



**SMVITM**

# **TECH TARANGA**

*A Departmental Newsletter  
from  
Electronics and Communication Engineering*



**VOL 8**

**ISSUE 2**

**YEAR  
2022-2023**

## HOD's MESSAGE



Greetings to all the readers of *★★ Tech Taranga ★★*

We cordially invite you all to read this issue of the Electronics and Communication Engineering Department Newsletter. The launch of "*Tech Taranga*" our biannual newsletter fills us with excitement. This newsletter will provide a succinct rundown of the department's successes and activities. We have always used the electronic newsletter *Tech Taranga* to interact with our alumni, professors, students, and business partners. Additionally, by emphasizing diverse activities including placement, alumni, institutional club activities, student and staff successes, it updates readers on the most recent departmental happenings. We expect more efforts and accomplishments to support the department's continued ascent to excellence. We would like to convey our appreciation for the teaching staff, support staff, and our beloved students for their consistent support.

*Dr. Guruprasad*

## ABOUT DEPARTMENT

Electronics today stands at the forefront of the rapidly expanding horizon of Science and Technology. The Department of Electronics and Communication Engineering in SMVITM was established in the year 2010, initially offering an undergraduate program with an intake of 60 students per year. The intake was increased to 120 in the academic year 2012-13. The department has well-qualified faculty members – highly motivated in teaching and guiding the students in exploring newer avenues of electronics and communication.



The department is intent on creative and technologically advanced skill transfer to the students through teaching, mentoring and counseling. It regularly organizes seminars, symposiums, workshops and invited talks by eminent faculty from reputed institutions and industry experts, to keep the students abreast of the latest technological developments in related fields. The services of some academicians of high repute have been utilized by the department with the objective of supplementing teaching, mentoring and guiding the students as well as faculty members.

The department has its own library comprising of over 200 text books and technical magazines for quick reference. To nurture creative ideas and provide hands-on training to the students, the department has set up an Innovation/Project laboratory with state-of-the-art equipment and latest versions of software tools, in addition to the regular laboratories.

## **OUR VISION**

“To be recognized as a center of eminence in the field of Electronics and Communication Engineering focusing on holistic engineering education and current technologies”.

## **OUR MISSION**

- Impart quality engineering education with ethics to students and transform them into leaders in technology, innovation and research.
- Provide a platform and academic atmosphere that will ensure the transfer of knowledge and skills to the students.
- Promote the overall personality development of the students through activities that have high credibility and societal impact.

## **PROGRAM EDUCATIONAL OBJECTIVES**

The graduate of Electronics & Communication Engineering should be able to:

- Exhibit essential knowledge of applied sciences, mathematical modelling, logical interpretation and virtual realization to resolve real-time problems in the field of Electronics and Communication Engineering.
- Work productively as an Electronics and Communication Engineer, including supportive and leadership roles on multidisciplinary teams.
- Inculcate effective communication skills to excel in professional growth.
- Take part in lifelong learning in pace with the advancing technological society.

## PROGRAM OUTCOMES

Graduates of the Electronics and Communication Engineering program are able to:

PO-1	Engineering Knowledge	Develop skills to solve engineering problems by using mathematical, scientific and engineering knowledge.
PO-2	Problem Analysis	Recognize, define, conduct literature survey, examine complex engineering problems and draw conclusions using the principles of mathematics, science and engineering
PO-3	Design/Development of Solutions:	Express ideas, devise implementation strategies, plan execution and synthesize solutions, which are favorable for aspects of public health and safety as well as for cultural, societal and environmental conditions
PO-4	Conduct investigations of complex problems	Investigate complex problems by conducting experiments and validate the results
PO-5	Modern Tool Usage	Employ necessary techniques using modern hardware and software tools for engineering applications
PO-6	The Engineer and Society	Reckon and address the societal, health, safety, legal and cultural issues and adopt responsibilities adhering to professional engineering practice.
PO-7	Environment and Sustainability	Estimate and attend to environmental safety issues by means of engineering practice.
PO-8	Ethics	Understand and apply professional ethics for issues relevant to the engineering practices
PO-9	Individual and Team Work	Work as a member of a multidisciplinary project or research teams and have an understanding of leadership in teams and organizations.
PO-10	Communication	Produce engineering reports and express the ideologies effectively.
PO-11	Project Management and Finance	Apply managerial skill in handling projects as a member and leader of a multi-discipline team
PO-12	Life-long Learning	Evolve through lifelong learning process to keep one updated in technological changes.

## **PROGRAM SPECIFIC OUTCOMES**

Graduates of Electronics & Communication Engineering will be able to:

- Focus on developing and exposure to alternative/ advanced technologies: Understand the concepts of Electronics & Communication Engineering and its application in the fields of signal processing, control systems, embedded systems, VLSI design, networking, and communication.
- Extension of knowledge and testing facilities for the society: Apply domain-specific knowledge to design, analyse, synthesise and validate real-time problems in Electronics & Communication Engineering.

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## DEPARTMENTAL ACTIVITIES

### 1. "Peer to Peer Interaction: How To Crack The Job interviews in Reputed Companies"

Placement Team of the ECE Dept. in association with the ISTE student chapter has organized "Peer to Peer Interaction: How to Crack the Jobs in Reputed Companies". This interaction was held on 2/06/2022, from 3pm to 4.30pm at the Seminar Hall, Admin Block, SMVITM. The resource person for this interaction was 8<sup>th</sup> semester ECE placed students. Around 30 students from 6th semester ECE participated and interacted with 15 placed ECE final year students.



The interaction began with the motivational speech by Mr. Sachin Prabhu, Sr. Assistant Professor, Dept. of ECE and inspired the students to start preparing for the placements. There was an open discussion about the preparation for interview, focusing areas and technical background. The placed students also shared their experience regarding their interview

Process and gave proper directions regarding placements. Ms. Niharika, 8th semester ECE student welcomed the resource person and audience. Mr. Chetan, ISTE coordinator and Ms. Yogeshwary B H, Department Placement coordinator has coordinated the interaction.

### 2. Bridge course on Aurdino- Ideathon and Hackathon

Electronics & Communication Engg.. Department in association with ISTE student Chapter has organized the bridge course on Aurdino- Ideathon and Hackathon Phase I training held from 10<sup>th</sup> October 2022 to 14<sup>th</sup> October 2022 and Phase II training from 17<sup>th</sup> October 2022 to 19<sup>th</sup> October 2022. Training was given by ECE dept. faculties and final year students. At the end of the bridge course Ideathon and Hackathon competitions were conducted and best presenter was recognized and awarded with cash prize.

A poster for the event titled "Peer to Peer Interaction: How to Crack Job Interviews in Reputed Companies". The poster is from SMVITM (Shri Madhwa Vadiraja Institute of Technology &amp; Management) and is organized by the Placement team of the ECE Department in association with the ISTE Student Chapter. The event is organized by final year placed ECE students on 22/06/2022 at 3:00 PM in the Seminar Hall, Admin Block. The poster includes the SMVITM logo and the ISTE logo. The text on the poster reads: "SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY &amp; MANAGEMENT (A Unit of Shri Sode Vadiraja Mutt Education Trust, Udipi) Accredited by NBA | Accredited by NAAC with 'A' grade | Affiliated to VTU, Belagavi, Karnataka SMVITM Placement team of ECE Department in association with ISTE Student Chapter is organizing a Peer to Peer Interaction on 'HOW TO CRACK JOB INTERVIEWS IN REPUTED COMPANIES' By FINAL YEAR PLACED ECE STUDENTS On 22/06/2022, at 3:00PM Venue: Seminar Hall, Admin Block SMVITM - Engineering your Career and Character with Care".





### 3. Invited Talk on “Problem Solving and Idea Generation”

Department of Electronics and Communication Engineering in association with ISTE Student Chapter and IIC has organized an invited talk on the topic “Problem Solving and Idea Generation” on 31-10-2022 at 3:00p.m in EC010 (ECE Department). Mr. David Saldanha, CEO at Aion Health Solutions Pvt. Ltd. Bengaluru was the resource person.



The talk started with the first significant step of Problem Solving and Idea Generation is formulating the problem statement. Further, to find a solution to the identified problem there are different ways to be followed. Some important steps are listening, observing and writing down the ideas. He has stressed upon each of these topics separately by giving real time examples and illustrations. Also he has given the examples of Larry Page and others who have made the impossible things possible by looking at things differently. He gave insights on sharing one's own idea with the team to get the motivation and new perspective to solve the problem. He shared

his own life story to motivate the students and concluded the talk with the message to convert your novel idea into a final product, in-spite of all the difficulties you face in the middle of the work. Ankita Bhat, 5th semester, ECE was the Master of the Ceremony and Arun J.K, secretary, ISTE Student Chapter proposed the vote of thanks. Dr. Sachin Bhat, HoD, Dept. of ECE, Mr. Sandesh Kumar, IIC Dept. Coordinator, and Ms. Chandana, ISTE Dept. Coordinator, were present during the event. The event was coordinated by Ms. Chandana, ISTE Dept. Coordinator with the support of Mr. Chetan R, Secretary/Treasurer ISTE.

### 4. Peer Learning Session on “Internship Opportunities in Startups”

Department of Electronics and Communication Engineering in association with ISTE Student Chapter and IIC had organized a Peer Learning Session on 22-11-2022 at 12:00p.m in EC012 (ECE Department). The Final Year Students from the ECE Department were the resource persons. Ms. Sameeksha P U started her talk by sharing the experience about her internship in VI Solutions Bangalore. She briefed about NI Lab View software and application of the same. At the end of her session, she showed the project that she worked on during her internship. The session was continued by Ms. Shreya Upendra Nayak, who did her internship from BEL, in Machilipatnam. She shared her experience of 4 weeks of internship. She discussed about the YOLO algorithm, Animal Detection and Number Plate Detection on which she worked during her internship period. Later the session was taken over by Ms. Akshatha Renjal who is currently undergoing a research internship. She talked about the challenges faced by her during the collection of real-time data (number plate detection of a vehicle which has undergone an accident) and processing of the collected data. She told about the importance of survey and how the

communication among the team members is important in completing any given task.

Mr. Adithya Prakash, 5th semester, ECE and active member of ISTE Student Chapter was the Master of the Ceremony. Dr. Sachin S Bhat, HoD, Department of Electronics and Communication Engineering was present during the event. The event was coordinated by Ms. Chandana, ISTE Department Coordinator with the support of Mr. Chetan R, Secretary of ISTE.



## 5. TECH TALK 1.0

Technocrats Club of Electronics and Communication Department in association with ISTE

Students Chapter has conducted the TECH TALK 1.0 event on 15/12/2022 at 2:00PM in the college premises. Mr. Ranjith Bhat, Sr. Asst. Professor, ECE Dept. and Mr. Sunil Haldankar, Sr. Asst. Professor, CV Dept. were the judges. In the competition students spoke on the topics IOT in Healthcare, Communication technology, Metaverse, Natural Language Processing, Green building, Cracks in concrete, Electric Vehicles, Nanomaterial. The program was compeered by Ms. Shreya Upendra Nayak, coordinator of Technocrats club. Mr. Shreepathi and Mr. Shrinidhi, final year ECE students were volunteers for the event. Mr. Chetan R Institutional Coordinator ISTE Faculty Chapter, Ms. Jayashree M coordinator of Techno Crators , Mr. Nagaraja Rao and Ms.Lahari Vaidya were present in the event . Adithya S Bhat, final year student proposed the vote of thanks. Mr. Ashwin kumar G Rao, first year,

CSE Dept. and Ms. Ankitha Shet, third year, ECE Dept. have shared the first prize.

**TECH TALK 1.0**  
**COMPETITION**

Organised by TechnoCrators Club of  
Electronics & Communication Engineering  
in association with ISTE Students Chapter

**15 DEC 2022**  
Open to all branches  
Last date for registration: 13 Dec 2022

Time : 2:00pm  
Venue : EC101

Theme : Related to  
Latest Technology

Win Exciting Prizes !!

For Registration



## 6. Hands on session on “Learn to repair & troubleshoot electronics”


Department of Electronics and Communication Engineering in association with ISTE Student Chapter has organized a hands-on session on “Learn to repair & troubleshoot electronics” on 17-12-2022 at 10:00a.m in Analog Electronics Lab (ECE Department). Mr. Madhusudhan Thanthry P. N, Foreman and Mr.Sandeep K.R, Sr. Lab Instructor, Department of ECE were the resource persons. The session started with a small introduction to the power supply and different components involved in the power

supply. Students were divided into groups and each group of students explored the concepts through hands-on experience. In the first half of the session, students were taught soldering, how to make the connections using wires and switches, how to light a bulb and to connect relay circuits. In the second part of the session, the participants got an exposure to know more about home appliances such as mixer, iron box, TV, lamp, stabilizer, electric water heater immersion coil etc. Chaitanya Anant Nilekani, 3rd semester, ECE was the Master of the Ceremony. Dr. Sachin Bhat, HoD, Department of Electronics and Communication, was present during the event. The event was coordinated by Ms. Chandana, ISTE Department Coordinator with the support of Mr. Chetan R, Secretary/Treasurer ISTE.

## 7. CIRCUIT DEBUG 1.0

TechnoCrators Club of Electronics and Communication Department in association with ISTE Students Chapter has conducted the CIRCUIT DEBUG 1.0 event on 22/12/2022 at 11:00AM in the ECE Dept. Mr. Sandesh Kumar, Sr. Asst. Professor, ECE Dept. and Ms. Vijayalatha Devadiga, Sr. Asst. Professor, ECE Dept. were the judges. The first round was the MCQ round followed by the Circuit Rig Up and finally the Circuit Debug Round.

The program was compeered by Ms. Shreya Upendra Nayak coordinator of Techno Crators club and Ms. Sukhitha K S,7th Semester,ECE, Mr. Deepak Adhikari and Mr. Lloyd Winston Pinto,5th Semester ECE students were volunteers for the event. Mr. Chetan R Institutional Coordinator ISTE Faculty Chapter, Ms. Jayashree M coordinator of Techno Crators,were present. Mr. Tanmay Kalkur and Mr. Swasthik of 5th sem ECE, secured the first prize in the circuit debug.



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**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**



In association with ISTE Student Chapter  
Organising a  
**Hands-on session**  
on  
**"LEARN TO REPAIR & TROUBLESHOOT ELECTRONICS"**  
By




Mr. Madhusudhan Thanthry P.N.  
Foreman, Dept. of ECE



Mr. Sandeep K.R.  
Lab Instructor (Sr.), Dept. of ECE

**17 December, 2022** **10:00 AM** Analog Electronics Lab of ECE Department

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Department of  
**ELECTRONICS & COMMUNICATION ENGINEERING**

**TECHNO CRATERS CLUB**  
In association with ISTE Students Chapter

is Organising

**CIRCUIT DEBUG 1.0**   
**COMPETITION**

**Win Exciting prizes!!**

**22 DEC**  
2022  
Time : 11 am  
Venue: EC Lab

Scan to Register:



Last date for registration  
**20 Dec 2022**



by HoD's of ECE, Civil & accompanied by Senior Faculties, Staffs & Students of SMVITM.

## 8. Knowing Thyself- Journey into Self

Department of Electronics and Communication in association with placement cell & ISTE student chapter organized a talk on "Knowing Thyself- A journey into self" on 24/12/2022 at 10am onwards in Seminar Hall, Admin Block, SMVITM for Final year students of all branches & pre final year students of ECE. The resource person was Mr. Ankith S Kumar, Counsellor, Abhyday-Department of Counselling, Welfare, Training & Placement, NMAMIT, NITTE.

The Agenda of talk covered topics like mind health, brain space that's been utilized, knowing about inner self of an individual when time spent all alone. It also focused on topics like distortion that is present in outside world, what to & how to focus on things which are important. Mr. Ankith also stressed on topics like positive attitude & having one, how it makes a difference; about values & ethics. He also spoke about ideal self, real self & societal self, human behaviour in general & also discussed about how to deal with challenges that comes ahead in life. The session was activity based learning; it was truly inspiring & motivational session to students. Ms.Shreya Upendra Nayak, Ms. Sukitha, 8th sem ECE students hosted & welcomed the session & Ms. Athmika, 5th sem ECE delivered vote of thanks.

ISTE Coordinator Mr. Chethan, Placement coordinators Ms. Yogeshwari & Ms.Lahari organized the program & Session was graced

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 email: info@sode-edu.in | Website: www.sode-edu.in

**SMVITM**

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**  
 In association with  
**PLACEMENT CELL & ISTE**

Organising a Talk On  
**KNOWING THYSELF**  
 (A Journey into Self)

**Mr. Ankith S Kumar**  
 Counsellor  
 Abhyuday - Department of Counselling,  
 Welfare, Training & Placement  
 NMAMIT NITTE

**Date : 24 December 2022 Time : 10AM Onwards**  
**Venue : Seminar Hall (Admin Block)**  
**ALL ARE CORDIALLY WELCOME**

*SMVITM - Engineering your Career and Character with Care*



## 9. Workshop on "Python & GUI"

The Department of ECE in association with ISTE student chapter has organized two days workshop on "Python & GUI" on 10th and 11th January 2023 for the benefit of the ECE students. Mr. Mahesh Deginal, Managing director of Karunadu Technologies was the resource person for the workshop.

In this workshop, the students have learnt about python which is a trending high level

programming language and can be used on a server to create varieties of web applications. In this two day workshop the resource person introduced the basics of python programming language and students were made to execute simple tasks such as calculator, email ID creation etc. By using python Dr.Thirumaleshwara Bhat, Principal encouraged during the inauguration of the workshop, the students to learn new things and latest technologies. Dr.Sachin Bhat, HOD of ECE department appreciated the students and also highlighted upon the need to update one-self with the current technologies.



**SMVITM**

**TWO DAYS-  
HANDS-ON  
WORKSHOP ON  
PYTHON & GUI**

**ORGANIZED BY**  
Department of Electronics &  
Communication Engineering

In association with ISTE  
Student Chapter  
and  
Karunadu Technologies  
Private Limited

**DATE**  
10/1/2023 & 11/1/2023

**TIME**  
9:00 AM TO 4:00PM

**VENUE**  
EC010, ECE DEPARTMENT

**COORDINATOR**  
MS. SHASHIKALA .R  
FACULTY MEMBER OF ECE

Dr. Ganesh Aithal, Vice-principal motivated the students and mentioned the significance of python programming in academics for career opportunities. Ms. Nisha D'souza, 3rd Year ECE student compered the program. Ms. Shashikala R coordinated the program. ECE faculty members were present during the inauguration of the workshop. The workshop has provided hands on training of python with GUI.

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**SMVITM**

**DEPARTMENT OF ELECTRONICS AND  
COMMUNICATION ENGINEERING**  
in association with  
**ISTE STUDENT CHAPTER &  
KARUNADU TECHNOLOGIES PVT. LTD.**

All are Cordially invited to the  
**Inaugural Function of  
Two days hands-on workshop on  
PYTHON & GUI**

**Chief Guest**  
**Mahesh Deginal**  
Karunadu Technologies Pvt. Ltd.

**Presided by**  
**Prof. Dr. Thirumaleshwara Bhat**  
Principal, SMVITM

**10 January 2023 at 9.15 AM**  
**Venue: EC010, ECE Department**

*SMVITM - Engineering your Career and Character with Care*

## 10. Workshop on “ARDUINO APPLICATIONS”

The Institution Innovation Council and Indian Society for Technical Education of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal in association with Atal Tinkering Lab, Karnataka Public School Hiriadka, Udupi organized a hands-on workshop on "ARDUINO APPLICATIONS" on 12th January 2023. Mr. Sandesh Kumar, Sr. Asst. Professor, ECE Dept., along with students of SMVITM, Prasanna Shet, Ankitha Annappa Shet, Pratham, Rahul Manjunatha Poojari and Rimsha were the resource persons.



The students of SMVITM conducted a session on Arduino and its programming for around 55 students and they demonstrated various application circuits using Arduino kits. The students were divided into groups and were given an opportunity to do hands-on and learn how to program using Arduino kits.

## 11. Alumni Interaction on “Roadmap to Data Science & Analytical Industry”

Department of Electronics and Communication Engineering in association with ISTE Student Chapter and Alumni Cell had organized an Alumni Interaction Session on 21-04-2023 at 12:00p.m in EC011 (ECE Department). Mr. Bharath Shenoy, Human Resource Executive-System & Analytics, Intelliswift Software Inc. was the resource person.

At the beginning of session a short introduction to the topics of Data Science and Data Analytics were given with examples, which helped the students to relate the topics to the realtime applications. The comparison between the two fields facilitated to distinguish between them. The roadmap to become a data scientist and the data analyst roadmap gave knowledge about the different fields of science and engineering that are required to become a successful data scientist and data analyst. Along with these, non-tech domain knowledge, data analytics learning and development tools available were also discussed. The variety of opportunities in the field of data science and data analytics was highlighted.

At the end, the importance of acquiring technical skills and knowledge along with current marketing trends were briefed. Ms. Ankitha Bhat, 6th semester, ECE was the Master of the Ceremony. Mr. Chetan R, Secretary/Treasurer ISTE as a concluding remark addressed the students about the importance of alumni interaction and current trends in the industry.

Dr. Guruprasad, In charge HoD, Department of Electronics and Communication

Engineering, and Ms. Chandana, ISTE Department Coordinator were present during the event. The event was coordinated by Ms. Chandana, ISTE Department Coordinator and Ms. Rajashree Nambiar, Alumni Cell coordinator with the support of Mr. Chetan R, Secretary/Treasurer ISTE.

## 12. Internship opportunities in LABVIEW by Mr. Satyanarayana

On 20 June, 2023, Mr. Satyanarayana from VI Solutions, Bengaluru, delivered a talk on internship opportunities in LabVIEW, AI, and ML. The talk aimed to highlight the significance of these technologies and the potential career prospects they offer for the current 6th semester students.

He further summarized that LabVIEW: LabVIEW is a graphical programming environment used in industries like manufacturing, research, and development. VI Solutions offers LabVIEW internships focusing on application development, user interface design, and data acquisition systems.

AI and ML: The speaker emphasized the importance of AI and ML across domains. VI Solutions also provides internships in AI and ML, covering model development, data analysis, and real-world applications.

The talk shed light on internship opportunities in LabVIEW, AI, and ML offered by VI Solutions. These internships bridge the gap between theory and practice, equipping participants with valuable skills and experience for future careers in these fields. Around 60 students attended the talk with Mr. Ranjith Bhat coordinating the event.

The poster is for an event titled "ROAD MAP TO DATA SCIENCE & ANALYTICAL INDUSTRY" organized by the Department of Electronics & Communication Engineering at SMVITM. The speaker is Mr. Bharath Shenoy, Human Resource Executive - System & Analytics at Intelliswift Software Inc. The event is scheduled for 21 April 2023 at 12:00 PM in the ECE Department. The poster includes the SMVITM logo and accreditation information.



## ACCOMPLISHMENTS

### 13. Faculty Conference Publications

Sl.No.	Name of Authors	Title of paper	Name of conference
1	Ganesh shetty	The Classification of Satellite Galaxies Based on Convolution Neural Networks Machine Learning Algorithm	3rd International Conference for Emerging Technology (INCET 2022)
2	Arun Upadhyaya	A Security Enhanced Image Encryption and Compression Using Residue Number System and Discrete Cosine Transform	2nd International Conference on On Signal & Data Processing (ICSDP 2022)
3	Rajashree Nambiar	The Use of Privacy Preserving techniques in Edge Cloud Computing : A Study of Alternative approaches to Face Recognition	ICICICT-2022, Kannur India
4	Yogeshwary B. H	Leaf Disease Detection And Prevention Using Deep Learning	IEEE International Conference on Artificial Intelligence and Data Engineering (AIDE-2022)
5	Yogeshwary B. H	Iterative Localization technique for underwater wireless communication	IEEE NKCon-2022
6	Arun Upadhyaya	Significance of Performance Indicators (PI) in the Design of Course file-Case Study for Effective Teaching Pedagogy	24th ISTE Karnataka State Level Faculty Convention & 32nd Dr.L.S.Chandrakant Memorial Lecture Series
7	Ranjith Bhat	A comparative study on Alternative Deep Learning Based Animal Classification System	2nd Student International Conference [ICRDSTEM-2023]
8	Ranjith Bhat	Multiclass Classification Of Kidney Stone, Cyst, Tumor And Normal Using Deep Learning	JETRI-2023



9	Chandana	A comparative study on Alternative Deep Learning Based Animal Classification System	2nd Student International Conference [ICRDSTEM-2023]
10	Guruprasad, Chetan R, Akshatha A R	Performance Analysis of Non-overlapping Two Phase Clock Signal Generators	12th IEEE International Conference on Communication Systems and Network Technologies
11	Shreya Udupa S, Sneha J S, Tulasi D J , MYashwanth Naik and Chetan R	Robot Assistance for Visually Impaired	"Technology for Industry 4.0 Revolution (ICTIR)"
12	Chandana	Brain Tumor Detection Using Deep Learning Techniques	IC-ICIC-2023
13	Rakshath Kumar, Akshay, Pratheeksha, Rashmitha Bhat, Chetan R, Dr. Guruprasad	Automatic Wireless Electricity Meter Reading System	"Technology for Industry 4.0 Revolution (ICTIR)"

#### 14. Faculty Journal Publications

Sl.No.	Name of Authors	Title of paper	Name of Journal
1	Yogeshwary Bommenahalli Huchegowda; Aravind Bettadahalli Ningappa; Naveen Kumar C. M.; Yashwanth Nanjappa	Performance of SALP Swarm Localization Algorithm in Underwater Wireless Sensor Networks	Open Access Journal by MDPI
2	Yogeshwary B H	Performance of SALP Swarm Localization Algorithm in Underwater Wireless Sensor Networks	Photonics
3	Chaithra Kulal,	Detection of Pressure points on Diabetic	Journala of Emerging

	Dheeraj, Meghana Bhat, Neema B Shetty, Nagaraja Rao	foot	Technologies and Innovative Research (JETIR)
4	Shrava S, Shreya K, Shwetha Prabhu, Sinchana, Arun Upadhyaya	Image Encryption based on 3D Chaotic Map	IJARSE
5	Nagaraja Rao, Shantharama Rai C	Stability analysis and speed control of brushless DC motor based on self-ameliorate soft switching control methods	International Journal of Electrical and Computer Engineering (IJECE)

### 15. Faculty Development Programme & Workshops

Sl.No.	Name of Faculty	Title of the FDP or Workshop	Venue/College Name
1	Akshatha Rao L	UTKARSH	SMVITM
2	Akshatha Rao L	Joy of Computing using Python	NPTEL, Course, IITM
3	Akshatha Rao L	"Inculcating Universal Human Values in Technical Education"	AICTE
4	Arun Upadhyaya	Natural Language Processing	SMVITM, Bantakal
5	Arun Upadhyaya	UTKARSH	SMVITM
6	Arun Upadhyaya	Introduction to Python Programming and its applications	AICTE-VTU
7	Chandana	UTKARSH	SMVITM
8	Chandana	Inculcating Universal Human Values in Technical Education	AICTE
9	Chandana	Health care Analytics	SMVITM
10	Chandana	Artificial Intelligence and Machine Learning for Image Analysis - Matlab & Python Perspective	CMR Institute of Technology, Bengaluru
11	Chetan R	"Inculcating Universal Human Values in Technical Education"	AICTE
12	Chetan R	Introduction to Python Programming and its applications	AICTE-VTU
13	Ganesh Shetty	Natural Language Processing	SMVITM, Bantakal
14	Ganesh Shetty	Cryptography and network security	NPTEL, Course, IIT Madras

15	Guruprasad	UTKARSH	SMVITM
16	Jayashree M	UTKARSH	SMVITM
17	Jayashree M	Five days Workshop on Signal Processing for Biomedical Applications	NMAMIT, Nitte
18	Jayashree M	Introduction to Python Programming and its applications	AICTE-VTU
19	Lahari Vaidya	UTKARSH	SMVITM
20	Nagaraja Rao	Natural Language Processing	SMVITM, Bantakal
21	Nagaraja Rao	Importance of Data Science in Machine Learning and its applications	RVITM,Bengaluru
22	Pavithra Poornima S	UTKARSH	SMVITM
23	Pavithra poornima S	"Inculcating Universal Human Values in Technical Education"	AICTE
24	Pavithra poornima S	Adithya-L1 Science and Education Outreach program	Pilikula Regional science centre, Mangaluru
25	Pavithra poornima S	Stay Safe online Campaign	Ministry of Electronics and Information Technology
26	Pavithra poornima S	Drones and Autonomous System organised by centre of Excellence Drones	CMRIT, Bengaluru
27	Pavithra poornima S	Idea Generation Method	ICT academy
28	Poojashree Hebbar	UTKARSH	SMVITM
29	Rajashree Nambiar	Machine Learning, Artificial Intelligence And Deep Learning Applications	NMAMIT, Nitte
30	Rajashree Nambiar	NLP Applications	SMVITM, Bantakal
31	Rajashree Nambiar	Artificial Intelligence and Machine Learning for Image Analysis - Matlab & Python Perspective organized	CMR Institute of Technology, Bengaluru
32	Ranjith Bhat	Machine Learning, Artificial Intelligence And Deep Learning Applications	NMAMIT, Nitte
33	Ranjith Bhat	NLP Applications	SMVITM, Bantakal
34	Ranjith Bhat	Artificial Intelligence and Machine Learning for Image Analysis - Matlab & Python Perspective organized	CMR Institute of Technology, Bengaluru
35	Sachin Prabhu K	UTKARSH	SMVITM
36	Sachin Prabhu K	"Inculcating Universal Human Values in Technical Education"	AICTE
37	Sachin Prabhu K	Introduction to Python Programming and its applications	AICTE-VTU
38	Sandesh Kumar	UTKARSH	SMVITM, Bantakal
39	Mr. Sandesh Kumar	"Inculcating Universal Human Values in Technical Education"	AICTE

40	Mr. Sandesh Kumar	Introduction to Python Programming and its applications	AICTE-VTU
41	Shashikala R	Research and Publication Ethics	Nitte Meenakshi Institute of Tehnology
42	Shashikala R	Introduction to Python Programming and its applications	AICTE-VTU
43	Sowmya Bhat	Natural Language Processing	SMVITM, Bantakal
44	Yogeshwary B H	UTKARSH	SMVITM, Bantakal
45	Yogeshwary B H	Natural Language Processing	SMVITM, Bantakal
46	Yogeshwary B H	Introduction to Python Programming and its applications	AICTE-VTU
47	Vijayalatha Devadiga	UTKARSH	SMVITM
48	Vijayalatha Devadiga	Inverse Problems and Applications	NITK,Surathkal
49	Vijayalatha Devadiga	Introduction to Python Programming and its applications	AICTE-VTU
50	Vijayalatha Devadiga	Stay Safe online Compaign	Ministry of Electronics and Information Technology

## 16. KSCST/VGST Funded Project Details

### ➤ Start-up grant by Govt. of Karnataka

Dr. Sachin S Bhat, Head of the Department, Electronics and Communication Engineering of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal had won the prestigious Karnataka State Urban Mobility Grand Challenge conducted by the Department of Electronics, IT, BT, Government of Karnataka. He won the startup grant of Rs. 10 lakhs for his work to assist the Police department in capturing the accident information on-site with minimal manual inputs and to register an online First Information Report. This tool uses Artificial Intelligence technique to extract information of accidents from photographs from an image captured at the accident spot and notifies the nearest hospital regarding the location and severity of accident. Principal and management have congratulated Dr. Sachin Bhat for his stupendous achievement.

### ➤ Start-Up funding from Government of India

Dr. Sachin Bhat, the Head of the E& C department of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal has received the funding assistance of Rs. 11.5 Lakh for his innovative idea titled "SURGICAL SPONGE DETECTION SYSTEM" under the MSME incubation scheme. Through the MSME scheme, a focus is placed on fostering emerging technologies and knowledge based innovative ventures that contribute to the global economy beyond the traditional activities of MSMEs.

## ➤ Project funding from KSCST

Under the 45<sup>th</sup> series of Student Project Program (SPP), the evaluation committee had selected the projects submitted by SMVITM students for the sponsorship. Following are the sponsored project lists:

- Mr. Tejas S R, Mr. Subramanya S Nayak, Mr. Suraj S, Mr. Charan R Devadiga, Final year ECE students under the guidance of Ms. Sowmya Bhat had received the funding for the project titled “supplemental system for assisting the knee joint using pascal's law”.
- Ms. Neha Kini, Ms. Nayak Dhanashree, Ashok, Ms. Shreya S Navelkar, Final year ECE students under the guidance of Mr. Chetan R had received the funding for the project titled “Embedded Based Automatic Lawn Mover”.
- Mr. Rajesh C, Mr. Vikas N Rao, Ms. Riya Prabhu, Ms. Rakshitha R Nayak, Final year ECE students under the guidance of Dr.Balachandra Achar had received the funding for the project titled “Agricultural Drone”.
- Mr. Karthik N, Ms. Hrishika, Mr. Arun J K, Final year ECE students under the guidance of Ms. Akshatha Rao had received the funding for the project titled “Design And Development Of Negative Pressure Wound Therapy Device”.
- Ms. Shreya Udupa S, Ms. Sneha J S, Ms. Tulasi D J and Mr. Yashwanth Naik, Final year ECE students under the guidance of Mr. Chetan R had received the funding for the project titled “Robot Assistance for the Visually Impaired”.

## 17.PLACEMENTS

<b>Placed Student Details in the Interval of June 2022-January 2023</b>		
<b>S.I.</b>	<b>Student Name</b>	<b>Company name</b>
1	Akshatha Anil Kumar Renjal	Tech Mahindra - Cerium Systems (P) Ltd
2	Hrishika	Tech Mahindra - Cerium Systems (P) Ltd
3	Srinidhi S K	Tech Mahindra - Cerium Systems (P) Ltd
4	Adithi Girish	Kyndryl India Pvt. Ltd., Bengaluru
5	Rachana	Kyndryl India Pvt. Ltd.
6	Sameeksha P U	Kyndryl India Pvt. Ltd.
7	Shanthika	Kyndryl India Pvt. Ltd.
8	Shreya Udupa S	Kyndryl India Pvt. Ltd.
9	Lohith V P	Trianz
10	Bhoomika	SKOLAR
11	Prajwal Upadhyia	Hexaware Technologies Ltd.
12	Prasanna Nayak	Robosoft Technologies Pvt. Ltd., Udupi
13	Adithi P	SKOLAR Bengaluru
14	Akshay K G	SKOLAR Bengaluru
15	Anwitha Rao P	SKOLAR Bengaluru
16	Arun J Kundgolkar	SKOLAR Bengaluru
17	Dheeksha A Suvarna	SKOLAR Bengaluru
18	Harshitha Shetty	SKOLAR Bengaluru
19	Keerthan	SKOLAR Bengaluru
20	Prasthuthi Amin	SKOLAR Bengaluru
21	Rithesh Kumar	SKOLAR Bengaluru

22	Sakshi	SKOLAR Bengaluru
23	Shanthkumar C K	SKOLAR Bengaluru
24	Sharanya (Santosh)	SKOLAR Bengaluru
25	Shreya	SKOLAR Bengaluru
26	Sukhitha Ks	Usha Armour Pvt. Ltd., Bengaluru
27	Sneha J S	iWave Systems Technologies Pvt. Ltd.,
28	Pratheeksha	Kambala Solutions Pvt. Ltd., Mangaluru
29	Varshini Acharya	Kambala Solutions Pvt. Ltd., Mangaluru
30	Sudeep	Lekha Wireless Solutions Pvt. Ltd
31	Varalakshmi	Lekha Wireless Solutions Pvt. Ltd
32	Chaithra Kulal	Rinex Technologies Pvt. Ltd., Bengaluru / Mangalore.
33	Karthik N	Rinex Technologies Pvt. Ltd., Bengaluru / Mangalore.
34	Meghana R Bhat	Rinex Technologies Pvt. Ltd., Bengaluru / Mangalore.
35	Neema B Shetty	Rinex Technologies Pvt. Ltd., Bengaluru / Mangalore.
36	Nishanth	TCS Ninja
37	Shwetha Prabhu	TCS Ninja
38	Prajwal	Tekworks Enterprise solutions pvt ltd
39	Dileep A R	Lekha Wireless Solutions Pvt. Ltd.
40	Rashmitha Bhat	Lekha Wireless Solutions Pvt. Ltd.
41	Shreya Upendra Nayak	Lekha Wireless Solutions Pvt. Ltd.
42	Hemanth V Prabhu	GlowTouch Technologies, Mangaluru
43	K Rakesh	Mirafra Software Technologies Pvt. Ltd.
44	Karthik N	Mirafra Software Technologies Pvt. Ltd.
45	Nikitha	Mirafra Software Technologies Pvt. Ltd.
46	Soujanya S	Mirafra Software Technologies Pvt. Ltd.
47	Swathi Bhat	Mirafra Software Technologies Pvt. Ltd.
48	Sumukha Hatwar K N	Tantragrahaan Solutions, Bangalore
49	Chandrakala	Vintrus EduTech, Bengaluru
50	Kirana D N	Vintrus EduTech, Bengaluru
51	Rithesh Kumar	Manipal Technologies Limited, Manipal
52	Ujwal U Shetty	Seventh Sense Talent Solutions, Bengaluru
53	Dheeraj	Karmic Design Private Limited, Manipal
54	Divyashree	Karmic Design Private Limited, Manipal
55	Rakshath Kumar	Karmic Design Private Limited, Manipal

## 18. Internship Details

SI No.	USN	NAME OF THE STUDENT	NAME OF THE COMPANY/ ORGANISATION	PLACE	START DATE	END DATE
1	4MW19EC001	ADITHI GIRISH	SMVITM	BANTAKAL	22/08/2022	22/09/2022
2	4MW19EC002	ADITHI P	NMAMIT	NITTE	22/08/2022	22/09/2022
3	4MW19EC003	ADITHYA S BHAT	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
4	4MW19EC004	AKSHATHA ANILKUMAR RENJAL	SMVITM	BANTAKAL	22/08/2022	22/09/2022
5	4MW19EC005	AKSHAY	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25/08/2022	25/09/2022
6	4MW19EC006	AKSHAY K G	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25/08/2022	25/09/2022
7	4MW19EC007	ANWITHA RAO P	NMAMIT	NITTE	22/08/2022	22/09/2022
8	4MW19EC008	ARUN J KUNDGOLKAR	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25/08/2022	25/09/2022
9	4MW19EC009	BHOOMIKA	NEXTEER	BENGALURU	23/08/2022	23/09/2022
10	4MW19EC010	CHAITHRA KULAL	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
11	4MW19EC011	CHANDRAKALA	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
12	4MW19EC012	CHAYA NAIK	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
13	4MW19EC013	DEEPA NAYAK	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
14	4MW19EC014	DHEEKSHA A SUVARNA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
15	4MW19EC015	DHEERAJ	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
16	4MW19EC016	DILEEP A R	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25/08/2022	25/09/2022
17	4MW19EC017	DIVYASHREE	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
18	4MW19EC018	HARSHITHA SHETTY	NMAMIT	NITTE	22/08/2022	22/09/2022
19	4MW19EC019	HEMANTH V PRABHU	SMVITM	BANTAKAL	22/08/2022	22/09/2022
20	4MW19EC020	HRISHIKA	INVENTERON TECHNOLOGIES	BENGALURU	25/08/2022	24/09/2022
21	4MW19EC021	K RAKESH	SMVITM	BANTAKAL	22/08/2022	22/09/2022
22	4MW19EC022	K SRINIVAS KAMATH	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25/08/2022	25/09/2022
23	4MW19EC023	KARTHIK N	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
24	4MW19EC024	KEERTHAN	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25/08/2022	25/09/2022
25	4MW19EC025	KIRANA D N	SMVITM	BANTAKAL	22/08/2022	22/09/2022
26	4MW19EC026	LOHITH V P	SMVITM	BANTAKAL	22/08/2022	22/09/2022
27	4MW19EC027	MANTHANA K	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
28	4MW19EC028	MEGHANA BAPAT K	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
29	4MW19EC029	MEGHANA R BHAT	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
30	4MW19EC030	MENAKA R J	RADIO STATION	MANGALURU	22/08/2022	17/09/2022
31	4MW19EC031	NEEMA B SHETTY	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
32	4MW19EC032	NIKITHA	RADIO STATION	MANGALURU	22/08/2022	17/09/2022

33	4MW19EC033	NISHANTH	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25/08/2022	25/09/2022
34	4MW19EC034	PRAJWAL	SMVITM	BANTAKAL	22/08/2022	22/09/2022
35	4MW19EC035	PRAJWAL UPADHYA	SMVITM	BANTAKAL	22/08/2022	22/09/2022
36	4MW19EC036	PRASANNA NAYAK	SMVITM	BANTAKAL	22/08/2022	22/09/2022
37	4MW19EC037	PRASTHUTHI AMIN	RADIO STATION	MANGALURU	22/08/2022	17/09/2022
38	4MW19EC038	PRATHEEKSHA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
39	4MW19EC040	RACHANA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
40	4MW19EC041	RAKSHATH KUMAR	TECH FORTUNE TECHNOLOGIES	HUBBALLI	25/08/2022	25/09/2022
41	4MW19EC043	RAKSHITHA R NAYAK	INVENTERON TECHNOLOGIES	BENGALURU	25/08/2022	24/09/2022
42	4MW19EC044	RASHMITHA BHAT	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
43	4MW19EC045	RITHESH KUMAR	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
44	4MW19EC046	RUHAIMA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
45	4MW19EC047	SAKSHI	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
46	4MW19EC048	SAMEEKSHA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
47	4MW19EC049	SAMEEKSHA P U	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
48	4MW19EC050	SHANTHIKA	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
49	4MW19EC051	SHANTHKUMAR C K	SMVITM	BANTAKAL	22/08/2022	22/09/2022
50	4MW19EC052	SHARANYA (U UDAYA)	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
51	4MW19EC053	SHARANYA (SANTOSH)	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
52	4MW19EC054	SHETTY NITHIN VIJAY	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
53	4MW19EC055	SHRAVAN S	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
54	4MW19EC056	SHREEPATHI	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
55	4MW19EC057	SHREESHA S AITHAL	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
56	4MW19EC058	SHREESHA	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
57	4MW19EC059	SHREYA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
58	4MW19EC060	SHREYA DEVADIGA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
59	4MW19EC061	SHREYA UDUPA S	NMAMIT	NITTE	22/08/2022	22/09/2022
60	4MW19EC062	SHREYA UPENDRA NAYAK	BHARATH ELECTRONICS LIMITED	ANDHRA PRADESH	22/08/2022	22/09/2022
61	4MW19EC063	SHREYAS ACHARYA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
62	4MW19EC064	SHREYAS M NAIK	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
63	4MW19EC065	SHRIKRISHNA BHAT	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
64	4MW19EC066	SHRINIKETH	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
65	4MW19EC068	SHWETHA	SWAGEN	BENGALURU	29/08/2022	30/09/2022



		PRABHU				
66	4MW19EC069	SIJAL KUMARI	WEBDEV IT SOLUTIONS	BIHAR	25/08/2022	25/09/2022
67	4MW19EC070	SINCHANA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
68	4MW19EC071	SNEHA J S	KYUNGSHIN INDUSTRIAL MOTHERSON PRIVATE LIMITED	TAMIL NADU	29/08/2022	29/09/2022
69	4MW19EC072	SOUJANYA S	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
70	4MW19EC074	SRIJANYA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
71	4MW19EC075	SRINIDHI S K	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
72	4MW19EC076	SUDEEP	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
73	4MW19EC077	SUKHITHA K S	BHARATH ELECTRONICS LIMITED	ANDHRA PRADESH	22/08/2022	22/09/2022
74	4MW19EC079	SUMUKHA HATWAR K N	SMVITM	BANTAKAL	22/08/2022	22/09/2022
75	4MW19EC080	SWATHI BHAT	MESCOM	MANGALURU	25/08/2022	25/09/2022
76	4MW19EC081	TABISH AKBAR	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
77	4MW19EC082	TULASI D J	NMAMIT	NITTE	22/08/2022	22/09/2022
78	4MW19EC083	UJWAL U SHETTY	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
79	4MW19EC084	VARALAKSHMI	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
80	4MW19EC085	VARSHINI ACHARYA	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022
81	4MW19EC086	WILSON NORONHA	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
82	4MW19EC087	YASHASWINI R AMIN	NEXTEER	BENGALURU	22/08/2022	22/09/2022
83	4MW19EC088	YASHWANATH NAIK	LOGIN WARE	BENGALURU	25/8/2022	25/09/2022
84	4MW20EC400	SUJAN	VI SOLUTIONS	BENGALURU	01-08-2022	20/08/2022

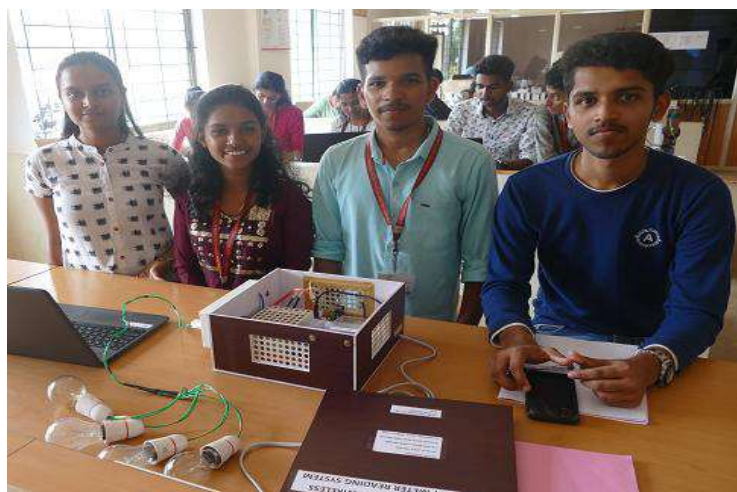
## 19. PROJECT AWARDS

Co-curricular committee in association with ISTE student chapter and IIC of SMVITM, conducted Final Year Project Exhibition on account of National Technology Day in the institute premises. Experts nominated a total of 2 student projects as Best Projects from each department. The I prize was 3,000 and II prize was 2,000 cash was awarded at a farewell function on 13th May 2023. Program was coordinated by cocurricular co-ordinator Dr. Renita Sharon Monis.

The project titled “**DRY AND WET GARBAGE SEGREGATION & MONITORING**”, has won the best project award under the exhibition category and this project was completed by the final year students **Sudeep, Ujwal U Shetty, Wilson Noronha & Sujan** from Electronics and Communication Engineering department under the guidance of Ms. Vimitha, Asst. Professor, ECE Dept.



The project titled “**AUTOMATIC ENERGY METER READER**”, has won the runner up under the exhibition category and this project was completed by the final year students **Akshay, Pratheeksha, Rakshath Kumar & Rashmitha Bhat** from Electronics and Communication Engineering department under the guidance of Dr. Guruprasad, Associate Professor, ECE Dept.



## 20. MINI PROJECT EXHIBITION & COMPETITION AWARDS

Co-curricular committee in association with ISTE student chapter of SMVITM and Hobby Project Club, conducted Mini Project Exhibition in the institute premises. Experts nominated a total of 3 student projects as Best Projects and three projects as consolation Prizes. The I prize was 3,000 and II prize was 2,000 cash and III prize was 1,000 .

The Mini project titled “**IOT BASED SMART CLASSROOM AND HOME AUTOMATION**”, has won the best mini project award and this mini project was completed by the pre final year students **Prasanna Shet, Pratham, Ankitha Shet, Rahul** from Electronics and Communication Engineering department under the guidance of Mr. Sachin Prabhu, Sr. Asst. Professor, ECE Dept.



The mini project titled “**ECO-TECH**”, has won the runner up and this mini project was completed by the second year students **Akshata Muralidhara Bailoor, & Dhanush Devadas Shasthri** from Electronics and Communication Engineering department under the guidance of Mr. Nagaraj Rao Associate Professor, ECE Dept.



## **TOPPERS LIST WITH SGPA**

### **8<sup>TH</sup> SEMESTER**

1	4MW19EC034	PRAJWAL	9.44
2	4MW19EC050	SHANTHIKA	9.44
3	4MW19EC004	AKSHATHA ANILKUMAR RENJAL	9.33

### **6<sup>TH</sup> SEMESTER**

1	4MW20EC024	KEERTHANA	9.08
2	4MW20EC012	ANUSHA	9.04
3	4MW20EC035	NIKHITHA SHETTY	8.83

### **3<sup>RD</sup> SEMESTER**

1	4MW21EC013	CHAITANYA ANANT NILEKANI	9.39
2	4MW21EC073	U ASHLESH KUMAR	9.22
3	4MW21EC027	KEERTHANA K	9.17

## **FACULTIES ACHEIVEMENTS**

### **Dr. Guruprasad**

- Reviewed papers in the stream “Embedded system and IOT” for the conference organized by the department of Electronics and Communication Engineering, NMAMIT, Nitte during 22 and 23 December 2022.

### **Mr. Nagaraja Rao**

- Participated in IP Awareness/Training program under National Intellectual Property Awareness Mission on August 03,2022 organized by intellectual property office india
- Reviewed papers in the stream “Embedded Systems & IOT” for the International conference on VLSI, SIGNAL PROCESSING, POWER ELECTRONICS, IOT, COMMUNICATION AND EMBEDDED SYSTEMS organized by the department of ECE, NMAM Institute of Technology, Nitte during 22 & 23 December 2022

### **Mr. Arun Upadhyaya**

- Invited speaker and delivering a Session on "Activity based learning on 28 September 2022 in a Faculty Development Program "Utkarsh" held at SMVITM College premises, Bantakal on 28, 30 September and 6 -8 October 2022.
- Reviewed papers for the VPSICE2022
- Resource person of "Value added course on Entrepreneurship" organized by the Institution's Innovation Council in association with the Entrepreneurship Development Cell on 20 June 2023.

### **Mr. Chetan R**

- Judge for interhouse "Science in everyday life" exhibition held on 20/10/22.
- Support rendered in mentoring the students of SVH Highschool Innanje in the spirit of Anveshana 2023, Hubli-Dharwad
- Judge for the 24 hours state level hackathon competition " HACKOTHSAVA 2023 " organized by the Department of Computer Science and Engineering in association with the Institution's Innovation Cell and Indian Society for Technical Education held on 2 & 3 June 2023 at the college premises.
- Resource person for One day workshop on "Electric VLSI Design Systems" organised by the department of ECE, Institute of engineering and technology, Srinivasa University Mukka Mangaluru, under NICSA on April 13, 2023

### **Mr. Ganesh Shetty**

- Completed the course cryptography and network security with a consolidated score of 83%

### **Mr. Ranjith Bhat**

- Filed patent on INTELLIGENT LEARNING-BASED PREDICTION OF DATA CENTER LOAD EFFICIENCY IN CLOUD COMPUTING. Date of filing of Application :12/05/2022

### **Ms. Yogeshwary B.H**

- Reviewed papers in International conference on technology engineering management for societal impact using marketing , entrepreneurship, and talent (TEMSMET 2023)", organized by the Vidya Vikas institute of technology Mysuru on 10th & 11th February 2023.

### **Ms. Akshatha Rao L**

- Completed the course " The Joy of computing using python" with a consolidated score of 90%

## OUT GOING BATCH 2022-23



ECE BATCH 2022-23 (Section -A)



ECE BATCH-2022-23 (Section -B)

# CONGRATULATIONS



**Ms. AKSHATHA ANILKUMAR RENJAL**  
**GOLD MEDALIST OF ECE 2022-23 BATCH**



**SMVITM**

***Department of  
Electronics and Communication Engineering***

***Newsletter Editors:***

***Ms. Jayashree M, Asst. Professor***

***Mr. Chetan R, Sr. Asst. Professor***





# ELECTRONEWS

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A Departmental Newsletter from

**SMVITM**

Department of Electronics and Communication  
Engineering.

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VOL 7

ISSUE 1

ESTD 2010



**SMVITM**

The background of the lower half of the page is a vibrant, abstract geometric pattern composed of numerous overlapping triangles in various shades of red, orange, yellow, blue, and purple, creating a dynamic and modern aesthetic.

# ELECTRONEWS

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## From the editor's desk...

Warm greetings to the readers of ELECTRONEWS.

Welcome to this issue of Newsletter from the Department of Electronics and Communication Engineering. We are delighted to launch our Bi-Annual Newsletter "ElectroNews". This newsletter is a digital way for us to communicate with our students, faculty members, alumni and industrial partners. This newsletter will provide a glimpse of the departmental activities and achievements. Also, it enlightens the readers about the latest happenings in the department, focusing about different activities like placement, alumni, institutional club activities, student and faculty achievements. We look forward for more activities and achievements for the department to march towards excellence in the future. We would like to thank all teaching, supporting staff and our beloved students for their constant support.

Ranjith Bhat

## DEPARTMENTAL ACTIVITIES

### Lecture series, Talks and Webinars:

#### 1. ISTE organized a "Adobe Internship- Domain Specific Round Preparation"

Department of Electronics and Communication Engineering of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, in association with the Department of Training and Placement and ISTE organized a "Adobe Internship- Domain Specific Round Preparation" for 203 batch Adobe Internship aspirants of SMVITM on 4th October 2021.



Dr. Balachandra Achar H V, Professor, Department of ECE, Mr. Nagaraj Rao, Associate Professor, Department of ECE, Mr. Sachin Prabhu, Mr. Chetan R, Ms. Laxmi Shetty, Mr. Arun Upadhyaya and Mr. Ganesh Shetty, Assistant Professors, Department of ECE were the resource persons.

Faculties conducted sessions on various Electronics and Communication Engineering

domain specific subjects like Microcontrollers, Microprocessors, Digital Electronics, Network Theory, Analog Devices, Control Systems,



Communication Systems, Electrical Measurements and Instruments wherein they discussed on frequently asked questions and important websites to refer which helps students to crack the interview process.



33 Adobe Internship aspirants from 2023 batch actively participated in the session.

All the students and faculties supported the event "Adobe Internship- Domain Specific Round Preparation" to become a success.

## 2. Talk on "Career opportunities in VLSI & Embedded System Industry "

Department of Electronics and Communication Engineering of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, organized a technical talk on "Career opportunities in VLSI & Embedded System Industry " for the final year EC students of SMVITM on 13th October 2021. The resource person Mr. Arun John Mathias from CoreEL technologies addressed the students and highlighted the industry opportunity in the VLSI domain. He also explained the concepts of VLSI like ASIC and FPGA.



Ms. Vimitha introduced the resource person to the gathering and proposed the vote of thanks.

Dr. Sachin Bhat, HOD of EC department coordinated the event. The staff and faculty members were present during the event.



## 3. Peer learning session on "Introduction to Mainframe Technology" by Ms. Sanjeetha Shetty

Department of Electronics and Communication Engineering in association with ISTE cell conducted peer learning session on "Introduction to Mainframe Technology". This session was held on 13 November, 2021, from 12:00pm to 1:00pm at the ECE department, SMVITM. Resource person for this session was Ms. Sanjeetha Shetty. She is our college alumna and currently working in Infosys Ltd. Bengaluru as a System Engineer. Around 60 Students from 2nd Year ECE participated and interacted with

Ms. Sanjeetha began the session by asking question to students about their interest towards programming and gave the information about which programming language is of prime importance in MNCs.



She continued the session by explaining the importance of mainframe technology and how it is advantageous over desktop. Also, she introduced Mocha software and showed how to allocate physical data set. Finally, she concluded her presentation by emphasizing about internship during students' education period.



Ms. Shreya M Tantry, 3rd Semester ECE student welcomed the resource person and audience.

Mr. Chetan ISTE coordinator, Ms. Akshatha Rao, Asst. Professor, ECE Dept. Dr. Sachin Bhat, HoD, ECE Dept. Mr. Ferdinand, CR of 7th Sem

ECE and Ms. Aishwarya ISTE Joint Secretary were present for the session. Mr. Adithya Prakash, 3rd Sem, ECE student proposed vote of thanks.

#### **4. Three Day Hands-on Workshop on "PCB DESIGN USING OPEN-SOURCE TOOL"**

Department of Electronics and Communication Engineering in association with ISTE Cell conducted a Three-Day Hands-on Workshop on "PCB DESIGN USING OPEN-SOURCE TOOL" held on Dec 9, 10 & 11, 2021 at the CCC Lab, 3rd Floor Admin Block, SMVITM. Resource persons for this session were Dr. Arjun Mudlapur and Mr. P Subrahmanya Adiga, Directors of Apsaram Technologies, Bengaluru. Around 55 students from 2nd Year & 3rd Year ECE participated and interacted with the resource person.



Resource persons started the session by introducing the PCB terminologies, features of KiCad software and listed the importance of

using open-source tools. The session continued with the hands-on mode of discussion and students got benefitted by implementing the electronic circuits. The session concluded by generating the Bill of Material (BoM) and GERBER File.



During the inauguration of the workshop Dr. Sachin Bhat, HoD of ECE Dept. welcomed the resource person, participants, and said students need to keep themselves engaging in active learning and update with the technological aspects. Dr. Ganesh Aithal, Vice Principal gave a presidential speech and motivated the students to be active in the workshop.

Ms. Akshatha Renjal, a student from the 3rd Year ECE Dept compered the program. Sr. Lab instructors Mr. Girish and Mr. Sandeep and Ms.

Aishwarya, ISTE Joint Secretary supported the event. Ms. Shashikala R, Asst. Professor (Sr.), ECE Dept. and Mr. Chetan R, ISTE Coordinator organized the workshop.

## 5. Webinar on Career Opportunities in VLSI and Semiconductor Industry

Department of Electronics and Communication Engineering has organised a webinar on "Career Opportunities in VLSI and Semiconductor Industry" on 29 December, 2021 from 9.00am to 10.00am. The resource person Dileep Kudwa gave clear insight on career opportunities in the VLSI domain.



He introduced about Semiconductor/VLSI industry and told that VLSI industry can be of EDA company, ASIC design Company, FPGA design Company, Fab/Foundry company. He

explained that VLSI domain can be classified into front end flow design and back-end flow design. He also talked about various cadre in the field of VLSI like design engineer, verification engineer, EDA/CAD engineer, application engineer, technical support, reliability engineer, Fab engineer etc. He briefed about skill requirement for the various VLSI field employments. He concluded the session by stressing on career graph of VLSI engineering.



Dr. Sachin Bhat, HOD of ECE has organised the event. Ms. Shashikala R and Ms. Akshatha Rao coordinated the event. Ms. Sameeksha introduced the resource person and Ms. Chaitra Kulal proposed vote of thanks. Faculty members were present during the event.

## **6. Five Days Faculty Development Program on Electric Vehicles and Smart Grid**

Department of Electronics and Communication Engineering and Mechanical Engineering in association with ISTE Faculty Chapter of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, Udupi organized a Five Days Faculty Development Program on “Electric Vehicle and Smart Grid” from 14th to 18th March 2022 in the college premises.

The inaugural ceremony of the program held on Monday 14 March 2022 at 9.30am. Dr Gajanan Anne, HoD of ME Dept. welcomed the august gathering. The Chief Guest of the program Dr. V.B Venkatesa Perumal, Professor, Dept. of Electrical and Electronics, NITK Surathkal.



In his inaugural address said that, in the next 5 to 10 years India will see big change in the transportation segment i.e., change in conventional IC engine vehicle to Electric Vehicle. Also, he has urged that future

engineers should be ready to cater the needs of end users.

Especially future engineers have to focus more on maintenance of EV than R & D work, maintenance like battery recharging, replacement and giving solutions to the situations like vehicle breakdown etc., Mr. Esakki Raja S, Sr. Application Engineer in VI solutions, Bengaluru was the resource person of the five-day faculty development.



He appreciated the management for conducting the sessions in blended mode and highlighted the importance of training the future engineers in the Electric Vehicle field.

### Alumni talk:

#### Student - alumni interaction activity of alumna Ms. Ashwini Sheetal Dantis

The student - alumni interaction activity of alumna Ms. Ashwini Sheetal Dantis (2014-2018 ECE Batch) with 2nd year students of ECE branch was organized by Alumni Cell of Electronics and Communication Engineering

Department on 19th February 2022 in the admin block seminar hall of SMVITM.



Ms. Ashwini, Cloud Engineer, Niveus Solutions Pvt. Ltd. |Google Partner, Udupi, started interaction with her experience as a student in the Electronics and Communication Engineering branch. She addressed the gathering about how her life was at SMVITM during her engineering days. Ashwini spoke about the arrangements made by the college and department for students benefits, also its importance in curriculum and placements. She mentioned the necessities currently needed by an IT and core companies and along with that she also mentioned how students should study few programming languages and the importance of creating GITHUB account. She gave an insight on the current technological trends in the field of Electronics and IT. She mentioned the more importance to seek a better internship while pursuing graduation.



She explained about projects and its weightage in the resume.



Ms. Ankitha Bhat from 2nd year B.E of ECE department welcomed the gathering and introduced the speaker to the audience. Dr. Balachandra Achar gave a memento to Ms. Ashwini Dantis in this occasion and thanked her for being a part of this fruitful interaction. Ms. Rajashree Nambiar, Senior Assistant Professor, Department of ECE, coordinated the event.

## FACULTY & STUDENT ACCOMPLISHMENTS

### A. Faculty Research Presentations and Publications:

1. Sachin S Bhat, Rajashree Nambiar published a paper titled "Building Dataset and Deep Learning based inception model for the Character Classification of Tigalari Script" in Advances in Intelligent Systems and Computing, Springer.

2. Sachin S Bhat published a paper titled "Parts of Speech Tagging and Extractive Summarization Techniques for Kannada Documents" in Lecture Notes in Electrical Engineering.

3. Sachin S Bhat published a paper titled Character Recognition of Tulu script using Convolutional Neural Network Advances in Artificial Intelligence and Data Engineering.

4. Sachin S Bhat published a paper titled "Palladium metal embedded on mesoporous graphene oxide as an efficient heterogeneous catalyst for Suzuki coupling reaction" Materials Today.

### B. Achievements

1. Dr. Raghavendra Rao was awarded with Ph.D. from NITK, Surathkal for the thesis "Investigation of Control Algorithms for PV System under Partial Shading Conditions and their effect on the efficiency of DC-DC Converter".
2. Dr. Sachin S Bhat and Dr. Nagaraj Bhat received 10 lakhs funding from VTU under Competitive Research grant for the proposal 'Digitization of Halegannada Manuscripts'.
3. Dr. Sachin S Bhat received 25,000 funding from KSTA under Small Grants scheme for 'Application of NLP for Indian Languages'.
4. Dr. Sachin S Bhat received 2 fundings from KSTA under Short term studies scheme for 'Study of OCR for Kannada Language' as PI & 'Text Summarization for Kannada documents' as supervisor.
5. Dr. Sachin S Bhat received Best Paper Award for the paper 'Grammatical Tagging of Kannada text using Bidirectional Long Short-Term Memory 'in IEEE Discover, NMAMIT-Nitte, Nov 2021.
6. Dr. Sachin S Bhat received Best Paper Award for the paper 'Secure Image Processing using Deep Neural Network 'in Springer CISCON, MIT Manipal, Dec 2021.

7. Dr. Sachin S Bhat received Best Research Award in International Conference on Engineering, Science and Medicine 2021, Chennai, Dec 2021.
8. Dr. Sachin S Bhat, Shreeraksha, Shamitha Shanbhogue, Chaitra and Namratha Rao received Best Paper award for the paper 'Design of a Transliteration Application for Kannada Signboards' in IEEE DELCON 2022, Netaji Subhash University of Technology, New Delhi, in Feb 2022.
9. Research proposal of Dr. Sachin S Bhat and Mr. Sunil Haldankar titled 'Sensor based device for predicting safe bearing capacity of soil' selected for faculty grant scheme of KSCST worth 1.5 lakhs.
10. Dr. H V Balachandra Achar received best paper award for the paper 'Enhancing the performance of Wireless Sensor Network by integrating with Optical Fiber Communication' in ICAECT-2022 at Vidyalkar Institute of Technology, April 2022.
11. Incubation proposal by Dr. Sachin S Bhat named 'Decibel dB' awarded 2nd prize in Elevate Unnati 2021, organized by Karnataka Innovation & Technology Society, Dept. of Electronics, IT BT & ST, Govt of Karnataka, Sept 2021.

### C. Conference presentation:

Name of the faculty	Title of the paper	Name of the conference
Chetan. R	Providing Knee Movement Assistance using Android and IOT	ICOSEC 2021
Avinash, Krishna, Ramamoorthy, Ashwini, Chetan R, Sowmya Bhat	Android App and RFID based smart ration distribution system	ICMNWC 2021
Balachandra Achar H V	Enhancing the performance of Wireless Sensor Network by integrating with Optical Fiber Communication	ICAECT-2022
Sachin s Bhat	Classification of Plant Leaves of Western Ghats using Deep Learning	IEEE DISCOVER
Sachin s Bhat	Grammatical Tagging for the Kannada Text Documents using Hybrid Bidirectional Long-Short Term Memory Model	IEEE DISCOVER
Sachin s Bhat	Secure Image Classification using deep learning	Springer CISCON
Sachin s Bhat	Design of a Transliteration Application for Kannada Signboards	IEEE DELCON
Sachin s Bhat	Evaluation of Support Vector Machine and Binary Convolutional Neural Network	2nd Springer International Conference on Information Technology

	for automatic medicinal plant species identification	
Sachin s Bhat	An SVM based approach for the quality estimation of Udupi jasmine	2nd Springer International Conference on Emerging Trends and Technologies on Intelligent Systems
Yogeshwary B. H	Node Localization Techniques in Underwater Sensor Networks	2022 IEEE International Conference on Sustainable Computing and Data Communication Systems (ICSCDS)
Sowmya Bhat	Design of Low Power Full Adder with Minimum number of Transistors for Application	ICGCP-2021

## D. Faculty Development Programme & Workshops:

Name of the faculty	Title of the FDP/Workshop	Venue
Laxmi Shetty	"Industrial Applications of Machine Learning and Artificial Intelligence	Manipal University Jaipur
Chetan R	IOT with Machine Learning & Artificial Intelligence	ITS Engineering college
Chetan R	FPGA Design and Verification	Sandeepani School of Embedded System Design, Bangalore
Balachandra Achar	Applied Machine Learning, AI and its Applications using Python	Edu-x-Labs, online
Laxmi Shetty	"Industrial Applications of Machine Learning and Artificial Intelligence	Manipal University Jaipur
Chetan R	IOT with Machine Learning & Artificial Intelligence	ITS Engineering college
Chetan R	FPGA Design and Verification	Sandeepani School of Embedded System Design, Bangalore
Balachandra Achar	Applied Machine Learning, AI and its Applications using Python	Edu-x-Labs, online



## YouTube channels of faculty members

S.I.	Faculty Name	YouTube Channel Link
1	Ms. Laxmi Shetty	<a href="https://www.youtube.com/user/05laxmishetty">https://www.youtube.com/user/05laxmishetty</a>
2	Mr. Arun Upadhyaya	<a href="https://www.youtube.com/c/ArunUpadhyaya/">https://www.youtube.com/c/ArunUpadhyaya/</a>
3	Mr. Nagaraja Rao	<a href="https://www.youtube.com/channel/UC68SV57xMPfk7tj1I_2Rjw/">https://www.youtube.com/channel/UC68SV57xMPfk7tj1I_2Rjw/</a>
4	Mr. Ranjith Bhat	<a href="https://www.youtube.com/user/Ranjithbhat444">https://www.youtube.com/user/Ranjithbhat444</a>
5	Ms. Sowmya Bhat	<a href="https://www.youtube.com/channel/UCfMfti5ejWCmv7Pvh33lbUw/">https://www.youtube.com/channel/UCfMfti5ejWCmv7Pvh33lbUw/</a>

## PLACEMENTS

Placed Student Details Batch 2021-22		
SI.NO	COMPANY NAME	STUDENT NAME
1	Palle Technologies, Bengaluru	ASHISH SUVARNA U
	QuEST Global Trivandrum	
2	Capgemini Technology Services India Limited, Bengaluru	VAISHAK V PRABHU
3	Sasken Technologies, Bengaluru	ABHINANDANA M NAIK
4	Sasken Technologies, Bengaluru	AISHWARYA
5	Sasken Technologies, Bengaluru	AKASH
6	Tata Consultancy Services Ltd., Bengaluru	BHOOMIKA J S
	Wipro Limited, Bengaluru	
	InSemi Technology Services Pvt. Ltd., Bengaluru	
7	Tech Mahindra Cerium Systems (P) Ltd., Bengaluru	CHAITRA B R
	Infosys Ltd., Bengaluru	
8	Tata Consultancy Services Ltd., Bengaluru	DEEPTHI M POOJARY
	Infosys Ltd., Bengaluru	
	InSemi Technology Services Pvt. Ltd., Bengaluru	
9	Tata Consultancy Services Ltd., Bengaluru	FERDINAND ALICK CASTELINO
	Wipro Limited, Bengaluru	
	Infosys Ltd., Bengaluru	
10	Palle Technologies, Bengaluru	GURUPRASAD H SUVARNA
	Skolar Bengaluru	
11	Tata Consultancy Services Ltd., Bengaluru	KARTHIK R SHETTY
12	Destination Technologies, Bengaluru	KARUNYA
13	Sasken Technologies, Bengaluru	NAMAN
	Infosys Ltd., Bengaluru	
14	Tech Mahindra Cerium Systems (P) Ltd., Bengaluru	NAYAK ADITHYA RAVINDRA
	Hexaware Technologies Bengaluru	

15	Infosys Ltd., Bengaluru	NAYAK DHANASHREE ASHOK
16	Destination Technologies, Bengaluru	NEHA KINI
	Capgemini Technology Services India Limited, Bengaluru	
17	Tata Consultancy Services Ltd., Bengaluru	NIHARIKA BALTHILLAYA
18	Sasken Technologies, Bengaluru	POOJA C SHETTY
19	InSemi Technology Services Pvt. Ltd., Bengaluru	RAJESH C
20	Techologics Global Pvt. Ltd., Bengaluru	RIYA PRABHU
	InSemi Technology Services Pvt. Ltd., Bengaluru	
	HCL Technologies Limited, Noida	
21	Capgemini Technology Services India Limited, Bengaluru	SAGAR SHETTY
22	Tata Consultancy Services Ltd., Bengaluru	SHREYA S NAVELKAR
23	Sasken Technologies, Bengaluru	SHREYA T KOTIAN
	Tata Consultancy Services Ltd., Bengaluru	
	Infosys Ltd., Bengaluru	
24	HCL Technologies Limited, Noida	SINCHANA L SHETTY
25	Cognitive Clouds Software Pvt. Ltd., Bengaluru	SOWMYA
	Palle Technologies, Bengaluru	
26	Tata Consultancy Services Ltd., Bengaluru	SRIRAKSHA K
	Wipro Limited, Bengaluru	
27	Sasken Technologies, Bengaluru	SUDARSHAN U L
28	Destination Technologies, Bengaluru	SURAJ REVANKAR
	CodeCraft Technologies Pvt Ltd., Mangaluru	
29	Tata Consultancy Services Ltd., Bengaluru	TEJAS S R
30	Capgemini Technology Services India Limited, Bengaluru	VIKAS N RAO

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### VISION

To emerge as an excellent technical education centre and be an integral part in the development of advancing technologies and global challenges, in the field of Electronics and Communication Engineering.

### MISSION

1. To facilitate an ambience conducive to the excellence in technical education.
2. To provide a platform that will ensure the exchange of ideas and dissemination of knowledge.
3. To establish a research-oriented centre by having rapport with industries.
4. To foster ethical and value-based education with credibility by promoting activities that have societal impact.



## **PROGRAMME EDUCATIONAL OBJECTIVES**

The graduate of Electronics & Communication Engineering should be able to:

1. Exhibit essential knowledge of applied sciences, mathematical modelling, logical interpretation and virtual realization to resolve real-time problems in the field of Electronics and Communication Engineering.
2. Work productively as an Electronics and Communication Engineer, including supportive and leadership roles on multidisciplinary teams.
3. Inculcate effective communication skills to excel in professional growth.
4. Take part in lifelong learning in pace with the advancing technological society.

## **PROGRAMME SPECIFIC OUTCOMES**

Graduates of Electronics & Communication Engineering will be able to:

1. Focus on developing and exposure to alternative/ advanced technologies: Understand the concepts of Electronics & Communication Engineering and its application in the fields of signal processing, control systems, embedded systems, VLSI design, networking, and communication.
2. Extension of knowledge and testing facilities for the society: Apply domain-specific knowledge to design, analyse, synthesise and validate real-time problems in Electronics & Communication Engineering.



**Brought to you by**

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The Newsletter Committee,  
Dept. ECE, SMVITM

# ELECTRONEWS

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A Departmental Newsletter from

**SMVITM**

Department of Electronics and Communication  
Engineering.

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VOL 6

ISSUE 2

ESTD 2010



**SMVITM**

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# ELECTRONEWS

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## From the editor's desk...

Warm greetings to the readers of ELECTRONEWS.

We are pleased to share with you another issue of the newsletter for the second half of 2021. The Covid-19 pandemic has disrupted the economic activity of the country and has created a situation of global crisis. During these hardships the institute as a community stands together and are putting all efforts to counter the losses through regulatory policies. SMVITM is also putting its best effort and strives to keep the members connected through its newsletter, by keeping the forum members updated on relevant news, events and providing them a platform to share their views on various regulatory affairs and incidental matters. In times of social distancing, the regulatory digest, an e-newsletter keeps the SMVITM community updated and engaged. I would also like to take this opportunity to thank the contributors of the newsletter and the department of ECE for their constant support in making this newsletter a success. I wish to engage and encourage more experts working in this domain to share their contribution. If you would like to discuss any questions or feedback, please contact the author or the department for any clarifications.

*Ranjith Bhat*

## DEPARTMENTAL ACTIVITIES

### Lecture series, Talks and Webinars:

#### 1. JOB OPPORTUNITIES IN CORE COMPANIES FOR ECE BY Mr.MURALI CHALLA

The department of Electronics and Communication Engineering of Shri Madhwa Vadiraja Institute of Technology and Management in association with Manipal edu-care organized a technical talk on “**Job Opportunities in core companies for ECE**” through virtual mode on 06 May 2021. Mr. Murali Challa, Director, Teambits, Hyderabad was the resource person.



SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY & MANAGEMENT  
(A Unit of Shri Sode Vadiraja Mutt Education Trust\*, Udipi)  
Accredited by NAAC with 'A' grade | Affiliated to VTU, Belagavi, Karnataka  
Vishwothama Nagar, Bantakal, Udipi - 574 115, Karnataka, India

SMVITM

Department of Electronics and Communication Engineering  
in association with  
Manipal Edu-Care  
is organising an Expert Talk on  
**Job Opportunities in Core Companies**  
by  
  
**Murali Challa**  
Director and Founder, Teambits  
Thursday 6 May 2021 at 10:00 AM  
Gmeet Link - <https://meet.google.com/vzi-nwph-uvp>

Mr. Challa began his presentation with an overview of core companies in India. He gave insight to the students on the opportunities in

core Electronics field and the skills required. He stressed the need of skills required to get job in these areas. He provided the details regarding the interview process.

Dr. Sachin S Bhat coordinated the program. Prerana P, student of 8th Sem introduced the guest. Around 87 students of final year attended this program.

#### 2. ORIENTATION PROGRAM ON JNANA SETHU-VOUNTEER ENGAGEMENT PROGRAM FOR ENGINEERING STUDENTS BY MR. HOYSALA, MR. HARIPRASAD, MR. PRAVEEN FROM AGASTYA

The department of E&C Engineering in association with NSS Unit and Agastya International Foundation organized an orientation program on “Jnana-Sethu-Volunteer Engagement program for Engineering students” on **Saturday, 08 May 2021**. Mr. Hoysala, Mr. Hariprasad, Mr. Praveen from Agastya, were the resource persons. Mr. Hoysala started with his presentation on Jnana-Sethu program, its importance and how it can be carried out by engineering students. In his presentation he has explained about Agastya's mission that is focus on (i) Experiential hands on science education (ii)Peer-to-peer learning (iii)Teacher education (iv)Scalable learning

methods (vi) sustainable and environment friendly. He also said that Agastya promotes various learning approaches for the development of underprivileged students and government high school students like Integrated learning approach, 'can-do' attitude & innovation approach, Discovery and project based learning and Hands-on, Interactive & Investigative approaches. Some possible activities a student can take up are:

- a) Assisting local/neighborhood schools/colleges to learn concepts better
- b) Promotion of Appropriate/Innovative Technologies, including automation of activities
- c) Involvement of women in enterprise creation
- d) Food preservation and packaging
- e) Developing innovative produce/water/garbage/waste management systems.

Mr. Hariprasad and Mr. Praveen demonstrated some low-cost science models where students can develop it easily. Some low-cost models demonstrated were (i) Newton's Third Law (ii) Kinetic Inertia (iii) Smoke Box (iv) Reflection of light etc.

A total of 120 students and faculty members participated in the event. Mr. Nagaraja Rao, Associate Professor, Dept. of ECE coordinated the program and proposed vote of thanks.



### 3. 10 DAYS ONLINE SUMMER CAMP

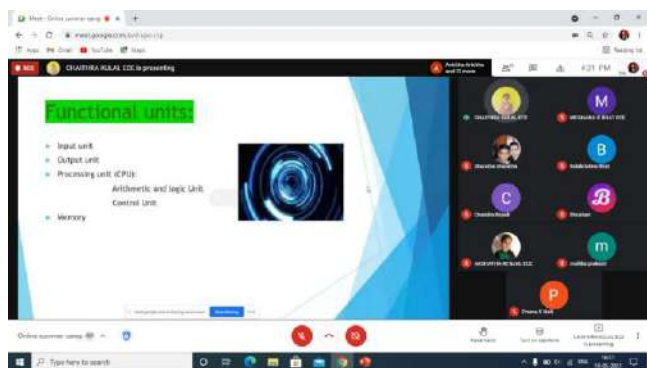
National Service Scheme (NSS) Unit and Department of Electronics and Communication Engineering of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal jointly conducting "10 Days Online Summer Camp" **from 16 May 2021 to 25 May 2021** for primary and high school students. A total of 9 engineering student groups will engage both primary and high school students in different activities during these ten days. Students have planned activities like Yoga, Drawing, Meditation, Music, Health tips, Basics of Sanskrit, best out of waste, Crafts, Activity

based learning and many more. Due to Covid-19 pandemic all the activities will be in online mode. More than 300 students have registered for this camp.

Dr. Thirumaleshwara Bhat, Principal; Dr. Ganesh Aithal, Vice Principal; Dr. Sachin S Bhat conveyed their best wishes to the program. Mr. Nagaraja Rao, Coordinator NSS conducted the program.

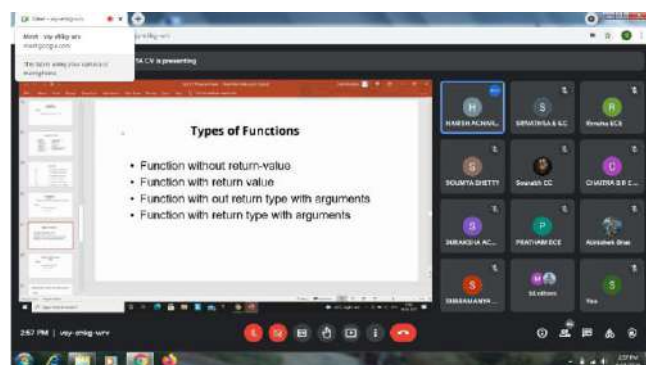
Registration details:

Sl. No.	Name of the District	No. of Students participated
1	Udupi	241
2	Dakshina Kannada	35
3	Bangalore	03
4	Shivamogga	02
5	Davanagere	02
6	Mandya	02
7	Hubballi	01
8	Yadgiri	01
9	Bagalkot	02
10	Kasargod	01
<b>TOTAL</b>		<b>290</b>



#### 4. INTRODUCTION TO DART LANGUAGE FOR MOBILE AND WEB APP DEVELOPMENT

The Department of ECE in association with ISTE student chapter have organized online session on "Introduction to DART language for mobile and web app development", by student technical team "Team Tech warriors" on **Friday 18 June, from 2:00 pm to 4:00pm**. In the session Mr. Harish gave the brief introduction about data types, functions of DART and applications using dart language. He also demonstrated few coding using DART. He introduced the use of DART in web and mobile applications at the end quiz was conducted by Mr. Srivatsa using mentimeter for the participants. Students of first, second and third years of various branches participated and interacted in the event.



Ms. Sriraksha introduced the student speaker's Mr. Harish and Mr. Srivatsa. The event was coordinated by Mr. Chetan R, coordinator of

ISTE and Ms. Shashikala R, ISTE office bearer. The ISTE team would reckon the support extended by HOD of ECE for the smooth conduction of the event.

### **5. TECHNICAL TALK ON CAREER OPTIONS AND OPPORTUNITIES FOR ELECTRONICS GRADUATES BY MR. RENJITH C V**

The department of Electronics and Communication Engineering of Shri Madhwa Vadiraja Institute of Technology and Management organized a technical talk on “Career Options and Opportunities for Electronics Graduates” through virtual mode on 30 June 2021. Mr. Renjith C V, Electrical Architect/Product Designer, Philips India was the resource person.

Mr. Renjith began the presentation by providing an overview of Product Development, Industry, Tools and different type of jobs. He gave insight to the students on the opportunities in core Electronics field and the skills required. He elaborated the availability of short term/online training in Embedded System, DSP, VLSI, AI/ML, IoT etc. Students are given the details of higher education in India and abroad. He also stressed the need of publishing the outcomes of engineering projects as quality papers.

Dr. Sachin S Bhat coordinated the program. Nagaraja Kamath, student of 8th Semester introduced the guest. Prerana P, student of 8th Semester concluded the function with vote of thanks. Around 65 students of final year attended this program.



### **6. JOB OPPORTUNITIES IN VLSI/SEMICONDUCTOR INDUSTRY BY MR VEERANJI REDDY**

The department of Electronics and Communication Engineering of Shri Madhwa Vadiraja Institute of Technology and Management in association with Takshila VLSI organized a technical talk on “Job Opportunities in VLSI/Semiconductor industry” through virtual mode on **06 July 2021**. Mr. VeerANJI



Reddy, Physical Design Engineer Intel Technologies India Pvt. Ltd was the resource person.



Mr. Reddy began his presentation with an overview on the current trends of VLSI technology. He detailed regarding the different design environments for developing semiconductor devices.

Dr. Sachin S Bhat coordinated the program. Prerana P, student of 8th Semester introduced the guest. Around 52 students of final year attended this program.

### **7. TALK ON CLOUD COMPUTING, MICROSERVICES AND DOCKER CONTAINERS BY PROF. DR. CHRISTINA TERESE JOSPEH**

The department of Electronics and Communication Engineering of Shri Madhwa

Vadiraja Institute of Technology and Management organized a technical talk on “Cloud Computing, Microservices and Docker containers” through virtual mode on **21 July2021**. Prof. Dr. Christina Terese Jospeh, Department of Computer Science and Engineering, IIIT-Kottayam, Kerala was the resource person. This talk was arranged as the valedictory function of 30 hours Value added course on ‘Computer Vision’ by Dr. Sachin S Bhat, Dept. of ECE.



Dr. Christina gave a brief history of Cloud Computing and its applications in current word. She also told the importance of Cloud in the era of work from home as it gives access to all of the features and files of the system without having to keep all the files in one computer.

People use cloud computing services every day without even recognizing their features. Facebook, Instagram, Gmail and even Google Drive are all cloud-based applications. All your personal data is stored in the cloud hosted the server for later access.

Dr. Sachin S Bhat hosted the program. Around 100 students have participated in this course.

### 8. "TECH-TALK" FOR ALL BRANCHES

Department of ECE in association with ISTE student chapter is organized the virtual Intra-collegiate technical event "TECH-TALK" for students of all branches on 3 Aug 2021 at 10:00 AM.



TECH-TALK enabled the students to assimilate latest technical aspects and disseminate them

in the presentation, and also which helped them to keep update in the technological era.

### Alumni talk:

#### The student - Alumni interaction activity of alumnae Ms. Sweeda Noronha and Ms. Prateeksha (Batch of 2013-2017 ECE)

The student - alumni interaction activity of alumnae Ms. Sweeda Noronha and Ms. Prateeksha (2013-2017 ECE Batch) with 1st year students of ECE branch was organized by Alumni Cell of Electronics and Communication Engineering Department on 12th March 2021 in the admin block seminar hall of SMVITM.



Ms. Sweeda Noronha, Product Development Engineer in Anora and working as Product Test Engineer consultant at Qualcomm, Bengaluru, started interaction with her experience as a student of Electronics and Communication Engineering branch. She

addressed the gathering about how their life was at SMVITM when they were pursuing engineering. And also, she mentioned the necessities currently needed by an IT and core company and along with that she also mentioned how students should study few programming languages like Python, Java etc.. Ms. Pratheeksha, Senior Operations Engineer at CISCO through Synopic, Bengaluru, also joined her in giving an insight on the current technological trends in the field of Electronics and give more importance to seek a better internship while pursuing graduation.

She explained about trending technologies like AI, ML, Virtual reality and augmented reality, computer networks. She also explained her own experience during the internship. She also explained how someone can improve their communication skill

through joining clubs like toastmaster.



Ms. Nisha Josna D'Souza and Ms. Prasha from First year B.E of ECE department welcomed the gathering and introduced speaker to the audience. Dr. Balachandra Achar and Dr. Vasudeva gave a memento to Ms. Sweeda Noronha and Ms. Prateeksha and thanked them for being a part of this fruitful interaction. Ms. Rajashree Nambiar and Mr. Ganesh Shetty, Assistant professor, Department of ECE, coordinated the event.

## FACULTY & STUDENT ACCOMPLISHMENTS

### A. Faculty Research Presentations and Publications:

1. Sachin Bhat, Kannika Priyadarshini published a paper "An app-based Kannada to English Transliteration system for mobile camera images", Solid State Technology, Vol.63, Issue:2, 2020, p: 9112-9119.

2. Avinash N J, Sreenidhi, Hrishikesh, Sowmya Bhat, Renita into presented "Towards Intelligent and rush free errands using an intelligent chariot" in ICOECA 2021, Springer Conference, Githam School of Technology, Bangalore, 18-19 Feb 2021.

### B. FDPs attended:

Name of the faculty	Title of the FDP	Venue
Dr. Balachandra Achar	Applied ML and AI using Python	EduXLabs
Dr. Sachin S Bhat	Natural Language Processing and Deep Learning	Jain University
Dr. Sachin S Bhat	Computation Biology	No
Dr. Sachin S Bhat	Data Mining & Analytics	REVA University
Mr. Nagaraja Rao	Basics of Strategic management-its	IQAC-SMVITM

	relevance in the present situation	
Mr. Nagaraja Rao	Research Methodology-A detailed research process	Sanathana Research and Training Institute Mysuru
Mr. Nagaraja Rao	Control systems and Sensor Technology	AICTE-ATAL
Mr. Chetan R.	PCB design using open-source tools	NITK Step, Surathkal
Mr. Chetan R.	Research Methodology	Nitte Meenakshi Institute of Technology, Bengaluru
Ms. Laxmi Shetty	Emerging Trends in Electronics & Communication Engineering	MITK
Mr. Sandesh Kumar	Contemporary research in electronics and communication and computer science	VTU, dept of ECE
Mr. Avinash N J	Recent Trends in Data Science Applications	SMVITM
Dr. Balachandra Achar	Recent Trends in Data Science Applications	SMVITM
Mr. Ganesh Shetty	Recent Trends in Data Science Applications	SMVITM
Mr. Krishna Kumar	Recent Trends in Data Science Applications	SMVITM

Ms. Laxmi Shetty	Recent Trends in Data Science Applications	SMVITM
Ms. Rajashree Nambiar	Recent Trends in Data Science Applications	SMVITM
Mr. Ranjith Bhat	Recent Trends in Data Science Applications	SMVITM
Ms. Renita Pinto	Recent Trends in Data Science Applications	SMVITM
Mr. Sandesh Kumar	Recent Trends in Data Science Applications	SMVITM
Mr. Arun Upadhyaya	Cyber Security	AICTE-ATAL
Ms. Shashikala R	PCB design using open-source tools	NITK Step, Surathkal
Mr. Sandesh Kumar	PCB design using open-source tools	NITK Step, Surathkal
Ms. Renita Pinto	Student Induction Program	NIT, Patna

Their work focused on the study of vulnerability along coastal part of Karnataka in the last 100 years using thematic maps, toposheets and satellite remote sensing data. More than 10,000 teams across the Nation have participated in this event.



Indian Space Research Organization (ISRO) in association with the All-India Council for Technical Education (AICTE) and Indian Institute of Technology - Bombay (IIT-B) have jointly organized this event to produce maps using Indian remote sensing data. The primary objective is to understand the potential of Indian remote sensing data and to make maps for Indian regions using free open-source mapping software. This Mapathon aided in building local capacities for mapping and generating data that can address larger goals. Producing maps for the country using space application moves India towards Atma Nirbhar Bharat and Global GIS hub.

2. Ms Akshatha H Bhat & Dr. H V Balachandra Achar obtained copyright for their work “Dual parametric stabilization of interference and throughput in Wireless Sensor Network-Optical Communication”.

### C. Faculty Accomplishments:

1. Professors of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal won the Championship of National Level ISRO-IITB-AICTE Mapathon 2021 Organized by Indian Space Research Organization. Dr. Nagaraj Bhat from the department of Computer Science and Dr. Sachin S Bhat from the department of Electronics and Communication Engineering won this championship award for their outstanding contribution research work titled “Samudraseema: Coastal Karnataka Shoreline Dynamics”.

3. Dr. H V Balachandra Achar was Guest of Honour in Scientia 2K21 organised by Amrutha Bharathi Vidyalaya, Hebri on 27 February 2021.

4. Dr. Sachin S Bhat delivered a talk "Sanskrit and Technology" on 16 March 2021 organised by REVA University and IEEE ComSoc, Bengaluru.

5. Dr. Sachin Bhat appointed as Scientific Committee Member in RYMEC, Bellary.

6. Dr. Sachin Bhat appointed as Organizing committee member for International Symposium on Biomedical Engineering and Computational Biology (BECB 2021), organized by Nanchang Hang Kong University, China.

7. Mr. Nagaraja Rao nominated as a member of the evaluation panel of IICDC, project contest organized by Texas Instruments.

8. Mr. Nagaraja Rao and Mr. Arun Upadhyaya appointed as IIC-Innovation Ambassadors by MoE's Innovation Cell & AICTE, New Delhi.

## D. Students' Accomplishments:

### 1. ANVESHANA KARNATAKA- 2021

Students of the second year ECE viz. Akshatha Renjal, Adithi Girish, Shreya Udupa, Rakshith Acharya have won the consolation prize and qualified for the finals of ANVESHANA KARNATAKA- 2021 an Online Science and Engineering Fair. For which they had come up with a project titled SWASTHYA.



### 2. Projects selected for KPIT Sparkle- National innovation challenge 2021

Three Innovative Projects from students of Shri Madhwa Vadiraja Institute of Technology & Management, Bantakal have been selected for "Top 100" position in reputed "National Level Innovative Competition KPIT Sparkle" which is organized by KPIT Inc, Pune. Students and Faculty from the department of EC, SMVITM, Bantakal, Udupi has claimed that they are the best innovators by proving themselves participating in KPIT Sparkle-National innovation challenge 2021. It is a national level contest and the theme was Mobility and Energy for the future. KPIT Sparkle is one-of-its-kind Design & Development Contest for Science & Engineering students. Students are encouraged to participate, win prizes & get national acclaim. KPIT Sparkle an innovation platform by KPIT technologies, Inviting bright minds from science and engineering students across India. This company is known to provide opportunities to promising ideas to foster entrepreneurship and innovation.

Students of Department of EC, SMVITM have made their ideas sparkle by getting selected to top 100 selections from more than 2500 ideas that were uploaded across different parts of India. The College had uploaded 11 new innovative ideas out of which 3 ideas have been selected to the top 100 projects.

This has inspired with true excitement and joy in the young entrepreneurs (students). Team of students Aishwarya, Bhoomika J S, Deepthi Poojary, Niharika Balthillaya of Electronics & communication engineering have developed "Implementation of collision avoidance system for hair pin bends in ghats using proximity sensors". Chaithra Kulal, Dheeraj, K Srinivas Kamath, Neema B Shetty, Meghana R Bhat have developed "Thermoelectric Air cooling for cars" and Adithi P, Anwitha Rao P, Arun J.K, Harshitha Shetty, Hrishika have developed "Alternative source of energy based on piezoelectric effect".

The Management, Principal and staff members have complimented all involved in this activity for this wonderful achievement.

#### **4. Project proposals of students approved for scholarships by the Karnataka State Council for Science and Technology (KSCST 2020-2021)**

Motivated by the desire to build a strong base for practical problem solving in several engineering colleges as well as to build their R & D potential, KSCST decided to promote student project programmes in a large number through a

programme called STUDENT PROJECT PROGRAMME for providing financial and academic support for Bachelor of Engineering projects. The following are the students who have been selected for the same under the guidance of the faculties from SMVITM.

#### **Project name: 1. TOUCHLESS SMART DETOXIFYING UNIT.**

**Students:** Sumanth S.S, Tripthi Shetty, Vijetha, Vinutha Bhargavi.

**Under the guidance of:** Mr. Arun Upadhyaya.

#### **Project name: 2. PROVIDING SUPPORT TO THE KNEE USING METALIC JOINTS.**

**Students:** Adithya K, Gowri M, Namana, Pranav K R.

**Under the guidance of:** Mr. Chetan R.

#### **Project name: 3. DAIRY MILK FARMING FROM NOW TO NEXT.**

**Students:** B Pradyumna Tantry, Pradyumna P Tantry, Prajwal, Suraj Jayaram.

**Under the guidance of:** Ms. Rajashree N.

#### **Project name: 4. GRADING OF THE COFFEE DEPENDING ON THE AROMA AND TASE USING SENSORS.**

**Students:** Adarsh A Shetty, Rajath B Kulal, Abhishek M Rao, Nagaraj Kamath.

**Under the guidance of:** Dr. Ganesh Aithal.





## YouTube channels of faculty members

S.I.	Faculty Name	YouTube Channel Link
1	Ms. Laxmi Shetty	<a href="https://www.youtube.com/user/05laxmishetty">https://www.youtube.com/user/05laxmishetty</a>
2	Mr. Arun Upadhyaya	<a href="https://www.youtube.com/c/ArunUpadhyaya/">https://www.youtube.com/c/ArunUpadhyaya/</a>
3	Mr. Nagaraja Rao	<a href="https://www.youtube.com/channel/UC68SV57xMPfk7tj1l_2Rjw/">https://www.youtube.com/channel/UC68SV57xMPfk7tj1l_2Rjw/</a>
4	Mr. Ranjith Bhat	<a href="https://www.youtube.com/user/Ranjithbhat444">https://www.youtube.com/user/Ranjithbhat444</a>
5	Ms. Sowmya Bhat	<a href="https://www.youtube.com/channel/UCfMfti5ejWCmv7Pvh33lbUw/">https://www.youtube.com/channel/UCfMfti5ejWCmv7Pvh33lbUw/</a>

## PLACEMENTS

### Placed Student Details Batch 2020-2021

S.I No	Name of Student	Name of the Company
1	CHETHANA	<b>Robosoft Technologies Pvt. Ltd., Udupi</b>
2	SHREERAKSHA	
3	GOPIKA C B	
4	NAMANA	<b>Infosys Ltd., Bengaluru</b>
5	NIDISH M SUVARNA	
6	SHARANYA	
7	VINAYAK ANANT HEGDE	
8	POORVIKA	
9	SOWJANYA DERANNA RAI	
10	SRIHARSHA S BHAT	
11	PRERANA P	<b>Tata Consultancy Services Ltd., Bengaluru</b>
12	NIVEDITHA NAYAK P	
13	SHARANYALAXMI K	
14	SHARATH KARANATH	
15	SOWBHAGYA DERANNA RAI	
16	TEJASVINI	
17	CHETHANA	
18	ADARSHA HEBBAR	<b>Avo Automation, Bengaluru</b>
19	KAVANA MAHESH HEGDE	
20	PRATHAM S KANCHAN	<b>High Peak Software Pvt. Ltd., Bengaluru</b>
21	NAMANA	<b>Cerium Systems (P) Ltd., Bengaluru</b>
22	PRATHAM S KANCHAN	
23	JEEVAN	<b>Tech Mahindra Ltd.</b>

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### VISION

To emerge as an excellent technical education centre and be an integral part in the development of advancing technologies and global challenges, in the field of Electronics and Communication Engineering.

### MISSION

1. To facilitate an ambience conducive to the excellence in technical education.
2. To provide a platform that will ensure the exchange of ideas and dissemination of knowledge.
3. To establish a research-oriented centre by having rapport with industries.
4. To foster ethical and value-based education with credibility by promoting activities that have societal impact.

## **PROGRAMME EDUCATIONAL OBJECTIVES**

The graduate of Electronics & Communication Engineering should be able to:

1. Exhibit essential knowledge of applied sciences, mathematical modelling, logical interpretation and virtual realization to resolve real-time problems in the field of Electronics and Communication Engineering.
2. Work productively as an Electronics and Communication Engineer, including supportive and leadership roles on multidisciplinary teams.
3. Inculcate effective communication skills to excel in professional growth.
4. Take part in lifelong learning in pace with the advancing technological society.

## **PROGRAMME SPECIFIC OUTCOMES**

Graduates of Electronics & Communication Engineering will be able to:

1. Focus on developing and exposure to alternative/ advanced technologies: Understand the concepts of Electronics & Communication Engineering and its application in the fields of signal processing, control systems, embedded systems, VLSI design, networking, and communication.
2. Extension of knowledge and testing facilities for the society: Apply domain-specific knowledge to design, analyse, synthesise and validate real-time problems in Electronics & Communication Engineering.



**Brought to you by**

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The Newsletter Committee,  
Dept. ECE, SMVITM

# ELECTRONEWS

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A Departmental Newsletter from

**SMVITM**

Department of Electronics and Communication  
Engineering.

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VOL 6

ISSUE 1

ESTD 2010



**SMVITM**

The background of the lower half of the page is a vibrant, abstract geometric pattern. It features a variety of triangles and polygons in shades of red, orange, yellow, blue, and purple, creating a dynamic and modern look.

# ELECTRONEWS

## From the editor's desk...

I hope you all are in the best of your health.

In this chaotic time of COVID-19 relapse, it is a primary concern to be at the safest. The situation where everything around appears to be stagnant and low in productivity, we are very much in the need to gear up and be the best at the situation. Not to forget the other terms which we familiarly hear every now and then: global warming, climate change etc. besides the pandemic, challenging our very existence and productivity. We find that everything is in a state of flux: history, science, technology and even imagination. While wisdom remains elusive, it is indeed a fine opportunity to unleash our true strengths mentally and physically with the resources we have at the moment. Towards this approach, at SMVITM the teaching and learning process never came into a halt. Both students and teachers have put tremendous amount of effort and cooperation with a lot of calmness about the situation ensuring learning in the midst of this great crises. Not only the teaching. Research continued, papers hit the reputed journals, students won prizes in different levels, conferences conducted, workshops and webinars continued to instill new insights, various student activities took place along with the regular academic classes. This has proved that education at SMVITM is unstoppable. Hence, we are excited to bring to you of some glimpses that happened during the semester in this Vol. 6, Issue 1 of this newsletter.

Hoping the rest of the academic year will be with even more of the achievements.

*Ranjith Bhat*

## DEPARTMENTAL ACTIVITIES

### Lecture series and Webinars:

#### 1. Webinar on the series “Advances in Electronics by Dr. T. Laxminidhi

The department of E&C Engineering, SMVITM Bantakal, organized its second webinar on the series “**Advances in Electronics**” on Saturday, 19 September 2020. Dr. T. Laxminidhi, Professor and Head of the department of E&C Engineering at NITK Surathkal was the resource person. The topic was “R&D opportunities in analog and mixed-signal VLSI design.” A total of 33 faculty members and researchers from various engineering colleges participated in the webinar and enhanced their knowledge.

SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY AND MANAGEMENT  
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SMVITM

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

WEBINAR SERIES ON ADVANCES IN ELECTRONICS

Webinar-2  
R & D Opportunities in Analog and Mixed Signal VLSI Design

By

Date: Saturday, 19 Sep 2020  
Time: 10:00 - 11:00 am

G-Meet Link:  
<https://meet.google.com/zhu-lpm2-jyi>

Dr. T. Laxminidhi  
Professor & Head  
Dept. of E&C Engineering, NITK, Surathkal  
All are Welcome

SMVITM - Engineering your Career and Character with Care

Dr. Laxminidhi, possessing a vast research experience, said that the era of analog

circuit design will never end. In particular, he took the example of power management block, and explained the importance of power efficiency and power delivery. He also took the example of 5G mobile architecture and explained the opportunities and challenges involved in low-power analog system design at giga hertz frequencies. Finally, he motivated the faculty to take up research in analog design by saying that today's electronic gadgets are not only the products of advances in digital design, but also the revolutions in analog design.

Earlier Dr. Balachandra Achar, HOD of E&C Department, SMVITM Bantakal, introduced Dr. Laxminidhi to the audience and welcomed him. Towards the end of the webinar, the participants asked questions to the resource person and cleared their doubts. Assistant Professors Mr. Arun Upadhyaya and Mr. Krishna Kumar helped with feedback and certificate generation

#### 2. Deep Convolutional Neural Network under the lecture series “Advances in Electronics” by Dr. Sachin Bhat

The department of E&C Engineering organized a lecture by Dr. Sachin S Bhat on the topic of Deep Convolutional Neural Network in the lecture series “**Advances in Electronics**”, on 25 Sep 2020. The faculty members of various departments of the

college attended the lecture and enhanced their understanding of the topic.

Dr. Bhat began his talk by narrating an interesting history on the evolution of Artificial Intelligence. Later he introduced the concept of a simple neural network model, its disadvantages and the outline of convolutional neural networks (CNN). He also covered the full cycle information on Deep Convolutional Neural Network (DCNN), right from the categories of DCNN, design parameters, optimization, hyper-parameters to optimization and performance-evaluation parameters.



He concluded by mentioning the various applications and areas of research related to CNN and DCNN. Earlier, HOD Dr. HVB Achar welcomed the participants to the Talk. Asst. Professor Ms. Laxmi Shetty proposed the vote of thanks.

### **3. Silicon nano porous membranes for biomolecular separation in the lecture series “Advances in Electronics” by Dr. H. V Balachandra Achar**

The department of EC Engineering organized a lecture by Dr. H. V Balachandra Achar on the topic of Silicon nano porous membranes for biomolecular separation as the fourth instalment in the lecture series “Advances in Electronics”, on 07 October 2020.

The faculty members of various departments of the college attended the lecture and enhanced their understanding of the topic.



Separation of biomolecules based on their size and charge is an important procedure employed in biomolecular analysis. Nanosieve comprising of a semi-permeable membrane with nanometre-sized pores is used for this purpose. Dr. Achar described the fabrication of ultra-thin nano porous silicon membrane, which can be used as nanosieve, making use of standard microelectronics fabrication techniques. He also talked about the formation of the pores by transmission and



scanning electron microscope images and controlled nucleation of silicon nanocrystals so as to get pores at desired locations.

Asst. Professor Ms. Laxmi Shetty welcomed the participants to the talk. Principal Dr. Thirumaleshwara Bhat and Vice Principal Dr. Ganesh Aithal thanked Dr. Achar for sharing his knowledge and introducing the research avenues in the field of nanoparticles.

#### **4. Block chain technology overview and its applications by Prof. Tanzila Nargis**

Department of Electronics and Communication Engineering in association with ISTE faculty chapter of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, Udupi had organized online Lecture series-5 on **"Block chain technology overview and its application"** held on 5th Nov 2020 from 3:00pm to 4:00pm. The resource person for the webinar was Prof. Tanzila Nargis of NMAMIT, Nitte.

Prof. Nargis started the session with explaining about how to use crypto currency for secure transaction records, to control the creation of additional coins, and to verify the transfer of coin ownership. Speaker continued with application in the block chain Metamask addon in the chrome platform to create and manage their own

identities for secure interface to review the transaction.

She also mentioned about exploring the application in the blockchain using Smart Contract computer programs.

Speaker concluded by saying one can focus in the core architecture part for the research challenges in block chain technologies. Sachin Bhat, Associate professor coordinated the event on behalf of ECE dept. and 100 plus participants were present in the webinar and interacted with the resource person. Ms. Shashikala R thanked the resource person and participants.

#### **5. IEEE-EUREKA 2020**

IEEE Pune section organized an event called **"IEEE-EUREKA 2020"** for the students of engineering colleges. The event was conducted on 17, 18 and 19 November 2020 in ONLINE mode. These were purely knowledge sharing sessions where engineering students had taken the sessions to high school students in the areas of Agriculture, Healthcare, Education, Sports, Women Empowerment and Disaster management etc via the ONLINE mode. The main aim of this program was to raise the National High school literacy level by using College youth as 'Ambassadors of Education'.

The major objectives of the event were:  
To expose high school students to advanced state of art technologies.  
Motivate high school students to pursue higher studies in Science and Technology.  
Provide an opportunity for college students to interact with high school students at urban and rural schools and share their knowledge in advanced technologies.  
Encourage girl students in high schools for higher education thus promoting gender equality.



A total of 12 teams from the college had participated in this program. The team consisting of One IEEE Student member, one girl student, and the remaining non-IEEE students. A total of 965 high school students from 50 different high schools (Both rural and urban) of the Udupi district participated in this useful program. Due to this program the school students and teachers were exposed to advanced state-of-the-art technologies and also were able to establish contact with IEEE for future technological activities.

## **6. Printed Circuit Board (PCB)- A Vital Element of Electronics Circuit by Mr. Guruprasad S**

Department of ECE in association with ISTE had organized a lecture Webinar Series. The sixth episode of the series held on Friday 18 December, from 2:00 to 3:30pm, Mr. Guruprasad S, Manager- Field Application Engineering TTM Technologies Inc. was the resource person and gave a talk on **“Printed Circuit Board (PCB)- A Vital Element of Electronics Circuit”**. From the ECE Department faculty and students of 2nd and 3rd year around 70+ participated and interacted with the speaker.

Speaker highlighted the three broad areas of PCBs and they are, first area is PCB design in which here it requires the thorough knowledge in the software's like Altium, Cadence, PCAD, KiCad, Mentor etc. Second area is PCB fabrication, since speaker has got rich experience in the fabrication, he elucidated all the stages in detail with all chemical process involved in the different stages and finally the last area is PCB assembly in which here, he also explained about THT and SMT. He concluded with the job opportunities and companies working in this domain for the aspiring students.

Ms. Preema D'Souza, Final year ECE student introduced the resource person and ISTE student coordinator Mr. Adithya of final

year EC student compeered the program. Mr. Chetan R, ISTE coordinator and Ms. Shashikala R, Sr. Assistant Professor coordinated the event. Dr. Sachin Bhat, Associate professor, ECE Department supported the event.

### **7. Webinar on “Xilinx Latest Technology on Adaptive Intelligence” by Mr. Vijendra V**

Department of Electronics and communication engineering co-curricular cell in association with ISTE student chapter of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, Udupi has organized webinar on “Xilinx Latest Technology on Adaptive Intelligence” held on 30<sup>th</sup> December 2020 from 2:00pm to 3:30pm. The resource person for the webinar was Mr. Vijendra V, Application Engineer, Coreel Technologies.

Mr. Vijendra spoke about the latest 7 series FPGA Plus SOC families design and architecture. He demonstrated the flow to use the Vivado Design Suite- 2020.1 and how to build the FIFO configuration in memory design.



The webinar was concluded by the fruitful interaction with the final year students related to their projects in the VLSI domain.

Ms. Preema D’Souza, Final year ECE student introduced the resource person and ISTE student coordinator Mr. Adithya of final year EC student compeered the program. Mr. Chetan R, ISTE coordinator and Ms. Shashikala R, Sr. Assistant Professor coordinated the event. Dr. Sachin Bhat, Associate professor, ECE Department supported the event.

### **8. “Orientation program on Social Outreach for Engineering Students” on Thursday, 28 January 2021 by Dr. Babitha**

The department of ECE Engineering in association with Agastya International Foundation organized an orientation program on “Social Outreach for Engineering Students on Thursday, 28 January 2021. Dr. Babitha from Agastya, was the resource person.

She has started her presentation by briefing the company profile and demonstrated a small video related to the various activities by Agastya. In her presentation she has explained about Agastya’s mission that is focus on:

- (i) Experiential hands-on science education
- (ii) Peer-to-peer learning
- (iii) Teacher education
- (iv) Scalable learning methods
- (vi) sustainable and environment friendly.

She also said that Agastya promotes various learning approaches for the development of underprivileged students and government high school students like Integrated learning approach, 'can-do' attitude & innovation approach, Discovery and project based learning and Hands-on, Interactive & Investigative approaches.



Dr. Babitha highlighted Agastya’s various learning centres like “Agastya Science Centre”, “Agastya Mobile Lab”, “Agastya Lab-on-a-Bike”, Agastya TechLaBike” etc. where they will be nurturing student’s creativity using Hands-on science education. Also, madam motivated our students to take up small outreach programs near to their locality.

A total of 75 students and faculty members participated in the event. Mr. Nagaraja Rao, Associate Professor, Dept. of ECE coordinated the program and proposed vote of thanks.

### Value added Course:

#### 1. “Corporate C”- A training on C for the industry

Under the Indian Society for Technical Education (ISTE) club at Shri Madhwa Vadiraja Institute of Technology & Management (SMVITM), Bantakal; a program “Corporate C” was inaugurated on Monday, 02 November 2020, at 11:30 am at the Dept. of Electronics and Communication of SMVITM for the benefit of all the students who will be appearing for the campus placements 2020.

Mr. Girish Aithal, Director and learning Head at 4Edge IT solutions, Mangalore gave a very informative insight on why the programming language is important in relevance to corporate world and how can we tackle problems related to studying C. Mr. Girish who was also a former employ at Infosys Technologies, Mangalore. All the aspirants, seeking a fruitful interview process attended the talk through Zoom; an online platform mode and interacted with the guest speaker, effectively. The subsequent sessions under the same event were held via online mode i.e., Google meet and YouTube for 30 hours from 4 November to 17 December, 2020. The

beneficiaries of the events were the third years of the ECE department. 38 students attended the whole program.



Under the guidance of Prof. Dr. Ganesh Aithal, Vice Principal, SMVITM the program was successfully coordinated by Mr. Krishna Kumar, Mr. Ranjith Bhat and Ms. Rajashree Nambiar, Senior Asst. Professors, Dept. of Electronics & Communication Engineering, SMVITM.

## 2. Jnana GATE Training for final years

Department of Electronics and Communication engineering of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, Udupi had also organized a GATE training for the aspirants from the final year of the department Under the guidance of Prof. Dr. Ganesh Aithal, Vice Principal, SMVITM the program was successfully coordinated by Mr. Avinash N J Senior Asst. Professor Dept. of Electronics & Communication Engineering, SMVITM. The tutors for the training were the faculties of the ECE department, SMVITM.

## Alumni talks:

### 1. Interaction activity of the alumnus Mr. Pawan Shetty (2013-2017 ECE Batch)

The interaction activity of alumnus Mr. Pawan Shetty (2013-2017 ECE Batch) with 3<sup>rd</sup> year students of ECE branch was organized by Alumni Cell of Electronics and Communication Engineering Department on 5<sup>th</sup> September 2020 through Google meet.

Mr. Pawan Shetty, Design Verification Engineer Cadence, Bellandur, Bengaluru, started interaction with his experience as a student of Electronics and Communication Engineering branch at SMVITM. He explained how one should plan for their future, whether they want to opt completely software or hardware sector.



He explained about the requirement of qualities other than the academic marks and the need to give importance to technical aspects by exposing themselves to GitHub. Further, he mentioned about the importance of mini projects to boost one's resume and importance of internship. He

concluded by clearing the doubts of current 3rd year students.

Ms. Laxmi Shetty, Asst. Professor (Sr) of ECE department welcomed the gathering and introduced speaker to the audience. Ms. Rajashree Nambiar, Assistant professor, Department of ECE, coordinated the event.

## **2. Interaction activity of alumna Ms. Nikitha Narendra Shetty (2015-2019 ECE Batch)**

The interaction activity of alumna Ms. Nikitha Narendra Shetty (2015-2019 ECE Batch) with 2<sup>rd</sup> year students of ECE branch was organized by Alumni Cell of ECE Department on 6<sup>th</sup> September 2020 through Google meet.

Ms. Nikitha Shetty, Silicon Validation Engineer, Tessolve Semiconductor Pvt. Ltd., Bengaluru, started interaction with her experience as a student of Electronics and Communication Engineering branch. Later she introduced her company to the gathering and her journey into Tessolve, and her job requirements. She mentioned the importance of programming languages like Python, Java. She explained about trending technologies like AI, ML, Virtual reality and augmented reality, cybersecurity. She described how to present themselves in a company interview how to impress interviewer. She explained her experience in the internship and its importance. She clarified how one can gain

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knowledge from mini projects and upgrade programming skills through projects. She even mentioned about AMCAT exam and concluded by advising to plan well in advance for the future.

Ms. Laxmi Shetty, Asst. Professor (Sr) of ECE department welcomed the gathering and introduced speaker to the audience. Dr. Balachandra Achar thanked Nikita for her insight on this occasion. Ms. Rajashree Nambiar, Assistant professor, Department of ECE, coordinated the event.

## **Other Activities:**

### **1. “Beach Cleaning Program at Malpe Beach” on Saturday, 30 January 2021**

India has a coastline of more than 7,000 kilometers, but sadly, it's not all pristine beaches and stunning cliffs. The beaches are covered with trash – colorful plastic bags, bottles and food packages are everywhere, often entangled in old fishing nets or rotting fabrics. Most people are outraged by the situation, angry at the city government for not cleaning it up or at those who throw their trash in the streets or even straight onto the beach. This hugely impacts the marine life, particularly the tortoises, and other crustaceans who are habitants of the beach, especially during their breeding season.

Considering all the above problems and to mark the observance of “Martyr’s Day”, Technocrats club of Department of ECE of Shri Madhwa Vadiraja Institute of

Technology and Management (SMVITM), organized Beach Cleaning program at Malpe beach on Saturday, 30 January 2021. A group of 35 student volunteers of 3rd Year ECE students participated in the program. They selected around 800 meters stretch of the beach and collected heap of non- biodegradable items and disposed properly. The authorities of Beach Development Association appreciated the work carried out by the Institution. Students as a group felt content that they could make a small yet impactful contribution towards nature and its inhabitants. They aim to take this initiative further and create awareness among their families and societies so that they all can contribute in keeping our beaches and water bodies clean and not pollute it by throwing plastic and debris into them.

## **2. "Pulse Polio Awareness Drive & Volunteer work" on Friday, 29 January 2021**

To create or to bring the awareness amongst the people about the importance pulse polio, All the students of Third year and Second year students of ECE actively participated in the "Awareness drive on Pulse Polio" on Friday, 29 January 2021 at Bantakal, Shankarapura, Shirva and near to their localities. Also, all the students rendered their volunteered service at Government Primary Health Centre and Anganavadi Kendras during Nationwide Pulse Polio Immunization on Sunday, 31 January 2021. A total of 130 students participated in this program.

## FACULTY & STUDENT ACCOMPLISHMENTS

### A. Faculty Research Presentations and Publications:

1. Sachin Bhat presented a paper "Building Dataset and Deep Learning based inception model for the Character Classification of Tigalari Script" in Artificial Intelligence and Data Engineering (AIDE 2020), NMAMIT, Nitte, 23-24 Dec 2020.

2. Sachin Bhat presented a paper "Human Body Measurement Extraction from 2D images" in VLSI, Signal Processing, Power Electronics, IoT, Communication and Embedded Systems (VSPICE 2020) NMAMIT, Nitte, 23-24 Dec 2020.

3. Sachin Bhat presented a paper "Palladium Metal Embedded on Mesoporous Graphene Oxide as an efficient Heterogeneous Catalyst for Suzuki Coupling Reaction" in "Smart and Sustainable Developments in Materials, Manufacturing and Energy Engineering (SME 2020), NMAMIT, Nitte, 23-24 Dec 2020.

4. Sachin Bhat, Shashikala R and Sandesh Kumar presented a paper "Convolutional Neural Network approach for the Classification and Recognition of Lung Nodules", 4th IEEE International Conference on Electronics, Communication and Aerospace Technology, RVS Technical Campus, Coimbatore, 05-07-Nov 2020.

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5. Sachin Bhat presented a paper "Multilabel Spatial Image Recognition using Deep Convolutional Neural Network", 4th IEEE International Conference on Electronics, Communication and Aerospace Technology, RVS Technical Campus, Coimbatore, 05-07 Nov 2020.

6. Sachin Bhat presented a paper "Parts of Speech Tagging and Extractive Summarization Techniques for Kannada Documents", Springer CISCON, MIT Manipal, 30 Oct -01 Nov 2020.

7. Sachin Bhat, Kannika Priyadarshini published a paper "An app-based Kannada to English Transliteration system for mobile camera images", Solid State Technology, Vol.63, Issue:2, 2020, p: 9112-9119.

8. Avinash N J, Chetan R, Sowmya Bhat and Renita Pinto presented a paper "High Performance EVM ", I-SMAC, SCADA Palladam, 7-9 Oct 2020.

9. Avinash N J and Chetan R presented "Biometric Authentication for Safety Lockers Using Cardiac Vectors" in IEEE 2nd International conference on Power, Energy, Control and Transmission System (ICPECTS 2020), Sri Sai Ram Engineering College, Chennai, 10-11 Dec 2020.



10. Avinash N J and Chetan R presented “A New Automated Electrical System Using Smart Grid Technology” in IEEE 2nd International conference on Power, Energy, Control and Transmission System (ICPECTS 2020), Sri Sai Ram Engg. College, Chennai, 10-11 Dec 2020.

11. Avinash N J, Renita Pinto, Sowmya Bhat, Chetan R presented “Smart Fridge For Global Users Based on IOT using Deep Learning” in IEEE 2nd International conference on Power, Energy, Control and Transmission System (ICPECTS 2020), Sri Sai Ram Engg. College, Chennai, 10-11 Dec 2020.

12. Avinash N J, Renita Pinto, Sowmya Bhat, presented “A Comprehensive Study of Neural Network Using R” in IEEE 2nd International conference on Power, Energy, Control and Transmission System (ICPECTS 2020), Sri Sai Ram Engg. College, Chennai, 10-11 Dec 2020.

13. Avinash N J, Sreenidhi, Hrishikesh, Sowmya Bhat, Renita into presented “Towards Intelligent and rush free errands using an intelligent chariot” in ICOECA 2021, Springer Conference, Githam School of Technology, Bangalore, 18-19 Feb 2021.

14. Avinash N J presented “WSN in defense field: A security overview” in I-SMAC, SCADA Palladam, 7-9 Oct 2020.

15. Dr. Ganesh Aithal published a paper “Key Generation Using Generalized Pell’s Vol. 6, Issue 1, Sep 2020 – Feb 2021.

Equation in Public Key Cryptography Based on the Prime Fake Modulus Principle to Image Encryption and Its Security Analysis” in CIT, Vol. No. 20, Issue -3, 86-101 on September 2020.

### C. FDPs attended:

Name of the faculty	Title of the FDP	Venue
Dr. Balachandra Achar	Applied ML and AI using Python	EduXLabs
Dr. Sachin S Bhat	Natural Language Processing and Deep Learning	Jain University
Dr. Sachin S Bhat	Computation Biology	No
Dr. Sachin S Bhat	Data Mining & Analytics	REVA University
Mr. Nagaraja Rao	Basics of Strategic management-its relevance in the present situation	IQAC-SMVITM
Mr. Nagaraja Rao	Research Methodology-A detailed research process	Sanathana Research and Training Institute Mysuru
Mr. Nagaraja Rao	Control systems and Sensor Technology	AICTE-ATAL
Mr. Chetan R.	PCB design using open-source tools	NITK Step, Surathkal
Mr. Chetan R.	Research Methodology	Nitte Meenakshi

		Institute of Technology, Bengaluru
Ms. Laxmi Shetty	Emerging Trends in Electronics & Communication Engineering	MITK
Mr. Sandesh Kumar	Contemporary research in electronics and communication and computer science	VTU, dept of ECE
Mr. Avinash N J	Recent Trends in Data Science Applications	SMVITM
Dr. Balachandra Achar	Recent Trends in Data Science Applications	SMVITM
Mr. Ganesh Shetty	Recent Trends in Data Science Applications	SMVITM
Mr. Krishna Kumar	Recent Trends in Data Science Applications	SMVITM
Ms. Laxmi Shetty	Recent Trends in Data Science Applications	SMVITM
Ms. Rajashree Nambiar	Recent Trends in Data Science Applications	SMVITM
Mr. Ranjith Bhat	Recent Trends in Data Science Applications	SMVITM
Ms. Renita Pinto	Recent Trends in Data Science Applications	SMVITM
Mr. Sandesh Kumar	Recent Trends in Data Science Applications	SMVITM

Mr. Arun Upadhyaya	Cyber Security	AICTE-ATAL
Ms. Shashikala R	PCB design using open-source tools	NITK Step, Surathkal
Mr. Sandesh Kumar	PCB design using open-source tools	NITK Step, Surathkal
Ms. Renita Pinto	Student Induction Program	NIT, Patna

#### D. Faculty Accomplishments:

1. Professors of Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal won the Championship of National Level ISRO-IITB-AICTE Mapathon 2021 Organized by Indian Space Research Organization. Dr. Nagaraj Bhat from the department of Computer Science and Dr. Sachin S Bhat from the department of Electronics and Communication Engineering won this championship award for their outstanding contribution research work titled "Samudraseema: Coastal Karnataka Shoreline Dynamics".



Their work focused on the study of vulnerability along coastal part of Karnataka

in the last 100 years using thematic maps, toposheets and satellite remote sensing data. More than 10,000 teams across the Nation have participated in this event.

Indian Space Research Organization (ISRO) in association with the All-India Council for Technical Education (AICTE) and Indian Institute of Technology - Bombay (IIT-B) have jointly organized this event to produce maps using Indian remote sensing data. The primary objective is to understand the potential of Indian remote sensing data and to make maps for Indian regions using free open-source mapping software. This Mapathon aided in building local capacities for mapping and generating data that can address larger goals. Producing maps for the country using space application moves India towards Atma Nirbhar Bharat and Global GIS hub.

2. Ms Akshatha H Bhat & Dr. H V Balachandra Achar obtained copyright for their work "Dual parametric stabilization of interference and throughput in Wireless Sensor Network-Optical Communication".

3. Dr. H V Balachandra Achar was Guest of Honour in Scientia 2K21 organised by Amrutha Bharathi Vidyalaya, Hebri on 27 February 2021.

4. Dr. H V Balachandra Achar served as session chair in MPCIT 2020 organised by JNNCE-Shivamogga on 11 December 2020.

5. Dr. Sachin S Bhat delivered a talk "Sanskrit and Technology" on 16 March 2021 organised by REVA University and IEEE ComSoc, Bengaluru.

6. Dr. Sachin S Bhat served as a session a chair in IEEE DISCOVER held on 30 October 2020.

7. Dr. Sachin Bhat appointed as Scientific Committee Member in RYMEC, Bellary.

8. Dr. Sachin Bhat appointed as Organizing committee member for International Symposium on Biomedical Engineering and Computational Biology (BECB 2021), organized by Nanchang Hang Kong University, China.

9. Mr. Nagaraja Rao nominated as a member of the evaluation panel of IICDC, project contest organized by Texas Instruments.

10. Mr. Nagaraja Rao and Mr. Arun Upadhyaya appointed as IIC-Innovation Ambassadors by MoE's Innovation Cell & AICTE, New Delhi.

11. Ms. Laxmi Shetty was a resource person for an ISR activity in St. Marys College Shirva. Topics covered- Logical Reasoning, Date- 7th Dec and 9th Dec 2020.

12. Mr. Krishna Kumar conducted a Session on "Clocks and Calendars" for BCA students

of St. Mary's College Shirva on 8 December, 2020.

13. Dr. Balachandra Achar served as the Program Committee Chair of IEEE DISCOVER held on 30-31 October, 2020.

14. Mr. Chetan R was the Moderator for the conference, 2020 IEEE discover.

15. Mr. Chetan R conducted a workshop for faculties of S. G. Balekundri Institute of Technology Belagavi, to set VLSI lab using open-source Electric software through online platform from 28-30 December, 2020.

16. Mr. Arun Upadhyaya, Senior Assistant Professor of the department of ECE, was appointed as the NISP COORDINATOR of the institute in November 2020.

## E. Students' Accomplishments:

### 1. ANVESHANA KARNATAKA- 2021

**SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY & MANAGEMENT**  
(A Unit of Shri Sode Vadiraja Murti Education Trust, Udipi)  
Accredited by NAAC with 'A' grade | Affiliated to VTU, Belagavi, Karnataka  
Vishwothama Nagar, Bantakal, Udipi - 574 115, Karnataka, India  
Website: www.sode-edu.in | Mobile: +91 7483031199

**Department of Electronics and Communication Engineering**

**synopsys** **Anveshan** **AGASTYA**

**Congratulations to our students for winning Consolation Prize and qualifying in the Finals of the State Level Project Competition.**

**"AnveshanA Karnataka - 2021"**  
(Online Science & Engineering Fair)

**Project Title : " SWASTHYA "**

**Student Members : Akshatha A Renjal  
Adithi Girish  
Shreya Udupa  
Rakshith Acharya**

**SMVITM - Engineering your Career and Character with Care**

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Students of the second year ECE viz. Akshatha Renjal, Adithi Girish, Shreya Udupa, Rakshith Acharya have won the consolation prize and qualified for the finals of ANVESHANA KARNATAKA- 2021 an Online Science and Engineering Fair. For which they had come up with a project titled SWASTHYA.

### 2. IEEE-EUREKA 2020

The students of the department of ECE have won three runner-up prizes at "IEEE-EUREKA 2020", a national level event organized by the IEEE Pune section.



The event was conducted through ONLINE mode. More than 150 teams from all over India had participated in the event. The winners were:

Stream: "Technologies for Agriculture, Food processing and Rural development".

Team: Ashutosh Kumar, Shamitha Shanbhogue, Nayak Adithya and Naman.

Stream: "Technologies for Education, Sports and Woman Welfare".

Team: Raunak Choudhary, Janvi V Nilekani, Preetham Nayak, Swaliha Sheikh.

Stream: "Technologies for managing National security and disasters including Pandemonium".

Team: Shrivathsa, Chaithra B.R, Ferdinand Castelino, Vikas Rao.



This event was organized with the aim of knowledge sharing wherein, engineering students had to impart knowledge to high school students in the areas of Agriculture, Healthcare, Education, Sports, Women Empowerment and Disaster management.

### 3. Projects selected for KPIT Sparkle-National innovation challenge 2021

Three Innovative Projects from students of Shri Madhwa Vadiraja Institute of Technology & Management, Bantakal have been selected for "Top 100" position in reputed "National Level Innovative

Competition KPIT Sparkle" which is organized by KPIT Inc, Pune. Students and Faculty from the department of EC, SMVITM, Bantakal, Udipi has claimed that they are the best innovators by proving themselves participating in KPIT Sparkle-National innovation challenge 2021. It is a national level contest and the theme was Mobility and Energy for the future. KPIT Sparkle is one-of-its-kind Design & Development Contest for Science & Engineering students. Students are encouraged to participate, win prizes & get national acclaim. KPIT Sparkle an innovation platform by KPIT technologies, Inviting bright minds from science and engineering students across India. This company is known to provide opportunities to promising ideas to foster entrepreneurship and innovation.

Students of Department of EC, SMVITM have made their ideas sparkle by getting selected to top 100 selections from more than 2500 ideas that were uploaded across different parts of India. The College had uploaded 11 new innovative ideas out of which 3 ideas have been selected to the top 100 projects.

This has inspired with true excitement and joy in the young entrepreneurs (students). Team of students Aishwarya, Bhoomika J S, Deepthi Poojary, Niharika Balthillaya of Electronics & communication engineering have developed "Implementation of collision avoidance system for hair pin bends in ghats using proximity sensors". Chaithra Kulal, Dheeraj, K Srinivas Kamath, Neema B Shetty, Meghana R Bhat have developed

“Thermoelectric Air cooling for cars” and Adithi P, Anwitha Rao P, Arun J.K, Harshitha Shetty, Hrishika have developed “Alternative source of energy based on piezoelectric effect”.

The Management, Principal and staff members have complimented all involved in this activity for this wonderful achievement.

#### **4. Project proposals of students approved for scholarships by the Karnataka State Council for Science and Technology (KSCST 2020-2021)**

Motivated by the desire to build a strong base for practical problem solving in several engineering colleges as well as to build their R & D potential, KSCST decided to promote student project programmes in a large number through a programme called STUDENT PROJECT PROGRAMME for providing financial and academic support for Bachelor of Engineering projects. The following are the students who have been selected for the same under the guidance of the faculties from SMVITM.

#### **Project name: 1. TOUCHLESS SMART DETOXIFYING UNIT.**

**Students:** Sumanth S.S, Tripthi Shetty, Vijetha, Vinutha Bhargavi.

**Under the guidance of:** Mr. Arun Upadhyaya.

#### **Project name: 2. PROVIDING SUPPORT TO THE KNEE USING METALIC JOINTS.**

**Students:** Adithya K, Gowri M, Namana, Pranav K R.

**Under the guidance of:** Mr. Chetan R.

#### **Project name: 3. DAIRY MILK FARMING FROM NOW TO NEXT.**

**Students:** B Pradyumna Tantry, Pradyumna P Tantry, Prajwal, Suraj Jayaram.

**Under the guidance of:** Ms. Rajashree N.

#### **Project name: 4. GRADING OF THE COFFEE DEPENDING ON THE AROMA AND TASE USING SENSORS.**

**Students:** Adarsh A Shetty, Rajath B Kulal, Abhishek M Rao, Nagaraj Kamath.

**Under the guidance of:** Dr. Ganesh Aithal.

## YouTube channels of faculty members

S.I.	Faculty Name	YouTube Channel Link
1	Ms. Laxmi Shetty	<a href="https://www.youtube.com/user/05laxmishetty">https://www.youtube.com/user/05laxmishetty</a>
2	Mr. Arun Upadhyaya	<a href="https://www.youtube.com/c/ArunUpadhyaya/">https://www.youtube.com/c/ArunUpadhyaya/</a>
3	Mr. Nagaraja Rao	<a href="https://www.youtube.com/channel/UC68SV57xMPfk7tj1l_2Rjw/">https://www.youtube.com/channel/UC68SV57xMPfk7tj1l_2Rjw/</a>
4	Ms. Renita Pinto	<a href="https://www.youtube.com/channel/UCopBB921K9hK49ZoeLTstDA/">https://www.youtube.com/channel/UCopBB921K9hK49ZoeLTstDA/</a>
5	Ms. Sowmya Bhat	<a href="https://www.youtube.com/channel/UCfMfti5ejWCmv7Pvh33lbUw/">https://www.youtube.com/channel/UCfMfti5ejWCmv7Pvh33lbUw/</a>
6	Mr. Ranjith Bhat	<a href="https://www.youtube.com/user/Ranjithbhat444">https://www.youtube.com/user/Ranjithbhat444</a>

## PLACEMENTS

Placed Student Details Batch 2020-2021		
S.I No	Name of Student	Name of the Company
1	CHETHANA	Robosoft Technologies Pvt. Ltd., Udupi
2	SHREERAKSHA	
3	GOPIKA C B	
4	NAMANA	Infosys Ltd., Bengaluru
5	NIDISH M SUVARNA	
6	SHARANYA	
7	VINAYAK ANANT HEGDE	
8	POORVIKA	
9	SOWJANYA DERANNA RAI	
10	SRIHARSHA S BHAT	
11	PRERANA P	Tata Consultancy Services Ltd., Bengaluru
12	NIVEDITHA NAYAK P	
13	SHARANYALAXMI K	
14	SHARATH KARANTH	
15	SOWBHAGYA DERANNA RAI	
16	TEJASVINI	
17	CHETHANA	
18	ADARSHA HEBBAR	Avo Automation, Bengaluru
19	KAVANA MAHESH HEGDE	High Peak Software Pvt. Ltd., Bengaluru
20	PRATHAM S KANCHAN	Cerium Systems (P) Ltd., Bengaluru
21	NAMANA	
22	PRATHAM S KANCHAN	
23	JEEVAN	Tech Mahindra Ltd.

## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### VISION

To emerge as an excellent technical education centre and be an integral part in the development of advancing technologies and global challenges, in the field of Electronics and Communication Engineering.

### MISSION

1. To facilitate an ambience conducive to the excellence in technical education.
2. To provide a platform that will ensure the exchange of ideas and dissemination of knowledge.
3. To establish a research-oriented centre by having rapport with industries.
4. To foster ethical and value-based education with credibility by promoting activities that have societal impact.



## **PROGRAMME EDUCATIONAL OBJECTIVES**

The graduate of Electronics & Communication Engineering should be able to:

1. Exhibit essential knowledge of applied sciences, mathematical modelling, logical interpretation and virtual realization to resolve real-time problems in the field of Electronics and Communication Engineering.
2. Work productively as an Electronics and Communication Engineer, including supportive and leadership roles on multidisciplinary teams.
3. Inculcate effective communication skills to excel in professional growth.
4. Take part in lifelong learning in pace with the advancing technological society.

## **PROGRAMME SPECIFIC OUTCOMES**

Graduates of Electronics & Communication Engineering will be able to:

1. Focus on developing and exposure to alternative/ advanced technologies: Understand the concepts of Electronics & Communication Engineering and its application in the fields of signal processing, control systems, embedded systems, VLSI design, networking, and communication.
2. Extension of knowledge and testing facilities for the society: Apply domain-specific knowledge to design, analyse, synthesise and validate real-time problems in Electronics & Communication Engineering.



**Brought to you by**

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The Newsletter Committee,  
Dept. ECE, SMVITM

# Cryptex

Newsletter by the Department of  
Electronics & Communication Engineering

Vol 5, Issue 2, January - August 2020



**SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

(A Unit of Shri Sode Vadiraja Mutt Education Trust®, Udupi)

Approved by AICTE, New Delhi; Recognized by Govt. of Karnataka and Affiliated to VTU, Belagavi  
**Vishwothama Nagar, Bantakal - 574115, Udupi District, Karnataka.**

Newsletter of the Department of  
**ELECTRONICS & COMMUNICATION ENGINEERING**  
SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vol. 5, Issue 2, January-August 2020

I hope this message finds you in good health.

First of all, I would like to extend my warm wishes to our 2016-20 batch. Congratulations on graduating and wishes for all the success in life. We sincerely hope that your new journey will be full of peace, harmony, success and comfort.

Progress and advancement bring along with it new menaces as well. A virus, 'covid -19', has proven mightier than man, powerful enough to bring even economies to 'isolation wards'. Has Nature started to retaliate? On one side heavy floods, on the other, the wrath of fire. Rhythm of Nature seems to give way to the delirious rhythm of the times. We have several convenient labels and terms: global warming, climate change and so on. We find that everything is in a state of flux: history, science, technology and even imagination. But it's a pity –ego remains unchanged unharnessed, untransformed. It continues to breed arrogance and ignorance, while wisdom remains elusive. How to liberate knowledge, the sole path to wisdom from parochialism, vested interests and narrow-mindedness? How to redeem man's intrinsic humaneness and preserve it as the common heritage of humanity? Will the new generation of Engineers be able to use technology to redeem it? Even as the whole world has been put on hold due to this pandemic, SMVITM on the contrary, hasn't stopped its teaching and learning process. Both students and teachers have put tremendous amount of effort and cooperation ensuring learning takes place even in the midst of this great crises. Not only the teaching. Research continued, papers hit the reputed journals, students won prizes in international level, conferences conducted, workshops and webinars continued to instil new insights, various student activities took place along with the regular academic classes. This has proved that education at SMVITM is unstoppable. Hence, we are excited to bring to you of some glimpses that happened during the last semester in this Vol. 5, Issue 2 of this newsletter.

Another academic year is beginning and we are ready with all new hopes and hues.

*Sachin S Bhat*

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*Newsletter Edited by:*

*Ranjith Bhat*

## DEPARTMENTAL ACTIVITIES

### LEAD Prayana 2020

The 2nd year ECE students Ms. Aishwarya, Ms. Bhoomika, Ms. Chaitra and Mr. Srivastha, along with 3rd year Mechanical Engg student Mr. Anish Upadhyay, took part in the 2-week long LEAD prayana from 19 Jan to 02 Feb 2020. Organized by Deshpande Foundation Hubballi, the LEAD Accelerating Development (LEAD) Program fosters innovative and entrepreneurial thinking within college students by exposing them to social issues and by encouraging them to volunteer their time and effort into the community. LEAD ignites their latent talent to come up with creative solutions and implement the same. It is an incubator where innovation meets implementation, knowledge meets experience, social issues meet solutions and efforts meet impact.



As part of this program, the students interacted with many renowned personalities which include the Founder of Deshpande Foundation Sri Gururaj Deshpande, the Vice Chancellor of VTU Dr. Karisiddappa, the Dharmadhikari of Dharmasthala Sri Veerendra Heggade, the Director of Alvas's group of institutions Dr. Mohan Alva, Ex DCP of Udupi Mr. Annamali, Param Veer Chakra awardee

Mr. Yogendra Singh Yadav, IPS Officer Mr. Ravi Channavar, founder of Classic Magazine Mr. Laxman Uppar, Theatre artist Mr. K G Krishnamurthy, and many more.

The students visited Asia's largest kitchen Akshaya Patra, Infosys Mysuru campus, alternate school for children at Kaliyuva mane Mysuru, Samarthanam Trust Bengaluru for the differently abled children, Mahesh Foundation school for the HIV positive children, Kalkeri Sangeetha Vidyalaya, Police Department, Vishal Natural Food industry, Dharmasthala temple, Moodabidre Alvas Institutions, MAHE Manipal, Malpe beach and many other places. They visited a village by name Hirebendigeri, where they lived like a villager for a day without modern gadgets, and helped the villagers in their daily household works and field works. There they also conducted a street play on women abuse and women empowerment.

By this exhaustive educative tour, the students developed leadership skills, innovative approach and entrepreneurial mindset to become constructive contributors to the society. The institute congratulates all the five students who participated in the prayana, and wishes them a bright future.

### LEAD - Leadership Programme

The department of Electronics & Communication Engineering of SMVITM Bantakal, in association with LEAD (Leaders Accelerating Development) of Deshpande Foundation Hubballi, organised a one-day workshop on "LEAD-Leadership Programme" on Saturday, 22 February 2020 in the institute premises. Ms. Anisha Cardoza, Programme Manager of LEAD, was the resource person. The students of 2nd year ECE participated in the workshop and developed their leadership skills.

Ms. Cardoza started her session by briefing about the workshop, and the benefits of LEAD programme. For the students who have ideas or who want to come up with ideas and are seeking a platform for mentorship, guidance and resources, LEAD will help them to achieve their goals and passion, and in this process the students will enhance the leadership qualities in them.



She conducted some activities that helped the students to generate innovative ideas, develop innovative approach, creative thinking, plan activities and organize guest speaker's sessions. The activities also fostered innovation and explored the possibilities of building leadership and entrepreneurial mind-set among the students.

In the last session, Ms. Cardoza conducted community activities, team building activities, followed by the presentations by each group, and documentation processes, which was well appreciated by all the students.

Earlier, Ms. Bhoomika J. S. of 2nd year ECE introduced the resource person. Vice Principal Dr. Ganesh Aithal and Head of the department Dr. Balachandra Achar were present during the inaugural function. Senior Assistant Professors Mr. Nagaraja Rao and Mr. Ganesh Shetty coordinated the workshop.

### Internship Awareness

The department of E&C Engineering organized a guest talk by Dr. Mahesh Padyana of CloudE Mysuru on 05 March 2020 about Internship Awareness. Students of 6th semester ECE attended the talk and interacted with the resource person. Dr. Padyana began his session by giving a small task of designing a water level sensor using microcontroller, and received inputs from the students. He briefed the students about the attractive career in core electronic industries, and motivated the students to join.



As a pre-requisite, he said, the students aspiring to join core industries should know the basics of electronics thoroughly and should have hands-on experience in designing and troubleshooting circuits and writing codes for interfacing. He said that the hands-on experience can be obtained by undergoing internship training in core electronic or companies that manufacture embedded systems. To this effect, he said that CloudE is offering project-based internship training to engineering students at affordable costs.

Earlier, HOD-ECE Dr. Balachandra Achar introduced the guest speaker and welcomed him. Faculty members Mr. Krishna Kumar and Mr. Avinash N. J. were present on the occasion.

### March-past Gold winners

The combined ECE team comprising students from 1st to 4th year won First prize in march-past event

at the college annual sports meet held on 29 Feb 2020.



### PAC Meeting



Program advisory committee meeting was held on February 22, 2020. The PAC members consisting of alumni, students, parents, faculty members attended the meeting. The PAC members discussed on the issues of NBA process, CO-PO attainment and they also gave suggestions on academic related matters.

### Webinar on Mathematical Approach in Cipher Systems

The department of E&C Engineering organized a Webinar on "A mathematical approach in Cipher System" by Prof. Dr. Ganesh Aithal, Vice Principal, SMVITM on 03 June 2020. More than 100 faculty members and students from various engineering colleges participated in the webinar and gained knowledge.


In the webinar Prof. Aithal explained the mathematics involved in the ciphering and

deciphering of text messages using standard encryption algorithms.

In the beginning Assistant Professor Ms. Renita Pinto introduced Prof. Aithal to the participants. Senior Assistant Professor Mr. Arun Upadhyaya coordinated the webinar.

**SHRI MADHWA VADIRAJA INSTITUTE  
OF TECHNOLOGY AND MANAGEMENT**

(A Unit of Shri Sode Yadroja Mutt Education Trust, Udipi)  
Accredited by NAAC with 'A' grade | Affiliated to YRU, Belagavi  
Vishwathama Nagar, Bantakal - 574115, Udipi District, Karnataka.

  
**SMVITM**

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Presents

A webinar on

**A MATHEMATICAL APPROACH IN CIPHER SYSTEMS**

By



**Prof. Dr. Ganesh Aithal**  
Vice Principal, SMVITM, Bantakal

**Date and Time**  
Wednesday, 03 June 2020, At 10:30 am

**Registration Link:**  
<https://bit.ly/3dnr6M7>

- The link will be kept open till the midnight of 02 June.
- Webinar joining link will be sent through email on 03 June.
- Only 100 participants will be able to join on first-come basis.
- E-certificates will be issued to the participants who attend the webinar.

*SMVITM - Engineering your Career and Character with Care*

### Incridea Winners

The team of ECE students Adarsh Hebbar, Adith Holla, Jeevan Achari and Sourabh Revankar won First Prize in the Incridea – Innovate, Create, Ideate contest held at NMAMIT Nitte on 15 Feb 2020.

### Aakriti Winners

Wasim Akram, Supreeth Kumar, Pranav K R, Prajyoth Bhat, Dheeraj Shetty, Pratheek Shetty and Niveditha Nayak of 3rd year ECE have won First

prize in the Short Film Making competition held at the intercollegiate techno-cultural fest organized by CEC Bantwal, during 27-29 Feb 2020.



### Atal Tinkering

ECE students Ms. Rushali and Mr. Aditya conducted classes for PUC students as part of Atal Tinkering Lab. Vasundhara and Meghana of 4th year and Shreya Udupa of 1st year EC won First Prize in group singing event in the District Rotaract Cultural programme held at SMVITM on 19 Jan 2020.



Vasundhara, Pooja and Thrishna of 4th year ECE won Second Prize in group dance event in the District Rotaract Cultural programme held at SMVITM on 19 Jan 2020.

Meghana of 4th year ECE won Second Prize in the duet singing competition in the District Rotaract Cultural programme held at SMVITM on 19 Jan 2020.



Thrishna of 4th year and Bharath Shenoy of 3rd year ECE won Second Prize in the Skit competition in the District Rotaract Cultural programme held at SMVITM on 19 Jan 2020.

Wasim Akram has won Best Editor and Best Director awards, and Pranav K R has won Best Story award at the intercollegiate techno-cultural fest organized by CEC Bantwal, during 27-29 Feb 2020.

The combined college team comprising of ECE students Meghana of 4th year, Shreeshadasa of 3rd year and Shreya Udupa of 1st year won First prize in the Bhajan singing competition as part of Incredia-20 held at NMAMIT Nitte from 14 to 18 Feb 2020.

Bharath Shenoy of 3rd year ECE was part of the college team which won First prize in the event Khamosh as part of Incredia-20 held at NMAMIT Nitte from 14 to 18 Feb 2020.

The college team comprising of ECE students Prajna Acharya and Rachana Shetty of 4th year, and Preema Dsouza, Niveditha Hebbar and Rashmi of 3rd year won First prize in the Fashion Show as part of Incredia-20 held at NMAMIT Nitte from 14 to 18 Feb 2020.



A project title called "Multipurpose Agri robot" carried out by Jeevan J Achari and K Adith Holla along with High school students Vijayashankar and Adithya got selected in the Anveshana project contest -2020. The regional contest was held at SDMIT Dharwad from 15-01-2020 to 17-01-2020.

A project titled "Smart meeting room" carried out by K Adith Holla, Jeevan J Achari, Adarsha Hebbar, Sourabh M Revankar, Prajyoth P Bhat and Abhijith N, reached semifinal of the project contest IICDC 2019 Texas Instruments Innovation Contest.

### Throw-ball winners



ECE team comprising of Ms. Laxmi, Ms. Rajashree, Ms. Shareen, Ms. Sowmya, Ms. Renita, Ms. Geethanjali and Ms. Saraswathi won the first prize in the throwball event at the college annual sports day for staff on 31 Jan 2020.

### Cricket Runners

The combined ECE-Civil cricket team won the runners-up prize in the staff cricket match held on 31 Jan 2020. The ECE members were Mr. Chetan, Mr. Arun, Mr. Sandesh, Mr. Ganesh, Mr. Avinash, Mr. Sandeep, Mr. Hariprasad and Ms. Laxmi.



### PhD awarded to Sachin Bhat

Senior Assistant Professor Sachin S Bhat was awarded PhD degree by Reva University of Bengaluru for his thesis titled "Design and development of deep learning algorithms for character recognition of Kannada inscriptions", submitted under the guidance of Dr. Sheshikala G., Professor in the School of Electronics at Reva University.



Originally belonging to Shirali town of Uttara Kannada district, Dr. Bhat is the son of Sri Sadashiva Bhat, retired employee of Vijaya Bank, Kumta, and Teacher Smt. Shailaja. Recently he was honored with the Young Researcher award, by "Green Thinkerz" International Society.

### Touchless Hand Sanitizer designed by Mr. Madhusudan Thantry



Foreman Mr. P. Madhusudan Thantry, designed and fabricated touch-less hand sanitizer to be used at the entrance of the department building.

Mr. Nagaraja Rao, Ms. Sowmya Bhat and Mr. Raghavendra Rao are recognized as the members of the "Confederation of Elite Academicians of IICDC" by AICTE, Texas Instruments, IIM Bangalore and DST for the project contest IICDC-2019.

## FACULTY AND STUDENT ACCOMPLISHMENTS

### A. Faculty research publications:

1. Dr. Ganesh Aithal published a paper titled "Exponential Cipher Based on Residue Number System and Its Application to Image Security" in Advances in Artificial Intelligence and Data Engineering, p: 529-541, August 2020 (Scopus Indexed, Q2).
2. Dr. Ganesh Aithal published a paper titled "Analysis of an Enhanced Dual RSA Algorithm Using Pell's Equation to Hide Public Key Exponent and a Fake Modulus to Avoid Factorization Attack", in Advances in Artificial Intelligence and Data Engineering, p: 809-823, August 2020 (Scopus Indexed, Q2).
3. Dr. Ganesh Aithal published a paper titled "Design, Calibration, and Experimental Study of Low-Cost Resistivity-Based Soil Moisture Sensor for Detecting Moisture at Different Depths of a Soil", in Advances in Artificial Intelligence and Data Engineering, p: 1383-1397, August 2020 (Scopus Indexed, Q2).
4. Dr. Balachandra Achar published a paper titled "Random Forest algorithm-based Strain Analysis on Composite Materials using Digital Image Processing" in International Journal of Advanced Science and Technology, Vol. 29, No. 8, July 2020 (Scopus Indexed, Q4).
5. Dr. Sachin Bhat published a paper titled "Character Recognition of Tulu Script Using Convolutional Neural Network", Advances in Intelligent Systems and Computing, Springer, Vol.1133, P:121-131, August 2020 (Scopus Indexed, Q2).
6. Dr. Sachin Bhat published a paper titled "Comparative physical study of evans blue by fe<sub>3</sub>o<sub>4</sub>@cf-r coated combination of decorated go and tio<sub>2</sub> magnetic nanocomposite" in Rasayan: Journal of Chemistry,13(2), June 2020 (Scopus Indexed, Q2)..
7. Dr. Sachin Bhat published a paper titled "Stress State Detection of Social Media user using Neural Network based Factor Graph Model" in

- Test Engineering, Vol 83, Issue 2, April 2020 (Scopus Indexed, Q4).
8. Vishruthi Kotian, Vishal Anand Bhat, Shradha, Sandeep Salvankar, Nagaraja Rao published a paper titled ""Blind assistance in shopping mall using Li-Fi" in Technical Research Organization India (TROI)", VOI 7, Issue 7, June 2020.
  9. Tanusha C Shetty, Swasthi S Shetty, Sanketh S Shetty, Vaishnavi Pai, Arun Upadhyaya published a paper titled "EYE CONTROLLED WHEELCHAIR MOVEMENT", in IJCESR, vol 7, issue 6, p:8-12, 2020.
  10. Ganesh S Shetty, Aparna Kini, Kavya Anchan, Chethana A Amin published a paper titled "COMMUNICATION AMONG BLIND DEAF AND DUMB" in IJCESR, vol 7, issue 7, p:8-12, 2020.
  11. Sandesh Kumar, Manish M, Gurukiran, Manoj, Nikil S Kumar published a paper titled "Mechanized Framework for Fake News Discovery Utilizing NLP And Machine Learning Approach from Twitter", in IJCESR, vol 7, issue 6, p:58-62, June 2020.
- B. Conference Presentations:**
1. Rahul Adiga C, Sameeksha U Raikar, Suma S H, Sumanth S, H. V. Balachandra Achar, presented a paper titled "SaviourDrone: The Drone Designed To Help InMedical Emergencies", International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
  2. Y Suhas Kumar, Darshan G Shetty, Yajnesh Anchan, Shreyas, Rajashree Nambiar, presented a paper titled "A New Design System of Quadcopter with Autonomous Flight Control", International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
  3. Sushmitha, Rashmitha, Sneha, Priyanka Dsouza, Renita Pinto, presented a paper titled "Secured product delivery UAV based Windcopter", International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
  4. Shwetha, Sowmya, Tejas Upadhyaya K C, Vikhyath N V, Ranjith Bhat presented a paper titled" Bus Tracking System Using GPS & Android Application", International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
  5. Akshatha B Bhat K, Elein Jisha Lewis, Branda, Amitha Kundar, Laxmi Shetty presented a paper titled "Sentimental analysis using speech streams", International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
  6. Akshatha Hari Bhat, Balachandra Achar H V presented a paper titled" A combination of Wireless and Optical Mode Communication in sensor networks for efficient data transmission", International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
  7. Sachin Bhat, Thejashree, Thrishna, Chaithra, Vidyashree presented a paper titled "Extraction of Human Body Measurement Using Green Screen Segmentation", International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
  8. Carol DSilva, Lavanya, Manisha S Jogi, Prajna, Shashikala R "Smartphone Based Attendance System for Staff", International Conference on Emerging Trends in Science and Engineering,

Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.

9. Sachin Bhat, Kannika Priyadarshini, Bhagyashree Bhat, Harshitha, Annapurna Upadhyaya presented a paper titled "Transliteration of Kannada text from images to English", 5th research colloquium on Advances in Engineering and Technology at MIT, Dubai, 12 July 2020 (Best paper award in track IT).
10. Sachin Bhat, U Pooja Nair, Suraksha, Rushali Nair, Vinutha presented a paper titled "An approach towards the text summarization of Hindi news portals", 5th research colloquium on Advances in Engineering and Technology at MIT, Dubai, 12 July 2020 in (Best paper award in track AI).
11. Sachin Bhat, Rushali Naik, Vinutha, Suraksha, U Pooja Nair presented a paper titled "An enhanced fuzzy probabilistic C-means method for the segmentation of lung tumors", 5th research colloquium on Advances in Engineering and Technology at MIT, Dubai, 12 July 2020(Consolation prize in track AI).
12. Sachin Bhat, Thrishna, Thejashree, Vidyashree, Chaitra presented a paper titled "Extraction of human body measurement using affine mode correction and green screen segmentation", 5th research colloquium on Advances in Engineering and Technology at MIT, Dubai, 12 July 2020(Best paper award in track EC).
13. Sachin Bhat, Rashi Shetty, Manasa Shetty, Ashwini Shankara Shetty, Chaitrika Shetty presented a paper titled "Air quality monitoring and data analysis", 5th research colloquium on Advances in Engineering and Technology at MIT, Dubai, 12 July 2020(Consolation prize in track IT).

### C. FDPs attended:

Name of the faculty	Title of the FDP	Venue
Shashikala R	Research opportunities in Biomedical Engineering	SJEC, Mangalore
Nagaraja Rao	Contemporary tools and techniques for teachers and researchers in higher education: Experience of using Virtual Classrooms"	Cambridge Institute of Technology, Bangalore
Nagaraja Rao	"Design, Analysis and application of Power Electronic Converters"	BMSCE, Bangalore
Nagaraja Rao	"NAAC revised accreditation framework 2020"	JSPM Nahre College Pune
Nagaraja Rao	"How to do best practices for online teaching?"	North Storm Academy, Mumbai
Nagaraja Rao	"Introduction to Scilab"	Spoken Tutorial, IIT Bombay
Dr. Sachin Bhat	Machine Learning using Python	REVA University
Dr. Sachin Bhat	Neural Network and Deep learning	REVA University
Rajashree Nambiar	Blockchain Technology	Organized by Finland Labs
Dr. Sachin Bhat	Applied Machine Learning Using Python	NMAMIT, Nitte
Rajashree Nambiar	Blockchain Technology	VNVR College of Engineering, AP
Dr. Sachin Bhat	Natural Language Processing	REVA University
Arun Upadhyaya	Workshop on LATEX	SMVITM
Sandesh Kumar	Workshop on LATEX	SMVITM
Ganesh Shetty	Workshop on LATEX	SMVITM
Sandesh Kumar	Contemporary Research in Electronics and	Visvesvaraya Technological University

	Communication and Computer Science	
Arun Upadhyaya	Decoding Recent Trends of Machine Learning and Artificial Intelligence	Nagarjuna College of Engineering and Technology, Bengaluru
Dr. Sachin Bhat	Challenges and opportunities in AI and ML	Bheemanna Khandre Institute of Technology
Arun Upadhyaya	Insights on Writing Research Proposals and Funding Opportunities	St. Joseph Engineering College, Managaluru
Dr. Sachin Bhat	Data Analytics using Spark and Scala	REVA University
Nagaraja Rao	"Research Methodology, A detailed research Process"	Sanathana Research and Training Institute Mysuru
Laxmi Shetty	"Research Methodology, A detailed research Process"	Sanathana Research and Training Institute Mysuru
Ganesh Shetty	"Research Methodology, A detailed research Process"	Sanathana Research and Training Institute Mysuru
Sandesh Kumar	"Research Methodology, A detailed research Process"	Sanathana Research and Training Institute Mysuru

#### D. Accomplishments:

1. Faculties of Electronics and Communication Engineering have successfully completed 212 online courses during the time of COVID lockdown.
2. Dr. Ganesh Aithal was the Organizing Chair for the International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
3. Dr. Balachandra Achar was the Convener for the International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
4. Dr. Ganesh Aithal, Dr. Balachandra Achar and Dr. Sachin Bhat were appointed as Reviewers for the IEEE Discover-2020 International Conference.
5. Arun Upadhyaya Coordinated "ANVESHANA", Online mock CET, CET Uploading Documents by CET aspirants held at Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal.
6. Arun Upadhyaya was an organizing committee member and resource person for ONLINE TEACHING TOOLS held at Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, from 10-12 August 2020.
7. Arun Upadhyaya was a resource person in Two Weeks FDP on Changing Trends in Teaching-Learning Program Schedule with Venue Details held at Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, in June 2020.
8. Arun Upadhyaya coordinated the webinars on A Mathematical Approach in Cipher System by Dr. Ganesh Aithal on 02 June and webinar to PU students by Prof. Somayaji on 20 June 2020.
9. Arun Upadhyaya joined as a professional member in The Society of Digital Information and Wireless Communications.
10. Rs. 1 Lakh sanctioned to Dr. Sachin Bhat under competitive research grant by TEQIP.
11. Dr. Sachin Bhat won young researcher award 2020 by Green thinkers International Society.
12. Dr. Sachin Bhat chaired a session in the International Conference on Emerging Trends in Science and Engineering, Shri Madhwa Vadiraja Institute of Technology and Management, Bantakal, 10-11 July 2020.
13. Dr. Sachin Bhat chaired the conference session in AEIT 2020 at MIT, Dubai on 12-13 July 2020.

14. Dr. Sachin Bhat was Chief Guest and chaired the conference session in VISTARA 2020: National Conference at SGBIT, Belagavi on 29-30 July 2020.
15. Dr. Sachin Bhat was appointed as Senior Member in the International society of Artificial Intelligence.
16. Dr. Sachin Bhat was appointed as Reviewer for The Science and Information Organization, United Kingdom.
17. Dr. Sachin Bhat was appointed as a senior member in the Institute of research engineers and doctors.
18. Dr. Sachin Bhat was appointed as a reviewer for 3 Scopus indexed journals, IEEE access, Journal of Computer Science and SAGE Publication.
19. Dr. Sachin Bhat joined as a professional member in International Association of Engineers
20. Laxmi Shetty joined as a professional member in Association for Computing Machinery.

### Knowledge Upskilling by Faculty/Staff during Lockdown

S.I.	Faculty name	Online courses completed	Online FDPs attended	Webinars attended
1	Balachandra Achar	5	1	5
2	Nagaraja Rao	13	1	15
3	Arun Upadhyaya	12		16
4	Laxmi Shetty	49		9
5	Renita Pinto	7		
6	Sachin Bhat	25		
7	Sowmya Bhat	4	2	8
8	Ranjith Bhat	9		
9	Shareen Noronha	9		
10	Sandesh Kumar	14		1
11	Chetan R	5	2	15
12	Rajashree Nambiar	9		
13	Shashikala R	9		6
14	Krishna Kumar P	9		
15	Avinash N J	5		
16	Ganesh Shetty	14		
17	Divya Kumari K.	7		15

### YouTube channels of faculty members

S.I.	Faculty Name	YouTube Channel Link
1	Ms. Laxmi Shetty	<a href="https://www.youtube.com/user/05laxmishetty">https://www.youtube.com/user/05laxmishetty</a>
2	Mr. Arun Upadhyaya	<a href="https://www.youtube.com/c/ArunUpadhyaya/">https://www.youtube.com/c/ArunUpadhyaya/</a>
3	Mr. Nagaraja Rao	<a href="https://www.youtube.com/channel/UC68SV57xMPfk7tj1l_2Rjw/">https://www.youtube.com/channel/UC68SV57xMPfk7tj1l_2Rjw/</a>
4	Ms. Renita Pinto	<a href="https://www.youtube.com/channel/UCopBB921K9hK49ZoeLTstDA/">https://www.youtube.com/channel/UCopBB921K9hK49ZoeLTstDA/</a>
5	Ms. Sowmya Bhat	<a href="https://www.youtube.com/channel/UCfMfti5ejWCmv7Pvh33IbUw/">https://www.youtube.com/channel/UCfMfti5ejWCmv7Pvh33IbUw/</a>
6	Mr. Ranjith Bhat	<a href="https://www.youtube.com/user/Ranjithbhat444">https://www.youtube.com/user/Ranjithbhat444</a>

**PLACEMENTS**

<b>S.I. No.</b>	<b>Name of Student</b>	<b>Name of Company</b>
1	CHAITHRA	<b>Accord Global Technology Solutions</b>
2	KAVYA	<b>Amazon</b>
3	SURAKSHA	<b>Cognizant Technology Solutions</b>
4	VAISHNAVI PAI	
5	ELEIN JISHA LEWIS	<b>DXC Technology</b>
6	SUSHMITHA	
7	KANNIKA PRIYADARSHINI	<b>IBM</b>
8	RUSHALI NAIK	
9	SURAKSHA	
10	DARSHAN G. SHETTY	<b>Infosys</b>
11	DIVYA GURUNATH SHET	
12	MANISHA SUVARNA	
13	SANDEEP SALVANKAR	
14	SANJITHA V SHETTY	
15	SHUBHA H KOTIAN	
16	Y. SUHAS KUMAR	
17	VISHRUTHI V. KOTIAN	<b>Manipal Technologies</b>
18	LAVANYA	<b>Pentagon Space</b>
19	PRUTHVIJA U. SHETTY	
20	SNEHA	<b>Qspiders</b>
21	ANNAPURNA UPADHYA	
22	SUSHMITHA SHERIGAR	
23	TANUSHA C. SHETTY	<b>Resguardo Industries</b>
24	HARSHITHA	
25	PRAJNA	
26	RUSHALI NAIK	<b>Robosoft Technologies</b>
27	U. POOJA NAIR	
28	MANISHA S. JOGI	<b>Talentio Solutions</b>
29	PRUTHVIJA U. SHETTY	
30	SANJITHA V. SHETTY	
31	SWASTHI S. SHETTY	
32	TANUSHA C. SHETTY	
33	VAISHNAVI PAI	
34	VISHRUTHI V. KOTIAN	
35	Y. SUHAS KUMAR	<b>Tata Consultancy Services</b>
36	BHAGYASHREE BHAT	
37	MANISH M.	
38	RACHANA D SHETTY	
39	SUMANTH S	
40	THEJASHREE	
41	THRISHNA	

42	CAROL DSILVA	
43	VAISHNAVI PAI	<b>Tayana Software Solutions</b>
44	CAROL DSILVA	<b>Wipro</b>
45	RAHUL ADIGA C.	
46	DIVYA GURUNATH SHET	
47	MANISHA S. JOGI	
48	SHRILAXMI	
49	Y. SUHAS KUMAR	
50	SANMAYA RAO	



## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



### VISION

To emerge as an excellent technical education centre and be an integral part in the development of advancing technologies and global challenges, in the field of Electronics and Communication Engineering.

### MISSION

1. To facilitate an ambience conducive to the excellence in technical education.
2. To provide a platform that will ensure the exchange of ideas and dissemination of knowledge.
3. To establish a research-oriented centre by having rapport with industries.
4. To foster ethical and value-based education with credibility by promoting activities that have societal impact.

### PROGRAMME EDUCATIONAL OBJECTIVES

The graduate of Electronics & Communication Engineering should be able to:

1. Exhibit essential knowledge of applied sciences, mathematical modelling, logical interpretation and virtual realization to resolve real-time problems in the field of Electronics and Communication Engineering.
2. Work productively as an Electronics and Communication Engineer, including supportive and leadership roles on multidisciplinary teams.
3. Inculcate effective communication skills to excel in professional growth.
4. Take part in lifelong learning in pace with the advancing technological society.

## **PROGRAMME SPECIFIC OUTCOMES**

Graduates of Electronics & Communication Engineering will be able to:

1. Focus on developing and exposure to alternative/ advanced technologies: Understand the concepts of Electronics & Communication Engineering and its application in the fields of signal processing, control systems, embedded systems, VLSI design, networking, and communication.
2. Extension of knowledge and testing facilities for the society: Apply domain-specific knowledge to design, analyse, synthesise and validate real-time problems in Electronics & Communication Engineering.

# Cryptex

Newsletter by the Department of  
Electronics & Communication Engineering

Vol 5, Issue 1, January 2020



**SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

(A Unit of Shri Sode Vadiraja Mutt Education Trust®, Udupi)

Approved by AICTE, New Delhi; Recognized by Govt. of Karnataka and Affiliated to VTU, Belagavi  
**Vishwothama Nagar, Bantakal - 574115, Udupi District, Karnataka.**

Newsletter of the Department of  
**ELECTRONICS & COMMUNICATION ENGINEERING**  
SHRI MADHWA VADIRAJA INSTITUTE OF TECHNOLOGY & MANAGEMENT  
Vol. 5, Issue 1, January 2020

Education as a profession is challenging and hence interesting. Here one works to meet the needs of future. A student taking admission in an engineering college at an age of 18 or 19 years is most likely to work in the domain and retire at the age of 60. Considering the rate at which the technology is changing, it is difficult to even predict the state of the technology in the next 5 years. Thus in technical education we are actually preparing the students for something that is continuously changing and to a greater extent unpredictable.

Understanding this, I feel that one of the most important skills that a student is required to meet these changing and unpredictable needs is creativity. It is the ability to think differently, unconventionally and with a new perspective. As per Sir Kenneth Robinson, one of the leading educationalists of current times, creativity is as important now in education as literacy itself. All humans have inherent potential and ability to be creative. Picasso, the legendary artist, once said that all children are born artist, the problem is to remain an artist as one grows up. Thus what is important is to properly nurture this skill.

Like many other human talents, creativity is also buried within and it requires creating proper environment for it to show up and flourish. In education system the conventional way of judging students just on their abilities to score marks in examinations, which almost follows a standard pattern, and thereby encouraging them or compelling them for this does not help to develop their creative talents; in fact this crumples it.

Any industrial process can be standardized because the raw material as input and product as output of the process are not diverse. However, students have their own pockets of strengths and diverse thinking pattern, thus education can never be standardized and any effort towards this will kill the sole purpose of education. Education has to be personalized. Educators have to play a proactive role in ensuring the right environment for creative talents to flourish. Classrooms should be more lively and interesting. This can be achieved through the use of different teaching aids, projects, workshops, value added courses etc. Students should be encouraged to work across the departments that may help them to broaden their outlook and develop skill of lateral thinking.

This newsletter is to highlight all those approaches and achievements of the family members of ECE department during the last six months, both within and beyond academics which kept the campus life abuzz with enthusiasm.

Editorially yours,  
*Sachin S Bhat*

## DEPARTMENTAL ACTIVITIES

### Faculty Development Programme on VLSI Chip Design and Verification using Mentor Graphics EDA Tool



The department of Electronics & Communication Engineering (ECE), in association with CoreEL Technologies Bengaluru and ISTE Faculty Chapter SMVITM, organized a 2-day workshop for faculty members on the topic "VLSI Chip Design and Verification using Mentor Graphics EDA tool", on 22 & 23 July 2019. Faculty members of E&C Engineering from SMVITM and neighbouring

institutes participated in the workshop and enhanced their knowledge and skill. Mr. Vijendra V, Application Engineer from CoreEL was the resource person.

During the workshop, the participants acquired hands-on skills on the usage of latest Mentor Graphics software tools such as Questa-Sim, Leonardo, Pyxis, and Calibre, which are used in the Application Specific Integrated Circuit (ASIC) design.

Distributing the certificates to the participants, Principal of SMVITM Dr. Thirumaleshwara Bhat said that learning, re-learning and acquiring skills in latest topics should become a lifelong habit of all the faculty members. He congratulated and thanked all the external and internal participants of the workshop. Convener Dr. Balachandra Achar, coordinators Mr. Chetan R and Ms. Sowmya Bhat were present on the occasion

### Robotics Design Workshop using TI RSLK

The department of ECE, in association with ISTE Student Chapter and EdGate Technologies Pvt. Ltd. Bengaluru, organized a three days hands-on workshop on "Robotic design using TI RSLK" from 3 to 5 October 2019 in the institute premises. Sixty eight students participated in this Texas Instruments University certified workshop and enriched their knowledge and skills. Senior Application Engineer Mr. T. S. Balaji and Embedded Systems Engineer Mr. R. Bharath from EdGate conducted the workshop.

The workshop was designed for students who want to sharpen their design and development

skills on MSP tools and was based on the advanced development tools from Texas Instruments such as TI-RSLK kit and TI Energia software.

During the workshop, the students designed and implemented many applications the robotic kits such as controlling a robotic vehicle using Bluetooth technology, mobile phone, voice commands, neuro senz band, and detection of obstacles using ultrasonic sensor.



Earlier, Associate Professor and Coordinator of the program Mr. Nagaraja Rao welcomed the resource persons and briefed about the objectives of the workshop. Vice Principal Dr. Ganesh Aithal advised the students to make the best use of the workshop and come out with

products that are useful to the society. Head of the department Dr. Balachandra Achar proposed the vote of thanks.

### Workshop on Introduction to RTL Design and Verification using Verilog



In association with IEEE Student Branch, the department organized a workshop on "Introduction to RTL Design and Verification using Verilog" by Dr. C. P. Ravikumar, Director of Technical Talent Development at Texas Instruments, Bengaluru on 24 Oct 2019. Twenty-two students from 2nd year ECE, including seven from NMAMIT Nitte participated in the workshop and learnt the basics of Verilog.

In the first session, Dr. Ravikumar gave an introduction to Hardware Description Language (HDL) and its application in hardware design. He then introduced the students to the basic concepts of Verilog such as test-bench, simulation, verification, etc. In the second session he wrote programs for digital circuits such as majority detector, Half adder, BCD adder, Serial adder, Flip-Flops, Shift register and Binary counters.

HOD Dr. Balachandra Achar and IEEE branch coordinator Mr. Raghavendra Rao were present on the occasion and thanked the resource person for conducting the workshop.

### **Guest Talk on Industry Oriented Projects**



In association with ISTE student chapter, the department of ECE organized a guest lecture by Mr. Padma Prasad, Sr. Assistant Professor, Dept of ECE, MITE Moodabidri, on 23 Aug 2019. He addressed the per-final and final students of ECE about Industry Oriented Academic Projects leading to job placement. In his session, he stressed the importance of doing project work and explained the students how to choose the right project with high social impact.

He advised them to participate in project competitions organized by various organizations throughout the year, so that the same organizations can later offer internship and job opportunities to the students. Ms. Carol Dsilva of 4th year and Ms. Namana of 3rd year introduced the speaker to the audience and compered the program. HOD ECE, ISTE Office Bearers, Project Coordinator and Faculty members of ECE were present on the occasion.

### **Talk on Artificial Intelligence and Data Analytics**



The department of ECE organized a Talk by Senior Assistant Professor Mr. Sachin Bhat, on the topic "Can Artificial Intelligence and Data Analytics lead to intelligence?", on 28 Aug 2019 in the college campus. The final year students of E&C Engineering attended the talk and increased their knowledge. HOD and other faculty members too were present on the occasion.

### **Guest Lecture on Integrated Circuit Design**

The department of ECE in association with ISTE Student Chapter organized a guest lecture in the topic of "Integrated Circuit Design" on 12 October 2019. Mr. Joseph Brian D'Souza, Design Engineer of NXP Semiconductors, Bengaluru was the resource person. The students of 3rd year ECE attended the lecture and enhanced their knowledge.

Mr. Joseph explained the requirements of electronics core industry. He correlated the subjects which the students study in academics with industry applications. He advised the students to have strong knowledge of

fundamentals of electronics to get placed in core industry.



Third year student Mr. Aditya introduced the resource person to the audience and compered the program. HOD and ISTE office bearers were present during the event.

### Guest Lecture on Embedded System Design



In association with ISTE Student Chapter, the department organized a Talk on the topic "Prospects for E&C Engineers in the field of Embedded Systems Design" on 04 November 2019. Mr. Raghavendra Bhat from CloudE, Mysuru was the resource person. Students of third year ECE attended the Talk.

In his talk Mr. Bhat explained the Embedded System Architecture, Components of Embedded Systems, and various types of input/output devices. He said that most of the industries need some kind of artificial intelligence and it can be implemented only using embedded system. No electronic product in the market is without embedded system. He presented a survey of future of embedded systems, and the opportunities it generates for E&C Engineers. Mr. Bhat motivated the students to undergo internship in CloudE and do projects using embedded system.

HOD Dr. Achar thanked the resource person for sharing his thoughts with the students. Department ISTE coordinator Ms. Shashikala coordinated the event.

### Orientation Programme about LEAD

The department of ECE organized an orientation program on "LEAD - A comprehensive Leadership Program" for the benefit of 2nd year ECE students, on Tuesday 12 November 2019 in the institute premises. Mr. Pramod Kumar from LEAD was the resource person.

In the orientation program, Mr. Pramod briefed about the importance of LEAD program, which was started by Deshpande Foundation to focus on youth leadership, foster social entrepreneurship and innovation among college students. This is done by exposing students to social issues and encouraging them to put their time and effort into community development. He said that LEAD teaches youth to consider themselves as an active part of their environment and society, by raising civil awareness and commitment to public service.





LEAD hosts an annual leadership journey called "LEAD Prayana" and a leadership conference "Yuva Summit" which involves college youth and faculties. It is a platform to share, network, learn from each other and invited speakers. Mr. Pramod motivated the students to participate in this program and get benefitted.

Associate Professor Mr. Nagaraja Rao welcomed the gathering and introduced the resource person. Assistant Professors Mr. Sachin Prabhu and Mr. Ganesh Shetty, were present during the occasion. A total of 50 students participated in the program and got benefitted.

## Alumni Talks

### 1. Mr. V. K. Radheya

In association with Alumni Cell, the department organized alumni interaction by Mr. V K Radheya (2015-2019 ECE Batch) on 03 October 2019. The final year students of ECE department were the beneficiary of this program.



In the view of upcoming placement activities to be held in our college and all the pool-campus drives, Mr. Radheya held around one hour session, and shared his experience and knowledge in the area of C and C++ programming. Mr. Radheya began the session by explaining the pattern of question paper in Wipro. He discussed ten programs, explaining the significance of each, and revealed some short cuts and tricks to solve the problems efficiently. He stressed the importance of in-campus placements compared to off-campus drives. He gave suggestions on how to apply and grab the opportunities wherever possible. He also talked about the etiquette to be followed while appearing for interviews, and answered the queries from the students.

Ms. Pooja Nair welcomed the gathering and introduced speaker to the audience. Dr. Balachandra Achar, HOD, thanked the speaker and presented the memento. Ms. Sowmya Bhat, Assistant professor, Ms. Rajashree Nambiar and Ms. Shareen Noronha, Assistant professors and Department Alumni Coordinators from the Department of ECE coordinated the event

## 2. Ms. Shilpa Shetty



The department of ECE in association with Alumni Cell organized alumni interaction by Ms. Shilpa Shetty (2010-2014 ECE Batch) on 21 October 2019. The pre-final year students of ECE department were the beneficiaries of this program.

Ms. Shilpa Shetty began the talk with a few jokes to lighten the mood to make it more interactive. Her main focus was regarding the campus placements for the young graduates. She gave a good insight on the current statistics of the areas which needed more attention. Also focusing on the need for good communicational skills Ms. Shetty interacted with the audience to provide solutions for their common doubts in mind.

It was also encouraged that the graduates should not only focus on the IT for the campus placements but also to be interested in all the fields of Engineering. Ms. Shilpa focused on the need for having a good knowledge on Java, C, C++ & aptitude skills prior to attending any interviews.

Ms. Niveditha Hebbar welcomed the gathering and introduced the guest to the audience. Dr. Balachandra Achar, HOD, Department of ECE, thanked and presented the memento to alumna. Ms. Rajashree Nambiar and Ms. Shareen Noronha, Assistant Professors and Department Alumni Coordinators from the Department of ECE coordinated the event

## 3. Mr. Vaishak Devadiga



In association with Training & Placement Cell, the department organized an Alumni interaction on 31st August 2019 for final year ECE students. Mr. Vaishak from 2015-2019 batch ECE was the resource person for the interaction.

Mr. Vaishak who is currently working as engineer trainee in Accord Systems delivered talk titled "Campus preparation for ECE core companies".

He shared his campus experience appearing in companies like Cadence & Accord, discussed probable technical questions asked by the core companies, conveyed importance of working in product companies. Finally he advised students to keep trying until they succeed and not to quit due to frequent rejection.



HOD Dr. Balachandra Achar felicitated the resource person at the end and the program was organized by placement team of ECE department.

### Campus Cleaning by ECE students



The students of 3rd semester E&C Engineering took active part in the community activity by cleaning a part of the campus and near the bus-stop situated outside the campus, on 07

December 2019. Faculty members Mr. Nagaraja Rao and Mr. Sachin Prabhu guided the students in this activity.



### Awareness session on plastics followed by cloth bag distribution



SMVITM in association with Women Empowerment Cell headed by Ms. Sowmya Bhat of ECE, and Government Higher Primary School, Bajagoli jointly organized an awareness session on plastics for school children of higher primary school, Bajagoli on 16 November 2019. The main aim of the program was to create awareness on plastic usage amongst children.

Ms. Kavana of 3rd year ECE created awareness amongst children about usage of plastics

highlighting its evolution, health issues and environmental pollution issues. She also made students aware about the fact that India is a country to use more plastics when compared to other countries which need to be taken into consideration by saying no to plastics and reducing its usage.

President of School Development and Monitoring Committee (SDMC) Mr. Ravindra Shetty, Social

Worker Mrs. Gayathri Prabhu, Headmaster Vijaykumar, teachers of Government Higher Primary School and Assistant Professors Ms. Sowmya Bhat and Ms. Kusuma Prabhu were present on the occasion. Headmaster welcomed the gathering. and Ms. Kusuma Prabhu and Ms. Sowmya Bhat coordinated the programme under the guidance of social worker, Mrs. Gayathri Prabhu.

## OTHER ACTIVITIES

### Ayudha Pooja



### Verifying the documents of Teaching-Learning



### Picnic to Sakrebail, Kuppalli and Kavale Durga



## FACULTY ACCOMPLISHMENTS

### Ph.D. Registration

Asst. Professor Mr. Raghavendra Rao registered for full-time Ph.D. in the department of Electrical & Electronics Engineering at NITK Surathkal, under the guidance of Dr. Venkatesh Perumal.

### Journal Publications

**Mr. Sachin Bhat** and Dr. Seshikala G published a technical paper "Inscription Manuscripts and its Performance Evaluation Methods" in IEEE Xplore Sep 2019.

Ms. Akshatha Bhat and **Dr. Balachandra Achar** published a technical paper "Dual Parametric Stabilization of Interference and Throughput in Wireless Sensor Network- Optical Communication" in International Journal of Advanced Trends in Computer Science and Engineering, Vol. 8, Issue 5, pp 1937-1945, Sep-Oct 2019.

### NPTEL Swayam Courses completed

Mr. Nagaraja Rao completed an 8-week course on Advanced Linear Continuous Control Systems: Applications with MATLAB and SIMULINK with Elite plus Silver certification.

Mr. Arun Upadhyaya completed a 4-week course on Teaching and Learning in General Programmes, with Elite plus Silver certification.

Mr. Krishna Kumar completed a 4-week course on Python and Data Science, with Elite plus Silver certification.

Mr. Chetan R completed a 12-week course on Internet of Things with Elite certification.

Mr. Sandesh Kumar completed a 4-week course on Teaching and Learning in General Programmes.

Mr. Raghavendra Rao completed an 8-week course on Educational Leadership.

### Workshops / FDPs participated

Mr. Arun Upadhyaya and Mr. Sandesh Kumar participated in the 2-week workshop on Entrepreneurship Development held at Manipal University Technology Incubator from 02 to 14 December 2019.

Ms. Laxmi Shetty participated in the 5-day workshop on Outcome based Education and NBA Accreditation held at SJEC Mangaluru from 30 Dec 2019 to 03 Jan 2020.

Mr. Chetan R participated in the FDP on Electronic System Design for Manufacturing using EDA Tools, held at SIT Valachil from 11 to 13 December 2019.

Many faculty members participated in the FDP on VLSI Chip Design and Verification using Mentor Graphics EDA Tool, held in the department on 22 & 23 July 2019.

## PLACEMENTS

Sl.No.	Name of Student	Name of Company
1	BHAGYASHREE BHAT	Tata Consultancy Services
2	MANISH M.	Tata Consultancy Services
3	RACHANA D SHETTY	Tata Consultancy Services
4	SUMANTH S	Tata Consultancy Services
5	THEJASHREE	Tata Consultancy Services
6	THRISHNA	Tata Consultancy Services
7	CAROL DSILVA	Tata Consultancy Services
8	DARSHAN G. SHETTY	Infosys
9	DIVYA GURUNATH SHET	Infosys
10	MANISHA SUVARNA	Infosys
11	SANDEEP SALVANKAR	Infosys
12	SANJITHA V SHETTY	Infosys
13	SHUBHA H KOTIAN	Infosys
14	Y. SUHAS KUMAR	Infosys
15	KANNIKA PRIYADARSHINI	IBM-India
16	RUSHALI NAIK	IBM-India
17	SURAKSHA	IBM-India
18	RUSHALI NAIK	Robosoft Technologies
19	U. POOJA NAIR	Robosoft Technologies
20	SURAKSHA	Cognizant Technology Solutions
21	VAISHNAVI PAI	Cognizant Technology Solutions
22	CHAITHRA	Accord Global Technology Solutions
23	VISHRUTHI V. KOTIAN	Manipal Technologies
24	VAISHNAVI PAI	Tayana Software Solutions
25	MANISHA S. JOGI	Talentio Solutions
26	PRUTHVIJA U. SHETTY	Talentio Solutions
27	SANJITHA V. SHETTY	Talentio Solutions
28	SWASTHI S. SHETTY	Talentio Solutions
29	TANUSHA C. SHETTY	Talentio Solutions
30	VAISHNAVI PAI	Talentio Solutions
31	VISHRUTHI V. KOTIAN	Talentio Solutions
32	Y. SUHAS KUMAR	Talentio Solutions
33	CAROL DSILVA	Wipro
34	DIVYA GURUNATH SHET	Wipro
35	RAHUL ADIGA C.	Wipro

## STUDENT ACCOMPLISHMENTS

Elain Jisha Lewis of 4th year ECE was selected for the University Handball Team (Girls) to represent VTU South Zone Inter-University Championship 2019-20, to be held at the University of Calicut, Kerala, from 10 to 14 Nov 2019.

Sooraj of 4th year ECE was selected from Mangaluru zone for the VTU Cricket Team selection trials to be held at SJGIT Chikkaballapura on 15 & 16 Oct 2019.

Kavya of 4th year ECE and Ms. Shreya S of 1st year ECE won third place in VTU Mangaluru Zone Inter-Collegiate Women's Tennis Tournament held at AJIT Mangaluru on 16 Nov 2019.

Y. Suhas Kumar of 4th year ECE was part of the volleyball team that won first prize in the Inter-District Sports Meet of Rotaract Club Karkala, held on 01 Dec 2019 at Karkala.

Safa Munawar of 4th year ECE won 2nd prize in 100 m and 400 m running race in the Inter-District Sports Meet of Rotaract Club Karkala, held on 01 Dec 2019 at Karkala.

Safa Munawar and Rachana Shetty of 4th year and Meghana of 1st year ECE, along with one CS student, won first prize in 4×100 m relay in the Inter-District Sports Meet of Rotaract Club Karkala, held on 01 Dec 2019.



The department is very happy to welcome Prof. Dr. Ganesh Aithal who has joined the ECE-SMVITM family in August 2019 as Professor and Vice Principal. With his vast teaching and managerial experience, we are sure that he will take the department to greater heights and support in the growth of the institute.



## DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

### VISION

To emerge as an excellent technical education center and be an integral part in the development of advancing technologies and global challenges, in the field of Electronics and Communication Engineering.

### MISSION

1. To facilitate an ambience conducive to the excellence in technical education.
2. To provide a platform that will ensure the exchange of ideas and dissemination of knowledge.
3. To establish a research oriented center by having rapport with industries.
4. To foster ethical and value based education with credibility by promoting activities that have societal impact.

### PROGRAMME EDUCATIONAL OBJECTIVES

The graduate of Electronics & Communication Engineering should be able to:

1. Exhibit essential knowledge of applied sciences, mathematical modeling, logical interpretation and virtual realization to resolve real-time problems in the field of Electronics and Communication Engineering.
2. Work productively as an Electronics and Communication Engineer, including supportive and leadership roles on multidisciplinary teams.
3. Inculcate effective communication skills to excel in professional growth.
4. Take part in lifelong learning in pace with the advancing technological society.

### PROGRAMME SPECIFIC OUTCOMES

Graduates of Electronics & Communication Engineering will be able to:

1. Focus on developing and exposure to alternative/ advanced technologies: Understand the concepts of Electronics & Communication Engineering and its application in the fields of signal processing, control systems, embedded systems, VLSI design, networking, and communication.
2. Extension of knowledge and testing facilities for the society: Apply domain-specific knowledge to design, analyse, synthesise and validate real-time problems in Electronics & Communication Engineering.



# Cryptex

Newsletter by the Department of  
Electronics & Communication Engineering

Vol 4, Issue 2, July 2019



**SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

(A Unit of Shri Sode Vadiraja Mutt Education Trust<sup>®</sup>, Udupi)

Approved by AICTE, New Delhi; Recognized by Govt. of Karnataka and Affiliated to VTU, Belagavi  
Vishwothama Nagar, Bantakal - 574115, Udupi District, Karnataka.

**Newsletter of the Department of  
Electronics & Communication Engineering, SMVITM, Bantakal  
Vol. 4, Issue 2, July 2019**

**EDITORIAL**

Another remarkable academic year has come to an end with a lot of achievements to the credit of our own SMVITM. In this semester, the institute was accredited with 'A' grade by NAAC, and ranked No.1 among the Engineering colleges of Mysuru region. It is indeed overwhelming to see that the enthusiasm with which the year started has sustained throughout and left us all craving for more in the coming year.

I am pleased to introduce 'Cryptex' – the Departmental Newsletter, Volume 4, Issue 2, Jan-June 2019, before you. It covers the key developments in the department spanning across the last six months both within and beyond academics which kept the campus life abuzz with enthusiasm. The last semester of the year 2018-19 was a great phase for academic give and take. It is delighting to see the participation of our faculties and students of ECE department in various events like FDPs, workshops, conferences, technical fests and many more. Such sharing can expand the horizons not only of the individual but of the whole community. Our department too arranged such programs and many participants benefitted from them. Lucky 48 of our proud final year students got placed in different reputed companies in this semester. With the help of industrial visits the students got an exposure to what the future holds for them. Many other events like workshops and guest lectures were organized, and it is good to see our students shining at various levels and activities.

Technology is changing by leaps and bounds. And the Dept. of ECE is moving in a majestic way with notable swift, catering all-round needs of the students, keeping them at par to combat challenges and transforming them. Our editorial team expresses its heartfelt thanks to HOD Dr. Balachandra Achar H V, the faculty & staff members and the students of the department for their support in fullest possible way. I wish all of you will continue to work enthusiastically in the next academic year too.

Editorially yours  
*Sachin S Bhat*

## DEPARTMENTAL ACTIVITIES

### 1. Internship by ALS



Ten students of 2nd year participated in the 5-day internship training program, at Advanced Electronic Systems (ALS) Bengaluru, from 16 to 21 January 2019. Mr. Sunil Shambhatnavar and other officials of ALS trained the students on various aspects such as electronic circuit design, analysis, debugging, soldering and related software. ISTE coordinator Mr. Vinay Kumar coordinated the program. Participated students are Aditya K, Prashanth, Pratham S, Kanchan, Preetham Kumar, Shamith, Sharat Karanth, Shashank G Kollé, Shrirama K Acharya, Supreetha S Rao, and Suraj Jayaram.



### 2. PCB Design workshop



Department of ECE in association with Department of Chemistry and ISTE Student Chapter conducted a 2-day workshop titled 'Joy of PCB Design' on 16 & 17 Feb 2019. Forty three students from 1st and 2nd year B.E. E&C

participated in the hands-on workshop. Research scholar from NITK Surathkal Mr. Basti Bharath Shenoy was the resource person.

Inaugurating the workshop, Principal Dr. Thirumaleshwara Bhat congratulated the students and said that every student should update their knowledge and skill by participating in such workshops and seminars in every semester. Earlier, HOD Dr. Balachandra Achar welcomed the resource person and advised the students to enjoy the workshop rather than doing it for the sake of doing.

Research scholar Ms. Shilpa Kamath, workshop coordinator Dr. Asha C S, faculty & staff members of E&C Engineering department, and participating students were present on the occasion. Ms. Namana of 4th semester compered the inaugural session and proposed the vote of thanks.

From this 2-day workshop, students gained knowledge about analog circuit design, PCB layout design and PCB printing.

### 3. Guest Lecture on SS & CS

Department of ECE in association with ISTE Student Chapter organized guest lectures by Prof. Narayana Iyer on the topics of Signals & Systems and Control Systems, on 19 and 21 Feb 2019 respectively. The students of 2nd year ECE attended the lectures and increased their knowledge about the topics.

Dr. Iyer with his vast teaching experience at NIT Durgapur and NMAMIT Nitte taught the basics of Signals & Systems and Control Systems to the students in very effective manner.

Faculty members Mr. Nagaraja Rao, Mr. Raghavendra Rao, Ms. Shareen Noronha and

Ms. Rajashree Nambiar also attended the lectures. Mr. Nidish Suvarna introduced the guest speaker to the audience and welcomed him. HOD Dr. Balachandra Achar thanked and presented a memento to Professor.



### 4. Industrial Tour to Kaiga Nuclear Power Plant



Department of ECE in association with ED Cell of SMVITM, organized an industrial tour to Kaiga Nuclear Power Plant on 29 & 30 March 2019. Forty two students of final year ECE along with 5 faculty & staff members participated in the tour and enriched their knowledge.

During the visit, the Kaiga authorities escorted the students around the plant and explained the various sections of the power plant and the theory behind nuclear power generation. On the way to Kaiga, and while returning, the students and faculty visited Murudeshwara Temple, Mirjan Fort, Karwar Beach and Kadra dam. Sr. Assistant Professor Mr. Sachin Prabhu coordinated the tour.

### 5. Value Added Course on Control System & Communication System



Department of ECE organized a Value Added Certification Course on “Introduction to Control Systems & Communication Systems using MATLAB/SIMULINK” for the benefit of 2nd year ECE students. Fifty students participated in this course which was conducted by faculty members Mr. Nagaraja Rao, Mr. Arun

Upadhyaya, Ms. Shashikala, Mr. Ganesh Shetty and Mr. Raghavendra Rao.



Inaugurating the program, HOD Dr. Balachandra Achar congratulated the faculties for starting the course and advised the students to make the best use out of it. The first part of the course was conducted on 2, 3 & 4 March, and the second part will be on 23 March and 13 April 2019. Topics such as the Basics of MATLAB, Application of MATLAB to Control Systems, Designing control systems and Communication systems using SIMULINK were covered in the course.



## 6. Value Added Course on Power Electronics



The department of ECE conducted a 30-hour value-added course titled “Introduction to Power Electronics using Hardware and Pspice” during the months of March & April 2019. Faculty members Mr. Sandesh Kumar, Mr. Sachin Prabhu, Ms. Shareen Noronha, Ms. Laxmi Shetty, Mr. Ranjith Bhat and Ms. Renita Pinto were the resource persons.

Students of 4th year E&C Engineering participated in the course and enriched their theoretical and practical knowledge about the subject. Power electronic devices such as DIAC, TRIAC, SCR, MOSFET, IGBT, design of converters, triggering circuits, inverters, rectifiers, choppers, etc., laboratory experiments and simulation experiments were conducted during the course.

## 7. Introduction to Computer Networking Tools

Department of ECE conducted a 30-hour value added course titled “Introduction to Computer

Networking Tools – Packet Tracer and Wireshark” in the month of April and May 2019. Twenty Six students from 3rd year B.E. E&C participated in the hands-on course. Assistant Professors Mr. Krishna Kumar and Mrs. Kusuma Prabhu were the resource persons.



From this course students gathered knowledge on routing algorithms, Cables, topologies, devices, Wireless router, ARP, NAT, IOT basics, DHCP and other routing protocols by visualizing the packet content and moments by using these tools. Students enjoyed virtually connecting the networks and analyzing the flow of packets. They visited the college server room understood the networking requirements in real-time.

## 8. Arduino Workshop





Department of ECE in association with Innovation Club, SMVITM conducted a 2-day workshop titled “Arduino and Mobile Application Development” on 11 & 12 April 2019. 86 students of different Engineering streams participated in this hands-on workshop. Third year ECE student Suhas Kumar was the resource person.

Inaugurating the workshop, Dr. Asha C S, Associate Professor, Dept. of ECE, congratulated the students and said that every student should update their knowledge and skill by participating in such hands-on workshops in every semester. Earlier, Sachin Bhat, welcomed the gathering and briefed the participants regarding the importance of Arduino in real time Engineering project development.

Resource persons Mr. Suhas Kumar and team, staff members of E&C Engineering department, and participating students were present on the occasion. Mr. Sachin Bhat compered the inaugural.

From this 2-day workshop, students gained knowledge about Arduino Microcontroller board, Arduino programming and Mobile App development using MIT app inventor.

### 9. Farewell to Mr. Vinay and Ms. Sukanya



### 10. Farewell to Ms. Vidya



Mr. Vinay Kumar, Ms. Sukanya Devadiga and Ms. Vidya left SMVITM after serving for more than 6 years. Dr. Asha C. S. too left SMVITM in search of better prospects, after serving for a short duration of one year.



### PLACED STARS OF E&C ENGINEERING

Sl.No.	Name of Student	Name of Company
1	ABHINAYA S	Access6 Technologies Tata Consultancy Services Ltd.
2	ADITHI RAJU POOJARI	Diya Systems Pvt Ltd.
3	ANEESHA R SANIL	Access6 Technologies
4	ARAVINDA UPADHYA K	Tayana Software Solutions
5	ASHLESH P K	Tata Consultancy Services Ltd.
6	ASHRITHA	Diya Systems Pvt Ltd. Qspiders Software Testing Center MindTree
7	ASHWINI	Usha Armour Pvt Ltd
8	B M SHIKHA	Access6 Technologies Infosys Ltd.
9	CHAITRA BHAT	iWave Systems Technologies Pvt Ltd. Infosys Ltd.
10	CHANDANA	Usha Armour Pvt Ltd
11	CHITRALEKHA	Usha Armour Pvt Ltd
12	DEEPA	Ethnus Consultancy Services P Ltd.
13	HARISHRAJ M N	Tantragyan Solutions
14	K GIRISH RAO	Tata Consultancy Services Ltd. Infosys Ltd.
15	KARTHIK KAMATH	Access6 Technologies Tekcel Automation, Bengaluru
16	KAVYA K SHETTY	ExtraMarks Education
17	KAVYA KARKERA	Diya Systems Pvt Ltd. Qspiders Software Testing Center
18	KEERTHI KAMATH	Qspiders Software Testing Center
19	KIRAN	Tessolve Semiconductor Pvt. Ltd. KARMIC Design Pvt. Ltd.
20	MATHARISHWA BHAT	Kreatio Software Pvt. Ltd.
21	MOHANRAJ J. SUVARNA	Qspiders Software Testing Center Tekcel Automation, Bengaluru
22	MYNAH MENDONCA	Infosys Ltd.
23	NAGENDRA UDUPA	Diya Systems Pvt Ltd.
24	NAJMA	Diya Systems Pvt Ltd.
25	NAYAK PRAFUL PRAKASH	Tantragyan Solutions
26	NEHA CHINNAYA SHERIGAR	IBM India Pvt Ltd
27	NIKHILA RANIK	Usha Armour Pvt Ltd
28	PAVAN AITHALA P N	Robosoft Technologies Pvt Ltd. Infosys Ltd.
29	PRITHVI	Tantragyan Solutions
30	POOJA R	Aradhya's Briliance Center



31	POOJA KR	Access6 Technologies Wipro Ltd.
32	PUNEETH S KUMAR	iWave Systems Technologies Pvt Ltd.
33	RAJESH	KARMIC Design Pvt. Ltd.
34	RAKESH K. KULAL	Tekcel Automation, Bengaluru
35	RANJITHA	Qspiders Software Testing Center
36	RASHMI K H	PathFront
37	SAHANA KINI K.	Qspiders Software Testing Center
38	SAHANA SHETTY	Aradhya's Briliance Center
39	SAMPATHS SHETTY	Ethnus Consultancy Services P Ltd.
40	SHETTY NIKITHA NARENDRA	Tessolve Semiconductor Pvt. Ltd.
41	SHREEDEVI B NATEKAR	IDBI Federal Life Insurance
42	SHWETHA NAYAK	Diya Systems Pvt Ltd.
43	SUMAN KANOJ	IDBI Federal Life Insurance
44	SUPREETH G RAO P	Access6 Technologies
45	SWATI SHRIPAD KULKARNI	Infosys Ltd.
46	V K RADHEYA	Aradhya's Briliance Center Qspiders Software Testing Center
47	VAISHAKH	Accord Global Tech Solutions Pvt. Ltd.
48	ATHMASHREE A. T.	Qspiders Software Testing Center

## FACULTY ACCOMPLISHMENTS

### Journal Publications

- Sachin Bhat & Seshikala G, "Preprocessing of historical manuscripts using phase congruency and gaussian mixture model", Far East Journal of Electronics and Communication, Vol. 19, Issue 1, pp 47-67, 2019
- Sachin Bhat & Seshikala G, "Restoration of Characters in Degraded Inscriptions using Phase Based Binarization and Geodesic Morphology", International Journal of Recent Technology, Elsevier, Vol. 7, Issue 6, pp 1070-1075, 2019
- Sachin Bhat & Seshikala G, "Text extraction and a deep CNN based model for character classification in Kannada documents", Journal of Innovative Technology and Exploring Engineering, ELsevier, Vol. 8, Issue 8, pp 2957-2963, 2019
- Sridevi Rao, Sushmitha N.G, Sushma Nayak, Sowmya Poojary & Nagaraja Rao, "Agri Robo", International Journal of Engineering Research in Electronics and Communication Engineering(IJERECE), Vol. 6, Issue 5, pp 37-40, May 2019
- K Padmavathi, C S Asha & V K Maya, "A novel medical image fusion by combining TV-L1 textures based on adaptive weighting scheme", International Journal of Engineering Science and Technology, April 2019
- Asha C S, Lal S, Gurupur V P & Saxena P P, "Multi-modal Medical Image Fusion With

Adaptive Weighted Combination of NSST Bands Using Chaotic Grey Wolf Optimization", IEEE Access, Vol. 7, pp 40782-40796, 2019

- Asha C S, Deepa Nayak & Chaithra Bhat, "Auto Removal of Bright Spot from Images Captured Against Flashing Light Source", IEEE Discover, 2019
- Shareen Noronha, Ranjith Bhat, Raghavendra Rao, Rajashree Nambair & Laxmi Shetty, "DC-DC Buck converter using sliding mode control", JETIR, Vol. 6, Issue 5, pp 15-20, 2019
- Sowmya Bhat, Sandesh Kumar, Avinash N J, Kusuma Prabhu & Renita Pinto, "Design and Analysis of 8-T and 5-T based XOR and XNOR gates using Soft Computing Tools", IJERT, Vol. 7, Issue 8, 2019

### Conference Presentations

- Sachin Bhat, "Character recognition of Tulu script using Convolutional Neural Network", Springer International Conference on Artificial Intelligence and Data Engineering, NMAMIT, Nitte, 23-24 May 2019
- Kusuma Prabhu, B M Shikha, Nikhila Rani, Janish Dayola & Kavya K shetty, "Implementation of smart Tyre Killer", Recent trends in electrical science and information, YIT Moodubidre, 29-30 April 2019
- Laxmi Shetty, "A silent verbal interface system for speech disabled person using ICT", National conference on emerging trends in science & engineering, SMVITM, 26-27 April 2019

- Shareen Noronha, Ranjith Bhat, Raghavendra Rao, Rajashree Nambiar & Laxmi Shetty, "DC-DC Buck Converter using Sliding Mode Control", International conference on applied science, engineering and technology, Sri Sairam College of Engineering, Anekal, 2-3 May 2019
- Sridevi Rao, Sushmitha N.G, Sushma Nayak, Sowmya Poojary & Nagaraja Rao, "Agri Robo", International conference on applied science, engineering and technology, Sri Sairam College of Engineering, Anekal, 2-3 May 2019
- Chetan, Shwetha, Sharanya, Sampath & Shiraksha, "32Bit RISC Microprocessor design with 5 stage pipeline", National conference on emerging trends in science & engineering, SMVITM, 26-27 April 2019
- Aneesha R Sanil, Adithi Raju Poojari, Ashritha, Pooja Moolya & Raghavendra Rao P, "Intelligent Traffic Management using wired sensor networks", National conference on emerging trends in science & engineering, SMVITM, 26-27 April 2019

### Workshops & FDPs Participated

- Renita Pinto, "Aspects of LTE 4G (VTU sponsored)", Sahyadri college, Mangaluru, 22-24 March 2019
- Shareen Noronha, Ranjith Bhat & Rajashree Nambiar, "Fundamentals of Network Simulations using NS-3", NMAMIT Nitte, 11-13 Feb 2019



**STUDENT ACCOMPLISHMENTS**

- Meghana and Shreeshadasa of 2nd year ECE, teaming with other students, won 2nd place in Bhajan competition held at NMAMIT Nitte, as part of Incridea-19, during 13-16 Feb 2019
- Vasundhara of 3rd year ECE, won 2nd place in Duet dance competition held at NMAMIT Nitte, as part of Incridea-19, during 13-16 Feb 2019
- Wasim Akram, Prajyoth Bhat, Supreeth Kumar, Pranav K R, Nidish Suvarna, Chethana, Akhila K V and Niveditha P Nayak of 2nd year ECE, won 2nd place in short movie competition held at NMAMIT Nitte, as part of Incridea-19, during 13-16 Feb 2019
- Prajna of 3rd year ECE and Preema Dsouza & Niveditha Hebbar of 2nd year ECE won 2nd place in the Fashion show competition held at NMAMIT Nitte, as part of Incridea-19, during 13-16 Feb 2019
- Adith Holla and Jeevan Achari of 2nd year ECE won 2nd prize in Circuitronics at AJ Institute of Engineering & Technology, on 9 & 10 March 2019.
- Swaroop Shetty and Matharishwa Bhat of 4th year ECE were part of the team which won the Runner's up trophy of the VTU Mangaluru Zone Inter-collegiate Handball Tournament (Men) which was held in the college on 02 April 2019.
- Wasim Akram, Prajyoth Bhat, Nidish Suvarna, Niveditha Hebbar, Niveditha Nayak of 2nd year, and Bhoomika J S of 1st year ECE, won 2nd place in short video film making competition held at MITE

Moodubidre, as part of Sentia-19, on 27 & 28 March 2019

- Vasundhara of 3rd year, teaming with another student, won second prize in the Eastern Duet Dance competition held at MITE Moodubidre, as part of Sentia-19, on 27 & 28 March 2019
- Adith Holla and Jeevan Achari of 2nd year ECE won First Prize in Restotricks event conducted as part of Sambhram 2019 at SDIT Mangaluru, on 25 & 26 April 2019
- Adithya K and Pranav K R of 2nd year ECE won Second Prize in Restotricks event conducted as part of Sambhram 2019 at SDIT Mangaluru, on 25 & 26 April 2019

**Soft Robotic Glove for Hand Rehabilitation**

The final year ECE students have developed a Robotic Hand Glove which can be used for hand rehabilitation. Robotic hand exoskeleton system is a wearable intelligent glove intended for augmenting or enhancing the abilities of human hands. It aims to recover and restore the hand movements of paralyzed patients who are unable to move their fingers.

Soft robotic glove consists of actuators placed on the dorsal side of the hand. They act like virtual fingers. The bending of actuators requires air to be supplied through air injectors. These air injectors are controlled by the rotation of Johnson motors. The rotation of the motor is controlled by a microcontroller. By manipulating the rotation of motor, any type of rehabilitation exercises can be performed by the actuators. This system has a facility of implementing different rehabilitation exercises through the use of smart phones. The working of glove is managed through a user interface that is connected to the microcontroller via Bluetooth module. This application has different buttons, and each of these buttons indicate specific rehabilitation exercise. Whenever a button is pressed it performs the desired exercise.

The project was undertaken by the students Mr. Ashlesh P K, Mr. Girish Rao K, Mr. Nikhil and Mr. Pavan Aithal, under the guidance of Assistant Professor Mr. Krishna Kumar.

### **Automatic Headlight Switching and Object Recognition**



Driving at night with existing conventional headlight system is particularly unsafe because it does not provide illumination

of the road in the right direction. To overcome this constraint the final year ECE students have developed a system which has automatic headlight switching and object recognition. This is expected to improve the visibility of road for driver during night time. Further, for autonomous vehicles, knowing the obstacles on the road is very important. To this effect this system recognizes obstacles such as vehicles, pedestrians, animals, etc. on the road and notifies the driver.

In the system developed by the students, a sensor is connected to the steering axis. It gives signal to the controller whenever the steering wheel is rotated, and accordingly the controller rotates the headlight reflectors in the same curve direction. This helps the driver while driving on curved roads and sharp turns. Further, the system is equipped with a dimmer system which automatically switches the headlight from high to low beam and vice versa whenever a vehicle is being approached from behind or from the opposite direction. When the vehicle is moving up or down the hill, the headlight illumination will not be focused in the required area of the road. So, depending on the inclination of the vehicle, this system automatically switches the headlight for better vision of the driver.

The system is also fitted with a webcam which captures the video of the road, and processes the data to identify the type of obstacle on the road. In case there is any obstacle on the road which hinders the movement of the vehicle, the system automatically notifies the driver.

This project effectively reduces the need for manual intervention by automatically switching the headlight to high or low beam depending on the road conditions and

approaching vehicles. It also helps the driver in recognizing the obstacles well in advance, thereby avoiding accidents, and improving the safety of driver. The project work was carried

out by Aravinda Upadhya, Nagendra Udupa, Shetty Nikitha and Supreeth G Rao under the guidance of Assistant Professor Mrs. Rajashree Nambiar



### VISION OF THE DEPARTMENT

To emerge as an excellent technical education center and be an integral part in the development of advancing technologies and global challenges, in the field of Electronics and Communication Engineering.

### MISSION OF THE DEPARTMENT

1. To facilitate an ambience conducive to the excellence in technical education.
2. To provide a platform that will ensure the exchange of ideas and dissemination of knowledge.
3. To establish a research oriented center by having rapport with industries.
4. To foster ethical and value based education with credibility by promoting activities that have societal impact.

### PROGRAM EDUCATIONAL OBJECTIVES

The graduate of Electronics and Communication Engineering should be able to:

1. Exhibit essential knowledge of applied sciences, mathematical modeling, logical interpretation and virtual realization to resolve real-time problems in the field of Electronics and Communication Engineering.
2. Work productively as an Electronics and Communication Engineer, including supportive and Leadership roles on multidisciplinary teams.
3. Inculcate effective communication skills to excel in professional growth.
4. Take part in lifelong learning in pace with the advancing technological society.



# Cryptex



Newsletter by the Department of  
Electronics & Communication Engineering



पज्ञा प्रतिष्ठा

**SHRI MADHWA VADIRAJA  
INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

(A Unit of Shri Sode Vadiraja Mutt Education Trust®, Udupi)

Approved by AICTE, New Delhi; Recognized by Govt. of Karnataka and Affiliated to VTU, Belagavi  
Vishwothama Nagar, Bantakal - 574115, Udupi District, Karnataka.

Newsletter of the Department of  
**Electronics & Communication Engineering, SMVITM, Bantakal**

Vol. 4, Issue 1, January 2019

### EDITORIAL

A thought that has been enduring in mind when it becomes real; is truly an interesting and exciting experience. This newsletter is one such cherished work that had its roots in the persuasion. It would be a snapshot of the various activities and advancements for all associated with the Department of ECE, SMVITM. Proper communication plays a vital role in institution's development. This newsletter will serve to reinforce and allow increased awareness, improved interaction and integration among all of us.

Usually we fail to appreciate the good deeds of many people and activities that happen around us. It could all change if we just pause to think of what is our contribution to the society from which we have been gifted with this blessed life. The progress of the department and thereby the institution mainly depends on many people who are working behind the scenes, overtime round the clock planning things to the smallest. This newsletter will be a medium to provide proper acknowledgement and respect to all these efforts and its results.

We are pleased to introduce Cryptex – the Departmental Newsletter, Volume 4, Issue 1, Jan 2019, before you. It covers the key developments in the department spanning across the last six months both within and beyond academics which kept the campus life abuzz with enthusiasm. The intent of Cryptex is to disseminate information about our department, and we hope that the readers find the issues informative and useful.

This newsletter will make you familiar with our impressive growth story with a glimpse of recent events on the road to provide quality education along with cutting edge research in the field of Electronics and Communication Engineering. This newsletter encapsulates the stories of cultural, academic and extra-curricular feats that the students, faculty and staff have earned with their efforts. The contents inside will give you a clear picture of how we started and how fast we are moving to the goal envisioned by our founders.

Our editorial team expresses its heartfelt thanks to Dr. Balachandra Achar H V, HOD, the faculty members and the students of the department for their support in fullest possible way in the growth of the department.

Editorially yours  
*Sachin S Bhat*

Cover Design: Mr. Anantesh Rao, Mech



## DEPARTMENTAL ACTIVITIES

### 1. Internship by CloudE



The department organized a 4-week internship cum training program for the benefit of final year students, by Cloud-E, Mysuru. Thirty-eight students participated in this program which started on 17 July 2018. Mr. Raghavendra Bhat and Mr. Mahesh Padyana were the resource persons from CloudE.

Inaugurating the program, Principal of the institute Prof. Dr. Thirumaleshwara Bhat said that value addition is important in technical education, which will increase the job prospects of the students. He said that a large percentage of students graduating from engineering colleges are not employable because of the lack of practical skills. Realizing this shortcoming, the university made it mandatory for all the students to undergo internship in industries or educational institutions. He also gave an insight into the various activities planned by the institution in the next academic year for the betterment of students and faculty members.

Mr. Raghavendra Bhat, partner of CloudE said that doing internship in industry has its own advantages and disadvantages. The disadvantage is that, the students do not get personal attention, and have to acquire the skills on their own. Whereas, when the same industry experts come to the college and conduct the internship program in the college, the students get more attention and can gain more knowledge and skills. He thanked the college for inviting him and his teammates to the college, and giving an opportunity to share their experiences.

Earlier, the HOD of ECE department Prof. Dr. Balachandra Achar gave a brief prelude to the program and welcomed the resource persons. Mr. Raghavendra Rao introduced the resource person, and Ms. Sowmya Bhat compered the inaugural session.

The valedictory function was held on 04 August 2018. The Principal of SMVITM presented mementos to the resource persons and thanked them for spending their valuable time in the college and training the students. Students Ravitej Rao and Nikitha Shetty gave their feedback about the internship.

## 2. Internship by CVC



The department organized a 4-week internship cum training program for the benefit of final year students, by Contemporary Verification Consultants (CVC) Pvt. Ltd., Bengaluru. Sixteen students participated in this program which started on 16 July 2018. Mr. Om Prakash L B, Mr. Rajesh H N and Mr. Alvin Varghese were the resource persons from CVC.

Inaugurating the program, Principal of the institute Prof. Dr. Thirumaleshwara Bhat said that mere text book knowledge is not sufficient for tackling industrial problems. Educational institutions can at the best provide good knowledge about engineering subjects to the students, but for gaining hands-on experience in solving real-world problems, they have to undergo internship under the able guidance of industry experts. He congratulated the ECE department HOD and faculty members for inviting eminent persons from reputed company like CVC, and providing the required hands-on training. He also congratulated the students for opting this internship and deciding to spend the vacation time fruitfully.

Mr. Rajesh H N, the design and verification engineer of CVC, thanked the college for inviting them to share their experiences. Earlier, the HOD of ECE department Prof. Dr. Balachandra Achar gave a brief prelude to the program and welcomed the resource persons. Mr. Sandesh Kumar introduced the resource persons, and Ms. Sowmya Bhat compered the inaugural session.

The valedictory function was held on 04 August 2018. The Principal presented mementos to the resource persons and thanked them for spending their valuable time in the college and training the students. Puneeth Kumar gave feedback about the internship.



### 3. Electronics-101 Workshop



The department in association with ISTE Student Chapter organized a 2-day workshop on the basics of electronics, for the interested students of ECE branch on 6 & 7 Oct 2018. Mr. Rayan Christ D'souza, Founder and CEO of The Freelancer Network, and alumnus of SMVITM was the resource person. He trained the students to build and test electronic circuits using discrete components. Inaugurating the session, Dr. Balachandra Achar, HOD of ECE, welcomed the resource person and congratulated the students for participating in the workshop.

Assistant Professors Mr. Vinay Kumar and Ms. Kusuma Prabhu coordinated the event.

### 4. Signing of MoU with CloudE



SMVITM signed a memorandum of understanding (MoU) with CloudE, a fast growing electronics & IT product & training solution provider, on 31 July 2018, in the institute premises. As per the MoU, both SMVITM and CloudE have agreed to work together to provide practical integrated training to students tailored for the industry needs, groom the students to become industry-ready, provide internships and assist the students in placements. CloudE has agreed to train the students of SMVITM in best industry practices and develop competency in one or more topics such as C-programming, Java, Python, IOT, Web design, PCB design, Embedded system design, Automation, VLSI, Robotics, etc.

Prof. Dr. Thirumaleshwara Bhat, Principal of SMVITM, signed the MoU on behalf of the college, whereas Mr. Mahesha Padyana, Founder and Managing Director of CloudE, signed on behalf of the industry. In his address, Mr. Padyana stressed the need for practical oriented education in engineering institutions, for better understanding of fundamental and advanced topics, and to make the students ready to tackle industry problems. Earlier Dr. Balachandra Achar, Head of E&C Engineering department, gave a prelude to MoU, and welcomed the gathering. The Heads of various departments were present on the occasion.

## 5. Industrial Visit to UPCL



The department organized an industrial visit to Udupi Power Corporation Limited (UPCL), Padubidri, on 29 & 30 August 2018. Ninety three students from the final year ECE branch participated in the visit and enhanced their knowledge through interaction with the engineers.

During the plant visit, Mr. Lalith Prasad Sharma, HR Admin of UPCL, explained the safety rules and procedures abided inside the premises, described the

process of power generation, and showed the respective plant units. Students got an opportunity to view the boiler section, turbine power generation system and digital commanding system.

Faculty members of the department Mr. Sandesh Kumar, Mr. Ganesh Shetty and Mr. Avinash N J accompanied the students and coordinated the visits.

## 6. Guest Lecture by Mr. Kumar Bhagavath



The Department in association with ISTE Student Chapter, organized a guest lecture on the topic “Fundamentals of PCB design” on 23 Oct 2018, for 5th semester ECE students and interested faculty members. Mr. Kumar Bhagavath, Founder & CEO of V-Cube Tech Solutions Bengaluru was the guest speaker.

Mr. Bhagavath, who had earlier worked in iWave Systems for 18 years, shared his vast knowledge about the topic with the students. He started with the basic components that are used in PCBs, and explained the importance of each component. He then described the different types of ICs, PCBs, layers, connectors, traces, etc. and explained the importance of each. Later he asked some viva questions to students that are usually asked in placement interviews and got answers from the students. Overall, the students got to know many things beyond syllabus about PCB from the resource person.

Akshatha Bhat of 5th semester welcomed the speaker and introduced him to the gathering. HOD Dr. Balachandra Achar thanked the speaker and handed over a memento as a token of respect. ISTE coordinators Mr. Vinay Kumar and Ms. Kusuma Prabhu coordinated the event.

## 7. Mini Project Exhibition



The department organized mini-project exhibition in the department block on 27 Nov 2018. 21 teams of students from 5th semester participated in the event and exhibited their mini projects carried out during the current semester. Assistant Professors Mr. Sachin Bhat and Mr. Avinash NJ evaluated the project works. Ms. Rajashree Nambiar and Ms. Vrunda Adkar coordinated the event.

### 8. Arduino Workshop for Faculty Members



The department conducted 2-day Robotics Workshop using Arduino Uno, for the faculty members on 3 & 4 Nov 2018. Assistant Professor Mr. Raghavendra Rao was the resource person. The workshop started with a briefing about the hardware description of Arduino UNO board, followed by coding simple programs. The hands-on session included LED blinking, LED fading, Traffic Light Controller and IR sensor program. Interested faculty members of ECE department participated in the workshop and enhanced their skills.

### 9. Talk by Dr. Asha C S



On 11 Aug 2018, the newly joined faculty Dr. Asha C S presented her research topic to the faculty members of the department. She explained about her research work and motivated other faculty members to take up research. She also gave many useful tips and information to the faculty members who have already registered for PhD.

### 10. Parent-Teacher Meeting



A meeting of parents of ECE students and faculty members was held on 30 Oct 2018 in the department premises, in the presence of the students. This meeting was part of the college-level PTA meeting held on the same day. The parents of slow-learning students expressed their concerns about their children with the faculty members and obtained feedback from them. Parents and teachers gave suitable advice to students to excel in academics.

### 11. Beat the Time



The department, in association with ISTE Student Chapter, organized a technical competition “beat the time” for the interested ECE students on 14 November 2018 in ECE block. Total 13 teams took part in the competition that had 3 rounds. The competition was organized to showcase the technical, logical and presentation skills of the participants.

Round 1 was technical presentation where students were asked to present their technical papers. 12 teams were selected for the next round based on their scores in the first round. Round 2 was rapid fire, in which the contenders were asked to answer the questions based on technical, logical and general knowledge within a span of 1 min. Round 3 was memory test, in which one member per team was shown around 30 components in the lab in 1 min, later he had to deliver the same to his team members.

Rahul Adiga and Sumanth S of 5th semester bagged first prize, whereas Adith Holla and Jeevan JA of 3rd semester won the second prize.

The entire event was organized and conducted by ISTE student coordinators VK Radheya and BM Shikha, Akshatha Bhat, Vaishnavi Pai, Pranav KR and Shrirama Acharya under the guidance and support of ISTE faculty coordinators Ms. Kusuma Prabhu and Mr. Vinay Kumar, and HOD Dr. Balachandra Achar. Assistant Professors Mr. Ganesh Shetty and Mr. Avinash NJ helped in judging the first round.

### 12. Technocrats Club Event



Technocrats Students Club in association with ECE Department and T&P Department conducted a competition “Loud Speakers - where the impact is louder than the voice” on 29 October 2018 from 12.00 to 1.00 pm. This competition provided a platform for the participating students to exhibit their oratory skills.

Competition had three rounds, round one was “Desire” wherein student had to personify a given nonliving thing, round two was “Brain Waves”- student had to construct the words through given letter collections & final round was “Flawless” where participants were given an oxymoron, these word had to be used frequently for sentence creation.

Students of third & final year ECE participated in this event. The competition was organized & conducted by technocrats club members Ms. Rushali Naik, Mr. Rahul Adiga from 5th Sem ECE, Ms. Pooja KR & Mr. Ravitej Rao Belle from final year ECE under the guidance of Ms. Laxmi Shetty Assistant Professor in ECE Department. Judges for the event were Mr. Raghvendra Rao & Ms. Sowmya Bhat Assistant Professor in ECE Department.

Winners of the Competition were, first prize was bagged by Ms. Shubha Kotian of 5th Sem ECE & runner up of the competition was Ms. Pooja Nair of 5th Sem ECE. HOD dept. of ECE Dr. Balachandra Achar, Placement officer Ms. Vidya Bhat and faculty members of ECE were also present to encourage the student participants.

### 13. Tessolve Mock Interview



The Placement Coordinators, Mr. Raghavendra Rao, Ms. Laxmi Shetty and Ms. Sowmya Bhat conducted a mock interview for eligible and

interested final year ECE students for Tessolve Semiconductor placement drive from 12 noon to 1:45 pm on 1st October 2018.11 students were present for the session.

Ms. Sowmya Bhat briefed about the interview process taking place in actual Tessolve Placement drive and the important concepts like digital electronics, basic electronics, network analysis, linear IC's ,which the students need to concentrate, in order to crack the technical aptitude and technical interview. Mr. Raghavendra Rao conducted mock technical aptitude test for the students and finally highlighted on the most frequently asked questions in the interview process and how to solve those problems in a best possible way, especially complex problems in network analysis.

Ms. Laxmi Shetty and Ms. Sowmya Bhat conducted mock technical and HR interview for the eligible students on 6th October 2018 and explained the dos and don'ts in answering interview questions.

### 14. Cadence & iWave Placement Preparation





The department placement coordinators, Ms. Sowmya Bhat and Ms. Laxmi Shetty conducted a session on “How to prepare for Cadence and iWave placement drives” for eligible final year ECE students from on 19 Sep 2018. 25 students were present for the session.

Ms. Sowmya Bhat conveyed the importance of active participation by the students in pre-placement talk to create the first best impression, suggested students to go through company's profile and know its mission, vision, products, services, latest technologies and rewards followed by the discussion of frequently asked technical questions on basics of MOSFETs, pass transistors, transmission gates, schematics and layouts, different CMOS logic structures, its optimization, memory cells, ADC, DAC, PLL, Mentor Graphics tool used in back end VLSI design, etc., and how to crack technical interview questions on the above topics.

Ms. Laxmi Shetty verified the Resumes of eligible students and suggested the dos and don'ts in Resume writing and interview process.

### 15. Mock GD and Interview

The Placement Coordinators of the department conducted mock group discussion session for interested final year students of ECE and CSE branches. A briefing about the GD round format conducted during various campus placement, etiquettes to be followed during GD and the tips to represent effectively were conveyed to participants by Ms. Laxmi Shetty.

This session was followed by conduction of parallel mock GD, wherein all the members actively participated and contributed their thoughts on various topics. The Group discussion was moderated by Mr. Raghavendra Rao, Mr. Ranjith Bhat, Ms. Sowmya Bhat & Ms. Laxmi Shetty. At the end the

moderators shared their observations with individual student.



### 16. Talk by alumnus Ms. Shiraksha Acharya



The department in association Training & Placement Cell, arranged a Talk by old student of 2014-18 batch, Ms. Shiraksha Acharya, on 3-Sep 2018. The students of final year ECE attended the Talk, which was held in the Admin Block Seminar Hall.

Ms. Shiraksha, who is currently working in Citrix Systems Pvt. Ltd, started her session with an activity wherein participants experienced the importance of 'out of the box thinking'. Later Ms. Shiraksha shared her experience about the college placement activities, and about the preparations that are needed to crack the interview, expectations by the industry, importance of being active participant in all college activities. She motivated the students to grab all the opportunities they will get and try best to succeed, and insisted not to lose hope and keep trying.

ECE Placement team coordinated the event. In-charge HOD for Mr. Nagaraj Rao presented memento to the guest speaker and Ms. Laxmi Shetty compered the program.

### 17. Talk by alumnus Ms. Phebe Samuel



Ms. Phebe Ann Samuel, alumna of the Department of Electronics and Communication Engineering, SMVITM, addressed the 2nd year ECE students on 27 August 2018. She is currently pursuing M.Tech in Power Electronics and Drives at MIT, Manipal.

Ms. Phebe shared her experience in the department of ECE during her engineering at SMVITM. She spoke about the importance of ECE branch and the subjects in it. She explained how to prepare for internal and external exams. She guided the students to approach faculties whenever they have doubts. Also she said how the faculties guided and helped her in clearing her doubts.

Ms. Phebe requested students to prepare for GATE and Aptitude right from third semester. She suggested the audience to take part in different club activities and explained how it will help in overcoming their stage fear. She also discussed about the various opportunities available for ECE students after graduation.

It was an interactive session and the students were greatly benefited by this session. All the second year ECE students of attended the program. Nivedita Hebbar of 2nd year ECE hosted the program. Dr. Balachandra Achar, HOD, presented memento to Ms. Phebe. Alumni coordinators Ms. Shareen Noronha and Ms. Rajashree Nambiar coordinated the program.

### 18. Activity under Atal Tinkering Lab



Assistant Professor Mr. Avinash N J, Lab instructor Mr. Sandeep K R and students Rushali Naik and Suraksha actively participated in Atal Tinkering Lab sessions at Govt. PU Colleges Hiriadka and Brahmavara.

Atal Tinkering is a flagship initiative set up by the NITI Aayog India to promote innovation and entrepreneurship across the length and breadth of the country. As per this initiative, the team of little mentors comprising of Rushali, Suraksha and two other students from CSE department took classroom sessions and hands-on lab sessions to PU students.

### 19. Farewell to Mr. Rajesh Nayak



The department bid farewell to Mr. Rajesh Nayak on 14 Dec 2018. Mr. Rajesh who was a part of SMVITM family right from its inception, served the institution with dedication for 8.5 years. He resigned for better prospects, and will be relocating to Bengaluru shortly.

Speaking on the occasion, Principal Dr. Thirumaleshwara Bhat said that Mr. Rajesh served the institution to the best of his capacity, and

executed all his responsibilities with a calm mind. He wished him best of luck in his future endeavors, and requested him to remain in touch with SMVITM family through e-means. Faculty members shared their sweet memories working with Mr. Rajesh.

Principal handed over a gift and college memento to Mr. Rajesh as a token of remembrance. In his speech, Mr. Rajesh thanked all the previous and present Principals and ECE HODs for their constant support and encouragement in discharging his duties. He wished all the best to the institution.

## 20. Ayudha Pooja

The annual Ayudha Pooja and Saraswathi Pooja in the department were held on 17 Oct 2018 in the

department laboratory. Purohit Shri Hayavadana Bhat performed the pooja in the presence of HOD, faculty, staff and students, and blessed all.



## PLACEMENTS

During the current odd semester, 17 ECE students got placed in 10 different companies; two of them got placed in two companies each. The department congratulates all the successfully placed students, and wishes them all the best in their future.

<i>Sl.No.</i>	<i>Name of the student</i>	<i>Name of the companies in which placed</i>
1	PAVAN AITHALA P N	Robosoft Technologies Pvt Ltd.
2	CHAITRA BHAT	iWave Systems Technologies Pvt Ltd.
3	PUNEETH S KUMAR	iWave Systems Technologies Pvt Ltd.
4	ARAVINDA UPADHYA K	Tayana Software Solutions
5	ASHLESH P K	Tata Consultancy Services Ltd.
6	K GIRISH RAO	Tata Consultancy Services Ltd.
7	SHETTY NIKITHA NARENDRA	Tessolve Semiconductor Pvt. Ltd.
8	KIRAN	Tessolve Semiconductor Pvt. Ltd.
9	KIRAN	KARMIC Design Pvt. Ltd.
10	RAJESH	KARMIC Design Pvt. Ltd.
11	RASHMI K H	PathFront
12	VAISHAKH	Accord Global Tech Solutions Pvt. Ltd.
13	ABHINAYA S	Access6 Technologies
14	ANEESHA R SANIL	Access6 Technologies
15	B M SHIKHA	Access6 Technologies
16	KARTHIK KAMATH	Access6 Technologies
17	POOJA K R	Access6 Technologies
18	SUPREETH G RAO P	Access6 Technologies
19	POOJA K R	Wipro Ltd.

## FACULTY ACCOMPLISHMENTS

### 1. Elite+Gold Certification from NPTEL



Faculty members Mr. Krishna Kumar, Mr. Ganesh Shetty and Ms. Vrunda Adkar bagged Elite Gold certification from NPTEL in the respective course studied by them.

### 2. Conference presentation

Mr. Sachin Bhat presented his work “Phase coherence based binarization of inscription manuscripts and its performance evaluation methods”, in IEEE International Conference on Circuits and Systems, held at Kottayam, during 20-22 Dec 2018.

### 3. Guest Lecture by Mr. Avinash N J



Assistant Professor Mr. Avinash N J delivered a guest lecture on ARM Cortex M3 Processor, at SNM Polytechnic, Moodubidre, on 29 Oct 2018.

Mr. Avinash explained about Thumb-2 technology, Applications of ARM, Architecture of ARM Cortex M3, Debugging support, General Purpose Registers, Special Registers, Exceptions, Interrupts, Stack operation, Reset sequence and other details. Students of final year ECE diploma and faculty members of SNMP attended the session and enhanced their knowledge.

## STUDENT ACCOMPLISHMENTS

1. Darshan Raj of 7th semester won first prize and gold medal in the “Best Physique” (70 kg category) event as part of “19th VTU single zone inter collegiate Weight Lifting and Best Physique competition 2018-19” held at Global Academy of Technology Bengaluru, on 30 & 31 Oct 2018.
2. Rachana D Shetty of 5th semester and Adith Holla of 3rd semester ECE bagged the Hayavadana Prashasti for their best performances during the previous academic year of 2017-18.



3. Pranav K R and Adith Holla of 3rd semester won second place in Technical Quiz competition as part of 15th ISTE State Level Student Convention-2018, held at MITE Moodubidre on 6 Oct 2018.



4. Ravitej Rao Belle of 7th semester and Shreesha Dasa of 3rd semester won second place in Folk Orchestra event, as part of VTU youth fest held at BKIT Bhalki from 2 to 4 Nov 2018.



### WORKSHOPS PARTICIPATED BY FACULTY MEMBERS

1. Mr. Sachin Bhat participated in the workshop “Machine Learning for presictive modeling and data analytics using Python”, at Reva University, Bengaluru, from 23 to 27 July 2018.
2. Mr. Raghavendra Rao participated in the workshop “Design, Analyses and Hardware Implementation of Switched mode Power Converters”, at NMAMIT Nitte, from 23 to 28 July 2018.
3. Mr. Sachin Bhat participated in the workshop “Advanced topics in Machine Learning and Applications in Engineering & Technology”, at NMAMIT Nitte, from 26 to 28 Oct 2018.

### GROUP PHOTOS



*Talk to yourself at least once in a Day. Otherwise you may miss a meeting with an EXCELLENT person in this World...*

### VISION OF THE DEPARTMENT

To emerge as an excellent technical education center and be an integral part in the development of advancing technologies and global challenges, in the field of Electronics and Communication Engineering.

### MISSION OF THE DEPARTMENT

1. To facilitate an ambience conducive to the excellence in technical education.
2. To provide a platform that will ensure the exchange of ideas and dissemination of knowledge.
3. To establish a research oriented center by having rapport with industries.
4. To foster ethical and value based education with credibility by promoting activities that have societal impact.

### PROGRAM EDUCATIONAL OBJECTIVES

The graduate of Electronics and Communication Engineering should be able to:

1. Exhibit essential knowledge of applied sciences, mathematical modeling, logical interpretation and virtual realization to resolve real-time problems in the field of Electronics and Communication Engineering.
2. Work productively as an Electronics and Communication Engineer, including supportive and leadership roles on multidisciplinary teams.
3. Inculcate effective communication skills to excel in professional growth.
4. Take part in lifelong learning in pace with the advancing technological society.

