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## Sampige

### A quarterly News Bulletin

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Dept. of Humanities

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#### From the Editorial Board



Greetings,

I am extremely happy to present before you the second issue of Sampige. It offers me great pleasure to connect with all our beloved readers of Sampige, a quarterly News Bulletin of RIT which we keep the college community and beyond abreast of happenings, developments and the great strides accomplished through our Institution. Ramaiah Institute of Technology (RIT) has grown abundantly in the recent past and has secured 59<sup>th</sup> rank position among 1071 reputed Institutes in India in the NIRF ranking, announced by MHRD, Govt. of India. On behalf of the Management, I congratulate all the teaching and non-teaching staff for all their sincere efforts in making our institution great. This issue specially includes the statics of a record collection of blood donated by our faculty, staff and students during the annual blood camp organised by the NSS wing of the institute, in addition to the news of each individual department. However, we missed few important institutional level events due to (coronavirus) pandemic. I hope coming days, we may finally expect a Light at the End of COVID-19 Tunnel. With this, I look forward to your continuous support from staff and different stakeholders to further growth of RIT. Please do feel free to express your views and I look forward to your support in the coming issue.

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



Friends,

On behalf of the editorial committee, I am glad to present before you the second issue of Smapige a quarterly News Bulletin of the year 2020. Because of Covid pandemic effect, we have missed three important institutional level annual proceedings like Pradarshana: 2020 - Open day Project exhibition, Farewell Function - In honour of outgoing students and Dr. M. S. Ramaiah Memorial Lecture. This News Bulletin highlights only few events held at department levels and research activities. I wish to mention that your valuable inputs are welcome and will go a long way in improving the experience further. We appreciate your support and are so happy to have you as a reader of Sampige a quarterly news bulletin of RIT.

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.



**#1** RANKED  
AMONG ENGINEERING  
COLLEGES (VTU)  
IN KARNAKATA

Ranked  
**#59** **BEST** ENGINEERING  
INSTITUTE  
among 1071 reputed  
Institutes in India

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

MSRIT is accredited by NAAC with  
"A" Grade

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



Industrious and enterprising, Dr. M. S. Ramaiah is among Karnataka's illustrious 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.

Widely 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 Doctorate 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 appropriate procedures to initiate, include and conduct unique programmes keeping in touch with the emerging requirements of the industry.

### DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

#### Paper Publication in International/National Journal:

- **J S Sagar, G M Madhu, Pradipkumar Dixit** - 'Investigation of mechanical, thermal and electrical parameters of gel combustion-derived cubic zirconia/epoxy resin composites for high-voltage insulation', Ceramica, Print version ISSN 0366-6913, On-line version ISSN 1678-4553, Cerâmica vol.66, No.378, pp. 186 – 196, São Paulo, Apr./June 2020.

#### Paper Publication in International/National Conference:

- **C P Jagrat, J Channegowda** - 'A Survey of Block Chain Based Government Infrastructure Information', 2020 International Conference on Mainstreaming Block Chain Implementation (ICOMBI), Bengaluru, India, 21<sup>st</sup> - 22<sup>nd</sup> February 2020.
- **S Jain, A Anand, A Gupta, K Awasthi, S Gujrati, J Channegowda** - 'Block chain and Machine Learning in Health Care and Management', International Conference on Mainstreaming Block Chain Implementation (ICOMBI), Bengaluru, India, 21<sup>st</sup> - 22<sup>nd</sup> February 2020.

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

- **Dr. Pradipkumar** - 'CO, PO & PSO attainment', 5<sup>th</sup> June 2020 in the five-day webinar on 'NBA & NAAC Accreditation Process', organized by IQAC- MSRIT, Bengaluru.

### DEPARTMENT OF MECHANICAL ENGINEERING

#### Publication in (National/International) Journals:

- **Balasubramanya H. S., Mohammed Samdhani Khan, Deepak S.** - 'Investigation on reciprocating wear behavior of TIB<sub>2</sub> and Graphite reinforced Aluminium metal matrix composite under dry conditions', International Journal of Mechanical and Production Engineering Research and Development, ISSN (P): 2249-6890; Vol. 10, Issue 3, June 2020.
- **Aruna Kumara P. C, D. Venkatesh, Shiva Krishna J** - 'Design and Optimization of Innovative Fixture and Gauge for a Landing Gear Stator', International Journal of Mechanical and Production Engineering Research and Development, Vol. 10, Issue 3, June 2020, PP 3881-3886.
- **Nandeesh H. L, Deepak S, Hemanth Kumar J, Hassan Sadeed Ali** - 'Mechanical and Thermal

property evaluation of Mild steel swarf reinforced LDPE tile using ANSYS', GIS science journal, ISSN No:1869, Vol 7, Issue 6, 2020.

- **D. Venkatesh, Balasubramanya H.S, Naveen Kumar B.K, S. V. Prakash, Anand Rajeev, Sujitha R** - 'Experimental investigation on elasto-plastic deformation of IS:2062 grade C steel in the post-yield region', International Journal of Mechanical Engineering and Technology (IJMET), May 2020.

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

- **K. R. Phaneesh** - Online technical lecture on 'Monte Carlo Simulation of Grain Growth in Polycrystalline Materials', Faculty Development Program titled 'ADVANCED MATERIALS AND PROCESSING', organized by the Department of Mechanical Engineering, Ghousia Institute of Technology, Ramanagaram, Karnataka, on 11<sup>th</sup> June 2020.
- **K. R. Phaneesh** - Online technical lecture on 'Advanced Materials on Ancient India', Faculty Development Program titled 'ADVANCED MATERIALS AND PROCESSING', organized by the Department of Mechanical Engineering, Ghousia Institute of Technology, Ramanagaram, Karnataka, on 8<sup>th</sup> June 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.

*"Have you ever been at in a dense fog, when it seemed as if a tangible white darkness shut you in and the great ship, tense and anxious, groped her way toward the shore with plummet and sounding – line, and you waited with beating heart for something to happen? I was like that ship before my education began; only I was without compass or sounding line, and no way of knowing how near the harbor was. "Light give me light" was the wordless cry of my soul, and the light of love shone on me in that very hour".*

- Helen Keller

## DEPARTMENT OF CIVIL ENGINEERING

#### Publications in National/International Journals:

- **Nagashree B, Mourougane R, 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), February 2020.

#### Paper presentation in National/International Conferences:

- **B. Suguna Rao** – 'Experimental Investigation of Fresh Properties of Recycled Aggregate Concrete', Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies, CRSIDE-2, ASCE- India Conference, Kolkata, March 2<sup>nd</sup> - 4<sup>th</sup> 2020.
- **Prabhakara R., Nambiyanna B., Nakul R., Ganesh B.** – 'Analysis of Rotation Capacity of RC Beams Over Formation of Plastic Hinges', Vinyas M., Loja A., Reddy K. (eds), Advances in Structures, Systems and Materials. Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore. <https://doi.org/10.1007/978-981-15-3254-2-24>, 2020.

#### Guest Lecturers - Invited:

- **Dr. Manu Santhanam**, Professor & Head IITM - '3D-Printing of Concrete', 25 - 06- 2020.

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

- **Nandeesh M S** - 'Skill Enhancement using 'ETABS Software' Application in Civil Engineering', Dept of Civil Engineering, BMS College of Engineering, Bangalore, 30-06-2020.
- **Dr. R Mourougane** - Keynote address on 'Membrane Action in one Way slabs', WEB Conference ICON 2020, Dept of Civil Engg, Sona College of Technology, Salem, 12-05-2020.
- **Dr R Mourougane** - Keynote address on 'Innovations in Concrete Construction', Dept of Civil Engg, Sona College of Technology, Salem, 12-05-2020.

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

- **Nagashree B** - Assistant Professor, Department of Civil Engineering, MSRIT, had been awarded with Engineering Excellence Award 2019-20 under the Category: Women Super Achiever sponsored by Ministry of New and Renewable Energy, Government of India, for her immense contribution in publishing technical research articles and also for writing technical blogs in Civil Engineering.
- Ramaiah Institute of Technology has been recognized as the Nodal Centre and Network Institute of the Indian Institute of Remote Sensing (IIRS) outreach network on 18<sup>th</sup> June 2020. The Coordinator of Nodal Centre is Dr. Santhosh L G Assistant Professor, Department of Civil Engineering. Eight programs have been completed by the Nodal Centre.

#### Faculty who obtained Ph.D. degree:



**Mrs. Sreelatha N** has been awarded Ph.D. for the research work 'Shaking Table Studies on Seismic Response of Unreinforced and Geosynthetic Reinforced Soil Slopes' from the Indian Institute of Science, Bangalore

in June 2020 under the guidance of Prof. G. Madhavi Latha, Professor, Department of Civil Engineering, IISc, Bangalore and Prof. C.G. Puttappa, Prof & HOD, Department of Civil Engineering, RIT, Bangalore.

#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

- Five-day workshop on 'Effective Usages of Educational Technology in Teaching-Learning Process as a Part of NBA Accreditation', was jointly organized with the Department of CSE from 22<sup>nd</sup> - 26<sup>th</sup> June 2020.

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

- **S. Lakshmi, Alita Almeida, Anshuman Bagchi, Mary Joseph** - 'Detection of Tuberculosis using

MEMS', Micro System Technologies, ISSN:09467076, 2020.

- **Aniruddha Pandey, T. Samarth, S. Raghuram** - 'Using Images for Real-Time Violence Detection in the Edge', Advances in Communication Systems and Networks, Lecture Notes in Electrical Engineering, Vol. 656, doi.org/10.1007/978-981-15-3992-3\_58, 2020.
- **Chethana Gosal. S, Veena G.N, Sanvitti Wooday, S. Kruthika Koushik, Sirisha K V, Shreya Srinarasi** - 'Solar Power Prediction using ANN', GIS Science Journal, ISSN:1869-9391, Vol. 7, No. 7, 2020.
- **Prashanth M P, Dr. Sujatha B, Sara Mohan George** - 'Concealed Weapon Detection using Co-Axial Waveguide', International Journal of Advanced Science and Technology, Vol. 29, No. 3, pp. 13844 - 13853, 2020.
- **Manoj S, Pavitha U S** - 'Design of Low-Power and High-Performance Wallace Tree Multiplier with Full Adder Modification', International Journal of Advanced Science and Technology, Vol. 29, No. 7, pp. 13627 - 13632, 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:

- **Manoj B R**, 4<sup>th</sup> Semester – Winner, ‘Robo RITB-IEEE-RITB: Battle Simulation’, organized by RIT, Bangalore.
- **Manoj B R**, 4<sup>th</sup> Semester – Winner, National level, ‘Anaadyanta: Line Follower’
- **Smriti Menon**, 6<sup>th</sup> Semester - Runner-up, ‘Voice of 8th mile western’, organized by RVCE, Bangalore.
- **Smriti Menon**, 6<sup>th</sup> Semester - Runner-up, National level, ‘Xfactor western at Anaadyanta 2020’.
- **Khushi S Patil**, 4<sup>th</sup> Semester - Winner, ‘Battle of simulation 2020’, organized by RIT, Bangalore.
- **A Nithyashree**, 8<sup>th</sup> Semester - Award for Excellence, ‘Samsung PRISM’, organized by Samsung R&D, Bangalore, 2020.
- **Bharanidharan**, 8<sup>th</sup> Semester - Award for Excellence, ‘Samsung PRISM’, organized by Samsung R&D, Bangalore, 2020.
- **Rishabh Bhat**, 4<sup>th</sup> Semester – Winner, ‘Internal Hackathon for SIH’, organized by RIT, Bangalore.

- **Jayamadure S**, 8<sup>th</sup> Semester – Winner, State level, ‘Between the Lines’, organized by IIM, Bangalore.
- **Jayamadure S**, 8<sup>th</sup> Semester - Certificate of Achievement, State level, ‘NE8x LITFEST’.
- **Jayamadure S**, 8<sup>th</sup> Semester - Winner, ‘Daily Prophet’, organized by RIT, Bangalore.
- **Gayathri B**, 8<sup>th</sup> Semester - 3<sup>rd</sup> place, State level, ‘Monografia’, organized by Escritor Explorers.
- **Gayathri B**, 8<sup>th</sup> Semester – Finisher, State level, ‘Greenwalk 6 km’.
- **Adarsh Jayaraj**, 8<sup>th</sup> Semester – Winner, State level, ‘SPIEL-Football’.

### DEPARTMENT OF CHEMICAL ENGINEERING

- The webinar series on ‘Immunomodulatory Functional Foods and Nutraceuticals’ was organized by the Department of Biotechnology and Department of Chemical Engineering, RIT, to provide a platform for faculty, researchers, students & industry experts to promote, share & discuss latest findings & developments in the area of Biotechnology. There were 222 participants present in the event. Dr. Bindu and Dr. Archana, RIT also presided over the function.

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

- **Kulkarni, R. M.**, Shetty, K. V., & Srinikethan, G – ‘Biosorption of Nickel (II) and Cadmium (II), Methods for Bioremediation of Water and Wastewater Pollution’, 373-391, [https://doi.org/10.1007/978-3-030-48985-4\\_17](https://doi.org/10.1007/978-3-030-48985-4_17), 978-3-030-48985-4, Springer, Cham.
- **M Ameen Khan, G M Madhu, R N Sailaja** – ‘Polymethyl Methacrylate Reinforced with Nickel Coated Multi-Walled Carbon Nanotubes: Flame, Electrical & Mechanical Properties, Polymer Composites’, 1-14, 2020, ISSN: 1548-0569 (Online) <https://doi.org/10.1002/pc.25842>, John Wiley and Sons Inc.
- **Smrithi S P, Nagaraju Kottam, Arpitha V, Archana Narula, Anilkumar G N** - ‘Tungsten oxide modified with carbon nanodots: Integrating adsorptive and Photocatalytic functionalities for water remediation’,

Journal of Science: Advanced Materials and Devices, 5 (1), 73-83 2020, <https://doi.org/10.1016/j.jsamd.2020.02.005>, Elsevier.

- Sowmya, **S. R, Madhu**, G. M, Raizada, A, Madhusoodana, C. D – 'Studies on effective treatment of wastewater using submerged ceramic membrane bioreactor', Materials Today: Proceedings, 24(2) 1251-1262, 2020, <https://doi.org/10.1016/j.matpr.2020.04.440>, Elsevier.

## DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

### Publications in National / International Journals by Faculty:

- M. Shilpa, **G.S. Prakash** & M.R. Shivakumar – 'A combinatorial approach to optimize the properties of green sand used in casting mould', International of Materials Today: Proceedings, published by Elsevier. June 2020.
- Hamritha. S, Hemanth. M & Rajesh. B – 'Characterization of mechanical behaviour of pineapple leaf fibre composite', International Journals of ICMSMT 2020. IOP Conf. Series: Materials Science and Engineering 872(2020) 012172. DOI: 10.1088/1757-899X/872/1/012172.

### Publications in National / International Journals by Research Scholars / students:

- K.C. Nagaraja, S. Rajanna, G.S. Prakash, & G. Rajesh Kumar – 'Improvement of mechanical and thermal properties of hybrid composites through the addition of hallo sitenanoclay for lightweight structural applications', Journal of Industrial Textiles - DOI: 10.1177/1528083720936624. Pg.No.1-18.
- K.C. Nagaraja, S. Rajanna, G.S. Prakash, & G. Rajesh Kumar – 'Mechanical properties of polymer matrix composites: Effect of hybridization', Elsevier, Materials Today's Proceedings.
- Madhu Prakash P, M. Rajesh – 'Understanding the End – User Perspective of workplace design Requirements', Journal of Seybold Report. ISSN No: 1533-9211. Vol. 15, Issue 8, Pg.No.: 1127 to 1132, 2020.

### Paper presentation in National / International Conference:

- M. Shilpa, M R Shivakumar & Hamritha – 'Analysis of mechanical and tribological properties of alumina reinforced with aluminum alloy metal matrix composite', Second International Conference on 'Materials Science and Manufacturing Technology 2020 (ICMSMT 2020)', held at Hotel Aloft, Coimbatore, Tamilnadu, India. Proceedings of the ICMSMT 2020 will be published by the Institute of Physics, United Kingdom in the IOP Conference Series, Materials Science and Engineering (MSE), a conference proceedings journal, 9<sup>th</sup> - 10<sup>th</sup> April 2020.
- Hamritha. S – 'Characterization of mechanical behavior of pineapple leaf fiber composite', Second International Conference on 'Materials Science and Manufacturing Technology 2020 (ICMSMT 2020)', Proceedings of the ICMSMT 2020 will be published by the Institute of Physics, United Kingdom in the IOP Conference Series, Materials Science and Engineering (MSE), Coimbatore, Tamilnadu, India, 9<sup>th</sup> - 10<sup>th</sup> April 2020.

### Research Scholars paper presentation in International / National Conference:

- K.C. Nagaraja, S. Rajanna, G.S. Prakash, & G. Rajesh Kumar – 'Mechanical properties of polymer matrix composites: Effect of hybridization', Elsevier, Materials Today's Proceedings, 26<sup>th</sup> March 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, 20<sup>th</sup> May 2019.

**Grant:** Rs.70,000/-.

*Educating the mind without educating the heart is no education at all.*

- Aristotle.

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- The departments of CSE, ISE and MCA in Association with IQAC, MSRIT organized One-week Faculty Development Programme on 'Big Data Management: An End-to-End Perspective' from 15<sup>th</sup> -19<sup>th</sup> June 2020. The FDP was sponsored by AICTE under the Margdarshan scheme. Prof. Yogesh Simmhan, CDS, Indian Institute of Science delivered the inaugural lecture covering the big picture context about Big Data and discussed the uses of Big Data platforms in Covid 19 management and the role of Edge and Fog platforms in Big Data. Mr. Sunil Govindan from Cloudera, Mr. Basanth Rangadhol from Tavant, Mr. Manjunath Mulimani from MIT, Manipal, and Mr. Atif Adib from Yodlee were the guest speakers.



- Organized webinar series on 'Effective Usages of Educational Technology in Teaching-Learning Process as a Part of NBA Accreditation', under AICTE- Margdarshan scheme during 22-26 June 2020, at RIT, Bangalore. External speakers are arranged from IITs, IISc, and NITs.

### Paper Publication in International/National Journals:

- Hanumantharaju R., Pradeep Kumar D., Sowmya B.J., Siddesh G.M., Shreenath K.N., Srinivasa K.G** - 'Enabling Technologies for Fog Computing in Healthcare 4.0: Challenges and Future Implications' In Tanwar S. (eds) Fog Computing for Healthcare 4.0 Environments. Signals and Communication Technology. Springer, Cham. [https://doi.org/10.1007/978-3-030-46197-3\\_7](https://doi.org/10.1007/978-3-030-46197-3_7).

- Sowmya B J, Krishna Chaitanya S. Seema Shedole, K. G. Srinivasa** - 'Data Analytic Techniques for Developing Decision Support System on Agro meteorological Parameters for Farmers', International Journal of Cognitive Informatics and Natural Intelligence 14(2):92-107 DOI: 10.4018/IJCINI.2020040106 April 2020.
- Bheemappa Halavar, Basavaraj Talawar** - 'Power and performance analysis of 3D network-on-chip architectures', Computers and Electrical Engineering Journal, doi.org/10.1016/j.compeleceng.2020.106592, Elsevier Vol. 83, May 2020,
- K Krishna Jyothi, Shilpa Chaudhari** - 'Cluster-based authentication for machine type communication in LTE network using elliptic curve cryptography', International Journal of Cloud Computing, 2020 Vol.9 No.2/3, pp. 258-284, DOI: 10.1504/IJCC.2020.109380.
- C G Raghavendra, N Harsha, Mohan Kumar S, Prashantha H** - 'Joint Reduction of PMEPR and Side lobe in Multicarrier Radar Signals using ZC and SC Method', WSEAS Transactions on Communications, DOI: 10.37394/23204.2020.19.2 E-ISSN: 2224-2864.
- Narendra M, Veena G S, Harekal D, Jagadish S Kallimani** - 'Biometric based attendance management system using cloud', International Journal of Advanced Science and Technology, 2020, Issue 29, pp. 130-138.
- Sajini G, Jagadish S Kallimani** - 'Computational evaluation of language models by considering various scaling properties for processing natural languages', Journal of Advanced Research in Dynamical and Control Systems, 2020, 12 (7 Special Issue), pp. 691-700.
- Chandrika C P, Jagadish S Kallimani** - 'Classification of Abusive Comments Using Various Machine Learning Algorithms', Advances in Intelligent Systems and Computing, 2020, 1040, pp. 255-262.
- Meeradevi, Sindhu N, Monica R Mundada** - 'Machine Learning in Agriculture Application: Algorithms and Techniques', International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Vol.9 Issue-6, April 2020.



- **Shetty C, Sowmya B J, Seema S, Srinivasa K G** - 'Air pollution control model using machine learning and IoT techniques', Advances in Computers, 2020, 117(1), pp. 187-218
- **Darshana A Naik, Brunda C, Seema S** - 'A Feasible Dashboard to predict Patent Mining Using Classification Algorithms', Procedia Computer Science, Vol. 167, 2020, Pg. No 2011-2021 doi. org/10.1016/j.procs.2020.03.238.
- **Singh A, Nagaraj N, Hiriannaiah S, Patnaik L M** - 'ISCG: An intelligent sensing and caption generation system for object detection and captioning using deep learning', International Journal of Intelligent Information Technologies, 2020, 16(4), pp. 51-67.

#### Paper Publication in International / National Conference

- **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, 2020, pp. 1-6, DOI: 10.1109/CONECCT50063.2020.9198651.
- **Sanjeetha R, Srivastava S, Kanavalli A, Pattanaik A, Gupta A** - 'Mitigation of a combined DDOS attack on SDN controller and primary server in software-defined networks using a priority on traffic variation', 2020 International Conference for Emerging Technology, INCET 2020, 2020, 9153998.
- **Mohana Kumar S, Poornima G** - 'Information Fusion Based wheelchair Control for paralyzed patient', IEEE 4th International Conference on I-SMAC (IoT in Social, Mobile, Analytics, and Cloud) (I-SMAC) I-SMAC (IoT in Social, Mobile, Analytics, and Cloud) (I-SMAC), (I-SMAC) DVD Part Number:CFP2005V-DVD; ISBN: 978-1-7281-5463-3.
- **S Ashraf Ali, S Mohana Kumar, S J Krishna Prasad** - 'UEFI BIOS Compatibility for Multiple SOC Based on Device Capability Detection', 2020 IEEE International Conference on Smart Electronics and Communication (ICOSEC), Trichy, India, 2020, pp. 1339-1344, DOI: 10.1109/ICOSEC49089.2020.9215371.
- **Parkavi S, Sowmya, Srinivasa K G** - 'Automating the assessment of student's descriptive answer using natural language processing', International

conference on electronics, telecommunications and information processing, ICE TIP 2020.

- **Parkavi, Harini, Supriya, Amith, Tejaswini** - 'Mobile application for Pranayama Using Clustering', International conference on recent engineering and technology, 21st June 2020, Bangalore.
- **Parkavi A, Vineet Patil, Neeraj Singh, Rachit Raj Maheswari, Rahul Sharma** - 'Automated stock tracing using deep reinforcement learning', International conference on Recent engineering and technology, 21st June 2020, Bangalore.
- **Geetha J, JayaLakshmi D S, R Pravakar, P D Naik, S Sirisha Reddy** - 'Optimal Scheduling Algorithm for Distributed Streaming of Data Flow across Edge Devices and Cloud', IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2020, pp. 1-5, DOI: 10.1109/CONECCT50063.2020.9198674.

#### Guest Lectures

- **Dr. Mohana Kumar S** - Student Development Program 'IP Addresses in Computer Networks', Webinar, through digital media organized by Department of Computer Science and Information Science Engineering, RR Institute of Technology, Bangalore, 23-06-2020.
- **Dr. Parkavi S**, 'Data Science Using R', Organized by M.A.M. School of engineering, Sirugambur, 23-06-2020
- **Dr. Parkavi S**, 'Mooc courses usages in Curriculum', in Webinar Series on "Effective Usages of Educational Technology in Teaching-Learning Process as a Part of NBA Accreditation", Under AICTE- Margadarshan Scheme from 22<sup>nd</sup> -26<sup>th</sup> June 2020, at RIT, Bangalore.
- **Dr. Parkavi S**, 'Outcome based Education: A drive through', Organized by Srinivasa College of arts and science, Perambalur, 15-05-2020.
- **Aparna R**, 'Creating modules and packages in Python and IDE framework', Organized by The Department of MCA K K Wagh Institute of Engineering Education and Research, Nashik, 13-05-2020.
- **Aparna R**, 'Big Data Management: An End-to-End Perspective', RIT Bangalore 17-06-2020.

#### Funded Project:

- **Sowmya B J**, 'Technology Development and Automation of Hydroponic Farms in Urban areas using enhanced precision farming by incorporating IoT 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. Parkavi S** - Successfully completed online course on "Digital transformation in teaching learning process", from 6<sup>th</sup> -22<sup>nd</sup> April 2020, two week course, under TEQIP-3 under NPTEL-SWAYAM, conducted by IIT, Bombay.
- **Dr. Parkavi S** - Received Best paper award for, Mobile application for Pranayama Using Clustering, International conference on Recent engineering and technology, 21<sup>st</sup> June 2020, Bangalore.
- **Dr. Annapurna P Patil** - Won the Best Paper award for the paper publication at IEEE BHTC 2020 conference.

#### Faculty who obtained Ph.D degree:



**Mr. Bheemappa Halavar**, Assistant Professor, obtained his Ph.D. degree for the thesis entitled 'Design of a Power and Performance Optimal 3D-NoC Architecture', on 5th June 2020, under the guidance of Dr. Basavaraj Talawar, Dept. of CSE, NITK Surathkal, from National Institute of

Technology, Karnataka

*Teach the ignorant as much as you can; society is culpable in not providing a free education for all and it must answer for the night which it produces. If the soul is left in darkness sins will be committed. The guilty one is not he who causes the darkness.*

-Victor Hugo, *Less Miserables*

## DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING

#### Publications in National/International Journals:

- **Christina Grace Danny**, M Danny Raj, V V R Sai – 'Investigating the refractive index sensitivity of U-bent Fiber Optic Sensors using Ray optics', Journal of Lightwave Technology, vol. 38, no.6, pp-1580-1588, March 2020.

#### Guest Lectures – Invited:

- **Gautham Ramamurthy**, General Manager, Dover India Pvt. Ltd., Bengaluru - 'New Product Development, Innovation and Introduction', 11-06-2020.

#### Guest Lectures – Delivered:

- **Dr. M K Pushpa** – 'Introduction to IoT', for students of Acharya Polytechnic, Bangalore, 23-06-2020.
- **Dr. M K Pushpa** – 'IoT case study', for students of Acharya Polytechnic, Bangalore, 27-06-2020.
- **Mrs. Elavaar Kuzhali** – 'Patch based denoising - A tour', for students and faculty members of Bangalore Institute of Technology, Bangalore, 30-05-2020.

#### Faculty Achievement:

- **Dr. H. S. Niranjana Murthy** - Chaired a technical session at the 2<sup>nd</sup> International Conference on Recent Trends In Engineering Technology and Management 2020 held at Hyderabad, India on 20.06.2020

## DEPARTMENT OF INFORMATION SCIENCE ENGINEERING

- **IEEE Webinar on Advanced IT Technologies from 23<sup>rd</sup> May to 27<sup>th</sup> May, 2020**- Department in association with IEEE, CIS Bangalore Chapter conducted a series of 4 sessions on advanced IT technologies. Cognitive Computing and Fundamentals of Machine Learning session was handled by Dr. B P Vijaya Kumar, Professor and Head. Working with Hadoop Ecosystem was handled by Dr. Siddesh G M. Medical Image Retrieval and for Clinical Decision Making session was given by Dr. Megha P Arakere. Dr. Sumana M delivered a session

on Big Data Analytics in Healthcare. Shashidhara H S demonstrated iOS App Development using Swift.

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

- Rashmitha H.R, **Sumana M** - 'Machine Learning for Accurate Prediction of Cardiac Arrhythmia', International Journal of Recent Technology and Engineering, Vol. 9, Issue 1,(2020), pp. 271 – 274.
- Srinidhi H, Siddesh G M, K G Srinivasa** - 'Data Analytics of Microblogging Data Using Asset Bubble Model', International Journal of Cognitive Informatics and Natural Intelligence (IJCINI), IGI Global Publishers, pp. Vol.14, Issue 02, (2020), pp. 108 - 118
- Srinidhi H, Siddesh G M, K G Srinivasa** - 'A Hybrid Model using MaLSTM based on Recurrent Neural Networks with Support Vector Machines for Sentiment Analysis', Engineering and Applied Science Research (EASR), Vol. 47, No.3 (2020), pp. 232-240
- S. R. Mani Sekhar, G. M. Siddesh**, Anjaneya Tiwari, Anay Khator, Robin Singh - 'Identification and Analysis of Nitrogen Dioxide Concentration for Air Quality Prediction Using Seasonal Autoregression Integrated with Moving Average', Aerosol Science and Engineering, Springer, Vol.04, No.02, (2020), pp.137-146

#### Paper presentation in National / International Conferences:

- V. Sneha, **K.R. Shrinidhi, R.S. Sunitha, Mydhili K. Nair** – 'Collaborative Filtering based Recommender System using Regression and Grey Wolf Optimization Algorithm for Sparse Data' International Conference on Computational and Experimental Engineering and Sciences, 20<sup>th</sup> February 2020

#### Book Chapters:

- Sumana M, K S Hareesha** – 'Accurate Classification Models for Distributed Mining of Privately Preserved Data', Cyber Law, Privacy, and Security, June 2020

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

- Dr. Vijaya Kumar B P** – 'Fundamentals of Machine Learning' on 17<sup>th</sup> April and 8<sup>th</sup> May, 2020 for a series of webinars by Ramaiah International Centre for Public Health Innovations (RICPHI)

- Dr. Sumana M** – 'Big Data Analytics in Healthcare' on 10<sup>th</sup> April for a series of webinars by Ramaiah International Centre for Public Health Innovations (RICPHI)
- Dr. Sumana** – delivered a series of lectures on Advanced Excel techniques from February to October, 2020 for Ramaiah Hospital Staff.
- Dr. Mydhili K Nair** – 'Ways of Empowering & Protecting Oneself during Lockdown to Attain Equanimity' for Sapthagiri College of Engineering on June 30, 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 "High-school Outreach Program".

**Grant:** \$2000

#### Faculty who obtained Ph.D. degree:

**Naresh E**, Assistant Professor, Department of Information Science and Engineering, MSRIT is awarded the degree of Doctor of Philosophy (Ph.D.) in Computer Science and Engineering, Faculty of Engineering, JAIN (Deemed to be University) on 21<sup>st</sup> May 2020 for his thesis titled



"Design and Development of Novel Techniques for Cost-Effectiveness with Assured Quality in Software Development" – under the guidance of Dr.Vijay Kumar B P, Prof and Head, Dept. of ISE, MSRIT, Bangalore.

## DEPARTMENT OF MEDICAL ELECTRONICS ENGINEERING

- A one-week Webinar series on 'Effective Usages of Education Technology in Teaching-Learning Process as a part of NBA Accreditation' was organized by the Department of ML, RIT from 22<sup>nd</sup> - 26<sup>th</sup> June 2020.

### Publications in National / International Journals:

- S Raghu, Natarajan Sriraam, Erik D Gommer, Danny M W Hilkman, YasinTemel, Shyam Vasudeva Rao, AlangarSatyaranjan das Hegde, Pieter L Kubben - 'Cross-database evaluation of EEG based epileptic seizures detection driven by adaptive median feature baseline correction', Clinical Neurophysiology, Elsevier, Volume 131, Issue 7, 2020.
- Shivarudhrappa Raghu, Natarajan Sriraam, YasinTemel, Shyam Vasudeva Rao, Alangar Sathyanarjan Hegde, Pieter L Kubben - 'Complexity Analysis and Dynamic Characteristics of EEG using MODWT based Antropies for Identification of Seizure Onset', The Journal of Biomedical Research, Neuro-computing, Elsevier, 2020, 34(3): 211-225. DOI: 10.7555/JBR.33.20190021
- S J Mahendra - 'Breast Cancer Classification of Image Using Modified –ResNet', Journal of Advanced Research in Dynamical & Control Systems, Vol. 12, No. 3, 2020.
- Y B Ravi Kumar, C K Narayanaapa - 'Weighted Full Binary Tree-Sliced Binary Pattern: An RGB-D Image Descriptor', Heliyon Journal, Vol. 6, Issue 5, May 2020, <https://doi.org/10.1016/j.heliyon.2020.e03751>.

*Education is not merely a means for earning a living or an instrument for the acquisition of wealth. It is an initiation into life of spirit, a training of the human soul in the pursuit of truth and the practice of virtue.*

- Vijaya Lakshmi Pandit

## DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

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

- Kshama S B, Dr. Shobha K R** - 'Enhanced Artificial Bee Colony Algorithm for Load Balancing in Cloud Computing Environment', International Journal of Future Generation Communication and Networking Vol. 13, No. 1, (2020), pp. 1366-1384.
- Kshama S B, Dr. Shobha K R** - 'Performance Analysis of CBLB Algorithm in Simulation and Real Cloud Environment', International Journal of Applied Engineering Research.

### Guest Lecture delivered by the department faculty:

- Dr. P Parimala** - 'Digital Switching Systems (17EC654)', GURUKUL Series, IEEE Bangalore Section, 01-06-2020.
- Dr. K R Shobha** - 'Women in Engineering', Women in Engineering Affinity Group of IEEE Bangalore Section, 06-05-2020.
- Dr. Swetha Amit** - 'Antennas in Wireless Communication and its Design Challenges in HFSS', ANSYS, 15-04-2020.

### 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 by VGST 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.

*Always be yourself, have faith in yourself, do not go out and look for a successful personality and duplicate it.*

- Bruce Lee

## DEPARTMENT OF BIOTECHNOLOGY

- Six day Webinar on 'Drug Discovery & Development in the Wake of Pandemics', 25<sup>th</sup> May-1<sup>st</sup> June 2020 in association with Biocon-Bristol-Myers Squibb India Ltd, Bengaluru, under IEEE EMB.
- Six-day webinar on 'Immunomodulatory Functional Foods & Nutraceuticals', jointly with Department of Chemical Engineering, RIT, 22<sup>nd</sup> - 27<sup>th</sup> June 2020 under IEEE EMB.

### Publications in International Journals:

- **Dr. Chandra Prabha M N** - 'Vehicular soot for improvement of chemical stability of cement composites towards acid rain and sewage like atmospheres', Construction and Building Materials, February 2020.
- **Dr. Chandra Prabha M N** - 'Conductivity and dielectric studies on combustion derived self-doped ceria nanoparticles', Journal of Nanoscience and Technology, May 2020.
- **Smt. Bhavya S G** - 'Proteomic profiling of Serratia marcescens by high-resolution mass spectrometry', BiolImpacts, March 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, 25<sup>th</sup> Nov 2019.  
**Grant:** Rs. 18.30 Lakhs.
- **Dr. Bindu S** - 'In Vitro Studies on Effects of Carbon Nanotubes on Antioxidant 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 its up-scaling through bioreactor', DST.

**Grant:** Rs. 23.72 Lakhs.

## DEPARTMENT OF MATHEMATICS

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

- **Shashi Prabha Goagte S** - 'Two-phase Microscopic Heat Transfer Model for Three-Dimensional Stagnation Boundary-layer Flow in a Porous Medium', Journal of Heat Transfer, 142(2), 22701-9, 2020.
- **Aruna A.S: Benard** - 'Taylor convection in temperature-dependent variable viscosity Newtonian liquids with internal heat source', International Journal of Applied and Computational Mathematics, 6(27), 1-14, 2020.
- **Uma M, Dinesh P A, Girinath Reddy M, A Sreevallabha Reddy** - 'Combined effects of Forchheimer, Soret, and Dufour on MHD mixed convective dusty viscoelastic Couette flow in an irregular channel', Multidiscipline Modeling in Materials and Structures, ISSN 1573-6105, 1-16, 2020.
- **Dinesh P. A** - 'Impact of Lorentz Force and Viscous Dissipation on Unsteady Nanofluid Convection Flow over an Exponentially Moving Vertical Plate', Mathematical Models and Computer Simulations, Vol. 12, No. 4, 631-646, 2020.
- **Dinesh P. A** - 'Psychoacoustical Differentiation with Regard to the Perception of Pitch-A Comparison Between Musicians and Non-Musicians', Journal of Computational and Theoretical Nanoscience, 17, 1-4, 2020.
- **G. Neereja, Suresh Babu R, A. Vallabha Reddy** - 'Chemically Reacting Unsteady MHD Convectively



Heated Blasius and Sakiadis Flows with Radiated Variable Thermal Conductivity', Journal of Xidian University, 14 (5), 5449-5460, 2020.

- **Suresh Babu R, A. Vallabha Reddy** – 'MHD Mixed Convective Boundary Layer Flow of Third Grade Fluid towards a Vertical Stretching Sheet', Journal of Xidian University, 14 (5), 4620-4627, 2020
- **Suresh Babu R** – 'Analytical and numerical studies on MHD flow of nanofluid over an exponentially moving vertical plate', Journal of Xidian University, 14 (5), 3311-3322, 2020.

## DEPARTMENT OF CHEMISTRY

### Publications (National / International) Journals:

- **B.M. Nagabhushana**, Prashanth K G– 'In vitro antibacterial and anticancer response of MgO nano particles prepared by solution combustion synthesis', International Journal of Advanced Science and Technology, Paper ID: IJAST\_2362, Vol. 29, No. 8, (2020), pp. 3668-3677.
- H.M. Sathyananda, P.A. Prashanth, **B.M. Nagabhushana** – 'In vitro antibacterial, antioxidant and cytotoxicity response of CuO nanoparticles prepared by lemon juice and citric acid fueled solution combustion synthesis', International Journal of Advanced Science and Technology, Vol. 29, No. 8s, (2020), pp. 3678-3690
- A Sangeetha, **B.M Nagabhushana** – 'Er<sup>3+</sup> activated and Yb<sup>3+</sup> sensitized upconversion photoluminescence in zirconium titanate nano powders', Solid State Sciences, 105, 2020/4/18, Pg.No. 106232.
- C. Manjunath, **R Hari Krishna, BM Nagabhushana** – 'Thermoluminescence glow curve analysis of gamma irradiated Sr<sub>2</sub>SiO<sub>4</sub>: Dy<sup>3+</sup> nanophosphor', Physica B: Condensed Matter, 585, 15<sup>th</sup> May 2020, Pg.no. 412113.
- Prashanth G K, P. A. Prashanth, Padam Singh, **B. M. Nagabhushana** – 'Effect of doping (with cobalt or nickel) and UV exposure on the antibacterial, anticancer, and ROS generation activities of zinc oxide nanoparticles', Journal Of Asian Ceramic Societies, VOL. 8, NO.4, 2020, Pg.No.:1175-1187.

- J. Puneetha, **Nagaraju Kottam** – 'Visible light active ZnO nanostructures prepared by simple co-precipitation method', Photonics and Nanostructures-Fundamentals and Applications, Vol.39, 2020/5/1, Pg.no.: 100781.
- **S. P Smrithi, Nagaraju Kottam**, Archana Narula, G. N Anil Kumar, K.R.V Subramanian – 'Tungsten oxide modified with carbon nanodots: Integrating adsorptive and photocatalytic functionalities for water remediation', Journal of Science: Advanced Materials and Devices, Vol. 5(1), March 2020, Pages 73-83.
- **P. Murali Krishna**, Shivakumara N – 'Synthesis, Spectral Characterization, Evaluation of their DNA interaction of 5-substituted -2-thiadiazole – amine', Journal of Molecular Structure, Vol. 1199, 2020. Pg. No. 126999

### FDP/ Workshops / Conferences attended by Faculty

- **Dr. M.N. Manjunatha, Dr. P. Murali Krishna, Dr. B.C. Yallur** - 'Effective usages of Educational Technology in Teaching – learning Process as a part of NBA Accreditation', on 22<sup>nd</sup> to 26<sup>th</sup> June 2020, Dept. of CS, ECE, ML. Eng. In association with IQAC- MSRIT under Margdashan Scheme.
- **Dr. P. Murali Krishna** - International Conference on Crystal Engineering: From molecule to crystal, on 19<sup>th</sup> to 20<sup>th</sup> June 2020, Crystal Growth & Design, Bengaluru.
- **Dr. Basappa C Yallur** - One Week Online FDP on 'NBA and NAAC Accreditation Process', on 4<sup>th</sup> to 8<sup>th</sup> June 2020, IQAC, MSRIT under AICTE Margadarshan Scheme.
- **Dr. Basappa C Yallur** - 5<sup>th</sup> International Conference on Advances in Materials Science (ICAMS – 2020), on 6<sup>th</sup> to 7<sup>th</sup> June 2020, Raje Ramrao Mahavidyalaya, Jath, Kolhapur.
- **Dr. M. N. Manjunatha** - Online FDP on 'Contemporary Tools and Techniques for Teachers and Researchers in higher education: Experience of using virtual classrooms', on 9<sup>th</sup> may 2020, Cambridge Institute of Technology, 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 Lectures – Delivered by Department Faculty

- **Dr. B M Nagabhushana** - 'Research opportunities in nano-science', One-day webinar on 'Recent Trends in Science and Technology, conducted by Sapthagiri College of Engg. Bangalore on 05-06-2020
- **Dr. B M Nagabhushana** - 'Oxide Nano materials for global Empowerment, Online FDP on 'Physics of Materials' form 28 – 30 May 2020 organized by Dept. of Physics, Faculty of Engg. & Technology, Jain Deemed University, Bangalore.

### DEPARTMENT OF PHYSICS

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

- **Raveendra M Melavanki** – 'Photoluminescence, TGA/DSC and Photo-catalytic action study of Dy<sup>3+</sup> ion-doped SrY<sub>2</sub>O<sub>4</sub> Nanophosphors', RSC Advances, 10, 21049 –21056. 2020.
- **Raveendra M Melavanki** – 'Quantum chemical and solvatochromic studies of biological active 1, 3, 4-thiadiazol coumarin derivatives', Chemical Data Collections, 29 100516, 2020.
- **Raveendra M Melavanki** – 'Binding interaction between boronic acid derivatives with monosaccharaides: Effect of structural change of monosaccharaides upon binding using S-V plots', Macromolecular Symposia, DOI: 10.1002/masy.202000166, 392, 2000166, 2020.

- **Raveendra M Melavanki** - 'Solvent Polarity and Environment Sensitive behavior of Coumarin derivative', Macromolecular Symposia, DOI: 10.1002/masy.201900200, 392, 1900200, 2020.
- **Raveendra M Melavanki** – 'A Study on the Optical Behavior of Dy<sup>3+</sup> ion Activated Sr (1-X)Y<sub>2</sub>O<sub>4</sub> Nanophosphors', Macromolecular Symposia, DOI: 10.1002/masy.201900155, 392, 1900155 (1 of 4), 2020.
- **Raveendra M Melavanki** – 'Effect of Eu<sup>3+</sup> on optical and energy bandgap of SrY<sub>2</sub>O<sub>4</sub> nanophosphors for FED applications', Optik - International Journal for Light and Electron Optics, Volume 208, April 2020, 164533.
- **Raveendra M Melavanki & Kalpana Sharma** – 'Understanding the binding interaction between phenyl boronic acid P1 and sugars: determination of association and dissociation constants using S-V plots, steady-state spectroscopic methods and molecular docking', Luminescence: Wiley, DOI: 10.1002/bio.3931, 2020,1–6.
- **Raveendra M Melavanki & Kalpana Sharma** – 'Study of bimolecular quenching reactions of Coumarin dye C1 by the fluorescence behavior in toluene and butanol binary mixtures', Macromolecular Symposia, DOI: 10.1002/masy.202000167, 392, 2000167, 2020.
- **Raveendra M Melavanki & Kalpana Sharma** – 'Optical characterization of chalcone doped PMMA thin films for photonic applications using spectroscopic technique of drop casting method', Macromolecular Symposia, DOI: 10.1002/masy.202000165, 392, 2000165, 2020.

### MASTER OF COMPUTER APPLICATIONS

- RIT-CSI student chapter organized a Five-day webinar series on the latest technology from 16-6-2020 to 20-6-2020. A total of 270 students attended the webinars. The technical talk was given by eminent speakers from different industries and academia.

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

- **Niranjanamurthy M, et. al.** - 'Coronavirus – COVID-19 before and after solution through the

web application and App.', International Journal of Advanced Science and Technology, ISSN: 2005-4238 (Print) ISSN: 2207-6360 (Online) Vol. 29 No. 5s 2020, pp. 27-41.

- **Niranjanamurthy M, et. al.** - 'Efficient Classification of Images in Wireless Endoscopy', Journal of Advanced Research in Dynamical & Control Systems, Vol. 12, 04-Special Issue, April 2020, pp:1650-1655.
- **Niranjanamurthy M, Manikanta N, Hemanth A, Amulya M P** - 'Implementation of Cryptocurrency Wallet Tracker System using Blockchain Technology for real-time', International Journal of Advanced Science and Technology, ISSN: 2005-4238 (Print) ISSN: 2207-6360 (Online) Vol. 29, No. 5s, 2020, pp: 681 – 688.

#### Paper presentation in National / International Conferences:

- **Geetanjali R, S Jagannatha** – 'Research on image classification based on deep learning and tensorflow using ML.NET', - Institute for Technology and Research (Itresearch) – May - 2020 - Malaysia - Kuala Lumpur ISSN/ISBN: 978-93-89732-92-4.
- **Geetanjali R, S Jagannatha** – 'Fake transaction detection in credit card using machine learning', Institute for Technology and Research (Itresearch)- May - 2020 - Malaysia – Kuala Lumpur ISSN / ISBN: 978-93-89732-92-4.
- **Geetanjali R** - 'Research study on Machine Learning algorithms for achieving cybersecurity', Institute for Technology and Research (Itresearch) – June - 2020 - Wellington, New Zealand ISSN / ISBN: 978-93-89732-92-4.

#### Guest Lecture Delivered by the department Faculty:

- **Niranjanamurthy M** – 'Next Generation Innovation in Augmented and Virtual Reality' CP University, Kota, Rajasthan 2/06/2020.
- **Niranjanamurthy M** – 'Research Trends in Ecommerce and Digital Marketing tools', Srinivas University, Karnataka. 10-13 June 2020.
- **Niranjanamurthy M** – 'Next Generation Innovation in Augmented and Virtual Reality', JSS College for Women, Mysore 30/06/2020.

- **Manish Kumar** – 'Network Security' FDP, organized by the NMAM Institute of Technology, Mangalore, 29<sup>th</sup> May 2020 India.
- **Chethan Venkatesh** – 'Network Security', Department of Computer Science, Applications and Animation, St. Aloysius College, Mangaluru, 15-06-2020.
- **S Jagannatha** - 'Practical implementation of Amazon web services' for the final year students of MCA, M.Sc., Bangalore University, Bangalore on, 1<sup>st</sup> May 2020(Online).

#### 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:

- **Geetanjali R & Dr. Jagannatha S** - 'Fake transaction detection in credit card using machine learning', - Researchfora Excellent Paper Award – May - 2020 - Kuala Lumpur, Malaysia.
- **Geetanjali R & Dr. Jagannatha S** - 'Research on image classification based on deep learning and tensorflow using ML.NET ', - Researchfora Excellent Paper Award – May - 2020 - Kuala Lumpur, Malaysia.
- **Geetanjali R** - 'Research study on machine learning algorithms for achieving cyber security', Excellent Paper Award – June - 2020 - Wellington, New Zealand.

### DEPARTMENT OF MANAGEMENT STUDIES

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

- **Dr. P.V. Raveendra** - 'Major impact of Key Investment Ratios on Beta of Automobile Sector Stocks in India',

International Journal of Advanced Science and Technology, Vol. 29, No. 5, (2020), pp10256-10262.

- **Dr. P.V. Raveendra** - '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. P.V. Raveendra** - 'Market Potential of trending Co-living spaces in Bengaluru City', Journal of Seybold report, ISSN: 1533-9211. Vol 15, Issue 9, (2020), pp3791.
- **Dr. P.V. Raveendra** - Capital Budgeting for Bio Diesel Manufacturing', ISSN: 0193-4120, Volume 83, Issue 1, (2020), pp20092 – 20098.
- **Dr. P.V. Raveendra** - 'Training as a Growth Vector for successful Entrepreneurship', Journal of Seybold report, ISSN: 1533-9211. Vol 15, Issue 9, (2020), pp3783.
- **Dr. P.V. Raveendra** - Book Chapter -'Skills of Social Entrepreneur: Need for Training', ISBN: 978-81-947738-0-1, (2020).
- **Dr. P.V. Raveendra**, "Challenges of Management education during COVID 19 period, Journal of Seybold report, ISSN: 1533-9211. Vol 15, Issue 9, (2020).
- **Dr. P.V. Raveendra**, Managerial Biases: A Cause of Mounting Non-Performing Assets in Indian Banking System, ISSN: 0193-4120, pp15047-15052, Volume 83, pp15047 – 15052.
- **Dr. P.V. Raveendra**, Book Chapter- 'Train the Trainer for Skill Enhancement of Rural Entrepreneurs', ISBN: 978-81-947738-0-1, Page No. 142
- **Dr. P.V. Raveendra**, Book Chapter-'The initiatives of Government to bridge Skill Gap in India through Education- A study', ISBN: 978-81-947738-0-1, pp147.
- **Dr. Y.M. Satish** - 'Capital Budgeting for Bio Diesel Manufacturing', ISSN: 0193-4120, Volume 83, Issue 1, (2020), pp20092-20098.
- **Dr. Y.M. Satish** - Managerial Biases: A Cause of Mounting Non-Performing Assets in Indian Banking System, ISSN: 0193-4120, pp15047-15052, Volume 83, pp15047 – 15052.

- **Dr. Y.M. Satish** - 'Challenges of Management education during COVID 19 period', Journal of Seybold report, ISSN: 1533-9211. Vol 15, Issue 9, (2020).
- **Dr. Y.M. Satish**, Book Chapter -'Skills of Social Entrepreneur: Need for Training', ISBN: 978-81-947738-0-1 pp124.
- **Dr. Rizwana. M**, Book Chapter-"Train the Trainer for Skill Enhancement of Rural Entrepreneurs", ISBN: 978-81-947738-0-1, pp142.
- **Dr. Rizwana. M**, Book Chapter- 'The initiatives of Government to bridge Skill Gap in India through Education- A study', ISBN: 978-81-947738-0-1, pp147.

#### Guest Lectures Invited:

- **Mr. Narendra Murthy**, Co-founder, The Treasure.in – 'Careers in HR' on 27-06-2020
- **Mr. Ganesh.S**, Troll Café- 'Startup Management' on 29-06-2020
- **Dr. A. Nagarathna**, Associate Professor, NLSIU- 'Cyber Laws' on 17-06-2020

#### MSRIT ALUMNI ASSOCIATION

- **Award of Best Project:** The alumni association awarded first, second and third prizes for the project work of both UG and PG students of all departments. Fifty-five projects comprising 135 students were awarded this year.
- **Success stories:** The association has initiated inviting eminent alumni to share their achievements and stories of success. Dr.Lakshmi Jagannathan, COO, DERBI Foundation, BE, ECE of 1987-91 batch and Sri Guruprasad Venkatesham, Entrepreneurship Opportunities, EU Govt., IEM, 2004 batch shared their success stories through a video conference in April and May 2020.

*Health is the greatest gift, contentment the greatest wealth, faithfulness the best relationship.*

- Buddha



## NATIONAL SERVICE SCHEME

- 22<sup>nd</sup> Annual NSS - RIT Blood Donation Camp - was organized on 5<sup>th</sup> of December 2019. The event was coordinated by the NSS officers and the student coordinators. The chief guests for the day were Sri. M.R. Seetharam (Vice Chairman, GEF, Director, RIT), Sri. Dhananjaya, Sri. Suchendra Prasad, Kumari Amrutha lyengar and Sri. Rajya Ram. The ceremony began this by invoking the Almighty's blessing through an invocation song followed by lighting of the lamp by the chief guests. This was followed by the speeches given by the chief guests of the ceremony where they appreciated the NSS wing

for their small measures to contribute to society. Thirteen blood banks across Bangalore joined us for the collection drive this year. Every year through this Annual event we collect 1000 + units of blood and save many lives. This year we successfully to collect 1089 units of blood. Each donor was given a certificate of appreciation and souvenirs at the end. All the students and faculty of various MSR institutions, general public and employees of various companies actively took part in the blood donation camp. We are extremely glad that we were able to carry out this noble event and the sense of satisfaction that develops is what drives all the volunteers to continue organising events like the Annual Blood Donation Camp.







## 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.

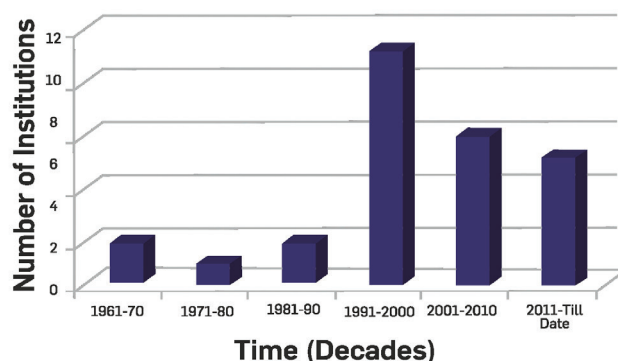
## Various Educational Institution under Gokula Education Foundation (GEF)

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



## Growth of the GEF family of Institutions



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

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