



KSIT
K.S. INSTITUTE OF TECHNOLOGY

Kammavari Sangham (R) 1952
K.S.Group of Institutions

K. S INSTITUTE OF TECHNOLOGY

No.14, Raghuvanahalli, Kanakapura Road, Bengaluru - 560109

Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi, Accredited by NBA , NAAC & IEI



**CHINTHANA
MANTHANA**

IN THIS EDITION

- Happenings at KSIT
- Student Achievements
- Alumni Meet
- Campus Update
- Library
- Industrial Visit
- Campus Events
- Sports
- Toppers List
- Faculty Achievements

**THINK BEYOND
IMAGINATION**



VOLUME 15

**JAN - DEC
2021**

VISION

- To impart quality technical education with ethical values, employable skills and research to achieve excellence.

MISSION

- To attract and retain highly qualified, experienced and committed faculty.
- To create relevant infrastructure.
- Network with industry and premier Institutions to encourage emergence of new ideas by providing research and development facilities to strive for academic excellence.
- To inculcate the professional and ethical values among young students with employable skills and knowledge acquired to transform the society.



Sri. R. Rajagopal Naidu
President



Sri. R. Leela Shankar Rao
Hon. Secretary



Sri. T. Neerajakshulu Naidu
Treasurer

As the Semester comes to a close and our minds shift towards focusing on exams, it's good to look back and reflect on what we have achieved in the college. The college newsletter is a mirror to the success story of the Institution and acts as a great medium to reach out to the outer world. It is a matter of pride to make mention that KS Institute of Technology is now an NBA accredited Institution. Three departments namely the Computer Science and Engineering, Electronic and Communication Engineering and Mechanical Engineering got the coveted accreditation for 3 years. We congratulate the NBA team and the entire college for their effort. We are happy to note that the 15th edition of the college Newsletter is ready. It reflects the consistent and persistent efforts of the faculty, staff and students alike in taking this institution a step ahead. We congratulate the editorial board of the news letter and the student co-ordinators for their fruitful effort. We wish the student's luck.

With best wishes for all your endeavours

MANAGEMENT

The Management, Advisory committee, staff and students of KSIT are very pleased to welcome their new Principal Dr. Dilip Kumar K.



Dr. K V A Balaji
CEO

It is a matter of delight that KSIT is bringing out the 15th Volume of its NEWS LETTER and the Editorial Team is deeply engrossed in portraying all the activities held during the last academic year. The whole world was busy recovering from the pandemic that has affected each and every one directly or indirectly. The teaching learning activity at KSIT has also been affected and there has been a lot of learning on the part of teachers as well as students to adapt to the available online technologies but yet continue to learn. This shift in learning has never dampened the spirit of KSIT in organizing various platforms to learn more than what is required and to mould themselves into better professionals. We are happy to note that the 15th edition of the college Newsletter is ready. It reflects the consistent and persistent efforts of the faculty, staff and students alike in taking this institution a step ahead. We congratulate the editorial board of the news letter and the student co-ordinators for their fruitful effort. We wish the student's luck.

I whole heartedly congratulate the entire team of staff and students for all their efforts in keeping the flag of KSIT high and wish them the very best in all their academic endeavors.

I am very happy to meet you through this page, we have a reputation of maintaining vibrancy by creating an environment where students can cultivate their prosperity.

Happy to note the release of the 15th edition of **CHINTANA-MANTHANA**. I take this opportunity to congratulate the editorial team for this dedicated and wonderful efforts of theirs's. Newsletter gives you an insight about the activities conducted and attended by students and faculty alike in campus and off campus.

The past years has been one of the toughest phases the world has seen. The covid-19 situation brought almost everything to a standstill, yet I am glad that we did not succumb to the situation and gave our best. I encourage and wish my staff to continue their excellent work and wish the students to give their best.

Good luck



Dr. Dilip Kumar K
Principal / Director

DEPARTMENT OF AIML

About the Department of AIML



Dr. Ram P Rustagi
HOD

The Department of AIML@KSIT ushers a fresh methodology of teaching with its well qualified, experienced and committed faculty to provide Industry relevant education to students. AI and ML has its roots in Computer Science. It is an area where work has been happening for many decades. The last ten years or so has seen a lot of powerful technologies, like high power computers, fast communication, and ability to handle big documents in short time frames. These have contributed to AI/ML moving out from being a research area to one with many practical applications. These include Retail, Logistics, Robotics, Consumer services (chatbots), Healthcare, Transport, Education, Defence, Drones, Cybersecurity, Sports, etc. Essentially, every walk of life is going to increasingly benefit from AI/ML applications. As a result, AI/ML has become a discipline of its own.

Learning the fundamentals and some applications of AI/ML technologies results in immediate and handsome payoff. This course is a great career catalyst for professionals and is most sought after today because of availability of immense opportunities. The dept can boast of most experienced faculty. The department has embraced Open Book Exams for its internal tests as recommended by AICTE Approval Process Handbook 2021. The dept emphasizes on team-based assignment conduction to enable students to interact among themselves and learn the skills of working together inculcating team spirits. On successful completion of the AI/ML course, the students will gain a strong foundation to remain relevant in ever changing job market. For these students, placement opportunities are going to be huge and, most likely, these students will have multiple offers and their dilemma would be "which one to choose and which one to reject (a good problem to have)".

The Dept of AIML was formally inaugurated on Oct 12, 2021.

VISION

- Harness students' creativity and self-belief to be successful global professionals with human touch.

MISSION

- Use experiential learning approach to empower students with fundamentals of theory and practice.
- Enable students to solve real life problems both at national and international level.
- To promote entrepreneurship among students so as to be job creators.

MOUs

- **Memorandum of Understanding** between Personal Air Quality Systems(PAQS) and KSIT for Collaborative R&D in the area of Personal Health and Wellbeing entered on 29th of October 2021 by signing the MOU Principal, Dr. Dilip Kumar K and CEO of PAQS Mr. A. Vaidhyanathan.

LATEST TECHNOLOGY

AIML itself is a new course started by VTU under the Computer Science Umbrella.

The application of AIML includes in many areas such as Retail, Logistics, Robotics, Consumer services (chatbots), Healthcare, Transport, Education, Defense, Drones, Cybersecurity, Sports, Agriculture, Economics, Finance Management, Handwriting recognition, Speech recognition etc.

Machine Learning(ML) Helps Target Cancer Patients for Immunotherapy

Approach Could Reduce Dangerous, Costly Treatment Failures

Immunotherapies are one of the most hopeful developments in the fight against cancer, leveraging people's own immune systems to conquer previously inoperable, advanced disease. Stunning successes have propelled some of these drugs to become standard treatments, even though most of them only work for a minority of patients—sometimes less than 20 percent—while carrying significant side effects and high price tags.

Mark (Max) Leiserson, an assistant professor of computer science at the University of Maryland, and colleagues from Microsoft Research and Memorial Sloan Kettering Cancer Center are developing a new approach that uses a branch of artificial intelligence known as machine learning to cast a narrower net, better targeting immunotherapy treatment to those who will benefit.

PUBLICATIONS BY FACULTY

- Dr. Ram P Rustagi published a paper titled “GALA: A Gamified Approach To Learning Algorithms” in *Advanced Computing and Communications*, Issue 3 September, 2021.
<https://journal.accsindia.org/show.article.php?id=113>

AWARDS

The Association for Computing Machinery (ACM) is a US-based international learned society for computing. It was founded in 1947 and is the world's largest scientific and educational computing society.



Dr. Ram P Rustagi has bagged the prize conducted by ACM ISIGCSE during the COMPUTE'21 conference presentations: November 18-20, 2021.

Title of the presentation: Gamified Approach to Learn Algorithms – BinSearch, Algorithm.

Citation:

“Teaching is a hard task. There are a very few gifted teachers who can make any course interesting. You could be one of them. Your lectures could inspire others to love the teaching profession and perform better. We have identified several challenges in teaching Data Structures, Algorithms, Databases, and Operating Systems courses. We want to know your creative ways of addressing these challenges!”

STUDENTS ACTIVITY

- Nishitha S, bearing USN 1KS20AI028 participated in inter college kabbadi conducted by the VTU during December 16th, 17th and 18th 2021.
- The following students participated in the NSS activities part of SWACHA-BHARAT movement and cleaned near campus on 7th December 2021.

Yogitha.S – 1KS20AI047, Ananya.P – 1KS20AI003, Priyanka A H-1KS20AI032 Rakshita P K-1KS20AI033. D i s h a G u p t a - 1 K S 2 0 A I 0 1 1 , B H A V A - NASHREE.KS-1KS20AI005 Rithika C M – 1KS20AI006, Tejaswini M L – 1KS20AI042, Shruthi S Kandra - 1KS20AI037 M. Divya shree – 1KS20AI020, Rupa Rajasri Puthineedi – 1KS20AI034, and Tanmayee R-1KS20AI041

DEPARTMENT ACTIVITY

- Five guest lectures were conducted by AIML Department during October – December’ 2021. The Speakers include eminent personalities from Academic and Industry including Alumni such as Mr. Sourav, Mr. A Vaidhyathan, Mr. Mahendra Bhasyam, Prof. Dr. K V A Balaji and Prof. K K Subramaniam.



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

About the Department



Dr. Rekha B Venkatapur
HOD

The department has a team of highly experienced, committed and eminent faculty members. All the Faculty members are well qualified and competitive enough in preparing the young minds for global competition with an enormous support from the Head of department as well the management. Students of CSE department are highly motivated and ready for IT Industry with hands on experience on current technologies/programming languages. The department is accredited by NBA in the year 2021. In VTU results students are getting ranks and are working with reputed companies with higher salary packages. The students are actively participating in Hackathons and other coding contest at the International, National and State level and making their foot prints. Our mission is to inculcate strong theoretical and practical knowledge for continuous learning and prepare students to find Computer Solutions for the society through research and entrepreneurship with Professional ethics, encourage teamwork in inter-disciplines and evolve as leaders with social concerns. The Department of CSE is striving hard towards the goal of providing innovative and quality education with high standard to achieve academic excellence and provides platform for the students to achieve their career goals. Several patents have been filed by the Department faculties. The students of the department are exposed to industry environment and they have high inclination towards entrepreneurship and research. A large number of alumni are pursuing higher studies/research in India as well as abroad in reputed universities. Staff and students are members of Professional bodies like IEEE, CSI, ISTE, BITES and IEI where the faculty members and students are encouraged to publish research papers in reputed journals, participate in Faculty Development Programs and workshops through a well-supported system. The department preserves its achievements and publish its all activities by bi – annual magazine 'CS-GYANBYTES'.



VISION

- “To create competent professionals in Computer Science and Engineering with adequate skills to drive the IT industry”

MISSION

- Impart sound technical knowledge and quest for continuous learning.
- To equip students to furnish Computer Applications for the society through experiential learning and research with professional ethics.
- Encourage team work through inter-disciplinary project and evolve as leaders with social concerns.

MEMORANDAUM OF UNDERSTANDING

- MOU between Niladvantage Technologies Pvt Ltd. and KSIT was signed on 2nd May 2021 providing Student Internship Programme from Faculties/Guides, Training on technologies, Exposure and work on real time projects with program titled “Java Developer/Software Associate/React Developer” and this MOU is valid from 2nd May 2021 – 4th May 2025.
- MOU between Princeton Smart Energies and KSIT was signed on 30th September 2021 providing Student Internship Programme from Faculties/Guides, Training on technologies, Exposure and work on real time projects with program titled “Introduction to Machine Learning with Python, Cyber Security, Full Stack Development” and this MOU is valid from 30th September 2021 – 29th September 2025.
- MOU between Savory Minds Pvt Ltd. and KSIT was signed on 20th September 2021 providing Student Internship Programme from Faculties/Guides, Training on technologies, Exposure and work on real time projects and this MOU is valid from 20th September 2021 – 19th September 2022.

DEPARTMENT WELCOMES



Ms. Swapna Gopala Jois, Assistant Professor
Mr. Manoj Kumar S, Assistant Professor
Ms. Geetha R, Assistant Professor
Ms. Pallavi K N, Assistant Professor
Ms. Rashmi H, Assistant Professor
Ms. Pavithra J, Assistant Professor
Ms. Akshatha M, Instructor
Ms. Lokamani, Instructor
Ms. Geetha T, Instructor

LATEST TECHNOLOGY

BLOCKCHAIN TECHNOLOGY

Blockchain is the backbone Technology of Digital Cryptocurrency BitCoin. The blockchain is a distributed database of records of all transactions or digital event that have been executed and shared among participating parties. Each transaction verified by the majority of participants of the system. It contains every single record of each transaction. BitCoin is the most popular cryptocurrency an example of the blockchain. Blockchain Technology first came to light when a person or Group of individuals name 'Satoshi Nakamoto' published a white paper on "BitCoin: A peer to peer electronic cash system" in 2008. Blockchain Technology Records Transaction in Digital Ledger which is distributed over the Network thus making it incorruptible. Anything of value like Land Assets, Cars, etc. can be recorded on Blockchain as a Transaction.



HOW BLOCKCHAIN WORKS?

One of the famous use of Blockchain is Bitcoin. The bitcoin is a cryptocurrency and is used to exchange digital assets online. Bitcoin uses cryptographic proof instead of third-party trust for two parties to execute transactions over the internet. Each transaction protects through digital signature.

DISTRIBUTED DATABASE:

There is no Central Server or System which keeps the data of Blockchain. The data is distributed over Millions of Computers around the world which are connected with the Blockchain. This system allows Notarization of Data as it is present on every Node and is publicly verifiable. Node gets connected with Blockchain using the client. Client helps in validating and propagates transaction on to the Blockchain. When a computer connects to the Blockchain, a copy of the Blockchain data gets downloaded into the system and the node comes in sync with the latest block of data on Blockchain. The Node connected to the Blockchain which helps in the execution of a Transaction in return for an incentive is called Miners.

DISADVANTAGES OF CURRENT TRANSACTION SYSTEM

- Cash can only be used in low amount transaction locally.
- Huge waiting time in the processing of transactions.
- Need to third party for verification and execution of Transaction make the process complex.
- If the Central Server like Banks is compromised, whole System is affected including the participants.
- Organization doing validation charge high process thus making the process expensive.

BUILDING TRUST WITH BLOCKCHAIN

Blockchain enhances trust across a business network. It's not that you can't trust those who you conduct business with its that you don't need to when operating on a Blockchain network. Blockchain builds trust through the five attributes: Distributed network, Security, Transparency, Consensus-based and Flexibility. Benefits of Blockchain Technology are time-saving, cost-saving and tighter security.

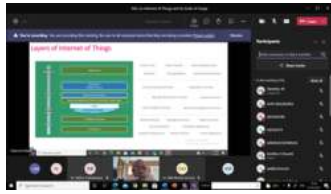
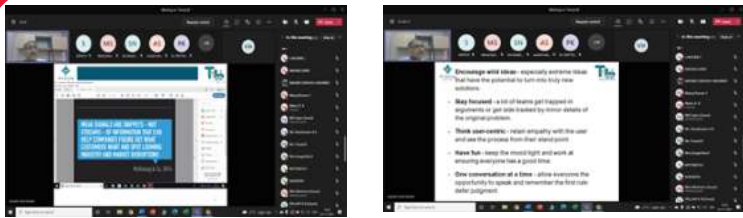
EVENTS CONDUCTED

- The Department of Computer Science and Engineering organized a talk on "**Entrepreneurship**" by EDC cell in association with Alumni and was delivered by Mrs. Kavitha Shenoi on 26th November 2021.



Mrs. Kavitha Shenoi delivering talk to the Participants.

- The Department of Computer Science and Engineering in association with BITES Organized Distinguished Guest Lecture on "**Design Thinking and Innovation**" on 24th November 2021.



Screenshots of presentation on Design Thinking and Innovation

- The Department of Computer Science and Engineering in association with BITES Organized Distinguished Guest Lecture on **“Internet of Things and its Scale of Usage”** by Mr. Rajarama Nayak, Head Connected Consumer Products and Solutions, IoT Unit, Tata Consultancy Services, Bengaluru on 1st September 2021.
- Webinar on **“Design Innovation for Successful Career in the Field of Aviation”** was conducted by Mr. Dhanish Abdul Khader Space Systems Engineer, S S Technologies Bangalore on 17th July 2021.
- Webinar on **“Artificial Intelligence & Machine Learning”** was conducted by Dr. Nalini N on 3rd June 2021.



Dr. Nalini N presenting webinar on Artificial Intelligence & Machine Learning

- Internship awareness program was conducted by Key Speaker Mr. Niranjana Balaji, Director, Rapsol Technologies on 28th May 2021.
- Internship talk was conducted on **“Skill Development”** by Mr. Aditya S K, Director Tequed labs on 18th May 2021.
- Internship Opportunities was conducted by Key Speaker Mrs. Farheen, Director, Princeton on 12th May 2021.
- The Department of Computer Science and Engineering in association with IEI organized webinar on **“Benefits and Opportunities with GATE”** was conducted by Mr. Akash Pushkar (M.Tech from IIT Kanpur) Industry Data Scientist, Accenture on 17th April 2021.

EVENTS ATTENDED BY FACULTY

- Ms. Pallavi K N attended online Faculty Development Programme on **“An Overview of Teaching Techniques in Innovation & Design Thinking”** organized by VTU Human Resource Development Centre (VTU-HRDC), VIAT, Muddenahalli, Chikkaballapur from 27th - 31st December 2021.
- Ms. Rashmi H attended online Faculty Development Programme on **“An Overview of Teaching Techniques in Innovation & Design Thinking”** organized by VTU Human Resource Development Centre (VTU-HRDC), VIAT, Muddenahalli, Chikkaballapur from 27th- 31st December 2021.
- Dr. Deepa S R attended online Faculty Development Programme on **“Artificial Intelligence and Machine Learning”** organized by R.N.S. Institute of Technology from 29th September - 1st October 2021.
- Mr. Manoj Kumar S attended an online Workshop on **“Software Defined Networks and its Applications”** organized by the IEEE Computer Society, RVCE Student Chapter from 27th September – 1st October 2021.
- Ms. Beena K attended online Faculty Development Programme on **“Mathematics in AI, ML and DL for Faculty & Practitioners”** organized by K.L.E. Institute of Technology, Hubli from 1st - 5th September 2021.
- Dr. Vijayalaxmi Mekali attended online Faculty Development Programme on **“Current Era – A Technology Driven Digital Transformation in Industry 4.0”** organized by department of ISE, S.J.B. Institute of Technology, Bengaluru from 30th August - 4th September 2021.
- Ms. Beena K attended online Faculty Development Programme on **“Feature Engineering in Data Science & Deep Learning Models”** organized by Global Academy of Technology from 25th - 29th August 2021.
- Ms. Ranjitha K N attended online Faculty Development Programme on **“Feature Engineering in Data Science & Deep Learning Models”** organized by Global Academy of Technology from 25th - 29th August 2021.
- Dr. Vijayalaxmi Mekali attended online Faculty Development Programme on **“Research Innovation & Recent Trends in Electrical & Electronics Engineering”**, organized by S.J.B. Institute of Technology, Bengaluru, from 16th - 20th August 2021.
- Ms. Sougandhika Narayan attended online Faculty Development Programme on **“Research Innovation & Recent Trends in Electrical & Electronics Engineering”**, organized by S.J.B. Institute of Technology, Bengaluru, from 16th - 20th August 2021.

- Ms. Beena K attended online Faculty Development Programme on **“Research Innovation & Recent Trends in Electrical & Electronics Engineering”** organized by S.J.B. Institute of Technology, Bangalore from 16th - 20th August 2021.
- Ms. Ranjitha K N attended online Faculty Development Programme on **“Research Innovation & Recent Trends in Electrical & Electronics Engineering”** organized by S.J.B. Institute of Technology, Bangalore from 16th - 20th August 2021.
- Dr. Vijayalaxmi Mekali attended online Faculty Development Programme on **“Emerging Trends in Computation”** organized by Ramaiah Institute of Technology in association with CISCO system (India) Private Limited, Bangalore from 2nd - 6th August 2021.
- Dr. Vaneeta M attended online Faculty Development Programme on **“Emerging Trends in Computation”** organized by Ramaiah Institute of Technology in association with CISCO system (India) Private Limited, Bangalore from 2nd - 6th August 2021.
- Dr. Vijayalaxmi Mekali attended online IOT and Robotics Workshop **“Learn to Build the Future”** organized by WilSkillSolutions and Hapy Edutech in collaboration with HKBK college of Engineering, Bangalore from 30th July - 1st August 2021.
- Dr. Vaneeta M attended online Faculty Development Programme on **“Practical Insight into Key Concepts of Blockchain”** organized by AICTE Training and Learning (ATAL) Academy in collaboration with Ramaiah Institute of Technology from 12th July-16th July 2021.
- Mr. Kumar K attended online Faculty Development Programme on **“Multi – Technology”** organized by Dr. Rajendra Gode Institute of Technology & Research, Amaravati from 28th June - 3rd July 2021.
- Mr. Kumar K attended online STTP on **“Emerging Trend in Cyber Security and Data Science”** organized by Dr. Rajendra Gode Institute of Technology & Research, Amravati, Maharashtra from 15th - 19th June 2021.
- Ms. Sougandhika Narayan attended online Faculty Development Programme on **“Advance Concepts on Networking and Linux”**, organized by E & ICT Academy, IIT Kanpur from 31st May - 5th June 2021.
- Mr. Harshavardhan J R attended online Faculty Development Programme on **“Android Development”** organized by E & ICT Academy, IIT Kanpur from 26th April - 1st May 2021.
- Mr. Harshavardhan J R attended a Faculty Development Programme on **“Mobile Application Development”** organized by Cambridge Institute of Technology, Bangalore on 8th - 9th March 2021.

- Mr. Raghavendrachar S attended a Faculty Development Programme on **“Mobile Application Development”** organized by Cambridge Institute of Technology, Bangalore on 8th - 9th March 2021.
- Ms. Beena K attended a Faculty Development Programme on **“Mobile Application Development”** organized by Cambridge Institute of Technology, Bangalore on 8th - 9th March 2021.
- Mr. Prashanth H S attended a Faculty Development Programme on **“Mobile Application Development”** organized by Cambridge Institute of Technology, Bangalore on 8th - 9th March 2021.
- Mr. Aditya Pai H attended a Faculty Development Programme on **“Mobile Application Development”** organized by Global Academy of Technology, Bangalore from 15th - 17th March 2021.
- Dr. Deepa S R attended online Faculty Development Programme on **“Artificial Intelligence”** organized by AICTE Training and Learning (ATAL) academy from 22nd - 26th February 2021.
- Dr. Deepa S R attended online Faculty Development Programme on **“Cyber Security”** organized by AICTE Training and Learning (ATAL) Academy from 8th -12th February 2021.

PUBLICATIONS BY FACULTIES

- K.K Kavitha and Dr. Rekha B Venkatapur, **“A Literature Survey on various Lossless and Lossy Data Compression Techniques”**, Journal of Chengdu University of Technology, vol. 26, no. 9, ISSN-1671-9727, Sept 2021.
- V Mekali and Girijamma H A, **“Fully Automatic Detection and Segmentation Approach for Juxta-Pleural Nodules from CT Images”**, International Journal of Healthcare Information Systems and Informatics, IGI Global, ISSN: 1555-3396, vol. 16, no. 2, pp. 87-104, April 2021.
- S. R. Deepa and Rekha D, **“Cluster Optimization in Wireless Sensor Network based on Optimized Artificial Bee Colony Algorithm”**, IET Networks-Wiley, vol.10, pp. 295-303, 21st March 2021.
- Vaneeta Mani, Sangeetha. V and S. Swapna Kumar **“Efficient Two-Layer Image Protection with Wavelet Transform Compression”**, Innovative Data Communication Technologies and Applications, Springer Nature Singapore, Lecture Notes on Data Engineering and Communications Technologies book series (LNDECT), Chapter 37, vol. 59, Feb 2021, pp. 433-448, Print ISBN: 978-981-15-9650-6, Online ISBN: 978-981-15-9651-3.

- Vaneeta Mani, Sangeetha. V, Piyush Kumar Pareek and S. Swapna Kumar “**Efficient Intrusion Detection of Malicious Node using Bayesian Hybrid Detection in MANET**”, IOP Conference Series: Material Science and Engineering, Online ISSN: 1757-899X, 2021, Print ISSN: 1757-898.

ACHIEVEMENTS BY FACULTY

PAPER REVIEWER

- Dr. Deepa S R, Reviewer of manuscript with title “**Interference Minimization and Proportional Fairness Scheduling in D2D Communication Networks using Multi-Objective Gradient Based African Buffalo Optimization Algorithm**” for the Peer reviewed Scopus Indexed Journal-Wireless Networks, Springer August 2021.
- Dr. Deepa S R, Reviewer of manuscript with title “**Timer Based Optimized Clustering for Lifetime Enhancement**” for the Peer reviewed Scopus Indexed Journal-Wireless Networks, Springer January 2021.

AWARDS

- Dr. Deepa S R, Received “**Pratibha Puraskara Award**” from Karnataka Arya Vysya Mahasabha, Shivamogga District, Karnataka on 26th December 2021.

INVITED TALK

- Dr. Ram P Rustagi, Professor given a talk on “**Overview of Computer Networks**” at K S Polytechnic, Bangalore on 22nd March 2021.
- Mr. Kumar K, Assistant Professor given a talk on “**R Programming**” at K S Polytechnic, Bangalore on 22nd March 2021.
- Ms. Beena K, Assistant Professor given a talk on “**Artificial Intelligence and Machine Learning**” at K S Polytechnic, Bangalore on 22nd March 2021.
- Mr. Raghavendrachar S, Assistant Professor given a talk on “**Python Programming**” at K S Polytechnic, Bangalore on 10th March 2021.
- Mr. Prashanth H S, Assistant Professor given a talk on “**Artificial Intelligence and Machine Learning**” at K S Polytechnic, Bangalore on 10th March 2021.

RECOGNITION

- Dr. Rekha B Venkatapur appointed as a member of “The Board of Studies in Computer Science and Engineering (CSE/ISE)” of Visvesvaraya Technological University, Belagavi for the duration 2019-2022 and prepared **CSE, AI-DS UG syllabus** and submitted to BoS chairman. She also completed VTU Ph. D Course work syllabus setting for Computer Science and Engineering - group (1-6) for the academic year 2020-2023.

- Dr. Rekha B Venkatapur is Doctoral Committee Member of VTU research centers such as BMS College of Engineering research center, Dayananda Sagar College of Engineering, East West Institute of Technology, J S S Academy of Technical Education, K S School of Engineering and Management, K S Institute of Technology, Bangalore

- Dr. Ram P Rustagi appointed as a “Chairman/Member of Constitution of Board of Examiners” of Visvesvaraya Technological University, Belagavi for the duration 2020-2021.

- Dr. Ram P Rustagi, Professor and KRP, KSGI is a Chief Technical Advisor/Consultant. He provides Technical Guidance in Engineering Design and Development for Funding Agency - Personal Air Quality Systems (PAQS) Pvt Ltd, for the duration of one year.

PATENTS BY FACULTY

- Dr. Deepa S R and Dr. Vaneeta M, Title of Invention “**Ceiling Fan**” design patent, Patent Office Government of India, applied on 26th October 2021 and granted with Design No 352085-001.
- Dr. Deepa S R, Title of Invention “**Method for Plant Disease Detection using Machine Learning and methods Thereof**”, Patent Office Government of India, applied on 12th March 2021 with IPR No. 202141010619.
- Dr. Rekha B Venkatapur, Dr. Deepa S. R and Mrs. Vaneeta M, Title of Invention “**Robo Care Taker**” Australian Government, applied on 1st January 2021 and granted with IPR no 2021100004.
- Mr. Kushal Kumar B N, Title of Invention “**Learning Long Term Model for Prediction of Air Pollution Causing Pollutants for Bengaluru Environment**” Intellectual Property India, applied on 14th July 2021 and granted with CBR no 25701.

ACHIEVEMENTS BY STUDENTS

- Ms. Prasanna N, bearing with USN 1KS18SCS02 was awarded **9th Rank in M.Tech (CSE), 2018-2020 batch, VTU** on 3rd April 2021.



- Dhananjaya S and Gautham M, won the second prize of the event “**Hackfest-2021**” organized by ATMECE, Mysuru on 2nd – 3rd July 2021.
- Sujay G S, Sourabh Santosh Kamble, Yogita Raikar and R Pratiksha, under the guidance of Mr. Kumar K and Ms. Beena K, Assistant Professor, Dept. of CSE, Winners of the event “**Toycathon 2021 – Contagious Intelligence**” on 31st June 2021.



The team which won in “**Toycathon 2021 – Contagious Intelligence**” with CEO, Principal, HOD, Mentors and other faculty members

- Sourabh Santosh Kamble, Ruchitha G K, Pooja R and Shruti A, under the guidance of Mr. Kumar K and Ms. Beena K, Assistant Professor, Dept. of CSE, Winners of the event “**Toycathon 2021 – Contagious Intelligence**” on 31st June 2021.



The team which won in “**Toycathon 2021 – Contagious Intelligence**” with CEO, Principal, HOD, Mentors and other faculty members

- Sakshi Kumari, Swathi Pai, Srikala K M and Amogha Manjunatha K, under the guidance of Mr. Kumar K and Ms. Beena K participated in the event “**Toycathon 2021 – Tech Warriors**” on 31st June 2021.



The participated team “**Toycathon 2021 – Contagious Intelligence**” with CEO, Principal, HOD, Mentors and other faculty members

- Pranav M.S and Raksha S, Winners of the event Hackathon “**Hackbout**” organized by Hackclub NMIT on 19th – 20th June 2021.
- Pranav M. S, Raksha S, Samhitha, Suraj Jawoor won 3rd Rank with a cash prize of Rs.1,00,000 of the event “**Aadhar Hackathon 2021**” organized by UIDAI from 28th – 31st October 2021.



Pranav M. S, Raksha S, Samhitha, Suraj Jawoor are felicitated by Shri Rajeev Chandrasekhar with awards and certificates during the valedictory session of the **Aadhar Hackathon 2021**.

CONGRATULATIONS

- **Dr. Aditya Pai H** has been awarded **Doctor of Philosophy** from Visvesvaraya Technological University, Belagavi, Karnataka, India, February 2021, for the Thesis Titled “**An Exploratory Study to Reduce Lead Time in Small and Medium Level Enterprises - IT Sector**” carried out under the Research Supervision of Dr. Piyush Kumar Pareek, Professor, Dept of CSE, East West Institute of Technology, Bengaluru.



- **Dr. Vaneeta M** has been awarded **Doctor of Philosophy** from Visvesvaraya Technological University, Belagavi, Karnataka, India, June 2021, for the Thesis Titled “**Novel Key Predistribution and Security Framework for Node Level Communication for Wireless Sensor Networks**” carried out in R and D centre, Department of Computer Science and Engineering, KSIT under the Research Supervision of Dr. S. Swapna Kumar, Professor and Head, Dept of ECE, Vidya Academy of Science and Technology, Thrissur, Kerala.



- **Dr. Vijayalaxmi Mekali** has been awarded **Doctor of Philosophy** from Visvesvaraya Technological University, Belagavi, Karnataka, India, July 2021, for the Thesis Titled **“Medical Image Analysis using Computational Methods to Detect and Diagnose Cancer Tumor”** carried out under the Research Supervision of Dr. Girijamma H A, Professor, Department of Computer Science and Engineering, R. N. S Institute of Technology, Bengaluru.



- **Dr. K Venkata Rao** has been awarded **Doctor of Philosophy** from Jain Deemed to be University, Bangalore, Karnataka, India, August 2021, for the Thesis Titled **“Design and Implementation of Robust Model for Small Scale Software Firms”** carried out under the Research Supervision of Dr. R Balakrishna, Professor and Dean, Rajarajeshwari College of Engineering, Bengaluru.



- **Dr. Swetha P** has been awarded **Doctor of Philosophy** from Visvesvaraya Technological University, Belagavi, Karnataka, India, October 2021, for the Thesis Titled **“Customer Churn Prediction in the Telecom Domain using Machine Learning Algorithms”** carried out under the Research Supervision of Dr. Dayananda R B, Professor, in R and D centre, Department of Computer Science and Engineering, K S Institute of Technology, Bengaluru.



FUNDED PROJECTS

- The project titled **“Voice Based E-Prescription”** carried out by final year students Krithika Jagannath (1KS17CS036), Abhishek Gowda M V (1KS17CS002), Meghana G (1KS17CS042) and Ashish Amar (1KS17CS013) under the guidance of Dr. Rekha B Venkatapur was selected for **VTU Financial Assistance for Innovative Projects of Final Year UG Students-2021** and received **Financial Assistance of Rs. 5000.**
- The project titled **“Be My Book -You Hear What You Choose to Read”** carried out by Final year students Amogha Manjunatha K (1KS17CS006), Sakshi Kumari (1KS17CS071), Srikala K M (1KS17CS083) and Swati Pai (1KS17CS089) under the guidance of Dr. Ram P Rustagi was selected for **VTU Financial Assistance for Innovative Projects of Final Year UG Students-2021** and received **Financial Assistance of Rs. 5000.**
- The project titled **“Reading Physical Book for Visually Impaired Person Through Voice Over Navigation System”**, carried out by Final year students. Amogha Manjunatha K (1KS17CS006), Sakshi Kumari (1KS17CS071), Srikala K M (1KS17CS083) and Swati Pai (1KS17CS089) under the guidance of Dr. Ram P Rustagi was selected for **Karnataka State Council for Science and Technology: 44th Series of Student Project Programme-2021** and received grant of **Rs. 5000.**

100% RESULT

- Mr. Harshavardhan J R - System Modelling and Simulation(17CS834)
- Mr. Kumar K - System Modelling and Simulation(17CS834)

Toppers



Swathi Pai
1KS17CS089
SGPA: 9.20



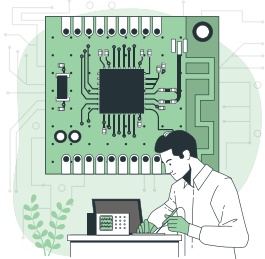
Spoorthi R
1KS17CS081
SGPA: 9.25

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

About The Department



Dr. P N Sudha
HOD



I would like to congratulate and thank our department editorial team for their excellent effort in summarizing the talent, achievements and mile stones achieved by our staff and students through the departmental newsletter. KSIT ECE department not only concentrates on academic activities but also the overall personality development of students by organizing various activities like innovative & creative thinking by inducing leadership qualities. KSIT is one of the pioneer Institute in providing technical education with ethical values. Our department has dedicated teaching and supporting staff to help our students to excel in their learning and creative thinking. Our experienced and well learned faculties help use to empower a diverse community of students to nurture their capabilities, transform their lives and to excel through high quality teaching and learning. The department is accredited by NACC and NBA. We encourage our students to participate in curricular and extra-curricular activities to shape them as leaders of tomorrow and to be industry ready engineers to face competitive world. Our department believes in the quotes “Education is not learning of facts, but training of mind to think”. We ignite passion towards learning in our students.

VISION

- To achieve excellence in academics and research in Electronics & Communication Engineering to meet societal need.

MISSION

- To impart quality technical education with the relevant technologies to produce industry ready engineers with ethical values.
- To enrich experiential learning through active involvement in professional clubs & societies.
- To promote industry-institute collaborations for research & development.

MEMORANDUM OF UNDERSTANDING

The Department signed a Memorandum of Understanding with Tequed labs Private limited, Bangalore on 8th December 2021 for providing student internship program from faculties/guides, training on Technologies, exposure and work on real time projects. This MOU is valid from 8th December 2021 to 31st December 2024.

DEPARTMENT WELCOMES



- Ms. Ramya K R, Associate Professor
- Ms. Bhargavi Ananth, Assistant Professor
- Ms. Mohanambica K M, Assistant Professor

LATEST TECHNOLOGY

A new ‘smart’ face mask, designed at the University of Granada (UGR), sends an alert to the wearer via their smart phone when the recommended healthy CO₂ limits inside the face mask are exceeded. The mask design addresses a problem that has been highlighted since the Covid-19 pandemic began: that of the CO₂ that we rebreathe inside our face masks. Wearing FFP2-type face masks for any length of time produces a concentration of CO₂ between the face and the mask that is higher than the normal atmospheric concentration (~0.04 per cent), due to the gas we exhale when breathing.

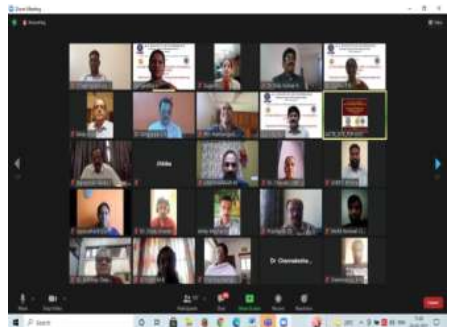


EVENTS CONDUCTED BY FACULTY

- A 6 Days Refresher Program on “Next Generation Wireless Communication: 5G and its Beyond” sponsored by AICTE-ISTE was conducted from 3rd - 8th May 2021.



- A 6 Days Refresher Program on “Future Wireless Communication: Standards and Technologies” sponsored by AICTE-ISTE was conducted from 24th - 29th May 2021.



- Webinar on “Fire side chat with IEEE volunteers” was conducted by IEEE, to promote IEEE membership development on 31st May 2021.



- Webinar on “Chat over Coffee with IEEE volunteers” was conducted by IEEE, to promote IEEE membership development on 1st June 2021.
- Webinar on “Cyber Security and Ethical Hacking” was conducted by IETE-KSIT, to provide knowledge on cyber security and ethical hacking on 11th June 2021.
- Webinar on “Power of Positive thinking” was conducted on by IEEE, to enrich the importance of positive thinking on 11th June 2021.



- Webinar on “Covid-19 vaccination technologies” was conducted by IETE, to expose the stakeholders the emerging COVID VACCINE Technology on 12th June 2021.
- Guest lecture on “Internet communication & networking” was conducted by IEEE, to enrich the knowledge of what is internet and what role it plays in communications on 14th June 2021.
- Guest lecture on “Machine Learning” was conducted by IEEE to get trained on machine learning by certified industry professionals on 18th June 2021.
- Webinar on “Focus Flow” was conducted by IEEE on 19th June 2021.



- Talk on “Orientation program by BSC academy coaching for IAS and other exams” was conducted by KSIT-ISTE on 4th October 2021.
- Guest Lecture on “Writing research Proposals for funding” by Dr. Swamy, Professor, Department of IEM JSS Academy of Technical Education, Bangalore was organized on 27th August 2021.



- Webinar on “Basic Latex:Documentation Software” by Dr. VN Manjunath Aradhya, Head Dept. of Computer Applications, J.S.S. Science and Technology University, Mysuru was organized on 27th September 2021.
- Guest Lecture on “Indian Woman Scientist’s Association (IWSA): Funding Opportunities” by Dr. Savithri Bhat Convener, IWSA, Bangalore Branch was organized on 12th November 2021.



- FDP on “Patent Drafting: Basics” by Dr. Rekha N, Associate Professor, Dept. of ECE, K. S. Institute of Technology, Bangalore was organized on 17th November 2021.



- Talk on “Careers Space and Technology” by Sri V. Ramachandra and Sri Akhil Mohan was held on 29th November 2021.



- The Valedictory function of IEEE KSIT was held on 23rd October 2021.



EVENTS ATTENDED BY FACULTY

- Ms. Jayasudha B.S.K, Assistant professor attended FDP on “Artificial Intelligence” from 4th to 8th January 2021 at GSSS Institute of Engineering and Technology for women.
- Ms. Jayasudha B.S.K, Assistant Professor attended 5 days FDP on “Sensors and their applications” from 13th to 17th July 2021 at Malnad College of Engineering.
- Mr. Sampath Kumar, Assistant Professor attended FDP on “Innovation in teaching, research and challenges in accreditation process for higher educational institutions” (ITRCA) from 17th to 22nd May 2021 at IQAC.
- Mr. Sampath Kumar, Assistant Professor attended FDP on “Pedagogy of teaching and tools of e-content development for effective learning” from 5th to 14th July 2021 at IQAC.
- Mr. Sampath Kumar, Assistant Professor attended FDP on “Role of mathematics in latest engineering trends” from 4th to 10th June 2021 at Lords Institute of Engineering Technologies.
- Mr. Sampath Kumar, Assistant Professor attended FDP on “Foregrounding the spectrum of character building in modern human life” from 25th June to 3rd July 2021 at Balaji Institute of Technology and Science.

- Dr. P. N. Sudha, Professor and Head has attended FDP on “Business Plan Development for Early stage of start-up” from 23rd August to 9th September 2021 organized by Department of EEE, CMR Institute of Technology.

- Dr. P. N. Sudha, Professor and Head has attended ATAL FDP on “Accreditation and Outcome Based Education” from 8th Feb to 12th Feb 2021 organized by Yeshwantrao Chavan College of Engineering.

- Dr. P. N. Sudha, Professor and Head has attended ATAL FDP on “Artificial Intelligence” from 4th Jan 2021 to 8th Jan 2021 organized by GSSS Institute of Engineering and Technology for Women Mysore

- Dr. Surekha Borra, Professor, attended ATAL FDP on “FPGA based Deep learning applications in signal processing” from 5th to 9th July 2021 organized by KLE Technological University, Hubli.

- Dr. Surekha Borra, Professor, attended ATAL FDP on “Quantum computing Algorithms and Machine Learning” from 2nd to 6th August 2021 organized by R.V. College of Engineering, Bengaluru.

- Dr. Surekha Borra, Professor, attended ATAL FDP on “Machine Learning and Optimization Techniques: Applications to Financial Markets from 12th to 16th July 2021 organized by School of Basic Science, IIT Mandi.

- Dr. Surekha Borra, Professor, attended ATAL FDP on “Telemedicine” from 9th to 13th August 2021 organized by National institute of Technology, Jamshedpur.

- Dr. Rekha N Associate Professor, attended FDP on “Fundamentals and applications of Digital Image Processing” from 27th to 29th September 2021 organized by SJCIT, Chikkaballapur.

- Ms. Ramya K R, Associate professor attended FDP on “Recent Advancement in Electric Vehicle Technology” funded by NewGen IEDC, DST, Govt. of India, organized by Department of Electrical and Electronics Engineering, BNMIT, Bengaluru from 18th to 23rd October 2021.

BOOK CHAPTER PUBLICATIONS BY FACULTY

- Surekha Borra, “Biometric Sensors Encyclopedia of Cryptography, Security and Privacy” Springer, Berlin, Heidelberg., Feb. 2021.
- Surekha Borra, “Secure Anti-piracy System Intelligent System Design, Advances in Intelligent Systems and Computing” Vol. 1171. Springer, Singapore., pp. 827-835, 2021.

PUBLICATIONS BY FACULTY

- P. N. SUDHA “Automatic Plant Watering System Using Arduino” International Journal of Innovative Research in Technology, Vol,8, No. 3, 2021, ISSN: 2349-6002.
- P. N. Sudha “ The design, modeling, construction and implementation of Self-balancing robot” International Advanced Research Journal in Science, Engineering and Technology, Vol,8, No. 6, 2021, ISSN: 2393-8021
- P. N. Sudha “Hybrid Temperature Sensing and Monitoring System With Built In Sanitizer” International Journal for Research in Engineering Application & Management (IJREAM) ISSN : 2454-9150 Vol-07, Issue-04, JULY 2021.
- Devika, P N Sudha “Chronological-Squirrel EarthWorm optimization for power optimization using topology management in MANET” in International conference on Distributed Computing and Optimization technique organized by department of Electronics & Communication Engg. & department of Electrical & Electronics Engg. SJBIT Bangalore during 25th & 26th June 2021.
- Jayasudha , P N Sudha , “Machine learning techniques for cardiovascular risk score -prediction” IEEE Mysuru-Con 2021-The First Edition of the Flagship International Conference Series of IEEE Mysore Subsection in association with IEEE Bangalore Section hosted by the house of Sri. M S Ramaiah, NAVKIS College of Engineering, Hassan during 24th & 25th October 2021.
- Surekha Borra, “Digital Video Watermarking Tools an Overview”, International Journal of Information and Computer Security, Vol. 16, No.1,2, pp.1-19, 2021.
- Surekha Borra, “Hybrid, Blind and Robust Image Watermarking: RDWT – NSCT based Secure Approach for Telemedicine Applications”, Multimedia Tools and Applications, Vol.80, pp. 27593–27613, 2021.
- Surekha Borra, “Fragile Watermarking Framework for Tamper Detection of Color Biometric Images”, International Journal of Digital Crime and Forensics, Vol.13, No. 2, pp. 100518-115538, 2021.
- Surekha Borra, “Difference Expansion Based Reversible Watermarking Algorithms for Copyright Protection of Images: State-of-The-Art and Challenges”, International Journal of Speech Technology, 2021, pp.1-30.
- Surekha Borra, “A Survey on Prevention Techniques for Camcorder Video Piracy in Movie Theatres”, Recent Patents on Engineering, Vol.15, No.2, pp. 207-217, 2021.

- Surekha Borra, “Detection and Classification of Leukocytes in Blood Smear Images: State-of-the-Art and Challenges” International Journal of Ambient Computing and Intelligence, Vol. 12, No.2, pp. 030720-041648, 2021.
- Surekha Borra, “A Hybrid Reversible Image Watermarking Technique based on Fractal Encryption and Grey Wolf Optimization”, 2021 IEEE Mysore Sub Section International Conference (MysuruCon), 2021, pp. 445-449.
- Surekha Borra, “Evaluation of Machine Learning Models for Real-Time Sign Recognition”, 2021 IEEE Mysore Sub Section International Conference (Mysuru-Con), 2021, pp. 238-243.
- Surekha Borra, “Real-Time Face Detection and Recognition on Raspberry Pi Using LBP and Deep learning”, International Conference on Data Science, Machine Learning and Artificial Intelligence (DSMLAI), organized by Faculty of Computing and Informatics, Namibia University of Science and Technology (NUST), Windhoek, NAMIBIA, 9th – 12th August 2021.

PUBLICATIONS BY STUDENTS

- Akshatha Shenoy, Junaid Khan, Megha S. Savalgi, K.M. Bhavana “Secure Anti-piracy System” Intelligent System Design, Advances in Intelligent Systems and Computing, vol. 1171, Springer, Singapore, pp. 827-835, 2021.

ACHIEVEMENTS BY FACULTY

PAPER REVIEWER

- Dr. P. N. Sudha is recognized as Reviewer for IEEE MY-SURUCON 2021-The First Edition of the Flagship International Conference Series of IEEE Mysore Sub Section in association with IEEE Bangalore Section at NAVKIS College of Engineering, Hassan during 24th - 25th October 2021.
- Dr. P. N. Sudha is recognized Doctoral Committee member in University of Kerala, Thiruvananthapuram, Kerala
- Dr. P. N. Sudha is selected as Member of Editorial Board of “Blue Eyes Intelligence Engineering and Sciences Publication” and it’s journal(s) for the year 2020-21.
- Dr. P. N. Sudha is invited as Reviewer for IEEE International Conference on Mobile Networks and Wireless Communications (ICMNWC-2021) to be held on 3rd & 4th December 2021 at Sri Siddhartha Institute of Technology, Tumakuru.
- Dr. Surekha Borra, Professor is recognized as a reviewer for the Springer Nature International Journal “Quality & Quantity (QUQU)” on 3rd June 2021.

- Dr. Surekha Borra, Professor is recognized as a reviewer for the International Journal “IEEE Access” on 13th February 2021.
- Dr. Surekha Borra, Professor is recognized as a reviewer for the Springer International Journal “Cognitive Computation” 9th January 2021.
- Dr. Surekha Borra, Professor is recognized as a reviewer for the Springer International Journal of Ambient Computing and Intelligence as a reviewer on 2nd January 2021.
- Dr. Surekha Borra, Professor is recognized as a reviewer for the International Conference on Mobile Networks and Wireless Communications (ICMNWC-2021), organized by Sri Siddhartha Institute of Technology, Tumkur, Bangalore, during 3rd - 4th Dec 2021.
- Dr. Surekha Borra, Professor is recognized as a reviewer for the Third IEEE International Conference on Circuits, Controls and Communications (CCUBE-21), organized by RNS Institute of Technology, Bengaluru, during 23rd -24th December 2021.
- Dr. Surekha Borra, Professor is recognized as a reviewer for the Third IEEE International Conference on Circuits, Controls and Communications (CCUBE-21), organized by RNS Institute of Technology, Bengaluru, during 23rd -24th December 2021.
- Dr. Surekha Borra, Professor is recognized as a reviewer for Fourth IEEE International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques (ICEECCOT-2021), organized by GSSS Institute of Engineering and Technology for Women, Mysore, India, during 10th-11th December 2021.
- Dr. Surekha Borra, Professor is recognized as a reviewer for IEEE MYSURUCON-2021, organized by Navkis College of Engineering, Hassan during 24th-25th October 2021.
- Dr. Surekha Borra, Professor is recognized as a reviewer for 7th IEEE International Conference on Electronics, Computing and Communication Technologies, IEEE CONECCT 2021, organized by IEEE Bangalore Section during 9th-11th July 2021.
- Dr. Sangappa S.B, Professor is recognized as board of examiners to scrutinize the question paper as a Chairman during 18th - 20th January 2021 at U.B.D.T College of Engineering, Davangere.
- Dr. Sangappa S.B, Professor is recognized as Board of Examiner member to scrutinize the question paper during 19th - 20th July 2021 at VTU, Belagavi.

- Ms. Jayasudha B.S.K, Assistant Professor was invited as an Evaluation Expert on Symposium cum Project Exhibition on Recent Advances in Engineering Science on 19th July 2021 at SJCIT, Chickballapur.
- Ms. Jayasudha B.S.K, Assistant Professor was invited as a reviewer for IEEE CONECCT conference during 9th-11th July 2021.
- Ms. Jayasudha B.S.K, Assistant Professor was invited as Panellists for Impetus 21.0 on 30th May 2021 at UVCE, Bengaluru.
- Dr. Sudharsan B, Professor is recognized as Board of Examiner member to scrutinize the question paper during 29th -30th October 2021 at VTU, Belagavi.

AWARDS

- Ms. Jayasudha B.S.K, Assistant Professor won Best Researcher award 2020 during January 2021 in IEEE Bangalore section AGM.
- Ms. Jayasudha B.S.K, Assistant Professor received Outstanding WIE volunteer award 2020 on 10th January 2021 from Women in Engineering IEEE Bangalore section.
- Ms. Jayasudha B.S.K, Assistant Professor received Outstanding WIE Professional Volunteer award 2020 on 3rd January 2021 from IEEE Bangalore section.
- Dr. Sangappa S.B, Professor received ISTE Best member award for National working committee of ISTE during 50th Annual convention on 5th October 2021 at Mumbai.

INVITED TALK

- Dr. P.N. Sudha, HOD & Professor was invited as Guest Speaker on “Recent Trends in wireless & mobile communication” on 27th March 2021 at Dayananda Sagar University School of Engineering, Bengaluru.
- Dr. Surekha Borra delivered a Keynote Address on “Computer Vision and Applications” in 1st International Conference on Global Research Perspectives in Engineering & Technology for Holistic Restructuring on 25th September 2021, Organized by P.T. Lee Chengalvaraya Naicker Polytechnic College (PTLeeCNPTC) and Indian Society for Technical & Education (ISTE) – Student Chapter, Vepery, Chennai.
- Dr. Surekha Borra, Professor delivered a talk on “Research Article Writing” at SGBIT, Belagavi on 3rd June 2021.
- Dr. Sangappa S.B, Professor was invited as Speaker for Inauguration of ISTE Chapter on 23rd January 2021 at Presidency University.

RECOGNITION

- Dr. Surekha Borra, Professor is elevated to the grade of IEEE Senior member on 20th February 2021, IEEE.
- Dr. Surekha Borra, Professor is recognized as an Organizing committee member and Session chair for Global Web Conference on Impact of Engineering, Science & Management on Digital Transformation (IESMDT), 29th-30th, January 2021, National Foundation for Entrepreneurship Development (NFED), Coimbatore, Tamil Nadu, India.
- Dr. Sangappa S.B, Professor Elected member for ISTE National Executive Council, section chairman & section managing committees for the term 2020-2024 during 2020-2021 ISTE, DELHI.
- Dr. Sangappa S.B, Professor is recognized as a member for ISTE Membership committee to monitor membership activity and to design strategies in ISTE on 27th January 2021.
- Dr. Sangappa S.B, Professor is recognized as a member for complete digitization of examination sections Technical committee on 24th February 2021 at Karnataka State Open University, Muktha Gangotri, Mysore.
- Dr. Sangappa S.B, Professor is recognized as a Chief Guest for inauguration of ISTE Faculty and Student chapter on 31st July 2021 at Atria Institute of Technology, Bengaluru.
- Ms. Jayasudha B.S.K, Assistant Professor attended IEEE Xtreme 14.0 programming competition Volunteered as Proctor on 24th October 2021, IEEE.

RESOURCE PERSON

- Dr. Sangappa S.B, Professor invited as Guest of Honour for AICTE-ISTE Induction/Refresher Programme on “Advanced Topics in Network Security” on 10th December 2021 at BIT, Bengaluru.

PATENTS

- Ms.V.Sangeetha, Mr. Praveen A, Title of Invention “Smart Helmet with Bike System for Safety Transportation” patent office Government of India applied on 3rd June 2021 and published on 11th June 2021 with IPR number 202141024734 .

ACHIEVEMENTS BY STUDENTS

- Ms.Yashaswini N participated as NSS Volunteer in the south zone pre Republic day Parade selection camp 2021 from 22nd to 31st October 2021.
- Ms. Lavanya M participated and secured first place in IEEE workshop Project based competition at IEEEKLE , Belagaum held on 10th July 2021.

- Mr.Vishal Sanjay Raju participated in all India Inter University Yoga tournament held at Kalinga Institute of Industrial Technology Bhubaneswar ,Orisha from 25th to 20th December 2021.
- Mr.Srinivasan M has won First Place in the Cansat event conducted during the National Level Annual Technical Symposium Phase Shift 2021 held at BMSCE from 26th to 27th November 2021.

FUNDED PROJECTS

- Dr. Surekha Borra, Professor Received research Grants of worth Rs 3 Lakhs under RGS/F Scheme on 11th February 2021 at VGST, Government of Karnataka, for implementation of project titled “Development of Bioinspired Algorithms for Real Time Piracy Detection Systems based on Thermogram Analysis”.
- Ms. Sangeetha V, Assistant Professor Received a fund of 5000/- for the project entitled “Photovoltaic Dual Purpose Thermo Electric Refrigerator” by Karnataka State Council for Science and Technology KSCST SSP-44 Series during April 2021.
- Dr.P.N.Sudha, Professor Received a fund of Rs.5000/- for the project entitled “Hybrid Temperature Sensing and Monitoring System With Built in Sanitizer” by VTU Financial Assistance for Innovative Projects of Final Year UG Students during September 2021.
- Ms. Jayasudha B.S.K, Assistant Professor Received a fund of 5000/- for the project entitled “Smart Heart Health Predictor Powered by ML” by VTU Financial Assistance for Innovative Projects of Final Year UG Students during September 2021.

100% RESULT

- | | |
|---------------------------|--|
| • Dr. P.N Sudha | - Cryptography (C404/15EC744) |
| • Mr. Saleem S Tevaramani | - Satellite Communication (17EC755) |
| • Mr. Praveen.A | - IOT & Wireless Sensor Networks (17EC752) |
| • Mr. Saleem S Tevaramani | - Fiber Optics & Networks (C410/17EC82) |
| • Dr. B Surekha | - Network and Cyber Security (17EC835) |
| • Ms. Pooja S | - Network and Cyber Security (17EC835) |
| • Ms. Pooja S | - Wireless Cellular and LTE 4G Broadband (C409/17EC81) |

TOPPERS LIST 2021



PRATIMA.P.AGNIHOTRI

(1KS17EC071)8th Sem

SGPA: 9.25



RACHANA.S

(1KS17EC075)8th Sem

SGPA: 9.25

INDIAN SOCIETY FOR TECHNICAL EDUCATION

Talk on “Orientation program by BSC academy coaching for IAS and other Competitive exams” was conducted for final year students of all branches of KSIT and KSSEM on 4th October 2021.



DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING

About The Department



Dr. Chanda V Reddy
HOD

The department imparts quality education to provide strong academic leadership and highest possible standards of excellence in all its activities. The department also drives the students to channel their goals and energy into action, the goals that enable them to do more for themselves and others. The key to success is hard work and determination. The foundation stones for such a balanced success of our department are the honesty, integrity, faith and loyalty of our human resource.

I would like to acknowledge the hard work and eulogize the students for actively involving and winning in various activities. Our department managed the pandemic situation very well by effectively conducting online class. Students also got accustomed to the new digital platform of learning.



VISION

- “To Bestow Quality Education in Telecommunication Engineering Endowed with Human Values to Secure a Better Connected Society”.

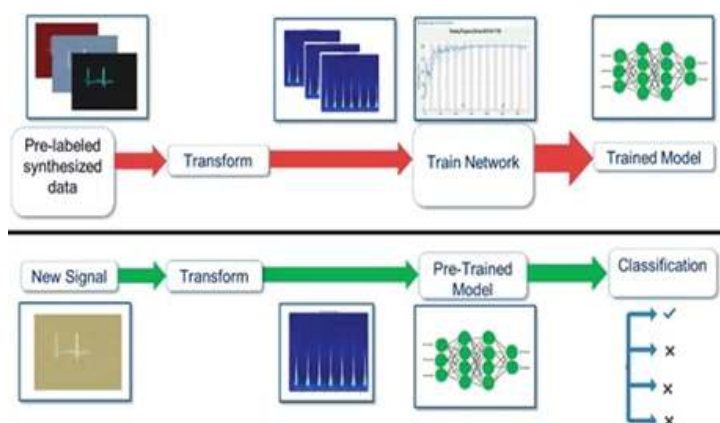
MISSION

- To Provide Effective Pedagogy for Building and Realizing the Required Knowledge and Skills that Constitute a Telecom Professional.
- To Impart Learning Through Innovations and Team Work with Ethical Values.
- To Instill The Quest for Continuous Learning and Enhancing Their Communication Skills Through Professional Bodies and Clubs.

LATEST TECHNOLOGY

Machine Learning approaches in Radar Signal Processing

The radar community has started applying Machine Learning (ML)-based algorithms to classic and new radar research domains to tackle traditional and new challenges from a novel perspective. Few areas where ML based algorithms applicable are Radar Radiation Sources Classification and Recognition (RRSCR), Anti-jamming and interference mitigation, Waveform Optimal Design, Cognitive Electronics Warfare, Antenna Array Design, Radar Spectrum Allocation, Moving Target Indicator, End to End unified Intelligent detective architecture, Target detection and tracking intelligent unified processing, End to End framework of unified detection, tracking and Recognition.



Radar Radiation Sources Classification and Recognition:

The increasingly growing complexity of electromagnetic environment demonstrates severe challenges for RRSCR, such as the increasingly violent electronic confrontation and the emergence of new types of radar signals generally degrade the recognition performance of statistic modeling techniques, especially at low signal noise ratio (SNR) scenario.

End-to-End Unified Intelligent Detection Architecture:

The outputs of neural network with cross entropy as loss function satisfied the Neyman-Pearson detection criterion. Therefore, it is promising to exploit an intelligent end-to-end architecture by taking full use of the general non-linear fitting ability for radar target detection. The challengeable research problems include the intelligent constant false alarm rate, environment identification (such as noise and clutter background automatic classification) techniques.

Target Detection and Tracking-Unified Intelligent Processing:

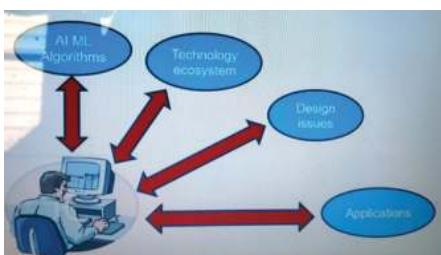
It is possible to optimally adjust the detection threshold via prior knowledge-based online learning techniques, which is based on the feedback from target tracking information (such as motion trends, covariance estimation) to target detection units.

EVENTS CONDUCTED BY THE FACULTY:

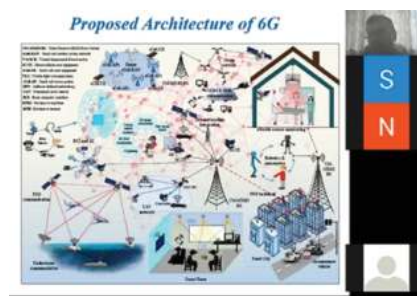
- A Seminar on “Universal Human Values and role of Education in holistic Development” by Dr Rahul Vivek Purohit, Professor and HOD, HITAM, Hyderabad, was organized on 8th to 10th June 2021.



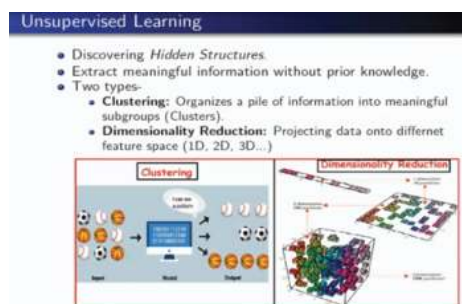
- A Webinar on “Trends and issues in the realization of Artificial Intelligence applications” by Dr. Manjunath Ramachandra, Principal consultant in advanced research group, Wipro Pvt Ltd., was organized on 16th June 2021.



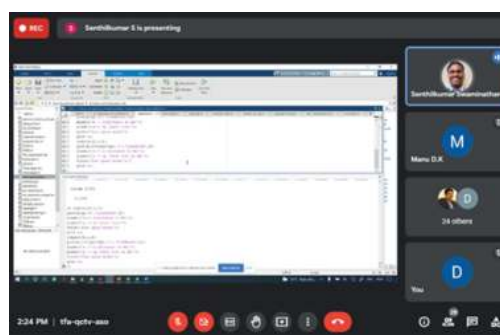
- A Webinar on “Opportunities and Challenges in 6G Wireless Technology” by Dr. Sridhar Iyer, Member IEEE and InSc, Associate Professor, Dept of ECE, S. G. Balekundri Institute of Technology, Belagavi, was organized on 12th July 2021.



- A Webinar on “Machine Learning using Python” by Dr. Mahantesh K, Associate Professor, Dept of ECE, SJBIT, Bangalore, was organized on 19th July 2021.



- A Webinar on “Wireless Communication: A Practical Approach” by Mr. Senthil Kumar S, Associate Professor, GRT Institute of Engineering and Technology, Tiruttani, Tamil Nadu, was organized on 09th to 10th October 2021.



- A Workshop on “Internet of Things (IoT)” by Mr Somashekar Y, Member Advanced Micro devices Mr. Rajesh Sudi Assistant Professor Dept. of ECE JIT Bangalore Mr. Ravishankar Holla Assistant Professor Dept. of ECE, RVCE Bangalore, was organized on 26th to 28th Nov 2021.

EVENTS ATTENDED BY FACULTY-TEACHING:

- Dr. Chanda V Reddy attended one week FDP on “Revolution in 5G and beyond with Industrial Instrumentation approach and Machine Learning” Department of Electronics & Telecommunication Engineering In Association with Electronics and Instrumentation Engineering ATAL Academy, from 13th to 17th September 2021.
- Dr. Chanda V Reddy attended one week FDP on “Future Wireless Communication: Standards & Technologies” organized by the Department of Electronics & Communication Engineering KSIT, from 24th to 29th May 2021.
- Dr. Rekha N attended one week FDP on “Future Wireless Communication: Standards & Technologies” organized by the Department of Electronics & Communication Engineering KSIT, from 24th to 29th May 2021.
- Dr. Dinesh Kumar D S attended one week (6 days) FDP on “Antenna Design and Printing for Practical Applications” organized by B N M Institute of Technology, Bengaluru from 25th to 30th June-2021.
- Dr. Dinesh Kumar D S attended One week (6 days) FDP on “Image and Signal Processing” organized by JSS Academy of Technical Education, Bengaluru from 4th to 8th January-2021.
- Dr. Dinesh Kumar D S attended one week (6 Days) FDP on “Recent advances in RF and Wireless communication” organized by Ramaiah Institute of Technology, Bengaluru from 2nd to 7th August-2021.
- Mr. Satish Kumar B attended One-week (5 days) FDP on “Image and Signal Processing” organized by Department of Electronics and Communication Engineering and Department of Civil Engineering , JSS Technical Education, Bangalore from 4th to 8th January 2021.
- Mr. Satish Kumar B attended 5 days FDP on “Digital VLSI Design and Verification” organized by Department of Electronics and Communication Engineering BIT in Association with Entuple Technologies and IEEE-BIT CAS from 23rd to 27th August 2021.
- Mr. Satish Kumar B attended 5 days FDP on “Recent Trends on Microwave and Antenna Technologies” organized by Department of Electronics and Communication Engineering East Point College of Engineering and Technology from 15th to 19th November 2021.
- Mr. Dileep J attended One-week FDP on “Image and Signal Processing” organized by Department of Electronics & Communication Engineering and Civil Engineering, JSSATE, Bengaluru in Association with Indian Society for Technical Education & Association of Consulting Civil Engineers from 4th to 8th January 2021.

- Mr. Satish Kumar B attended 5 days FDP on “Revolution on 5G and beyond with Industrial Instrumentation Approach, Machine Learning” organized by Department of Electronics and Communication Engineering, Dayanand Sagar College of Engineering and Technology in Association with AICTE from 13th to 17th September 2021.
- Mr. Dileep J attended One Week International workshop on “Recent Advancement on Electronics and Computer Intelligence (IWRAECI-2021)” - organized by Department of Electronics and CSE&A, Sambalpur University Institute of Information Technology, Burla, Odisha, India, held from 26th to 30th April 2021.
- Mr. Dileep J attended one week FDP on “6-days AICTE-ISTE funded Induction / Refresher program on “Next Generation Wireless Communication: 5G & Beyond” organized by Department of Electronics & Communication Engineering, KSIT, Bengaluru from 3rd to 8th May, 2021.
- Mr. Dileep J attended One-week FDP on “Recent advances in RF and wireless communication” organized by Ramaiah Institute of Technology, Bengaluru in association with IETE and SAGE(USA) from 2nd to 7th August 2021.
- Mr. Dileep J attended One-week FDP on “Machine Learning” organized by organized by E & ICT Academy, IIT Kanpur from 19th July 2021 to 24th July 2021.

PUBLICATIONS BY FACULTY

- Chanda V Reddy Published a Paper on “An Optimum filter to suppress the noise in Abdominal CT images”, in International Journal for Research in Engineering Application & Management (IJREAM), Jan 2021 ,Volume-6, Issue-10.
- Chanda V Reddy Published a Paper on “VIDEO QUALITY IMPROVEMENT IN 5G USING FUZZY LOGIC”, International Research Journal of Engineering and Technology (IRJET), Feb 2021 ,Volume-8, Issue-6.
- Chanda V Reddy Published a Paper on “DETECTION OF REAL AND FAKE IMAGE USING DEEP LEARNING ALGORITHM”, International Research Journal of Modernization in Engineering Technology and Science (IRJMETS), July 2021, Volume-3, Issue-7.
- Chanda V Reddy Published a Paper on “Agro Bot”, International Advanced Research Journal in Science, Engineering and Technology (IARJSET) August 2021, Volume-8, Issue-8.

- Rekha N Published a Paper on “Zero Contact Delivery For Faster And Safer Delivery Through IoT”, in International Journal of Advanced Research In Computer And Communication Engineering, Impact Factor 7.078, 2021
- Rekha N Published a Paper on “Lightweight Authentication Protocol For NFC Based Anti-Counterfeiting System in IoT Infrastructure”, in International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering, Impact Factor 6.581, 2021.
- Dinesh Kumar D S published a paper titled “Non-Invasive Health Monitoring System for Diabetes Patients” in International Journal of Creative Research Thoughts (IJCRT), Volume 9, Issue 7, July 2021.
- Dinesh Kumar D S published a paper titled “Human Authentication using Face, Voice and Fingerprint Biometrics” in Journal of Emerging Technologies and Innovative Research (JETIR), Volume 8, Issue 8, August 2021.
- Devika B published a paper titled “Monitoring and feeding system for pets” International Journal of Applied Science & Engineering technology, Volume 9, Issue VII, July 2021.
- Devika B published a paper titled “Lineman safety” International Journal of Applied Science & Engineering technology, Volume 9, Issue VII, July 2021.
- Satish Kumar B published a paper titled “Intelligent Packing Solution for Safe and Secured Delivery” International Journal for Research in Applied Science & Engineering Technology (IJRASET) July 2021, ISSN: 2321-9653, Volume-9 Issue-7.
- Satish Kumar B published a paper titled “Density based traffic control system” International Advanced Research Journal in Science, Engineering and Technology (IARJSET) September 2021, ISSN: 2321-9653, Volume-8 Issue-2393-8021.
- Satish Kumar B published a paper titled “GSM Based Baby Monitoring and Automatic Swing System” International Journal for Research in Applied Science & Engineering Technology (IJRASET) July 2021, ISSN: 2321-9653, Volume-9 Issue-7.
- Dileep J published a paper titled “Implementation of VHDL/FPGA to Realize Fingerprint Verification with Optimal Computation” in International Research Journal of Engineering and Technology, Impact Factor-7.529, Volume 8, Issue 1, January 2021.

- Dileep J published a paper titled “Comparative study of person identification techniques using machine learning algorithm” in Journal of Huazhong University of Science and Technology, ScopusIndexedUGC Approved Journal, ISSN-1671-4512, Vol 50, Issue 5, Impact factor-6.2, May 2021.
- Dileep J published a paper titled “Implementation of VHDL/FPGA to Realize Fingerprint Verification with Optimal Computation” in International Journal of All Research Education & Scientific Methods, (IJAR-ESM), ISSN No: 2455-6211”, Impact Factor : 7.429, Volume 9, Issue 7, July 2021.
- Dileep J published a paper titled “Smart Waste Segregation using Arduino Uno” in International Advanced Research Journal in Science, Engineering and Technology, Impact Factor-6.612, Volume 8, Issue 8, ISSN No. 2393-8021, August 2021.

ACHIEVEMENTS BY FACULTY

Invited Talk

- Dr. Dinesh Kumar D S, Associate Professor was invited as Guest Speaker on “An Insight into Digital System Design for future Technology” on 22nd March 2021 at Sri Kalabhyraveswara Polytechnic , Bengaluru.
- Mr. Dileep J, Assistant Professor was invited as Guest Speaker on “IoT and its Applications” on 13th September 2021 at K S Polytechnic , Bengaluru

Patents by Faculty

- Mr. Dileep J, Dr. Chanda V Reddy and Dr. Devika B, Title of invention “SMART HELMET WITH BIKE SYSTEM FOR SAFETY TRANSPORTATION”, patent office Government of India applied on 3rd June 2021 and published on 11th June 2021 with IPR number 202141024734.
- Dr. Dinesh Kumar D S, Mr. Satish Kumar B and Mr. Dileep J, Title of invention “AN ELECTRONIC VOTING MACHINE”, patent office Government of India applied on and published on 1st October 2021 with IPR number 202141041370

ACHIEVEMENTS BY STUDENTS

- Ms.Rumana Khanum, Ms.Shriyukta Ram and Ms. Sridevi M R participated and secured first place in Inter-collegiate Project Competition at Dayananda Sagar Academy of Technology and Management, Belagaum held on 17th July 2021.
- Mr.Vadhiraj Ravi, Ms.Nisha Deepak and Ms.Priyanka S participated and secured second place in Intercollegiate Project Competition at Dayananda Sagar Academy of Technology and Management, Belagaum held on 17th July 2021.

FUNDED PROJECTS

- Dr. Chanda V Reddy, Professor Received a fund of 5000/- for the project entitled “Media forensic and deep fakes” by Karnataka State Council for Science and Technology KSCST SSP-44 Series during April 2021.
- Dr. Chanda V Reddy, Professor Received a fund of 5000/- for the project entitled “Iot based Ambulatory bag mechanical ventilator” by Karnataka State Council for Science and Technology KSCST SSP-44 Series during April 2021.
- Dr. Rekha N, Associate Professor Received a fund of 5000/- for the project entitled “Zero contact delivery system for faster and safer delivery through IoT” by Karnataka State Council for Science and Technology KSCST SSP-44 Series during April 2021.
- Mr. Satish Kumar B, Assistant Professor Received a fund of 5000/- for the project entitled “GSM based baby monitoring and automatic swing system” by VTU Financial Assistance for Innovative Projects of Final Year UG Students during September 2021.
- Mr. Dileep J, Assistant Professor Received a fund of 5000/- for the project entitled “Ingenious Helmet with bike system” by VTU Financial Assistance for Innovative Projects of Final Year UG Students during September 2021.

CONGRATULATIONS

Dr. Dinesh Kumar D S for being awarded a Doctorate from VTU, Belagavi, for the thesis titled “A Novel Multi algorithm based Speech and face Recognition (Multimodal) System for the Analysis of FAR and FRR”.



100% RESULT

- | | |
|----------------------|---|
| Dr. Chanda V Reddy | - Microwave Theory & Antennas
- IOT and Wireless Sensor Networks |
| Dr. Rekha N | - Machine learning
- VERILOG HDL |
| Dr. Dinesh Kumar D S | - Multimedia Communication
- Fiber Optics & Networks |
| Dr. Devika B | - AD Hoc Wireless Networks
- Satellite Communication and Remote Sensing. |
| Mr. Satish kumar B | - Wireless Cellular and LTE 4G Broadband,
- Technological Innovation Management & Entrepreneurship |
| Mr. Dileep. J | - CMOS VLSI Design. |

Department Toppers



GANESH.B
1KS17TE008
SGPA: 9.8



MOHAN PRASANNA.B
1KS17TE020
SGPA: 9.4

DEPARTMENT OF MECHANICAL ENGINEERING

About the Department



Dr. M. UmaShankar
HOD



The Department of Mechanical Engineering at KSIT is as old as the Institute itself. Today, the department of mechanical engineering of KSIT attracts and features an extraordinary rich diversity and quantity of talented individuals, with nearly 300 undergraduates supported by experienced and highly qualified teaching and nonteaching staff. There is a concerted effort to raise the "Aspirational reference point" of the pupils undergoing graduate program in engineering by subjecting them to continuous value addition. Hence The Department has been producing excellent results with distinctions in the university examinations consistently. In addition to class room teaching learning processes students are guided and encouraged to be familiar with emerging technology. Our students have been actively associating themselves with industries through industrial projects, in plant training and industrial visits with almost all Mechanical Engineering oriented organizations/industries. We feel proud to inform that our students earn places in the merit list of University Examinations every year.

Many of our alumni have pursued higher education in premier institutions world over & are at top executive positions at various enterprises such as Infosys, Wipro, L&T, Mercedes, TOYOTA, Robert Bosch, MICO and innumerable software, Manufacturing, Mechanical Design and service organizations. The Department has been recognized as R & D Centre by Visvesvaraya Technological University for carrying out Research activities leading to M.Sc. (Engg.) and Ph. D degrees.

VISION

- To groom incumbents to compete with their professional peers in Mechanical Engineering that brings recognition.

MISSION

- To impart sound Fundamentals in Mechanical Engineering.
- To Expose Students to New Frontiers.
- To achieve Engineering Excellence through Experiential learning and Team work.

DEPARTMENT WELCOMES



Dr. Dilip Kumar K, Principal & Director

MOU IN THE DEPARTMENT

The MOU intends to jointly work on projects required for industries and research needs. Faculty with good industrial experience and promising students, jointly agree to exchange their expertise for mutual benefit and growth.

- **Nandi Toyota**
- **Government Tool Room and Training Centre**

LATEST TECHNOLOGY

EMERGING TRENDS IN MECHANICAL ENGINEERING



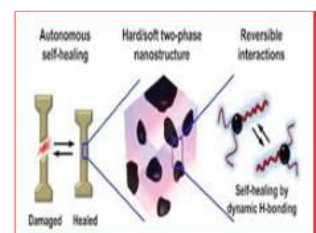
Smart roads



Soft Robotics Gripper



Industrial Exoskeletons



Dynamic Materials

Give me a lever and a place to stand,” Archimedes said, “and I shall move the earth.” At the risk of correcting one of the greatest minds in human history, it’s possible he could’ve ditched the lever and simply asked for a mechanical engineer.

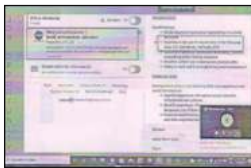
Practically every major technological advance has relied upon the groundwork of mechanical engineers. While a core tenet across all aspects of engineering is to innovate upon the tools available, mechanical engineers bring together materials science, physics, and engineering to change the very nature of those integral tools.

Mechanical engineering is a field defined by firsts. It’s responsible for the printing press, the internal combustion engine, and the industrialization of steel. If you go back far enough, mechanical engineering literally invented the wheel. So, what’s next?

Mechanical engineering has come a long way since the pulley and the windmill. Today’s mechanical engineers are developing self-assembling nanobots shaped like strands of DNA. They’re revolutionizing transport from self-driving cars, to magnetically propelled maglev trains, to vacuum-propelled Hyperloops. This is all happening now. Tomorrow’s advances in mechanical engineering could quickly become the new standard of our reality. what’s next in mechanical engineering and learn about the world you’re soon to be living in will be about-,Smart roads, Soft Robotics, Industrial Exoskeletons, Dynamic Materials and 3D printing.

EVENTS CONDUCTED BY THE DEPARTMENT

- Department organized webinar on “**Design innovation for successful career in the field of Aviation**” using systems tool kit software on **7th July, 2021** for mechanical students. The webinar was informative and students have gained knowledge about tools used in aviation sector.



- Department has organized webinar on “**Non-destructive Evaluation of Castings and to learn about the evolution in the Foundry Industry with respect to Non-Destructive Testing**” in association with IIF, on **21st July 2021**. The speaker highlighted the need and importance of nondestructive testing in foundry sector.



- Department organized **Engineers day on 15th September, 2021** as a mark of remembrance and tribute to Mokshagundam Visvesvaraya, who is considered as one of the greatest engineers in the country. Senior faculty highlighted the importance of discipline and dedication required to succeed in life.



- Department organized webinar on “**Basic Grey Iron Metallurgy**” in association with the Institute of Indian Foundrymen (IIF)- Bangalore on **30th October, 2021**. Participants were teaching fraternity and industry working professionals. Speaker presented the importance of Cast iron in various engineering applications and also how metallurgical processes helps in enhancing properties of cast iron.



- Department organized **one day industrial visit** for KSIT and KSP students on **8th September, 2021** to “**walvoil**” **company** located in Bangalore. Students got good exposure of various hydraulic systems as the company manufactures pumps, compressors, taps and valves,hydraulic power engines and motors, pumps for liquids fitted with measuring devices, including hand pumps and pumps designed for fitting to internal-combustion piston engines etc, air or vacuum pumps, air or other gas compressors, taps, cocks, valves and similar appliances for pipes, boilers shells, tanks, vats or the like including pressure reducing valves and thermostatically controlled valves.



- Department organized Webinar on “**Introduction & Evolution of Industrial Robotics**” on **30th December, 2021**, the speaker of the session was MVA Raju Bahubalendrani, Assistant Professor, MED, NIT, Thiruchy. He highlighted the evolution and importance of industrial robots in today’s modern manufacturing sector.



EVENTS ATTENDED BY FACULTY

- **Mr. Rajesh G L** attended AICTE Sponsored STTP “**Advanced Manufacturing Technologies for Medical & Precision Engg**” organized by **MVJCE**, Bengaluru, from 4th to 9th Jan 2021.
- **Mr. Rajesh G L** attended TEQIP -III Sponsored STTP on “**Recent Advances in sustainable Materials for Eng. Applications**” organized by **BMCE**, Bengaluru, from 22nd to 26th Feb 2021.
- **Dr. Nirmala L** attended 12 day workshop on “**Renewable Energy Intervention in Industry, Commercial and Domestic Application**” organized by, **Rajeev Gandhi Memorial College of Engineering & Technology**, Nandyal-518501, Andhra Pradesh, India from 15th to 27th Feb, 2021.
- **Mr. Anil Kumar A** attended a Webinar on, “**Product Life Cycle of an Aircraft**” organized by Department of Mechanical Engineering of **Gopalan College of Engineering & Management** on 6th March, 2021
- **Mrs. Tejaswini M L** attended 2 Days International seminar on “**Alternative Materials & Innovative Technologies in concrete construction.**” organized by **BMSCE**, Bangalore, from 16th to 17th March 2021.
- **Mr. Prasad K** attended a webinar on “**Artificial Intelligence and Machine Learning Basics and Principles (off line Mode)**” organized by Department of Mechanical Engineering, **SJC Institute of Technology**, Chikkabalapur from 22nd to 27th March, 2021.
- **Dr. Girish T R** attended a webinar on “**Artificial Intelligence and Machine Learning Basics and Principles (off line Mode)**” organized by Department of Mechanical Engineering, **SJC Institute of Technology**, Chikkabalapur from 22nd to 27th March, 2021.
- **Mr. Anil Kumar A** attended a short-term course on, “**Enduring Trends in Hydraulic Control Systems: Past, Present & Future**” organized by **IIT Madras** from 22nd to 27th March, 2021.
- **Mr. Manjunath B R** attended International Webinar “**Machine Learning for Predictive Maintenance**” organized by **Dr. Ambedkar Institute of Technology**, Bengaluru on 22nd May 2021.
- **Mr. Ranganath N** attended a Two days online workshop “**Natural Language Processing and Deep Learning Techniques**” organized by **Jain University**, Bengaluru on 21st and 22nd May 2021.
- **Mr. Anil Kumar A** attended a Webinar on, “**Mechanism of breathing & Mechanical Support Devices**” organized by Department of Mechanical Engineering of **VVCE** on 29th May 2021.
- **Mr. Ranganath N** attended a 6 days FDP on “**Recent Innovation in Design & Manufacturing**” 24th to 29th May – 2021 organized by **Malla Reddy Engineering College (Autonomous)**.
- **Mr. Ranganath N** attended a Webinar on “**Prerequisites to be a Design Engineer**” organized by **SVCE**, Bengaluru, Bengaluru on 3rd June, 2021.
- **Mr. Ranganath N** attended a 5 days online FDP on “**Modern Trends in Engineering Technology**” 8th June, 2021 organized by **HKBK college of Engineering, Bengaluru**
- **Mr. Manjunath B R** attended a Webinar on one day webinar on “**Introduction and application of solid-state welding Technique**” organized by **Brindavan College of Engineering**, Bengaluru on 11th June, 2021.
- **Mr. Ranganath N** attended a Webinar on one day webinar on “**Introduction and application of solid-state welding Technique**” organized by **Brindavan College of Engineering**, Bengaluru on 11th June 2021
- **Mr. Manjunath B R** attended a Webinar on “**Complexity and Excitement of Aerospace Control**” organized by **Dr. Ambedkar Institute of Technology**, Bengaluru on 18th June, 2021.
- **Mr. Ranganath N** attended a Webinar on “**Complexity and Excitement of Aerospace Control**” organized by **Dr. Ambedkar Institute of Technology**, Bengaluru on 18th June, 2021.
- **Dr. Saleem Khan** attended “**Data Analysis and Artificial Intelligence for Mechanical Engineers**” Department of Mechanical Engineering **Nitte Meenakshi Institute of Technology**, Bengaluru from 28th June to 2nd July 2021.
- **Mr. M Umashankar** attended a webinar on “**Lost Foam Casting**” organized by Department of Mechanical Engineering, **JSS Academy of Technical Education**, Bengaluru in association with **IIF Bangalore** chapter on 10th July, 2021.
- **Mr. M Umashankar** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “**Institute of Indian Foundrymen (IIF)**”, Bangalore Chapter held on 21st July 2021
- **Mr. Nagabhushana M** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “**Institute of Indian Foundrymen (IIF)**”, Bangalore Chapter on 21st July, 2021.

- **Mr. Prasad K** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July, 2021.
- **Dr. Nagaprasad K S** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July 2021.
- **Dr. Girish T R** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July 2021.
- **Dr. Nirmala L** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July 2021.
- **Dr. Nirmala L** attended Five Day Online Faculty Development Program (FDP) on “**Recent Trends in Mechanical Engineering**” organized by LcfaiTech, **ICFAI University**, Jaipur in collaboration with IET (UK), Delhi Local Network from 20th to 24th July, 2021.
- **Mr. Manjunath B R** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July 2021.
- **Mr. Ranganath N** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July 2021.
- **Mr. Ranganath N** attended a National Seminar on “**Development of functionally graded material through Directional solidification**” organized by **RR Institute of Technology**, Bengaluru on 11th July, 2021.
- **Mr..Anil Kumar A** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July 2021.
- **Mr. Harish U** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July, 2021.
- **Mr. Harish U** attended Five Day Online Faculty Development Program (FDP) on “**Recent Trends in Mechanical Engineering**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru organized by LcfaiTech, **ICFAI University**, Jaipur in collaboration with IET (UK), Delhi Local Network during July 20th to July 24th 2021.
- **Mr. Parashuram A K** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July, 2021.
- **Mr. Parashuram A K** attended Two days Workshop on “**Recent Trends in production technology**” organized by **EWIT**, Bangalore from 27th to 28th July, 2021.
- **Mrs. Tejaswini M L** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July, 2021.
- **Mr. Rajesh G L** attended a webinar on “**Non-Destructive Evaluation (NDE) of Castings**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with the “Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 21st July, 2021.
- **Mr. M Umashankar** attended a webinar on “**Microfluidics and Nanotechnology for Lab on Chip and Personalized Diagnostics**” organized by Department of Mechanical Engineering, **Ramaiah Institute of Technology**, Bangalore held on 5th August, 2021
- **Dr. Nirmala L** attended a webinar on “**BASIC LATEX: DOCUMENTATION SOFTWARE**” organized by **K S Institute of Technology**, Bengaluru on 27th September 2021
- **Mr. Parashuram A K** attended Webinar on “**Basic Grey Iron Metallurgy**” organized by Department of Mechanical Engineering, **K S Institute of Technology**, Bengaluru in Association with “The Institute of Indian Foundrymen (IIF)”, Bangalore Chapter on 30th October 2021.

- **Mr. Parashuram A K** attended 3 Day Online Faculty Development Programmed on “Recent Trends in Applications of AI, ML, Io T and Robotics in Mechanical Engineering” organized by Department of Mechanical Engineering, RNS Institute of Technology, Bengaluru from 28th to 30th October 2021.

PUBLICATIONS BY FACULTY

- **Dr. Nagaprasad K S**, “A Review on Study and Usage of Combining After Treatment Devices into Existing Diesel Engine” International Advanced Research Journal in Science, Engineering and Technology, Vol. 8, Issue 7, July 2021, DOI: 10.17148/IARJSET.2021
- **Dr. Nagaprasad K S**, “Study of Combination of After Treatment Devices into Existing Diesel Engine Fueled by Nanoparticles” International Advanced Research Journal in Science, Engineering and Technology, Vol. 8, Issue 7, July 2021, DOI: 10.17148/IARJSET.2021
- **Mr. Prasad K**, “Security and Authentication for IoT Devices” IJSET - International Journal of Innovative Science, Engineering & Technology, Vol. 8 Issue 3, March 2021 ISSN (Online) 2348 – 7968 | Impact Factor (2020)
- **Mr. Harish U**, “Effect of the coating material compositions on the life of gas turbine hot section components” Advanced Trends in Mechanical and Aerospace Engineering ATMA, Volume 2316 Issue 1, Online Published
- **Mr. Harish U**, “Evaluation of hot corrosion behavior of HVOF thermally sprayed Cr3C2-35NiCr coating on SS 304 boiler tube steel” Advanced Trends in Mechanical and Aerospace Engineering ATMA, Volume 2316, Issue 1, Online Published.

CONGRATULATIONS



- **Dr. Umashankar M** has been awarded Doctor of Philosophy from VIT, Chennai, Tamilnadu, India, in the year 2021 for the titled “Tribiological Studies on Zinc Aluminium Cast Alloys”.
- **Mr. Parashuram AK** has completed Comprehensive viva voce in the year 2021 from KSIT, Mech R & D, for the title “Experimental and theoretical studies on oscillating heat pipes using pure and binary mixture of fluids” under the guidance of Dr. K. Rama Narasimha, Principal / Director, KSSEM, Bengaluru.

- **Mr. Harish U** has completed Comprehensive viva voce in the year 2021 from JSSATE, Mech R & D, for the title “Study of Experimental Investigations on Erosion Resistant Tungsten Carbide Alloy Coatings for Inconel prevailing Gas turbine blades” under the guidance of **Dr. Mruthunjaya.M**, Associate Professor. Mech. Department, JSSATE, Bengaluru”

ACHIEVEMENTS BY STUDENTS

- **Mr. Anirudh Bharadwaj, Mr. Bharath Kumar G, Mr. Ganapathi Manjunath H, Mr. Ganesh Kumar Narayan** received fund of Rs.6000/- from 44th series, Student Project Programme of Karnataka state council for science and technology 2020-21 for the project “Fabrication of Portable Shredding and Composting Device for Kitchen & Garden Waste” under the guidance of **Mr. K Prasad**
- **Mr. R Gokul, Rajath N R, Mr. Satwik Shivaram Bhat, Mr. Shashank L** received fund of Rs.6000/- from 44th series, Student Project Programme of Karnataka state council for science and technology 2020-21 for the project “Fabrication & Performance testing of portable Archimedes screw micro hydro generator” with the guidance of **Mr. K Prasad**
- **Mr. Darshan B S, Mr. Abhilash K S, Mr. Asif K, Mr. Prakash Y** received fund of Rs.6500/- from 44th series, Student Project Programme of Karnataka state council for science and technology 2020-21 for the project “Design & Development of zero lag turbocharger to increase engine efficiency and to reduce air pollution” under the guidance of **Mr. Anil Kumar A**
- **Mr. Puneeth Gowda N, Mr. Shashi Kiran, Mr. Skanda S, Mr. Sowrav A**, received fund of Rs.6000/- from 44th series, Student Project Programme of Karnataka state council for science and technology 2020-21 for the project “Automatic disinfectant system” with the guidance of **Mr. Gautham S**
- **Mr. Shreyas S, Mr. Shri Harsha P, Mr. Santhosh G, Mr. R Jai Krishna**, received fund of Rs.5000/- from VTU Financial Assistance for Innovative Projects of Final Year UG Students 2020-21, for the project “Design and fabrication of multipurpose agriculture machine” under the guidance of **Dr. Nirmala L**
- **Mr. Sharath R Chawan, Mr. Yashas G V, Mr. V Vinay, Mr. Manoj M**, received fund of Rs.5000/- in VTU Financial Assistance for Innovative Projects of Final Year UG Students 2020-21 for the project “Detection of surface irregularities using delta robot” with the guidance of **Mr. Bharath Kumar K R**
- Congratulations to **Mr. Sirish Govardan** for Receiving National award, from Hon. President of India for your services as NSS volunteer.

- **Mr. Vinay V P** Received the **Swayam-Student Volunteering Champion Award** from Youth for Seva in recognition of his efforts towards serving society. The award was presented during Udhvikas 2020 a State-level Youth Conclave to nurture mindful volunteering.

- In 2020 Visvesvaraya Institute of Technology deputed **Mr. Vinay V P** as a **Training officer for the State NSS parade** which will be held at the **Manek Shaw parade ground**.

CLUB ACTIVITIES

- **Team redline racing from K S Institute of Technology**, Bangalore has successfully designed and fabricated an off road buggy for competing in Mega ATV Championship organized by Autosport India to be held during the month of April 2021 in Goa.



Unveiling of off road buggy 'ASKRAN'

Sri. Y. Ramachandra Naidu, President, Sri K. Venkatesh Naidu, Hon. Secretary, Sri. D. Rukmangada, Hon. Treasurer, Sri. T. Neerajakshalu Naidu, Chairman, Hostel Committee Kammavari Sangham, Dr.K.V.A. Balaji, CEO, KSIGI, Dr. Rama Narasimha, Principal, KSSEM, Dr. Sangappa. S. B, PRO, KSIGI, Prof. Umashankar. M, HOD graced the 'unveiling' programme of the off-road buggy named ASKRAN. The team of 30 students headed by Mr. Punith is passionate and eager to participate in the competition under the guidance of Dr. Balaji. B and Dr. Nagaprasad K.S.IT.

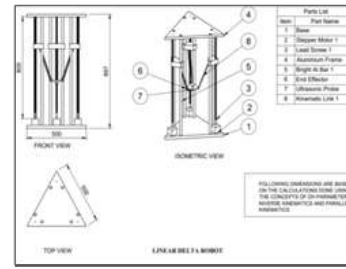
- **Team Redline Racing stood 1st place in Karnataka and 9th place in overall ranking** in an event "**Mega ATV Championship**", organized by **Autosports India**, held at Goa from 9th April to 13th April 2021.

- Department conducted various events under **TECHNOTSAV 2K21** for both **KSIT and KSSEM** students on 17th July, 2021 under the association of **SAE club**. Renowned Judges for all the events were invited. More than **20 teams** from all the branches of engineering have actively participated and the event is successfully done.



BEST PROJECT

- **Best project of the year 2020-21: Detection of surface irregularities using delta robot**



The project entitled "**Detection of surface irregularities using delta robot**" was undertaken by the 8th semester students, and **Mr. Yashas GV, Mr. Sharath R Chawhan, Mr. Vinay** and **Mr. Manoj M**, guided by **Mr. Bharath Kumar, Assistant Professor, Mechanical Engineering**. This project is developed in order to carry out nondestructive testing of materials without contact to determine irregularity that are present in manufactured parts by analyzing graphical output.

100% Results in VTU University Examinations

ACADEMIC YEAR-2020-21

- | | |
|----------------------|-------------------------------|
| 1. Mr K Prasad | Product Life Cycle Management |
| 2. Mr Nagabhushana M | Product Life Cycle Management |
| 3. Dr Girish T R | Additive Manufacturing |
| 4. Mr Manjunatha B R | Additive Manufacturing |
| 5. Dr Girish T R | Tribology |
| 6. Mr Anil Kumar A | Tribology |

Toppers List

VIII SEMESTER



Mr. PRITHVI B
1KS17ME052
SGPA: 9.65



Mr. GANESH NARAYAN HEGDE
1KS17ME025
SGPA: 9.60



DEPARTMENT OF BASIC SCIENCES AND HUMANITIES

About the Department



Dr. Jalaja P
HOD

Engineering refers to the application of Scientific Knowledge for the betterment of humanity. All that mankind has accomplished in the field of technology is built around the basic concepts and theories of Science. Physics, Chemistry and Mathematics have been fundamental pillars of scientific education for longer than perceived by man. The seed of Basic Sciences which emerges out into various branches in Engineering ultimately provides multiple fruits such as successful careers for students and progress in society. The faculty of Basic Science department has a complete understanding of their core subjects and help every student in achieving a stronger insight into the world of Science in turn helping them to attain excellence. The department has all the necessary infrastructure in terms of Laboratory and required equipment's as per the syllabus prescribed by the VTU Belgaum.



VISION

- “To create a conducive environment to impart sound fundamentals and problem solving Skills among the Students and prepare them for higher learning”

MISSION

- To continuously improve the teaching –learning process and maintain effective pedagogy.
- To inculcate ethical and professional values among students.
- To create Institute-industry interaction to promote research.

LATEST TECHNOLOGY

Sonifying science: from an amino acid scale to a spider silk symphony



For thousands of years, sound has been an integral part of the human experience, and in many ways, it forms the bedrock of our social and cultural experiences. Indeed, humans have developed a taste for artistic expression through the generation of music. Music has become a powerful art form – both in performance and the creative process. When it comes to western classical music in particular, much of it is based on and developed through mathematical concepts – quite evident, for instance, in the detailed analyses of the compositions of the eminent musician Johann Sebastian Bach.

At the very foundation of many musical styles in classical music is the concept of “harmony” – the sound of two or more notes played at the same time – and then the more dissonant chords. Taken together, they can form opposing poles in musical creation. Interestingly, these concepts are deeply rooted in the physics of vibrations of macroscopic objects such as strings or membranes, and have evolved through the interaction of humans with physical objects.

Molecular motions and even much smaller scales can be used to generate sound.

Furthermore, recent research suggests that there is much to be explored when it comes to vibrational patterns as a fundamental, universal language of all living systems. In fact, it’s not just macroscopic objects that can serve as the source for sound. Molecular motions and even much smaller scales (such as wave phenomena at the quantum level) can also, if properly processed, be used to generate sound, thereby expanding our artistic palette based on advances in physics.

A remarkable example of translating music into molecular structure, and vice-versa, lies in a key chemical constituent of life – namely the 20 amino acids that link up in chains to form all proteins. Generally speaking, proteins are the building blocks of all life, creating materials as diverse as human cells, hair and spider silk. Proteins are also key in countless other functions, including enzymes, drugs and viruses – each with unique physical properties that often link closely to their role as a biological agency. But protein structures, including the way they fold themselves into the shapes that often determine their functions, are exceedingly complicated.

DEPARTMENT WELCOMES



Dr. Renuka C Assistant Professor.

Mr. Naveen V Assistant Professor.

EVENTS ATTENDED BY FACULTY

- **Dr. Jalaja P** participated in the 2nd International Conference on Recent Trends in Applied and Computational Mathematics (ICRTACM – 2021), held on the 8th and 9th October, 2021 organized by the Reva University Bangalore.
- **Dr. S R Kiran kumar** attended a One Week AICTE Sponsored Short Term Training Program titled Advanced Manufacturing Techniques for Medical and Precision Engineering Organized by Department of Mechanical Engineering MVJ College of Engineering, Bengaluru from 04-09 January 2021.
- **Dr. Renuka C** attended a two day workshop on “Implementation of NEP 2020” organized by BMSCE on 15 and 16 November 2021.

- **Dr. S R Kiran kumar** attended a One Week AICTE Sponsored online Short term Training Programme (STTP) on Emerging Trends in Nanomaterials for Electronic and optoelectronic Devices, Organized by Department of Electronics & communication engineering from May 17-22/2021.
- **Dr. Renuka C** attended a National Conference on Implementation of NEP 2020 ”Challenges and opportunities for Educational Institutions” organized by EPSI on November 30, 2021 Bengaluru.
- **Ms. Shylaja K R** attended a National Webinar on innovation in catalysis for Sustainable Organic Synthesis on 20th July at SVCE Bangalore
- **Dr. S R Kiran kumar** participated in GUJCOST & DST Sponsored Four Days Faculty Development Program on Green Chemistry & Technology for Sustainable Engineering, January 18-21, 2021 Organized by School of Engineering P.P Savani University.
- **Dr. S R Kiran kumar** participated in an International Webinar on The Implementer Role of Chemical and Biological Sciences in Conflict Contrary to COVID-19 Organized by the Department of Chemistry, H.K.E Society and J.M Bohra College, Shorapur Karnataka held on 29th January 2021.
- **Dr. S R Kiran kumar** participated in an International Webinar on Empowering Diversity in Science on 9th February, 2021 Organized by the Department of Chemistry KNM, Nagpur and Association of (TIFR) Mumbai In Collaboration with (IUPAC).
- **Dr. S R Kiran kumar** participated in an National level one week Faculty Development Program on Research Methodology from 26th April to 1st May 2021 Organized by Kamla Nehru Mahavidyalaya, Nagpur. Certificate no: 2QKSIY-CE001141.
- **Dr. S R Kiran kumar** participated in an International E-Conference on recent Advances in Chemical, Physical and Biological Sciences (RACPBS-2021) on 29th-30th June 2021 Organized by Department of Chemistry, Association of Chemistry Teachers, C/o Homi Bhabha Centre for Science Education TIFR Mumbai.
- **Dr. S R Kiran kumar** participated in the NAAC Sponsored National webinar on The Impact of Covid-19 Pandemic Crisis on Higher Education Institutions in Karnataka and its challenges, Organized by IQAC, HKE Society Yadgiri held 20th July, 2021.
- **Dr. S R Kiran kumar** participated in a National webinar on “Nuclear Radiation for Societal Applications” on 7th September 2021 organized by Department of Physics and IQAC, Dada Patil Mahavidyalaya, Karjat Dist-Ahmednagar (MS) India.

PUBLICATIONS BY FACULTY

- **Dr. S R Kiran Kumar** Presented a paper titled ZnO@MnO₂ Nan composite Modified Carbon Paste Electrode for Electrochemical Detection of Dopamine, Elsevier-Journal Sensors International 2021. Vol. 8, Nos. 3, 2021, ISSN: 2666-3511.
- **Dr. S R Kiran Kumar** presented a paper titled Electrochemical Sensor for detecting Dopamine using Multiwalled Carbon Nanotubes by Catalyst Chemical Vapor Deposition Method, Journal of Elsevier-Physica B: Condensed Matter, Volume 620, 1 November 2021, 413137.
- **Dr. S R Kiran Kumar** presented a paper titled Development of ZnO-NiO Nanocomposites for the Electrochemical Detection of Dopamine using Modified Carbon Paste Electrode". Journal of Chemical and Pharmaceutical Research, 2021, 13(8):01-10, ISSN : 0975-7384, CODEN(USA) : JCPRC5.
- **Dr. S R Kiran Kumar** presented a paper titled Development of CuO nanoparticles for the efficacy of voltammetric response of dopamine and antimicrobial activity, Springer 2021 proceeding in Materials, Series ISSN 2662-3161.
- **Mr. Venkataramana B S** presented a paper titled The properties of one parameter Power Exponential Mean and its invariants Advances and Applications in Mathematical Sciences, Volume 20, Issue 7, May 2021, pp 1197-1208. ISSN 0974- 6803.
- **Mr. Venkataramana B S** presented a paper titled The Ky Fan type inequalities for power exponential mean and its invariant, GIS science journal, volume 8, Issue 1, 2021. ISSN 1869-9391.
- **Ms. Shylaja K R** presented a paper titled Material for the Millennium- Maton at the International Conference 15th March 2021 at the University of Cochin.

ACHIEVEMENTS BY FACULTY

INVITED TALK



- **Dr. Renuka C** gave a talk on Universal Human Values at the Kammavari Sangham Polytechnic Bengaluru as part of the Induction Program conducted as per the guidelines of All India Council for Technical Education and Department of Collegiate and Technical Education, Government of Karnataka on 22nd, 23rd and 24th September.



- **Ms. Anuradha M V** gave a talk on Universal Human Values at the Kammavari Sangham Polytechnic Bengaluru as part of the Induction Program conducted as per the guidelines of All India Council for Technical Education and Department of Collegiate and Technical Education, Government of Karnataka on 22nd, 23rd and 24th September
- **Dr. Renuka C** was a Judge at a Hobby Project Competition/Exhibition on Science and Engineering at Kammavari Sangham School of Engineering and Management on 17th March 2021

PATENTS BY FACULTY

- **Dr. Kiran Kumar S R** Title of the invention: SILICON-TERMINATED ORGANODIVALENT METAL COMPOUNDS AND PROCESS FOR PREPARATION, Intellectual Property Application No.202141005215 A Publication Date: 19/02/2021
- **Dr. Kiran Kumar S R** Title of the invention: NOVEL NANOMATERIAL COMPOSITION FOR DYE DEGRADATION, Intellectual Property Application No 202141018026 A Publication Date: 30/04/2021.

CONGRATULATIONS



- **Dr. Jalaja P** awarded Doctor of Philosophy from the Visveswaraya Technological University, Belagavi, Karnataka India in April 2021, the Thesis titled A Numerical Study of Unsteady Incompressible Boundary Layer through Double Choking Supersonic Ejectors carried under the Research Supervisor Dr. Shivakumar H M.

About The Department



Dr. Harish R

HOD, Training and Placements

At KSIT, We have established a Stand-Alone Training & Placement Department which is equipped with State of the Art infrastructure having 200 Seating Capacity Conference Hall, 125 dedicated systems, 04 Group Discussion Rooms, and 08 interview rooms to support On-campus Placement Activities.

We provide extensive training to our students starting from the first semester till their 7th semester on Quantitative Aptitude, Logical Reasoning, Soft Skills (Communication, Group discussion, Interview Skills) etc.

We provide domain specific technical training from experts from the Industry during their Pre-Final year and Final year to prepare them for campus placements.

We also offer various Company Specific Training to eligible students and conduct multiple Mock- Tests before any company visits our institution for Campus Drive

We invite Experts from Industry to address our students on various areas for career enhancement.

We are glad that more than 90% of the eligible students are getting placed every year. Our Aim is to provide employment opportunities to all our students.

We have leading companies in the likes of Infosys, NTT Data, KPMG, Mindtree, Sonata Software, TCS, Wipro, Tech Mahindra, LTI, Capgemini, Cognizant and many more recruiting our students every year.

We have signed MoU's with various industry bodies to facilitate our students to expose to Industry needs and Expectations.

Also the Training and Placement Department organizes various awareness programmes Bi-Annually on GRE/ GMAT and TOEFL to students who are willing to pursue higher education both in India and Abroad.

KSIT established Training and Placement department in 2004 and since its inception the department has been giving numerous opportunities to its students of various branches. The department has been instrumental in establishing connects with Corporates as well as Industries. We have partnered with various IT companies which visit our campus to recruit our students every year in huge numbers.

We have set the culture of training our students right from their first semester till their last semester on various aspects which will mould them into a thorough professional and make them industry ready. These training programmes are framed with utmost care keeping the industry expectations and dynamics in mind.

We, at KSIT –Placements make sure that every eligible student gets multiple opportunities with packages ranging 4.00 LPA to 18.0 LPA. We are extremely proud that our students are working in various Multi-National Companies in India and in Abroad.

We also organize various Industry-Readiness Programmes to our students to help them cope up with the changing trends in the Job Market. We have state of the art infrastructure to execute campus drives at our Institution with Large Seminar hall with Audio-Visual Aids, Computer Center with latest configuration systems, Group Discussion Rooms, Interview Rooms etc which facilitate campus drives.

Our Main Goal is make sure every student who graduates from KSIT should have a Job in Hand.



DETAILS OF STUDENTS PLACED-2021 BATCH

Sl. No	NAME OF COMPANIES	CS	EC	TC	ME	TOTAL
1	INFOSYS	11	13	3	7	34
2	NTT DATA	22	11	NA	NA	33
3	TCS Ninja	15	12	4	3	34
4	ACCENTURE	18	7	1	1	27
5	AVAALI SOLUTION	8	6	4	NA	18
6	KPMG	11	6	NA	NA	17
7	GARUDA AEROSPACE	NA	3	1	9	13
8	JARO EDUCATION	2	6	2	2	12
9	CAPGEMINI	5	1	3	2	11
10	FIS	7	NA	NA	NA	7
11	WIPRO	5	1	0	NA	6
12	MIND TREE	4	1	1	NA	6
13	QUINNOX	4	NA	NA	NA	4
14	SUBSCRIBEIT	4	0	0	NA	4
15	VERZEO	1	3	NA	NA	4
16	TECHNOLOGICS	1	1	0	1	3
17	DEVTOOLS	1	0	0	1	2
18	UNIPHORE	2	0	0	NA	2
19	INTEGRA CONNECT	2	0	NA	NA	2
20	INTELLIPAAT	0	1	0	1	2
21	HASHEDIN TECHNOLOGIES	1	0	0	NA	1
22	CRMIT SOLUTIONS	1	NA	NA	NA	1
23	LIDO	2	0	0	0	2
24	EMBTECH INNOVA	NA	0	1	NA	1
25	PEOL TECHNOLOGIES	1	NA	NA	NA	1
26	APISERO INC	1	0	0	NA	1
27	VIRTUSA	1	NA	NA	NA	1
28	IBM	1	0	0	NA	1
29	DESK NINE	1	NA	NA	NA	1
30	RUDDER ANALYTICS	0	0	1	NA	1

31	UFABER	0	1	0	NA	1
32	MOOLYA SOFTWARE TESTING PVT LTD	0	1	NA	NA	1
33	IBM	1	0	0	NA	1
34	MICROCHIP	1	NA	NA	NA	1
35	TCS Digital	0	0	0	0	0
36	SAP LABS	0	NA	NA	NA	0
37	JUSPAY	0	0	0	0	0
38	KALGUDI	4	0	0	0	4
39	SONATA SOFTWARE	3	4	2	NA	9
40	PLANET SPARK	10	5	1	6	22
41	CERNER	3	NA	NA	NA	3
42	BRILLIO	3	NA	NA	NA	3
43	CELSTREAM	1	NA	NA	NA	1
44	DELL	2	NA	NA	1	3
45	COGNIZANT	3	4	2	NA	9
46	GRASSROOTS	0	1	1	2	4
47	HUAWEI	1	0	0	0	1
48	CSG	1	0	0	0	1
49	ENGAGEDLY	1	0	0	0	1
50	HEADSPIN	0	1	0	0	1
51	MOTHERSUN SUMI	0	0	0	0	0
GRAND TOTAL		166	89	27	36	318

DRIVES @ KSIT



Other Recruiters: MPHASIS, HP, HARMAN, DOTGO, THOUGHTCLAN Technologies, BYJUS, HUDL, LEKHA WIRELESS, ANORA SEMICONDUCTORS, HASHEDIN TECHNOLOGIES, PEOL TECHNOLOGIES, APISERO INC, VIRTUSA, MICROCHIP, SONATA SOFTWARE, GOLDMAN SACHS etc

EVENTS CONDUCTED

- TCS conducted a Virtual webinar on **“Building the Future Advantage, Now”** for 5th and 7th semester students on 17th February, 2021.
- SAP conducted a Virtual webinar on **“Career Opportunities in SAP”** for all students on 3rd March, 2021.
- TOEFL conducted a Virtual webinar on **“Road to Study Abroad”** for 6th to 8th semester students on 9th June, 2021.
- Rare Minds conducted a Virtual webinar on **“Scope and Possible career Opportunities”** for 6th semester students on 10th June, 2021.
- Texas Review conducted a Virtual webinar on **“Exclusive Prospect of Career Counseling & Innovative Abroad Educational Programs”** for 8th semester students on 16th June, 2021.
- Indian Machine tool conducted a Virtual webinar on **“Design Engineer- As A Successful Career Path For Fresh Engineers”** for 8th semester students on 17th June, 2021.
- Textbook College Connect conducted a Virtual webinar on **“How To Approach Gate 2022”** for 6th semester students on 18th June, 2021.
- TCS conducted a Virtual webinar on **“TATTVA CONNECT SESSION”** for 6th semester students on 21st June, 2021.
- The Skill Factory conducted a **“Personal Development Programme”** for 6th semester students from 8th July 2021 to 14th July 2021.
- JV Global conducted a **“Personal Development Programme”** for 2nd and 4th semester students from 8th July 2021 to 13th July 2021.

LIBRARY AND INFORMATION CENTRE

About The Department



Dr. V. Bharathi
Chief Librarian

KSIT library as a resource centre for teaching, learning and research. Being the heart of the academic centre, it's home for all information services. It provides continuous access to knowledge and information in the library to the students and faculty of the institute for achieving excellence in their chosen discipline. Library has spread over two floors with 200 seating capacity, state-of-art Digital library, Discussion room, Stack area, Reference section, Circulation counter, OPAC search, Journals/ Magazines and News paper sections are made available.

COLLECTIONS

BOOKS

Under-Graduate

Volumes	35328
Titles	4836

Post-Graduate

Volumes	612
Titles	187
Print Journals	21
e-Journals	5561
e-Books	23238



NATIONAL SERVICE SCHEME(NSS)

- The NSS Volunteers of KSIT celebrated the Republic Day on 26th January 2021. The Management, CEO, Principal, All the Department HODs were present in the event.



- The NSS Cell of KSIT took an initiative to create awareness about adverse effects on our environment because of single use plastics. Elimination of single use plastic awareness program was conducted on 5th April 2021 in the campus of KSIT. As a part of this event, NSS student volunteers and faculties of KSIT gathered together to create awareness about this issue.



- COVID-19 Cell of KSIT organized Free Vaccination Drive (First Dose) for Faculty and students of K.S. Institute of Technology in association with Manipal hospitals and Mobile Premier league (MPL) on 6th July 2021 and have successfully vaccinated 384 students and staff.



- The NSS Volunteers of KSIT celebrated the Independence Day on 15th August 2021.



- The NSS Cell of KSIT under the umbrella of National Service Scheme(NSS) celebrated Constitution Day program on 26th November 2021. All the Dignitaries, NSS volunteers and students took the pledge of the preamble of Indian Constitution.



- The NSS Unit of KSIT in the wings of National Service Scheme (NSS) organized an event on 'Awareness about fire accidents' on 1st December 2021. The usage of fire extinguisher was demonstrated and the necessary precautionary measures were outlined as a part of the program.



- The NSS Unit of KSIT in the wings of National Service Scheme(NSS) organized 'Swachh KSIT' on 7th December 2021. The volunteers were divided into five teams: Kuvempu, Vishveshwaraya, Sangolli Rayanna, Kitoor Rani Chenamma and Vivekananda. Team Kuvempu took the incharge of cleaning the parking lot and footpath near the front and back gate. Team Vishveshwaraya were given incharge to clean backside of the college. Team Sangolli Rayanna were given incharge to clean the playground. Team Kitoor Rani Chenamma were given incharge to clean near the lawn. Team Vivekananda were given incharge to remove the unwanted posters in the college.



ALUMNI MEET

The Alumni Meet was organized on 28th November 2021 in KSIT conference hall at 10:30 am & 165 Alumni have attended the meet. The Registrations for the Alumni Meet started at 9.30 am. The KSIT Alumni Office, to carry out all the meetings and activities of Alumni Association was inaugurated by Sri. Rajagopal Naidu, President of Kammavari Sangham & Sri. Vinay K R, President of KSIT Alumni Association and during the inauguration, office bearers of the association, Principal of KSIT Dr. Dilipkumar K, Principal of KSSEM Dr. Ramanarasimha, Heads of all the Departments & Alumni were present. Mr. Balasubramanian E, Alumni of 2005 & Presently working as Manager at publicis Sapient was the Chief Guest for the Alumni Meet.

Sri. Lakshminarayana N, Alumni of 2011 Batch & Currently working as Team lead at World Emp, was Guest of Honor. Sri. Subramanya K S, Alumni of 2013 batch & founding member of sensible Intelligence & Enmaz Engineering services was also a guest of Honour. Sri. Rajagopala Naidu, President of Kammavari Sangham presided over the function and Sri. T Neerajakshulu Naidu, Honorary Treasurer; Kammavari Sangham also graced the occasion. Dr. DilipKumar K, Principal of K.S.I.T and Rector of the Alumni Association also graced the occasion. Meet began with an invocation song by Seventh semester Students of Mechanical Engineering, Sumukha & Anirudh. Then Mr. Anilkumar A, Secretary of KSIT Alumni Association proposed a welcome address to all the dignitaries. Then the Guests addressed the gathering. They shared their successful journey and also refreshed their memories of the college days in KSIT. After the Alumni interaction all the Alumni Guests and Alumni Achievers were felicitated by the Management of Kammavari Sangham and dignitaries on the dais. Finally meeting ended with a vote of thanks by Prof. Jayasudha of Electronics & Communication Engineering and Alumni have assembled for a group photo session in the Lawn area and followed by lunch.



Opening of KSIT Alumni Association office



Dignitaries lighting the lamp



Felicitation to chief guest, guests of honor's and Alumni's



Group photo of Alumni Meet 2021

DEPARTMENT OF PHYSICAL EDUCATION

K S institute of technology, Department of Physical Education & Sports is a cell of major activity in the Campus. Visvesvaraya Technological University (VTU, Belagavi). The Department of Physical Education & Sports is well equipped with modern infrastructure and conducts activities like Basketball, Volleyball, Badminton, Table Tennis, Cricket, Handball, Football, Netball, Chess, and Athletics.

About The Department



Mr UMESH S

Physical Education Director

Physical education is an integral part of the total education. Quality physical education programs help all students develop health-related fitness, physical competence, cognitive understanding, and positive attitude about physical activity, so that they can adopt healthy and physically active lifestyles. The department of Physical Education at The Kammavari Sangham Institute of Technology aims at such activities which helps the students develop a holistic approach. The students have participated in many various tournaments conducted by V.T.U, all India universities, district, state & national events and have brought laurels to their institution. We are proud to be one amongst the 10 College of VTU to Received Meritorious institutions Cash Award of 1 Lakh for sports achievement for the academic year 2015-16 in VTU sports

Sl. No.	Tournament/ Competition	Held at	Date	No. of Students	Level	Achievement
1	7 th National Floor Ball Federation Cup 2021	Sikar, Rajasthan	22 nd December to 31 st December 2021	01	National	Represent Karnataka
2	All India Inter University Yoga Tournament 2021-22	Kalinga Inst of Industrial Tech Bhubaneswar (Orisha)	20 th December 2021 to 29 th December 2021.	01	Inter University	One Student Represented VTU
3	VTU Bangalore South Zone Inter College Badminton (M&W) Tournament 2021-22	SJB IT Bengaluru.	15 th & 16 th November 2021	10	Inter-Collegiate	our college (W) team qualified for Quater finalist
4	VTU Bengaluru Zone Inter Collegiate Kabaddi (W)Tournament 2021-22	KSIT Bengaluru	14 th & 15 th December 2021	12	Inter-Collegiate	our college (W) team qualified for Quater finalist





Vishal S Raju 5th sem ECE Department selected to represent VTU at the all India Inter University Yoga Tournament from 25th December 2021 to 28th December 2021 at **Kalinga Inst of Industrial Tech Bhubaneswar (Orisha)**



Vaishnav H of 5th Sem Dept of MEC Represented Karnataka Floor Ball team in 7th National Floor Ball Federation Cup 2021 held at **Sikar, Rajasthan** From 22nd December to 31st December 2021.

VTU Inter Zone Intercollegiate Kabaddi (Women) Tournament 2021-22

16th & 17th December 2021

About The Kabaddi Tournament

K.S. Institute of Technology, Department of Physical Education & Sports organized the VTU Intercollegiate Kabaddi (Inter Zone) Tournament held on 16th & 17th December 2021, it was inaugurated on 16th December 2021. The Chief Guest **Dr. Rajesh Y H** Former Director of Physical Education VTU, in his address emphasized the importance of sports in every student's life. The Guest of Honour **Mr. Lakshmish M Bhat** Kabaddi Player (Alumni of KSIT) **Mr Arun R** Kabaddi Player (Alumni of KSIT) has advised the students to give importance to academic and sports as well to excel in the career. Sri. R. Rajagopal Naidu, President, KSGI, in his Inaugural Address highlighted the importance to the sports extended by Kammavari Sangham. Sri. R. Leela shankar Rao, Secretary & Sri. T. Neerajakshulu Naidu, Treasurer KSGI gave a note on facilities available in the college and encouragement given by Kammavari Sangham. Dr. Dilip Kumar K, Principal / Director, KSIT delivered the welcome speech.



Management, chief Guest and Guest of honor



KSIT Kabaddi Team (Women)



Winners of VTU Intercollegiate Kabaddi (Inter Zone) Tournament (BMSCE, Bengaluru)

COVID-19 CELL

A core "COVID-19 Task Force Team" was formed and is headed by Dr. Surekha Borra, Professor, Dept. of ECE to organize, implement, monitor and to take care of different aspects related to the SOPs, instructions, guidelines, and orders issued by VTU, UGC, Central and State Governments concerning the opening of educational institutions during the Pandemic. The team is composed of 10 senior members from various departments:

Dr. Sudarshan B, Professor, Dept. of ECE

Dr. Girish T R, Associate Professor, Dept. of ME

Dr. Nagaprasad KS, Associate Professor, Dept. of ME

Dr. Rekha N, Associate Professor, Dept of ECE

Dr. Devika B, Associate Professor, Dept. of ECE

Dr. K. Venkata Rao, Professor, Dept. of CSE

Dr. Deepa S R, Associate Professor, Dept. of CSE

Dr. V Bharathi, Head, Library and Information Centre

Mr. Chowdappa M R, Assistant Professor, Dept. of BSH

Mr. Umesh S, PDE

The task force team met regularly, discussed on issues related to providing a safe and stress-free environment for students to attend the college, and had ensured the following since August 2020:

- **Sanitization procedures of college premises, college buses, hostels, exam halls at the end of each day**
- **Everyday thermal screening of staff and students**
- **Signages, sanitary facilities on premises**
- **Entry and exit monitoring and observing social distancing and wearing of masks.**
- **Safe seating arrangement and conduction of exams separately for Students with fever, cough and cold**

COVID-19 Cell of KSIT organized a Webinar on "COVID-19 Vaccination Technologies", on 12th June 2021 to bring awareness to the stakeholders of K S Group of Institutions. The speaker was Dr. Raghavan Varadarajan, Professor, Molecular Biophysics Unit, Indian Institute of Science (IISc), Bangalore. A total of 245 students, staff and parents attended this webinar actively.

- COVID-19 Cell organized Free Vaccination Drive (First Dose) for Faculty and students of K S Institute of Technology in association with Manipal hospitals and Mobile Premier league (MPL) on 6th July 2021 and have successfully vaccinated 384 students and staff.
- COVID-19 Cell of KSIT organized Free Vaccination Drive (Second Dose) for Faculty and students of K S Institute of Technology in association with KSIT ALUMNI on 9th Oct. 2021. A total of 200 students and staff were vaccinated.
- COVID-19 Cell organized COVID Tests at campus 5 times (17/11/20, 4/12/20, 30/12/20, 15/1/21 and 22/3/21) as part of preventive measures.



BBMP officials collecting COVID-19 Samples



COVID TASK FORCE with Student Volunteers during Vaccine Drive



Manipal Hospital team administering vaccination to students



Dr. Surekha Borra, Professor & COVID Task force chief welcoming Dr. Salma, BBMP



Dignitaries inaugurating the Vaccine Drive



SOP followed during VTU exams



UPCOMING EVENTS 2022



SPORTS DAY 2022
ANANYA 2022
PLACEMENTS 2022
NATIONAL CONFERENCE 2022
SEMINARS, TECHNICAL TALK 2022
SENTINEL HACKATHON 2022
PROJECT EXHIBITION 2022
FAREWELL 2022

AND MANY MORE.....

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