



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

SJB Institute of Technology

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



Dr. Ajay Chandran C.K.
Ph.D, MURP, B.Arch, FIIA, AIIP, FIV, AIID, MISTE
Principal



Department of Electronics and Communication Engineering

SJBIT

Jan 2021

VOLUME 12

Editorial Board

Chief patron : His holiness Sri Sri Sri Dr. Nirmalanandanatha Maha Swamiji
Patron & Publisher : Reverend Sri Sri Dr. Prakashnatha Swamiji
Editorial Advisor : Dr. Ajai Chandran CK, Principal

Editor

: Dr. K.V. Mahendra Prashanth, Professor & HOD

Co-Editor

: Mrs. Pushpalatha.G

Members

: Mr. Rahul Rai & Dr. Anitha.P

Student Co-ordinators : Shivaprasad R & Amrutha S

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. The Department offers UG & PG courses. Further, it is recognized as "Research Center" by VTU.



Dr. K.V. Mahendra Prashanth
Prof & HOD

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.

The department is associated with many industries like INTEL/FICE, Rexroth Bosch, University of Agricultural Sciences, Knowx Innovation Pvt Ltd, WinGlobal Tek, Speckbit Exploratories, NI LabVIEW Solutions, Loginware Softec Pvt Ltd, with vibrant objectives providing Industrial oriented training on PLC, Sensorics, Drives and Control, Lab View, IOT, Embedded Systems, Data Analytics, Artificial Intelligence.

Achievements

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

Department Association with Industries

- MOU with NI systems (India) Pvt. Ltd to establish NI LabVIEW Academy for students and academic professionals.
- MOU with Intel Corporation (FICE), Knowx Innovations Pvt Ltd.
- MOU with University of Agricultural Sciences, M/s Win Global Tek, Speckbit Exploratories Private Limited, Loginware Softec Pvt Ltd.
- MOU with Rexroth Bosch Group to establish "Center of excellence for Training and research in Automation Technologies".

Department Activities

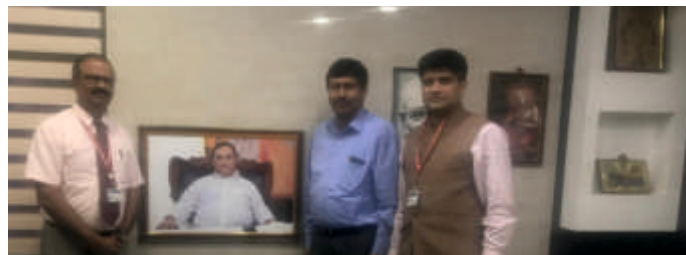
Orientation Program

- Orientation was given by the HOD to all the staff on 01/09/2020 and highlighted upon individual staff responsibilities.
- Inauguration of first year M Tech and MBA programs was conducted on 18/1/2021 as well as for UG Diploma Lateral entry students.



MOU Initiatives

- MOU is signed between ECE Dept. and Trainingworld 360 Solutions Pvt.Ltd for CCNA Job oriented training and providing internship, training in network architecture, switching routing, security virtualization-based monitor and maintenance in medium size network on 23/2/2021 initiated by Dr. K V Mahendra Prashanth, Professor and Head.



- MOU is signed between ECE Dept and M/s Tequed Labs regarding internship, training and placements on 24th Feb 2021 initiated by Dr. Mahantesh K, Associate Professor.



- MOU is signed between ECE Dept and Dlithe Consultancy Services Pvt Ltd to provide internship, training and placements for students on 24th Feb 2021 initiated by Dr. Supreeth HSG, Associate Professor.



Workshop / Seminar / Conference

- Invited an Alumni talk on "Higher Education and career Opportunities in Engineering" by Mrs. Indushree RS, IT Project Manager, Fresenius medical care, North America on 16th August 2020
- An Expert talk was conducted on "Entrepreneurship- My Journey" by Mr. Thejesh on 20th Jan 2021 in association with ED cell, SJBIT, IEEE, ISTE and Institution's Innovation Council. The target audience were first and third semester ECE students.



- Invited Talk (Webinar) on "My Journey to Higher Education" for 5th Semester students in Google Meet platform on 22/01/2021 by the Alumni completed BE in Electronics and Communication Engineering SJBIT (Batch 2013-2017), Ms. Manjushree currently pursuing master of science-MS, Computer and information Sciences in NJIT Ying Wu College of Computing, New Jersey, US.
- Dr. K Somasekhar, Prof. Bhaskar B and Dr. Anitha P was invited as a guest speaker during Student Development Program held through online on "Analog Electronics and its applications" organized by Department of Computer Science and Engineering, VKIT, Bangalore on 17th Feb 2021.

Faculty Achievements

- Dr. KV Mahendra Prashanth was conferred up on the award of " Excellence in Higher Education" at 2nd Industry Leadership Conclave & Awards 2020, received from the
- Hon'ble Justice TN Vallinayagam, Lokadalat & former judge, High court of Madras, chennai, held on 9th Jan 2021 at Chennai.



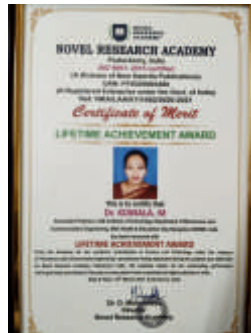
- Dr. CHANDRAPPA D N is awarded CERTIFICATE OF EXCELLENCE IN RESEARCH (Identification Number: 11378) For the Contribution and Honourable Achievement in Innovative Research by ScienceFather, is a trademark of Scifax company (Reg. No. 130116), Approved and Registered by Ministry of Corporate Affairs (MCA), Govt. of India on 4th Feb 2021 during International Research Awards on New Science Inventions



- Dr. Mahantesh k, Assoc.Professor was recognized as a reviewer and Session chair in the 2nd international conference on "Adaptive Computational Intelligence (ICACI-2020) organized by GSSS Institute of Engineering & Technology for women, Mysuru on 15th & 16th December 2020.
- Dr. Mahantesh K has served as Program Evaluation Committee Member and Resource Person for AICTE Sponsored 6 Days STTP on "Design and Development of System with Enterprise python, Raspberry pi, Industrial IOT and Machine Learning", January 4th - 9th, 2021, EWIT, Bangalore in association with Loginware Softtec Pvt Ltd.
- Dr. Mahantesh K was invited as a Resource person for AICTE Sponsored 6 Days STTP on "Design and Development of System with Enterprise python, Raspberry pi, Industrial IOT and Machine Learning", January 4th - 9th, 2021, EWIT, Bangalore
- Dr. Mahantesh K was invited as an Expert to the online Guest lecture on "Multimedia Information Retrieval", PES University, Bangalore, May, 2020.
- Toycathon 2021 is organized by the Innovation Cell, Ministry of Education with support of AICTE, Ministry of Education, Ministry of Women and Child Development, Ministry of Textiles, Ministry of MSME, Ministry of Commerce and Industry, Ministry of Information and Broadcasting.



- Dr. Mahantesh.K was invited as a Program Evaluation Committee Member and Resource Person for AICTE Sponsored 6 Days STTP on “Design and Development of System with Enterprise python, Raspberry pi, Industrial IOT and Machine Learning”, at EWIT, Bengaluru in association with Loginware Softtec Pvt Ltd from 4th -9th Jan 2021.
- Dr. Komala M is awarded “Life Time Achievement Award” by Novel Research Academy



Student's Column

- HIMABINDU.B (1JB18EC036) student has completed one month Internship on "Python Machine Learning" with a grade of "C" from 22nd December 2020 to 23rd January 2021 in association with take it easy_engineers, CertificateID-20ICS12PY023
- Ambika T.C of 6th Sem participated in reality show called Suvarna super star won the title of that show.



Rank Holders



Amrutha
5th Rank (PG VLSI)
9.05 CGPA



Manikya
10th Rank (PG VLSI)
8.91CGPA

Placement

- The Following list of companies recruited the students of ECE during the academic year 2020-21.

Name of the company	No. of students selected
Accenture	13
NTT Data	05
Infosys	04
DXC Technology	12
TCS - Codevita	01
L&T INFOTECH	02
TCS - Ninja	11
6D Technologies	04
SQUARE YARDS	07
WIPRO Technologies	03
ATOS	01
MindTree	01
HEXAWARE TECHNOLOGIES	04

Staff Publication:

Sl. No	Faculty Name	Title of the Paper	Month and Year of Publication	Conference Or Journal
1.	Dr. K. V. Mahendra Prashanth	A comparative study on detection of osteoporosis using deep learning methods: A review	2021	International Journal of Orthopaedics Sciences 2021; 7(3): 108-115 Copernicus index-ICV-100
		Ulcer detection in Wireless Capsule Endoscopy images using deep CNN	Sep 2020	Journal of King Saud University – Computer and Information Sciences, SCI/Scopus, H-index-28,
		Diagnosis of osteoporosis using deep neural network-A review	2020	LINO Journal, Elsevier Scopus, Web of Science, 2019/17416446 ISSN 0211-2574, IF-6.1 LINO Journal, Elsevier Scopus, Web of Science.
2.	Dr. Rekha K R	Modified Digital Space Vector Pulse Width Modulation (DSVPWM) realization on low-cost FPGA platform with optimization for 3-Phase Voltage source Inverter (VSI)	Jan 2021	International Journal of Electrical and Computer Engineering (IJECE), ISSN: 2088-8708, PP-101-109, SCI/Scopus, Q2, IF-0.32, H-index-19, Volume 11, Pages 3629-3638
3.		An Efficient Digital Space Vector PWM Module for 3-Φ Voltage Source Inverter (VSI) on FPGA	Nov 2020	(IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 11, No. 11, 2020 Scopus, h-index-9, Q4, IF-0.16
4.		Modeling of three phase VSI using an efficient SVPWM technique and its analysis	Nov 2020	International Journal of Advanced Research in Engineering and Technology (IJARET), Volume 11, Issue 11, pp. 592-603, Article ID: IJARET_11_11_056 ISSN Scopus Indexed
5.		Analysis of different approaches for Dynamic Power Dissipation in Digital Circuit	Nov 2020	International Conference on Cutting Edge Technologies in Electrical, Communication, Embedded System and Soft Computing Techniques (ICECES'20), Scopus Indexed
6.		Dynamic Power Synthesis Techniques for Combinational for Peer Review Only Circuit	Oct 2020	International Journal of Electronics, PP-1-10, SCI/Scopus, h-index-49, Q3, IF-0.26
7.		Network Health Improvement Techniques	Aug 2020	International Journal of Engineering and Advanced Technology (IJEA), ISSN: 2249-8958, Volume-9 Issue-6, Scopus Indexed
8.		Design and implementation of reconfigurable DCT based adaptive PST techniques in OFDM communication system using inter leaver encoder	Aug 2020	Indian journal of science and technology, SCI/Scopus, Q4, IF- 0.11, H-index-41, PP-3008 - 3020 Volume 13(29), Year 2020, Page s 3008-3020

9.	Dr D.N.Chandrappa	Optimized YOLOv2 based vehicle classification and tracking for intelligent transportation system	Feb 2021	Elsevier, Volume 2, Year 2021, Pages 100008 Scopus Indexed
10.		Satellite Image Matching and Registration using Affine Transformation and Hybrid Feature Descriptors	2021	International Journal of Advanced Intelligence Paradigms, Scopus Indexed
11.		Plant Disease Identification Using Discrete Wavelet Transforms and SVM	2021	Journal of University of Shanghai for Science and Technology, Volume 23, Pages 108-114, ISSN: 1007-6735, Volume 23, Issue 6, Scopus Indexed, Q4, IF-0.11
12.		Analysis of SVM Technique for Vehicle Classification	Feb 2021	Solid State Technology, Volume 63, Year 2020, Pages 12928-34, Scopus Indexed, Q4, IF-0.11
13.		An Efficient Content Prefetching Method for Cloud Based Mobile Adhoc Network	2020	Journal of Computational and Theoretical Nanoscience, Volume 17, Year 2020, Pages 4162-4166 Scopus Indexed, Q4, IF-0.12
14.	Dr. T. Vijaykumar	Performance of Selective Channel Assignment Method in Cognitive Radio System	Jun 2020	International Journal of Advance Science and Technology Vol. 29, No. 10S, (2020), pp.3826-3840, Scopus, h-index-14, Q4, IF-0.1 ISSN: 2005-4238 (IJAST)
15.	Dr. Somashekar K	VLSI BASED IMAGE COMPRESSION ARCHITECTURE USING DWT	Oct 2020	International Journal of Advanced Research in Engineering and Technology (IJARET), Volume 11, Issue 10, pp. 589-602, Article ID: IJARET_11_10_063, Scopus, H-index-1
16.	Dr. Mahantesh K	Automatic Number Plate Recognition System for the Detection of Unauthorized Vehicles During Government Imposed Lockdowns	Jul 2020	Perspectives in Communication, Embedded-Systems and Signal-Processing (PiCES) – An International Journal ISSN: 2566-932X, , Vol. 4, Issue 5, August 2020 Part of the Proceedings of the 1st All India Paper writing Competition on Emerging Research - PaCER 2020
17.		Image Classification based on Inception-v3 and a mixture of Handcrafted Features	2021	Lecture Notes in Electrical Engineering (LNEE), Springer book series, Scopus Indexed, Q4, IF-0.13
18.		An Evaluation and Validation of Contemporary Approaches in Scene Text Extraction and Recognition (STER)	2020	Springer AISC/LNNS series, 2020 [Article in Press]. Scopus Indexed
19.		Block chain-based Knapsack System for Security and Privacy Preserving to Medical Data	2021	SN Journal of Computer Science, Springer, University of Sannio, Benevento, Italy, 2021 [Article in Press]. SCI/Scopus, Q2, IF-0.45, H-index-42
20.	Dr. Ravikumar A V	Optimal clustering technique for neural spike signals with matched wavelet transform	Dec 2020	International Journal of Interdisciplinary Global Studies ISSN No: 2324-755X Volume: 14, Issue No: 04, SCI/Scopus, Q4, IF-0.1, H-index-2
21.	Pushpalatha G / Dr. Supreeth HSG	Bayesian Nonparametric and Fast Coverging NMF based Blind Source Separation	Oct 2020	Proceedings of AICTE Sponsored 1st International E-Conference On “Recent Trends & Development in Information and Communication Engineering” (ICRTDIC-2020) ISBN: 9788192710471

Student Publications:

Sl. No	Student Name	Title of the Paper	Month and Year of Publication	Conference Or Journal
1.	Chandana S Y, Karthik Bharadwaj H S	Automatic Number Plate Recognition System for the Detection of Unauthorized Vehicles During Government Imposed Lockdowns	Jul 2020	Perspectives in Communication, Embedded-Systems and Signal-Processing (PiCES) – An International Journal ISSN: 2566-932X, Vol. 4, Issue 5, August 2020 Part of the Proceedings of the 1st All India Paper writing Competition on Emerging Research - PaCER 2020