



A quarterly News Bulletin

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Assistant Professor, Dept. of ECE

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Dept. of Humanities

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Greetings,

It gives me great satisfaction to connect with every one of you again with another issue of Sampige, News Bulletin of RIT of the year 2021. Due to the pandemic, we have faced a lot of challenges and I must appreciate our management, staff, students, and parents for their continuous cooperation despite this vulnerable situation. We have missed a great opportunity to organise a Fresher's day (Commencement of classes for I year B.E/B.Arch. Programs) and Graduation Day for the award of the provisional degree of B.E and

B.Arch., M.Tech. M.Arch., MBA, in the institution as earlier due to pandemic (Covid-19). I appreciate all the passed out students particularly rank achievers of different branches. All the endeavors have been made to compile information about the activities of the institution satisfactorily since we consider this news bulletin as a powerful communication tool. I believe that you will acknowledge and appreciate this issue. Sampige, News Bulletin regards your commitment and I look forward to your never-ending support in the coming issue.

Best wishes Dr. N. V. R. Naidu



Friends,

I wish we are about to enter the year 2021 with a glimpse of hope provided by the reduction in the number of Covid cases in the past few months. Due to the pandemic, we have faced a lot of challenges, and I must appreciate our entire department Heads for their proactive response in making the current issue of the News Bulletin of RIT, a well-documented one. Once again the editorial board has spared all its efforts in making this issue a special one. The editorial team would like to thank all the Heads of departments for submitting news, information compiled here. While we have made

a sincere effort, any error is deeply regretted. We look forward to your comments and suggestions. I wish you all joyous and rewarding days ahead.

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 M.S. 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.







- As per NIRF, MHRD, Govt. of India. 2020 nif



Founder Chairman Dr. M. S. Ramaiah (1922 - 1997)



Industrious and enterprising, Dr. M. S. Ramaiah is among Karnataka's illutrious sons and an engineering contractor of national repute. He founded 'Gokula Education Foundation' in 1962 without expecting any kind of assistance from the establishment with an objective of serving the society. M.S. Ramaiah Institute of Technology (MSRIT) was born under the aegis of this foundation in the same year, creating a landmark in technical education in India. Through the years MSRIT has imparted quality engineering and education, accessible to thousands from across India and abroad, facing a lack of opportunity to pursue higher education.

Widley acknowledged as a visionary, educationist, industrialist and philanthropist, Dr. M. S. Ramaiah

personally ensured that the institution which began with just two disciplines, grew phenomenally over the years. MSRIT now offers Bachelors, Masters and Dectorate programmes in several disciplines and is recognised as one of India's leading names in technical education. The institution is with state-of-the-art laboratories, well stocked libraries and has highly qualified, experienced and dedicated faculty. In tune with the noble ambitions and aspirations of Dr. M. S. Ramaiah, to keep the institution growing and developing continuously so as to become a 'Jnana Sagara', all departments are continuously engaged in implementing approprite procedures to initiate, include and conduct unique programmes keeping in touch with the emerging requirements of the industry.

Hearty Congratulations!

Best NCC Cadet



RIT Congratulates **Shreeshma Hegde** student of B.E.I year from department of E & C for winning the RakshaMantri medal for being the best NCC Cadet from the Southern Division.



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

- The department in association with IEEPES society, Bangalore has organized a Five-day Online Faculty Development Programme on 'Power Converters for Transportation Electrification Applications', during 27-31 Jul 2020. The FDP focused on power converter design simulation, battery characteristics, and electric power train. The experts were from Ontario Tech University, Bloom energy, NITK, and RIT.
- The department in association with IEEPES society, Bangalore has organized a Five-day Online Faculty Development Programme on 'Challenges and opportunities in SMART GRID', during 20-24 Jul 2020. The FDP focused on the integration of renewable energy to the smart grid, security aspects, and energy storage. The speakers were from Washington state university, IOWA state university, NITK, and RIT.

Paper Publication in International/National Conference:

- Kusumika Krori Dutta, Aniruddh Herle, Lochan Appanna, Tushar A, Tejaswini K - 'Classification of Kannada Handwritten Alphabets using Multi-Class Support Vector Machine with Convolution Neural Networks', 2nd International Conference on Innovative Computing and Cutting-edge Technologies, Bangkok, Thailand, 11th - 12th September 2020.
- Gayatri R, Sridhar S 'Speed Control of Dual Induction Motor Using Five Leg Inverter', 2nd International Conference on Design and Manufacturing Aspects for Sustainable Energy (ICMED 2020), 10th - 12th July 2020.
- K Naraharisetti, J Channegowda 'Single-Stage PFC Flyback AC-DC Converter Design', IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT 2020), Bangalore, 2nd - 4th July 2020.
- A Herle, J Channegowda, D Prabhu 'Quasar Detection using Linear Support Vector Machine with Learning from Mistakes Methodology', IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT 2020), Bangalore, 2nd - 4th July 2020.

Guest Lectures delivered by the department faculty:

- Dr. Pradipkumar Dixit 'Block chain in Energy Trading', 24th July 2020 in Five-day online FDP on 'Challenges and Opportunities in Smart Grid' held during 20th - 24th July 2020 in association with IEEE PES Bangalore Chapter, organized by EEE & IQAC-MSRIT, Bengaluru.
- Dr. Pradipkumar Dixit 'Overvoltage's in Power Systems', 25th July 2020 in National Level One Week Online Faculty Development Program on 'Contemporary Scenario in Power Systems', held from 25th 30th July 2020, organized by Department of Electrical & Electronics Engineering, ATME College of Engineering, Mysore.
- Dr. Pradipkumar Dixit 'Curricular Aspects', 21st September 2020 in six-day virtual Faculty Development Program on 'Revised NAAC Framework', held from 21st - 26th September 2020, organized by Ramaiah Institute of Management, Bengaluru.

Guest lectures conducted in the department

- Prof. Sundarajan (Retd.), Illinois Urbana campaign

 'How to write an effective research paper', this program was organized in association with IEEE student's branch along with IEEE PES arranged a talk on 29th August 2020.
- Dr. Vidyadhar Peesapati, Research Fellow in High Voltage Engineering, University of Manchester-'Using FEA methods for high voltage applications'. This program was organized in association with IEEE student's branch along with IEEE PES arranged a talk on 16th September 2020.

DEPARTMENT OF MECHANICAL ENGINEERING

- Online Faculty Development Program, 'Vishwa Guru Bharatha The glory of Traditional Indian Sciences and Technologies' was conducted by the department from 27th to 31st July 2020. The FDP was conducted with a vision to train faculties from various colleges to be able to offer an elective course on the theme.
- A Webinar on 'Hard Material Synthesis through Powder Metallurgy' was organized by the Advanced

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- Materials Research Club of the Mechanical Engineering Department on 27th August 2020. The talk was delivered by S. Ramesh Rao from R & D Centre, Kennametal India limited.
- An online 3-day FDP on Simulation Techniques for Castings and other processes was organized by the Department of Mechanical Engineering, RIT, Bangalore in association with the Institute of Indian Foundrymen, Bangalore Chapter, from 14th to 16th August 2020. This program focused on the different simulation techniques to analyze the processes and the optimization of time from the basic design stage to the finished stage.
- Organized a one-week online FDP on 'Tools and Techniques for Data Analysis in Academic Research' from 20th July 2020 to 24th July 2020. The Chief Guest of the program was Mr. Mangesh Narayan, Chief Manager - Quality and Data Analysis, from Siemens India.

Publication in (National/International) Journals:

- Sridhar B. S, Basavaraj 'Optimization of Design Parameters, Performance Analysis of Rail-Wheel Assembly', International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181, Volume 8, Issue 14, page 14- 19, September 2020.
- Sridhar B. S, Vishnu P. K 'Synthesis and Mechanical Characterization of Polyurethane Foam and Hybrid Natural Fiber-based Sandwich Composite', International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181, Volume 8, Issue 14, page 175- 181, September 2020.
- Sridhar B. S and Shravan Upadhyaya 'Study and Analysis of the Mechanical Properties of Carbon/ Epoxy Composites used for Automobile Wheel Application', International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181, Volume 8, Issue 14, page 100 - 103, September 2020.

Publication in (National/International) Conferences:

 Akshay Krishnan, Shashank Swarna, Balasubramanya H S - 'Robotics, IoT and AI in the automation of Agricultural Industry: A Review', The IEEE Bangalore Humanitarian Technology Conference (B-HTC) 2020, held virtually during October 8 -10, 2020.

- Sharadh M, Nispruha G Srinivas, Lokesha 'Finite Element Analysis of a Rectangular Plate
 with an Elliptical Hole Using ANSYS', International
 Conference on Advanced Materials Science and
 Applications, ICAMSA-2020, Department of Physics,
 Ramaiah Institute of Technology, Bangalore, 3rd 4th
 September 2020.
- Madhu K, Prakrathi S, Bhaskar Mane
 'Computational studies on the mechanical stability
 of degrading implant', International Conference
 on Advanced Materials Science and Applications,
 ICAMSA-2020, Department of Physics, Ramaiah
 Institute of Technology, Bangalore, 3rd 4th September
 2020.
- Abhilash. S, Dr. C.M. Ramesha, Dr. T. Anil Kumar, Dr. Sharanraj V 'Tribological Study of CoCrMo Alloy Pin on Ultra High Molecular Polyethylene Plate Used in Hip Implant', International Conference on Advanced Materials Science and Applications, ICAMSA-2020, Department of Physics, Ramaiah Institute of Technology, Bangalore, 3rd 4th September 2020.
- Tejas K, Dr. T. Anil Kumar, Dr. C. M. Ramesha and Dr. Sharanraj V - 'Electrochemical Corrosion Behavior of SS316L and Ti-6Al-4V ELI Biomaterials used in Medical Dental Implantation', International Conference on Advanced Materials Science and Applications, ICAMSA-2020, Department of Physics, Ramaiah Institute of Technology, Bangalore, 3rd - 4th September 2020.
- Neeshant, Dr. Jyothilakshmi R, Dr. Praveen C Ramamurthy-'Synthesis and characterization of PVC and EVA for engineering applications', International Conference on Advanced Materials Science and Applications, ICAMSA-2020, Department of Physics, Ramaiah Institute of Technology, Bangalore, 3rd - 4th September 2020
- Akshaykumar Purad, Arunkumar G K, Ankit Lokhande, Nagaraja R, Rajendra P - 'Mechanical Properties Evaluation by using Grain Refinement of Low Carbon Steel under Different Cooling Medium', International Conference on Advanced Materials Science and Applications, ICAMSA-2020, Department of Physics, Ramaiah Institute of Technology, Bangalore, 3rd - 4th September, 2020.



- Nagesh S N, Manjunath G, Putta Bore Gowda B, Ramachandra C G, Nataraju S N – 'Wear characteristics of double ceramic particulate hybrid aluminum matrix composite', ICOFTIME-2020, Presidency University, Bangalore, 11th - 12th September 2020.
- Manjunatha G, Nagesh S N, and Raji George 'Effect of dispersion and improper bonding of nanofiller polymer composites', ICOFTIME-2020, Presidency University, Bangalore, 11th - 12th September 2020.
- Shashikiran G, Ramachandra C. G, Nagesh S. N, Nataraju S. N - 'Study on machinability of copperbased alloy using Taguchi method', ICOFTIME-2020, Presidency University, Bangalore, 11th - 12th September 2020.
- Nataraju S. N, Ramachandra C. G, Nagesh S. N 'Synthesis and characterization of Al2O3/SiO2 Aluminum matrix hybrid composites', ICOFTIME-2020, Presidency University, Bangalore, 11th 12th September 2020.
- Sridhar B S, Vishnu P K 'Synthesis and Mechanical Characterization of Polyurethane Foam and Hybrid Natural Fibre Based Sandwich Composite', 1st National Conference on Emerging Trends in Engineering Science for Future Technology-[NCETESFT 2020] organized by Sri Siddhartha Institute of Technology, Tumkur, India, 5th August 2020.
- Sridhar BS, Basavaraj 'Optimization of design parameters, performance analysis of rail wheel assembly', 1st National Conference on Emerging Trends in Engineering Science for Future Technology-[NCETESFT 2020] organized by Sri Siddhartha Institute of Technology, Tumkur, India, 5th August 2020.
- Sridhar BS, Shravan Kumar 'Study and Analysis of Mechanical Properties of Carbon/Epoxy Composites used for Automobile Wheel Application', 1st National Conference on Emerging Trends in Engineering Science for Future Technology- [NCETESFT 2020] organized by Sri Siddhartha Institute of Technology, Tumkur, India, 5th August 2020.

Guest Lectures delivered by the department faculty:

 Ashok Kumar K - Technical talk on 'Adsorption Cooling Technologies', a webinar organized by the

- Department of Mechanical Engineering, Gopalan College of Engineering and Management, Bangalore, 01st July 2020.
- Aruna Kumara P. C Invited online talk on 'Role of fracture mechanics in design technology', City Engineering College Bangalore, 23rd July 2020.
- Aruna Kumara P. C Expert talk on 'Workplace stress' an AICTE ATAL sponsored online FDP, Government Engineering College, Haveri, 5th September 2020.
- Jyothilakshmi R 'Webinar on Chemistry behind Biocompositing and Biogasification'-A sustainable way of Managing Organic Waste, JSS college for women, Mysuru, 10th August 2020.
- Jyothilakshmi R 'Biogasification for Biodegradable waste' - A Sustainable Energy solution, a three-day workshop on Sustainable solutions for Green Living organized by Vidyavardhaka College of Engineering, Mysuru, 10th - 12th August 2020.
- K. R. Phaneesh 'Metallurgical wonders of India' on 28th July 2020 organized during the Webinar 'Vishwa Guru Bharatha - The glory of traditional Indian Sciences and Technologies' held between 27th to 31st July 2020
- Sridhar B. S Webinar on 'Innovative Materials for Automobile Applications", Department of Mechanical Engineering, Kuppam Engineering College, Kuppam, 28th August 2020.

Funded Project:

 Dr. Sunith Babu – Project titled 'Experimental Investigation of Low-Velocity Impact and Damage studies of Hybrid Composite Inter/Intra layered with Glass Carbon Kevlar fibers for aerospace application' funded by All India Council for Technical Education, New Delhi.

Grant: Rs. 21,64,706/-

Project Duration: 3 Years.

Achievements / Awards / Prizes by Faculty / Staff / Students:

 Dr. Raji George, and K.R.V. Subramanian, has edited a book titled 'Organized Networks of Carbon Nanotube' Published by CRC Press, Taylor & Francis Group, 52 Vanderbilt Avenue, New York, USA.



DEPARTMENT OF CIVIL ENGINEERING

- Department of Civil Engineering in collaboration with the School of Architecture organized an online faculty development program titled 'Sustainability Concepts in Civil Engineering & Architecture' from 20th - 25th July 2020.
- Organized online faculty development program on Civil Engineering Structures Subjected to Vibrations from 2nd - 4th September 2020 for faculty and PG students. Dr. Ananth Ramaswamy, Dr. Raghuprasad from IISc, Dr. G. R. Dodagoudar from IIT Chennai, etc. were the resource persons.
- Organized online five-day faculty development program on 'Advances in Water Resources Management and Sustainable Environment' from 17th - 21st August 2020. The keynote speaker for the program was Dr.T V Ramachandra from IISc. Resource persons were from NITK, Industries, and NGO's.
- Organized Six Days Online Faculty Development Program on 'Advanced Surveying and Geo-Informatics' from 24th - 29th August 2020. The Keynote speaker was Dr.Nagesh Kumar from IISc, and resource persons were from ISRO, IIT's, and Environmental Systems Research Institute.
- Faculty Development Program was conducted on 'Smart City Innovations by Applying Engineering Technologies' from 5th - 7th August 2020. The Keynote speaker was Dr. Ravi D R, from KSPCB, and resource persons were from Karnataka State Natural Disaster Monitoring Centre (KSNDM), NGO and reputed academic institutions.
- Online 3 Day Technical Workshop was organized for students on '3D modeling, analysis, and design using REVIT Architecture and REVIT Structure' from 6th – 8th August 2020. The resource person was Mr. Er. R. Udhayasankar, Structural Consultant.
- An Initiative of Ministry of Human Resource Development under the National Mission on Education through ICT. With NITK, Surathkal as the outreach centre, Ramaiah Institute of Technology has been recognized as a Virtual Lab Nodal Centre on 30th July 2020. The Coordinator of Virtual Lab

Nodal Centre is Smt. Nruthya K, Assistant Professor, Department of Civil Engineering. Virtual Lab Webinars on 24^{th} July for 1^{st} and 2^{nd} year students and on 30^{th} July 2020 for 3^{rd} and final year students have been successfully conducted.

Publications in National/International Journals:

 N. Srilatha, and R. Praveen – 'Stabilization of Soil Using Rice Husk Ash and Fly Ash', Proceedings of IGC 2018, Part of the Lecture Notes in Civil Engineering book series, (LNCE, volume 88), Springer publication September 2020.

Paper presentation in National/International Conferences:

- Bharath T K and Y.K. Guruprasad 'Stability Analysis of an RC Structure with RC Shear walls in the event of a fire', National Conference on Recent Advances in Structural Engineering NCRASE-2020, during 21st - 22nd August 2020, Department of Civil Engineering, NIT Jamshedpur India.
- Bharath T K and Y.K. Guruprasad 'Response of Multi-Storeyed Structures Subjected to Blast Loading', National Conference on Recent Advances in Structural Engineering NCRASE-2020, Department of Civil Engineering, NIT Jamshedpur India, 21st 22nd August 2020.
- Anup A Shukleand Y.K. Guruprasad 'Efficacy of lateral load resisting systems in high-rise structures, National Conference on Recent Advances in Structural Engineering NCRASE-2020, Department of Civil Engineering, NIT Jamshedpur India, 21st 22nd August 2020.
- Anup A Shukleand Y.K. Guruprasad 'A comparative study of wind effects on high-rise structures having different shapes in plan', National Conference on Recent Advances in Structural Engineering NCRASE-2020, Department of Civil Engineering, NIT Jamshedpur India, 21st 22nd August 2020.

Guest Lecturers - Invited:

 Dr. S.B. Hegde, Joint Executive President JK Lakshmi Cement Ltd – 'Relevance of Chemistry in Concrete and Secondary Cementitious Material', 21-07-2020.



- Aakash Bikaram Rana (Structural Engg. USA), Adwait Sharma (IISc), Amin Shakya (Netherland) Ankur Bajpai (L & T), Arjun P H (RICS), Prem Kumar Yadav (IIM Ranchi) - 'Career Planning & Goal Setting', 26-07-2020.
- Dr. Manamohan R Kalgal, Ex-President, ICI Technical - 'Emerging Trends in Construction Technology-Need For Essential Skills', 05-09-2020.
- Er. Nagesh Puttaswamy, Zonal Head-South, White Topping and RMD, M/S. UltraTech Cement Ltd, Bengaluru - 'Imparting Professional Skills, Opportunity and Technologies for Teachers', 05-09-2020.

Guest Lectures delivered by the department faculty:

 Dr. Jyothi Roopa. S.K – 'Studies on Renewable Energy Sources in Dairy Industry – A way to reduce carbon footprint', Dept of Civil Engineering, BMS College of Engineering, Bangalore, 10-07-2020.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

- One-week workshop on 'BIOSENSORS: Fundamentals to Advances, Scope & Applications', was jointly organized with Departments of ML and ETE from 3rd - 8th August 2020.
- One-week workshop on 'AI/ML Techniques in VLSI Design, was jointly organized with Departments of ML and ETE from 20th - 25th July 2020.
- One-week workshop on 'AI and ML Applications in Image Processing using Modern Tools', was jointly organized with Departments of ML and ETE from 13th - 18th July 2020.

Publications in (National / International) Journals:

- Varun C.R, Sumant A Gunagi, Venugopal K.A.
 & Shrinath Darur 'How Technology Can Defeat COVID-19', Journal of Dental & Oro-facial Research, Vol. 16, No. 2, pp. 44 50, 2020.
- Reshma Verma, Shreedarshan K, Lakshmi
 Shrinivasan 'Adaptive Fuzzy Augmented H-infinity

- Fusion Filter for Target Tracking Applications', Journal of Advanced Research in Dynamical and Control Systems, Vol. 12, No. 6, pp. 1873 1884, 2020.
- V Anandi, M. Ramesh 'Power Reduction in SoC Platform', International Journal of VLSI and Signal Processing, Vol. 10, No. 2, Ser. I, pp. 1 – 7, 2020.
- Sharmila Suttur, Sarala S M, Mamtha Mohan 'Receive Antenna Selection for MIMO Systems with
 Equal Transmit Power Allocation', International
 Journal of Advanced Science and Technology, Vol.
 29, No. 3, 2020.
- K.V. Suma, G.M. Lingaraju, P.A. Dinesh, & R. Nivedha. 'Electroencephalogram-based Emotion Recognition using a Particle Swarm Optimization Derived Support Vector Machine Classifier', Critical ReviewsTM in Biomedical Engineering, Vol. 48, No. 1, pp. 17 28, 2020.
- Vikas. M, Sushmith. T and Suma K V 'Distributive Manufacturing of Clinical Needs during Covid 19', Journal of Dental & Oro-facial Research, Vol. 16, No. 02, pp. 39 43, 2020.
- Sethu Selvi S, Manisha Shetty and Kushagra Awasthi – 'Application of Artificial Intelligence in Tackling COVID 19 – A Review', Journal of Dental & Oro-facial Research, Vol. 16, No. 02, pp. 57 – 65, 2020.

Paper presentation in National / International Conferences:

- K. Awasthi, P. Nanda, K. V. Suma 'Performance Analysis of Machine Learning Techniques for Classification of Stress Levels using PPG Signals', 6th IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, 2nd 4th July 2020, doi:10.1109/CONECCT50063.2020.9198481.
- Vidya M, Maya V Karki 'Skin Cancer Detection using Machine Learning Techniques', 6th International Conference on Electronics, Computing and Communication Technologies, IEEE CONECCT, Bangalore, 2nd – 4th July 2020

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- Priyadarshini L, Lakshmi Shrinivasan 'Low Power, Low Area Implementation of CORDIC Architecture using Carry Select Adder for real-time DSP Applications', 6th International Conference on Electronics, Computing and Communication Technologies, IEEE CONECCT, Bangalore, 2nd 4th July 2020, DOI:10.1109/CONECCT50063. 2020.
- E Dhanush Gowda, V Nuthan Prasad 'Design of Log-Periodic Monopole Array Patch Antenna for UWB Applications using Alphabetic Slots on Partial Ground Plane', 6th International Conference on Electronics, Computing and Communication Technologies, IEEE CONECCT, Bangalore, 2nd – 4th July 2020 DOI:10.1109/CONECCT50063.2020.9198497
- Aishwarya Kagalkar, Raghuram S 'CORDIC based Implementation of the Softmax Activation Function', 24th International Symposium on VLSI Design and Test (VDAT), 23rd – 25th July 2020, DOI: 10.1109/ VDAT50263.2020.9190498.

Guest Lecture delivered by the department faculty:

 Gangadharaiah S L – 'Virtual Workshop on System Verilog' at Agimus Technologies Pvt. Ltd, Bangalore, 5th – 6th September 2020.

Funded Project:

 Gangadharaiah S L – 'Design and Implementation of FPGA based Adaptive Filters', Knowx Innovation Pvt. Ltd, Vijaynagar, Bangalore.

Grant: Rs. 50,000/-

• **Dr. C. G. Raghavendra** – 'IT Solutions for K. K. Constructions', K. K. Constructions Yelahanka, Bangalore.

Grant: Rs. 5.25 Lakhs/-

 Sara Mohan George – 'Multipurpose Smart Wheel Chair', FAER McAfee Student Project Competition.

Grant: Rs. 55,000/-

 Dr. C.G. Raghavendra – 'Reduction of Sidelobe and PMEPR in Multicarrier Radar Signal', IETE Research Fellowship Grant.

Grant: Rs. 10,000/-

 Dr. Suma K V – 'Quantification of Electromyography (EMG) Signals for Detection of Knee Muscle Functioning in Elderly People', MSRIT AA In-house funding.

Grant: Rs. 5,000/-

 Dr. Sujatha B – 'Magnesium Ferrite Nano-material for EMI Suppression in Electronic Gadgets', MSRIT AA In-house funding.

Grant: Rs. 5,000/-

 Dr. Suma K V – 'Quantification of Electromyography (EMG) Signals for Detection of Knee Muscle Functioning in Elderly People', KSCST, Bangalore.

Grant: Rs. 5,000/-

 Dr. Lakshmi S – 'Developing Food Spoilage Alert for Mid-day Meal Scheme Centers to Prevent Food Poisoning using Sensors and IoT', FAER McAfee Student Project Competition.

Grant: Rs. 5,000/-

Achievements, Awards / Prizes by Faculty / Staff / Students:

- Dr. C G Raghavendra has applied for an Indian patent for 'A Non-Intrusive Method of Gender Segregation of Silkworm PUPAE', Ref No: 202041032883 Transaction ID: N-0000681357.
- Sarala S M has applied for an Indian patent for 'Humanoid Robot System for Assisting Elder People', Ref No:202041027734, published on 21/08/2020 with publication No. 34/2020.
- Sara Mohan George has applied for an Indian patent for 'A system and method for self-sanitizable gloves', TEMP/E-1/43899/2020-CHE Ref No: 202041039400 transaction ID: N-0000699350.
- Sara Mohan George mentored UG project 'Multipurpose Smart Wheel Chair' which won 3rd prize in FAER National Level Student Project Competition.

Learning is not attained by chance; it must be sought for with ardor and attended to with diligence.

- Abigail Adams



DEPARTMENT OF CHEMICAL ENGINEERING

- A faculty development program on Theoretical methods in Applied Chemical Engineering was successfully conducted from 10th to 14th August 2020. The FDP benefited 130 candidates from industry and academia. The technical talk was given by eminent speakers from different industries and academia.
- Department of Chemical Engineering and Department of Biotechnology jointly organized the workshop on Plant and Equipment Design (Webinar) from 24th- 28thJuly 2020. The technical talk was given by eminent speakers from different industries and academia. Mrs. Usha Rao, Head of Engineering and Mrs. Ebenezer Chellam, from Chemtex Consulting India, Pvt. Ltd. Dr. Shvakumar, V.P. Process, Sravanthi Advance Process Technologies Pvt. Ltd.

Publications in National / International Journals:

- Sowmya, Surappanahalli Rajanna, Madhu Gattumane Motappa, Madhusoodana Chengala Damodara – 'Neoteric approach for mitigation of fouling in membrane bioreactor utilizing green composites', Applied Water Science, 10:194, 2020, https://doi.org/10.1007/s13201-020-01280-6, Springer.
- H A Deepa, G M Madhu, B E Kumara Swamy, J Koteswararao 'Estimation of Photovoltaic Properties of ZnO nanoparticles and CeO₂-ZnO composite and Electrochemical Determination of Adrenaline Employing Voltammetry Studies', Journal of New Materials for Electrochemical Systems, 23 (2) 71-77 2020, ISSN: 1480-2422 (Print); 2292-1168 (Online) DOI: https://doi.org/10.14447/jnmes. v23i2.a03, International Information & Engineering Technology Association.
- Jammula Koteswararao, Madhu Gattumane Motappa, VenkateshamVuppala, Nagaraju Kottam – 'Photocatalytic degradation of Congo red dye using Visible Light Active (VLA) carbon-doped titanium dioxide nanocomposite and its kinetics', Technologies for Sustainable Development, 9-16, 2020, ISBN 978-0-367-33737-7, DOI: 10.1201/9780429321573-3, Taylor and Francis Group.

 J. S. Sagar, S. J. Kashyap, G. M. Madhu, Pradipkumar Dixit – 'Investigation of mechanical, thermal and electrical parameters of gel combustion-derived cubic zirconia/epoxy resin composites for highvoltage insulation', Cerâmica, 66 (2020) 186-196, 16784553, 03666913 https://doi.org/10.1590/0366-69132020663782887, AssociacaoBrasileira de Ceramica.

Achievements, Awards / Prizes by Faculty / Staff / Students:

- Ms. Pavithra Venkataraman was awarded Best Outgoing student for the year 2020 from Karnataka Region from IIChE, Bangalore Regional Centre.
- Mr. Dheer A Rambhia was awarded I prize in Poster Competition for the year 2020 organized by IIChE, Bangalore Regional Centre.
- Mr. Dheer A Rambhia was awarded First prize for best project award for the year 2020 organized by IIChe, Bangalore Regional Centre.



DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

Five days Faculty Development Program on 'Embracing new teaching-learning skills & developing innovative solutions for transforming the education space', (Webinar program) 13th - 17th July 2020. The objectives of the FDP are to enhance the teaching-learning process in the modern education system and to understand think-pair shares, peer intuition, and predict-observe – explain concepts. The outcome of the FDP, participants were able to differentiate between conventional and modern teaching practices



Publications in National / International Journals by Faculty:

 M.R. Shivakumar, N.V.R. Naidu – 'Study of the influence of reinforcement parameters on thermal conductivity of magnesium-based MMCs through Taguchi's orthogonal array approach', International Journal of Trends in Manufacturing and Engineering Management, published by Springer link, pp. 923-929, 20th August 2020.

Publications in National / International Journals by Reseasrch Scholars / students:

- K.C. Nagaraja, G.S. Prakash, S. Rajanna, Praveennath G Koppad & M. Alipour – 'Studying the effect of different carbon and glass fabric stacking sequence on mechanical properties of epoxy hybrid composite laminates', International Journal of Composites Communications, Elsevier 28th July 2020.
- Anuj. M. Thomas, M. Shilpa 'Assessment of Quality of Education of Science Course in Karnataka State Schools – Students' Performance', International Research Journal of Engineering and Technology (IRJET).e-ISSN: 2395-0056. ISSN: 2395-0072. Vol.07, Issue: 08, August 2020.
- Gokul. G, P.R Dheeraj 'Using time and method study to improve the manufacturing of tubular heaters', International Journal for Science and Advance Research in Technology (IJSART) – Published in E-journal, Vol.6, Issue 7, ISSN (Online): 2395-1052, July 2020.

Paper presentation in National / International Conference:

- S. Appaiah, V. Vivekanand, C.N. Chandrappa –
 'Parametric test for identifying significant factors
 which affect weight loss for Al₂O₃ and SiC metal
 matrix composite', 4th International Conference on
 'Advanced Research in Mechanical, Materials, and
 Manufacturing Engineering (ICAMMME-2020)', July
 2020.
- M.R. Shivakumar, M. Shilpa, Hamritha S-'Optimization of milling process parameters of aluminium alloy LM6 using response surface methodology', First International Conference on Advances in Physical Sciences and Materials (ICAPSM 2020), held at Coimbatore, Tamil Nadu, 13th - 14th August 2020. Proceedings of the ICAPSM 2020 will be published

- by the Institute of Physics, United Kingdom in the IOP: Journal of Physics Conference Series (JPCS), a conference proceedings Journal.
- Hamritha, M. Shilpa, M R Shivakumar, Smt. Hamritha,
 V. Ajay Kumar. G, Shreyansh Saraswat 'Application of Lean Six Sigma in Health Care Sector A Customer Perspective' 2nd International Conference on Future Learning Aspects of Mechanical Engineering, organized by the Dept. of Mechanical Engineering, FLAME 2020, held at AMITY University, Uttar Pradesh, during 5th 7th August 2020.
- Sudheer D. Kulkarni, V. Mamatha, K G Pavan, Rudrappa R. Badigera and Shreekant H. Gubachi-'Productivity Improvement of A Hose Assembly Plant By The Application of an Effective Line Balancing Technique', Published in SJR AIP Conference Proceedings 2247, 050013(2020), 16th July 2020.

Research Scholars paper presentation in International / National Conference:

- Mahendra. H.M, G.S. Prakash, Keerthi Prasad.K.S, Rajanna. S & Jobhish Johns 'Computer simulation of electrochemical studies of Al6061-Al₂O₃ metal matrix composite: Effect of heat treatment', 1st International Conference on Computational Engineering and Material Science (ICCEMS 2020), GM Institute of Technology, Davangere, Karnataka, India in association with Technical Institute for Engineers (T.I.E), Bengaluru, 17th 18th July 2020.
- Mahendra. H.M, Dr. G.S. Prakash, KeerthiPrasad.K.S,
 & Rajanna. S 'Fatigue and facture behavior of Al6061-Al₂O₃ metal matrix composite: Effect of heat treatment'. 1st International Conference on Computational Engineering and Material Science (ICCEMS 2020), GM Institute of Technology, Davangere, Karnataka, India in association with Technical Institute for Engineers (T.I.E), Bengaluru, 17th 18th July 2020.

Funded Project:

 Dr.R.Shobha-'Design, fabrication & characterization of selective catalytic reduction catalyst structure for denox applications', Research Proposal Scheme under VGST.

Grant: Rs. 5,00,000/-



 Dr. M. Rajesh - - 'Study, Analysis and Optimization of workplace design parameters to improve worker efficiency through Taguchi's Orthogonal Array Approach', The Institution of Engineers (India) IEI, 20th May 2019.

Grant: Rs.70,000/-.

Achievements, Awards / Prizes by Faculty / Staff / Students:

- Menald D'Souza, Pradyumna. R, Vaibhav Jha & Vartika
 Won First prize for Best Project awarded under MSRIT Alumni title 'Development of a dashboard using QGIS software and time series analysis on water pipeline system'.
- Ashish A Sherikar, Shreyash. A Abhilash. A & Karan.
 B.S Won Second prize for Best Project awarded under MSRIT Alumni title 'Design and development of UAV'.
- Namit Singh Madhbhavi, Ranjit. R, Shreyas Gopi & Disha Menon - Won Third prize for Best Project awarded under MSRIT Alumni title 'Development of neural network for surface defect detection and classification using deep learning'.
- Praveena Kumar, PG student Won First prize for Best Project awarded under MSRIT Alumni title 'Design & development of testing equipment for faulty product detection and separation system'.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- One-week online faculty development Programme on 'Trends in Data Science 2020' was organized by MCA, CSE, ISE departments from 13th to 17th July 2020 Resource persons from eminent industries like Amazon Web Services (AWS), Bangalore, Microfocus Pvt. Ltd., Bangalore, C-DAC, ACTS, Pune, HCL Technologies, Bangalore, Visteon, have presented their lectures.
- Online Faculty Development Programme on Demystify Design Thinking in Multidisciplinary Engineering: IT Approaches was held from 27th July to 1st August 2020. Around 150 participants attended the event.

Paper Publication in International/National Journals:

- Maravanthe V, Rao P G, Kanavalli A, Punjalkatte D S, Raju V K - 'A hierarchical clustering approach for dbpedia based contextual information of tweets', Journal of Computer Science, 2020, 16(3), pp. 330-343.
- Sucheta Raghunanda, Sini Anna Alex, Anita Kanavalli - 'Error Classification based on Multinomial NB and Random Forests', Journal of Research on the Lepidoptera, DOI: 10.36872/LEPI/V51I2/301127.
- Hanumantharaju R, Murthy T N 'Grocery Product Classification and Recommendation System Based on Machine Learning and Customer Profile Identity', ICDSMLA 2019. Lecture Notes in Electrical Engineering, vol 601. Springer, Singapore. https://doi.org/10.1007/978-981-15-1420-3_21.
- Hegde S, Monica R. Mundada 'Early prediction of chronic disease using an efficient machine learning algorithm through adaptive probabilistic divergence based feature selection approach', International Journal of Pervasive Computing and Communications, Vol. ahead-of-print No. ahead-ofprint. https://doi.org/10.1108/IJPCC-04-2020-0018.
- Sandeep Kumar Hegde, Monica R. Mundada
 'Recursive Subspace Based Feature Selection
 Approach for early risk prediction of Chronic Disease
 Patients', International Journal of Bioinformatics
 Research and Applications ISSN 1744-5493.
- Aman Malali, Srinidhi Hiriyannaiah, Siddesh G M, Srinivasa K G, Sanjay N T - 'Supervised ECG wave segmentation using convolutional LSTM', ICT Express Journal Vol. 6, Issue 3, September 2020, Pg. No 166-169 doi.org/10.1016/j.icte.2020.04.004.
- Karthik K N, Sowmya B J, Seema S, Srinivasa K
 G 'Performance analysis of intrusion detection system using feature selection and feature reduction method', International Journal of Advanced Science and Technology, 2020, 29(5), pp. 3496-3511.
- Pooja Ahuja S, Divakar Harekal, Veena G S 'Real Time Integrated Navigation System (INS) for Land vehicles using H-Infinity filter', International Journal of Advanced Science and Technology, 29(3), 9833.
- Hiriyannaiah S, Siddesh G M, Srinivasa K G 'Deep visual ensemble similarity (DVESM) approach

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for visually aware recommendation and search in smart community', Journal of King Saud University-Computer and Information Sciences, 2020, doi. org/10.1016/j.jksuci.2020.03.009.

- Meeradevi, Sindhu N, Monica R Mundada 'Design of Efficient Technique for Leaf Disease Detection Using Deep Learning', International Journal of Advanced Science and Technology, 29(3), 11287 -11298.
- Sini Anna Alex, Aditya Singh Tomar, Daniel Monteiro, Zaid Hossain, Zubin Paymaster -'Application to Detect Fake News Using Machine Learning Algorithms', International Journal of Advanced Science and Technology Vol. 29, No. 03, (2020), pp. 12164 - 12173.
- Tejashwini Gadag, Veena G S, Jayalakshmi D S 'A Survey on Handwritten Characters Recognition
 Systems in Kannada Language', International
 Journal of Advanced Science and Technology, 29(3),
 12109 12114.
- S V Charisma, S Ramani, Mohana Kumar S 'Algorithm for Storage to Protect Data Privacy in
 Location-based Services', International Research
 Journal of Engineering and Technology (IRJET)
 e-ISSN: 2395-0056 Vol. 07 Issue: 09, September
 2020.
- Mohana Kumar S, et. Al 'Lung Cancer Detection with prediction employing Machine Learning Algorithms', International Journal of Advanced Trends in Computer Science and Engineering, DOI: 10.30534/ijatcse/2020/97952020 Vol.9 No.5 PP: 7591-7596 ISSN: 2278-3091.
- Shaguftha Zuveria Kottur, Geetha J, Jayalaksmi D S, Tallapalli Surabhi, Riya R Ganiga, Mitali Gupta - 'A Study on Scheduling in Fog Computing', International Journal of Advanced Science and Technology, 29(10s), 7589-7598.
- Jyothi K K, Chaudhari S 'Cluster-based authentication for machine type communication in LTE network using elliptic curve cryptography', International Journal of Cloud Computing, 9(2-3), pp.258-284. (SJR: Q4).

Paper Publication in International / National Conference

VBV,KSM,GReddy-'Al-edge based voice responsive

- smart headphone for user context-awareness', IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2020, pp. 1-5, DOI: 10.1109/CONECCT50063.2020.9198484.
- S Chaudhari, R Aparna, V G Tekkur, G L Pavan, S R Karki - 'Ingredient/Recipe Algorithm using Web Mining and Web Scraping for Smart Chef', 2020 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2020, pp. 1-4, DOI: 10.1109/ CONECCT50063.2020.9198450.
- S Jere, A P Patil 'Deep Learning-Based Architecture for Social Anxiety Diagnosis', 2020 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2020, pp. 1-6, DOI: 10.1109/ CONECCT50063.2020.9198325.
- R Aparna, R G Kulkarni, S Chaudhari 'Secure Deduplication for Images using Blockchain', IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2020, pp. 1-6, DOI: 10.1109/ CONECCT50063.2020.9198448.
- V S Sardar, S Ram, S Shrisha, S Sridharan, 'An Early Warning System for Agricultural Drought', IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2020, pp. 1-7, DOI: 10.1109/ CONECCT50063.2020.9198687.
- S K Shetty, A P Patil 'Implementation and Analysis of Predictive Algorithms for Healthcare Data in Cloud Environment', 2020 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2nd 4th July 2020, pp. 1-6, DOI: 10.1109/CONECCT50063.2020.9198651.
- S Jere, A P Patil 'Deep Learning-Based Architecture for Social Anxiety Diagnosis', IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2nd - 4th July 2020, pp. 1-6, DOI: 10.1109/CONECCT50063.2020.9198325.
- Aparna R, Kulkarni R G, Chaudhari S 'Secure Deduplication for Images using Blockchain', In 2020 IEEE International Conference on Electronics,





Computing and Communication Technologies (CONECCT) (pp. 1-6). July 2020.

- Y indumathi K M, Shilpa Shashikant Chaudhari, Aparna.R - 'Analysis of Image Classification for Text Extraction from Bills and Invoices', 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), July 2020.
- Suchetha Pujar, Shilpa Chaudhari, Aparna.
 R 'Survey on Data Integrity and Verification for Cloud Storage', 11th International Conference on Computing, Communication, and Networking Technologies (ICCCNT), July 2020.

Guest Lectures

- **Pramod Sunagar** 'Python Programming', at The Institution of Electronics and Telecommunication Engineers, Bangalore, 1-09-2020.
- Pramod Sunagar 'Android Programming', Department of Information Science and Engineering, HKBK College of Engineering, Bangalore, 17-08-2020.
- Pramod Sunagar 'App Development course on Android', Visvesvaraya Industrial and Technological Museum (VITM), in Collaboration with IEEE WIE Bangalore Section, Bangalore, 15-07-2020.
- Dr J Sangeetha 'Machine Learning and its Applications', Dept. of CSE. JNNCE, Shivamogga, 27-07-2020.
- Dr. Parkavi S 'Data and decision engineering', Organized by IEEE Bangalore section Skill development programme for students, 13-07-2020.
- Aparna R, 'Online Platforms for Peer Interaction in Research', Guru Nanak Centre for Research (GNCR) of Guru Nanak College (Autonomous), Velachery, Chennai, 10-08-2020.

Funded Project:

 Sowmya B J, 'Technology Development and Automation of Hydroponic Farms in Urban areas using enhanced precision farming by incorporating loT and Cyber Physical System', Vision Group of Science and Technology, Govt. of India.

Grant: 3 lakhs.

 Dr. Jayalakshmi D S and Dr. Geetha Reddy, 'Augmenting Kannada Educational Video with Indian Sign Language animes for assisting hearing impaired students', RIT seed money.

Grant: 3.89 Lakhs.

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

- Dr Annapurna P Patil Participated as an Adjudicator at VTU Belgaum for the FOSS Project Competition 2020, 29th – 30th September 2020.
- Dr Annapurna P Patil Session Chair at the 2
 Day- Sixth International Conference on "Emerging
 Research in Computing, Information, Communication
 and Applications" ERCICA 2020 (ONLINE MODE) at
 NITTE Meenakshi Institute of Technology, Bengaluru,
 25th -26th September 2020.

DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING

• The department of electronics and Instrumentation engineering have conducted an online Faculty Development Programme on 'Role of Education for Industry 4.0: Challenges and Opportunities' from 10th - 14th August 2020.

Publications in National/International Journals:

 H.S. Niranjana Murthy, 'Comparison of Ensemble Classifiers for Identifying the Wart TreatmentTherapy', Journal of Advanced Research in Dynamical & Control Systems, vol. 12, Issue no. 3, pp.539-544, August 2020.

Guest Lectures – Invited:

- Dr. K.S. Ramanujan, Founder Director, Leep e-Drive Pvt. Ltd., Bengaluru, 'Patenting – Details of filling', 24-07-2020.
- **Dr. Manish Kumar**, Department of MCA, RIT, Bangalore, 'A talk on Cyber Security Trends and Challenges', 01-09-2020.

Guest Lectures - Delivered:

 Dr. Christina Grace - 'Biosensors for BioMEMS', for students of Saveetha Engineering College, Chennai, 10-07-2020.



Faculty Achievement:

- **Dr. Premila Manoharis** nominated as Margadarshak for 2 colleges in Karnataka, by AICTE.
- **Dr. M.K. Pushpa** granted as Fellow by The Institution of Engineers, India.

DEPARTMENT OF INFORMATION SCIENCE ENGINEERING

- Demystify Design Thinking in Multidisciplinary Engineering: IT Approaches from 27th July to 1st August, 2020 - Department in association with IEEE, CIS Bangalore Chapter, and Computer Society of India has organized a weeklong online session on Design Thinking to immerse participants into the world of innovation thinking of the systematic process of tackling relevant social problems and designing creative solutions. Resource persons were from across IT organizations such as Mr. Bipin Pradeep Kumar, Director, Sesovera Tech. Pvt. Ltd, Dr. Arakalagud Ramprasad, Director, Ramaiah Public Policy Center, Mr. Lokesh Sapre, Program Director, Yash Technologies. Mr. Aditya Garg, Agile Testing Alliance, L&T Infotech Ltd, Dr. Mohith Kumar Goel, Associative Vice-President, Info-edge India Ltd., Dr. Nanda Kumar B S, Associate Professor, Ramaiah Medical College, and others.
- Foundation Course on Scripting Languages from 24th to 28th August, 2020 The objective of this training is to provide hands-on basics of Python, HTML and JavaScript which serves as a prerequisite to Scripting Languages Laboratory and machine learning Laboratory. The sessions were conducted online and E-certificates were awarded to participants who submit the assignments on time and received a good feedback from the students. The topics covered are: Introduction to HTML, Basics of JavaScript and validation using JavaScript, JavaScript event handling, Introduction to Python, Python basic libraries, etc.
- One week online Faculty development Programme on Trends in Data Science 2020 was organized by MCA, CSE, ISE departments from 13th- 17th July 2020. The topics were covered as part of FDP are Dockers and Containers, Cyber security, Data Storage Technologies, Machine

- Learning: Challenges and Applications, Natural language Processing: Tool transformer, IoT and AI/ML Solutions and Introduction to Smart Workplace, IoT & Edge Computing and also hands on sessions were carried on topics of Distributed shared storage technologies, Deep learning Algorithms and Applications of Data Science. Resource persons are from eminent industries like Amazon Web Services (AWS), Bangalore, Microfocus Pvt. Ltd., Bangalore, C-DAC, ACTS, Pune, HCL Technologies, Bangalore, Visteon Corporation, Bangalore, Nouveau Labs Pvt. Ltd. Bangalore and HPE, Bangalore.
- 6 days National Level Hands-on E-workshop on Basics of C Programming and Python for Beginners from 24th to 29th Aug, 2020 - The workshop was conducted to provide complete knowledge of C language with a glimpse of Python programming. It started on 24th- 29th August 2020. Students were able to develop logics which helped them to write programs and knowing applications in C. Also by learning the basic programming constructs they can easily switch over to any other language in future.

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

- Vathsala M K 'RNN Based Machine Translation and Transliteration for Twitter data', Journal 10772/ IJST, Vol. 23, (2020), pp. 499 – 504.
- Shashidhara H S, Naveen Kumar S 'Emphasis of LiDAR data fusion using iterative closest point and ICP registration, IJACR, Vol.6, Issue 5, (2020), pp. 325 – 330.
- Ashwitha A,Latha C A 'Data Management for the Internet of Things: Architecture, Challenges and Technologies', International Journal of Innovative Technology and Exploring Engineering (IJITEE), Vol. 9, Issue 7, (2020), pp. 255 – 262.
- Shradda Kannan, Vathsala. M.K 'Modelling of Automated Computational Model towards Mapping Natural Text Description to Realistic Human Motion Video Description ', International Research Journal of Engineering and Technology (IRJET), Volume: 07, Issue: 06, (2020), pp. 4003 – 4010.
- Bhuvaneshwari Patil 'Portable IoT based health monitoring system', International Journal of Advanced Research, Ideas and Innovations in Technology, Vol 6, Issue 5, (2020), pp. 14 – 17.



- Kirankumar Kataraki, Sumana M 'A Parallel Task Scheduling Algorithm for Scientific Workflows in Heterogeneous Cloud Environment', International Journal of Advanced Science and Technology, Vol. 29, No. 10S, (2020), pp. 4312-4321.
- B Vineetha, M Sumana 'Software Defined Networks—A Network Programme and ITs Dynamic Services', Journal of Computational and Theoretical Nanoscience, Vol. 17, Issue 9, (2020), pp. 3927 – 3933.
- Vaibhavalakshmi C, Deepthi K 'Survey on Fake Online Review Recognition Techniques', IJESC, Vol. 10, Issue 7, (2020), 26701 – 26703.
- Vaibhavalakshmi. C, Deepthi. K 'Detection of fake reviews in Social Media using Machine learning techniques', IRJET, Vol. 7, Issue 7,(2020), pp. 4285 – 4291.
- Banupriya A S, Pushpalatha M N 'Prediction of Priority and Severity of Bug Reports using Deep Learning Techniques', IJESC, Vol. 10, Issue. 8, (2020), pp. 27025 – 27028.
- Nagarathna. M. Raikar, Megha.P.Arakeri 'Development of vehicle speed estimation technique using image processing', International Journal of Engineering Research and Technology, Vol. 9, Issue 9, (2020), pp. 264 271.
- Ayesha A, Shruthi G, -'Image Processing Concepts for Brain Tumor MRI Image Classification', International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-10, (2020), pp. 86 – 92.
- S. R. Mani Sekhar, Siddesh G. M., Sunilkumar S Manvi - 'Open-Source Essential Protein Prediction Model by Integrating Chi-Square and Support Vector Machine', International Journal of Open Source Software and Processes, IGI Global, Vol. 11, 2020, pp. 38 – 56.

Book Chapters:

- S R Mani Sekhar, Snehil Tewari, HaarisRahman, Siddesh G M - 'Data Collection in Fog Data Analytics', Studies in Big Data, Springer, 2020.
- S R Mani Sekhar, Siddesh G M, Anjaneya Tiwari and Ankit Anand - 'Bioinspired Techniques for Data Security in IoT', S.M.A.R.T. Environments, Springer, 2020

Guest Lectures – Delivered by Department Faculty:

 Dr. Mydhili K Nair – 'Explore Full Stack Web Dav Using MEAN Stack' for EWIT - 3 Days 20th to 22nd July 2020

Funded project:

 Dr. Vijaya Kumar B P – Project titled 'Anomaly Detection using Machine Intelligence Techniques for Mobile Computing Networks', AICTE.

Grant: Rs. 8.0 Lakhs

 Dr. Vijaya Kumar B P – From AICTE for conducting Short Term Training Program under AQIS 2019 – 2020 during financial year 2020 – 2021.

Grant: Rs. 2.85 Lakhs

 Dr. Vijaya Kumar B P and Dr. Megha P Arakere – For consultancy work on Internet of Things and Machine Learning Projects from Tech Machinery and Pvt. Ltd.

Grant: Rs. 0.5 Lakhs

Dr. Vijaya Kumar B P and Dr. Megha P Arakere
 From IEEE, CIS for the project "Local Industry Interactions".

Grant: \$1580

 Dr. Megha P Arakere, Dr. B P Vijaya Kumar and Dr. Naresh E – IEEE, CIS for the project titled "Highschool Outreach Program".

Grant: \$2000

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

- Satyam Kumar, Ritik Agarwal, Parth Vyas, Umer Faruk and Nidhi Bhat – Won Smart India Hackathon conducted in August, 2020.
- Ayush Ujjwal, Krithika Choudhary, Ishank Sharma, Ujjawal K C – Won Smart India Hackathon conducted during August 2020. Dr. Vijaya Kumar B P, Dr. Mydhili K Nair and Sandeep B L are mentors of the teams.

Faculty who obtained Ph.D. degree:

S R Mani Sekhar, Assistant Professor, Department of Information Science and Engineering is awarded with the degree of Doctor of Philosophy (Ph. D) in Computer Science and Engineering



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from Reva University for his thesis titled 'Machine Learning Based Frame Work for Protein Data Analytics' under the supervision of Dr. Sunil Kumar S Manvi, Reva University and Dr. Siddesh G M from RIT.

DEPARTMENT OF MEDICAL ELECTRONICS ENGINEERING

- A one-week webinar on 'AI and ML applications in Image Processing using modern tools' was organized by the Department of ML, RIT from 13th - 18th July 2020.
- A one-week webinar on 'Biosensors: Fundamentals to Advances, Scope and Applications' was organized by the Department of ML, RIT from 3rd - 8th August 2020.
- A one-week FDP on 'Real-time Operating Systems for Embedded System', was organized by the Department of ML, RIT from 24th - 28th August 2020.

Publications in National / International Journals:

- S Raghu, Natarajan Sriraam, Erik D Gommer, Danny M W Hilkman, YasinTemel, Shyam Vasudeva Rao, Pieter L Kubben - 'Adaptive Median Feature Baseline Correction for Improving Recognition of Epileptic Seizures in ICU EEG', Neuro-computing, Vol. 407, 2020, Pages 385-398.
- P. Bhavya, RaveendraMelavanki, C K Narayanappa, et al. 'Binding Interaction Between Boronic Acid Derivatives with Monosaccharaides: Effect of Structural Change of Monosaccharaides Upon Binding Using S-V Plots', Macromolecular Symposia, Vol. 392, Issue 1, August 2020, https://doi.org/10.1002/masy.202000166.
- Raveendra Kumar T H, C K Narayanappa 'Improved Feature Extraction Process To Detect Seizure Using CHBMIT-Dataset', International Journal of Electrical and Computer Engineering (IJECE), Vol. 11, No. 1, February 2021, pp. 827~843 ISSN: 2088-8708, DOI: 10.11591/ijece.v11i1.pp827-843.

Guest Lecture Delivered by the Department faculty:

Mrs. Purnima B R and Mrs. Tejaswini S 'Mendeley Software for Reference Management for
 Researchers' as an online mode at Kuppam College
 of Engineering, Anantapur, 20th August 2020.

 Dr. N Sriraam - 'Perspectives of Machine learning for Biomedical/Clinical Applications-Opportunities and challenges and computer-aided clinical diagnosis- A Neural network modeling approach' and 'Computeraided clinical diagnosis - A Neural network modeling approach' during AICTE Training and Learning (ATAL) Academy sanctioned FDP on 'Artificial Intelligence and Machine Learning Applications in Biomedical Engineering', organized by Department of Electronics and Instrumentation Engineering, University B.D.T. College of Engineering, Davangere, 21st September 2020.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

- One Week webinar on 'AI and ML Applications in image processing using modern tools' organized by Departments of Electronics and Telecommunication Engineering, Electronics and Communication, Medical Electronics from 13th- 18th July, 2020.
- Workshop on "AI/ML Techniques in VLSI Design"organized by the Department of Electronics and Communication/Department of Electronics and Telecommunication/Department of Medical Electronics from 20th – 25th July, 2020.
- One-week Online Workshop on 'BIOSENSORS: Fundamentals to Advances, Scope & Applications', organized in Association with IQAC, Department of Medical Electronics Engineering/ Department of Electronics and Telecommunication Engineering/ Department of Electronics and Communication Engineering from 3rd - 8th August 2020.

Paper presentation in National / International Conferences (Faculty):

 Ashraf Ali,Mohana Kumar, Krishna Prasad S J – 'UEFI BIOS Compatibility for Multiple SOC Based on device compatibility detection', Proceedings of the International Conference on Smart Electronics and Communication (ICOSEC 2020) ,10th-12th September 2020, pp. 1344-1349.

Paper presentation in National / International Conferences (Students):

Pruthvi T, Keerthana V, Sowmini S, Syed Fauzan
 Dr.Parimala P – 'Meanderline Pattern Wearable

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- Textile Antenna for Position Identification in Military applications', 3rd International Conference on Intelligent Data Communication Technologies and Internet Of things (ICICI-2020), JCT College of Engineering and Technology, Coimbatore, 27th 28th August 2020, Pg. No. 796-806
- Chaitra KS, Dr. Parimala P 'Client Position detection using WIFI Technology', 2nd International Conference on Inventive Research in computing applications (ICIRCA-2020), RVS College of Engineering and Technology, Coimbatore, 15th - 17th July 2020, IEEE Xplore ISBN:978-1-7281-5374-2.
- Aakriti Suman, Abhigya Parashar, Annada Shukla, Dr. K. R. Shobha – 'Aagaahi - A Smart Helmet', 6th IEEE International Conference on Electronics, Computing and Communication Technologies (IEEE CONECCT 2020), Bangalore, July 2nd - 4th 2020.
- Niyatha Malepati, Rubia Fatima, Swarnima Gupta, Vaishnavi Ramsali, Dr. Shobha K. R – 'Portable ECG Device for Remote Monitoring and Detection of Onset of Arrhythmia', 6th IEEE International Conference on Electronics, Computing and Communication Technologies (IEEE CONECCT 2020) Bangalore, July 2nd - 4th 2020.

Guest Lecture delivered by the department faculty:

- Dr. Swetha Amit 'Research Ideas on Liquid Antennas', Online ATAL FDP on Flexible and Wearable Antennas: Recent Advancements, Fabrication Techniques and Applications, Electronics and Communication Engineering, Department National Institute of Technical Teachers Training & Research, Chandigarh, India, 16-10-2020.
- Dr. Swetha Amit 'Fundamentals of Antenna Technologies & Polarization aspects in circular Antenna Design', Training Sessions of" Microwave Engineering and Antenna Technologies" for BEL Employees organized by IETE, Bangalore, 19-09-2020.
- **Dr. S G Shivaprasad Yadav** 'Python Programming', the Institution of Electronics and Telecommunication Engineering, Bangalore, 01-09-2020.
- Dr. K R Shobha 'Using IoT to Build Innovative Applications', The Oxford School of Engineering, 12-08-2020.

- **Dr. Swetha Amit** 'Antenna Analysis & Design Consideration in Practical Aspects", Dr.N G P Institute of Technology, 10-08-2020.
- Dr. Swetha Amit 'Recent Trends in Wireless Communication Technologies', Bangalore Institute of Technology, 5-08-2020.
- Dr. K R Shobha 'Solution for effective Energy Management using IoT', Smart Sensors and IoT-A Case study approach, 25-08-2020.
- Dr. K R Shobha 'Empowering Rural Community', Empowering Rural Community by ISOC Rural Development SIG, 11-07-2020.
- Dr. Swetha Amit 'Antenna Fundamentals, Design and Analysis of Microstrip Antenna', The Institution of Electronics and Telecommunication Engineers, Bangalore Group & ATMS, India, 20-07-2020.
- Dr. Swetha Amit 'Challenges in Design and Analysis of Active and Passive Wearable Antennas', The Institution of Electronics and Telecommunication Engineers, Bangalore Group & ATMS, India, 22-07-2020.
- Dr. Swetha Amit 'Research Ideas on Liquid Antennas', The Institution of Electronics and Telecommunication Engineers, Bangalore Group & ATMS, India, 24-07-2020.
- Dr. Umesharaddy 'Optimization of Hardware and Hands on Session Z-Board', Webinar on AI/ML Techniques in VLSI Design, RIT College, 24-07-2020.

Funded Project:

- Dr. B.K. Sujatha, Dr. Swetha Amit 'Performance characterisation of flexible Wearable Antenna for dynamic IoT Connectivity', sponsored by AICTE under MODROBS Scheme.
- Dr. B.K. Sujatha, Dr. Swetha Amit 'Centre of Learning for setting up Microwave and Antenna Lab' sponsored byVGST K-FIST Level.
- Dr. Viswanath Talasila 'Development of a Prosumer Driven Integrated SMART Grid' sponsored by DST.
- Dr. Shobha K R and Dr. S G Shivarprasad Yadav -'Setting up of Internet of things (IoT) based Sensor Network Lab' sponsored by VGST K-FIST Level 2.



DEPARTMENT OF BIOTECHNOLOGY

- Five-day Webinar on 'Plant and Equipment Design', jointly with Department of Chemical Engineering, RIT, 24th - 28th July 2020.
- Three-day Webinar on 'Docking, QSAR and Molecular Dynamics', jointly with Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Ramaiah University of Applied Sciences, 29th - 31st July 2020 under IEEE-EMB.
- Five-day Webinar on 'Emerging Applications of Nanomaterials', jointly with Department of Chemistry, RIT, 10th - 14th August 2020 under IEEE-EMB.

Publications in International Journals:

- Smt. Priyadarshini Dey 'Mechanistic insight to mycoremediation potential of a metal resistant fungal strain for removal of hazardous metals from multimetal pesticide matrix', Environmental Pollution, 262: 114255: 1-10, 2020.
- Dr. Damodhar P 'Green Synthesis, Characterization and Antimicrobial Activity of Zinc Oxide Nanoparticles on Clinical Isolates of Streptococcus pyogenes', Asian Journal of Chemistry, 2020.

Book Chapter:

- Monika P., Chandraprabha M. N. –
 'Phytonanotechnology for Enhanced Wound Healing Activity'. In: Thangadurai D., Sangeetha J., Prasad R. (eds) Functional Bionanomaterials, Nanotechnology in the Life Sciences, Springer, Cham. 2020.
- Bindu Sadanandan, Priya Ashrit and Vijayalakshmi
 'Soil Microbial Biofilm communities and their Interactions', In Current advances in Biodiversity, Conservation and Environmental Sciences, Apple Academic Press, Taylor & Francis. (2020)

Guest Lecture- Invited:

- **Dr. MRN Murthy**, Emeritus Professor, Dept. of Biophysics, IISc, Bengaluru on 'Structural Biology of Corona viruses', 10-07-2020.
- Dr. Shahul, Principal Scientist and Technical Head, Wisecorner Laboratories Pvt. Ltd, Chennai, on

- 'Protein Engineering for Biotech Industry', 24-07-2020.
- Dr. Phalguni Anand Alladi, Dept. of Neurophysiology NIMHANS, Bengaluru on 'Susceptibility to Parkinsonism may arise during the early development of substantia nigra- Cues using mice models', 05-08-2020.
- Dr. N Ravi Sundareshan, Professor, Department of Microbiology and Cell Biology, Indian Institute of Science, Bengaluru on 'Targeted Genome Editing', 14-09-2020.

Funded projects:

 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 funds.

Grant: Rs. 5.0 Lakhs.

 Dr. Lokesh K N - 'Stimuli Responsive Polymeric Particles Containing Iron (III) Chelating Bioactive Ligands for Mitigation of Intracellular Labile Iron Pool (LIP)', Science Engineering Research Board, DST, 25th Nov 2019.

Grant: Rs. 18.30 Lakhs.

 Dr. Bindu S – 'In Vitro Studies on Effects of Carbon Nanotubes on Antixidant Mechanism in Human Neuronal Cells', IEI R&D Grant-in-Aid Scheme,16.07.2019, R.6/2/DR/2019-20/ DR2020006, The Institution of Engineers, India(IEI),

Grant: Rs. 0. 80 Lakhs.

 Dr. Bindu S & Dr. Dhamodhar P - 'BiSEP (Biotechnology Skill Enhancement Programme)', Domain: Biopharmaceutical Technology, KBITS, Govt. of Karnataka.

Grant: Rs. 162.5 Lakhs.

 Dr. ChandraPrabha M.N – 'Enhanced Production of Indian (Precursor of Indigo Dye) from cell suspension culture of Indigoferatinctoria and it's up-scaling through bioreactor', DST.

Grant: Rs. 23.72 Lakhs.



Student Achievements:

- Arpitha R, IV M Tech & Dr. Bindu S (Guide), received project funding from Karnataka State Council for Science & Technology (KSCST) under 43rd SPP Scheme 2020.
- Sneha Judith, IV Semester, M Tech, Best Project Award under Ramaiah Alumni Association (RIT), Bengaluru.
- Adithi Sundaresh & Anusha A, VIII Semester, BE, Best Project Award under Ramaiah Alumni Association (RIT), Bengaluru.
- Vidyashree V, VIII Semester, BE, 2nd Prize, Project Award under Ramaiah Alumni Association (RIT), Bengaluru.
- Hashvitha R & Ketaki Prakash Ghatole, VIII Semester, BE, III Prize, Project Award under Ramaiah Alumni Association (RIT), Bengaluru.

DEPARTMENT OF MATHEMATICS

 Conducted 5-Day Webinar on - Mathematical Perspectives on Computational Science and Engineering" from 6th - 10th July 2020.

Publications in (National / International) Journals:

- Suresh babu R 'Mixed convective conditions on natural convection of MHD Blasius and sakiadis flows with variable properties and nonlinear chemical reaction', Biointerface Research in Applied Chemistry, 11 (2), 8854-8874, 2020
- S. Ramprasad and S.H.C.V. Subba Bhatta –
 'Computational study on two-phase MHD buoyancy driven flow in an asymmetric diverging channel',
 Songklankarin Journal of Science and Technology,
 42(2), 415-423, 2020.
- Basavaraj M. S, M. Girinath Reddy, Aruna S and Dinesh P.A – 'A nonlinear mixed convective oscillatory flow over a semi-infinite vertical plate through porous medium under uniform magnetic field', International Journal of Advanced Research, 8(6), 308-321, 2020.

- Dinesh P. A and N. L. Ramesh 'Characteristic Study of Coriolis Force on Free Convection in a Finite Geometry with Isotropic and Anisotropic Porous Media', Advances in Fluid Dynamics, Lecture Notes in Mechanical Engineering, 985 – 998, 2020.
- Shashi Prabha Gogate S 'Heat transfer through mixed convection boundary layer in a porous medium: LTNE analysis', Applied Thermal Engineering, 179, 115705, 2020.
- Dinesh P. A, Uma M 'Effects of Forchheimer, MHD and Radiation Absorption for Chemically Reacting Unsteady Dusty Viscoelastic Fluid Couette Flow in an Irregular Channel', Advances in Fluid Dynamics, Lecture Notes in Mechanical Engineering, 999 1012, 2020.

Paper presentation in National / International Conferences:

- Praveena M. M. 'Nonlinear Radiactive Heat Transfer of Magnetic(Fe3O4)-Water Nanofluid over Unsteady Stretching surface with Fluid Particle Suspension', 1st International Conference on Computational Engineering and material science-(ICCEMS 2020) organized by GM Institute of Technology, Davanagere, Karnataka, India in association with Technical Institute of Engineers(T.I.E), Bengaluru from 17th 18th July 2020.
- Dr. M Girinath Reddy 'Effects of Variable Viscosity, Permeability, Soret, and Dufour on Double Diffusive Convective Flow with Internal Heat Generation Over an Accelerating Surface' in the Four Day Online National Conference on Pure and Applied Mathematics, organized by Department of Mathematics, KLS Gogate Institute of Technology, Belagavi held from 11th 14th, August 2020.
- Dr. Aruna A.S 'Effects of non-inertial acceleration on heat transfer by Benard convection in variable viscosity Newtonian liquids', in the Four Day Online National Conference on Pure and Applied Mathematics, organized by the Department of Mathematics, KLS Gogate Institute of Technology, Belagavi held from 11th - 14th, August 2020.
- Dr. Praveena M. M. 'Solitons of Kaehlerian spacetime manifolds', in the Four Day Online National Conference on Pure and Applied Mathematics, organized by the Department of Mathematics, KLS



Gogate Institute of Technology, Belagavi held from 11th- 14th, August 2020.

- Dr. Shashi Prabha Gogate 'Unsteady three-dimensional boundary-layer flow over a moving wedge surface', in the Four Day Online National Conference on Pure and Applied Mathematics, organized by Department of Mathematics, KLS Gogate Institute of Technology, Belagavi held from 11th-14th, August 2020.
- **Dr. Veena B. N.** 'Brinkman-Benard convection in nanoliquids by considering different shaped nanoparticles', in the Four Day Online National Conference on Pure and Applied Mathematics, organized by Department of Mathematics, KLS Gogate Institute of Technology, Belagavi held from 11th 14th, August 2020.

Guest Lecture delivered by the department faculty:

- Dr. Dinesh P.A 5-day FDP programme on 'Role of Mathematics in Academic Research and Technology', organized by the Department of Mathematics, Vemana Institute of Technology, Bangalore, 13-07-2020.
- Dr. M V Govindaraju Webinar on 'Role of Eigen value and eigen vector in the solution of ODE', organized by M. S. Ramaiah Degree College, 28-08-2020.
- Dr. Y S Kalyan Chakravarthy 'Preparation for Competitive Examinations using Vedic Maths', Organized by Anantha Lakshmi Institute of Technology, Anantapur, 13-08-2020.

Faculty who obtained Ph.D. degree:



Mr. Ramprasad is awarded Ph.D. in Mathematics from VTU, Belagavi for the thesis titled 'MHD convective two-phase flows through non uniform channels', guidance of Dr.S.H.C.V. Subba Bhatta Professor, Dept. of Mathematics, RIT, Bengaluru.



Mrs. Sushma is awarded Ph.D. in Mathematics from VTU, Belagavi for the thesis titled 'Modeling of Physiological fluid flows under the influence of external body forces', guidance of Dr. G Neeraja, Professor, Dept. of Mathematics, RIT, Bengaluru.



Mrs. Uma M is awarded Ph.D in Mathematics from VTU, Belagavi for the thesis titled 'Couttee flows in irregular channels' guidance of Dr. Dinesh P A, Associate Professor, Dept. of Mathematics, RIT, Bengaluru.



Mrs. Kavitha N is awarded Ph.D. in Mathematics from VTU, Belagavi for the thesis titled 'Thermorhelogical effects on non-linear convection in Newtonian and couple stress fluid', under guidance of Dr. V Ramachandramurthy, Former Professor, Dept. of Mathematics, RIT, Bengaluru.

DEPARTMENT OF CHEMISTRY

- One-week online Faculty Development Program on 'Impact of Engineering Sciences during COVID – 19 Pandemic (ISTLESC – 2020)', held on 27th July to 1st Aug 2020.
- One-day e-workshop Authors workshop on 'Publication ethics and manuscript writing: An Editor's Perspective' on 28th August 2020 in association with Wiley-VCH publications.
- Department has organized online 'Half yearly Research Review Meeting' (RRM) on 29-08-2020.



 In association with 'Shivaganga Melanagavi Mutt', Shivaganaga, Thumkuru - District, Luminescence Society of India: Karnataka Chapter (LSIKC), arranged 'Plantation Program' on 30-8-2020





 Luminescence Society of India: Karnataka Chapter (LSIKC), arranged 'Knowledge sharing with village and farmers' at Lakashmidevipura, near-Doddaballpura 06-09-2020.

Publications (National / International) Journals by Faculty:

- P Murali Krishna 'Synthesis, spectral and DNA/ Protein binding evaluation of novel Cu (II) chelates of an NNO donor tridentate aroylhydrozone: Halogen bonding directed close packing', Journal of Molecular Structure, Volume 1217, 5 October 2020, 128453.
- Basappa C Yallur, P Murali Krishna and Raveendra Melavanki – 'New 2-Mercaptobenzothiazole carbonyl derivative, benzothiazol-2-yl-malonaldehyde ligand, benzo[d]thiazol-2-ylthio)-3-hydroxyallylidene)-Nmethylhydrazine-1- carbothioamide ...', Karnatak University Journal of Science, Vol. 51, 2020/8/25, Pages.147-164.
- P. Murali Krishna, K. Hussain Reddy, N. Rashmitha
 'Synthesis and Characterization of Surfactant Assisted Copper Nanomaterials', Asian Journal of Chemistry, Vol. 32(11), Pages. 2700-2706.
- Malathi Challa, Lakshmi Narayani 'Synthesis, phase transformation, and morphology of hausmannite Mn₃O₄ nanoparticles: photocatalytic and antibacterial investigations', Heliyon, Vol. 6, 2020/1/1, Pages: e03245.
- Basappa Chanabasappa Yallur 'Preparation and optical parameter characterization of two aldehyde derivative thin films for photonic applications by drop casting method', Luminescence, Vol.35, 2020/3/23.
- Kalpana Sharma, Raveendra Melavanki, Basappa
 C Yallur 'Optical Characterization of Chalcone-

- Doped PMMA Thin Films for Photonic Applications Using Spectroscopic Technique of Drop Casting Method', Macromolecular Symposia, Vol. 392(1), Page. 2000165.
- Sharanabasappa B. Patil 'Medicinal Siganificance of Pyrazole Analogues: A Review', International, J. Pharm. Sci. & Res, 2020/3, Vol. 12, Page.no: 402-404.
- Sharanabasappa B. Patil 'Extraction of Amino acids from Human Hair "Waste" and Used as Natural Fertilizer', International, J. Pharm. Sci. & Res, Vol. 12, 2020/2, Page. No.: 271-278.
- Sharanabasappa B. Patil,— 'Formulation and Evaluation of Multipurpose Topical Cream by Using Natural Schiff base active Ingredients', AIP Conference Proceedings, https://doi. org/10.1063/5.00224, 2020, 2274, 050001,
- R. Preetham, R Hari Krishna 'Vehicular soot for improvement of chemical stability of cement composites towards acid rain and sewage like atmospheres', International, Construction and Building Materials, VOL. 248, 2020/7/10, Pages: 118604.
- R. Harikrishna 'Solution combustion synthesis of calcium aluminate nanocomposite using coffee husk extract as green fuel and its application in adsorptive amputation of anionic dyes', International, Materials Research Express, Vol. 7, 2020/3/2, 035503.
- R.T. Yogeeshwari, **R. Harikrishna** 'Synthesis of acid resistant $\operatorname{Fe_2V_4O_{13}}$ -polypyrrole nanocomposite: its application towards the fabrication of disposable electrochemical sensor for the detection of ...', International, Materials Research Express, Vol. 6(12), 2020/1/7, Page No. 126448.
- Vinayak V Rao, Murthy K Ramakrishana, Pradipkumar Dixit, R Harikrishna – 'Development and Performance Evaluation of Micromagnesium Oxide Filled Silicone Rubber for High Voltage Insulation', Advances in Smart Grid Technology, 2020, Page.No.: 473-484.
- K Ramakrishana Murthy, Vinayak V Rao, Pradipkumar Dixit, R Harikrishna – 'Performance Evaluation of Naturally Aged Silicone Rubber Polymeric Insulating Specimen with Nano TiO₂ Filled Epoxy Coating', Advances in Smart Grid Technology, 2020, Page. No. 485-496.

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- T.P Krishna Murthy, BS Gowrishankar, R Hari Krishna 'Magnetic modification of coffee husk hydrochar for adsorptive removal of methylene blue: isotherms, kinetics and thermodynamic studies', Environmental Chemistry and Ecotoxicology, Vol. 2, 2020/1/1, Page.No.: 205-212.
- S.G Prasanna Kumar, R Hari Krishna, Nagaraju Kottam 'Influence of Nitration on Structural and Photoluminescence Behaviour of CaZrO₃:Eu³⁺ Nanophosphors', Asian Journal of Chemistry, Vol. 32(6), 2020, Page. No.: 1515-1519.
- M V Hemanth Reddy, R Hari Krishna 'Conductivity and Dielectric Studies on Combustion Derived Self-Doped Ceria Nanoparticles', International, Journal of Nanoscience and Technology, Vol. 6, 2020, Pages: 882-885.
- R. Hari Krishna, R.M. Melavanki 'Effect of Eu3+ on Optical and Energy Bandgap of SrY₂O₄ Nanophosphors for FED Applications', International, Optik - International Journal for Light and Electron Optics, Vol. 208, 2020, Page. 164533.
- B Nagashree, R Mourougane, R Hari Krishna –
 'Influence of Albite Activator in Geopolymerisation
 of Slag Wastes from Iron and Aluminium Industry',
 International Journal of Innovative Technology and
 Exploring Engineering (IJITEE), Vol.9(4), Page.No.:
 2326-2329.
- R Hari Krishna, K. Samrat, R. Sharath, M.N Chandraprabha, R. Preetham - 'Comparative Study of Cytotoxic Activity of Nano Silver Against A549 and L929 Cell Line', International, Asian Journal of Chemistry, Vol.32, 2020, Pages: 374-380.
- G.K. Prashanth, B.M. Nagabhushana 'Evaluation of Antimicrobial, Antioxidant, and Cytotoxicity activities of CuO Nanopellets Synthesized by Surfactant Free Hydrothermal Method', Journal of Testing and Evaluation, Manuscript ID: JTE-2020-0538.R1
- N.P. Bhagya, R. Hari Krishna, B.M. Nagabhushana
 'Enhancement of luminescence properties of SrTiO3:Sm3+ nannophospher by charge compensator Li+ ion', Optical Materials, 107 (2020) 110115
- B. Archana, Nagaraju Kottam 'Synthesis, characterization and supercapacitor electrode performances of VS2 nanosheets', Materials Today:

Proceedings, 2020/12/3.

- N Kottam, S.P Smrithi 'Luminescent carbon nanodots: Current prospects on synthesis, properties and sensing applications', Methods and Applications in Fluorescence, 10 (2020), 12.
- J Koteswararao, M.G Motappa, V Vuppala, Nagaraju Kottam – 'Photocatalytic degradation of Congo red dye using Visible Light Active (VLA) carbon doped titanium dioxide nanocomposite and its kinetics' Technologies for Sustainable Development, 9, (2020) Pages: 9.
- Byregowda, N Kottam 'Superior Photocatalytic Hydrogen Evolution Performances of WS2 over MoS2 Integrated with CdS Nanorods', The Journal of Physical Chemistry C, 2020/6/8.
- H. Muktha, R. Sharath, Nagaraju Kottam, S. P. Smrithi, K. Samrat 'Green Synthesis of Carbon Dots and Evaluation of Its Pharmacological Activities', BioNanoScience (DOI: https://doi.org/10.1007/s12668-020-00741-1), 2020/5/20, Vol.10, Pages.1-14

FDP/ Workshops / Conferences attended by Faculty

- Dr. P. Murali Krishna 'Multidisciplinary Innovations in Science and Technology (MIST – 2020)' on 18th to 19th September, 2020 held at The Oxford College of Science, Bengaluru.
- Dr. P. Murali Krishna & Dr. B.C. Yallur Online International Conference on Advanced Materials Science and Applications (ICASMA-2020) on 3rd & 4th sept. 2020, organized by dept. of Physics, RIT.
- Dr. M.N. Manjunatha Webinar on 'Application of Green chemistry towards sustainable Technology', on 27th Aug 2020, organized at Dr. Ambedkar Institute of Technology, Bengaluru.
- Dr. P. Murali Krishna workshop on 'Applications of Electrochemistry in Current Research', on 18th Aug 2020, New Horizon College of Engineering, Bengaluru.
- Dr. P. Murali Krishna & Dr. B.C. Yallur online e-workshop on 'Emerging Applications of Nanotechnology', on 10th to 14th Aug 2020, organized by the dept. of Biotechnology & Dept. of Chemistry, RIT, Bangalore.



- Dr. P. Murali Krishna Webinar on 'Crystal Engineering: From Molecules to Materials', on 31st July 2020, Central University of Karnataka Kadaganchi, Gulbarga Dt.
- All faculty of dept. of Chemistry 'One Week Faculty development program on 'Impact of Engineering Sciences during COVID 19 Pandemic (ISTLESC 2020)', on July 27th to Aug 1st 2020, organized by Dept. of Chemistry, RIT, Bangalore.
- Dr. M.N. Manjunatha 'Insights on writing Research proposals and funding opportunities', on 20th to 24th July 2020, St. Joseph Engineering College, Mangaluru.
- **Dr. M.N. Manjunatha** 'Features of Chemdraw and Greener Aspects of Drug Discovery', on 23rd July 2020, Dept. of chemistry & IQAC of GE Society's.
- Dr. P. Murali Krishna FDP on 'Metal Air Batteries: Electrocatalysis, challenges and Opportunities', on 17th July 2020, New Horizon College of Engineering, Bengaluru.

Funded project:

 Dr. Nagaraju Kottam - 'Environmentally Benign Adsorbents/Catalysts for Waste Water Treatment and Biological /applications. Received from 'MSRIT-Bangalore', towards seed money.

Grant: Rs. 5,00,000.00

 Dr. M.N. Manjunatha – 'Anticancer activity and molecular modeling studies of transition metal complexes with novel substituted benzimidazole derivatives'. Granted by 'VGST, Govt. of Karnataka'.

Grant: Rs. 20,00,000.00

 Dr. P. Murali Krishna – 'Environmental friendly coatings: To replace chrome based conversion coatings with chrome-free coatings'. Grant by 'Boeing Research & Technology-India Centre'.

Grant: Rs. \$48,624

Guest Lecture Delivered by the department Faculty:

 Dr. B M Nagabhushana - 'Nano materials for technological applications' - three days Faculty Development Program (FDP) titled 'Nano Science and Technology' organized by the department of Basic Sciences, RR Institute of Technology, Chikkabanavara, Bangalore, 25-06-2020.

DEPARTMENT OF PHYSICS



The department of Physics in association with IQAC (RIT) has successfully organized two days' online 'International Conference on Advanced Materials Science and Applications' (ICAMSA-2020) during 3rd- 4th September 2020. A total of 315 delegates with a different research background in the areas of Materials science, Physics, Chemistry, and Engineering have registered. There were seven technical sessions and eight oral presentations at the conference.

https://www.youtube.com/channel/ UCzXkFWdR1nIo9X9ZZb6bQdA?view_ as=subscriber

Publications in (National / International) Journals:

- Raveendra M Melavanki 'New 2-Mercaptobenzothiazole carbonyl derivative, benzothiazol-2-yl-malonaldehyde ligand, benzo[d]thiazol-2-ylthio)-3-hydroxyallylidene)-N-methylhydrazine-1- carbothioamide, and its Co(II), Ni(II) and Cu(II) complexes: Synthesis, Structural Characterization and Biological Studies (DNA Cleavage, DNA Binding and Anti Bacterial)', Journal of Science, Vol.51, September 2020.
- Raveendra M Melavanki, Kalpana Sharma & S Vaijayanthimala 'Role of Solvent Polarity on Fluorescence Quenching of 3MOCE in Binary Solvent Mixtures', AIP Conf. Proc. 2274, 030033-1–030033-4; https://doi.org/10.1063/5.0022967 Published by AIP Publishing. 978-0-7354-4004-3.
- Dr. Kalpana Sharma & Dr. Raveendra Melavanki
 'Examining the spectroscopic features and quantum chemical computations of a Quinoline

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derivative: Experimental and theoretical insights into the photophysical characteristics', Indian Journal of Pure & Applied Physics, Vol. 58, July 2020, pp. 503-515.

Paper presentation in National / International Conferences:

 A. Jagannatha Reddy & Anil Kumar G.N: 'Synthesis, Structural and Spectroscopic investigation of Gd2(WO4)3 phosphor', Journal of Physics: Conference Series, IOP Publishing, doi:10.1088/1742-6596/1644/1/012049, 1644, 2020, 012049.

DEPARTMENT OF HUMANITIES

 Department of Humanities organized a webinar for B.E, B.Arch. (all semester) and open for interested public on Tuesday 22nd September 2020. The Chief-Guest & Speaker Smt. Vasantha Vaikuntha founder of lifenliving.org gave a virtual talk on 'Mental wellness'.

Publications in (National/international) journals:

- Dr. Premila Swamy D Indian writing in Translation: Narrative paradigm and thematic concerns', Journal of Shanghai Jiaotong University (Science), Vol.1, Issue 7, July 2020. ISSN: 1007-1172, pp 467-474.
- Mr. Udayakumar. HM 'Designing a Digital Workplace with reference to selected IT companies: A study', Journal of Emerging Technologies and Innovative Research (JETIR), An International Open Access Journal, Peer-reviewed, and Refereed Journals, Vol.7, Issue-8, August, 2020. ISSN: 2349-5162, pp176-185.

MASTER OF COMPUTER APPLICATIONS

 Department of MCA in association with departments of Information Science Engineering and Computer science engineering, RIT, Bangalore conducted 5-day Online FDP on 'Trends in Data Science' 13th - 17th July 2020. A total of 500 participants have participated through virtual mode. The technical talk was given by eminent speakers from different industries and academia. RIT-CSI student chapter organized an inter-college coding contest, Code for Thought on 18th of July, 2020. The contest was 12 hours long from 11 am to 11 pm. It was an online competition on the Hackerrank platform. A total of 117 students participated in the event. Cash prize and certificates were awarded for the First and second position winners.

Publications in (National / International) Journals:

- Niranjanamurthy M, Naresh E, Dayananda P, Amulya M P 'Well-organized solution and information for cancer disease through the web application and app', International Journal of Grid and Distributed Computing, ISSN:2005-4262 (Online) Vol. 13 No. 01 (2020): Vol 13 No 1 (2020) pp: 377-387.
- Niranjanamurthy M, et. al. "'Implementation of IPFS in DistributedDB-MongoDB and DynamoDB', International Journal of Advanced Science and Technology, ISSN: 2005-4238 (Print) ISSN: 2207-6360 Vol. 29 No. 5s (2020): Vol 29 No 5s (2020) pp: 809-817.
- Niranjanamurthy M, Shifa Muskan, Umme Hani, et. al. 'Process of Ethereum and Hyper Ledger Fabric with Blockchain Technology', International Journal of Advanced Science and Technology, ISSN: 2005-4238 (Print) ISSN: 2207-6360 Vol. 29 No. 8s (2020): Vol. 29 No. 8s (2020) pp:116-125.
- Deval Bhadiyadra, Chethan Venkatesh 'Smart Street Light using ZigBee with Video Analytics', International Journal of Engineering, Applied and Management Sciences Paradigms (IJEAM), Volume 54, Issue 14, July 2020, ISSN 2320-6608.

Paper presentation in National / International Conferences:

- **Geetanjali R** 'Green technology institute for technology and research' (ITRESEARCH) 2020 August Cananda ISSN / ISBN: 978-93-89732-92-4.
- Nithya BN, Manish Kumar 'Multi-Criteria Decisions – A Modernistic Approach to Designing Recommender Systems', 2nd International Conference on Innovative Computing and Cuttingedge Technologies (ICICCT 2020), September 2020.



Guest Lecture/s - Invited

 Purushotham. B. V, Technical Training Head, Comviva – 'Writing Efficient Program as per Industry Standards' 25-07-2020.

Guest Lecture Delivered by the department Faculty:

- Niranjanamurthy M 'Next Generation Innovation in Augmented and Virtual Reality', SSN Research Foundation, 2020 International Multidisciplinary virtual conference, Bellary 22/07/2020.
- Manish Kumar 'Applications of Artificial Intelligence, Machine Learning, and Blockchain in Cyber Security', 15th July 2020, organized by The Institution of Electronics and Telecommunication Engineers, Bangalore Centre.
- Chethan Venkatesh 'Cyber Security: An overview', Department of MCA, Dr.AIT, Bengaluru, 15-07-2020.
- D Evangelin Geetha 'Practical Approach to Machine Learning', conducted at the Department of MCA of BMS Institute of Technology and Management, Bangalore on 21/8/2020.
- K Sailaja Kumar 'Practical Approach to Machine Learning' conducted at the Department of MCA of BMS Institute of Technology and Management, Bangalore on 21/8/2020.
- Nithya BN 'Scribus for Page Design', Department of Media Science, Surendranath College for Women, West Bengal, 23rd July 2020.

Funded Project:

 Niranjanamurthy M – 'Selenium web driver using python' Short Term Training Programme (STTP) under AQIS 2079-20.

Grant: Rs. 3,91,388/-

 Ms. Nithya BN
– 'Selenium web Driver using Python' Short Term Training Programme (STTP) under AQIS 2079-20.

Grant: Rs. 1,98,333/-

Achievements, Awards / Prizes by Faculty / Staff / Students:

 D Evangelin Geetha - 'Lifetime Achievement Award', In the 7th International Scientist Awards on Engineering, Science, and Medicine, held on 4th & 5th

- July 2020, Coimbatore, India, Organized by VDGOOD Professional Association.
- Geetanjali R 'Green technology Researchfora' Excellent Paper Award, August 2020- Ottawa, Canada.

DEPARTMENT OF MANAGEMENT STUDIES

Management Development Programme (Online) on 'Emerging Technologies and Competencies in Transforming Business Landscape' was conducted from 20th to 25th July 2020 at Department of Management Studies, RIT. The MDP was inaugurated by Dr. Sudheendra Theertha Koushik, Vice Chairman, IEEE, Bangalore Chapter, Co-founder, PRASU and he gave a detailed talk on Technology, Innovation, and Business. The sessions of MDP include Blockchain technology, RPA, Artificial Intelligence, etc.

Publications in (National / International) Journals:

- Dr. Rizwana. M 'Role of Startups in Building Economy: A Study With Reference to Karnataka Region', Test Engineering and Technology, March-April 2020, ISSN: 0193-4120 pp19116 –19120.
- Dr. Rizwana. M 'Market Potential of trending Coliving spaces in Bengaluru City', Journal of Seybold report, ISSN: 1533-9211. Vol 15, Issue 9, 2020, pp3791.
- Dr. Rizwana. M 'Training as a Growth Vector for successful Entrepreneurship', Journal of Seybold report, ISSN: 1533-9211. Vol 15, Issue 9, 2020, pp3783.
- Dr. Pallavi.B 'The role of Internet in the emerging business of Digital Marketing in Asia', published in the VTU Journal of Engineering Sciences and Management, Vol. 2, pp37-40, (2020). ISSN: 2582-5844 (online).
- Mrs. S.B. Rashmi 'Training as a Growth Vector for successful Entrepreneurship', Journal of Seybold report, ISSN: 1533-9211. Vol 15, Issue 9, (2020), pp3783.
- Mrs. S.B. Rashmi, Book Chapter 'The initiatives of Government to bridge Skill Gap in India through Education- A study', ISBN: 978-81-947738-0-1, pp147.



 Dr. Vaijanath Babshetti - 'A comparative study on awareness of agricultural Commodity futures between farmers and traders in Karnataka', Strad Research, Vol.7, Issue 7, (July 2020), ISSN: 0039-2049.

Paper presentation in International / National Conferences:

 Dr. A. Mahalakshmi - 'Social Media Behaviour of School Children during COVID 19 Pandemic' in International Conference on 'An Indian Issue Building a Self Reliant India-Role of India', Amity University, Patna on 24th & 25th July 2020.

Guest Lectures Invited:

- CMA Tamil Selvan Ramadoss, Manager-Financial Analysis, Dubai Maritime City Authority- 'Career opportunities for management graduates in Finance' on 10-07-2020.
- Mrs. Marina Jose, Kamjikal, Bombay Stock Exchange- 'Introduction to Stock Market' on 28-09-2020.

DEPARTMENT OF ARCHITECTURE

 5-Day Faculty Development Program on 'Sustainability Concept in Civil Engineering and Architecture' from 21st - 25th July, 2020. It was jointly organized by Department of Civil Engineering and School of Architecture. Five Day Faculty Development Program 'TERRAIN' 2020 – Rediscovering Urban Landscape' organized by School of Architecture from 27th - 31st July, 2020.

Publications in (National / International) Journals:

Yashas Hedge, Matthew B, Wuxueki Yuan and Larry James – 'Rapid Transit the Edifice of Sustainability?', Chapter 1 – Energy and Well being, Chapter 2 – Newton and Scott Road District, Chapter 4 – Surrey City Center and North Scott Road, Publisher: Talonbook, September 2020.

Achievements, Awards / Prizes by Faculty / Staff / Students:

- Sanghamitra Saha of 3 'T' conducted an Art and Craft Workshop from 5th July to 5th August along with her fellow Artist Friends from Bahrain. Students from Egypt, Bahrain, Dubai, and India joined the workshop.
- Karthik V Shettar of 3 'S' participated in an online course of 'Application of Geoinformatics in Ecological studies', hosted by Indian Institute of Remote Sensing (IIRS) from 13-07-2020 to 24-07-2020 and has been awarded the certificate of course completion on passing the exam.
- Nikita Konwar Gogoi of 5 'T' won an Internship called 'Call for Illustrators' hosted by Ethos and NASA on 23rd September 2020 for all Architecture students in India. It was a 3-hour competition involving the completion of 3 sets of tasks to select interns to work for a month on creating illustration content and storyboards as an apprenticeship program.
- Aditi Srinath of 5 'T' won the online Victoria Cup, Melbourne by the Melbourne University Debating Society in August 2020.
- Krittika K C of 7 'S' shortlisted for top 10 team in Under 25 Media Mogul on 18th August 2020.

PLACEMENT & TRAINING

The main Highlights -2021 batch

164 Companies visited & 676 offers

Highest Package: 26.5 LPA

• **Highest Stipend:** 87,000/- per month



Highlights of Ramaiah Institute of Technology

- Strategically located in the heart of Bengaluru City offering excellent connectivity and convenience.
- Proven track record spanning 58 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 Educational Institution under Gokula Education Foundation (GEF)

Ramaiah Institute of Technology

Ramaiah Polytechnic

Ramaiah College of Arts, Science & Commerce

Ramaiah Composite Pre-University College

Ramaiah Vidyaniketan

Ramaiah College of Education

Ramaiah Institute of Management

Ramaiah College of Law

Ramaiah High School

Ramaiah Medical College

Ramaiah Institute of Physical Medicine & Rehabilitation

(Physiotherapy)

Ramaiah International Medical School

Ramaiah Institute of Nursing Education & Research

Ramaiah INDIC Speciality Ayurveda

Ramaiah Medical College Hospital

Ramaiah Memorial Hospital

Ramaiah Advanced Testing Laboratory

Ramaiah Clinical Research Centre

Ramaiah Harsha Hospital

Ramaiah Leena Hospital

Ramaiah Neha Prakash Hospital

Ramaiah Clinic

Ramaiah Public Policy Center

Ramaiah Innovation Centre for Healthcare Technologies

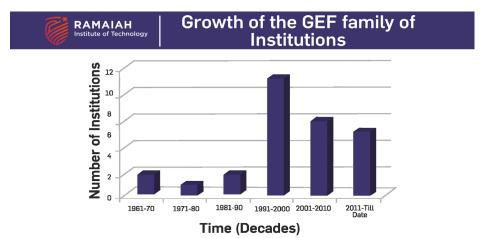
Ramaiah Sunrise Ayurveda Center, Penang, Malaysia

Ramaiah Officers IAS Academy

Ramaiah Quality Assurance Cell

Ramaiah International Centre for Public Health Innovation

Ramaiah University of Applied Sciences



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