



# Dayananda Sagar University School of Engineering



JULY- DEC 2021

VOLUME 1|ISSUE 2 | 2021

## ELECTRO CLIPS

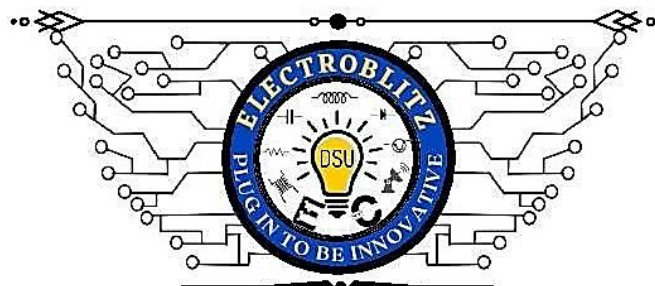
THE BIANNUAL NEWSLETTER OF ELECTRONICS



*Presented By*

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

BY



## Dr. A Srinivas

Dean, School of Engineering

Dayananda Sagar University  
Bengaluru



*It is very heartening to learn that the ECE department of DSU is producing 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 conducted. 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 brief 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 absolute best in their journey towards excellence.*

## Dr. Vaibhav A Meshram

Chairman, Department of ECE

School of Engineering,  
Dayananda Sagar University,  
Bengaluru



*It is with immense 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 success of all our students and staff are also proudly celebrated together. If 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

*Dayananda 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 firsthand experience to students, for its academic and research programs. It runs four programs 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 accept a professional career which demands very high-level industry relevant skills. An exclusive BOSCH REXROTH lab is integrated into the curriculum and students can conduct automation projects. The industry sponsored Analog Devices Lab also provides students with opportunities to conduct 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

## Demo of Digital System Simulation & Analysis with TI-Tina Tool



A guest lecture organized on 26th of July 2021 for first year students on "Demo of Digital System Simulation and Analysis with TI-Tina tool".

The speaker of the event, Mrs. Manasa K R, gave an insight of designing of various digital circuit and to analyze the results with various examples like counters, shift registers, microprocessors, and HDL.

## Department Get-Together

Department get-together was organised on 31st July 2021, to motivate the faculty and kickstart the academic odd semester activities.



## A Virtual visit to NRSC, Hyderabad ISRO

A virtual visit to National Remote Sensing Centre (NRSC), Hyderabad was organized for 7th Semester students of ECE department on 1st September 2021 from 10 A.M onwards. Sri. Shanker Prasad, Scientist, ISRO had delivered a lecture on the Indian Space Program, followed by a virtual walk through of museum. Dr. Rajashree and Sri Ramana, Head, TEOG, NRSC accompanied the students for discussion. Where the students expressed maximum satisfaction about the knowledge gained. In total, there were 120 participants.

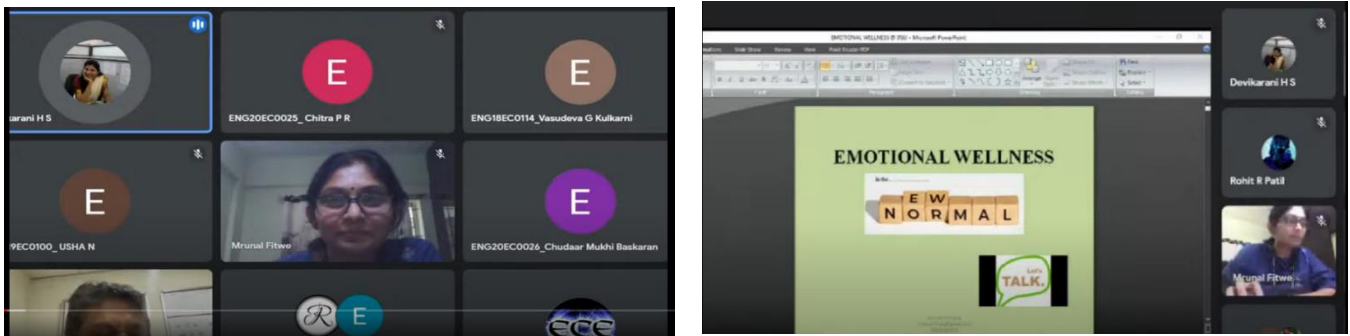
Program director of TEOG, NRSC, Dr. Rajashree B offered to provide outreach program and internships for interested students in areas like software development, Tensor flow with Python or artificial intelligence.

*"Our industry demands innovation, rather than tradition"*

*- Sir Satya Nadella, CEO of Microsoft*

## Emotional Wellness in New Normal

During the pandemic situation an online seminar on “Emotional Wellness in New Normal” was given by Mrs. Mrunalini Suhas Fitwe. It was organized by Mrs. Devika Rani H S and Mrs. Kokila on 8<sup>th</sup> September 2021, from 2:30PM onwards.



## IOT Webinar Series - Embedded innovations on the IOT



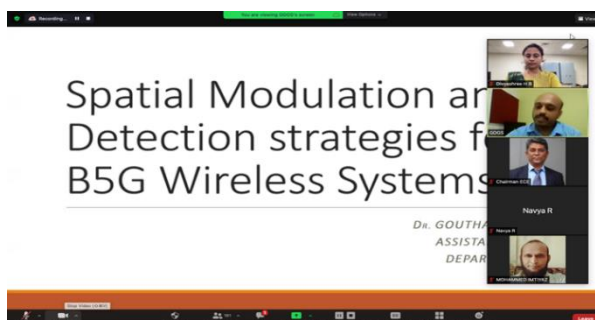
The lecture series helps in building an efficient IOT development approach and gives a closer insight about the emerging areas of augmenting the physical objects with sensing, computing, and communication capabilities.

The first lecture of the series on Embedded innovations in IOT was organized on 18th September 2021. The speaker Mr. Atanu Roy Chowdhury is an AIOT Evangelist and Founder of CAPSULE LAPSE, who focused on innovations at the bottom of the pyramid and applications of embedded systems for the same.

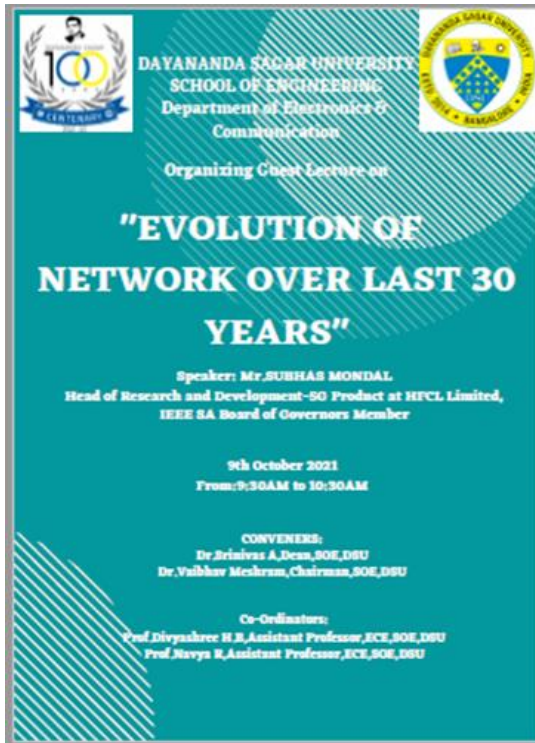
## Guest Lecture on Spatial Modulation for beyond 5G Systems

An online guest lecture on “Spatial Modulation for Beyond 5G Systems” is organized for fifth semester ECE students on 25th September 2021.

The speaker Dr. Gautham Shima G D, Professor, ECE Department, MIT, Manipal gave an insight on MIMO Wireless communication, Spatial modulation and 5G systems.

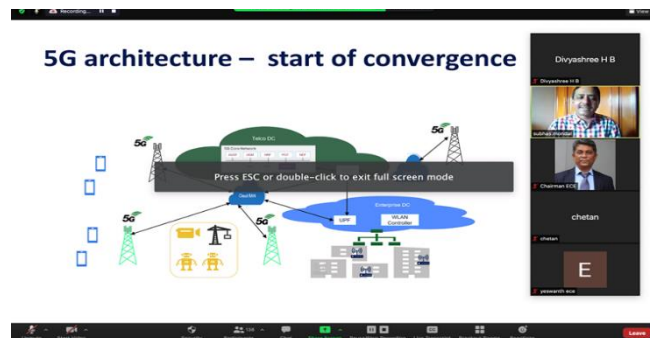


## Guest Lecture on Evolution of Network overlast 30 years



An online guest lecture on “Evolution of Network over last 30 Years” is organized for fifth semester ECE students on 9th October 2021.

The speaker Mr. Subhas Mondal, R & D Head, 5G product HFCL gave an insight on evolution of communication network from 1980s till date. He gave a glimpse on 5G, SDN/NFV, Li-Fi, Cyber Security and AI for Network Automation.



## Farewell Batch 2017-21

The students of 7th Semester from the Department of ECE, organized the ‘FAREWELL FUNCTION FOR THE BATCH OF 2017-2021’ on 27th November 2021 from 11:00 AM onwards. There were about 75 guests who attended the gathering.

The Masters of Ceremony Mr. Akash Suresh and Ms. Shreya Reddy welcomed the guests and faculty members of the ECE Department to the gathering to start off the event, after a formal group photograph of the 2017-21 batch students. The Chairman of the ECE Department, Dr. Vaibhav A Meshram addressed the gathering and extended his welcome to the guests. Various cultural events and fun games were organized for the recreation of the guests.

Mrs. Nandini Rao of the ECE Department mesmerized the crowd with her dance performance. The vote of remembrance was distributed in the form of mementos to the pass-out students.



“Success in creating AI would be the biggest event in human history. Unfortunately, it might also be the last, unless we learn how to avoid the risks.”

-Sir Stephen Hawking

## Second Virtual Conclave on Computer Vision Impelled Technology



The second edition of the Computer Vision Impelled Technology (CVIT-2021) conclave, organized by the Department of Electronics and Communication Engineering in collaboration with Atal Incubation Centre from 28th to 30th October 2021. The Conclave, which was spread over three days, involved informative keynote addresses by eminent personalities from reputed institutions and multinational corporations from across India.

The workshops encompass first-hand sessions for students by experts from industry and academia on topics such as Introduction to Machine learning, Big Data analytics, Machine Learning algorithms for data science. The speakers were from various academic institute and industries. The lectures covered informative and captivating facets of Computer Vision.

The conclave also included 25 research paper presentations by researchers from different universities. There were around 230 participants attending workshop.

## MATLAB Webinar

A two-day MATLAB webinar on “Signal Processing and AI applications and workflow using MATLAB” organized in virtual mode for fifth semester ECE students on 20th and 21st October 2021.

The sessions were managed by industry expertise from MathWorks and CoreEL technologies. The sessions covered the concepts of usage of signal processing toolbox and working with design of filters with fixed point, GSM digital downlink converters.

The sessions also gave insight on neural networks concepts like training and Classification, based on Regression Methods and CNN.

Department of Electronics & Communication Engineering  
School of Engineering  
Dayananda Sagar University, Bengaluru - 560114

**MATLAB WEBINAR**  
Signal Processing and AI Applications and  
Workflows using MATLAB

Sessions will be conducted by experts from Mathworks & CoreEL Technologies

**MathWorks** **CoreEL Technologies**

Date: 20-21 Oct 2021  
Time: 2:00-4:30 PM

**Conveners**  
Dr. A Srinivas, Dean, SOE  
Dr. Vaibhav A M, Chairman - ECE

**Coordinators**  
Mrs. Anna Merine George  
Mr. Sharanabasavaraj  
Mrs. Devkarani H S  
Mrs. Nandini Rao G.

**Registration Link:**  
<https://forms.gle/xARFQ4mjWnGqyWau9>  
or Scan QR Code for registration

Certificates will be provided to all participants

**For Enquiries:**  
Mrs. Anna Merine George  
9902449065  
annageorge-ecce@dsu.edu.in

*“Failure is an option here. If things are not failing, you are not innovating enough.”*

*-Sir Elon Musk*

# Achievements

## Faculty Achievements

*Dr. Sivaramakrishnan S was awarded the "All India Council for Technical Education award " in July 2021.*



*September 2021, Mrs. Shwetha M P & Mr. Darshan H has been selected for part time PhD at NIT, GOA.*

*Dr. Arungalai Vendan has set up MIAB welding process laboratory under DST project.*



## Student Achievements



*Paper titled "Brain Tumor detection using Image processing" was awarded Best paper Award in the IEEE conference on "Emerging technologies and applications for a smart and sustainable world" organized by National Engineering College, Chennai. The award was given to Ms. Ankitha P Reddy, Ms. Vaishnavi S V, Ms. Anupriya A Shetty, Ms. Deepika M under the guidance of Dr. Sivaramakrishnan S.*



*Mr. Indraneel Mukherjee from final year got placed in Bosch with a package of 20 LPA.*



*AIC-DSU innovation Foundation agrees to incubate Project title: "Design and explanation of low-cost full arm exertion gauntlet for lymphedema" represented by Ms. Lara J, Ms. Nikhita B, Ms. Ili Sandhya, Ms. Shilpa DP under the guidance of Dr. PushpaMala S.*



*Ms. Harika & Ms. Vasuprada G secured first place in prototype presentation at the technical fest TECHNOVA conducted by IEEE CMRIT student branch.*

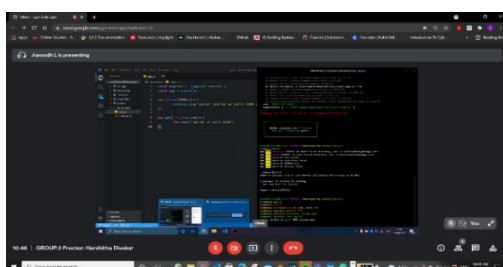
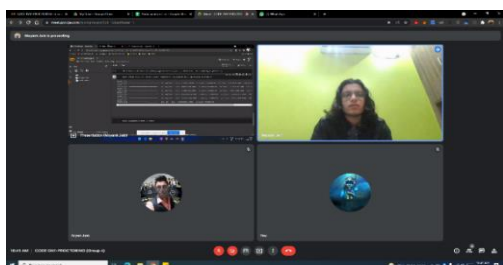
## Alumni Achievements



*Mr. Akash Hegde alumnus of batch 2017-2021 was invited as guest lecture who addressed the gathering with a few real-time questions like How to choose a project, how to make it industry ready and much more dutiful advice were given by him, during workshop conducted by Electroboltz Club of Electronics and Communication Engineering Department.*

# Electroblitz Club Events

## Code Day (Hackathon)



The event 'Code Day (Hackathon)' was conducted on 14th August 2021 from morning 09:00 AM onwards using virtual platform with the help of creating different links of google meet and the judges for the event where Dr. PushpaMala S, Prof. Gousia Thahniyath, Prof. Krishna Sowjanya K.

There were 6 teams from various departments. The evaluation was based on, coding skills, and judging and approach to the problem solution.

Mr. Anoop Manikanta S (Final Year, CT), Mr. Kshitij Kurandwad (Final year, CT) were the winners.

## Project Exhibition

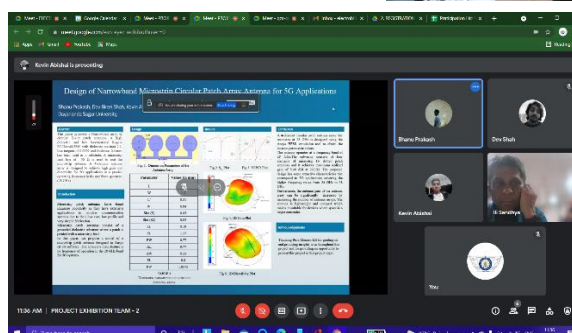
The 'Project Exhibition' was held on 25th September 2021 from morning 10:30 AM in hybrid mode. There were twenty-four members participating in groups of 1-4. The event was judged by Dr. Vaibhav A Meshram, Chairman Dept. of ECE. The event became success with the support of professors' inputs, student participants and parents' interaction.

The winning project titled "Raga Detector" was presented by Mr. Nithin (Final year, ECE).

The runners up were, Mr. Akash Suresh and Mr. Aditya Iyer (Final Year, ECE), with project title: "MORSE Encoder and Decoder using Arduino".

Mr. Karthik Sanjay Nayak (Third Year, ECE), Project title: "Design and implementation of ALU performing the operations of Analytic Number theory using Verilog HDL."

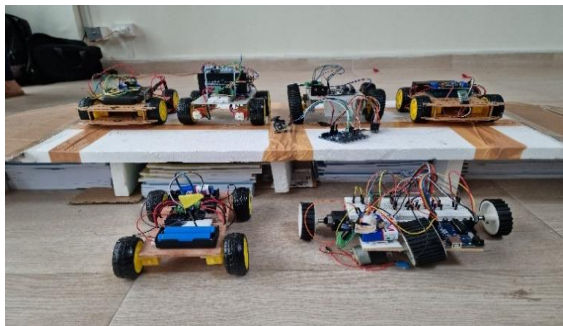
Ms. Harshitha Divakar and Ms. G Priyanka (Third Year, ECE), Project title: "Smart Shopping Cart"



*"The Web as I envisaged it, we have not seen it yet. The future is still so much bigger than the past."*

*-Tim Berners-Lee, Inventor of the World Wide Web.*

## Robo Race



The 'Robo Race' was held on 09th October 2021 from morning 11:00 AM On-Campus. The event was judged by Dr. Saravana Bavan D, Dept. of Mechanical Engineering.



The competition was held between 8 teams from various departments of DSU. As per the specification predefined, the teams built their own robots and run them on the predefined track. Four teams were qualified for second round who was given the same track with more difficulties. Dr. Banga M K, Research Dean, was the chief guest of the valedictory function and encouraged the students.

The winner was,  
Mr. Akash Suresh and Mr. Aditya Iyer (7<sup>th</sup> Sem ECE).



The Runner-up were,  
Mr. Karthik Sanjay Nayak, Ms. Chaithra A and Ms. Ananyaa R (5<sup>th</sup> Sem, ECE).

Mr. Priyanshu Singh, Mr. Mageshwaran V Ms. Samrudhi S, Mr. Mokshith S and Mr. Tharun G Naidu (3<sup>rd</sup> Sem, ECE).

## Just a Minute (JAM)

A non-technical event 'Just a Minute (JAM)' was held on 09th October 2021 from morning 10:30 AM On-Campus. The event was judged by Dr. Rajashree Narendra and Dr. Theodore Chandra, Professor, Dept of ECE, DSU-SOE.

The theme for the event was "Navaratri Celebrations in various states." Participants were judged based on fluency, in depth knowledge without deviation from the topic and time management.

The Winner, spoke about the celebration in Gujrat,  
Mr. Varun N, Second Year, Dept of CSE.

Runner-up, spoke about Navratri celebration in Delhi,  
Mr. Aryan Jain, Fourth Year, Dept. of ECE.

 A poster for the 'Just a Minute (JAM)' event. The poster features logos for Dayananda Sagar University, Electroblitz Club, and the Department of Electronics and Communication Engineering. It includes the event title 'Just a Minute', the date 'on 09<sup>th</sup> October 2021', and the timing 'Timings: 01:00 PM onwards'. A list of rules is provided, and a registration link is at the bottom.
 

Dayananda Sagar University Bengaluru

Electroblitz Club  
in association with  
Department Electronics and Communication Engineering  
Presents

**Just a Minute**  
on 09<sup>th</sup> October 2021  
Timings: 01:00 PM onwards.

Rules:

- ✓ Each participant will be given a topic on-the-spot on Navratri, with no preparation time and the speaking time shall be 1 minute.
- ✓ Topic would be picked by the participants from the bowl of chits.
- ✓ Reporting Timings: 12:45 PM on-wards.
- ✓ Registration fee: 50/-

Registration link: <https://forms.gle/1Jony8dpYopfTRqo8>

## Rangoli Competition



A cultural event 'Rangoli Competition' was held on 9th October 2021 from morning 10:30 AM, On-Campus. The judge for the event, Mrs. Manasa K R, Dept of ECE, DSU-SoE.

Participants were judged on various criteria like color combination, finishing, creativity, symmetry, and utility of space.

The Winners,  
Ms. Aishwarya R and Ms. Hamsa S, Third Year, Dept of ECE.

Runner-up,  
Ms. Harshitha M Kolur and Ms. Keerthana Bhat B N, Third Year, Dept of ECE.

## Treasure Hunt

A fun event 'Treasure Hunt' was held on 23rd October 2021 from 12:15 PM, On-Campus.

There were seventy-two participants, and they were asked to report to the venue by 12:00 PM. The participants had to start solving the sudoku they choose from the seven sudoku puzzles prepared by the organizing members. After completing the task, the first and full correct sudoku puzzles only those participants who were qualified for the next round only nine teams.

Winners,  
Mr. Anusha M B, Ms. Aishwarya R, Mr. Bahul Dev M, Mr. Bharath S, Third year, Dept of ECE.

Runner-up,  
Mr. Sai Soorya Natiyala, Mr. Tseten Tashi Bhutia, Ms. Shivani Mishra, Ms. Monika M P, Third year.

Dayananda Sagar University  
Electroblitz Club  
in association with  
Department of Electronics and Communication Engineering  
Present's

**23 OCT**

**TREASURE Hunt Event**

Timings: 11:30 AM onwards  
Registration Link: <https://forms.gle/xVkvBtYpMQvuG6oa6>  
Registration Fee: ₹50 /- per team

**Rules:**  
# 3-4 members in a team.  
# Fun activity open for all departments in DSU  
#On-Campus Event

Any Query feel free to contact us:  
PH: 926-4474-565  
electroblitzclub.ece.dsu@gmail.com

*"Technology is nothing. What's important is that you have a faith in people, that they're basically good and smart, and if you give them tools, they'll do wonderful things with them."*

– Steve Jobs

## ArduiNoob - #Build your own UGV

*ELECTROBLITZ Club conducted the event 'ArduiNoob,' Build your own UGV (Unmanned Ground Vehicle) on 30th October 2021 from morning 10:00 AM, On-Campus at Microprocessor Laboratory, Dept. of ECE, B Block, SoE, DSU.*

*There was a total of 80 participants who took part in the workshop, and they were divided into eighteen teams of 4-5 members. The event started with the Keynotes from Final year students, Mr. Akash Suresh and Mr. Aryan Jain who addressed the gathering with How to build the robot, what are components used and why it is used, how to interface the sensors and Arduino board according to the requirements.*

*Later the speakers did mentoring for the workshop and the participants were asked to start building a UGV from scratch.*



# Photo Gallery





## Literary

**MINDSET**

*Conscious subconscious unconscious  
Let us set these for a new beginning  
To bring inner best of us  
To carve ourselves into a better human being*

*Processing the thoughts  
With full mindset  
Creating confidence within ourselves*

*With full understanding of situation  
Mind requires visualization  
Thinking of the situation to be a curse  
Disheartening is not the solution*

*The journey of learning  
Never stops at earning  
With the seasoning of skillset  
Over the dataset  
Comes with a fabulous mindset*

*Confidence can lead you to success  
But overconfidence can give you no access  
Think majorly to the step that you include  
When do you achieve it never forget to conclude?*

*Atharv D Naik  
7th – Sem, ECE*

**BRIGHT n DARK**

*Everyone has brighter and darker sides in themselves,*

*Even this nature has the darkest night and the brightest morning.*

*Anonymous  
7<sup>th</sup> – Sem, ECE*

**WI-FE n WI-FI**

*Wi-Fe and Wi-Fi sounds the same,  
The difference of E n I doesn't make senses.*

*The romance is always at their peak,  
Better you don't have to seek.*

*It's hard to find,  
But once connected it's one of a kind.*

*Indraneel Mukherjee  
7th – Sem, ECE*

**BEAUTY**

*If one of the things you believe in,  
Is that the world's an ugly place?*

*You are Wrong!*

*You must have never seen the,  
Sky at night that glitters with stars.  
You must have never felt the,  
Way night brings peace & joy into your soul.*

*You have not felt the way the air changes  
In the minutes before it rains.  
Or watch the glaring sun before it sets  
And the way it shapes with clouds in the sky,*

*But maybe if you have done all this,  
But still do not believe it is not true.  
It is because you cannot see all the beauty  
That I see when I look at you.*

*Javeriya Afreen  
5th – Sem, ECE*

# Editorial Team

## Student Coordinators



*Mr. Indraneel Mukherjee*



*Ms. Ili Sandhya*



*Mr. Vasudeva Kulkarni*



*Mr. Atharv Dhananjay Naik*

## Faculty Coordinators



*Mrs. Kanmani B S*



*Dr. Gayathri K M*



*Mrs. Manasa K R*