KSSEM
K S SCHOOL OF ENGINEERING AND MANAGEMENT

JANUARY–JUNE

2025

VOLUME - 1

BITS & BYTES

ECE DEPARTMENT NEWSLETTER

EXCELTRON - ECE
KSSEM

BITS & BYTES

What's inside...?

MESSAGE FROM MANAGEMENT

SRI. R. RAJAGOPAL NAIDU
President

I am quite impressed by the progress and opportunities in the EC Department. BITS & BYTES beautifully captures how the department is building a strong educational foundation and preparing students for the real world.

The leadership has done a fantastic job of creating platforms for students to develop industry-relevant skills through workshops and hands-on training.

A huge congratulations to the students, mentors, and administration for their commitment. A big thank you to the editorial team for showcasing all these wonderful achievements. Here's to your continued success!

SRI. R. LEELA SHANKAR RAO
Hon. Secretary

It's truly inspiring to see the incredible academic achievements and learning opportunities flourishing in the E&C Department. This edition of BITS & BYTES is a fantastic testament to the department's collective effort to create a dynamic and supportive learning environment. The leadership has been nothing short of exceptional, proactively creating platforms for students to master the skills needed for a demanding future. By organizing numerous workshops and hands-on training sessions, you're giving students the practical experience and foresight they need to succeed. To every student, mentor, and administrator, your hard work and dedication are commendable. You are the driving force behind this success, and I have no doubt that your future endeavors will be even more remarkable. A special congratulations to the editorial team for brilliantly showcasing the wonderful things happening in the department. Keep up the amazing work—the future is bright!
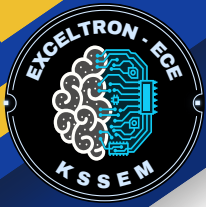
SRI. T. NEERAJAKSHULU
Treasurer

I am delighted to see the E&C department's newsletter, which expertly highlights the academic, co-curricular, and extracurricular achievements of the past year. These activities are vital, as they not only enrich students' learning experiences but also provide them with practical, real-world opportunities to apply their knowledge.

The active participation of both staff and students is a clear sign of a culture of mutual learning and growth. The Management is committed to fully supporting these initiatives that equip students with the latest tools and techniques.

My sincere congratulations to the staff, students, and the editorial team for their hard work and for so skillfully presenting this edition of BITS & BYTES. I wish you all continued success.

I am delighted to see this edition of BITS & BYTES, the official newsletter of the E&C Department. It's inspiring to witness the wide range of activities and initiatives that have contributed to the holistic development of our students at KSSEM. The department's focus on innovative projects, hands-on training, and a variety of co-curricular and extracurricular activities reflects a strong and positive learning culture.

I am confident that our students will continue to showcase remarkable skills and creativity, making us proud to be a part of their academic journey. This newsletter beautifully highlights their accomplishments and progress. My sincere congratulations to the faculty, students, and leadership for their commendable efforts in presenting their year-long journey with such excellence. I wish the E&C Department continued success in setting new benchmarks of distinction.

DR. K.V.A. BALAJI
CEO, KSGI

As we embark on a new and exciting year, it fills me with immense pride to present this latest edition of Bits & Bytes! This newsletter is a vibrant testament to the hard work, dedication, and innovative spirit of our entire ECE community.

Each page showcases the incredible achievements of our students. From academic triumphs to cultural victories and community contributions, your perseverance, creativity, and commitment shine through. It is truly inspiring to see your talents on full display.

A huge congratulations to the Newsletter Editorial Committee for their tireless efforts in bringing this wonderful edition to life. Your work beautifully captures the essence of our department.

As we continue to learn, innovate, and collaborate, I encourage you to keep sharing your brilliant ideas. Your insights are the fuel for our growth. The year ahead is full of incredible events and opportunities to expand your knowledge and skills. I urge you to get involved and make the most of every experience. Your engagement is invaluable, and together, we will reach extraordinary new milestones.

DR. K. RAMA NARASIMHA
Principal / Director

Dear Team, As we begin a new academic year, I want to express my gratitude and excitement for the journey ahead. It is truly inspiring to see our editorial team grow, bringing fresh ideas and dedication to shape this edition of our department newsletter.

The unwavering efforts of our students and faculty have been crucial to our progress. I am incredibly proud of your contributions and commitment. This newsletter not only celebrates your hard work and accomplishments but also lays the groundwork for future growth and innovation.

Thank you for your enthusiasm. Let's continue working together to reach new heights and make a lasting impact. I encourage you to stay curious, explore new possibilities, and embrace challenges with confidence.

DR. K SENTHIL BABU
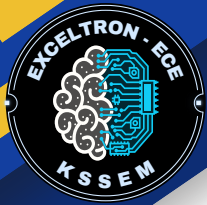Professor & Head

HOT TOPIC

India Semiconductor Mission

The India Semiconductor Mission (ISM) aims to build a strong semiconductor and display ecosystem, positioning India as a global hub for electronics manufacturing and design, while serving as the nodal agency for the efficient and seamless implementation of semiconductor and display schemes. Its aim is to enhance semiconductor design and manufacturing capabilities within the country, fostering innovation, employment, and economic growth. The development of the semiconductor ecosystem in India will substantially increase domestic value addition in electronics manufacturing, reduce import dependency and integrate India electronics manufacturing ecosystem with global supply chains.
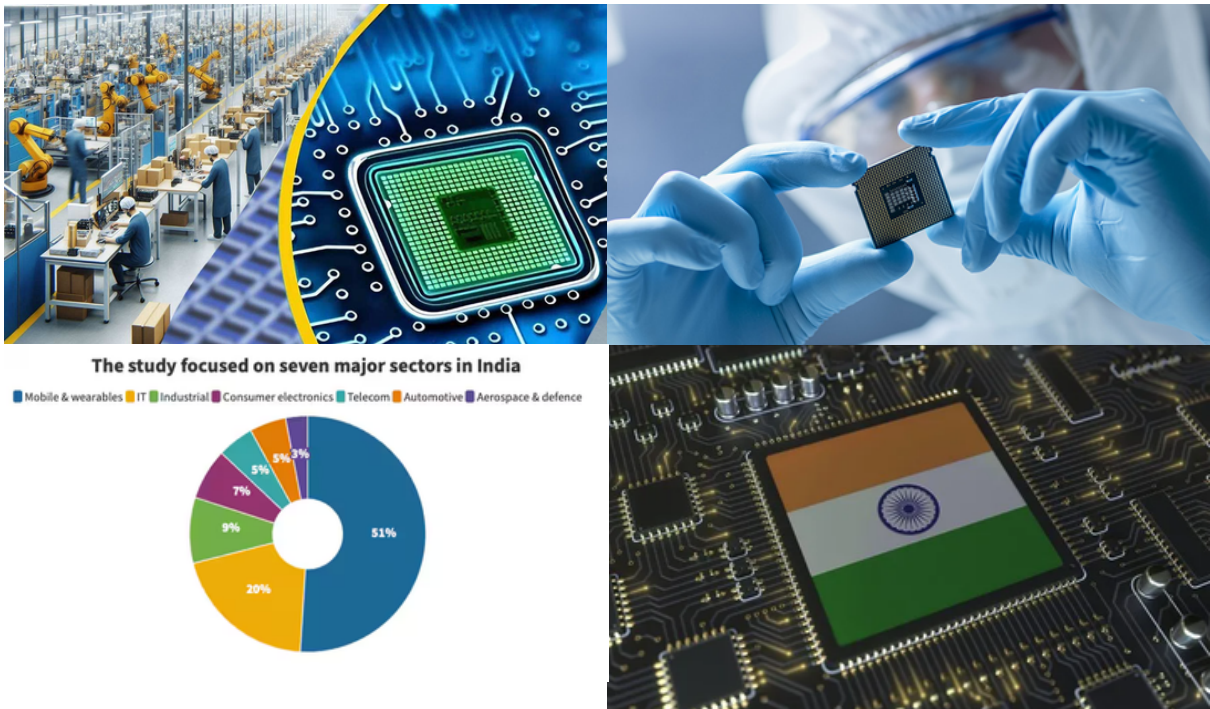
By 2030, the global semiconductor industry is expected to grow to $1 trillion. The Indian semiconductor market, worth $15 billion in 2020, is estimated to reach $63 billion by 2026.India currently imports most of its semiconductors, but the government wants to change that through domestic manufacturing. Semicon India Programme with an outlay of Rs 76,000 crore. In December 2021, a comprehensive programme for the development of semiconductors and display manufacturing ecosystem in India was approved by the government with an outlay of Rs 76,000 crore. In December 2021, a comprehensive programme for the development of semiconductors and display manufacturing ecosystem in India was approved by the government with an outlay of Rs 76,000 crore. The Modified Programme for Semiconductors and Display Fab Ecosystem (also known as Semicon India Programme) includes various schemes to attract investments in the field of semiconductors and display manufacturing.

Semicon India Programme was conceived following the success of Digital India Programme and Make in India Programme in electronics manufacturing sector. The schemes have laid a strong foundation for the Semicon India Programme thereby making the country an internationally conducive and competitive destination for semiconductor and display manufacturing.

New semiconductor-manufacturing units

• The Union Cabinet, chaired by Prime Minister Narendra Modi, approved four more semiconductor projects under India Semiconductor Mission (ISM).
• The newly approved four proposals are from SiCSem, Continental Device India Private Limited (CDIL), 3D Glass Solutions Inc., and Advanced System in Package (ASIP) Technologies.

- Semiconductor manufacturing facilities will be set up with a cumulative investment of around Rs 4,600 crore and are expected to generate a cumulative employment for over 2,000 skilled professionals which would catalyse the electronic manufacturing ecosystem resulting in creation of many indirect jobs.
- SiCSem and 3D Glass will be set up in Odisha. CDIL will be in Punjab and ASIP will be set up in Andhra Pradesh.
- 3D Glass packaging is an advanced technology to package more chips in a small space as the size of semiconductor is reducing every year.
- Currently, the smallest chip size has been reduced to 2 nanometers and technology advancement is required to handle chips as their size further reduces.
- With these approvals, total approved projects under ISM reaches 10 with cumulative investments of around Rs 1.60 lakh crore in six states.

The study focused on seven major sectors in India

Mobile & wearables ■ IT ■ Industrial ■ Consumer electronics ■ Telecom ■ Automotive ■ Aerospace & defence

51% 20% 9% 7% 5% 5% 3%

ALUMNI CORNER

What was your motivation behind choosing E&CE as your engineering major?

To be honest, at the time of choosing my branch I wasn't completely clear on what to pick. But what drew me towards ECE was the fact that it gives a balance of both hardware and software. I felt this blend would keep my options open and allow me to explore different directions, whether it's coding, electronics, or communication systems. Looking back, I think it was the right decision because ECE really does give that versatility.

Thinking back, how did your experience at KSSEM shape you?

My time at KSSEM has shaped me both academically and personally. The curriculum and projects gave me a strong technical foundation, while various events, fests, and group activities helped me build confidence, teamwork, and leadership skills. More than just academics, the environment there encouraged me to explore, experiment, and grow as an individual. KSSEM has definitely played a big role in preparing me for the next stage of my career!

Were you involved in any extracurricular activities as a student?

During my time at KSSEM, I made sure to be actively involved in extracurricular activities, especially technical ones. I participated in a state-level hackathon where our team secured 1st place, which was a huge learning experience.
I was also part of the IEEE Student Chapter at KSSEM, initially as a web master and later taking up the responsibility of chairperson, which helped me develop leadership and organizational skills. Our Final Year project was among the finalists in the 4th AICTE Chhatra.

LIKITHA SHREE R J

Solution and Test Architect,
CGI

I also took part in various other technical events and competitions that gave me exposure beyond academics and boosted my confidence.

What, in your view, are the concepts and topics an ECE student be thoroughly familiar with, for acing their interviews?

In my view, students should focus on building strong fundamentals in core subjects like mathematics, programming, and electronics basics, because these act as the backbone for advanced learning. Alongside this, it's important to pay attention to problem-solving, logical thinking, and communication skills. With technology evolving so fast, areas like data structures, coding, digital electronics, and communication systems are equally vital.
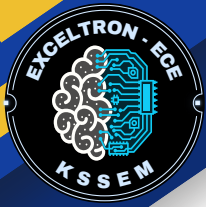
Beyond academics, I believe students should also focus on soft skills such as teamwork, leadership, and adaptability, which play a huge role in shaping their careers.

In your experience, what do you think are the hot domains and jobs in the core ECE domain currently?

Although I did not personally pursue a career in the core field, based on my knowledge and experience from both giving interviews and now being on the other side as an interviewer, I can say that there are some exciting domains in core for students to explore. Areas like VLSI design, Embedded Systems, IoT, Robotics, and Semiconductor technology are in high demand. Communication Networks and Signal Processing also continue to be strong fields with good opportunities. Companies working in electronics, chip design, automotive, and telecommunications look for students with strong fundamentals and hands-on project experience. For those who are passionate about core, these domains definitely offer promising career paths.

For those students preparing for the job interviews, what would your advice be?

My biggest tip is to focus on your fundamentals interviewers often test clarity of basics rather than very advanced topics. Be honest if you don't know an answer instead of trying to guess, because interviewers value sincerity. Prepare by revising core subjects, practicing coding/problem-solving, and being able to clearly explain your projects or internships. Communication matters a lot, so try to be confident, structured, and concise in your answers.

Lastly, remember that interviews are not just about testing knowledge but also about checking how you think and approach problems.

What would you advise the students, to ensure success in their chosen fields of employment or studies?

My advice would be to always keep the thirst for success alive. When I started, I had very little idea about the corporate world, but because I was adaptive, quick to learn, and open to feedback, I grew from a Systems Engineer to a Research Developer and then to an Architect in just 4 years. Today, I even sit on the other side of the table, taking technical interviews. What I've learned is that knowledge and skills are important, but what truly drives growth is curiosity, consistency, and that inner hunger to succeed. If you carry that mindset, opportunities will find their way to you.

Lastly, if you had to offer any words of wisdom to the students out there...

My only message would be don't compare your journey with others. Everyone's path is different, and success comes at its own pace. Focus on learning something new every day, keep networking with the right people, and never lose that thirst for success. Even small, consistent efforts add up to big achievements over time. And remember, failures are not the end - they are lessons that shape you for greater things ahead!

ACTIVE MOUs

- An MOU was signed between the ECE Department of KSSEM and Silicon Microsystems, Bengaluru, on 4th Nov 2022. This MOU facilitates the conduction of Workshops and Technical Talks to the students and faculty of KSSEM.
- An MOU was signed between the ECE Department of KSSEM and Inversa Technosoft Pvt. Ltd., Bengaluru, on 3rd Jul 2023. This MOU facilitates the conduction of Workshops and Technical Talks, providing Internship opportunities to students, Industry Connect and Industrial Visits.
- An MOU was signed between the ECE Department of KSSEM and Maven Silicon Softech Private Limited, Bengaluru, on 7th Aug 2023. With this MOU, agreements were made to provide internship training, webinars and workshops, Lab Facilities, FDPs and VLSI Training Programs to the students and faculty of KSSEM.
- An MOU was signed between KSGI and CSIR-NAL, Bengaluru, on 21st Sept 2023. This MOU facilitates cooperative opportunities in research training, laboratory visits, guest lectures and internships.
- An MOU was signed between the ECE Department of KSSEM and PYGENICARC, Bengaluru, on 16th Oct 2023. The MOU facilitates delivery of practical internship training, workshops, FDPs and technical training programs for students and staff of KSSEM.

Did you know that the first transistor, invented in 1947, was larger than a fingernail, while today's chips pack billions of transistors on an area smaller than a postage stamp

RECENT MOUs SIGNED

An MOU was signed between the ECE Department of KSSEM and Altium (Renesas Electronics India Private Limited) on 15th May 2025. With this MOU, agreements were made to establish a Center of Excellence in PCB Design, offer free student and institution wide software licenses and access to training, workshops and technical support for the use of Industry-grade PCB and Embedded design tools.

DEPARTMENT EVENTS

5-Day FDP on "Antenna Modelling and Simulation using CST Studio Suite"

A 5-Day FDP on "Antenna Modelling and Simulation using CST Studio Suite" was conducted from 6th to 10th Jan 2025, enhancing faculty expertise in antenna design through hands-on training and lectures .

Vivekananda Jayanthi

Vivekananda Jayanthi was celebrated on 25th Jan 2025 with inspiring speeches and reflections on Swami Vivekananda's contributions to youth and education.

Altium Training

An Altium Training session conducted on 27th Jan 2025 introduced participants to PCB design concepts, enabling them to create and simulate electronic circuit boards effectively.

Altium Designer Essentials: Mastering the Fundamentals

A training program on "Altium Designer Essentials: Mastering the Fundamentals" was conducted on 3rd Feb 2025. The program covered core PCB design features, equipping students with practical project management skills.

Exploring the Universe with Space Science Missions

A session on "Exploring the Universe with Space Science Missions" was conducted on 24th Feb 2025, which broadened students' understanding of space missions, satellite technology, and India's role in space exploration.


National Science Day

National Science Day was celebrated on 4th Mar 2025 with Digital Poster Making and Handmade Painting competitions, showcasing students' creativity on scientific themes.

Career Guidance Awareness Program

Career Guidance Awareness Program was conducted on 4th Mar 2025 which provided valuable insights into career opportunities, higher education pathways, and essential skills for engineering graduates.
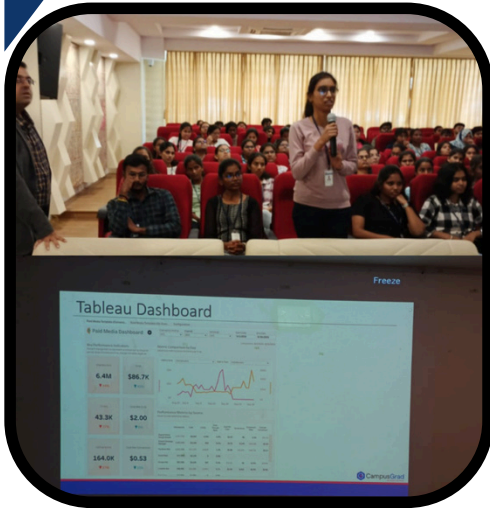
Women's Day

International Women's Day was celebrated in association with IEEE KSSEM Student Branch on 5th Mar 2025 with talks, cultural performances, and discussions highlighting women's achievements in STEM fields.

Pre-Silicon RTL Verification using UVM

An online webinar on "Pre-Silicon RTL Verification using UVM" in association with IEEE KSSEM Student Branch conducted on 25th Mar 2025 introduced participants to industry-standard RTL verification practices aligned with IEEE 1800.2-2020 standards.

IEEE Membership Drive

The IEEE Membership Drive conducted on 3rd Apr 2025 encouraged students to join the global professional network, highlighting benefits for technical growth and collaboration.

Talk on Higher Education

A Talk on Higher Education held on 5th May 2025 guided students on pursuing higher studies in India and abroad, including scholarship and research opportunities.

Project Exhibition

The Project Exhibition held on 10th May 2025 showcased innovative student projects, demonstrating technical skills, creativity, and problem-solving abilities.

Farewell

The Farewell Day Celebration held on 12th May 2025 bid an emotional goodbye to the outgoing batch of 2025 with cultural performances, speeches, fun games and tokens of appreciation.

Center of Excellence

The Center of Excellence for PCB Design was inaugurated on 15th May 2025 at KSSEM, fostering industry-academia collaboration and advanced research opportunities.

Introduction to Sensors

A 2 day workshop on "Introduction to Sensors" was conducted on 17th and 18th May 2025, in association with IEEE KSSEM Student Branch. This provided hands-on exposure to various sensor types, their working principles, and applications.
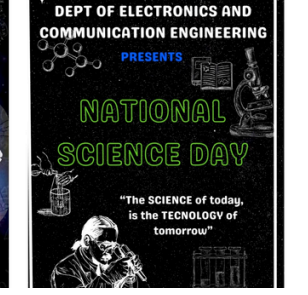
CENTER OF EXCELLENCE

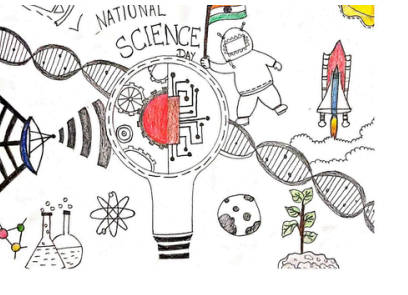The Center of Excellence for PCB Design has been established at KSSEM in association with Altium (Renesas Electronics India Private Limited). The Center of Excellence was inaugurated by Mr. Rea Callender, Vice President of Altium Education, USA.

NATIONAL SCIENCE DAY

Drawing & Poster Designing
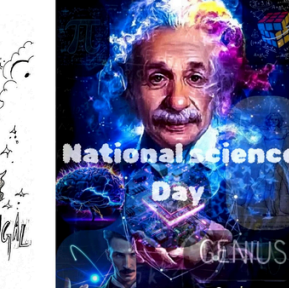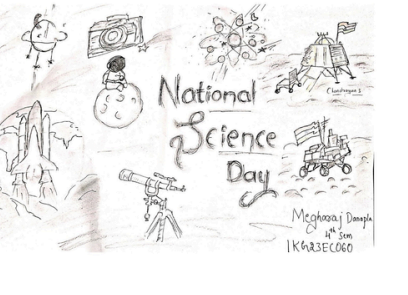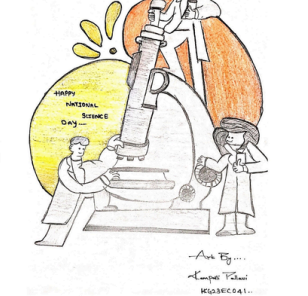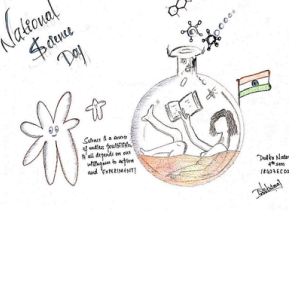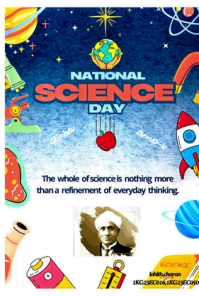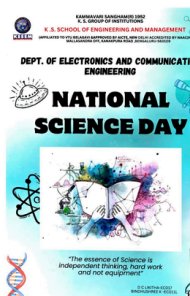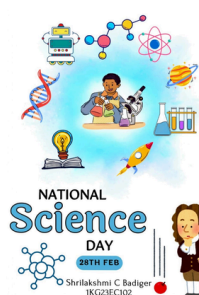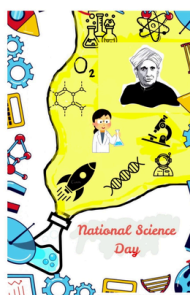
VEDIC MATHEMATICS

The Vedic Mathematics system, derived from ancient Indian scriptures, consists of 16 powerful sutras that simplify complex calculations. Among them, Urdhva-Tiryak, Paravartya Yojayet, Shunyam Saamyasamuccaye, and Anurupyena are highly versatile, covering multiplication, division, equation solving, and proportional calculations. These sutras not only speed up problem-solving but also encourage mental ability and mathematical creativity.

1. ऊर्ध्व तिर्यक् (Urdhva-Tiryak):

Meaning: Vertically and Crosswise. This sutra is mainly used for multiplication. Instead of the long multiplication method, you multiply digits vertically and crosswise, then add.

Eg: Multiply 23 × 14

Step 1 (Vertically): 3 × 4 = 12 → Write 2, carry 1

Step 2 (Crosswise): (2 × 4) + (3 × 1) = 8 + 3 = 11

→ Add carry 1 = 12 → Write 2, carry 1

Step 3 (Vertically): 2 × 1 = 2 → Add carry 1 = 3

Answer: 322

2. परावर्त्य योजयेत (Paravartya Yojayet):

Meaning: Transpose and Apply. This is used in division, especially when the divisor is close to a power of 10 (like 10, 100, etc).

Eg: Divide 123 by 12

12 is close to 10.

Step 1: Split divisor: 12 → 1 | 2 (2 is the excess over 10).

Step 2: Bring down the first digit (1) as quotient.

Step 3: Multiply the quotient by 2 and subtract from the next digit:

    o Quotient so far: 1

    o 1 × 2 = 2; Next digit (2) − 2 = 0 → This is the new number for the next step

Step 4: Continue: Multiply 0 × 2 = 0; Next digit (3) − 0 = 3

Quotient: 10, Remainder: 3
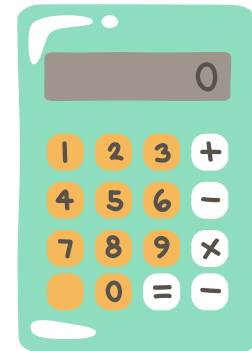
3. शून्यम साम्यसमुच्चये (Shunyam Saamyasamuccaye):

Meaning: When the sum is the same, that sum is zero.

This sutra is mainly used to solve equations quickly.

Eg: (i) Solve $(x + 3) / (x + 5) = (x − 2) / (x − 4)$

Here: Sum of numerator & denominator on both sides:

    • LHS: $(x + 3) + (x + 5) = 2x + 8$

    • RHS: $(x − 2) + (x − 4) = 2x − 6$

For this sutra to apply, the sums must be equal. If sums are equal, x = 0 or equation becomes zero directly.
(Here they're not equal, so the method doesn't apply.
This sutra is used when sums match exactly).

(ii) Solve $(x + 3)/(x + 7) = (y + 5)/(y + 9)$
 Here numerator + denominator = x+3 + x+7 = 2x+10
And y+5 + y+9 = 2y+14 If they're equal,
we can directly set difference = 0

4. अनुरूप्येण (Anurupyena):
Meaning: Proportionately
Used when numbers are not near powers of 10, but near a multiple of powers of 10.We adjust proportionately to simplify calculation.
Eg: Multiply 48 × 52
 Here, base = 50 (near both numbers).
   • 48 is 2 less than 50 (−2)
   • 52 is 2 more than 50 (+2)
Step 1: Crosswise addition: 48 + 2 = 50 (or 52 − 2 = 50)
Step 2: Multiply base part by base (50 × 50 = 2500)
Step 3: Add the product of deviations: (−2 × +2 = −4) → 2500 − 4 = 2496

First Satellite Signal – Sputnik 1 (1957) was the first artificial satellite, and it only sent out a simple "beep-beep" radio signal at 20 MHz and 40 MHz.

FACULTY ACTIVITIES AND ACHIEVEMENTS

PUBLICATIONS

- **Dr. K Senthil Babu, Dr. Kishore M, Dr. Dileep J and Mrs. Bhargavi V Sangam** published a Book titled **"Wireless Sensors Technologies"**, published by Scientific International Publishing House. ISBN: 978-93-6674-920-4

- **Mrs. Reena D Kulkarni,** 'Cryptography with Field Programmable Gate Arrays' Vol. 10, Issue 2, International Journal of Innovative Science and Research Technology, ISSN No:-2456-2165, Feb 2025
- **Mrs. Manjula B G**, "Prime Location Deployment Strategy for Phasor Measurement Units Adopting Intelligence Technique", International Journal of Computational and Experimental Science and Engineering, (IJCESEN), Vol. 11, no.3, pp. 4655-4660, Mar 2025

- **Mrs. Deepa R Bhangi** and **Mrs. Bhargavi V Sangam** have been granted a design patent for "IoT and Solar Based Charging Station for Electric Vehicles" in Mar 2025.

- **Mrs. Manjula B G,** "Development of IoT Based Fingerprint Attendance System" International Conference on Global Convergence in Technology, Entrepreneurship, Computing & Value Engineering: Principles and Practices, ICGCP-2025 organized by Sapthagiri College of Engineering, Bengaluru during 16th to 18th Apr 2025, ISBN: 9798392733033
- **Mrs. Reena D Kulkarni, Mrs. Hemapriya M, Mrs. Tejaswini G V,** "A Study on Processors for use in Cryptography", 2025 IJRTI | Vol. 10, Issue 5th May 2025 | ISSN: 2456-3315
- **Dr. Gopalakrishna Murthy C R**, "Sensitivity Enhancement Analysis due to Different Coating Materials of Ultra-Weak Fiber Bragg Gratings based Depth Sensor for Underwater Applications", Power System Technology, Vol. 49 No. 1 (2025)
- **Dr. Girish V Attimarad**, 'Design and Development of Novel AXI Interconnect based NoC Architecture for SoC with Reduced latency and Improved Throughput' International Journal of Computing and Digital Systems 2025, Vol.17, No-1,1-14
- **Mrs. Bhargavi V Sangam, Mrs. Deepa R Bhangi, Mrs. Swati Sarkar**, ' Smart Stick For Visually Impaired People' International Journal Of Current Engineering And Scientific Research (IJCESR), ISSN (PRINT): 2393-8374, (ONLINE): 2394-0697, Vol.12, ISSUE-4, 2025.

A conventional car uses ~500–600 semiconductors, but an EV can require up to 2,000 chips for power electronics, sensors, and smart features.

PROMINENT EVENTS ATTENDED BY FACULTY

- **Dr. Girish V Attimarad, Dr. Manu D K, Dr. Renuka V Tali, Dr. Kishore M, Dr. Dileep J, Dr. Gopalakrishna Murthy C R, Mr. Ravikiran B A, Mrs. Tejaswini G V, Mrs. Reena D Kulkarni, Mrs. Manjula B G, Mrs. Hemapriya M, Mrs. Bhargavi V Sangam, Mr. Syed Waseem Tabraiz, Mrs. Deepa R Bhangi, Mrs. Swati Sarkar, Ms. Muskaan Huda R** participated in the 5 Day FDP on "Antenna Modeling and Simulation Using CST Studio Suite", organized by the Dept. of ECE, KSSEM, in association with IEEE KSSEM Student Branch and IETE, Bengaluru from 6th to 10th Jan 2025.
- **Mrs. Deepa R Bhangi** participated in the 3 Day Workshop on "Train the Trainers Program" organized by the Department of ECE, KSSEM and KSRIF, in association with IEEE KSSEM Student Branch, from 27th to 29th Jan 2025.
- **Mr. Syed Waseem Tabraiz** attended a webinar on "Scientific Writing and Publishing" organized by Springer Nature on 19th Feb 2025.
- **Dr. Gopalakrishna Murthy C R, Mrs. Yeshwini V, Ms. Muskaan Huda R** participated in the 3 Day Faculty Development Program on "PCB Design using Altium 365" at K.S. Institute of Technology, Bengaluru, from 27th Feb to 1st Mar 2025.
- **Mr. Ravikiran B A** attended a 40 hours FDP on "Mathematics of Machine Learning", organized by HUBE and ICT Academy NIT Warangal, Telangana and Vellore Institute of Technology, Tamil Nadu from 17th to 29th Mar 2025.
- **Mrs. Swati Sarkar** and **Mrs. Bhargavi V Sangam** attended an online webinar on "Pre Silicon RTL Verification using Universal Verification Methodology (UVM) based 1800.2-2020 IEEE Standard" organized by KSSEM IEEE Student Branch in association with IEEE Education Society, Bengaluru Chapter, Region 10, on 25th Mar 2025.
- **Mrs. Tejaswini G V, Mr. Syed Waseem Tabraiz, Mrs. Bhargavi V Sangam, Mrs. Deepa R Bhangi, Mrs. Swati Sarkar** participated in the 5 day online FDP on "Emerging Technologies- Shaping the Future", organized by BIT, Bengaluru from 12th to 16th May 2025.
- **Mrs. Tejaswini G V, Mrs. Manjula B G, Mr. Ravikiran B A, Mrs. Hemapriya M, Mrs. Reena D Kulkarni,** participated in the 1 Day FDP on "AI Driven Cyber Security In IoT Smart devices", organized by Srichandrashekarendra Saraswathi Vishwa Mahavidyalaya, Tamil Nadu on 17th May 2025.
- **Dr. Renuka V Tali** attended a webinar on "The Rise and Rise of Biometric System" organized by WiE India Council on 27th May 2025.

- **Mrs. Yeshwini V, Mrs. Reena D Kulkarni, Mrs. Tejaswini G V, Mr. Ravikiran B A,** and **Mrs. Hemapriya M** attended an International FDP on "Empowering Faculty for Ethical Teaching in the Digital Era" organized by the DMI Engineering College from 2nd to 7th Jun 2025.
- **Dr. Renuka V Tali** attended a workshop on "Advanced ASIC Verification" organized by ProV Logic from 9th to 11th Jun 2025.
- **Dr. Renuka V Tali** and **Mr. Sanjay B Nayak** completed the Faculty Development Program on "Advanced Machine Learning using Python with Green Technology" under Skills 4Future Program of KSSEM, from 10th to 14thJun 2025.
- **Dr. Renuka V Tali** attended a Webinar on "Ink With Impact - Engineered by Her, Authored by Her" conducted by IEEE Education Society on 23rd Jun 2025.
- **Dr K Senthil Babu** participated in the 5 Day National Faculty Development Program on "Research Structuring and Publication Process" organized by the Centre for Research and Training, NFED, Coimbatore, Tamil Nadu, from 23rd to 27th Jun 2025.
- **Mr. Sanjay B Nayak,** and **Mr. Ravikiran B A** successfully participated in the 6 Day "Hybrid Program on AI Powered Edge Computing for IoT Applications" from 23rd to 28th Jun 2025.
- **Mrs. Reena D Kulkarni** participated in an online workshop on "Latex for Beginners: Write Your First Research Paper" on 26th and 27th Jun 2025.

MASSIVELY OPEN ONLINE COURSES (MOOCS)

- **Mrs. Deepa R Bhangi** completed the NPTEL course on "Introduction to Industry 4.0 and Industrial Internet of Things" from Jan to Apr 2025.
- **Mr. Ravikiran B A** successfully completed the Altium Designer Essentials, On Demand (English) Program on 16th Mar 2025.
- **Mrs. Swati Sarkar**, **Mrs. Deepa R Bhangi**, and **Mrs. Bhargavi V Sangam**, completed an online program on "Reconfigurable FPGA and Internet of Things" of 40 hours duration organized by the Electronics and ICT Academy (Phase-II), IIITDM Jabalpur, from 21st Apr to 2nd May 2025.

FACULTY AS RESOURCE PERSONS

- **Dr. Renuka V Tali** expertly judged the Creative Prototyping Competition at the "Igniting Young Minds: Innovation & Entrepreneurship Outreach Program" hosted by the Institution's Innovation Council & Entrepreneurship Cell of K S Polytechnic in association with Sharada Shri Public School on 21st Jan 2025.
- **Mr. Sanjay B Nayak** was the guest of honor and expert judge at the "Igniting Young Minds: Innovation & Entrepreneurship Outreach Program" hosted by the Innovation Council & Entrepreneurship Cell of K S Polytechnic in collaboration with Sadhana Public School on 15th Feb 2025.
- **Dr. Manu D K** participated in the "Institutional Research Open Day 2025" as a Jury Member at Sambhram Institute of Technology on 25th Apr 2025.
- **Dr. Manu D K** attended an International Conference on "Recent Innovation in Engineering Science and Technology" as a Session Chair at K S Institute of Technology on 9th May 2025
- **Dr. K Senthil Babu** conducted a Workshop on "NBA Accreditation" at the Dept. of MBA, KSSEM on 19th Jun 2025.

FACULTY PARTICIPATION/ ACHIEVEMENTS

- **Dr. K Senthil Babu** participated in the KSGI Staff Badminton Tournament held at Vrishi Racket and Shuttles Arena on 3rd Jan 2025.
- **Dr. Manu D K** secured 3rd place in Mixed Doubles at the KSGI Staff Badminton Tournament held at Vrishi Racket and Shuttles Arena on 3rd Jan 2025.
- **Mr. Sanjay B Nayak** and **Mr. Ravikiran B A** attended the "MATLAB Expo" on 22nd Apr 2025.
- **Dr. K Senthil Babu** secured First place in Faculty Chess competition during Aarohana in Apr 2025.
- **Dr. Arun Kumar M** secured Second place in Faculty Chess competition during Aarohana in Apr 2025.
- **Dr. Manu D K** secured Second place in Faculty Carrom competition during Aarohana in Apr 2025.
- **Dr. Renuka V Tali, Mrs. Swati Sarkar, Mrs. Bhargavi V Sangam,** and **Mrs. Deepa R Bhangi** secured First place in Faculty Dumb Charades competition during Aarohana in Apr 2025.
- **Dr. Renuka V Tali**, Branch Councellor of IEEE KSSEM Student Branch, has been elevated to the prestigious grade of Senior Member of IEEE.

Ph.D COMPLETION

Dr. Dileep J successfully completed his Ph.D (Doctor of Philosophy), from Visvesvaraya Technological University, Belagavi, for his research on "PERSON DETECTION AND TRACKING IN VIDEO WITH METADATA", on 5th Feb 2025.

Dr. Gopalakrishna Murthy C R successfully completed his Ph.D (Doctor of Philosophy), from Visvesvaraya Technological University, Belagavi, for his research on "PERFORMANCE ANALYSIS AND IMPLEMENTATION OF FIBER BRAGGS GRATING SENSOR FOR DETECTION OF SOUND WAVES IN UNDERWATER APPLICATION", on 24th Jun 2025.

STUDENT ACHIEVEMENTS/ PARTICIPATION

EXCELTRON - ECE KSSEM

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K. S. Group of Institutions
K. S. SCHOOL OF ENGINEERING & MANAGEMENT
No.15, Mallasandra, Off. Kanakapura Road, Bengaluru-560109
Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi, Accredited by NAAC

Congratulations!

ANIKA KAVYA TIPPINNI

2nd RANK - VTU
Electronics and Communication Engineering Department

Your achievement is a source of great pride for the entire KSSEM family.
On behalf of the Management, Principal, and Faculty, we extend our heartfelt
congratulations and best wishes for continued success in all your future endeavors.

CONGRATULATIONS TO ANIKA KAVYA TIPPINNI

We are immensely proud to announce that **Anika Kavya Tippinni**, a student from the Electronics and Communication Engineering Department, has secured the **2nd Rank with a CGPA of 9.70** in Visvesvaraya Technological University (VTU).
Her dedication, hard work, and academic excellence have brought immense pride to the entire KSSEM family.

Sneha R of 6th sem represented India in the "JENESYS 2024 SAARC Japan Youth Exchange Program" organized by the Japan International Cooperation Center from 25th Feb to 3rd Mar 2025

The Dance Club of KSSEM secured First place in Group Dance Competition at the Inter-Collegiate Fest "Daksha Parva" held at Jyothi Institute of Commerce and Management on 3rd Apr 2025

Yashaswini ,Suhas V,Tanishq and Shivani C of 6th sem secured Second place in "ElectroHack" Hackathon organized by K S Institute of Technology on 29th Mar 2025

Manthan K G of 2nd sem secured First Prize with ₹5,000 Cash Award in Project Idea Presentation Competition "AVINYA 2K25" organized by KSSEM Idea Club on 19th May 2025

Mahesh N, Lohith J, Mohith Vinay B, and Madhumitha Ramesh of 4th sem reached Top 5 in "Ctrl+Alt Compete Hackathon" organized by R V College of Engineering on 8th Jun 2025

Participation in Prominent Events

- **Shrilakshmi C B** of 4th sem performed in the Divine Bhasmasura Mohini Yakshagana on 8th Feb 2025.
- **Abhinandan S** of 6th sem has participated in "Yuva Conclave 2025" held on 16th Feb 2025.
- **Sneha R** and **Sai Harsha V** of 6th sem have attended a IEEE workshop Empower, Evolve and Excel organized at RV College of Engineering on 29th Mar 2025.
- **Aashish Aryan N S, Chethan B, Deeksha Kumari L, Boomika N, Tanishq, Anvitha M Shetty, Kashish Pareek, Divya B, Eautukuru Pavithra, Harish R, Jahnavi Chitturi, Kaduru Uma, Kousik S, Kuchi Pavan Kumar, Bhuvana G H, Darshan K, Abhinandan S, Aisiri Dileep, Bittu Kumar, Yashaswini, Shivani, Suhas S, Brunda M, Chaitra J, Dikshitha N, Gundala Hari Krishna, Ankith C, Kushan V, Lohith J, Mahesh N,** and **Mohith Vinay B** have participated in the Inter-College level ElectroHack Hackathon at KS Institute of Technology on 29th Mar 2025.
- **Mahesh N, Thanushree N, Mohith Vinay B, Megharaj Danapla, Shravya R , Ruchitha H, Kishor V S** and **Madhumitha Ramesh** of 4th sem have participated in ROTECH: Crack the Code organized by the Rotaract Club of BMSCE on 5th Apr 2025.
- **Suhas V** and **Yashaswini** of 6th sem have participated in the National Level Hackathon COLOSSUS 2.0 at Dr. Ambedkar Institute of Technology on 11th and 12th Apr 2025.
- **Chethan B, Abhinandan S,** and **Bhuvana G H** has volunteering for Dignitary Mngt. from 25th to 27th Apr at the TCS WORLD 10K Bengaluru 2025.

MOOCS AND COURSES COMPLETED

- **Aashish Aryan N S, Chethan B, Deeksha Kumari L, Kumaresh P, Harish R, Boomika N, Brunda M, Chaitra J, Chaya M Shetty and Abhinandan S** of 6th sem have successfully completed VLSI SoC Design using Verilog HDL at Maven Silicon in Jan 2025.
- **Ananya B Shetty** of 8th sem has completed a 6-week internship on Cyber Security organized by AICTE & Edunet Foundation from 15th Jan to 26th Feb 2025.
- **R M Lavya** of 8th sem has completed TCS iON Career Edge – Young Professional on 27th Feb 2025.
- **Abhinandan S** of 6th sem has participated in Yuva Conclave 2025 held on 16th Feb 2025.
- **Bittu Kumar** of 6th sem has successfully completed the CMOS Digital VLSI Design NPTEL course from Jan to Mar 2025.
- **Shiju Lukose** of 6th sem has successfully completed the Google Data Analytics program on 4th Mar 2025.
- **Mansi Manjunath** of 8th sem has successfully completed Google Ads Search Certification on 5th Mar 2025.
- **Abhinandan S** of 6th sem has attended the Semicon Conclave 2025 organized by IEEE Bangalore Section on 12th Mar 2025.
- **Aashish Aryan N S, Chethan B, Deeksha Kumari L, Kashish Pareek, Kaduru Uma, Eautukuru Pavithra, Radhika H A and Nayana** of 5th sem have attended and completed a workshop on Applied Artificial Intelligence: Practical Implementation conducted by the AI&DS Department in Mar 2025.
- **Shiju Lukose** of 8th sem has successfully completed a Data Science Job Simulation through Forage on 5th Apr 2025.
- **Bittu Kumar** of 6th sem has successfully completed the VLSI Physical Design NPTEL course from Jan to Apr 2025.
- **Abhinandan S** of 6th sem has successfully completed the Digital Design with Verilog NPTEL course from Jan to Apr 2025.
- **Sai Harsha V** of 6th sem has successfully completed VLSI for Beginners at NIELIT Calicut from 8th to 12th May 2025.
- **Thanusha R** and **Sanjana P** of 8th sem have completed a project on Design of Drive Electronics for Zoom Optics and Real-Time Video Acquisition System for Camera at ISRO from 4th Mar to 3rd Jun 2025.

- **Abhinandan S** of 6th sem has successfully completed a Short Term Training Program in VLSI Design and Verification using Cadence EDA tools at Alliance University from 10th to 14th Jun 2025.

Publications

- **V Vamsi, N Harikesh, M Snehalatha,** and **Uthkarshan G**, "Development of IoT Based Fingerprint Attendance System" International Conference on Global Convergence in Technology, Entrepreneurship, Computing & Value Engineering: Principles and Practices, ICGCP-2025 organized by Sapthagiri College of Engineering, Bengaluru during 16th to 18th Apr 2025, ISBN: 9798392733033.

- **Shashank S, Tharun Kumar D R, Vikas H J,** and **Shashank R**, "A Low-Cost Therapeutic Exercise Machine for Mechanized Knee Rehabilitation", International Journal of Current Engineering and Scientific Research (IJCESR), ISSN (PRINT): 2393-8374, (ONLINE): 2394-0697, Vol.12, ISSUE-4, 2025.

Glass cockpits use large touchscreen avionics displays that integrate navigation, engine data, weather, and communication into a single interface.

PARTICIPATION IN VTU EVENTS

SPORTS

Our students participated in VTU Bangalore South Division Intercollegiate Volleyball (M) Tournament 2025, held at SJBIT, Bengaluru on 22nd & 23rd Apr 2025.

Our students participated in VTU Bangalore South Division Inter College Kabaddi (M) Tournament 2025 held at DSCE, Bengaluru on 11th & 12th Apr 2025.


Our students participated in VTU Bangalore South Division Inter College Cricket (M) Tournament 2025 held at DBIT, Bengaluru on 6th Apr 2025 .

VTU FEST

Shashank B V, Keerthana C, Shravya R, Chaya S Shetty, Harish R, Ruchitha H, Rishi H, Bindhushree K L, Giridhar R Naik, Aishwarya P Naik and **Pallavi M** had participated in the VTU Fest at Global Academy of Technology from 23rd to 25th Mar 2025.
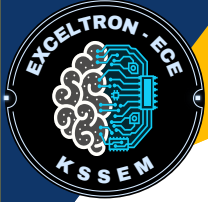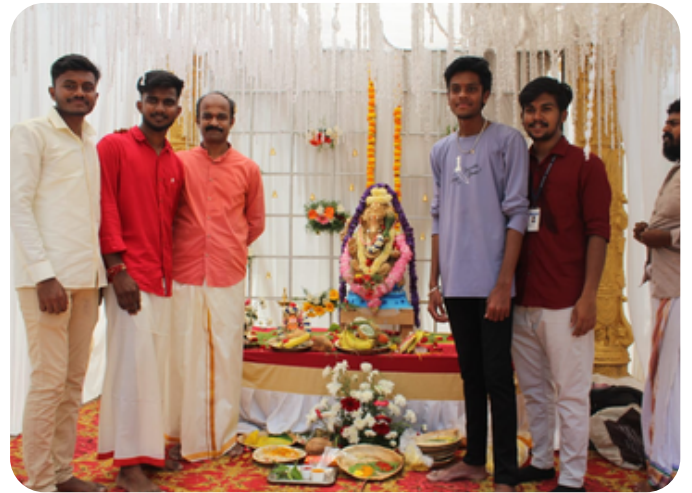
AAROHANA 2025

A Glimpse.....

Rotaract Activities

Events	Dates
Pause & Heal: A Self-Care Webinar on Mental Health	Jan 7, 2025
Yuva Chethana Awakening of Youth	Jan 13, 2025
Inspire & Ignite - Cervical Cancer Prevention Awareness Session	Jan 19, 2025
ANNASANTHARPANE 2.0	Jan 24, 2025
Decode Sugar: From Knowledge to Action	Jan 31, 2025
Charche with Chikmath	Feb 4, 2025
Movie Mania	Feb 28, 2025
Introduction To Postman API Workshop	Mar 13, 2025
TREKVENTURE	Mar 15, 2025
Interview & Placement Preparation	Mar 23, 2025
Enchanto	Apr 19, 2025
Blanket Donation Drive	May 17, 2025
Baa Guru Cup Hodi	Jun 6, 2025
Donate Stationery for Rural Students of Karnataka	Jun 9, 2025
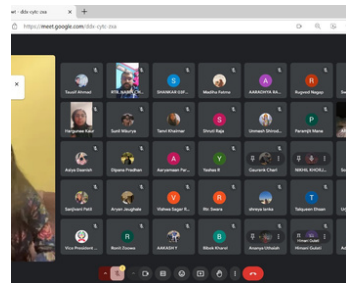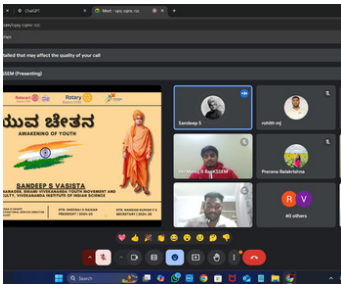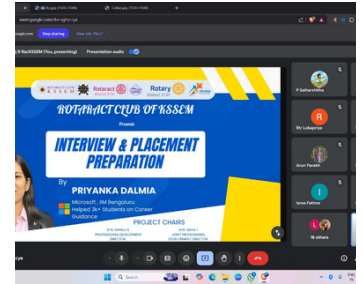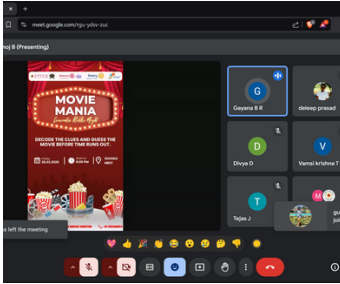
PLACEMENT HIGHLIGHTS

Shiju Lukose has been placed in "Intellipaat" with a package of 9 LPA.

Shashank B V has been placed in "Planet Spark" with a package of 6.9 LPA.

Shreya M Dambal has been placed in "Planet Spark" with a package of 6.9 LPA.

R Daxin has been placed in "Lumos Learning India Pvt. Ltd." with a package of 6 LPA.

Nithin Kumar N has been placed in "Kalvium" with a package of 5 LPA.

Neha Kumari S has been placed in "Solar Edge" with a package of 5 LPA.

Mansi Manjunath Lokhanday has been placed in "Solar Edge" with a package of 5 LPA

Harshini A has been placed in "Solar Edge" with a package of 5 LPA.

Ananya B Shetty has been placed in "Kalvium" with a package of 5 LPA.

Ananya N has been placed in "Kalvium" with a package of 5 LPA
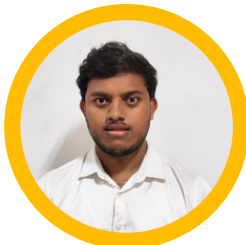
IEEE EXECOM MEMBERS

EDUCATION SOCIETY

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Chair

Aashish Aryan N S
Vice Chair

Chethan B
Secretary

E Pavithra
Treasurer

Deeksha Kumari L
Webmaster

SENSORS COUNCIL

Radhika H A
Chair

B Sucharitha
Vice Chair

Bhuvana G H
Secretary

Abhinandan S
Treasurer

Yashaswini
Webmaster

ROTARACT OFFICE BEARERS

From the Dept. of ECE

ROTARACT CLUB KSSEM

Nandhan Kumar V S
SECRETARY

Shiju Lukose
VICE PRESIDENT

Sathvik A N
JOINT SECRETARY

Rohith M J
COMMUNITY SERVICE DIRECTOR

Anvitha M Shetty
JOINT TREASURER

Punith
RESOURCE MANAGER

Aashish Aryan N S
RESOURCE MANAGER
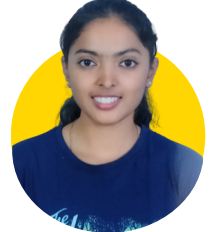
Suhas V
EDITOR

MEET THE TEAM

Designing

SNEHA R

NANDHAN KUMAR V S

KEERTHANA C

SHRAVYA R

MEGHARAJ DANAPLA

SHRILAKSHMI C B

GANAVI N

Content Aggregation

AASHISH ARYAN N S

BINDHUSHREE K L

SATHVIK A N
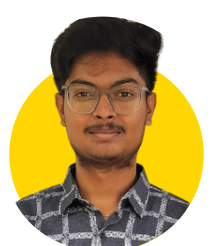
MAHESH N

E JOSHNA

RUCHITHA H

ANIKA KAVYA TIPPINNI

Content Curation

CHETHAN B

TANISHQ

SHREYA M DAMBAL

SHASHANK S

PRAJNYA S

DEVIKA NATARAJ

M GNATHMIKA

Faculty Coordinators

Dr. K Senthil Babu
Prof and Head

PROF. RAVIKIRAN B A
Asst. Professor

PROF. SANJAY B NAYAK
Assoc. Professor

MRS. MEGHA P
Office Assistant

MRS. RADHIKA
Lab Instructor

MRS. ASHWINI
Foreman

EXCELTRON - ECE KSSEM

VISION

To emerge as a pioneer in the field of Electronics and Communication Engineering, through excellence in technical education and research.

MISSION

The Department of Electronics and Communication Engineering shall
- Provide a transformative educational experience focusing on disciplinary knowledge, problem solving techniques and innovative projects.
- Excel in research and promote Industry-Academia interaction.
- Inculcate entrepreneurial traits in the student community, by fostering managerial and leadership qualities.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO 1: Excel in professional career by acquiring domain knowledge.

PEO 2 : Motivation to pursue higher Education and research by adopting technological innovations by continuous learning through professional bodies and clubs.

PEO 3 : To inculcate effective communication skills, team work, ethics and leadership qualities.

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

K. S. SCHOOL OF ENGINEERING & MANAGEMENT

No.15, Mallasandra, Off. Kanakapura Road, Bengaluru-560109
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