



Dayananda Sagar University

School of Engineering

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ELECTRO CLIPS

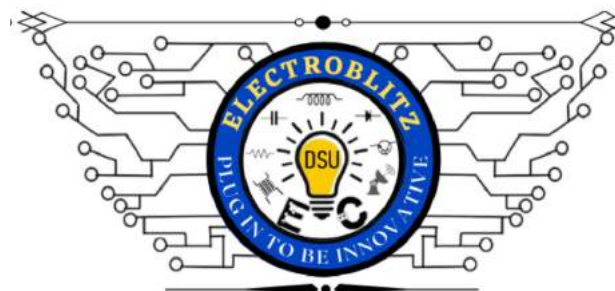
THE BIENNIAL NEWSLETTER OF ELECTRONICS



Presented By

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

BY



Dr. A Srinivas

Dean

School of Engineering, Dayananda Sagar
University, Bangalore



It is very heartening to learn that the ECE department of DSU is coming up with the biannual newsletter. It is extremely important for any growing system to document the achievements and events undertaken on a regular basis. This will facilitate introspection and to evolve strategies for continuous improvement in the quality of activities carried out. This newsletter publication will bring visibility to the activities being done and it also fosters collaboration between institutions. I compliment the ECE department and specially, the committee in-charge of this newsletter for bringing out the edition in such a short time. Looking at the enthusiasm of the committee members, I am very sure the newsletter will see continuous improvement in terms of the quality of the events and the presentation. I wish ECE department the very best in their journey towards excellence.

Dr. Vaibhav Meshram

Chairman

Department of Electronics and Communication
Engineering

School of Engineering, Dayananda Sagar
University, Bangalore



It is with great pleasure that I welcome you to our Department Newsletter.

As Chairman I am hugely impressed by the commitment of the staff in providing an excellent all-round education for our students with our state of the art facilities. We as a team working together, strongly promote the zeal towards academic achievement among our students. The cultural, sports and other successes of all our students and staff are also proudly celebrated together. As long as our ideas are expressed and thoughts kindled, we can be sure of learning, as everything begins with an idea.

This newsletter believed to be a focus of internal activities of the department. It highlights the academics, student and faculty achievements. It also summarizes the Technical and Non-technical activities conducted as well as participated by the department. This motivates students and faculty to share their views, ideas towards overall development of the department. Wide spectrum of articles gives us the sense of pride that our students and faculties possess creative potential and unique thinking in ample measures.

I applaud the contributors for the stimulated thoughts and varied hues in the articles contributed by them. I extend my thanks to editorial board and all contributors for the success of this newsletter.

About the Department

Dayananada Sagar University, School of Engineering started with the Electronics and Communication Engineering (ECE) Department in the year 2015. As a unit of excellence, the Department is well committed to impart the knowledge with highly qualified and well specialized faculty in the vistas of Electronics and Communication. The department has well established infrastructure and innovative labs put in place to facilitate the hands on experience to students, for its academic and research programs. It runs four programmes namely UG, PG with specialization of Embedded systems, B.Voc in Mechatronics and Doctoral degree. The department has collaborated with NTTF to offer the Vocational degree. This program enables the graduating students to take up a professional career which demands very high level industry relevant skills. An exclusive BOSCH REXROTH lab is integrated in to the curriculum and students have the opportunity to carry out automation projects. The industry sponsored Analog Devices Lab also provides students with opportunities to carry out research in the Communication Domain. The department faculty have patents and sponsored research projects funded by various Government funding agencies.

VISION

" To create innovative Engineers and Entrepreneurs with technological excellence, professional commitment and social responsibility for serving national and global needs ".

MISSION

- Inculcate Academic Excellence through innovative teaching and learning processes and espousing appropriate pedagogical parameters.
- Reinforce the Students with desired technical aptitude, entrepreneurial and leadership skill sets enabling them to face the challenges of globalization and technological sophistication.
- Initiation with understanding the psychology of students, sociocultural aspects of the bidirectional learners, vitality of interdisciplinary approach, value addition through interactive and collaborative learning. This is followed by systematic and sequential implementation of syllabus upgradations on par with industrial revolution.

Program Educational Objectives (PEOs)

- Our Graduates will have in depth knowledge of Electronics and Communication Engineering with promising professional careers in private and public sector or higher education.
- Our Graduates will be successful in solving Engineering Problems with innovative ideas and acquire managerial skills for desired outcomes.
- Our Graduates will have the motivation for perennial learning and progress their careers by inculcating interpersonal, leadership and social skills.
- Our Graduates will be active members for catering to the society locally and globally with Ethics and Integrity.

Department Events



Electroblitz

Electroblitz is a student techno-cultural club formed under the Department of Electronics and Communication Engineering, inaugurated on 18th January 2021 under the guidance, support, and encouragement of Dr. Vaibhav Meshram, Chairman, Department of ECE. The logo and name of the club were launched by the dignitaries and the executive council members on the day of inauguration. The various activities planned under the club include technical events like Quiz, Circuit debugging, idea presentation, project building, etc, and cultural events like fine art exhibitions, cookery, etc.

5G Techniques & Challenges

A Guest lecture organised for faculty on “5G techniques and challenges” by Dr. Sivaramakrishnan on 13th Feb 2021. The speaker of the event is Dr. V.Lingaswamy, Technical Lead at HCL Technologies Limited, Bangalore.

The topic covered in the guest lecture were various deployment scenarios, use cases, challenges and opportunities, simulation and testing, design and testing tools. Emphasis was also on implementing the 5G technologies in developing countries like India.

Dayananda Sagar University Bengaluru

5G Techniques and Challenges

Dr. V. Lingasamy, M.E., Ph.D.
Technical Lead,
HCL Technologies/
RF Engineer, Keysight
Technologies,
Bangalore

<https://www.linkedin.com/in/dr-lingasamy-veluchamy-m-e-ph-d-8985b014/>
<https://www.youtube.com/channel/UC1zrMxx8uBd0umAPJ4FQ/videos>

The session was around 90 minutes duration and was organised online through Google Meet and YouTube live.

*"Success can come to you by courageous devotion to the task lying in front of you."
- Sir C V Raman*

Farewell 2016-2020

Farewell for the ECE academic batch 2016-2020 was organised by the current 8th-semester students on 13th March 2021 under the guidance and support of Dr. Vaibhav Meshram and Prof. Kanmani B S. The event was a huge success because of the contribution and involvement of coordinators & all the students of ECE batch 2017-2021. A plethora of performances and games were organised to make this day a memorable event in the minds of our seniors who missed the opportunity to enjoy their convocation offline.

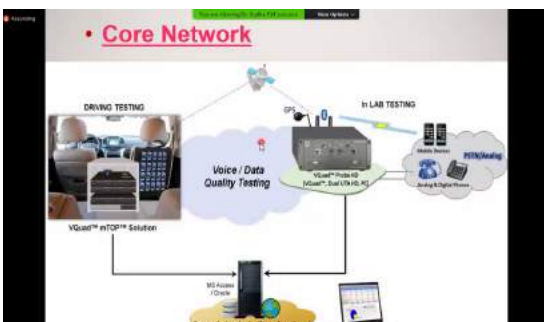


Recent Trends in Wireless and Mobile Communication

A Guest lecture organized on “Recent Trends in Wireless and Mobile Communication” by Mrs. Navya R and Mrs. Divyashree H B on 27th March 2021.

The speaker of the event was Dr. P.N. Sudha, Professor, and Head, KSIT, Bangalore who’s area of interest: wireless communication and underwater communication. She has published many papers, book chapters and filed the patent. The speaker gave insight into cellular structure and mobile networks and the evolution of 5G technology from 2G architecture.

A vertical event poster with a dark blue background. At the top left is the Dayananda Sagar University logo. To its right, the text reads: 'DAYANANDA SAGAR UNIVERSITY DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING ORGANIZING GUEST LECTURE ON RECENT TRENDS IN WIRELESS AND MOBILE COMMUNICATION'. Below this, it says: 'SPEAKER: DR. P. N. SUDHA, Professor & Head ECE dept , KSIT, Bangalore March 27th, 2021 .10:00-11:30 AM'. At the bottom, it lists 'CONVENERS Dr. A.SRINIVAS, DEAN, SOE Dr. VAIBHAV A M, CHAIRMAN-ECE' and 'FOR QUERIES CONTACT navya-ece@dsu.edu.in 9663000423'. The organizing committee is also mentioned.



National Conference on Recent Trends in Engineering

A 2 - day National Conference was organized by the Department of Electronics & Communication Engineering, SoE, DSU on May 3 - 4 2021. NCRTE 2021 was a forum for engineering students, research scholars & delegates to present their research work as well as exchange knowledge on “recent trends and developments in engineering”. The Conference included Invited Lectures from eminent academicians, Industry experts in addition to the



technical paper presentation sessions by the participants. All the accepted papers will be published in a NCRTE-2021 conference proceeding with ISBN number and in a UGC approved journal.

The organizing chairs of this conference were Dr. Saara K, Dr. Rajashree Narendra and Mrs. Anna Merine George.

There were 72 papers received for technical paper presentations and a total of 50 high-quality plagiarism-checked research papers were selected to be presented virtually in six parallel tracks. Apart from the paper presentation tracks, five keynote talks were arranged from experts in academics and industry on various emerging technologies.

Recent Trends in Electrical Engineering: Significance & Scope

The guest lecture organised by Mrs Anna Merine George, on “Recent Trends in Electrical Engineering: Significance & Scope” for first year students on 30th Jan 2021. The speaker of the event is Prof. R C Mala, Department of EEE, Manipal Institute of Technology who’s specialization area are Power systems, control systems, FACTS devices, HVDC, power quality.

Kalakrauthi

An online event organised by Mrs. Nandini Rao, to showcase the student’s talent and motivate them during this pandemic situation. The event included Art exhibition, various musical instrumental talents, Rubik's cube solving with a single hand, and so on. The event organized on the zoom platform enhanced enthusiasm among the students.



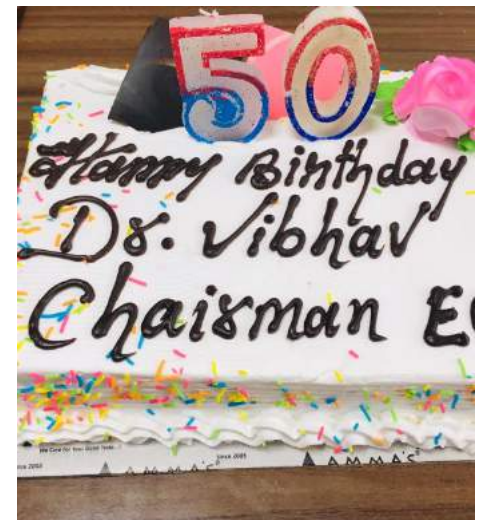
Project Extravaganza 2021

The final year project exhibition “ONLINE PROJECT EXTRAVAGANZA” was conducted on 5th May 2021 in the department of Electronics and Communication Engineering, SoE, Dayananda Sagar University. The entire event was planned and coordinated by the project coordinators, Dr. Saara K, Associate Professor and Dr. Gayathri K M Assistant professor, Dept. of ECE. Chief guests Dr. T.C Manjunath and Mr. Santhosh K. Adinarayan addressed the students and emphasized exploring opportunities and providing solutions to real-time problems in the field of medical, agricultural, IOT etc.



There were about 38 projects from final year students to demonstrate and exhibit, hence it was divided into 4 parallel tracks. The students were asked to make poster presentations. The final hardware and simulation were demonstrated and showcased in front of external and internal panel members. The experts were requested to evaluate the projects and declare the best project in their respective tracks.

Department Get-Together



Faculty Achievements



The Atria Institute of Technology invited our Professor's Dr. Vaibhav A Meshram Professor and Chairman, Dr. Gayathri K M, Assistant Professor, Mrs. Mukti Chaturvedi, Assistant Professor, ECE department as resource speakers for an online webinar. "Synergising Electronics and Computing" on 10th February 2021. Targeted participants are 3rd-semester students, that afford meaningful beyond-the-classroom learning opportunities to refine their subject knowledge and hands-on practical skills in the subject. The topics covered are "Mission of Electronics and Computer Engineering, Need to Synergise, Targeted Applications, Industry 4.0, Analog Electronics Why to study analog in the digital world?, Digital Electronics, Simulation Hands-on Session with TINA Software."



Dr. Saara K is selected as Nodal Coordinator for SoE, Virtual Labs, Nodal centre on 18th Jan 2021.

Mrs. Anna Merine George, attended an "5 days online Faculty Development program on Control Systems and Sensor Technology" between 19th Jan 2021 to 23rd Jan 2021.



Mrs. Manasa K R conducted a "Hands-on workshop on HFSS-Design your Antenna" under IEEE Gurukul Series 2.0 on 12th June 2021. The workshop gave an insight on introduction to HFSS, Features to HFSS, and Simulation of HFSS.



Mrs. Manasa K R has successfully completed an online STTP on Antenna modeling and analysis using the HFSS tool between 16th March 2021 and 23rd May 2021.



Dr. Arungalai Vendan S, delivered a Tech Talk on research conclave organised by New Horizon College of Engineering.

A book on "Advanced Welding Techniques - Holistic View with Design Perspectives" is published by Mrs. Mukti Chaturvedi and Dr. Arungalai Vendan S in Springer publication, Singapore with ISBN 978-981-33-6620-6.



Dr. Vaibhav A Meshram is granted with an Australian Patent for the title "Wild life intrusion detection system empowered with Artificial intelligence" on 6th Jan 2021.

Dr. PushpaMala.S has been presented the "Best Researcher Award-2020" by IEEE Bangalore section for her efforts and contribution towards research work.



Student Achievements

Anveshna 2020

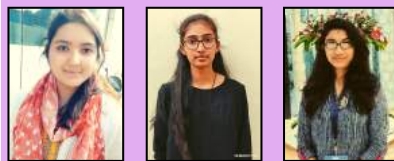


Ms. SUHA SHAIKH & Mr. MAZHAR S B Students from the department were selected as a finalist in the Anveshana State level Project exhibition organized by Agastya international foundation for the project "AGRICULTURAL DRONE " under the guidance of Mr.SHARANBASAVRAJ.



Ms.Lara J 6th sem student submitted a research proposal surge-2021 an internship program on Medical Imaging at IIT Kanpur under the guidance of Dr. PushpaMala S.

4th AICTE-Chhatra Vishwakarma Awards 2020



The final year student, Ms. Sneha, Ms.Snehashree M and Ms. Suhiepha sameer have applied and got short listed for 4th AICTE-Chhatra Vishwakarma Awards 2020.

Invited Talk



Final year student Mr. Prajwal Raju P, conducted a session on "Password cracking" under IEEE Gurukul Series 2.0 on 10th April 2021. Session gave an insight on how not to choose your password, to choose your life and security.

Students filed a Patent



The final year students Mr.Ashish T Ireddy, Mr.Alen Stein Reji, Ms.Arpitha B S and Ms.Gana Priya V have filed a patent on "A Study and Apparatus of Non-Invasive Health Monitoring unit for common disease diagnosis" under the guidance of Dr. Gayathri K M.

Online Project Extravaganza

'Four final year student projects were awarded as best projects in the event.'

1) Assisting health workers to avoid COVID-19 infection using IOT

- Rakesh kumar K
- Robin Banerjee
- Rakshak P R
- Sagar S

2) Unmanned aerial vehicle ground control software

- Harshith K

3) Medical Multi Parameter Monitor

- Ashish TS Ireddy
- Alen Stein Reji
- Gana Priya V
- Arpitha BS

4) Image Analysis Based Particle Pollution Estimation

- Sneha
- Suhiepha Sameer
- Snehashree M

- Ms. Ankitha P Reddy and Mr. Dev Biren Shah , 6th semester students participated as student coordinator for Successful Conduction of Hands-on Sessions of Internet of Things in Prerana 2021, an Emerging Technological workshop organized by Dayananda Sagar University, School of Engineering from 04-01-2021 to 09-01-2021.



- Mr. Akash Suresh, 6th sem student in collaboration with CareerLabs Technologies Pvt Ltd has organised a Satellite Seminar on Profile Building and Higher Education for the students of Dayananda Sagar University.
- Ms. C R Raksha, 6th sem student, and her dance team gave a group performance called “Neela Madhava, A Bharatnatyam Dance Drama” on behalf of Rasa Sange 20-21, presented by Venkatesha Natya Mandir(r) on 6th, March 2021 at A.D.A Rangamandira, J.C road, Bengaluru.
- Mr. Aditya Sheshadri student from 4th semester, participated in Western and Indian group performance in JNC college fest, Band Performance in DSU fest and HACKMAN Hackathon in DSCE.
- Ms. Swathi M from 2nd year , participated in VIRTUAL OPRN MIC 2021 it was streamed on youtube & organized by Melomanie Music Club , DSU.
- Ms. Hamsa S, Ms. Harshitha M K & Ms. Keertana Bhat , students from 2nd year participated in NASA International space apps challenge HACKATHON.



Alumni Achievements

- Mr. Abhinav Gullahalli Amarnath from Dayananda Sagar University is Confirmed for admission to the graduate school North Carolina State University for the degree program of Master of Science in the department of computer engineering in Fall 2021. NC State University is ranked among the top universities in the U.S. It is also known for the excellence of its graduate programs and the diversity of its student population.
- Mr. Abhishek S, an alumni from 2016-2020 batch conducted an “Hands on Workshop on Robotics” under IEEE Gurukul Series 2.0.



"Build a Strong Base. The journey to peaks of excellence requires a strong base camp."

- Dr. C N R Rao

IEEE Student Branch

Dayananda Sagar University IEEE Student Branch was formed during the year 2018, officially inaugurated on 25th August 2018. The IEEE DSU-SB currently has 5 professional members and 58 student members. The SB also has SIGHT Branch, Women in Engineering Affinity Group, and TEMS Student Chapter. The primary purpose of the IEEE student branch is to Inspire, Enable, Empower and Energize student members to enhance their technical interests by providing them a platform to showcase their skills.

IEEE DSU OFFICE BEARERS

EXE-COM:

Chair - *Dhruthi Sagar D*

Vice-Chair - *Prajwal S*

Secretary- *Vaishakh Anil*

Vice-Secretary - *Shreya*

Treasurer - *Kushal J*

WIE:

Chair: *Pranita D*

Vice-Chair: *Harshitha D*

MDC:

Chair: *Rishabh*



Dr. Pushpa Mala S currently is the Co-Chair, Academia, Membership Development Committee and Student Activities Committee, IEEE Bangalore Section.

- IEEE DSU student branch, under IEEE Bangalore Section, in association with PiLearn has conducted a two-week-long Python workshop starting from 21st June 2021. Each day session was 1.5hrs long, that is from 7 PM to 8:30 PM. Each session was an instructor-led live program. The workshop also comprised of 2 real-time projects and a certificate upon completion.



IEEE Bangalore Section Mission 2020 Challenge Award Winners

1) Best IEEE Student Branch Execom Volunteers - Sai Saahas S

2) Fastest Member-Get-Member Reward Competition
- Amulya Singaraju & Yashas R

3) SAC Volunteers of Nov-Dec 2020 - Sneha Shree M

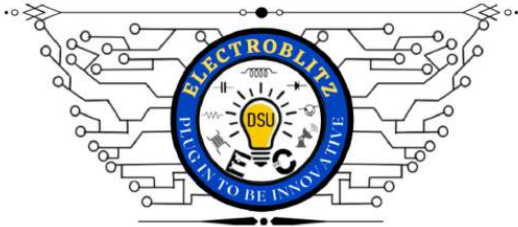
"Everything is easy when you are busy. But nothing is easy when you are lazy"
- Swami Vivekananda

Electroblitz Club Events

About the club

Electroblitz is a student techno-cultural club formed under the Electronics and Communication Engineering department, with the motive of providing a platform for students to exhibit their both academic and extra circular skills. The activities of the club enhance the technical skills and personality development of the student apart from academics.

Naming & Logo Competition



The selection of club name and logo was based on the competition held for students. This event was held on 11th and 12th January 2021. The final name and logo for the club were chosen by the faculty of the department of ECE through polling.

The name "ELECTROBLITZ", was submitted by Mr. Suraj Yadav of the 6th semester and was decided most suitable.

The logo was a combination of two logos, each individually designed by Ms. Priya G Shastry and Ms. Krupanka B P of the 4th semester.

Executive Members



The election was held for different positions of the club namely, President, Vice President, Secretary, and Treasurer. The election was conducted in 4 phases via google forms from 10:30 AM to 2 PM on 15th January 2021. The votes were cast by both students and faculty Dept. ECE.

Mandala Competition

The Mandala Art Competition held on 23rd January 2021 on a virtual platform. The event was started from 10 am onwards, with a duration of one and a half hours. Mrs. Manasa K R was the judge of the event. There were 20 participants. All the participants participated with great enthusiasm and a competitive spirit.

The art submissions by the participants were extremely creative. The winners of the competition are First place: Ms. Meghna S and Second place: Ms Ili Sandhya.





Circuit Debugging Competition

The circuit debugging competition was held on 30th January 2021 from 10:30 AM to 12:00 PM. The competition was held between teams of 2 from the department of ECE. Each team was given a circuit to debug and fix with the help of software along with identifying the given circuit.

Techno Quiz

The TECHNO–QUIZ held on 17th February 2021, from 3 PM onwards, with a duration of one and a half hours. The hosts Ms. Harshitha Divakar and Ms. Karthik Sanjay Nayak briefed the participants on the rules of the event. The questions for the quiz were prepared by Dr. Gayathri K M and Mrs. Kanmani B S.

First place:

Ms. Harika R & Ms. Vasuprada G

Second place:

Mr.Aryan Jain & Mr. Gopinath DK



Soldering Competition



The soldering competition was held on 10th April 2021 from 11 AM to 1 PM at Analog Electronics lab. There were 6 teams with a size of 2. The required components and circuit to be built were provided by the organizers. The participants were expected to show their results on a board and identify their application. The winners of the soldering competition are:

First place: Mr. Aravind S and Mr. Dilip Kumar U

Second place: Mr. Aryan Jain and Mr. Dev Biren Shah

"Creativity is seeing the same thing but thinking differently"

-Dr. A P J Kalam

Photo Gallery



"To be happy, make others happy"

- Stephen Richards

Editorial Team

Student Coordinators



Mr. Mazhar S Bilagi



Ms. Ili Sandhya



Ms. Harshitha Divakar



Mr. Atharv Naik



Mr. Indraneel Mukkherjee

Faculty Coordinators



Mrs. Kanmani B S



Dr. Gayathri K M



Mrs. Manasa K R