



|| Jai Sri Gurudev ||  
Sri Adichunchanagiri Shikshana Trust®

# SJB Institute of Technology

#67, BGS Health & Education City, Dr. Vishnuvardhan Road, Kengeri, Bengaluru - 560060

## Department of Electronics and Communication Engineering



Dr. K.V. Mahendra Prashanth  
Principal



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### Editorial Board

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**Vision:** Empowering Electronics and Communication engineers to meet the advancements in technological and societal needs.

### Mission:

- M1: To facilitate students in acquiring proficiency & providing eminence in technical education.
- M2: To imbibe value based education that contributes to the human values, ethics and societal relevance
- M3: To foster culture of innovation, industry and research in developing intellectual professionals and entrepreneurs

### About the Department

Department of Electronics and communication Engineering was established in the institution during 2001. The department is AICTE approved and permanently affiliated to VTU and accredited by National Assessment and Accreditation Council (NAAC) with 'A' Grade and NBA. The Department offers UG & PG courses. Further, it is recognized as "Research Center" by VTU.

The department is strengthened with qualified Doctorates, Professors, Assoc. Professors, Asst. Professors and technical staffs. Apart from the academic events department also oversees the overall development activities. The students are being provided with state-of-the-art lab facilities; training / certification programs, industrial visits, periodic technical talks, workshops, conferences, empowering employability skills.



Dr. Chandrappa D.N.  
Prof & HOD

### Achievements

- 30 Ph.D scholars have registered under ECE Department research centre.
- Faculties of the Department are members of various professional bodies such as ISTE, IEI and IEEE.
- Progressive results and placement records.

### Department Association with Industries

- MOU with NI systems (India) Pvt. Ltd to establish NI Labview Academy.
- MOU with Intel Corporation (FICE), Knowx Innovations Pvt Ltd., Effent Technologies Pvt. Ltd, EDII.
- MOU with University of Agricultural Sciences, M/s Win Global Tek, Speckbit Exploratories Private Limited, Loginware Softec Pvt Ltd, Elint Labz.
- MOU with Rexroth Bosch Group to establish "Center of excellence for Training and research in Automation Technologies".
- MOU with M/s Tequed Labs, M/s Training world 360 Solutions Pvt. Ltd, M/s Dlithe Consultancy Services Pvt Ltd.
- MOU with M/s Jyoti Electronics Pvt. Ltd, M/s Global Quest Technologies and M/s OKTRA EV Pvt. Ltd.

### Department Activities:

#### Workshop / Seminar / Conference

- Conducted Technical talk on "Signal & Image Processing: A Machine Learning Perspective" for the students of 4th & 6th semester by Speaker Dr. Ashok Rao, NIE Director, IISC, Bangalore focusing on AI & ML, DSP techniques, Pattern recognition etc., on 8th July 2022.



- Conducted Expert talk on "Building an Expertise-Challenges and Obstacles" by Mr. Naveen Kumar & Mahesha Mahadevappa for fourth semester students of SJBIT on 04th August 2022 from 11:00 am at ECE Seminar Hall.
- A Six Days faculty development programme was organized from 22nd to 27th Aug 2022 at ECE Department, SJB Institute of Technology on "Leading Edge VLSI Physical Design Using Modern Tools" by various speakers Mr.Somashekar, Sales manager, Entuple Technologies Pvt .Ltd., Mr. Mamidi Nagaraj, Manager EDA support and Design Role, Entuple Technologies Pvt .Ltd. Mr. Manjunath, Senior Staff D & D engineer in Silicon Realization Group, Synopsys, Navaneethan Krishnan.



- An expert talk was organized on "Emerging Technologies" by Speaker Mr. James Christy, a business management graduate with 10 years of experience in business development on 5-11-2022 for 5th sem students in dept of ECE



- Dept of ECE in association with IEEE Information Theory society, Bangalore chapter has organized a webinar on "IEEE Authorship Workshop" for teaching faculties, Research scholars, UG and PG students, Industrial Persons, etc.. on 9th Nov 2022 online at 6:00pm.
- The Technical talk focused on understanding of C-V2X Technology, wireless technologies for road accidents by Speaker Mr. Sunil Gowda, Senior Software Engineer, Aptiv TCI, Bangalore on 15th November 2022



#### Alumni Interaction

- As a part of alumni interaction arranged in the department, Mr. Anup Gowda (2008– 2012 batch) of ECE department, Indian Film Producer, Kannada Film Industry, shared his experience with 4th semester students. The interaction was held on 11th July 2022, 9.30 am to 11.00 am at ECE Seminar Hall. Students were encouraged and benefited by the live examples provided by the Alumni.



- As a part of alumni interaction arranged in the department, Mr. Ganesh Keerthi D G (2008 – 2012 batch) of ECE department, Senior Application Developer, MOURI Tech (P) Ltd, INDIA, shared his experience with 4th'A' semester students. The interaction was held on 23rd July 2022, 11.00 am to 11.45 am at ECE -101 lecturers Hall.



#### Community Service

- Staff club of the department organized community service on 02/08/2022 in Govt School, Ramasandra and conducted different activities, create awareness about education, distribution of stationaries, chocolates, sweets and other necessities and spent some quality time with the children.



#### Farewell

- The Department of ECE organized a farewell function to the final year students UG (2018-2022) and PG (2020-2022) on the 9th of July 2022 between 09:00 am to 12:30 pm.



#### Faculty Achievements

- Conducted Koti kanta gayana on 28/10/2022 in BGS & SJB Auditorium on the occasion of nanna naadu- nanna haadu celebration.



- Organized five days Faculty development program entitled "Ability enhancement courses in ECE" from 12/9/2022 to 16/9/2022.



- Organized the Awareness Program on Intellectual Property Rights (IPR) under National Intellectual Property Awareness Mission (NIPAM 2.0), Govt. of India, for 1st, 3rd and 7th semester students on 21/12/22 at CSE Seminar Hall from 1:30 to 3:00 pm.



#### Celebrations

- Celebrated Engineer's day on 15/9/2022 to commemorate the birth anniversary of Bharat Ratna Sir. M Visveswaraya and paid tribute to the greatest engineer of our nation.



- As part of the staff club activity, From the department of ECE teachers day was celebrated on 5th Sep 2022 by the staff club. On this occasion, a gaming event was conducted like Kannada word formation using jumbled letters and a funny quiz. All the teaching and non-teaching staff members participated and made the event a grand success.



- As a part of the staff club, Saraswathi pooja was celebrated on 01/10//2022 in Department of ECE, staff room around 11:30 am. Goddess Saraswathi was worshipped and prayed to shower us with knowledge. Sweets and savouries were distributed to the students and staff. At the later part all the staff departed to Mutt for Navarathri festival.



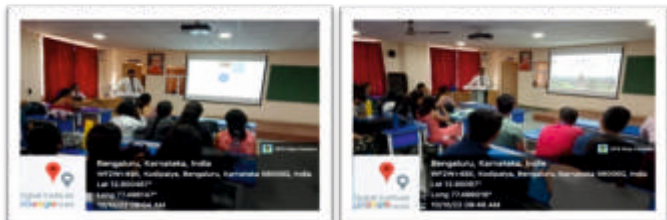
#### Department Trip

- As part of the staff club Activity, the staff from the ECE department visited "Friends Homestay in Sakleshpur" on the 9th and 10th of Sep 2022, visited Betta Byraveshwara Temple and viewpoints.



#### Orientation Program

- Conducted the "Orientation Program" for students of 5th semester by Dr.Chandrappa D N, Professor and Head, ECE department on 10-10-2022 at 8.30 AM in the department seminar hall.



- Conducted the "Orientation Program" for students of 3rd Semester on 31-10-2022 at 9.30 AM in the department Seminar Hall by Dr.Chandrappa D N, Professor and Head, ECE department.



- Conducted the "Orientation Program" for students of 1st semester on 05-12-2022 at 9.00 AM in the department seminar hall.



#### Industry Visit

- As part of the curriculum and to provide the real insight of practical aspects of industry and technology, the Department of Electronics and Communication Engineering organized the Industrial visit to K-tech Innovation Hub, Gate 1, Government Tool room & Training Center (GTTC), Rajajinagar Industrial Area, Bengaluru, Karnataka 560010 on 20th October 2022 for the students of 3rd Semester.



#### Sports

- Department of ECE has organized cricket tournament for staff and students of Electronics & Communication Engg. under student club on 9th & 16th Nov 2022. 7th A section students won the trophy.



#### Placement

- The Following list of companies recruited the students of ECE during the academic year (ODD sem) 2022-23.

| Name of the company                | No. of students selected |
|------------------------------------|--------------------------|
| Accenture                          | 05                       |
| Torry Harris Integration Solutions | 03                       |
| TCS                                | 06                       |
| ThoughtClan                        | 01                       |
| Cognizant - Elevate                | 01                       |
| L&T Infotech                       | 11                       |
| Clarivate                          | 02                       |

## Staff Publication:

| Sl. No | Faculty Name                       | Title of the Paper   | Month and Year of Publication | Conference Or Journal  |
|--------|------------------------------------|--|-------------------------------|--|
| 1.     | Dr D.N.Chandrappa                  | Satellite image matching and registration using affine transformation and hybrid feature descriptors.  | Dec 2022                      | International Journal of Advanced Intelligence Paradigms Volume 24 Issue 1-2, 2023 pp 126–144<br><a href="https://doi.org/10.1504/ijaip.2023.128078">https://doi.org/10.1504/ijaip.2023.128078</a> , Scopus-Q3 |
|        |                                    | Smart IoT and Machine Learning - Based Framework for Water Quality and Crop Prediction Using Raspberry Pi  | 2022                          | International Journal of Science and Research (IJSR) ISSN: 2319-7064 SJIF (2022): 7.942 DOI:10.21275/SR227132332 Crossref indexed  |
| 2.     | Dr. Rekha K R                      | An efficient reconfigurable peak cancellation model for peak to average power ratio reduction in orthogonal frequency division multiplexing communication system | Dec 2022                      | International Journal of Electrical and Computer Engineering (IJECE), Scopus Q2 , Vol. 12, No. 6, , pp. 6239-6247, ISSN: 2088-8708 DOI:10.11591/ijece.v12i6.pp6239-6247  |
| 3.     | Dr. Rekha K R/<br>Geethanjali N    | Novel NOC Architecture for Designing and Implementing a Low Power Router using FPGA.   | Oct 2022                      | Indian Journal of Data communication and networking (IJDCN), Volume-2 Issue-6, ISSN: 2582-760X (Online), Crossref indexed DOI:10.54105/ijdcn.F5026.102622 Journal  |
| 4.     | Dr. Vijaykumar T                   | Cardiac Arrhythmia, CHF, and NSR Classification With NCA-Based Feature Fusion and SVM Classifier.  | Dec 2022                      | International Journal of Software Innovation Volume 11, Issue 1, Scopus-Q3 DOI: 10.4018/IJSI.315659 ISSN: 2166-7160  EISSN: 2166-7179  |
| 5.     | Dr. Somashekar K                   | Dynamic Power Reduction Using Switching Activity based Multibit Re-Ordering  | Dec 2022                      | Mathematical Statistician and Engineering Applications, Scopus, PP:9324-9329, Issue: Vol-71 No.-4, ISSN:2094-0343, 2326-9865   |
| 6.     | Dr. Somashekar K                   | DWT based Approximation Co-efficient Image Compression Technique   | Sep 2022                      | YMER, Volume 21, Year 2022, Pages 625-645 ISSN NO: 0044-0477, Scopus   |
| 7.     |                                    | A High-Performance Data Encryption and Masking Using AES Algorithm   | Dec 2022                      | International Journal of Science and Research (IJSR) , Volume 11 Issue 7, July 2022,Pages: 1015 – 1019, ISSN: 2319-7064, Crossref indexed DOI:10.21275/SR22715095436   |
| 8.     | Dr. Mahanthes K/<br>Mrs. Chetana R | Hybrid ensemble learning framework for epileptic seizure detection using electroencephalograph signals   | Dec 2022                      | Indonesian Journal of Electrical Engineering and Computer Science Vol. 28, No. 3, pp. 1502–1509, Scopus -Q3 ISSN: 2502-4752, DOI:10.11591/ijeecs.v28.i3.pp1502-1509  |
| 9.     | Dr. Mahanthes K                    | Block Chain Assisted Privacy Preserving Authentication For Third Party Service Model In Smart Health Care IoT  | Sep 2022                      | Neuro Quantology   September 2022   Volume 20   Issue 9   Page 5398-5406   doi:10.14704/nq.2022.20.9.NQ44629   |
| 10.    | Dr. Mahanthes K                    | Analysis And Interpretation of EEG Signals for BCI Applications  | Sep 2022                      | International Journal of Innovations in Engineering and Technology (IJIET) Volume 22 Issue4 ISSN: 2319-1058 <a href="http://dx.doi.org/10.21172/ijiet.224.01">http://dx.doi.org/10.21172/ijiet.224.01</a>      |