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Sampige

A quarterly News Bulletin

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Greetings,



It gives me huge joy to connect with all of you again with a new issue of Sampige, the Quarterly News Bulletin of RIT of the year 2021. Due to the continuation of pandemic Covid-19, we are still facing challenges in teaching and academic activities; we have missed a great opportunity to organize M.S. Ramaiah Memorial Lecture, open day project exhibition 'Pradarshan - 2021, Farewell Function in honor of outgoing students, and other activities. In the present issue, we have introduced 'Alumni Corner', under this column a distinguished alumnus of the Institute present their success story, it will be inspiration and motivation for the readers. We welcome more and more inputs and suggestions towards making Sampige a compelling piece that all of us look forward to in the months ahead. I trust that you will appreciate, enjoy reading this issue. First and foremost, we would like to thank you for what you have done already to weather this Covid crisis and to get our institution prepared to cope with this situation. Your commitment makes all the difference. Through this issue of Newsletter, I wish you all joyous and rewarding days ahead.

Best wishes
Dr. N. V. R. Naidu



will push through these Covid challenges with grace and positivity. E- Sampige is also available on our website for information to all our parents and other stakeholders.

With best wishes
Dr. B. M. Nagabhushana

Friends,

We are glad to introduce before you another issue of News Bulletin Sampige of MSRIT; we thank every one of our department Heads for their proactive response in making a current issue of News Bulletin well-documented. In the present issue, apart from departmental information, all the endeavours have been made to compile information about the activities of the institution adequately since we consider this news bulletin as an effective communication tool. We

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

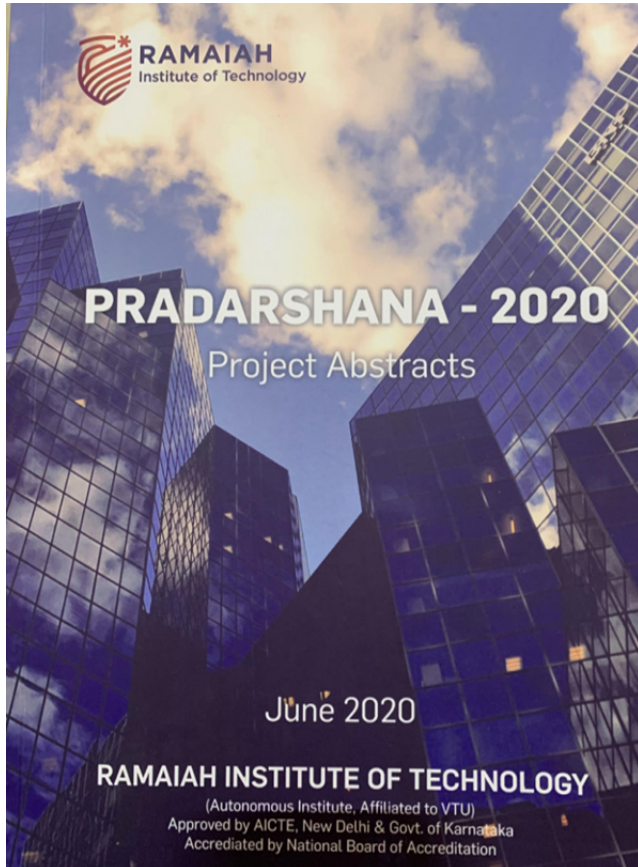
personally ensured that the institution which began with just two disciplines, grew phenomenally over the years. MSRIT now offers Bachelors, Masters and Doctorate programmes in several disciplines and is recognised as one of India's leading names in technical education. The institution is with state-of-the-art 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.

Hearty Congratulations

Winners of DISC 4 Challenge from iDEX India



The team from M S Ramaiah Institute of Technology, Bengaluru; Dr. Swetha Amit, Dr. Viswanath Talasila, Mr. P M Premnath, were felicitated by the Honourable Raksha Mantri, Mr. Rajnath Singh, during the Startup Manthan event at Aero India in Bengaluru on 5th February 2021. Bengaluru-based Startup company Avgarde Systems jointly defended a challenge at the 4th edition of Defence India Startup Challenge on "Reduction of RCS (Radar Cross Section) for Naval warships" launched by iDEX (Innovations for Defence Excellence) India.



- 'Pradarshana' abstract book is published in which 387 abstracts of UG student projects were consolidated. Pradarshana was started in the year 2014 to bring together all the students from different branches, professionals from industry, venture capitalists, and angel investors onto a single platform.

CENTRE'S OF EXCELLENCE: CENTRE FOR ANTENNAS AND RADIO FREQUENCY SYSTEMS (CARFS)



- The Centre for Antennas and Radio Frequency Systems (CARFS) at M.S. Ramaiah Institute of Technology Bengaluru was inaugurated on 24th March 2021. The Centre includes design, simulation, fabrication, and testing of Antenna and RF devices.

ALUMNI CORNER

SRI. TALLAM VENKATESH

B.Sc., B.E, B.I.M (U.S.A)



- **Sri. Tallam Venkatesh**, is a distinguished alumnus of the institute, the first batch of students graduating from M.S. Ramaiah Institute of Technology and the current President of MSRIT Alumni Association. He has been at the helm for more than two decades. A significant contributor through his time, advice, efforts and resources. He had set an example for others for his "Art of Giving". Under his dynamic leadership several programs were initiated by the association such as Scholarships, Project funding, Mid-day meals, Laptop distribution, soft skill development, 3D printing facility etc. His current project is building a separate alumni block in the campus which is in progress.
- He completed his Bachelor of Engineering (Mechanical Engineering) in 1967, the first batch of students graduating from M.S. Ramaiah Institute of Technology. After his graduation, he completed his Degree in International Management from Thunderbird Graduate School of International Management, Phoenix, Arizona, U.S.A. Subsequently, he had a three-year stint with S. C. Johnson & Son (Johnson Wax) as an international trainee.

Every worthwhile accomplishment has a price tag attached to it. The question is always whether you are willing to pay the price to attain it – in hard work, sacrifice, patience, faith, and endurance.

- John C. Maxwell

- Sri. TallamVenkatesh, joined Press Tools and Elements Private Limited as an Entrepreneur and developed it as a full-fledged Tool Room supplying precision tooling to Leading Aeronautical, Defence, Automobile, and Textile Sectors. He expanded the activity by acquiring a couple of small-scale industries and consolidated the Engineering Business supplying precision components to Textile, Tractor, and Automotive Industries. As the Managing Director, under him, the companies made an indelible mark for their Quality, Delivery and Customer Satisfaction. As of date, the units are being run as a family-run enterprise.

Sri. Tallam Venkatesh's contributions to Sports and Social Service Activities: -

- President of Federation of Karnataka Chambers and Commerce and Industry during which time he led the SAARC Summit, Automobile Exhibition, Delegation to USA for the AKKA Meet. His year was applauded by the State Government and other associations.
- Treasurer for Six Straight Years at Karnataka State Cricket Association. During his period, the association made healthy growth in its reserves and deposits. His contribution was applauded by even the Board of Cricket Control of India (B.C.C.I). He was also a member of the marketing committee of B.C.C.I
- He was the President of VasaviVidyaniketan Trust and continues to be a member of the Board. He serves as the Chairman of Edify School (C.B.S.E Board)
- He Joined the Lions Club of Sarakki in 1974 as a Charter Member. The Community Center / Hospital Building were completed during his tenure as President. He has held various offices at the District and Multiple District and National Levels. Conducted Leadership Programs around the country and the neighbouring countries.
- Served as The District Governor for the years 1985-86. His Slogan was "Lionism – An Eye for Service". During that year, the activities conducted were 10,500 eye operations, 6,500 units of Blood collected, 1,00,000 School children screened are a few landmarks in the Service activities.
- He was elected unanimously as Multiple Council Treasurer for the years 1985-86. As Multiple District Trainer for 1991-93, imparted Leadership

Development Programs to Club Officers and Cabinet Officers across the country. He has conducted many District Governors' Orientation Programs at Multiple Levels and at International Conventions. He had been the Group leader for D. G. Elect Schooling during Hong Kong International Convention (2006).

- Besides winning all the awards which could be won at Lions Club Level and District Level, honoured by the International with 100% District Governor Award, International Presidents' Commendation Award, Two Leadership Awards, and Eight International Presidents' Appreciation Medallions. He is a progressive MELVIN JONES FELLOW. The AMBASSADOR OF GOODWILL Awardee, the highest award that a Lion can obtain.
- He has widely travelled around the world – USA, Europe, Japan, Singapore, Canada, Middle East, China, Australia, and Egypt and led successful business delegations. He is A Resource Person, Speaker, Moderator, and Chairman for many Training Programs.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

- The department in association with IEEE PES student chapter organized Online Training and Technical Events for students during 17-24, April, 2021. As part of the event, MATLAB training programme for Engineering students was organized. A technical competition Electro robot is organized by ROBO RIT for the students. The event was successfully completed with more than 100 student participants.

Publications in National / International Journals:

- Lakshminarayanan M, **Channegowda J**, Herle A, Prabhu D, Chaudhari S - 'Generating high-fidelity synthetic battery parameter data: Solving sparse dataset challenges', International Journal of Energy Research, 2021.

A good head and good heart are always a formidable combination. But when you add to that a literature tongue or pen, then you have something very special.

- Nelson Mandela

- T Mahto, **Rakesh Kumar**, H Malik, S M S Hussain, T S Ustun - 'Fractional Order Fuzzy Based Virtual Inertia Controller Design for Frequency Stability in Isolated Hybrid Power Systems', Energies, 2021.
- **Kodeeswara Kumaran G**, Parthiban P - 'Performance improvement in Micro Wind Energy Systems with Cascaded Inverters using a Novel Switching Network', Journal of Solid State Technology, 2020.

Paper Publication in International / National Conference

- Mizbah Farheen, **Omsekhar Indela** and **Sridhar S** – 'Design of a power converter for domestic induction heating driven from PV module', International Conference on Smart Grid Energy Systems and Control, (SGESC2021), Organized by NIT, Kurukshetra, March, 2021.
- **Kusumika Krori Dutta**, Sunny Arokia Swamy, Anushua Banerjee, Divya Rashi B, Chandan R, Deepak Vapran – 'Kannada Character Recognition using Multi-class SVM method', IEEE sponsored 11th International Conference on Cloud Computing, Data Science & Engineering (Confluence 2021) Organized by Amity University, Noida, January, 2021.
- Chalukya Bhat, Aniruddh Herle, **Janamejaya Channegowda**, Kali Narahariseti - 'An Accurate Smartphone Battery Parameter Calibration Using Unscented Kalman Filter', IEEE sponsored International Conference on Communication, Control and Information Sciences (ICCISc), GEC, Kerala, June, 2021.
- K Sivagami, G V G T Prathap, **J Channegowda**, P Damodharan - 'Analysis of Hybrid Solenoid Coupler as Transmitter with Rectangular and Circular Coupler as Receiver for Wireless Power Transfer', 7th International Conference on Electrical Energy Systems, Sri Siva Subramaniya College of Engineering, Chennai, February, 2021.

Publications in book Chapters:

- **Kusumika Krori Dutta**, Dr Arun Shashidhar - 'Application of Machine Learning Techniques in Electro-encephalography Signals', published in book titled 'Brain and Behaviour Computing', chapter 3, 1st edition, pp:61-84, Taylor and Francis, May 2021.

Achievements by department Faculty

- **Dr. Rojalin Pradhan** has been elected as State President, Women's Indian Chamber of Commerce and Industry (WICCI), Karnataka Artificial Intelligence Council.
- **Kusmika Krori Dutta** and et al applied a patent application titled 'A Wearable Inhaler', during January 2021.

Guest Lectures delivered in the Department:

- **Sri SN Murthy**, Ex Principal Director, NPTI, Bengaluru delivered online lecture on 'Load Frequency Control', 25-27 May, 2021.

Guest Lectures delivered by the department faculty

- **Dr. Pradikumar Dixit** - 'Materials for Aerospace Applications', on 18th Feb 2021 in two-week e-FDP on 'Advanced and New Generation Materials in Electrical and Electronics Engineering', organized by BMSCE, Bengaluru.
- **Dr. Pradikumar Dixit** - 'CO writing and mapping' and 'SAR filling' on 26th and 27th March 2021 in two day workshop on 'NBA Accreditation Process', organized by East Point College of Engineering & Technology, Bengaluru, under AICTE Margadarshan Project Scheme.
- **Dr. Pradipkumar Dixit** - 'Electrical Power –a glance', 29th June 2021 under the banner of ISTE student chapter of Dr. AIT, Bengaluru.
- **Dr. Pradipkumar Dixit** - 'CO writing and mapping', 29th June 2021 for the faculty of Dr. AIT, Bengaluru.

"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 MECHANICAL ENGINEERING

- A State Level online workshop on 'Entrepreneurship Opportunities through Ragi processing' was organized by the Department of Mechanical Engineering through LSIKC on 18th May 2021. Dr. Mamatha H S of University of Agricultural Sciences, Bengaluru who highlighted innumerable opportunities for value addition leading to the increase of farmer's income.
- A webinar was organized by the Department of Mechanical Engineering on 20th June 2021 on the occasion of International Day of Yoga. On this occasion a talk on 'Stress and Yoga' was delivered by Dr. Monali D. Mathad, Faculty, Kempegowda College of Nursing, Bengaluru. During the same webinar the Coordinator of the event Dr. B P Harichandra delivered a talk on "Science of Yoga" (Physics, Chemistry, Mathematics, Biology, Thermodynamics etc., of yoga).
- On the Occasion of World Environment Day, a webinar titled 'Environment - We too have to do something', was organized by the Department of Mechanical Engineering on 5th June 2021. The resource person was Dr. B P Harichandra, of Mechanical Engineering, RIT. The talk largely highlighted what engineers can do about environment, through ethical practices and being vigilant about daylight loot of environment and be pro-active about various issues bothering nature along with our day-to-day activities.

Publication in (National/International) Journals:

- **Sridhar B S, Shashikala A R, Vishnu P.K** – 'Mechanical Characterization Of Polyurethane Foam And Hybrid Natural Fibre Based Sandwich Composite', Palarch's journal of archaeology of Egypt/Egyptology, Jan 2021.
- **B. P. Hari Chandra** - 'Effect of Variable Fluid Properties and Magneto-Hydrodynamics for Convection with Couple Stress Fluid', in the journal titled Bio-interface Research in Applied Chemistry, Volume 11, Issue 5, 2021, 13490 – 13501
- **Lokesha, P B Nagaraj, P Dinesh** - 'Frictional force during machining process Part 2: Influence of process Parameters', Materials Today : Proceedings, 19th Feb 2021

- **Manjunath Naik H R, Manjunath L H, Vishwanath Koti, Avinash Lakshmikanthan, PG Koppad, Sampath Kumaran P** - 'Al / Graphene / CNT Hybrid Composites: Hardness and Sliding Wear Studies', FME Transactions (2021) 49, 414-421, Volume : 49, No: 2 doi: 10.5937/fme2102414N
- **Mohandas K N, Sunith Babu L, Vinayak Talugeri** – 'Tribological Study on The Influence of Surface Coating on Knurled Components', Journal of Mechanical Engineering Research and Developments, Vol.44, No 5, pp.433-440
- **Manjunath H R Naik, L H Manjunath, Vishwanath Koti, Avinash Lakshmikanthan, Praveennath G Koppad, Sampath P Kumaran** - 'Al/Graphene/CNT hybrid composites: hardness and sliding wear studies', FME Transactions (2021) 49, 414-421
- **Venkatesh Donekal, Phaneesh K. R, Pradeep Kumar K.V, Prakash S.V, Arun R. Rao , Shrinivasa Udupi** - 'Experimental observations and data analysis of a commercially grade aluminium alloy (6082T6) for large elastoplastic deformation', Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2021.04.208>.
- **Harish Munnur, S.N. Nagesh, C. Siddaraju, M. N. Rajesh, and S. Rajanna** - 'Characterization & tribological behaviour of aluminium metal matrix composites-A review', Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2021.05.060>.
- **Bishal Singh, Shashank Swarna, Sarthak Shandilya, Venkatesh Donekal** - 'Future of Electric Vehicles (A Review)', Journal of Automobile Engineering and Applications, ISSN: Volume 8, 2455, Issue 3360 1, 2021.
- **Supriya B. V, N. D. Prasanna, Balasubhramanya H. S** - 'Reciprocating Wear Studies on Al 6061 Alloy Reinforced with TiB2 additions', International Journal of Scientific Research in Engineering and Management (IJSREM) Volume 05, Issue 06, June 2021.

Publication in (National/International) Conferences

- **Ashok Kumar K, B.P. Harichandra, G.V. Kulkarni, Naveen Kumar B.K**- 'Studies on the feasibility of cryogenic grinding of spices-A Review', Conference on Advances in Thermal-Fluids Engineering, Organized by Department of Mechanical Engineering, Pandit

Deendayal Petroleum University, Gujarat, March 25th -26th 2021.

- **Vinayak Talugeri, Veeranna B Nasi, Bijaylakshmi Das** - 'A critical review on the effect of various parameters on stability of carbon nano-tube (CNT) based nano-fluids in solar applications', Conference on Advances in Thermal-Fluids Engineering, Organized by Department of Mechanical Engineering, Pandit Deendayal Petroleum University, Gujarat, March 25th -26th 2021.
- **K. Ashok Kumar, N. Kapilan** - 'Studies on the feasibility of adsorption cooling technologies-A review', AIP Conference Proceedings 2316, 030019 (2021); <https://doi.org/10.1063/5.0036432>, Published Online: 16 February 2021.
- **Tanusha P, Jyothilakshmi R** - 'An Experimental study on Scrap Reduction by chip Removal in cast Iron Groove of a Diesel engine piston', 3rd National Conference on Emerging Trends in Mechanical Engineering, Organized by School of Mechanical Engineering, REVA University, Bengaluru, May 28th - 29th 2021.
- **N. Kapilan K. Ashok Kumar** - 'Recent advances in the applications of phase change materials in cold storage-A Review', International Conference on Materials and System Engineering, Organized by Department of Mechanical Engineering, SJB Institute of Technology, Bengaluru, May 7th - 8th 2021.

Guest Lecture delivered by the department faculty

- **Dr. C. Siddaraju** - 'Cast Iron Foundry and its Applications', Department of Mechanical and Automobile Engineering, Arasu Engineering College, Kumbakonam, 22-01-2021.

- **Dr. Jyothilakshmi R** - 'Energy utilization from biodegradable waste through Bio-gasification process-An approach towards energy sustainability and circular economy', FDP organized by the Department of Mechanical Engineering, New Horizon college of Engineering, Bengaluru, 1st - 6th February 2021.
- **Dr. Jyothilakshmi R** - 'Biogasification as a renewable energy option for energy sustainability', FDP organized by the Department of Mechanical Engineering, Kalpataru Institute of Technology, Tiptur, 17th - 23rd February 2021.
- **Dr. Jyothilakshmi R** - 'Sustainable E-Vehicle Technology-A Global Scenario', FDP organized by the Department of Mechanical Engineering, BMS Institute of Technology, Bengaluru, 23-04-2021.
- **Ashok Kumar K** - 'Recent Advances in the applications of Phase change materials', Webinar organized by the Department of Mechanical Engineering, Gopalan college of Engineering and management, 25-06-2021.
- **Dr. K. R. Phaneesh** - 'Role of Extra-Curricular activities on Career Advancement and Personality development', online Guest Lecture delivered to Second Semester Students of Sambhram Institute of Technology, Bengaluru, on 11th May 2021.

Funded Project:

- **Dr. Prakrathi S** - 'Performance evaluation of biodegradable orthopedic implants under flow, load and biomolecules chelation', Science & Engineering Research Board (SERB), Government of India,

Grant: 29.8 Lakhs.

Your work is going to fill large part of your life, and the only way to be truly satisfied is to do what you believe is great work. And the only way to do great work is to love what you do. If you haven't found it yet, keep looking. Don't settle. As with all matters of the heart, you'll know when you find it.

- Steve Jobs

DEPARTMENT OF CIVIL ENGINEERING



- The site visit was organized for the 1st Semester M.Tech students on 5th April 2021, to help them to understand the practical aspects of precast construction techniques. Location- Brigade Orchards, Devanahalli, near BIAL, Bengaluru.
- Indian Geotechnical Society is established in the Department of Civil Engineering, Approved in IGS_ AGM and it was approved on 8th April 2021 by the EC committee of the IGS Bengaluru chapter. The inauguration of the chapter was held on 30th June 2021. The chief guest of the inaugural function was Prof. Smadhiya Narendra Kumar, National president of Indian Geotechnical Society. The Guest of honor, of the program was Prof. Sivakumar Babu, Professor.



Publications in National/ International Journals:

- M.C. Nataraja, S. Tejas and Rohit R Kulkarni** - 'Performance Evaluation of Crushed Stone Sand for its Characterization based on Large Sample Analysis', Indian Concrete Institute Journal, Vol. 21, No. 3, pp.1-11, India, January 2021.
- M.C. Nataraja, K. H. Jnaneshwara** - 'Design of high strength concrete as per IRC 44-2008 and IS:10262-2019 with and without steel fibers', Indian Concrete Institute Journal, Vol. 21, No. 4, pp.1-11, India, March 2021.
- B. Nagashree, R. Mourougane and R. Hari Krishna** - 'Studies on performance of plagioclase based alkali activator in polymerization of alumina refinery residue and slag from iron industry', Materials Today: Proceedings Available online 22 June 2021.

- B. Nagashree and R. Mourougane** - 'Review on Red Mud based Alkali-Activated Composites' Journal of Huazhon University of Science and Technology, volume 50, Issue 05-2021, ISSN-1671-4512.

Guest lecturers- invited:

- Prof. Sivapullaiah** - Former professor of IISc. - 'Role of clays in Geotechnical (GT) and Geo-Environmental Engineering (GT++)' organized by the IGS-RIT Students' Chapter on the same day followed by the inaugural function. 30-06-2021.
- Prasad S. K** - 'Liquefaction of soil and earth quake design', Professor and HOD, VVCE, Mysore, Presented technical talk to M.Tech Students, at Department of Civil Engineering, RIT, Bengaluru on 4th March 2021.

Guest Lectures delivered by the department faculty:

- M C Nataraja** - 'Design of high strength and high performance concrete for sustainability', Five-day faculty development program on 'Sustainable Engineering', AICTE FDP (ATAL) organized by Civil Engineering Department, CMRIT, Bengaluru, 4th - 8th January 2021.
- M C Nataraja** - 'Performance of Sustainable High Strength Concrete – Mix Design & Characterization', One-week faculty development program on 'Recent advances in sustainable materials and its engineering applications', Sponsored by center of excellence in advanced materials research, TEQIP 1.2.1, Bengaluru, 22nd - 26th February 2021.
- Dr. Santhosh L G** - 'Total Station workshop' scheduled by Dept. of Civil Engineering, Jyothy Institute of Technology on 19th March 2021.
- M C Nataraja** - 'Design of High Strength Concrete for Sustainability as per IS:10262-2019', Indian concrete institute - on the occasion of Installation Ceremony of New Executive Committee, ICI Mangaluru Centre, National programme on 5/6/2021.

Achievement/s Awards/Prizes by faculty:

- **Dr. M. C. Nataraja** - Editorial Board Member of 'Indian Concrete Institute Journal', Indian concrete Institute. India, 2021
- **Dr. M. C. Nataraja** - Academic Council Member, SDM college of Engineering and Technology, Dharwad. 2021
- **Dr. M. C. Nataraja** - Department Advisory committee member, Department of Civil Engineering, JSS Academy of Technical Education (JSSATE), Bengaluru, 2021
- **Dr. M. C. Nataraja** - Technical committee member to 'Expert document on alternative to river sand' by Indian Concrete Institute, India.
- **Dr. M. C. Nataraja** - Expert committee and Jury member for 'Best Ph. D thesis of India' in Civil Engineering, by Indian Concrete Institute, India.
- **Dr. M. C. Nataraja** - Served as NBA expert and evaluated UG Civil Engineering Programme, 2021
- **Dr. M C Nataraja** - is listed in AD Scientific Index-Rankings for scientists, World Scientist and University Rankings 2021, Engineering and Technology, under MSRIT, Bengaluru.
- **Dr. M C Nataraja** - Established Indian Geotechnical Society-Student Chapter at Civil Engineering Department with the support of Faculty, Civil Engineering, RIT.
- **Dr. M C Nataraja** - Invited Session Chairman for the International Conference on Contemporary and Sustainable Infrastructure ICCSI – 2021, 21st – 22nd May 2021, Organized by Department of Civil Engineering, SJB Institute of Technology, Bengaluru, India
- **R. Mourougane** - Invited Session Chairman for the International Conference on Contemporary and Sustainable Infrastructure ICCSI – 2021, 21st and 22nd May 2021, Organized by Department of Civil Engineering, SJB Institute of Technology, Bengaluru, India

Faculty who obtained Ph.D. degree:



Anil Kumar R, obtained Ph.D in Jan 2021, Title: 'Studies on low density structural light weight concrete with high strength by blending different light weight aggregates', Supervisor: Dr. P Prakash, Department of Construction Technology and Management, DSCE, Bengaluru.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

- Department of ECE organized online Faculty Development Program on 'MATLAB - train the trainer program on Machine and Deep Learning' from 16th - 18th February 2021.



- The 2020 IEEE SPS Winter School on Advances in Deep Learning for Video Analytics & Edge Computing was sponsored by the IEEE Signal Processing Society, via a call for proposals. The winter school covered the following topics: Introduction to Deep Learning, Full Stack Development, and Video Analytics with Deep Learning, Jetson Nano Integration and Case Studies.
- Workshop - The Antenna Event 2021 was organized by Team STARDUST in association with Department of Electronics and Communication Engineering. And Department of Electronics and Telecommunication Engineering, from 21st - 25th June 2021.

Publications in (National / International) Journals:

- D. Vijayatha, **B. Sujatha**, G. Chandrashekaraiyah, C. Narayana Reddy, N. Sivasankara Reddy - 'Enhanced Near-infrared Luminescence at 1.07 μm of Nd_3^+ Doped $\text{PbCl}_2\text{-Li}_2\text{B}_4\text{O}_7$ Glasses for Solid State Laser and Optical Fiber Amplifier Applications', Optical Materials –An international Journal on the Physics and Chemistry of Optical Materials and their Applications including Devices – Elsevier, Vol.111, pp.1-11, January 2021. (Q1)
- **Imaculate Rosaline** - 'A Triple-Band Antenna with a Metamaterial Slab for Gain Enhancement and Specific Absorption Rate (SAR) Reduction' Progress In Electromagnetics Research C 109 (2021): 275-287. (Q2)
- **Sarala S M and Maya Karki** - Vehicular Visual Sensor Blinding Detection by Integrating Variational Autoencoders with SVM', SAE Technical Paper ISSN 0148-719, 2021-01-0144, doi:10.4271/2021-01-0144.6th April (2021). (Q2)
- **Sarala S M and Maya Karki**, 'A Digital Forensic Method to Detect Object based Video Forgery Security Attacks on Surround View ADAS Camera System', SAE Technical Paper 2021-01-0146, 2021, doi:10.4271/2021-01-0146. (Q2)
- **Lakshmi Shrinivasan, Reshma Verma, Shreedarshan K and Priyadarshini L** - 'Diagnosis of Diabetes Mellitus using Adaptive Neuro-Fuzzy Inference System', published in Solid State Technology Journal, Vol. 64 No. 2, (2021), pp 2795 – 2804. (Q4)
- **Punya Prabha V, Sharmila Suttur C, Chethana Gosal S, Prajwal Baskaran.** - 'A Novel Based Approach to Provide Solution to Parking Issues in Metropolitan Cities via IoT', Solid State Technology, Vol: 64 Issue: 2, pp. 6818-6827, (2021). (Q4)
- **Sadashiva Chakrasali, Indira K, Sunitha Y N, Chandrashekar M Patil** - 'Performance Analysis of Fujisaki Intonation Model in Kannada Speech Synthesis', Turkish Journal of Physiotherapy and Rehabilitation; 32(3) ISSN 2651-4451 (2021). (Q4)
- **Reshma Verma, Lakshmi Shrinivasan and Shreedarshan K.** - 'GPS/INS integration during GPS using machine learning augmented with Kalman filter', WSEAS Transactions on Systems and Control, Vol. 16, Issue 25, , pp. 294-301. May 26, (2021). (Q4)
- **Rajesh Thakare, Sandeep Kakde and Pavitha U S** - 'Real Time Person Independent Communication between Dumb and Blind Person using Sign and Text Detection', Bioscience Biotechnology Research Communications Special Issue Volume 13 Number (14) DEC 2020, pp.300-304.
- **Puneet Choade, C. G. Raghavendra, Mohana Kumar S Bhaskar** - 'Assessment of Diseases in Bombyx Mori Silkworm – A Survey', Elsevier, Global Transitions Proceedings, Vol. 2, No. 1, pp. 133-136, January 2021.
- **Priyadarshini L and Lakshmi Shrinivasan** - 'Diabetes Mellitus Detection and Diagnosis using AI Classifier', 2nd International Conference on Cybernetics, Cognition and Machine Learning Applications (ICCCMLA 2020), August, 2020 at Goa, India, published as a book chapter titled Cybernetics, Cognition and Machine Learning Applications, Algorithms for Intelligent Systems by Springer, ISBN 978-981-336-691-6, pp. 185-190. (May 2021).
- **C. G. Raghavendra, Mohana Kumar S and Bhaskar R N** - 'An Assessment of diseases in bombyx mori silkworm – A survey', Puneet Chopade, Elsevier, Global Transitions Proceedings, Vol. No. 1, pp. 133-136, 2021.

Paper presentation in National / International Conferences:

- **Varun C R, Sumant A Gunagi, Venugopal K A, Shrinath Darur and Suma K V** - 'Multi Channel Acquisition and Scope of Analysis of Surface EMG Signals', 2020 IEEE International Conference for Innovation in Technology (INOCON), Bengaluru, 6th - 8th November 2020, pp. 1-5
- **Santhosh M N, Srinidhi D Dambal, Sharanagouda Biradar, C G Raghavendra** - 'An Overview of Disease in Sericulture and Methods to Identify Them using Non Invasive Approach', International Conference on Current Research Trends in Engineering Science and

Management- 236, 29th March, 2021, pp. 225

- Ajay, **C G Raghavendra**, K B Rajanna, Shruthishree C - 'An Investigation of Non-Invasive Supervising Model Aquaculture - A Survey', International Conference on Current Research Trends in Engineering Science and Management, 29th March, 2021. pp. 116 – 119
- **Suma K V**, Chandashwini M Y, Likhitha Chappidi, Amruta Chougale, Nithyashree A. A. - 'Smart Sling Bag', International Conference on Women Empowerment in Science and Technology (ICWEST), NIT Wrangal, 8th -10th March 2021
- U. Vasudevan, U. B. Meghana, **Deepali Koppad**, **S. Vignesh** and M. Sowjanya, - 'Design of Digital Circuit Implementations Using Gate Diffusion Input and CMOS', 2020 IEEE 7th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), Prayagraj, India, 27th – 29th 2020, pp. 1-6.
- Kallur, Rajani S, and **S Imaculate Rosaline** - 'CPW Fed Slotted Triangular Patch Antenna for WLAN Applications', Advances in Electrical and Computer Technologies: Select Proceedings of ICAECT 2020. Springer Singapore, 2021.
- Pooja, N, and **S Imaculate Rosaline** - 'CPW FED Arc-Loaded-Slotted Rectangular Patch Antenna for UWB Applications', Advances in Electrical and Computer Technologies: Select Proceedings of ICAECT 2020. Springer Singapore, 2021.

Guest Lecture delivered by the department faculty:

- **Dr. S Sethu Selvi** - 'Tackling Covid 19 - An AI Approach', National Conference on Emerging Trends and Technological Innovations in Computational Intelligence, Department of Computer Science and Engineering, Kamaraj College of Engineering and Technology, Virudhunagar, 27th March, 2021.
- **Dr. T D Senthilkumar** – '5G Technologies', Department of Electronics and Communication Engineering, Ramakrishna Institute of Technology, Coimbatore, 20-02-2021.
- **Dr. S Imaculate Rosaline** – 'Research Challenges in Antenna Design for Wireless Communication', Sri

Ramakrishna Institute of Technology, Coimbatore, 29.01.2021.

- **Mallika H** – 'System Analysis using MATLAB and Simulink', in three-week online workshop on 'MATLAB in Multidisciplinary Engineering Research, Vimal Jyothi Engineering College, Kannur, Kerala, in association with BMS College of Engineering, Bengaluru, 27th December 2020.
- **Dr. Raghuram S** - 'Technical report writing', organized by IEEE RITB on 12-06-2021.
- **Dr. Lakshmi S** - 'Design, Fabrication and Packaging of RF MEMS switches', organized by IEEE Bengaluru Section-Sensors Council Chapter on 24-04-2021.
- **Dr. S Imaculate Rosaline** – 'Metamaterial based MIMO Antenna for 5G Applications', organized by CARE college of Engineering, Trichy on 09-06-2021.
- **Dr. Nagabhushan** - 'Fundamentals of IOT and Circuit simulation', organized by ECE Department, BMS Institute of Technology and Management on 01-07-2021.

Achievement/s, Awards/Prizes by Faculty:

- **Dr. Mamtha Mohan** is providing technical consultancy for the project 'IOT based remote monitoring system for solar power plants to S G Solars, Chartered Engineers, Regd. Valuers & Consulting Civil Engineers, Mayura Street, RMV 2nd Stage, Nagashettihalli, Bengaluru, for a period of 2 years.

Consultation fee: Rs 59,000/-

- **Gangadharaiah S L** is providing technical consultancy for the project 'FPGA Implementation of MIL STD 1553B Protocol 'to Tiranga Aerospace, #501 GG Complex, HMT Layout, 3rd Block, Vidyananyapura, Bengaluru, for a period of 3 years.

Consultation fee: Rs. 1.20 Lakhs

- **Dr. M Nagabhushanam** is providing technical consultancy for the project 'Creating Automated Test JIG Using Micro controller for Power Conversion Products', to Gallent Electronic Controls, Peenya

Industrial Estate – 1st stage, Bengaluru, for a period of 2 years.

Consultation fee: Rs. 0.5 Lakhs

- **Dr. Suma K V** is providing technical consultancy for the project 'Biomedical Instrumentation' to Alolved Technologies Pvt Ltd, Nagashettyhalli, Bengaluru for a period of 2 years.

Consultation fee: Rs. 2.36 Lakhs

- **Dr. Deepali Koppad** has filed an Indian patent application for her work 'A Lookup Table-Based Router and a Routing Method Thereof' on 31/12/2020
- **Dr. C G Raghavendra** was a Jury Member for the '5th National Level IEEE Project Competition-2021' Organized by IEEE Student Branch (STB17861), GSSSIETW in association with IEEE Bengaluru Section and IEEE Mysuru Subsection on 26th June 2021.

Achievement/s, Awards/Consultancy by Students:

- Manoj B R, Neeraj Hebbar, Komal G Naik & Jyothindra Gunjan were placed 2nd in National level Robotics Competition EYRC organized by IIT Bombay.
- Sumith G S, Rishabh Bhatt, Yash Bagri & Srinivas S V secured 1st position in NMIT Hacks 2021, conducted by Dept of CSE, NITTE, Yelahanka Bengaluru, on 20th and 21st March 2021.
- Eleven students were qualified in GATE 2021, with Ajay S securing All India Ranking 115.
- Nikhil Agarwal, 6th Sem and his team won REimagiNEWaste 5' Hackathon on Plastics and Data Analytics, 9th – 11th April 2021.
- Anaghaa R, Bhavana B Rao, Keerthana J, Nischith Raj K G, 4th sem, were runner up in REimagiNEWaste 5' Hackathon on Plastics and Data Analytics, 9th – 11th April 2021.

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

- Aristotle

DEPARTMENT OF CHEMICAL ENGINEERING



- Five Day Workshop (Offline) on Technical Writing with LaTeX and Python from 24th March 2021 to 29th March 2021 - The inauguration function was started with session from Dr. Arualalan Rajan from Indian Institute of Science. The participants have submitted their LaTeX files for issue of final certificate and a group titled 'TeX Users Group' was created for future interactions and support.

Publications in (National/International) Journals:

- K.C Chandrika T, Niranjana Prabhu, **R. R. Siva Kiran, R. Hari Krishna** – 'Applications of Artificial Neural Network and Box-Behnken Design for Modelling Malachite Green Dye Degradation from Textile Effluents using TiO₂ Photo catalyst, Environmental Engineering Research', Korean Society of Environmental Engineers, 27(1): 200553, 2021.
- **Ravi Kumar Reddy** Addula, Sudeep N, Punnathanam – 'Molecular theory of nucleation from dilute phases: Formulation and application to Lennard-Jones', VaporPhy. Rev. Lett., (2021).
- S.R. Sowmya, **G.M. Madhu, Ravi Sankannavar, Shrikanth Yerragolla** – 'Adsorption using Chitosan and Nano Zerovalent iron composite material for sustainable water treatment' Materials Research Express, IOP Publishing, Vol. 8(2), pp. 1-17, 2021.
- C M Pranav, **G M Madhu, J Koteswararao, Nagaraju Kottam** – 'Mechanical and electrical properties evaluation of PVA-carbon dot polymer nanocomposites', Indian Journal of Chemical Technology, Vol. 27, pp. 488-495, 2021.
- **Rajeswari M. Kulkarni**, Rahul Vaidya, Siddharth Srinivas, Siddharth Anand, **Badari Narayana** – 'Application of Water Hyacinth Root Powder for Congo

Red Dye Removal in Batch and Continuous Packed Bed Operation, Nanotechnology for Environmental Engineering, 6(2), pp.1-11, 2021.

Guest Lecture/s – Invited:

- Dr. Muralidhara A - JMP Academic Ambassador, Inspiring Statistical Discovery – A Talk on 'Statistical Discovery for Engineering Sciences through JMP' on 18th March 2021. The talk was organised under IChE student chapter, MSRIT.
- Ms. Mrunal Seshadri - Ex-student MSRIT, MS in Chemical Engineering in University of San Deigo, California. Topic: Avenues in Chemical Engineering on 26.04.2021.
- Dr. Girish Rao, R & D – Manager, Shell Technology Centre, Bengaluru, Topic: Application of Chemical Thermodynamics – 1 on 18.06.2021.

Guest lecture delivered by the department faculty:

- **Dr. Ramasivakiran Reddy** – 'Two Dimensional and three-Dimensional plots (LaTeX and Python)' on 27th March 2021 at Chemical Department, RIT at the FDP program on Technical Writing with LaTeX and Python.
- **Sri Ravi Kumar Reddy** – 'Mathematics Using LaTeX' on 26th March 2021 at Chemical Department, RIT at the FDP program on Technical Writing with LaTeX and Python.
- **Dr. Ramasivakiran Reddy** – 'Formatting Words, Lines, and Paragraphs, Designing Pages' on 25th March 2021 at Chemical Department, RIT at the FDP program on Technical Writing with LaTeX and Python.

DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT

Publications in National / International Journals

- S. Mohanraju, C.M. Ramesha, **S. Appaiah**, Jayasheel Kumar and N.J. Krishna Prasad – 'A study on the impact of coefficient of thermal expansion of Thermo-mechanical stresses on structural components', Elsevier : Science Direct – Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2021.01.756>.

- **Dr. M. Shilpa**, Jagadish Ratkal – 'Developing physiology-based work-rest schedule to address fatigue: An overview', Global Research and Development Journal for Engineering Vol. 6(2), ISSN-2455-5703, pg.no. 18-21, January 2021.
- **Hamritha S, M. Shilpa, M.R. Shivakumar**, G Madhoo, YP Harshini & Harshith – 'Analysis of mechanical and tribological properties of alumina reinforced with aluminum alloy metal matrix composite' - Materials Science Forum, Q3 Journal – Vol. 1019, pp 44-50, January 2021.
- **M. Shilpa, M.R. Shivakumar & Hamritha S** – 'Analysis of Lean Six Sigma in Health Care Sector – A Customer Perspective', Lecture Notes in Mechanical Engineering, Conference Proceedings - Print ISBN: 978-981-334-319-1, Electronic ISBN: 978-981-334-320-7, 2021.
- **M. Shilpa, Dr. G.S. Prakash & M. R. Shivakumar** – 'A combinatorial approach to optimize the properties of green sand used in casting mould', Materials Today: Proceedings – Volume. 39, Part 4, Pages 1509-1514, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2020.05.465>. 2021.
- M. Gangadharappa, H.N. Reddappa, **R. Shobha**, K.V.Shivananda Murthy, N.C. Reddy, E.R.Babu, & R. Suresh – 'Corrosion behavior of A16061 hybrid composites reinforced with red mud particles and E-glass fiber', Materials Today: Proceedings, Elsevier – <https://doi.org/10.1016/j.matpr.2021.03.159>, 2214-7853/2021.2
- **Sudheer.D. Kulkarni**, Roshini.V. Jasintha, Varshitha. S, M V Sandeep, Tirupati Monish,
- **V Venkatraman** – 'Modelling the patient flow in an Out Patient Department (OPD) of a hospital using simulation Techniques', IOP Conference Series: Materials Science and Engineering, 1059 (2021)012041, doi:10.1088/1757-899X/1059/1/012041, 15-02-2021.
- **V. Venkataraman**, P. Raghavendra, Menald.D'Souza, NainiHulla & N. Jagadish – 'Design of experiment approach to identify optimal parameters for boring operation and tool life improvement for piston pins', ICMMS 2020 - IOP Conference Series: Materials Science and Engineering, 1059 (2021) 012044, doi:10.1088/1757-899X/1059/1/012044.

- **Dr. S. Appaiah, Venkataraman Vivekanand,** Nassappa Chandrappa – 'Parametric test for identifying significant factors which affect weight loss for Al₂O₃ and SiC metal matrix composite', Materials Today: Proceedings , vol. 45, pg. 5–9, 2021.
- **Dr. M Rajesh, Madhu Prakash** - 'Optimization of workplace parameters using Thguchi's Orthogonal array approach to enhance the worker productivity', Materials Today Proceedings, May 2021
- K.C. Nagaraja, Dr. S. Rajanna, **Dr. G.S. Prakash,** & G. Rajesh Kumar – 'Mechanical properties of polymer matrix composites: Effect of hybridization', Elsevier, Materials Today's Proceedings, vol. 34, pg.no.: 536-538, 2021.
- C K Adarsh and **Sudheer D. Kulkarni** - 'Process capability improvement of an eight-head liquid filling machine by the reduction in volume variation', IOP Conference Series: Materials Science and Engineering, 1033 (2021)012027, doi:10.1088/1757-899X/1033/1/012027, 18-01-2021.
- Khwaja Mohinuddin. S.M, **V. Vivekanand** and C. Jayakumar – 'Literature review on the usage of six sigma techniques for improvement of quality in soft drink beverage and bottling industries', IOPConf.Series: Materails Science and Engineering, doi:10.1088/1757-899X/1033/1/012006.
- AkhilaMukunda, K Anjulakshmi, **Sudheer D Kulkarni,** Navya T, Roshni Jacintha Shivakumar- 'Enhancing the storage capacity by utilizing vertical space using mezzanine flooring in a small-scale industry', IOP Conference Series: Materials Science and Engineering, 1033 (2021)012045, doi:10.1088/1757-899X/1033/1/012045, 18-01-2021.

Paper presentation in National / International Conference:

- **Dr. M. Shilpa** – 'Recent Trends in Smart Materials - An Overview'- International Conference on Advances in Science, Engineering and Technology - 21st - 22nd May 2021 - KSRM College of Engineering, AP.

Guest Lecture/s – Invited:

- **Commander Srikanth Mankal** (Retd.) - IIIE-BC Secretary delivered a talk on 'Modern Production Planning Systems' organized by the department of Industrial Engineering and Management, Ramaiah

Institute of Technology, Bengaluru, under student body INDEMAN Society on 26-03-2021.

- **Sri M. K. Krishna** - Advisor, Consultant, Knowledge Management, SBIFM, Quality Circle-India, Bengaluru Circle, delivered a talk on 'Industrial Engineers are Key Drivers of Economic Growth Engine in Decade 2021-30', organized under student body INDEMAN Society on 05-04-2021.

Guest Lecture delivered by the department faculty:

- **Dr. M. Shilpa** - Quality Engineering - A Robust Design Approach for Productivity - BHEL, Bengaluru, Industry personnel, 17-02-2021.
- **Dr. R. Shobha**- Webinar on 'Effective Communication for Organizations Excellence' – Resource person – Organized by the department of Mechanical & Automobile Engineering – Arasu Engineering College, Chennai, T.N – 11th June 2021

Achievement by Faculty

- **Dr. M. Shilpa** – applied for patent, Title: A novel system for Category - Based content recommendation using Artificial Intelligence (AI) & Neuro-Linguistic Programming (NLP) and Method Thereof'. Date of Publication: 28/5/2021.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Publications in (National / International) Journals:

- Sajini G, **Jagadish S Kallimani** - 'A Detailed Survey Study on Classification and Various Attributes of Fake News on Social Media', Lecture Notes in Networks and Systems (LNNS), ISSN: 2367-3370, April 2021.
- Sajini G, **Jagadish S Kallimani** - 'Recognition and Generation of Logically Related Words for Historical Text Data using Reconstruction of Protowords', Lecture Notes in Networks and Systems (LNNS), ISSN: 2367-3370, April 2021.
- **C P Chandrika, Jagadish S Kallimani,** H P Adarsha, Aparna Nagabhushan, Appasaheb Chavan - 'Rule-Based Approach for Emotion Detection for Kannada Text', Proceedings of International Conference on Communication and Artificial Intelligence, Lecture

Notes in Networks and Systems (LNNS), ISSN: 2367-3370, Scopus Indexed, Q4, April 2021.

- Rajeshwari S B, **Jagadish S Kallimani** - 'Regional Language Code-Switching for Natural Language Understanding and Intelligent Digital Assistants', Innovations in Electrical and Electronic Engineering, Lecture Notes in Electrical Engineering (LNEE), ISSN: 1876-1100, vol.756, Springer, Singapore, page: 927-948, Q4, Scopus Indexed, May 2021.
- Rajeshwari S B, **Jagadish S Kallimani** - 'Statistical Study and Analysis of Polysemy Words in Kannada Language for Various Text Processing Applications', Second International Conference on Sustainable Technologies for Computational Intelligence, ICTSCI-2021, 22nd May 2021, Springer Advances in Intelligent Systems and Computing (AISC), ISSN: 2194-5357, Web of Science.
- **Chandrika C P, Jagadish S Kallimani** - 'Authorship Attribution for Kannada Text using Profile based Approach', International Conference on Recent Trends in Machine Learning, IOT, Smart Cities and Applications (ICMISC-2021), March 2021, Springer Advances in Intelligent Systems and Computing (AISC), ISSN: 2194-5357, Web of Science.
- **Chaudhari S** - 'A survey on multipath routing techniques in wireless sensor networks', International Journal of Networking and Virtual Organisations, 24(3), (2021), pp.267-328.
- Kalyani G, **Chaudhari S** - 'Enhanced Privacy Preservation in the Routing layer with Variable-length packet data for Attack Free IoT Sector', Journal of Engineering Science & Technology Review, 14(1), (2021).
- **Sini Anna Alex, Anita Kanavalli**, Drishya Ramdas - 'Blockchain in Philanthropic Management: Trusted Philanthropy with End-to-End Transparency', IGI Global- Blockchain and AI Technology in the Industrial Internet of Things, DOI: 10.4018/978-1-7998-6694-7.ch012, May 2021.
- Lisha Kamala K, **Sini Anna Alex, Anita Kanavalli** - 'Survey On Various Techniques That Is Involved In Monitoring Hydroponic Plants', Elsevier SSRN, ISSN: 1556-5068, June 2021.
- Sushma B, **Shedole S**, Suresh K P, Leena G, Patil S S, Srikantha G - 'An Estimate of Global Anthrax

Prevalence in Livestock: A Meta-analysis', Vet World. 2021; 14(5):1263-1271. doi:10.14202/vetworld.2021.1263-1271.

- **A P Patil**, L C M Hurali - 'Analysis of routing protocols for software-defined vehicular ad hoc networks', International Journal of Networking and Virtual Organisations 24 (2), 161-181.

Paper presentation in National / International Conferences

- **Annapurna P Patil**, Ananya Pramod, Ashwin Harish, Kaushik Singh, Keerthana Purushotham - 'An Approach to Image Denoising Using Autoencoders and Spatial Filters for Gaussian Noise', 11th International Conference on Cloud Computing, Data Science & Engineering, Confluence 2021, 28th – 29th January 2021, Amity University, Uttar Pradesh, India. ISBN: 978-0-7381-3160-3.
- **Sangeetha V**, Vaneeta M, Swapna Kumar S - 'Renewable Energy Harvesting Inverter using Super Capacitor', 3rd International Conference on Computational Intelligence & Data Science (ICCIDS) in East West College of Engineering, Bengaluru on 4th Feb 2021.
- Manisha Pai, **Rajarajeswari S**, Akarsha D P, Ashwini SD - 'Analytical study on load balancing algorithms in Cloud Computing', International Conference on Expert Clouds and Applications, Gitam University, Bengaluru, India on Feb 18th & 19th 2021.
- Nagashri K, **Rajarajeswari S**, Iqramaryam Imran, Nanda Devi Shetty - 'Fog Computing- Characteristics, Challenges, Job Scheduling survey', International Conference on Expert Clouds and Applications, Gitam University, Bengaluru, India on Feb 18th & 19th 2021.
- **Parkavi A, Sowmya B J**, A Jerin Francis, Srikanth B S, Nikhil Rohan Deepak R - 'Smart Eval- Evaluation system for Descriptive Answers in Examinations using Natural Language Processing and Artificial Neural Networks', International conference on Recent Trends in Machine Learning, IOT, Smart Cities & Applications, 28th - 29th March, Hyderabad.
- **J Sangeetha** - 'Fake News Detection Using Passive-Aggressive Classifier and Other Machine Learning Algorithms', Fourth International Conference on Computing and Network Communications

(CoCoNet'20), Vellore Institute of Technology, Chennai, 14th -17th, Oct 2020, Springer in Lecture Notes in Electrical Engineering.

- **J Sangeetha** - 'Android Malware Classification Based on Static Features of an Application', Fourth International Conference on Computing and Network Communications (CoCoNet'20), Vellore Institute of Technology, Chennai, 14th -17th Oct 2020, Springer in Lecture Notes in Electrical Engineering.
- **Pramod Sunagar, Anita Kanavalli** - 'Classification of Covid-19 Tweets Using Deep Learning Techniques', 5th International Conference on Inventive Systems and Control (ICISC-2021), Springer Lecture Notes in Networks and Systems, 7th - 8th Jan 2021. Online: 08-June-2021.

Guest Lecture delivered by the department faculty:

- **Dr Sangeetha V** - 'Machine Learning and its Applications', Nagarjuna College of Engineering and Technology, Bengaluru, on 8th May 2021.

Guest Lecture delivered by the department faculty

- **Dr. Parkavi A** - 'Artificial Neural Network' for the IEEE CIS Outreach Program on 23rd Jan 2021 and 30th Jan 2021 for High School students (Online mode).

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

- **Dr Annapurna P Patil and Dr. S Rajarajeswari** bagged the excellent Project Award at Samsung SIRB projects, March, 2021 for 'Call and SMS Record based Relationship Analysis', with HarivindPremkumar, Kiran MHM, Pranav Hegde, Winning Amount: \$900 with Samsung Mentor Mrs. Ruchita Garg
- **Dr Annapurna P Patil** received the Award of Appreciation during International Women's Day March 2021 from IEEE Bengaluru Section, for her outstanding dedication and commitment to IEEE.
- **Dr. Parkavi A and Dr. Sini Anna Alex** bagged the Excellent Project Award at Samsung SIRB projects, March, 2021 for 'Web Tool for NDCG Computation Tool', along with Kolli Saivenu, Mumtaz Irteqa Ahmed, Vinay, Winning Amount: \$900 with Samsung Mentor: Pratyush Pushkar, Jagdish Agarwal.

- **Pramod Sunagar** bagged the excellent Project Award at Samung SIRB projects, March, 2021 for 'Classification of Action and Events-Fitness Activity', along with Preetham C Nayak, RavvaAravind, Tharun Kumar R, Nikhil Jain, Winning Amount : \$900 with Samsung Mentor: Mrs. Roopa S & Mr. Ravindra Kumar.
- **Dr Parkavi A** has been identified for the position of Vice WIE Faculty Advisor, IEEE-RITB Student branch on Jan 18, 2021. She has been in the organizing team and coordinated 'IEEE WIE TECHNODIUM 2021- Leveraging Women Leaders for Managing Paradigm Shifts', from 20th to 22nd March 2021 at Ramaiah Institute of Technology, Bengaluru.
- **Dr Parkavi A** has received certificate of appreciation from Swayam NPTEL for Quality check of translated files (e-content) in Tamil language for the course 'Data Science for Engineers', on 30th Mar 2021.
- **Dr J Sangeetha** received the Excellent Project Award at Samsung SIRB projects, March, 2021 for Visual Intelligence R&D, Media and Medical Sol, under the title: 'Classification of Video into Action and Events', along with S Spandana, Madhura C S, Kunjeti Jassvanthh, Roja, Winning Amount: \$900.

Faculty who obtained Ph.D degree:



Sini Anna Alex, received PhD degree for the thesis titled 'Modeling Context Information in Pervasive Computing Systems', from Visvesvaraya Technological University, 2021, under the supervision of Dr. Anita Kanavalli, Professor and Head, Dept. of CSE, Ramaiah Institute of Technology, Bengaluru.



Srinidhi. H received PhD degree for the thesis titled 'Multi-Structured Data Analytics and Visualization using effective Machine learning techniques', from Visvesvaraya Technological University, 2021, under the supervision of Dr. Siddesh G M, Associate Professor, Dept. of ISE, Ramaiah Institute of Technology, Bengaluru.

DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING

Faculty & student Publications in (National / International) Journals

- **J.V. Alamelu, A. Mythili** – 'Performance Evaluation of LQR Method for Motor Employed in Medical Grade Infusion Pump'. In Advances in Automation, Signal Processing, Instrumentation, and Control: Select Proceedings of i-CASIC 2020, March 2021, pp. 743-749. Lecture Notes in Electrical Engineering, Springer.
- **J.V. Alamelu, A. Mythili** – 'Prediction of Speed for Smart Insulin Pump Utilizing Adaptive Neuro-fuzzy Inference System and ANN.', In Proceedings of International Conference on Communication, Circuits, and Systems: IC3S 2020, March 2021, pp. 187. Lecture Notes in Electrical Engineering, Springer.
- **Reuben O Jacob, M K Pushpa, Shoaib Alyaan, Arunabha Mitra, Chidroop Sagar, K. Anitha**, 'Self-Balancing Bicycle with Location Tracking based on Principles of Inverted Pendulum', presented in CIPR-2021 Conference, published in Springer Advances in Intelligent Systems and Computing (AISC) Series, April 2021.
- **Kuzhali, S. Elavaar, and D. S. Suresh** – 'Automated Image Denoising Model: Contribution Towards Optimized Internal and External Basis', International Journal of Image and Graphics (2021): 2150051.
- **Alamelu J.V, Mythili A** – 'Smart Infusion Pump Control: The Control System Perspective'. Book Chapter, Computational Intelligence in Healthcare. Health Information Science. Springer, Cham (April 2021). <https://doi.org/10.1007/978-3-030-68723-6-10>
- **Haaris Rahman, Ashwiji Kumbla, Megharjun V N and Viswanath Talasila** – 'Real-Time Heel Strike Parameter Estimation for FES Triggering', International Conference on Distributed Computing and Optimization Techniques (ICDCOT), Springer, June 2021
- **S.S. Sai Kaushik, K.G. Srinivasa** – 'Detection of respiratory diseases from chest X rays using

Nesterov accelerated adaptive moment estimation', Measurement 176 (2021) 109153

Guest Lecture/s – Invited:

- **Rishab Jain**, Alumni, Dept of EIE, Technical Test Engineer, Texas Instruments Bengaluru – 'Carrier guidance for Third year students of EIE', 13-03-2021.
- **Ms. Oindrilla De**, Alumni, Dept of EIE, Senior Risk Consultant, Ernst & Young, Bengaluru – 'Build Your Own Brand for students of EIE', 22-05-2021.
- **Mr. Murali Krishna** - Senior Engineer, BHEL, Bengaluru – 'Battery management systems for all students of EIE', 03-04-2021.

Guest Lecture delivered by the department faculty:

- **Dr. Christina Grace**, talk on Optics – Basics, sensors and applications, as a part of the One-week faculty development programme on IoT and Industrial Automation in Bengaluru Institute of Technology, on 28th April 2021.

Faculty & Student Achievements:

- **Dr. H.S. Niranjanamurthy**, session chair for '9th International Conference on Contemporary Engineering and Technology 2021' at Prince Shri Venkateshwara Padmavathy Engineering College, Chennai, Tamil Nadu, INDIA on 10th April 2021. (Online Conference)
- **Vedya Janardhanan**, was an adjudicator in 'smart debates' 2020 organized by smart club in collaboration with Youth Initiative Nepal and Debate Network Nepal.

Faculty Consultancy:

- **Dr. Premila Manohar** – collaborative consultancy and technical guidance in 'Development of Electro Magnetic Shock Emitter (EMSE) coil used in Lithotripsy machine', Dept. of Urology, Ramaiah Medical College (In collaboration with Zeonics Systech Defence and Aerospace Engineers Ltd, Bengaluru), Amount of INR 2,00,000 has been granted.
- **Dr. Premila Manohar** – Memorandum of Agreement with Excelgo, Denmark for the collaborative usage of Experior software for automation technologies.

- **Dr. A. Saravanan**, collaborative consultancy and technical guidance for 'Software development of ETP data', Kothari Sugars and Chemicals Ltd, Lalgudi Taluk, Trichy, Tamil Nadu, Amount of INR 1,00,000 has been granted.

Faculty obtained PhD degree:



Shivaprakash G. obtained Ph.D degree from Visvesvaraya Technological University, on the research thesis title 'Cell stability analysis for a high-speed sram bit-cell', Name of the supervisor with address: Dr. Suresh D S, Principal and Director, CIT, Gubbi, Tumakuru.

by various faculties and industry experts. Students were also exposed to various career opportunities in computation intelligence and related areas.



DEPARTMENT OF INFORMATION SCIENCE ENGINEERING



- iOS App Development Bootcamp from 15th – 20th March, 202, Dept. of ISE in association with Apple, India conducted a week long bootcamp for students interested in iOS App development. Mr. Amit Gulati, Senior trainer in app development handled the session on design and development of iOS based Apps. Participants are supposed to design an app and present it during next bootcamp in the series.
- IEEE CIS High School Outreach Program - This program was by organized for students of Navkis Educational Center, Bengaluru. It was supported by IEEE CIS with 2000 USD. The program was conducted for 4 months (January-April, 2021) for Students of grade 8-10. They were taught basic concepts of computational intelligence like neural networks, evolutionary computing, fuzzy logic etc

- CS and IS HoD, Faculty and Student Core Team of Google Developer Student Club - RIT. The tenure of the current Google DSC RIT Lead RohitNagraj (Sem 8, ISE) ended in May 2021. In spite of the ongoing pandemic situation this technical club leveraged the online platform and conducted a dozen technical events during the pandemic affected academic year 2020-21

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

- **M Sinthuja** – 'Diabetic Retinopathy Detection using Convolutional Neural Networks Algorithm', Elsevier Materials Today, pp 1-3, 2021.
- **Siddesh G M, S R Mani Sekhar** - 'Assessment and Prediction of PM2.5 in Delhi in View of Stubble Burn from Border States using Collaborative Learning Model', Aerosol Science and Engineering, Springer, Vol. 5, 2021.
- **Shashidhara H S, Anushree H** – 'Efficient Recommendation System using BERT Technology', International Journal of Advanced Research in Engineering and Technology, VOL.12(2), pp. 491. 500, 2021.
- Shankar S P, **Naresh E**, Agrawal H – 'Optimization of Association Rules using Hybrid Data Mining Technique' . Innovations Systems and Software Engineering, Springer (2021)
- Rashmitha H.R, **Naresh E, Vijaya Kumar B.P** - 'Test Strategies for Cyber Physical Systems', Bioscience

- Biotech Research Communications, Special Issue 13(13), (2021) PP-271-275.
- Soumya, **Naresh E, Vijaya Kumar B P**, Ravi B C - 'Test Strategies for Blockchain Technology', Bioscience Biotech Research Communications. Special Issue 13(13), Pp.265-270, 2020.
 - **Naresh E, Sureshkumar K R**, Sahana P Shankar, Santosh DilipkumarParakh - 'Computer Vision in Healthcare Management System Through Mobile Communication'. Elementary Education Online, 20 (5), pp.2105-2117, 2021.
 - Chaitra Ravi, **Naresh E**, MerlaSwetha - 'Significance of Intellectual Property Rights in Elementary Education', Elementary Education Online, 20 (5), pp. 1373-1377, 2021.
 - **S R Mani Sekhar** - 'Protein Class Prediction based on Count Vectorizer and LSTM', International Journal of Information Technology, Springer, Vol. 13, 2021.
 - **Siddesh G M, S R Mani Sekhar** - 'Assessment and Prediction of PM2.5 in Delhi in View of Stubble Burn from Border States using Collaborative Learning Model', Aerosol Science and Engineering, Springer, Vol. 5(3), 2021.
 - Sneha Shetty R, **Ashwitha A**, Saritha M - 'Predictive Analysis of Diabetes Miletus Using Machine Learning'. Annals of the Romanian Society for Cell Biology, VOL. 25(4), pp.9667-9676, 2021.
 - **Siddesh G M** - 'Cloud-Based Fusion of Residual Exploitation-Based Convolutional Neural Network Models for Image Tampering Detection in Bioinformatics', BioMed Research International, Vol. 2021, ArticleID 5546572, 2021.
 - **Siddesh G M** - 'Case based classifier for Air pollution monitoring and forecasting', Journal of The Institution of Engineers (India): Series B, Springer, Vol.102(3), pp. 447-454, 2021.
 - **Siddesh G M** - 'A Comparative Study and Analysis of LSTM Deep Neural Networks for Heartbeats Classification, Health and Technology', Springer, Vol.11(3), pp.663-671, 2021.
 - **P M Krishna Raj, Jagadish Sai** - 'Sentiment analysis, opinion mining and topic modelling of epics and novels using machine learning techniques', Materials today ,Vol. 46(10), 2021.

- **Deepthi K** - 'Classification of Photographs Based on Face Recognition', International Journal of Advanced Research in Engineering and Technology (IJARET), Vol.12(3),pp. 732 – 740, 2021.

Paper presentation in National / International Conferences:

- **Dr.Yogish H K** - 'Prediction of Employability of Engineering Graduates using Machine learning techniques', International Conference on Computing for Sustainable Global Development, 17th to 19th March, 2021.
- **M.Sinthuja** - 'Frequent Itemset Mining Algorithms–A Literature Survey', International Conference on Intelligent Sustainable Systems (ICISS 2021), Feb 2021.
- Asha R B, **Suresh Kumar K R** - 'Credit Card Fraud Detection using Artificial Neural Network', 1st International Conference on Advances in Information, Computing and Trends in Data Engineering (AICDE - 2020).

Guest Lecture delivered by the department faculty:

- **Dr. Mydhili Nair** – delivered an invited talk to Kerala Engineers Association (KEA) on "Blockchain - Introduction and Applications" on 26th May 2021.

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

- **Rohit P N** - From 4th year Information Science and Engineering has participated in, and won the ASEAN-India Hackathon 2021, an international hackathon conducted by the Ministry of Education in collaboration with Ministry of External Affairs. Rohit was one among the 60 shortlisted Indian students from over 1000 former Smart India Hackathon winners to participate in this hackathon.
- **Jayant Sogikar and NandanHerekar** - Students of 2nd year Information Science and Engineering have participated and won First prize in 'HackOverflow', a hackathon conducted by IIT Goa in its technical fest 'Cepheus', which saw participants from all over India coming together and participating to bag the prizes from the various contests which were being hosted.
- **Raghav Maheshwari, Rithik Mehta, Shirsh Vardhan Kashyap** – won First Prize for their project 'Intelligent Video Aalytics in Smart Cities using Edge

Computing' in National Level Inter-college Project Competition 2021 held at DayanandSagar Academy of Technology and Management in association with IEEE and CSI Bengaluru Chapters.

- **Raghav Maheshwari** and Team – won First Prize in project completion NVEPC 2021 held at National Institute of Science and Technology, Behrampur, Odisha. They were mentored by Prof. Savita K Shetty of Information Science and Engineering department, RIT.
- **Raghav Maheshwari, Rithik Mehta, Shirsh Vardhan Kashyap** – won Second place in Prototype Presentation as part of technical fest Technova conducted by IEEE CMRIT Student branch held during June 2021.

DEPARTMENT OF MEDICAL ELECTRONICS ENGINEERING

Publications in National / International Journals:

- Rajanna R R, **Natarajan S**, Prakash V, **Vittala P R**, Arun U, Sahoo S - 'External Cardiac Loop Recorders: Functionalities, Diagnostic Efficacy, Challenges and Opportunities', IEEE Rev Biomed Eng. 2021 Jan 29, doi: 10.1109/RBME.2021.3055219. Epub ahead of print. PMID: 33513107
- Avvaru S, **Sriraam N**, Prakash V S - 'Wearable Ag-NyW textile electrode for continuous ECG monitoring', Res. Biomed. Eng. 37, 231-247, (April 2021), <https://doi.org/10.1007/s42600-021-00147-2>
- Raveendra Kumar T H, **C K Narayanappa** - 'Improved Feature extraction process to detect seizure using CHBMIT-Dataset', International Journal of Electrical and Computer Engineering. Vol. 11(1), Feb 2021, pp 827-843.
- **Shivaram. N, Purnima Ramesh** - 'EEG-Based Demarcation of Yogic and Non-Yogic Sleep Patterns Using Power Spectral Analysis', International Journal of E-Health and Medical Communications, Vol. 12(6), Nov-Dec 2021.
- **C K Narayanappa** - 'Channel State Information (CSI) based Sparse Reconstruction for Biomedical Applications Using hybrid mm-WAVE MIMO System',

Turkish Journal of Computer and Mathematics Education, Vol.12(3),Pg.1557-1568, 2021.

- **C K Narayanappa** - 'Assessment of Facial Homogeneity with Regard to Genealogical Aspects Based on Deep Learning Approach', Turkish Journal of Computer and Mathematics Education, Vol.12(3), Pg.1550-1556, 2021.
- DattatreyaMusalik Desai, **Sanjay H S**, Nandakishore Muthalok Desai, KirthanaKunikullaya, Prithvi B S - 'A comparative assessment of the different approaches used to classify the melodic scales (raags) in hindustaniindian classical music', Turkish Journal of Physiotherapy and Rehabilitation, Vol. 32(3), 5196-5204, 2021.
- NandakishorMusalik Desai, **Sanjay H S**, Dattatreya Musalik Desai, Kirthana Kunikullaya and Adarsh Kumar Sinha - 'An Overview of the Indian system of Raagas and their Positive Effects on Health', Journal of Drugs Addiction & Therapeutics, Vol. 2(2), 1-6, 2021.

Guest Lecture/s Invited:

- **Mr. SudheerHebbale**, Director at Tekenlight Solutions Pvt Ltd, Bengaluru delivered guest lecture (online) on 'Block Chain-A Persistent Linked List' on 13th March 2021.

Guest Lecture Delivered by the Department faculty:

- **Dr. N Sriraam** - 'Opportunity for Bio Medical under graduate: Academic and jobs market – India's perspective' to under graduate and graduate students of Department of Biomedical Engineering, University of California, San Deigo, USA on 8th Feb 2021.
- **Dr. N Sriraam** - 'Biomedical and Biotechnology Research & Innovation', during the AICTE sponsored FDP on Bio-innovation, Patenting and Entrepreneurship opportunities in Biotechnology for Sustainable Environment organized by The Department of Biotechnology, The Oxford College of Engineering, Bengaluru, on 25th Feb 2021.
- **Dr. N Sriraam** - 'Opportunity and challenges in healthcare application in student's community' at The Department of Biotechnology, The Oxford College of Engineering, Bengaluru on 27th Mar 2021.

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING



- **Centre for Antennas and Radio Frequency Systems - (CARFS)** - was inaugurated by Sri. M. R. Seetharam, Vice-Chairman, Gokula Education Foundation, Director, RIT, on 24th March 2021. The Centre includes design, simulation, fabrication and testing of Antenna and RF devices.

Publications in (National / International) Journals (Faculty)

- **Venu K N, B K Sujatha** - 'Enhance Detection Method for Identifying Orthogonally Rotated or Flipped Pasted Region in an Image, International Journal of Advanced Trends in Computer Science and Engineering, Vol.10(1), 2021.
- Mahesh Kori, Sharada Kori, **Akshata Kori** - 'Internet of Things(IoT) a boon for Smart foundry 4.0', PENSEE Journal, Vol. 51(02), 2021.
- Weidong Cai, Srikanth Ryali, Ramkrishna Pasumarthi, **Viswanath Talasila**, Vinod Menon - 'Dynamic Causal Brain Circuits during Working Memory and their Functional Controllability', NATURE COMMUNICATIONs, (2021) 12:3314.
- **Satish Tunga, D. Jayadevappa, C. Gururaj, H R Harshith** - 'Luminosity and Contrast Adjustment Based Enhancement of Diabetic Retinal Images', Turkish Journal of Physiotherapy and Rehabilitation, Vol. 32(3), pp. 1842 – 1852, 2021.
- **Arvind Kumar G**, Amar Sai Teja Chitiyala, Sharanreddy - 'Agricultural Resource Sharing and Crop Management', Turkish Journal of Computer

and Mathematics Education., Vol.12(12), pp. 1656 – 1661, 2021.

Paper presentation in National / International Conferences (Faculty)

- **Kusuma S M**, Veena K N and Aparna N – 'Effective deployment of sensors in wireless sensor networks using Hebian machine learning technique', IEEE international conference on computing communication and intelligent systems ICCICIS-2021 held during 19th -20th February 2021.
- Srikar Sreenath Bharadwaj, **Akshata S Kori**, U B Shenoy - 'Smart Uninterrupted Power Supply for Automotive Applications', First International Conference on Advances in Electrical, Computing, Communications and Sustainable Technologies (ICAECT 2021) held during 19th – 20th February 2021 at Bhilai, Chhattisgarh, India.

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

- **Dr. Swetha Amit**– is the advisor for of IEEE APS (Antenna Propagation Society) which is set in motion on 18th February 2021 and 4th sem M.Tech student Ms. Arieab Ashraf Sofi is a Chair.
- **Dr. Swetha Amit, Dr. Viswanath Talasila, Mr. P M Premnath** – Along with Bengaluru based Startup company Avgarde Systems jointly defended a challenge at the 4th edition of Defence India Startup Challenge (DISC) on 'Reduction of RCS (Radar Cross Section) for Naval warships' launched by IDEX (Innovations for Defence Excellence) India and have won the challenge. They were felicitated by the Honourable Raksha Mantri, Mr Rajnath Singh, during the StartUp Manthan event at Aero India in Bengaluru on 5th February 2021.
- **Dr. Shobha K R** - Australian patent granted on 5th day of May 2021 for 'Deep learning based real time smart detection of accident victims on highways'. Patent number: 2021101684.

Consultancy and Funded Project:

- **Kusuma S M, Nisha S L, Dr. Ramya H R** - have Received consultancy project on 'Smart monitoring of pipeline system using machine learning techniques' from SYS.N Consultants Private Limited on 5-04-2021.

Grant- Rs. 30,000

- **Dr. Umesharaddy, Dr. Satish Tunga & Dr. B K Sujatha** - have received consultancy project on 'Design and Development of Agimus Pine Xilinx Artix 7 FPGA Kit' from Agimus Technologies Pvt. Ltd. on 16th April 2021.

Grant- Rs. 1.2 Lakhs

Guest Lecture delivered by the department faculty:

- **Dr. Ramya H R** - 'Fuzzy Logic and it's Applications' organized by the Dept. of ECE, DON BOSCO Institute of Technology on 19th June 2021.
- **Dr. Swetha Amit** - "Liquid Antennas" in a FDP on 'Antenna design and Printing for Practical Applications' organized by Dept. of ECE, BNMIT, Bengaluru on 25th June 2021.
- **Dr. Umesharaddy** - 'Challenges & Optimization in System Design' in National Conference on Novel Ideas in Multidisciplinary Techno-Innovations Technically Sponsored by IEEE Signal Processing Society, Pune Chapter (NCNMT-2021) 29th - 30th June, 2021, at Singhad Technical Education Society's, Singhad Academy of Engineering, Kondhwa, Pune.

**DEPARTMENT OF
BIOTECHNOLOGY**

Faculty Publications in International Journals

- **Gokulakrishnan M** - 'Synthesis of photocatalytic zinc oxide nanoflowers using Peltophorum pterocarpum pod extract and their characterization'. Applied Nanoscience. 2021 June 12:1-1.
- **Gokulakrishnan M** - 'Green synthesis of magnetic α -Fe₂O₃ nanospheres using Brideliaretusa leaf extract for Fenton-like degradation of crystal violet dye'. Applied Nanoscience. 2021 Jun 30:1-8.
- **Monika P, Chandrababha M N** - 'Myofibroblast Progeny in Wound Biology and Wound Healing Studies'. Wound Repair and Regeneration. 19th May 2021.
- **Ravi Kumar Y S** - 'Role of non-coding RNAs in Dengue virus-host interaction'. Frontiers in Bioscience-Scholar. 2021.13 (1); 44-55.

- **Ahalya N** - 'Application of a low cost agricultural adsorbent for removal of Nickel ions', Research Journal of Chemistry and Environment, Vol. 25 (6), 136-141, 2021.
- **Chandrababha M N** - 'Conductivity and impedance spectroscopic studies of self-sustained high-temperature synthesized nano Ce_{1-x}Gd_xO₂-delta solid solutions, IONICS, 2021.
- **Bhavya S G** - 'In-silico strategies of some selected phytoconstituents from Melissa officinalis as SARS CoV-2 main protease and spike protein (COVID-19) inhibitors', Molecular Simulation, 2021, 1-14.
- **Ravikumar Y S** - 'Isolation and characterization of dengue protease inhibitory prenylatedchalcone from Polyalthiacerasoides Stem bark', Research Journal of Biotechnology, 2021,16:3.

Student Publications: UG

- **Birendra Kumar**, Krishna Murthy T P - 'In silico screening of therapeutic potentials from Strychnosnux-vomica against the dimeric main protease (Mpro) structure of SARS-CoV-2', Journal of Biomolecular Structure and Dynamics. 2021 Mar 16:1-9.
- **Birendra Kumar**, Swathi Krishna, Sneha P, Divya Mathew, Ramya Pattibhiraman, Krishna Murthy T P - 'Screening of natural compounds from Cyperusrotundus Linn against SARS-CoV-2 main protease (Mpro): An integrated computational approach'. Computers in biology and medicine. 2021 May 29:104524
- **Sanmati N.**, Ahalya N., Dhamodhar P. and Aditya Krishnakumar - 'Advances in Molecular Biology Techniques for the Diagnosis of Dental caries: A Mini Review'. Research Journal of Biotechnology.
- T P Krishna Murthy, Subramanian S, **Kamath P**, Bindu S - 'In silico approach towards the identification of potential inhibitors from Curcuma amada Roxb against H. pylori: ADMET screening and molecular docking studies. Bioimpacts 2021, 11(2) : 119.

Student Publications: PG

- **Swati Krishna, S. Birendra Kumar**, T P Krishna Murthy - 'Structure-based design approach of potential Bcl-2 inhibitors for cancer chemotherapy',

Computers in Biology and Medicine. 2021 Jul 1;134:104455.

- N. Ahalya, P. Dhamodhar and **A.D. Vaishnavi** – 'Green Synthesis, Characterization of Zinc Oxide Nanoparticles and their incorporation into Glass Ionomer Cement for Inhibition of Streptococcus mutans', Asian Journal of Chemistry; Vol. 33(3), Pg.515-520, 2021.

Guest Lecture- Invited

- **Dr. Jayashree K** - Pathologist, Clarette Biotech Pvt. Ltd., Mysuru 'Diverse Fields in Biotechnology' on 09.01.2021.
- **Ms. Namrutha Guruprasad** - Process Engineer, Merck Life Sciences Pvt. Ltd, Bengaluru 'Diverse Fields in Biotechnology' on 23.01.2021.
- **Dr. Shankar Pattabhiraman** - Technical Product Manager, Beckman Coulter Life Sciences Pvt. Ltd, Bengaluru 'Flow Cytometry Application Techniques in Diagnosis & Biopharmaceuticals' on 20.02.2021.
- **Dr. M S Ramakrishnan** - Vice President, Head of Research and Development, Technical Product Manager, Beckman Coulter Life Sciences Pvt. Ltd, Bengaluru – 'Flow Cytometry Application Techniques in Diagnosis & Biopharmaceuticals' on 20.02.2021.
- **Mr. Madhava Ram Paranandi** - Senior Director (Head), Kemwell Biopharma Pvt. Ltd, Bengaluru 'Manufacturing of Complex Biologicals: Developing and Delivering Next Generation Medicines' on 27.02.2021.
- **Dr. Manjunath Ramarao** - Group Director (Head), Bristol-Mayer Squibb Pvt.Ltd., Bengaluru - Discovery Biology and Translational Sciences, on 13.03.2021.
- **Mrs. Poornima Shankar** - Senior Research Scientist, Himalaya Drug Company, Bengaluru 'Trends in Nutraceuticals' on 26.03.2021.
- **Mr. G.S Krishnan M** - Vice-President, ABLE Consultant, Novozymes South Asia Pvt. Ltd., Bengaluru, 'Industrial Biotechnology Post COVID' on 27.03.2021.
- **Dr. Kruthika Vinod T P**, Scientist C, Dept of Neurochemistry, National Institute of Mental Health and Neurosciences, Bengaluru– 'Genetic profiling

of GlutaricAcidemia type I: A study from India' on 09.04.2021.

Guest Lecture delivered by the department faculty

- **Dr. T P Krishna Murthy** - 'Technical Writing with LaTeX and Python', 5-day faculty Development Programme workshop organized by the Department of Chemical Engineering on 25.03.2021.
- **Dr. T P Krishna Murthy** – 'Formatting Figures and Tables in Latex', 5-day faculty Development Programme workshop organized by the Department of Chemical Engineering on 26.03.2021.
- **Dr. Chandraprabha M N** - 'Applications of Nanostructured materials – Biomaterial perspective' in National Workshop on 'Recent Advanced in Materials for Multidisciplinary Applications (RAMMA-2021)', on 30.03.2021.
- **Dr. Bindu S** - 'Identifying Research Problem and Technical Report Writing' on IEEE RIT on 11.06.2021.

Funded projects:

- **Dr. Chandra Prabha M N & Dr. Harikrishna R** - Design of structurally modified nanoceria with enhanced haloperoxidase activity to combat sulphate reducing bacteria (SRB) induced biocorrosion: A biomimetic approach to combat microbologically – influenced Corrosion (MIC) of marine structures. DST, CRG, Rs.41.83 Lakhs.
- **Dr. Chandra Prabha M N & Dr. Harikrishna R** - Designing of Novel Biocompatible and Multifunctional Nano Ceramic Coatings for Medical Implants., VGST-KFIST L2, Rs.30.0 Lakhs.
- **Dr. Chandra Prabha M N & Mrs. Monika P** - A biological strategy to enhance chronic wound healing in patients using Human Autologous Platelet – Rich Plasma. RIT Seed Funding, RIT, Rs. 2.6 Lakhs
- **Dr. 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, TARE, Rs. 18.30 Lakhs.
- **Dr. Bindu S & Mrs. Vijayalakshmi V** - In Vitro Studies on Effects of Carbon Nanotubes on Antioxidant Mechanism in Human Neuronal Cells, IEI R&D

Grant-in-Aid Scheme. The Institution of Engineers, India (IEI), Rs. 0.8 Lakhs.

- **Dr. Bindu S & Dr. Dhamodhar P** - BiSEP (Biotechnology Skill Enhancement Programme), Domain: Biopharmaceutical Technology, KBITS, Govt. of Karnataka, Rs. 162.5 Lakhs.
- **Dr. Chandrababha M.N & Mrs. Sanchita Sharma** - Enhanced Production of Indigo (Precursor of Indigo Dye) from cell suspension culture of *Indigoferatinctoria* and its up – scaling through bioreactor, DST, Rs. 23.72 Lakhs.

Achievement/s, Awards/Prizes by Faculty & Students

- **Dr. Chandrababha M N, Dr. Ahalya N & Dr. T P Krishna Murthy** listed in AD Scientific Ranking list of 2021 rank based on Google Scholar Citations.
- Nikhil Kumar & group, VIII semester BE & **Dr. Bindu S** (Guide), approved project funding from Karnataka State Council for Science & Technology (KSCST) under 44th SPP Scheme 2021.
- Amrutha, IV semester M Tech & **Dr. Bindu S** (Guide), approved project funding from Karnataka State Council for Science & Technology (KSCST) under 44th SPP Scheme 2021.
- **Dr. Bindu S**, Professor, received "Mentor - Best Project of the Year" under 43rd Series of KSCST Student Project Programme – 2020.

DEPARTMENT OF MATHEMATICS

- Department of Mathematics is conducted Five Day Faculty Development Programme on 'Technical Writing with LaTeX and Python' on 24th to 29th March 2021.

Publications in (National / International) Journals:

- **Suresh Babu R, Sravan Kumar T, Govindaraju M V** – 'Impacts of Chemical Reaction, Diffusion - Thermo and Radiation on Unsteady Natural Convective Flow past an inclined Vertical Plate under Aligned Magnetic Field', *Biointerface Research in Applied Chemistry*, Volume 11(5), Pg.13252-13267, 2021.

- **G Neeraja, Suresh Babu R** – 'Comprehensive Analysis of an Unsteady Radiated MHD Natural Convective Nanofluid in the Existence of Magnetic Field fixed to the Vertical Plate or to the Fluid', *Biointerface Research in Applied Chemistry*, Volume 11(5), Pg.12560-12572, 2021
- **Sushma S, Suresh Babu R, G. Neeraja, Nancy S** – 'Triple Diffusive MHD Casson Fluid Flow Over a Vertical Wall with Convective Boundary Conditions', *Biointerface Research in Applied Chemistry*, Volume 11(6), Pg.13765-13778, 2021.
- **Suresh Babu R et. al.** – 'MHD Slip Flow and Heat Transfer of Cu-Fe₃O₄/Ethylene Glycol-Based Hybrid Nanofluid over a Stretching Surface', *Biointerface Research in Applied Chemistry*, Volume 11(4), pg.11956-11968, 2021.
- **G Neeraja et. al.** – 'Free Convective Flow of Water/Ethylene Glycol Based Micropolar Nanofluid Over a Shrinking Sheet', *Biointerface Research in Applied Chemistry*, Volume 11(5), Pg.12596-12605, 2021.
- **Dinesh P A et. al.** – 'Effect of Variable Fluid Properties and MagnetoHydrodynamics for Convection with Couple Stress Fluid', *Biointerface Research in Applied Chemistry*, Volume 11(5), Pg. 13490-13501, 2021
- **Praveena M M et. al.** – 'Solitons of Kählerian space-time manifold', *International Journal of Geometric Methods in Modern Physics*, Volume 18(02), Pg. 2150021, 2021
- **Veena B N et. al.** – 'Study of Brinkman-Bénard nanofluid convection with idealistic and realistic boundary conditions and by considering the effects of shape of nanoparticles', *Heat transfer-Asian Research*, <https://doi.org/10.1002/htj.22059>, 2021.

Guest Lecture delivered by the department faculty:

- **Dr. Srikantha N** - 'Maple software' in One Week Online National Workshop on Applications of Mathematical and Statistical Tools organized by Central University of Haryana held on 20th – 24th March 2021.

DEPARTMENT OF CHEMISTRY

- Dept. of chemistry organised one-day seminar on 'Applications of nano-structured materials for advanced technological applications', on 9th January 2021 at RIT, Bengaluru.



- Department has organized 'Half yearly Research Review Meeting (RRM)' for VTU Research Scholars of the department on 09-01-2021.



- In association with Luminescence Society of India: Karnataka Chapter (LSIKC), Department of chemistry has conducted Research Orientation Program for Research Aspirants (ROPRA) for young research scholars on 06-02-2021. In this program hand-on training was given on 'Solution combustion process for nano-materials syntheses'. Research scholars from five universities across Karnataka have participated.



- Luminescence Society of India: Karnataka Chapter (LSIKC) arranged one-day program (off-line) for farmers on the topic 'Soil Fertility' at KurubaraPalya, Gouribidnuru Taluk. The resource persons are Mr. Soil Vasu from Bengaluru and Mr. PrabhakarBuddappa, Progressive Farmer, Mulbagal taluk, Kolar Dist, on 21-03-2021.

IQAC

ರಾಜ್ಯಮಟ್ಟದ ಇ-ಕಾರ್ಯಾಗಾರ
ರಾಗಿ ಮೌಲ್ಯವರ್ಧನೆ ಮೂಲಕ
ಉದ್ಯಮಶೀಲತೆಗಾಗಿರುವ ಅವಕಾಶಗಳು
ಗ್ರಾಮ ಸ್ವರಾಜ್ಯವನ್ನು ಸಾಕಾರಗೊಳಿಸುವ ನಿಟ್ಟಿನಲ್ಲಿ

**State Level E-Workshop on
Entrepreneurship Opportunities through Ragi
processing**

Truly Realizing 'Village Swaraj'

18th May 2021, 11.00 am 18ನೇ ಮೇ 2021, ಬೆ. 11.00

ಸಂಪನ್ಮೂಲ ವ್ಯಕ್ತಿ / Resource Person

ಡಾ|| ಮಮತಾ ಹೆಚ್ ಎಸ್
ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕರು, ಬೇಕರಿ ಮತ್ತು ಮೌಲ್ಯವರ್ಧನೆ ಕೇಂದ್ರ, ಕೃಷಿ ವಿಜ್ಞಾನ
ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಂಗಳೂರು

Dr. Mamatha H S
Assistant Professor, Bakery and Value Addition Centre, UAS, Hebbal Campus,
Bengaluru

ಅಯೋಜಕರು/Organized by
ಉಮಿನೀಯ ಸೊಸೈಟಿ ಆಫ್ ಇಂಡಿಯಾ - ಕರ್ನಾಟಕ ಘಟಕ
ರಸಾಯನಶಾಸ್ತ್ರ, ವಿಭಾಗ, ಎಂ. ಎಸ್. ರಾಮಯ್ಯ ಪಾಂಡಿತ್ಯ ಮಹಾವಿದ್ಯಾಲಯ, ಬೆಂಗಳೂರು
Luminescence Society of India, Karnataka Chapter-Dept. of Chemistry, MSRT, Bengaluru

ಅಧಿಕಾರಿಗಳಾದ ಕೃಷಿ ರೈತ ಉತ್ಪಾದಕರ ಕಂಪನಿ ಲಿ., ಪರಮಚನಾಹಳ್ಳಿ, ಚಿಕ್ಕಬಳ್ಳಾಪುರ
Adarsha Chetana Farmers Produce Organization Ltd., Peramachanahalli, Chikkaballapura

Coordinators

Dr. B. M. Nagabhushana / ಡಾ. ಬಿ. ಎಂ. ನಾಗಭೂಷಣ
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Associate Professor, Department of Mechanical Engineering, MSRT, Bengaluru

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Registration / ನೋಂದಣಿ
Registration is free. Interested farmers and entrepreneurs are requested to register through google form. Google meet link will be sent soon for all registrants
ನೋಂದಣಿ ಉಚಿತ. ಆಸಕ್ತರು ನೋಂದಣಿಗಾಗಿ ಈ ಕೆಳಗಿನ ಗೂಗಲ್ ಫಾರ್ಮ್‌ನಲ್ಲಿ ತುಂಬತಕ್ಕದ್ದು.
ನೋಂದಾಯಿತರಾಗಿ ಗೂಗಲ್ ಮೀಟ್ ಲಿಂಕ್‌ನ್ನು ಕಳುಹಿಸಿಕೊಡಲಾಗುವುದು
<https://forms.gle/2SgUkg84KKUraH2H7>

- Luminescence Society of India: Karnataka Chapter (LSIKC) arranged State-level E-Workshop on the topic 'Entrepreneurship Opportunities through millet-grainsvalue addition processing'. Resource person- Dr. Mamatha H.S, Assistant Professor, Bakery and Value addition Centre, GKVK, Hebbal Campus, Bengaluru, on 18-05-2021
- In association with Revitalising Rained Agriculture Network (RRAN), Luminescence Society of India: Karnataka Chapter (LSIKC) arranged 9 days e-Webinar is arranged for the farmers across Karnataka, in which the following topics are covered: soil health, effective utilisation of water, compost preparation, the importance of multiple cropping, marketing of agri-produces, etc. The resource persons:- Mr. Soil Vasu, Bengaluru and Mr.



PrabhakarBuddappa, Progressive Farmer, Mulbagal taluk, Kolar Dist.Date- 21-05-2021 to 08-06-2021.

Publications (National / International) Journals

- G.K Prashanth, **BM Nagabhushana** – 'Evaluation of Antimicrobial, Antioxidant, and Cytotoxicity Activities of CuO Nanopellets Synthesized by Surfactant-Free Hydrothermal Method', International Journal of Testing and Evaluation, 49(6), 2021/3/15.

- U Jinendra, D Bilehal, **B. M. Nagabhushana** – 'Nano-catalytic behaviour of highly efficient and regenerable mussel-inspired Fe_3O_4 @ CFR@ GO and Fe_3O_4 @ CFR@ TiO_2 magnetic nanospheres in the reduction of Evans blue dye', International Journal of Heliyon, 7 (1), e06070, 2021.
- UshaJinendraa, **B. M. Nagabhushana**, Dinesh Bilehala – 'Comparative adsorptive and kinetic study on the removal of Malachite Green in aqueous solution using titanium coated graphite and titanium coated graphite with CNT-ABS nanocomposite', international journal of Desalination and Water Treatment, 209, 392–401, 2021.
- Puneetha J, **Nagaraju Kottam**, Rathna A – 'Investigation of photocatalytic degradation of crystal violet and its correlation with bandgap in ZnO and ZnO/GO nanohybrid', International journal of Inorganic Chemistry Communications, Vol. 125, Pg.108460, 2021/1/12.
- G.M.Madhu, **Nagaraju Kottam** – 'Mechanical and electrical properties evaluation of PVA-carbon dot polymer nanocomposites', Indian Journal of Chemical Technology (IJCT), 27(6),488-495, 2021/3/3.
- S.G.P Kumar, **Nagaraju Kottam**, R Preetham, D.L Monika – 'Role of NH_4Cl as Flux on Photoluminescence Properties of $\text{Ca}_{1-x}\text{ZrO}_3\text{:Eu}_x$ (x = 0.05) Synthesized by Solution Combustion Route', Asian Journal of Chemistry, 33 (3), 686-690, 2021/2/16.
- M.V Hemantha Reddy, T Sreenivasulu Reddy, **R Hari Krishna**, MN Chandrababha, **B.M. Nagabhushana** – 'Conductivity and impedance spectroscopic studies of self-sustained high-temperature synthesized nano- $\text{Ce}_{1-x}\text{Gd}_x\text{O}_{2-5}$ solid solutions', International journal of Ionics, PP: 1-16, 2021.
- Basappa C. Yallur, P. Murali Krishna, Malathi Challa** – 'Bivalent Ni(II), Co(II) and Cu(II) complexes of [(E)-[(2-methyl-1,3-thiazol-5-yl) methylidene amino] thiourea: synthesis, spectral characterization, DNA and in-vitro anti ...', International journal of Heliyon, 2021, 7(4), 1-12.
- Maliyappa M Rangappa, JathiKeshavayya, **Panchangam Murali Krishna**, K Rajesh – 'Transition metal complexes of ligand 4-imino-3-[(4, 5, 6, 7-tetrahydro-1, 3-benzothiazol-2-yl) diazenyl]-4H

- pyrimido [2, 1-b][1, 3] benzothiazol-2-ol containing benzothiazole ...', International journal of Inorganic Chemistry Communications, 127, 108524, 2021/5/1.
- V Adimule, **Basappa C Yallur**, V Kamat, **P. Murali Krishna** – 'Characterization studies of novel series of cobalt (II), nickel (II) and copper (II) complexes: DNA binding and antibacterial activity', Journal of Pharmaceutical Investigation, 1-13, 2021.
 - VinayakAdimule, Santosh S Nandi, **Basappa C Yallur** – 'Optical, Structural and Photoluminescence Properties of $Gd_xSrO: CdO$ Nanostructures Synthesized by CoPrecipitation Method', International Journal of Fluorescence, 1-13, 2021/1/12.
 - VinutaKamat, **Basappa C Yallur**, BojaPoojary, Veerabhadragouda B – 'Synthesis, molecular docking, antibacterial, and anti-inflammatory activities of benzimidazolecontaining tricyclic systems', International Journal of the Chinese Chemical Society, 2021/1/27.

Funded project

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

Achievement/s, Awards/Prizes by Faculty & Students

- **Dr. B. M Nagabhushana, Dr. Nagaraju Kottam and Dr. Harikrishna R** listed in AD Scientific Ranking list of 2021 rank based on Google Scholar Citations.

Guest Lectures – Delivered by Department Faculty

- **Dr. B M Nagabhushana** - 'Advances in Solution combustion synthesis (SCS)' Research Orientation Program for Research Aspirants (ROPRA), at MSRIT on 06-02-21
- **Dr. B M Nagabhushana** - 'Nano materials synthesis by low temperature chemical methods', Technical talk series, conducted by RIT by R & D centre, RIT 12-02-21.
- **Dr. B M Nagabhushana** - 'Research Opportunities in Low Temperature Solution Combustion process' FDP, BMSCE, Bengaluru on 17-02-2021.
- **Dr. B M Nagabhushana** – 'The role of youths in village development', on-line talk conducted by 'Unnathi healing Foundation, Bengaluru, 28-06-2021.

DEPARTMENT OF PHYSICS

Publications in (National / International) Journals:

- **R.M. Melavanki**: 'Analysis of Fluorescence Quenching of Coumarin Derivative under Steady State and Transient State Method's, Journal of Fluorescence. January 2021.
- **A. Jagannatha Reddy, G.N. Anil Kumar, D.L. Shruthi** - 'Solid solution of novel $LixByGdEu(WO_4)_2$ (B=Na, K) red phosphors: Influence of Na/K substitution on microstructures, Judd-Ofelt and luminescence properties for WLED applications', Ceramics International, 47, (11), 2021, 16342-16357.

The highest education is that which does not merely give us information but makes our life in harmony with all existence.

- Rabindranatha Tagore

- **G. N. Anil Kumar** – 'Qualitative and Quantitative Study of Intermolecular Interactions in Imidazo[2,1-b][1,3,4] Thiadiazoles', Chemistry Select 2021, 6, 4265
- **R. M. Melavanki** - 'Solvation, rotational dynamics, photophysical properties study of aromatic asymmetric di-ketones: An experimental and theoretical approach', Journal of Molecular Liquids, Volume 337, 2021, 116456.
- **G.N. Anil Kumar, D.L. Shruthi** – 'The nature of the chemical bond in sodium tungstate based on ab initio, DFT and QAIM topological analysis of electron density, Materials' Today proceedings, 44, (2), 2021, 3127-3132.
- **G. N. Anil Kumar** – 'Synthesis, crystal structure, thermal analysis and molecular interactions of bis (3,5-dimethyl-3H-1,2,4-triazole) octamolybdate', Indian Journal of Chemistry, Sec A 60A 669-675.

Paper presentation in National / International Conferences:

- **Kalpana Sharma, Raveendra Melavanki** - 'Analysis of HOMO, LUMO structures and Optical Characterization of Chalcone derivative 5PPD thin Films for Photonic Applications', Sixth International Conference on Advances in Material Science (online) (ICAMS-2021), Raje Ramrao Mahavidyalaya, Jath, Maharashtra, April 2021.
- **Raveendra Melavanki, Kalpana Sharma** – 'Preparation and Optical characterization of PMMA thin films for photonic applications of newly synthesized Chalcone doped derivative (C1) Characterization of Chalcone derivative 5PPD thin Films for Photonic Applications, Sixth International Conference on Advances in Material Science (online) (ICAMS-2021), Raje Ramrao Mahavidyalaya, Jath, Maharashtra, April 2021.

DEPARTMENT OF HUMANITIES

Publications in (National / International) Journals:

- **Dr. Premila D Swamy** - 'The Rhetoric of Body, Disease, and Disability in Indira Goswami's Under the Shadow of Kamakhya', in Literary Voice, A Peer-Reviewed Journal of English Studies, UGC-Care

listed & indexed with Web of Science, Volume-1, ISSN 2277-4521, pp115-119, March-2021.

- **Dr. Premila D Swamy** - 'Negotiating Gender, Performativity and Heterosexual hegemony: A discursive study on Ambai's select short fiction', Drishti: the sight, Biannual UGC Care listed Journal, Volume X, Issue I, ISSN 2319-8281, May 2021.
- **Mr. UdayaKumar. H. M** - 'Impact of Digital Workplace on IT Employees' Performance with reference selected IT companies in Bengaluru city', Shodh Sanchar Bulletin- Journal of Arts, Humanities and Social Sciences, an International Multidisciplinary Quarterly Bilingual Peer-Reviewed, Refereed Research Journal, UGC approved Care listed Journal, Volume 11, Issue 41, ISSN-2229-3620, pp125-131, January-March, 13:03:2021.

Publications- Books:

- **Dr. Premila D Swamy & Mr. Udayakumar. H. M** - 'Communication Skills for Engineers', published by Archers & Elevators Publishing house, Bengaluru, Karnataka, ISBN: 9-788194-988953, May 2021.
- **Dr. Premila D Swamy** - 'Subaltern Studies in Contemporary Indian English Literature', published by Authors Press, New Delhi, ISBN: 978-93-90891-44-3, June 2021.

MASTER OF COMPUTER APPLICATIONS

Publications in (National / International) Journals:

- **Vanitha G, Yogish H K, NiranjanaMurthy M** - 'Taylor based Neuro-Genetic Algorithm for Secure and Energy-aware multi-hop routing protocol' in WSN' Turkish Journal of Computer and Mathematics Education Vol.12 No.11 (May 2021), pp 4506-4515.

Paper presentation in National / International Conferences:

- **NiranjanaMurthy M., Chahar D.** - 'Cuckoo Search Optimization Algorithm and Its Solicitations for Real-World Applications'. International Conference on Innovative Computing and Cutting-edge Technologies, Bangkok, Thailand. Learning and Analytics in Intelligent Systems, vol 21. Springer,

Cham. https://doi.org/10.1007/978-3-030-65407-8_38, April 2021.

- **Nirupama B.K., Niranjanaamurthy M., Asha H** – 'Mobile App for Accident Detection to Provide Medical Aid'. International Conference on Innovative Computing and Cutting-edge Technologies, Bangkok, Thailand. Learning and Analytics in Intelligent Systems, vol 21. Springer, Cham. https://doi.org/10.1007/978-3-030-65407-8_23, April 2021.
- **Suresh H.S., Niranjanaamurthy M** – 'Image Processing Using OpenCV Technique for Real-World Data'. International Conference on Innovative Computing and Cutting-edge Technologies, Bangkok, Thailand. Learning and Analytics in Intelligent Systems, vol 21. Springer, Cham. https://doi.org/10.1007/978-3-030-65407-8_24, April 2021.
- **Nithya B.N., Kumar M** – 'Multi-Criteria Decisions—A Modernistic Approach to Designing Recommender Systems'. International Conference on Innovative Computing and Cutting-edge Technologies, Bangkok, Thailand. Learning and Analytics in Intelligent Systems, vol 21. Springer, Cham. https://doi.org/10.1007/978-3-030-65407-8_20 April 2021.
- **K Sailaja Kumar, D Evangelin Geetha** – 'Recommender System for Information Diffusion', Third International Conference on Intelligent Computing, Information and Control Systems ICICCS 2021 Springer, at Care College of Engineering, Tiruchirappalli, India. 02-03 July 2021.
- **Dr. S. Jagannatha Dr. Niranjanaamurthy M** – 'Proficient implementation of data analysis and sentimental analysis of FIFA-18' International Conference on Computations in Materials and Applied Engineering Uttarakhand- ELSEVIER Materials Today: Proceedings, 3 May 2021.

Guest Lecture delivered by the department faculty

- **Dr. Niranjanaamurthy M** – 'Industry 4.0: A New era of manufacturing and industrial practices', School of Computer Applications, Career Point University, Kota, Rajasthan, 01/03/2021.
- **Dr. Niranjanaamurthy M** – 'AI Applications: E-commerce and Education" Artificial Intelligence: Recent Advances and Future Prospects International Knowledge Development Program. Special Minds,

Bengaluru 22-28 Feb 2021.

- **Dr. Niranjanaamurthy M** – 'Next-generation Innovation in Augmented and Virtual Reality', one-week AICTE-ISTE sponsored Online Induction/Refresher Programme on "Use of ICT in Engineering Education" organized by Dept. of ECE, MSIT, New Delhi. 24th February to 2nd March 2021.
- **Dr. Manish Kumar** – 'Open-Source Tools for Cyber Security' during a 2-day National Level Online Workshop on "Open-Source Tools for Cyber Security" jointly organized by ERNET and NITK Surathkal. 22nd - 23rd March 2021.
- **Dr. Manish Kumar** – 'Information Security' during the 2-day Online Training Program "Information & Network Security" organized by ERNET India, Ministry of Information Technology, Govt. of India. 26th and 27th March 2021.
- **Dr. Manish Kumar** – 'Blockchain Technology and its Applications' during Faculty Development Program organized by St. Joseph Engineering College Mangaluru, India. 4th – 6th March 2021.
- **Dr. Niranjanaamurthy M** – 'Trends in Data Science' Department of Information Science & Engineering, Malnad College of Engineering, Hassan. 11-06-2021.

Funded Project:

- **Dr. Niranjanaamurthy M, Dr. Jagannatha S** – 'Third International Conference on Recent Innovative Trends in Computer Science and Applications' AICTE – AQIS Scheme, India.

Grant: 4 Lakh.

Published - Book:

- **M. Niranjanaamurthy, Siddhartha Bhattacharyya, Neeraj Kumar** – 'Intelligent Data Analysis for COVID-19 Pandemic' SPRINGER Series, Title – Algorithms for Intelligent Systems, ISBN 978-981-16-1573-3, June 2021.

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 MANAGEMENT STUDIES

Publications in (National /International) Journals:

- **Dr. P.V. Raveendra, Dr. Y.M. Satish** - 'Boomerang hiring: Strategy for sustainable development in COVID-19 era', Journal Human Systems Management xx (2021), ISSN: 0167-2533, 2021-IOS Press
- **Dr. A. Mahalakshmi** - 'A study on investment behavior of Demat and trading account holders in Bengaluru city, Historical Research Journal, Cool. 34 (XI), 2021, ISSN: 0976-2132, 103-107.
- **Dr. Vaijanath Babshetti, Dr. Jyothi.E. Singh** - 'A Socio-Economic disruptions of COVID-19 outbreak on selected Asian Countries', Journal of Huazhong University of Science and Technology, ISSN-1671-4512.
- **Dr. T. Mohanasundaram** - 'An Efficient Method for Text Detection and Recognition in Still Images' Annals of R.S.C.B., ISSN:1583-6258, Vol. 25, Issue 3, 2021, Pages. 7408 – 7415.
- **Mrs. S.B. Rashmi** - A study on monitory motivation factors and its impact on job satisfaction' book chapter on "Perspectives on Business Management and Economics, Vol IV, May issue 2021, ISBN: 978-81-951151-2-9

Paper presentation in International /National Conferences:

- **Dr. Rizwana. M** - 'Disruptions on India's FinTech landscape: The 5G wave' in ITM Web of Conferences 37, 01008 (2021).
- **Dr. T. Mohanasundaram** - 'Disruptions on India's FinTech landscape: The 5G wave' in ITM Web of Conferences 37, 01008 (2021).

Guest Lectures Invited:

- **Mr. Rohit Kumar**, Director, Consumer insights, Nielson India- 'How can marketing research help in pricing a product/service' on 01-04-2021.
- **Mr. Ramani Venkat**, Co-founder, Varnaaz Leaders Factory, Bengaluru- 'The Street Hawk MBA' on 24-06-2021.

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

- **Dr. Y.M. Satish** guided student project titled 'Supply Chain for collection and distribution of used cooking oil to Bio diesel production units in Bengaluru City', to Ms. Narmada S., Mr. Kalla Chanikya, Mr. Kushal B., Mr.Aakash G. and the project was sanctioned from KSCST.
- **Dr. G. Vijaya Kumar** guided student project titled 'Feasibility study for implementation of water recycling equipment at Individual houses with specific reference to Kolar and Chikkaballapur districts', to Ms. R. Apoorva, Ms. Swapna K., Ms. Kavya D., Mr. V.S. Darshan Gowda and the project was sanctioned from KSCST.
- **Dr. Arun Kumar D.C.** guided student project titled 'A feasibility study of smart card ticketing services in public transport with reference to Bengaluru City', and the project was sanctioned from KSCST.

ARCHITECTURE



- 5 Day Workshop 'TERRAIN' on Leisure Landscape from 16th to 20th of March 2021 - event had the following speakers: Ar. Sheeraz Zaidi, Prof. Rajshekhar Rao, Ar. Sachin, Ar. Anirban Pal, Ar. Ganesh Rajendran, Ar. Bijoy Chacko, and Ar. Aditi Pai. The event was sponsored by Mahaveer group. The event also included presentations by the alumni Ar. Poornima, Ar. Chaitali and Ar. Neha Rastogi.

Publications in (National / International) Journals:

- **Mahfuzar Rehman, Monalisa Bhardwaj, Shreya Shukla, Gitishree Panda** - 'Strategies to Manage water in HRIDAY Cities using Indian Traditional Knowledge and IoT', Book Chapter: I2DSC, Springer, March 2021

- **Jotirmay Chari, B Shankar** - 'Effect of Well-being on People Surrounding the Airport Corridor using Predictive Analysis on Road Accident Correlation', International Journal of Recent Technology and Engineering", Volume-9 Issue-6, (2021), pp. 121-126
- **Sheethal B.S, Meghana K. Raj, Divya Susanna Ebin** - 'Review of the Physical Infrastructure of the UNESCO site of Aurangabad, Maharashtra', MAT journals, Volume 6 Issue 1, (2021).

Paper presentation in National / International Conferences:

- **Dr. Monalisa Bhardwaj, Sudha Kumari** - 'Spatio-Temporal Efficacy of Street forms on preserving domesticity of historic built environments', 10th Seminar on ISVS, SPA Bhopal, Feb 2021.
- **Surekha Ramineni, Dr. Monalisa Bhardwaj, Tejaswini H** - 'Integrated Water Systems in Vernacular Built Forms: Temple City of Melukote, Karnataka', 10th Seminar on ISVS, SPA Bhopal, Feb 2021
- **Surekha Ramineni, Dr. Monalisa Bhardwaj, Tejaswini H** - 'Placemaking Approach in Revitalizing Cultural Tourism in Temple Towns: Case of Melukote, Karnataka', 11th ACLA- Asian Cultural Landscape Association- International Webinar - Cultural Landscapes, Sacredscapes & Heritage Cities of Asia, Department of Design, Arts College, Nanjing, China, June 11-12, 2021
- **Monalisa Bhardwaj, Sudha Kumari** - 'Characterization of Hoysala Temples through Cognitive mapping: Sacred Cultural Landscapes of South Karnataka' 11th ACLA- Asian Cultural Landscape Association- International Webinar - Cultural Landscapes, Sacredscapes & Heritage Cities of Asia, Department of Design, Arts College, Nanjing, China, June 11-12, 2021

Guest Lecture/s - Invited

- **Ar. Satej Alur, Aur & Associates, Bengaluru** - Water Supply and Sanitation in Multi storied Buildings - held on 4th Feb. 2021.
- **Dr. Ganesh Babu** - I-AIMS, Health Care Center, Doddaballapur Rd, Bengaluru - 'Elements of Planting Design', held on 24th march 2021.

Achievement/s, Awards/Prizes by Students:

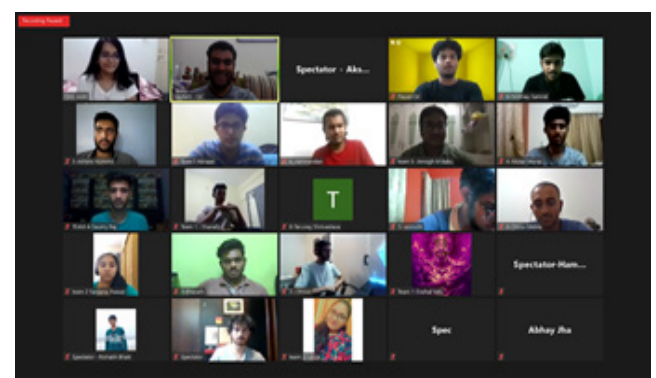
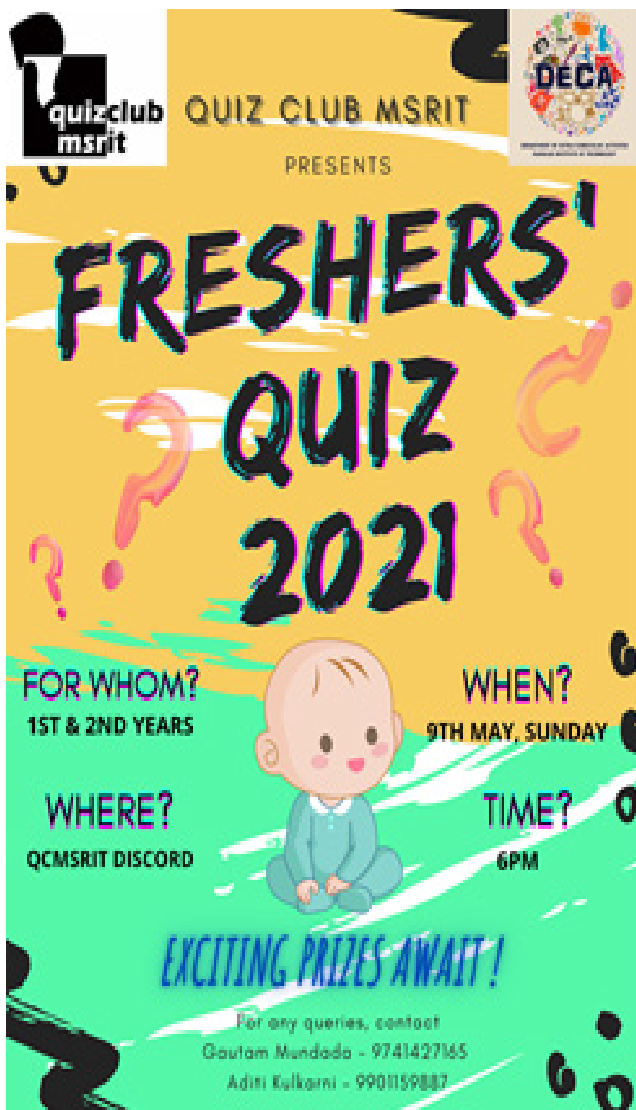
- **Aadhya Hegde** - from 1'S' won 3rd place in the National level art competition organized by MA'AM group on January 24th 2021.
- **Sanghamitra Saha** - from 4'T' exhibited her Photographs in Art and Photography exhibition organized by Tobu Ovimaan Artist's Group in Nazrul Tirtha, West Bengal from 13th to 14th Feb 2021.



- **Aditi Srinath** - from 6 'S' won the Best Adjudicator at the NIT Durgapur Asian Parliamentary Debate 2021 from 19th to 21st March 2021.
- **Aditi Srinath** - from 6'S' participated in the Writing Architecture Trophy (national level) conducted by NASA (National association of students of Architecture) and got shortlisted for top 39.
- **Aditi Kulkarni** - from 6 'S' Won 2nd place at The Tech Nerd Quiz hosted by IEEE RITB as a part of Women in Engineering Technodium- 2021 on 21st March 2021.
- **Prerana Rai** - from 8'T' secured the invited adjudicator position in the event Bits Pilani Parliamentary Debate during APOGEE 2021 held at Birla Institute of Technology and Science, Pilani on 20th and 21st March.
- **Aditi Kulkarni** from 6 'S' won 2nd place at the National SPENT Quiz conducted at the fest InBloom, Christ (Deemed to be University) on 9th April 2021. She also served as Quiz Master for 'Freshers' Quiz'

(9/5/21) and 'Motorsport Quiz' (12/6/21) on behalf of Quiz Club MSRIT. The quizzes had a turnout of 120+ and 60+ participants respectively.

- **Sanghamitra Saha** - from 4'T' was part of the National Level Group Art Exhibition with Tobu Ovimaan Artist's Group in Karnataka Chitrakala Parishath from 9th to 11th April 2021.
- **Sanghamitra Saha** - from 4'T' was invited for a virtual interview by Jayesh Vlog Zone on his YouTube channel on 3rd June 2021.
- **Sanghamitra Saha** - from 4'T' was invited to attend a webinar on 12th June conducted by FTII to pay homage to Satyajit Ray on his Birth Centenary. It had esteemed guests like Sharmila Tagore, Aparna Sen, Arunaraje Patil, Amit Tyagi, Anant Mahadevan, Samik Bandyopadhyay, and K. Hariharan.



ENTREPRENEURSHIP DEVELOPMENT CELL

- The orientation program for First year BE students (Ice breaker) was conducted on 18-03-2021
- Sathya Pramod** CEO KayEss Square Consulting Private Limited - The EDC , R.I.T along with NGO i Love To Care (India) Charitable Trust (ilovetocare.org) conducted an online entrepreneurship "Triggering the young minds towards innovative entrepreneurship" on 20-05-2021.
- Mr. Arpit Gupta** - an online workshop to help beginners in stock market investment with few strategies to decide how to buy and sell stocks on 26-05-2021.
- Utkarsha, Morgan, Nishith, Amazon and Shubham, Dover:** "Placements Talks"- The student members of E-Cell Ramaiah would conducted a discussion with the current final year students who have been placed in top companies which have been coming to our campus and enable the students towards preparations for placements with clarity and focus of what methods used for the efficient preparation. 18-06-2021.

LIBRARY AND INFORMATION CENTRE

Publications in National / International Journals

- Dr. M. Ebenezer Selvakumar** - 'Understanding The Reading Strategy And Library Usage Among Faculty Members of Ramaiah Institute of Technology, Bengaluru: An Analytical Study', International Journal of Engineering Technology Research & Management, Vol No.05 Issue - 02, (2021), 22-31.
- Dr. M. Ebenezer Selvakumar** - 'Newspaper Reading Habits Among Postgraduate Students of Ramaiah Institute of Technology, Bengaluru' International Journal of Engineering Technology Research & Management, Vol No.05 Issue-02, (2021), 32-38.

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

- Buddha

MSRIT ALUMNI ASSOCIATION

- Laptops were distributed to meritorious and needy students during the program conducted on 25.03.2021. The President MSRITAA Sri. Tallam Venkatesh donated 10 laptops, a total of 22 laptops were distributed. Internet recharge to 135 students of the Institute for duration of five months have been provided by the association to facilitate attending online classes.



- The Alumni Association Awards Merit and Means Scholarships considering 70% weightage to the Merit and 30% to the Means. The distribution of Scholarships to these 60 students was conducted in a function on 25th March 2021 at 3.00 pm in the Institute. President MSRIT Alumni Association Sri Tallam Venkatesh and other Office Bearers and Committee members were present during the program.



Project Funding

- The association provided funding of Rs 2.035 lakh only towards 31 UG and PG project work, across all departments.

PLACEMENT & TRAINING

The main Highlights – 2021 batch

- 574 companies visited and 1185 offers
- Highest package: Mu Sigma 30 LPA
- Highest Stipend: Morgan Stanley 87,000/- per month

NEW APPOINTMENTS

Department of Electrical & Electronics Engineering



Dr. Rojalin Pradhan, joined as Assistant Professor at EEEE, she finished her B.E from Kalinga Institute of Industrial Technology, Orissa. She has completed her M.E from Asian Institute of Technology, Thailand and Ph.D from IIT Delhi.

Her Research interest is Digital Transformation, Health Communication, Technology adaptation and impact.

Department of Civil Engineering



Dr. Tarikere R NisarAhamed - joined MSRIT on 01/01/2021 as Associate Professor in the Department of Civil Engineering. Obtained his M.Tech from NITK and Ph. D from Indian Institute of Technology, Bombay. Has more

than 20 years of industry experience on practical GIS application development, analysis and implementation in many domains such as utility infrastructure management, water transmission system, urban development & resource optimization at Enterprise level, Spatial Data Infrastructure Implementation, Smart Cities, 3D BIM projects.

Department of Industrial Engineering & Management



Mr. E.R. Badareesh, Ex Vice President, M/S. ACE Foundries, B'lore joined as a visiting faculty of IEM Department. His areas of expertise include Machine Tools, Supply Chain Management, Production Management, 5S, Systems Management, Total Productivity Management, Human Resources & Business Excellence. He has been instrumental in winning many accolades for the organization and some of the awards to mention are: Commitment to Business Excellence, Jayaswalneco Quality Award in the year 2015, Albertus HA Green field award in 2016, Casting of the year Award in 2018, Gold and Excellence category QC awards in 2019 and 5s Excellence Award in 2019. He has made immense contributions through professional bodies – Quality Circle Forum of India, ABK, AOTS, NAAC, IIF and Confederation of Indian Industry.

Department of Management Studies



Dr. M. R Shollapur had joined as Professor and Head, Department of Management Studies, RIT. He has rendered 37 years of service at Siddaganga Institute of Technology, Tumakuru, Karnatak University, Dharwad and Lewis College of Business, Marshall University, Huntington (USA), among others. Dr. M.R. Shollapur completed his Masters in Commerce and PhD in Finance from Karnatak University, Dharwad. He was also a visiting research scholar to Indiana University of Pennsylvania, USA. He visited Oxford University (UK) for Conference presentation. The primary areas of teaching and research includes Finance and Accounting.

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

- A.P.J. Abdul Kalam

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.

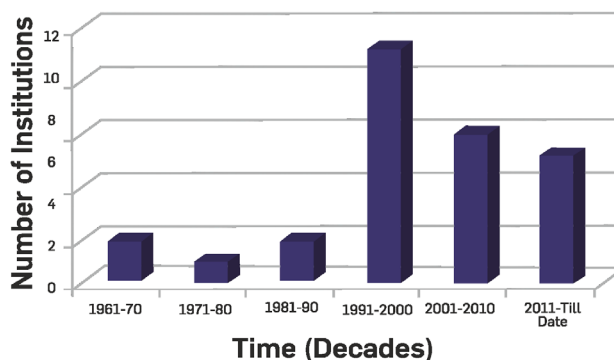
Various Educational Institution under Gokula Education Foundation (GEF)

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

RAMAIAH INSTITUTE OF TECHNOLOGY

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