7, 2023, doi: https://doi.org/10.1063/5.0115345 (SCOPUS indexed Conference)
- H. S. Niranjana Murthy, et.al, 'Privacyaware access control (PAAC) - based biometric authentication protocol (Bap) for mobile edge computing environment', Soft Computing, Springer Publisher 2023 (Scopus indexed).
- Alamelu J V, Mythili A 'Machine learning to predict the delay of a smart infusion pump. Health Science Technology', 2022, Vol. 2(Special issue 2), Pg. 243 (Scopus indexed in 2023).
- Vanitha K. M, et.al 'Quasistatic Resonators Based Triple - Mode Notched Microstrip Bandpass Filter', Radio engineering. Vol. 32(1), 2023 April 1, Pg. 75.

Publication in (National / International) Journals/ Conferences (Student)

- Gurudutt, Maduvanthi, Alamelu, Shambavi -'Survey on Source-Based MPPT Methods for Hybrid Energy Harvesting', International conference on Science, Technology, Engineering and Mathematics 2.0(ICSTEM-2023), on 4th May 2023.
- Nikhil V. Patil., Rahul et.al 'Statistical Analysis of Factors Affecting Electronic Product Waste Generation in Bangalore City', Journal of Mines, Metals & amp, Fuels. Vol. 71, Issue 2. Feb2023.

Faculty Achievement

 Dr G Shivaprakash, session chair for International Conference on smart systems for applications in Electrical sciences, held at SIT, Tumakuru, Karnataka on 7th and 8th July 2023.

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- Dr. H S Niranjamurthy, Chairperson (session chair) for the following conferences:
 - 14th International conference on recent engineering and technology 2023, a Hybrid Conference organised by OSIET, Chennai in collaboration with Samarkand state University, Uzbekistan, heldat New Horizon College of Engineering, Bangalore on 25th June 2023.
 - 4th International conference on engineering and advancement in technology 2023, at Mallareddy Institute of Engineering Technology, Hyderabad, Telangana, on 16th - 17th June 2023 in collaboration with Samarkand State University, Uzbekistan
 - 3rd International Conference on Recent Trends in Engineering Technology and Management 2023 organised by Christ the King Engineering College, Tamil Nadu in collaboration with Samarkand state University, Uzbekistan, held on 6th & 7th May 2023.
 - Intelligent Computing track at 4th International Conference on Communication, Circuits & Systems held at Kalinga Institute of Industrial Technology (Deemed to be University) Bhubaneswar, India from 26th - 28th May 2023.
- Dr. M D Nandeesh, Reviewer and chair for 4th International Conference on Communication, Circuits & Systems held at Kalinga Institute of Industrial Technology (Deemed to be University) Bhubaneswar, India from 26th - 28th May 2023.
- Dr. Elavvar Kuzhali, chairperson (session chair) for IEEE World Conference on Communication & Computing 2023, Kalinga University, Raipur.
- Dr. J V Alamelu, Reviewer for IEEE Instrumentation & Measurement Magazine and Reviewer for IEEE International Conference on Networks, Multimedia and Information Technology (NMITCON) being organized at NITTE Meenakshi Institute of Technology, Bengaluru, during 1st and 2nd September 2023 in association with IEEE Bangalore Section.
- Dr. K M Vanitha, Reviewer for International Conference on smart systems for applications in Electrical sciences, held at SIT, Tumakuru, 7th and 8th July 2023.

Student Achievement

- Guru Manglam, H R Ambika Pandit Hansa R Harshitha S (VIII Sem), Won First Prize for the project titled 'Multi-channel device for respiratory sound data acquisition', in TEKWARZZ -2K23 "Project Exhibition" conducted at PSV College of Engineering and Technology on 03.05.2023.
- Adhya G R, Bhandhavya, Chinmayi, Pallavi (VIII Semester), Won Second Prize for the project titled 'Automatic pick and place metal object', in TEKWARZZ -2K23 "Project Exhibition" conducted at PSV College of Engineering and Technology on 03.05.2023
- Muskan II year completed 3rd level (Final level) of Girl Hackathon: Ideathon round organized by Google – India.
- Abhineeth, Saptaparini, Anushka II year Topped first five in Cipher – battle 2.0, hackathon organized by Eunoia Labs Bangalore and CIT, Tumkur on 8th and 9th July 2023.
- M. Jeevan II-year part of the Institute Cricket team won several cricket tournaments such as CMRIT Spardha Inter College Tournament, IISc Inter College Tournament (Awarded man of the match in semifinals and best bowler of the series), held during 2022-2023. Jan/Feb 2023.

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

Workshop on UI/UX Design on 21st June, 2023- The department has organized one-day workshop on User Interface and User Experience Design for the benefit of all the students. It was conducted by Mr. Prathik Kumar M P, Associate Product Manager, CodeParva Technologies Pvt. Ltd., Bangalore. The workshop was on Figma tool and was completely held in hands-on mode where students have designed mobile and web apps.

Publications in (National / International) Journals (Faculty)

S R Mani Sekhar, Siddesh GM, Vasantha Kumara –
 'Protein Tertiary Structure Prediction by Coupling Metaheuristic Ant Colony Optimization with Path



Relinking Strategy and Structure Knowledge', International Journal of Information Technology, Volume 15, Issue 3, March 2023, Springer

- S R Mani Sekhar, Swathi C, Siddesh G M 'Eye Movement Interpretation for Detecting Dyslxeia', Inter Journal of Computing and Digital Systems. Volume 13, Issue 1, April 2023
- Ashwitha A, Latha, C. A. 'GSA-based support vector neural network: a machine learning approach for crop prediction to provision sustainable farming', International Journal of Intelligent Computing and Cybernetics.Vol. 16 No. 1, pp. 1-16, 2023
- K K Amith, H A Sanjay, Ajay Mahadevan, K Harshita, D Eshwar, K Aditya Shastry - 'Performance driven Hyperledger Fabric-based blockchain framework for mass e-voting in India', International Journal of Information and Computer Security, Volume 21, Issue 1-2, pp 109-134, 2023
- Kirankumar Kataraki, Sumana Maradithaya
 'Effective allocation of resources and task scheduling in heterogeneous parallel environment', International Journal of Engineering Systems Modelling and Simulation, 2023 Vol.14 No.3, pp.168 177
- Geetha V, Dinesh V, Indhusree S B, Kavitha S N, Ankush K. Gupta 'Development of Mental Health Website and securing the chat application using 4X4 Hill Cipher Technique', Journal of Harbin Engineering University, Vol. 44 No. 7 (2023), Issue 7, pp.122-127
- J P Ashwini, H A Sanjay, M C Nayana, K Aditya Shastry, Mohan Murthy M - 'Framework for Performance Enhancement of MPI based Application on Cloud', Scalable Computing: Practice and Experience, Volume 24, Issue 1, pp.55-67, 2023
- K A Shastry, H A Sanjay 'Customized decision treebased approach for classification of soil on cloud environment', Computing 105 (6), 1295-1336, 2023
- Sowbhagya M P, Yogish H K, G T Raju 'Perception based User Profiles for Web Personalization', International Journal on Recent and Innovation Trends in Computing and Communication, 11(7s), 147–152, 2023
- Pushpalatha M N, Meherishi H, Vaishnav A 'Facial emotion recognition and encoding application for the

visually impaired'. Neural Computing & Applications, Vol. 35, pp. 749–755 (2023).

DEPARTMENT OF MEDICAL ELECTRONICS ENGINEERING

Publications in National / International Journals

- Sriraam N, Punyaprabha V, Sushma TV et al.
 'Performance evaluation of computer-aided automated master frame selection techniques for fetal echocardiography', Med BiolEngComput, Vol. 61, April 2023, Pg. 1723–1744, https://doi.org/10.1007/s11517-023-02814-1.
- Srinivasulu A, Sriraam N. & Prakash V.S 'A Signal Processing Framework for the Detection of Abnormal Cardiac Episodes', CardiovascEng Tech, Vol. 14, April 2023, Pg. 331–349, https://doi.org/10.1007/s13239-023-00656-4.
- Y S Sumathy, Uma Arun, Tejaswini S 'Reliable Transmission of Medical Images', European Chemical Bulletin, Vol. 12(special issue 5), Jun 2023, pp. 2671-2677.
- Sweeti, Y S Sumathy 'A Hybrid Algorithm for ECG Signal Artifacts Removal', European Chemical Bulletin, Vol. 12, Jun 2023, pp. 2036-2045.
- C K Narayanappa 'Wireless Sensor Network', European Chemical Bulletin, Vol. 12, Jun 2023, pp. 1667-1671.
- S. J. Mahendra 'Modeling and Optimizing the Charge of Electric Vehicles with Genetic Algorithm in the Presence of Renewable Energy Sources', Journal of Operation and Automation in Power Engineering, Vol. 11, 2023, pp. 33-38.

Guest Lecture Delivered by the Department faculty

 Dr. Uma Arun – 'Satellite Communication' at M S Ramaiah Polytechnic College, on 12.05.23

Achievements / Awards / Prizes

 Dr. N Sriraam, Dr.Tejaswini S - Patent granted on June 2023 Patent no.:432176 for the tittle 'VICONEMS'.

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 Dr. N Sriraam, Dr. Tejaswini S - Copyright registered ROC No: L-125538/2023, June 2023 for the tittle -'Development of fast convergence (FASTCON) CNN model' - a case study with infant cries classification.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Paper Presentation in National / International Conference

 Mahesh Boralkar and S. G. Shivaprasad Yadav – 'Smart Farming Techniques for Precision Agriculture', 2022 Fourth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT), Mandya, India, 2022, pp. 1-7, doi: 10.1109/ICERECT56837.2022.10060521.

Guest Lecture delivered by the department faculty

Dr. Shobha K R - delivered 2 invited talks on the topics 'IOT architecture and protocol stacks and Programimg RPi for IOT Applications', as part of AICTE-VTU Joint 5 Days Training Programme for AICTE Approved and VTU Affiliated Institution Teachers on 'Introduction to Internet of Things' conducted from 17th to 21st April 2023.

Funded Project:

- Dr. B. K. Sujatha 'Centre of Learning for setting up Microwave and Antenna Lab' sponsored by VGST K-FIST Level 2, Rs. 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.
- Dr. Vijaya Kumar B P, Kusuma S M, Dr. Sumana M, Dr. Dinesh P A - 'Use of Artificial Intelligence(AI) Expert Systems(ES) Machine Learning (ML) in Mission operations', sponsored by ISRO-RESPOND, Rs. 16,94,880

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

- Dr. Shobha K R has published two chapters titled 'Deep Learning Applications For IoT in Healthcare Using Effects of Mobile Computing', and 'Classification And Diagnosis of Alzheimer Disease Using Magnetic Resonance Imaging', are published in the Book: 'Al and IoT-based intelligent Health Care & Sanitation' in April 2023. Publisher: Bentham Science Publisher (Indexed in ESCI and Scopus), ISBN: 978-981-5136-53-1 (Online), ISBN: 978-981-5136-54-8 (Print), https://benthambooks.com/book/9789815136531.
- Smt. Sampada S K, Research scholar, Research center ETE has been awarded Ph.D. degree for her research work on 'Detection and Avoidance of Coordinated Attacks from Multiple Malicious Nodes in MANETS to Ensure Packet Forwarding', under the guidance of **Dr. Shobha K R.**
- Mr. Ashwin S 1MS19ET012, Mr. Manish S -1MS19ET033, Mr. Nishanth S Shukapuri -1MS19ET038, Mr. Sriman S -1MS19ET047 were awarded First prize (Cash prize Rs.5000/-) for the project titled "Driver Monitoring system", Pradarshana 2023 which was held on 15th May 2023.
- Mr. Basavaraj Yallappa Yadranvi 1MS19ET016, Mr. Altaf Choudhari 1MS19ET008, Mr. Kashimshab Choudhari 1MS19ET029, Mr. Venkatesh 1MS19ET061 were awarded Second prize (Cash prize Rs.3000/-) for the project titled 'Design and Implementation of Dual Band Antenna', Pradarshana 2023 which was held on 15th May 2023.
- Dr. Gayathri. M, Dr. Parimala. P has published titled Antenna and Microwave Engineering, by Scientific International Publishing house, 2022, ISBN 978-93-5757-173-9, April 2023.

– Jean Piaget

[&]quot;The goal of education is not to increase the amount of knowledge but to create the possibilities for a child to invent and discover, to create men who are capable of doing new things."



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

Publications in (National / International) Journals

- M N Thippeswamy et al. 'A novel optimized parametric hyperbolic tangent swish activation function for 1D-CNN: application of sensor-based human activity recognition and anomaly detection', Multimedia Tools and Applications, DOI.org/10.1007/s11042-023-15766-3, 26th May 2023.
- Siddesh G. M. et al., 'DeepLSGR: Neural collaborative filtering for recommendation systems in smart community', Multimedia Tools and Applications, Springer, Vol. 82, 2023, Pg. 8709–8728.
- Siddesh G. M. et al. 'Protein tertiary structure prediction by integrating ant colony optimization with path relinking and structure knowledge', International Journal of Information Technology, Springer, Vol.15, 2023, Pg. 1399–1405.
- Sini Anna Alex et al. 'Faster Region-based Convolutional Neural Networks with You Only Look Once multi-stage caries lesion from oral panoramic X-ray images', Expert Systems Journal, SJR, 2023.
- Sini Anna Alex and Anita Kanavalli Multi-Feature Based Double Analysis on Farmer and Crop Health with Fertilizer Recommendation System in Bigdata. Available at SSRN 4444971.

Paper presentation in National / International Conferences/ Book Chapter/Books

- Siddesh G M et.al 'Cloud-based Multi-Modal Information Analytics: A Hands-on Approach', by CRC Press, Taylor & Francis Group, June 2023.
- Sini Anna Alex., Parkavi, A. 'Data-driven mathematical modeling for Al-based security applications', Handbook of Research on Data-Driven Mathematical Modeling in Smart Cities, Gl Global, Book Chapter, 2023, pp. 175–191.

Guest Lecture Guest Lecture/s – Invited

- Vijay Yadav, Senior SAP Specialist and Rahul Sachdev, Director, SAP University Alliance from SAP Labs India 'SAP Build - Learn How to Use Tools for Fast Development of Application and Automation', April 3rd 2023.
- **Mr. Hemanth Rakesh,** ML Engineer Glib.ai. 'Designing Real-time Applications with Python' was given by on June 23rd 2023.
- Mr. Sridhar, Director (RAN), Mavernir, Bangalore 'Business Model Canvas' on May 27th 2023.
- Mr. Tulika Das Gupta, Director at SAP Labs India
 -'Intellectual property rights and IP', May 26th 2023.
- Mr. Nivarti Jayaram, Startup Idea Mentor & Chief Data officer at Societe Generale Global Solution Centre, Bangalore – 'Process/Product Development' on May 20th 2023.

Guest Lecture delivered by the department faculty

 Dr.Sini Anna Alex – 'Data Intelligence' for the FDP 'Applications of AI & ML towards growth of the nation', at ISE Department, Jyothy Institute of Technology, Bangalore.

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

- Dr. Sini Anna Alex served as a mentor for CodXPress, a two-day section-level hackathon across five locations over Karnataka on 29th – 30th April 2023 organized by the IEEE Bangalore section.
- Ansh Singhal, 4th Sem, won second place in the event Clash of Chords in The 8th mile fest at R.V. College of Engineering during 15th – 17th June 2023.
- Venkatesh R, Siddharth R, and Rohit M. S., 4th Sem CSE (Al & ML), won third place in the event Hack the Night conducted as part of 8th Mile fest for R. V. College of Engineering on June 16th 2023.
- Ansh Singhal, 4th Sem CSE (AI & ML), won first place in the event Battle of Bands in the annual techno cultural fest Utsaha Vaibhava on 23rd – 24th June 2023.

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Faculty who obtained Ph.D degree:



Ms. Shilpa Ankalaki – Ph.D.
Thesis titled 'Exploring Machine
Learning and Deep Learning
Approaches for Sensor based
Human Activity Recognition'
Visvesvaraya Technological
University (VTU), Superviser Dr.Thippeswamy M.N., Professor

and HOD, Dept. of CSE (AI & ML) and CSE (Cyber Security), RIT, Bangalore. Date of Award: 20-05-2023.

DEPARTMENT OF BIOTECHNOLOGY



The Department of Biotechnology, RIT, organized a
Five Days Workshop on 'Advances in Bioanalytical
Techniques and their Applications', from 24th –
28th April 2023, in collaboration with Bangalore
Bioinnovation Centre (BBC), and Neuberg Anand
Academy of Laboratory Medicine, Bengaluru for the
benefit of Post Graduate students.



 An industrial visit to Bangalore Bioinnovation Centre, Bengaluru was organized on 26th April 2023.

Publications in International Journals - Faculty

- Gokulakrishnan Murugesan 'Enhanced adsorption of 2, 4-dichlorophenoxyacetic acid using low-temperature carbonized Peltophorumpterocarpum pods and its statistical physics modeling', Chemosphere 2023, Pg.139143.
- K. Samrat 'Noteworthy biocompatibility of effective microorganisms (EM) like microbial beneficial culture formulation with metal and metal oxide nanoparticles', Environmental Research, Vol. 231, 2023, Pg. 116150.
- M. N. Chandraprabha, K. Samrat, T P Krishna Murthy – 'Carbon nanotubes and graphene-based materials for adsorptive removal of metal ions–A review on surface functionalization and related adsorption mechanism', Applied Surface Science Advances, Vol. 16, 2023, Pg. 100431.
- Gokulakrishnan Murugesan 'Low temperature carbonized mesoporous graphitic carbon for tetracycline adsorption: Mechanistic insight and adaptive neuro-fuzzy inference system modeling', Bioresource Technology Reports Vol. 22, 2023, Pg. 101468.
- Bhavya. S G. A molecular network map of orexinorexin receptor signaling system. Journal of Cell Communication and Signaling, Vol. 17(1), pp. 217-227. 2023,
- TP Krishna Murthy Suheeth Amberi Premanand, Vrinda Garg, LavanPatil, S. Shreyas, Rohit Shukla, Arvind Kumar Yadav, and Tiratha Raj Singh – 'Comprehensive bioinformatics analysis of structural and functional consequences of deleterious missense mutations in the human QDPR gene', Journal of Biomolecular Structure and Dynamics, 2023, Pg.1-17.
- Monika, Prakash, M. N. Chandraprabha, and K. N. Murthy – 'Catechin, epicatechin, curcumin, garlic, pomegranate peel and neem extracts of Indian origin showed enhanced anti-inflammatory potential in human primary acute and chronic wound derived fibroblasts by decreasing TGF-β and TNF-α expression', BMC Complementary Medicine and Therapies, Vol. 23(1), 2023, Pg.1-16.



- T P Krishna Murthy 'Exploration of interaction interface of TRKβ/BDNF through fingerprint analysis to disinter potential agonists', Molecular Diversity, 2023, Pg.1-19.
- Sadanandan, Bindu, Vijayalakshmi, Priya Ashrit, Amruta Purushottam Joglekar, and Rashmi Awaknavar – 'Aqueous spice extracts as alternative antimycotics to control highly drug resistant extensive biofilm forming clinical isolates of Candida albicans', Plos one, Vol. 18(6), (2023), Pg. e0281035.
- Dhamodhar Prakash, Akash S 'Production, Characterization and Optimization of Red Pigment Echinenone Produced by Micrococcus sp. Isolated from Soil', Natural and Life Sciences Communications, Vol. 22(2), (2023), Pg.1-15.
- Charishma C., Chandra Prabha M N, R. Hari Krishna and P Monika – 'Bioceramics in Hip and Knee Implants', Journal of Mines, Metals & Fuels, Vol. 71(3), (2023).
- Vaishnavi, V., G. Divyashri, Thomson Tanya, S. Sejal, and T. P. Krishnamurthy – 'Microbial Production Strategies for the Production of Industrially Important Pectinases: Bioreactor Consideration and its Applications in Various Sectors', Journal of Mines, Metals & Fuels, Vol. 71(3), (2023).
- Niyati, Navaneeth, M. Nishtha, Kamala Nimsha, and Gangaraju Divyashri – 'Functional Foods in the Management of Mental Illness', Journal of Mines, Metals & Fuels Vol. 71(3), (2023).

Book Chapters

- Krishna Murthy, T. P., R. Hari Krishna, M. N. Chandra Prabha, Priyadarshini Dey, Blessy Baby Mathew, and C. Manjunatha 'Supercritical CO₂ Extraction as a Clean Technology Tool for Isolation of Essential Oils', Essential Oils: Extraction Methods and Applications (2023), Pq.767-793.
- Samrat K., T. P. Krishna Murthy, G. Divyashri,
 R. Hari Krishna, and M. N. Chandraprabha
 'Nanotechnology: Antidiabetics, Antioxidant and Anti-inflammatory', In Nanomaterials for Sustainable Development, Opportunities and Future Perspectives, pp. 235-263. Singapore: Springer Nature Singapore, 2023.

Funded Projects Ongoing:

- Dr. Samrat K & Dr. Priyadarshini Dey 'Investigation of anticancer potential of nanosulphur against ovarian cancer', RIT Seed Funding, RIT 2023, Rs. 5 Lakhs
- Dr. Abhijith S R 'Role of ZIC1 (Zink finger of the cerebellum) in the progression of triple negative breast cancer VGST, (K-FISTL1) DST/ KSTePS/2021-2022 dated 14.02.2022, 15.0 Lakhs.
- **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 nanoceriwith enhanced haloperoxidase activity to combat sulphate reducing bacteria (SERB) induced biocorrosion: A biomimetic approach to combat microbilogically', influenced Corrosion (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.



DEPARTMENT OF MATHEMATICS

Paper publication in National / International Journals-Faculty

- N. Srikantha & Soniya Hegde 'Numerical study of unsteady nonlinear convective flow of a nanofluid over a vertical plate with variable fluid properties', International Journal of Ambient Energy, Vol. 44(1), 2023, Pg. 1814-1828, DOI: 10.1080/01430750.2023.2190325.
- Sowmya G et.al. 'Iterative solutions for the Nonlinear Heat Transfer Equation of a Convective-Radiative Annular Fin with Power Law Temperature-Dependent Thermal Properties', Symmetry (MDPI), Vol. 15(6), 2023, Pg. 1204.
- Shashi Prabha Gogate S. & Ramesh B. Kdenatti
 'Numerical and asymptotic study of unsteady laminar boundary layer flow over a moving wedge', Archive of Applied Mechanics, Vol. 93, 2023, Pg. 2651-2665.

Guest Lecture/s - Invited:

- Dr. Krishnamurthy, Professor, Dept. of Mathematics, DIAT, Pune – 'Mathematical modelling and its applications in Science and Engineering, Case studies', on 06.04.2023.
- Dr. E Vasantha Kumar, Retired Professor, UAS, Bengaluru – 'Statistical Inference: Finite V/S Infinite Population', on 07.06.2023

DEPARTMENT OF CHEMISTRY



 On 17-06-2023, One – day Seminar was organized by the department on the topic 'Ceramics for Biomedical Applications – Few Research findings'. The speaker was Dr. Ramachndra Rao R, Principal Scientist, and Materials Science Division at CSIR-National Aerospace Laboratories (CSIR-NAL). Bengaluru. On same day, Half Yearly Research Review Meeting (RRM) was conducted for chemistry full-time research scholars



One-day workshop on the topic 'Raitha Sambruddhi

 The Importance of Millets' was conducted for 'Millet Sisters – A group of Women Farmers' of 'Pipal Tree' organization, program was held at H D Kote, Sogahalli. This program was arranged by 'Pipal Tree' organization, H.D Kote, Luminescence Society of India: Karnataka Chapter (LSIKC RIT Bengaluru supported this program, on 21-05-2023.



 'Knowledge Sharing with Villages/Formers', an innovative outreach Program conducted by Luminescence Society of India: Karnataka Chapter (LSIKC), at Srinivasapura – Doddaballapura, on 23-04-2023.





 In association with Luminescence Society of India: Karnataka Chapter (LSIKC), Nadoja Narayan Reddy Foundation and Omkaar Goshala, Shivaganaga. conducted a Zero – Budget program called 'Knowledge Sharing with School Children on Village and Organic Farming', 23-04-2023.



 Department has organized 'Read and Teach' on 24-05-2023 for full-time research scholars of the department.



 In association with Kanneri Mutt, Maharastra and Viraktha Mutt, Hebbalu Davangere dist Luminescence Society of India: Karnataka Chapter (LSIKC) conducted One-day (26-06-2023) workshop at Hebbalu Davangere: 'Strategies for Sustainable Rural Development', Sri. Adrishya Kadasiddeshwara Swamiji blessed the occasion.

Publications in (National / International) Journals

- B C Manjunatha, P Puneeth Kumar, N Pushpa, P Shankar, B. M. Nagabhushana 'Study of structural and magnetic features of aluminum substituted hexaferrites of calcium suitable for memory storage application', Journal of Materials Today: Proceedings, 2023/4/7, https://doi.org/10.1016/j.matpr.2023.03.637.
- Shobha Nagarajaiah, N Nanda, Praveen Manjappa,
 B. M. Nagabhushana, 'Evaluation of apoptosis in human breast cancer cell (MDA-MB-231) induced by ZnO nanoparticles synthesized using Piper betle leaf extract as bio-fuel', journal of Applied Physics A, Vol. 129 (6), 2023/6, Pg. 461.
- N. Shivakumar, P. Murali Krishna, Kallesh 'In vitro DNA Binding Interaction Studies of Hydrazones and Thiosemicarbazones Derived from Pyrazole Moiety', Asian Journal of Chemistry, DOI:10.14233/ ajchem.2023.27619, Vol. 35(5), April 2023, Pg.:1129-1134.
- Vinayak Adimule, Shashanka Rajendrachari, Rayappa Mahale, Sheetal Batakurki, Basappa C Yallur, -'Dielectric and Mechanical Properties of Silicone Rubber Composites Reinforced by Conductive Carbon Black and Neopentyl Glycol Diglycidyl Ether', International Journal of Silicon, Vol. 15(6), 2023/4, Pg. 2811-2828.
- M Maya Pai, Basappa C Yallur, Vinayak M Adimule, Sheetal R Batakurki '(Z)-4-(thiophen-2-ylmethylene)-4H-thieno[2,3-b]pyrrol-5(6H)-one based polymers for organic photovoltaics', International Journal of Polymer Research, Vol. 30(4), 2023/4, Pg. 147.
- N. Srinatha A. Mahesha, M. Nagar, A. Madhu, K. Gurushantha 'Chromium-doped ZnO nanoparticles synthesized via auto-combustion: Evaluation of

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- concentration-dependent structural, band gapnarrowing effect, luminescence properties and ...', Ceramics International, 2023/4/16, https://doi. org/10.1016/j.ceramint.2023.
- Mehak Hayat, Asif Nawaz, Sampath Chinnam, Muhammad Muzammal,... - 'Formulation Development and Optimization of Herbo Synthetic Gel: In vitro Biological Evaluation and In vivo Wound Healing Studies', Journal of Process Biochemistry, Vol.130, 2023/4/13, Pg. 116-126.
- K Gurushantha, Nagaraju Kottam, S P Smrithi, M S Dharmaprakash 'Visible Light Active WO₃/TiO₂ Heterojunction Nanomaterials for Electrochemical Sensor, Capacitance and Photocatalytic Applications', Journal of Catalysis Letters, 2023/5/13, Pg. 1-12.
- VinayakAdimule, Basappa C Yallur, Rangappa Keri, Chinna Bathula, Sheetal Batakurki – 'Microstructure, Photoluminescence and Electrical Properties of SmxGd(1-x): SrO Hybrid Nanomaterials Synthesized via Facile Coprecipitation Method', Journal of Electronic Materials Letters, Vol. 19(3), 2023/5, Pg. 278-297.
- Gilbert Eshun, Usman Abubakar Haruna, Sampath Chinnam - 'Marburg virus disease in Equatorial Guinea: The need for one health approach', Journal of Travel medicine and infectious disease, Vol. 53, 2023/5/1, Pg. 102571.
- Bhagyashri J. W., Sandip N, Sampath Chinnam –
 'Design, docking, MD simulation and in-silco ADMET prediction studies of novel indolebased benzamides targeting estrogen receptor alfa positive for effective breast cancer therapy', Journal of Pharmacia, Vol. 70(2), 2023/5/11, Pg. 307-316.
- Vinuta Kamat, Vinayak Adimule, Basappa C Yallur,
 D H Manjunath, Sheetal Batakurki 'Study of Temperature Effect on the Structure and Optical Properties of RIT-62 Cu-MOFs', Engineering Chemistry, Vol. 2, 2023/6/16, Pg. 13-22.
- Sharanabasappa B Patil 'Recent medicinal approaches of novel pyrimidine analogs: A review', Journal of Heliyon, 2023/6/2.

 K Gurushantha, G Jagannath, S B Kolavekar
 'Gold nanoparticles enhanced femtosecond nonlinear optical properties of sodium borate oxide glasses', Journal of Gold nanoparticles enhanced femtosecond nonlinear optical properties of sodium borate oxide glasses. Journal of Infrared Physics & Technology, Vol. 131, June 2023, Pg. 104663.

Funded Project

- Dr. Nagaraju Kottam received grant from VTU for the project titled: Design and Development of Carbon dot (C-dot) Based Nanosensors: Detection of Environmentally and Biologically Relevant Metal Ions, sanctioned date: 18.02.2022, Amount: 700000/-.
- 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.
- 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

Book Chapters

- K Samrat, T P Krishna Murthy, G Divyashri, R Hari Krishna, M N Chandraprabha – 'Nanotechnology: Antidiabetics, Antioxidant and Anti-inflammatory', Book chapter, Recent Developments in the Synthesis and Applications of Pyridines, 2023/5/19,Pg. 235-263.
- Sapana Jadoun, Sampath Chinnam, Narendra Pal Singh Chauhan – 'Biosynthesis of nanoparticles using plant extract', Book Chapter, Publisher Elsevier, 2023/7/21, Pq. 101-117.



 T. P Krishna Murthy, R Hari Krishna, M N Chandra Prabha - 'Supercritical CO2 Extraction as a Clean Technology Tool for Isolation of Essential Oils', Book Chapter, Essential Oils: Extraction Methods and Applications, 2023/7/14, Pg. 767-793.

Patents

- Nagaraju Kottam, Sampath Chinnam, Gurushantha
 K 'User-friendly photocatalytic reactor', 2023/4/6,
 Indian Patent. Patent number: 367109-001.
- Sampath Chinnam German patent: 'A system for the synthesis and antioxidant activity of novel iminophosphoranes', 2023/5/22, Patent number: 202023102486.
- Sampath Chinnam, Nagaraju Kottam patent (granted) 'Wall mountable autoclave' 2023/6/2, Patent number: 6287618.
- Sampath Chinnam UK patent (granted), 'Capsule filling machine for pharmaceutical purposes', 2023/6/20, Patent number: 6289614.
- Sampath Chinnam German patent (granted), 'A system for preparing a solid and chewable fluoride jellies', 2023/6/15, Patent number 202023103187.

Guest Lecture delivered by the department faculty

 Dr. B. M. Nagabhushana – 'Nano-structured oxide materials for Engg. Application', FDP- 'Current Trends in Material Physics for Engg. Application', 15-05-2023 to 19.05-2023, organized by BMSCE, Bengaluru

DEPARTMENT OF PHYSICS

Publications in (National/International) Journals

- Seema Agarwal 'Modulation of the electronic and magnetic properties of pyridinic N-doped graphene with Ni/Cr', International Journal of Computational Materials, Vol. 12(No. 1), (2023), pp 2250018.
- M R Ambika 'Aloevera mediated green synthesis and characterization of bismuth-copper-boron nanocomposite for radiation shielding application', Applied Physics A, Vol. 129(No.7), (2023), Pg.526.

- M R Ambika 'DMSO-Bismuth polymer composite as gamma radiation shield–A computational study', Materials Today: Proceedings (Available online-May 2023), https://doi.org/10.1016/j.matpr.2023.05.398.
- Kalpana Sharma, Tribikram Gupta, Vaijayanthimala
 S, RajeswariYogamalar N, VinayakAdimule, Hybrid
 MOFs supercapacitor: A mini review, Advanced
 Materials Research, Vol. 1177, (2023), pp 57-76.

Funded Projects

 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

 Dr. Ambika M R - 'Flexible and Graded polymer composite radiation shields for medical applications' RIT SEED GRANT (Ongoing).

Grant: Rs. 3.90 lakhs.

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

• Sherry Shajan Kuttukaran& Dr. Ambika M. R. has been awarded Dr. D.D Sood's Best paper presentation award for the paper entitled 'Multifiller based polymer composites for shielding high energy ionising radiation', presented during NUCAR 2023, held at Bhabha Atomic Research Centre (BARC), Mumbai during 1st – 5th May 2023.

DEPARTMENT OF HUMANITIES

Publications in (National/International) Journals

 Diwakar Prahaladaiah – 'Technology Integration in Teaching and Learning English Phonetics', in Journal of Mines, Metals and Fuels, Vol.71(6), Pg. 867-872, 2023. DOI: 10.18311/jmmf/2023/34503



 Mrs. Kanyakumari. S – 'Basavannana kaalada praja prabutva haagu samvidhanada AmshagaLu', Multidisciplinary Kannada Research journal of IIMRD, peer reviewed & Referred Journal, May - June 2023, Vol.4(6), pp.29-36, ISSN No.: 2582-2284, RJIF: 4.89.

MASTER OF COMPUTER APPLICATIONS



 Organized a 3-day workshop on Full Stack development for the 2nd semester MCA students and for faculty from 15th to 18th June 2023. The resource person Mr. Chennabasappa from Fluke Corporation briefed about the real time application deployment using Reactis, node and expressis.

Publications in (National /International) Journals

- Nithya B N, D Evangelin Geetha, Manish Kumar
 'Optimal Hybrid Classification Model for Event Recommendation System', DOI: 10.3233/WEB-220137, Web Intelligence, vol. Pre-press, no. Prepress, pp. 1-18, 2023.
- Ajitha S, Nisha Sangavi V and Lavanya M N –
 'Prediction of Autism Spectrum Disorder using Gene Expression', Grenze International Journal of Engineering and Technology, Vol.9(2), June 2023, pp. 1576-1582.

Guest Lecture delivered by the department faculty

 Dr. Manish Kumar - 'Mitigating Social Engineering Attack', and Phishing Attack Tools, Techniques and Attack Vector', during the AICTE-VTU Joint Training Programme for AICTE Approved & VTU Affiliated

- Institution Teachers 5 Days Training Programme on 'Introduction to Cyber Security' 25th May 2023.
- Dr. Manish Kumar 'Cyber Hygiene for Biomedical Institutions: Train the Trainer Workshop', 17th - 19th April 2023, New Delhi Organized by Health Security Partners, Carnegie India - Carnegie Endowment for International Peace and BEP.

Faculty who obtained Ph.D. degree



Chethan Venkatesh was awarded Ph.D. degree by Visvesvaraya Technological University, Belagavi, in May 2023. His Title of the thesis work is 'On Dynamic Provisioning of Resources in Cloud', guided by Dr. Shiva Murthy.G, Associate Professor,

Department of Computer Science and Engineering, VTU Centre for PG Studies, Muddenahalli.

DEPARTMENT OF MANAGEMENT STUDIES

Publications in (National /International) Journals

- Dr. P. V. Raveendra, Dr. Arunkumar D. C Dr.
 G. Vijayakumar 'Stress Management among employee in health care sector and strategies to overcome', in the European Chemical bulletin, Vol. 12(1), (Part-A), DOI:10.31838/ecb/2023.12.sa1.020.
- Dr. P. V. Raveendra, Mrs. Sohini Gupta 'An investigation towards identifying the dimensions influencing investment in Mutual Fund schemes in Bangalore city', in the European Chemical bulletin, Vol.12(8), 2023, DOI:10.48047/ecb/2023.12.si8.258.
- Dr. Rizwana. M 'Traditional food consumption in the modern era: assessing the millet consumption behavior among South Indian Urban Women', Journal of Food Research. Vol. 7(3), pp. 22-28, June 2023.
- Dr. Deepak R, Dr. P V. Raveendra, Dr. Vaijanath
 Babshetti 'Calendar Anomalies in S & P BSE 100
 ESG Index performance in India: An Examination of Day-of-the-Week Effect', European Chemical



- Bulletin, Vol. 12(1), (Part-B), pp. 3696-3705, 2023, DOI: 10.31838/ecb/2023.12.s1-B.371, (Q3 Journal).
- Dr. Vaijanath Babshetti, Dr. P V. Raveendra, Dr. Deepak R 'Safety of health care workers pre and post COVID-19: Lessons to be learnt', European Chemical Bulletin, Vol. 12(4), 2023, pp.1895-1900, DOI: 10.31838/ecb/2023.12.si4.159 (Q3 Journal).

Paper presentation in International /National Conferences

- Dr. A. Mahalakshmi 'Leveraging Big Data in financial institutions and law enforcement: Challenges and Opportunities', at the ICACITE-2023, at Galgotias College of Engineering & Technology on 12th & 13th May 2023.
- Dr. Deepak. R 'Paraphrasing investment decisions in IPO based on machine learning models: A quantitative assessment', in the International conference on Emerging Trends, Challenges & Opportunities in Global Business, Management and Technology at Visvesvaraya Technological University, Department of Management Studies, Machhe, Belagavi, on 9th June, 2023.

Achievements/ Awards/Prizes by Students

 Nachiketh. P, Raja Krishna. R. A, Deepak. S, won winner's trophy in the Sri Chamaraju Memorial State Level Inter Engineering Collegiate Cricket Tournament 2022-23 at RV College of Engineering, Bengaluru from 18th to 29th May 2023.

DEPARTMENT OF ARCHITECTURE

Publications in Journals

 Sreesha S Bhat, Meghana K Raj – 'Challenges in Contour Planning: Approach towards Designing in Hilly Regions', International Journal of Multidisciplinary Educational Research (ISSN: 2277-7881), Vol.12, Issues 3(3), April 10th 2023.

Guest Lecture/s - Invited

 'Legal Aspects of Real Estate' by Mr. Keerti Kumar (Affiliation) was held on 21st April 2023

- 'Application of Green Rating Systems in Architectural Design' by Ar Nikita Torvi (Affiliation) was held on 21st April 2023
- 'Pedestrianization Strategies for Urban Design' by Ar. Raj Kumar Pandith (Affiliation) was held on 28th April 2023.

Student Achievements

- R. Pranesh from Semester IV as part of the college cricket team won the VTU CENTRAL ZONE –First Place and VTU INTER ZONE Runners Up.
- Saswati patra and Sanghamitra Saha from IV
 Semester participated in 22nd VTU Youth Festival

 Yuvothsava 2023 held at Nagarjuna College of Engineering and Technology from 29th March to 1st April 2023. They won 2nd place for the on spot painting competition and Poster making Competition respectively.

Faculty who obtained Ph.D degree



Rajeshekar Rao obtained his Ph.D. from Jawaharlal Nehru Architecture Fine Art University-Telangana, Hyderabad for his work on 'Impact of Urbanization on lakes – the case of Bangalore', His research supervisor is Dr. Padmayathi Pervar.



Dr. Jotirmay Chari obtained her Ph.D. from School of Planning and Architecture (SPA), University of Mysore for her work on 'Effect of Airport corridor on adjoining neighborhoods in North Bengaluru', Her research supervisor was Dr. B Shankar.

"Education is the power to think clearly, the power to act well in the world's work, and the power to appreciate life."

- Brigham Young



PLACEMENT & TRAINING

The Main Highlights - 2023 batch (ongoing)

Number of companies: 342 Companies

Total Number of Offers: 1355 offers

· Highest Stipend:

Atlassian: 1,30,000/- Per month

4 Students selected

· Highest CTC:

50 LPA

3 Students selected

International Placement:

5000 AED / month), Dubai,

3 Students selected

The Main Highlights - 2024 batch (ongoing)

Number of companies: 32 Companies
Total Number of Offers: 48 offers

· Highest CTC:

23.17 LPA,

3 Students selected

DEPARTMENT OF SPORTS



 CRICKET - WINNERS: RIT Diamond Jubilee and Centenary Celebration of Dr. M S Ramaiah, All India Inter Engineering Colleges Cricket Tournament, held from 18th to 28th April 2023.



CRICKET- WINNERS – 'Sri Chamaraju Memorial State Level Inter Engineering Colleges Cricket Tournament', organised by RVCE, Bangalore held from 18th to 29th May 2023.











PRIT Diamond Jubilee and Centenary Celebration of Dr. M S Ramaiah, All India Inter Engineering Colleges Cricket Tournament was held from 18th to 28th April 2023. Around 16 teams took part in the Tournament. Tournament inaugurated by Dr. N V R Naidu, Principal, RIT and witnessed by Dr. Pradeep Kumar Dixit, Vice-Principal, RIT, Dr.Archna, Registrar Academic and Sri. Mahadev Kakkari, Registrar Administration, RIT. The prize distribution ceremony was held on 29th April 2023 in College. Cash Award & Prizes distributed by Sri. M R Seetharam Sir, Hon'ble Vice-Chairman, GEF & Director, RIT.

Results:

COLLEGE	POSITION	CASH AWARD
Ramaiah Institute of Technology	WINNERS	1 LAKH
RVCE	1st RUNNER UP	60,000/-
BMSCE	2 nd RUNNER UP	40,000/-
Global Academy of Technology	3 rd RUNNER UP	

DECA



MSRMPD 2023 marks the first ever PD conducted in the era of shift to online tournaments in the offline fashion on 1^{st} and 2^{nd} of April. The mark of the celebration of the centennial celebration makes this return even more special. MSRMPD 2023 started with a banner posted in front of the ESB to mark the official return of the tournament. Participants were asked to arrive on campus from different cities like Mumbai, Delhi, Pune, and Gujarat to Bangalore by around 10 am to begin roll call. The finals were intense with all teams equally engaged with hypotheticals, rebuttals, painting thought experiments, using visceral examples to appeal to the esteemed panel of the final judges. The finals panel was chaired by Daniel Monteiro an alumnus emeritus of MSRIT with the top achievements across India, Malaysia, Bangladesh, Singapore, and Europe. The finals were clutching and everyone was hooked until the last minute.

NEW APPOINTMENTS

Department of Computer Science & Engineering



Uzma Sulthana joined as Assistant Professor in Computer Science, graduated with a Master's Degree in Computer Science and Engineering in the year 2018. Her areas of interest include Mobile Application

Development, Robotic Process Automation, Computer



networks, Java Programing and AI&ML.



Brunda G. joined as Assistant Professor in Computer Science Department. She holds a postgraduate degree in the computer science and engineering. Her areas of interest include AI & ML, Data Science, Big Data Analytics and Data mining.

Master of Computer Applications



Sushitha S joined as an Assistant Professor in the Department of Master of Computer Applications. Her areas of interests include Data Science, Data Analytics, Content Analysis and Web Mining. She has 12 years of teaching experience.



Tamal Sarkar joined as an Assistant Professor in the Department of Master of Computer Applications. His areas of interests include Reinforcement Learning, Genetic algorithms, Nature inspired

algorithms, Multiagent system.

Department of Architecture



Aparna M P is working as an assistant professor in the department of Architecture, MSRIT. Her areas of interest include educational campus designs, public space designs and contemporary architecture in India.

PHOTO GALLERY - PRADARSHANA - 2023

















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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

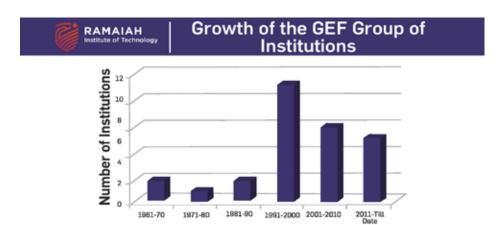
Ramaiah Leena Hospital

Ramaiah Harsha Hospital

Ramaiah Clinical Research Centre

Ramaiah INDIC Speciality Ayurveda

Ramaiah International Medical School



Time (Decades)

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