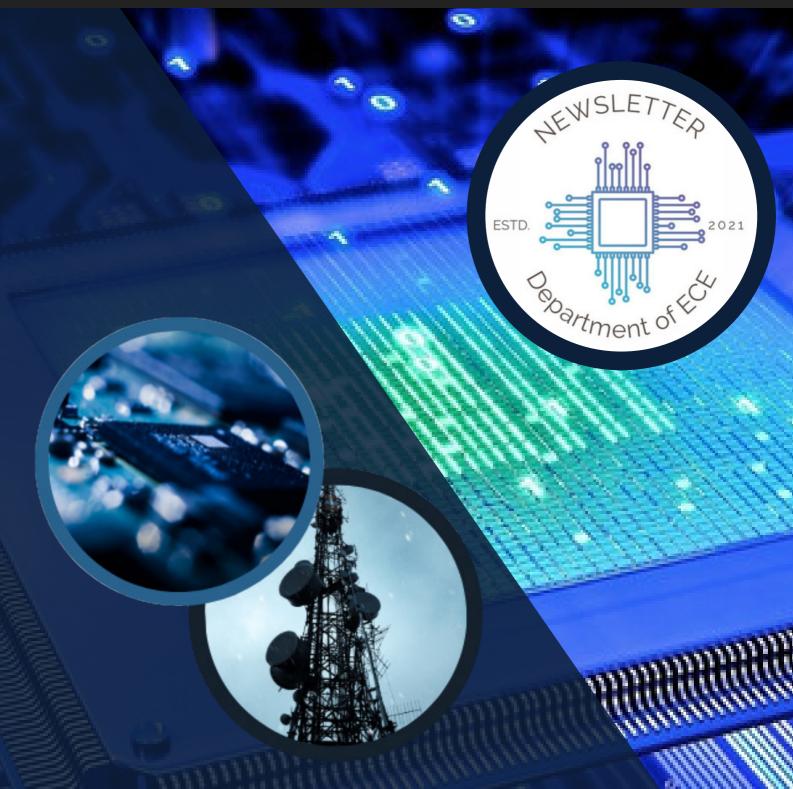


VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

An Autonomous Institute, ISO9001:2015 & QS I-Gouge Diamond Rated Institute, Accredited by NAAC with 'A++' Grade

NBA Accreditation for B.Tech CE, EEE, ME, ECE, CSE, EIE, IT, AE Programmes Approved By AICTE New Delhi, Affliated to JNTUH, Hyderabad. Recognized as "College with Potential for Excellence" by UGC

Volume: 2 Issue: 2



ELECTROCOMM-IN-VISION

Department of Electronics and Communication Engineering

Quarterly News Bulletin January - March 2023

Vision

A resource centre of academic excellence for imparting technical education with high pattern of discipline through dedicated staff which shall set global standards, making National and International students technologically superior and ethically strong, who in turn shall improve the quality of life.

Mission

- To provide quality education in the domain of Electronics and Communication Engineering through effective learner centric process.
- To provide industry specific best of breed laboratory facilities beyond curriculum to promote diverse collaborative research for meeting the changing industrial and societal needs.

Quality Policy

- Impart up-to-date knowledge in the students' chosen fields to make them quality engineers.
- Make the students experience the applications on quality equipment and tools.
- Provide quality environment and services to all stakeholders.
- Provide systems, resources and opportunities for continuous improvement.
- Maintain global standards in education, training and services.

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Head of the Department



I am delighted to announce that our esteemed Electronics and Communication department is preparing to publish the Volume 2 Issue 2 of our departmental newsletter, "ELECTROCOMM-IN-VISION." This bulletin aims to provide a comprehensive summary of the department's activities from January 2023 to March 2023.

I would like to take this opportunity to extend my heartfelt gratitude to all the faculty members, non-teaching staff, and students who have contributed their support and sincere efforts towards the betterment and development of our department. Without your dedication and hard work, the accomplishments we have achieved thus far would not have been possible.

During the mentioned period, our department has witnessed numerous notable events, initiatives, and achievements. Faculty members have actively engaged in cutting-edge research projects, published papers in esteemed journals, and participated in conferences and seminars to exchange knowledge and stay updated with the latest advancements in the field.

Dr. S. Rajendra Prasad

Faculty Updates









Mr. Shaik Shoukat Vali

Ms. C. Prathyusha

Ms. Y. Sri Rama

Ms. A. Sireesha

- Mr. Shaik Shoukat Vali joined the department as Assistant Professor on 14th March 2023.
- Ms. C. Prathyusha joined the department as Assistant Professor on 24th March 2023.
- Ms. Y. Sri Rama joined the department as Assistant Professor on 17th March 2023.
- Ms. A. Sireesha joined the department as Assistant Professor on 23rd March 2023.

Awards & Recognitions

- Dr. S. Rajendra Prasad, Professor & Head appreciated faculty and staff for receiving **NBA** accreditation for three years from 01-07-2022 to 30-06-2025.
- The following faculty were awarded with a memento showing the gratitude and appreciation for their dedication and completing 25 years of service in VNRVJIET on 02nd January 2023.
 - I.Dr. C.D. Naidu, Professor & Principal
 - 2. Dr. L.V. Rajani Kumari, Assistant Professor
 - 3. Ms. M. Rama Devi, Assistant Professor
 - 4. Mr. R.Raju, Instructor
 - 5. Ms. V.V.N.Malleswari, Instructor





Dr. C.D. Naidu, Dr. L.V. Rajani Kumari, Ms. M. Rama Devi, Mr. R.Raju, Ms. V.V.N.Malleswari receiving a memento for their 25 years of service

• G. Vishnuvardhan Reddy (20071A04K8) secured 1st position in the Project Contest – Harware conducted during VNRVJIET's Annual Technical Symposium CONVERGENCE 2K23, Experience Innovation in 24th & 25th January 2023.





• Manunuru Naga Sree Lekha (21071A0435) secured 1st position in Paper Presentation onducted during VNRVJIET's Annual Technical Symposium CONVERGENCE 2K23, Experience Innovation in 24th & 25th January 2023.



- Mehtab S (21071A0450) secured 1st Runner Up
 Team at Hult Prize at VNR Vignana Jyothi
 Institute of Engineering and Technology on 8th
 February 2023.
- Dr. Y. Padmasai, Professor & Dean Student Progression received award on behalf of our Institute as the Best College Award for Cocurricular Activities during the PROST event at LB Stadium, being conducted by Stumagz and TSIC on 12th March 2023.



Dr. Y. Padmasai receiving Best College award



Principal and Director appreciating "GATE Level Core Trainers"





 Malyala Sahaja (20071A0438) secured 6th position in 4.0 Tech Fest run by Next-wave Disruptive Technologies with 50,000 students in Dubai from 4 th March to 7th March 2023.







This tech fest's technopreneur hackathon allowed us to demonstrate our abilities and gave a platform to learn about startups and entrepreneurship. The event gave us a great chance to network and get to know some of the best technology experts in the globe. Attended different seminars and key note presentations given by Shonam Khaitan (Co-founder, Fincobox), Nikhil Nair (Buisiness leader, HTC) and Kiran Kumar (Data engineer, Samsung). These sessions covered a wide range of topics from the latest trends in Fintech to the impact of metaverse in life.

• Dr. C.D. Naidu, Professor & Principal and Dr. B. Chennakesava Rao, Professor & Director appreciated Dr. S. Rajendra Prasad, Professor and Head, Mr. Ch. Ganesh, Assistant Professor, Dr. V. Sagar, Assistant Professor, Dr. Pradeep Kumar, Assistant Professor and Mr. E. Vijaya Babu, Assistant Professor for conducting "GATE Level Core Training Program – 2023" for students to achieve GATE 2023 rank on 21st March 2023.

Following are the list of qualified students with the best rank of 1302.

S.No.	Roll Number	Name of the Student	GATE 2023 Rank
I	20071A0499	P. Sai Teja	1302
2	19071A04K2	G. Vishwajith	2610
3	20071A04E9	M. Kamal Sai	3264
4	19071A0485	K Sai Sumanth Reddy	4500
5	20071A0412	Ch. Gopichand	4618
6	20071A0407	B. Veera Krishna	5705
7	20071A04J6	A. Dhanalaxmi	6187
8	20071A04A2	P. Sai Vamsi Krishna	6187

9	20071A0428	K. Neha	6351	
10	20071A04M1	G. Samanidhar Reddy	6511	
II	20071A04E5	K. Swetha	6511	
12	20071A04D1	D. Keerthi Chandrika	6511	
13	20071A04D2	D. Dharun	6869	
14	20071A0484	M. Deepak	7237	
15	20071A04E1	K. Sai Kiran	7806	
16	19071A04C5	B. Kasyap	8020	
17	20071A04E4	K. Pravallika Reddy	8474	
18	20071A0425	G. Rahul	8474	
19	20071A0430	K. Suman	12720	

Electrocomm-in-vision Volume 2 | Issue 2 | January 2023 - March 2023



Rank cards of students who qualified GATE

Guest Lectures Delivered

• Dr. D. Kanthi Sudha, Assistant Professor delivered a session on "Review of Coordinate systems and its applications in Electro Magnetic theory" as a resource person in the one week National Faculty Development program on Electromagnetic Theory and Transmission Lines organized by ECE Department, MVSR Engineering College from 20th February to 25th February 2023.



Dr. D. Kanthi Sudha receiving memento for her lecture.

Events Organized

• Guest Lecturer on "Linux and scripting languages" by Mr. K. Murali Mohan, Design Engineer, Moschip Ltd, Hyderabad on 07th January 2023 for I & II M. Tech students.



Guest lecture by Mr. K. Murali Mohan



Guest lecture by Mr. Y. Avinash

- Guest lecture on "VLSI physical design" by Mr. Y. Avinash, Senior Engineering Manager at Intel Corporation on 28th January 2023 for III B.Tech students.
- Interaction on various issues related to state-of-the-art technology particularly "Silicon Technology" by Dr. B. K Bhattacharya, Pro-Vice Chancellor, ICFAI and Fellow IEEE on o8th February 2023 with the faculty members.



Interaction with Dr. B. K. Bhattacharya

• Parent meeting for I-B.Tech. students was conducted to discuss the performance of students with their parents on 4th February 2023.





Interaction of faculty with parents





Training program by Mr. Ch. Ganesh

- Training program on "Mentor Graphics tools (VLSI)" by Mr.Ch.Ganesh, Assistant Professor, ECE, VNRVJIET on 09th February 2023 for VLSI faculty.
- Matrixing for I B.Tech. students was conducted with senior students for exchange of information regarding projects, academics and other related issues on 10th February 2023.







Interaction of I B.Tech. students with seniors

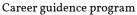
Interaction with Dr. K. Prakash

• Interaction with **Dr. K. Prakash**, Assistant Professor, Department of ECE, NIT Warangal on 21st February 2023 with SIG (Special Interest Group: Embedded Systems and IoT) members.

Following are the points discussed

- How to write Project Proposal
- Organizing FDP/Workshops in Collaboration
- Providing Summer Internships to Students
- Planning a Guest Lecture in the next week





ECE, VNRVJIET



Internal BOS meeting



Interactive session with Dr. J. Chattopadhyay

- Internal BOS meeting was conducted with faculty of the department to prepare the I B.Tech syllabus of regulation R22 on 25th February 2023.
- Interactive session regarding "Applying for funded projects" on Hyper local data generation, renewable energy, yield prediction-agriculture, low-cost ground station, hardware accelerator by Dr. J. Chattopadhyay, former director DRDO and Adjunct faculty in ECE, VNRVJIET on 28th February 2023 for faculty.

• Two-day workshop on "Smart Agriculture Robot", conducted in collaboration with IEEE Robotics & Automation Society & VNRVJIET from 27th & 28th February 2023 for EIE, EEE, ECE, ME & AE students.









Students attending workshop on Smart Agriculture Robot

- Interactive session regarding the "Project proposals and research paper writing" by Dr. L. S. Samrat, Professor and R&D Director, University of Hyderabad on Oist March 2023 for faculty.
- Ms. A. Seetha Lakshmi, Sr.Manager & Mr.Naresh, Manager, HAL visited and discussed about updation and replacement of obsolete components in their existing boards on seeing the paper "FPGA Implementation of Interrupt Controller (8259) by using Verilog HDL" published by Dr. L. PadmaSree on 09th March 2023 with faculty.
- Interactive session regarding "Conduction of FDP on various domains like FPGA, Semicustom design, Full Custom Design, Verification and DFT" by Dr. L.S. Samrat, Professor and R&D Director, University of Hyderabad on 10th March 2023 with VLSI SIG faculty.





Interactive session with Dr. L.S. Samrat

• Workshop on "Manuscript Writing" by Dr. L. S. Samrat, Professor and R&D Director, University of Hyderabad on 17th & 18th March 2023 for faculty.









Faculty attending workshop on Manuscript Writing

"Education is not a tool for development - individual, community and the nation. It is the foundation for our future. It is empowerment to make choices and emboldens the youth to chase their dreams."

• Guest Lecture on "Fundamentals of Orbital Mechanics" by Sri. Y. Shiva Prasad, Former Scientist, Vikram Sarabhai Space Center, (VSSC), Government of India, Thiruvananthapuram on 18th March 2023 for II B.Tech. students.





Guest Lecture by Sri. Y. Shiva Prasad

• Workshop on "Research Proposal Writing" by Dr. L.S. Samrat, Professor and R&D Director, University of Hyderabad on 25th March 2023 for faculty.

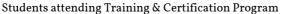




Faculty attending workshop on Research Proposal Writing

• Forty hours Hands on Training & Certification Program on "Embedded Systems & IOT" in Association with Edgate Technologies, Bangalore from 23th March to 28th March 2023 for III B.Tech. students.







Mr.Prem Kumar addressing II B.Tech. students

• Workshop on "Signal Processing & Communication Systems with MATLAB and Simulink" by Mr. Prem Kumar, Application Engineer, MathWorks on 31st March 2023 for II ECE students.

Events Attended

- Ms. K. Sangeetha, Assistant Professor attended online FDP on "Emerging Techniques in 6G Wireless Communication" organized by SRMIST, Tiruchirappalli from 4th to 10th January 2023.
- Ms. Helan Satish, Assistant Professor, Ms. K. Aruna Kumari, Assistant Professor, Ms. M. Rama Devi, Assistant Professor, Mr. J.V.A. Bala Krishna, Assistant Professor, Ms. B. Alekhya, Assistant Professor attended Workshop on "Design Thinking" organized by CPADT, VNRVJIET from 17th to 21st January, 2023.
- Dr. D. Santhosh Kumar, Assistant Professor attended Seminar on "Introduction to Wireless Communications and Networks" by Dr. K. Raghunandan, Senior Life Member IEEE, in association with IEEE-IISc ComSoc student chapter on 21st January 2023.
- Dr. K.B. Archana, Sr. Assistant Professor attended Sketchnote workshop on "Visual Thinking" by Mr. Piyush Modi, Netherlands on 24th January 2023.
- Mr. A. Ramesh Kumar, Associate Professor, Dr. G. Shanthi, Assistant Professor, Ms. S. Naga Leela, Assistant Professor & Dr. A. Sai Kumar, Assistant Professor attended Workshop on "Recent Trends Semiconductor Devices/VLSI Chip Device and its Sensor Applications" organized by Microelectronics Research Group, ECE, KLEF from 23rd to 27th January 2023.
- Mr. A. Ramesh Kumar, Associate Professor, Dr. G. Shanthi, Assistant Professor, Ms. S. Naga Leela, Assistant Professor & Dr. A. Sai Kumar, Assistant Professor attended Workshop on "Recent Trends Semiconductor Devices/VLSI Chip Device and its Sensor Applications" organized by Microelectronics Research Group, ECE, KLEF from 23rd to 27th January 2023.
- Ms. Helan Satish, Assistant Professor attended webinar on "FERMENTATION: Interplay of Microbes, Immunity and Nutrition" organized by Department of Rural Development & Agricultural Production (RDAP) North-Eastern Hill University (NEHU), Tura Campus, Meghalaya in Association with Biotechnology Industry Research Assistance Council (BIRAC), A Government of India Enterprise on 3rd & 4th February 2023.
- Ms. Helan Satish, Assistant Professor attended webinar on "Wireless Communication in Biomedical Engineering" organized by IETE, Hyderabad Centre on 12th February 2023.
- Dr. G. Shanthi, Assistant Professor & Mr. D. Ramesh Reddy, Assistant Professor attended Workshop on "Electronic for Self-Reliance" by University of Hyderabad on 16th & 17th February 2023.
- Mr. R. Ravi Kumar, Assistant Professor attended a webinar on "Embedded System Design Flow using Vitis" organized by Sandeepani School of Embedded System Design, Bangalore on 18th February 2023.
- Dr. Y. Padma Sai, Professor & Dean Student Progression, Dr. S. Rajendra Prasad, Professor and Head & Dr. P. Kishore, Associate Professor visited "Ananth Technologies Ltd." and interacted with Mr.V.Sathish Dhavan, General Manager about sponsored/consultancy projects on 23rd February 2023.
- Dr. V. Priyanka, Assistant Professor & Mr. D. Ramesh Reddy, Assistant Professor attended an IEEE Sensors Council Faculty Advisor's Regional Meeting organized by IEEE Sensor Council Hyderabad Section on 22nd February 2023.

"The purpose of education is to replace an empty mind with an open one."

- Ms. Helan Satish, Assistant Professor, Dr. Santosh Kumar Choudary, Assistant Professor, Mr. T. Srinivas, Assistant Professor and Mr. E. Vijaya Babu, Assistant Professor attended one week FDP on "Applications of Computer Vision using Deep Learning" organized by ECE Department, Seshadri Rao Gudlavalleru Engineering College (SRGEC) Gudlavalleru from 20th to 25th February 2023.
- Mr. A. Ramesh Kumar, Associate Professor, Ms. J.L.V. Ramana Kumari, Assistant Professor, Ms. L. Dharma Teja, Assistant Professor, Dr. G. Vijaya Kumar, Assistant Professor, Mr. V. Naveen Kumar, Assistant Professor, Mr. B.B. Shabarinath, Assistant Professor, Mr. D. Ramesh Reddy, Assistant Professor, Ms. K. Swetha Reddy, Assistant Professor, Ms. G. Ramya, Assistant Professor, Mr. J.V.A. Balakrishna, Assistant Professor, Ms. Y. Manasa, Assistant Professor, Mr. T. Srinivas, Assistant Professor, Ms. N. Neelima, Assistant Professor attended Seminar on "Intellectual Property Rights" by Dr. Krishna Prasad K, Professor & Head in Cyber Security & Cyber Forensics, Institute of Engineering & Technology, Srinivas University, Karnataka organized by IPR Cell, VNRVJIET on 04th March 2023.
- Mr. C. Kaushik, Assistant Professor attended FDP on "Recent Trends in Cognitive Science & its Applications" organised by Department of CSE, VNRVJIET from 13th to 18th March 2023.
- Dr. V. Priyanka, Assistant Professor, Dr. G. Shanthi, Assistant Professor, Ms. K. Swetha Reddy, Assistant Professor, Ms. S. Naga Leela, Assistant Professor and Dr. A. Sai Kumar, Assistant Professor attended FDP on "Design and Implementation of Advanced VLSI Architectures" organized by Lakireddy Bali Reddy College of Engineering, Department of ECE from 13th March to 17th March 2023.
- Dr. S. Rajendra Prasad, Professor & Head, Dr. L. Padma Sree, Professor, Mr. A. Ramesh Kumar, Associate Professor, Dr. P. Kishore, Associate Professor, Dr. G. Shanthi, Assistant Professor, Mr. Ch. Ganesh, Assistant Professor, Dr. A. Sai Kumar, Assistant Professor visited HAL and interacted with Mr. T.R. Vijaya Kumar, Additional General Manager (INDG) & Mr. A Seetha Lakshmi, Senior Manager about bottle Necks in their division on 23rd March 2023.
- Ms. S. Naga Leela, Assistant Professor, Ms. A. Pravalika, Assistant Professor, Mr. Ch. Anil Kumar, Assistant Professor & Ms. K. Manasa, Assistant Professor attended PDP on "Instructional design and delivery systems" organized by VNRVJIET in collaboration with NITTR Chennai from 20th March to 25th March 2023.
- Dr. S.Rajendra Prasad, Professor & Head acted as one of the Board of Studies (BOS) member for the approval of HR21 syllabus for III & IV year & HR22 syllabus for II year of Department of CSE(IoT), Hyderabad Institute of Technology and Management (HITAM) on 27th March 2023.
- Ms. K. Aruna Kumari, Assistant Professor, Ms. Ch. Raja Kumari, Assistant Professor, Mr. R. Ravi Kumar, Assistant Professor, Ms. Y. Sri Rama, Assistant Professor attended workshop on "Happiness & Wellness" organized by Humanities & Science, VNRVJIET on 28th & 29th March 2023.
- Ms. G. Ramya & Ms. Y. Manasa attended International FDP on "Advancement in RF, Microwave, Antenna and 5G Application" organized by Department of Electronics and Communication Engineering of Atria Institute of Technology, Bengaluru in association with Mathworks, Keysight (Knowledge Partner), IEEE MTT/AP Society Bangalore Joint Chapter and IEEE Atria Student Branch from 27th March to 31st March 2023.

"Education is the kindling of a flame, not the filling of a vessel."
- Plutarch



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Online Certifications

• Dr. Y. Padma Sai, Professor & Dean Student Progression completed "IUCEE Professional Ethics in Engineering" course conducted by experts from INDO Universal Collaboration for Engineering Education(IUCEE) from February to April 2023 by Dr.Krishna Vedula, Executive Director, IUCEE foundation with distinction.



Certificate of Distinction

Training, Internships and Placements

Training

I Year and III Year B.Tech. students were trained in C, Electrical Circuits and Coding skills.

S.No	Particulars of the event	Beneficiaries
I	"Overview of C concepts" by Ms. Prasanthi, Tech Learn Solutions on 06th January 2023.	I B.Tech. ECE students
2	"C- Training program" by Dr. Venkata Ramana, Technical Trainer, CSE, VNRVJIET on 07th January 2023	I B.Tech. ECE students
3	"Fundamentals of Electrical Circuits" by Dr. S. Rajendra Prasad, Professor & Head, ECE, VNRVJIET on 06th January 2023	I B.Tech. ECE students
4	Workshop on "Youth Empowerment & Skills" on 18th January 2023	I B.Tech. ECE students
5	Training program on "Coding Skills" by Smart Interview Team on 03rd, 10th, 17th, 24th, February 2023 and 3rd & 31st March 2023.	III B.Tech. ECE students
6	Career guidance by Mr. G. Anurag, Software Developer, TCS Digital & Ms. Amruthavalli, Software Developer, Deloitte on 25th February 2023.	III B.Tech. ECE students

Placements

Placement details of B.Tech. 2019 - 2023 batch up to Dec 2022

No. of Students placed	Highest Package (Lakhs)	Average Salary (Lakhs)
209	21	6.80

83.60% of the students got placed with an average salary of 6.8 LPA

S.No.	Roll Number	Name of the Student	Name of the Company & Package	Photo
I	19071A04Q5	T. Sai Priyamvada	AMAZON AWS - 21.00	
2	19071A04F6	N. Saketh	AMAZON AWS - 21.00	
3	19071A04R0	K. Vikas	DESHAW - 21.00	
4	19071A0420	K. Gnaneshwar	ORACLE - 18.50	
5	19071A04G3	P. Tanusree	JPMC - 17.75	

6	19071A04H1	S. Anudeepthi	JPMC - 17.75	
7	19071A0466	A. Vandana	JPMC - 17.75	
8	19071A04E3	K. Rishitha	JPMC - 17.75	
9	19071A0494	M. Sai Varsha	JPMC - 17.75	
IO	19071A0488	K. Abhilash	JPMC - 17.75	
II	19071A04N8	P. Pavithra	JPMC -17.75	
12	19071A04Q4	G. Surya Harshini	JPMC - 17.75	A SECOND
13	19071A04Q7	U. Vidya Sivani	JPMC - 17.75	

14	19071A0448	U. Siddhesh Parag	ORACLE - 12.50	
15	19071A04C4	A. Sujith	ORACLE - 12.50	
16	19071A04A6	P. Varun Sai	ORACLE - 12.50	
17	19071A04A6	P. Venkata Jaswantth	ORACLE - 12.50	
18	19071A04Q1	S. Sneha	CHUBB - 11.05	
19	19071A04M9	M. Pallavi Sudha	CHUBB - 11.05	
20	20075A0419	T. Meenakshi	CHUBB - 11.05	
21	20075A0411	K. Nainika	ADVANCED AUTO PARTS -	

22	19071A04A7	Deepika Reddy	ADVANCED AUTO PARTS - 11.00	
23	19071A0472	B. Supraja	ADVANCED AUTO PARTS - 11.00	
24	19071A0481	G. Kavya Reddy	ADVANCED AUTO PARTS - 11.00	(2 Page 1)
25	20075A0402	B. Sai Kiran	MICRON - 10.16	
26	19071A04H4	S. Praveen Babu	BEAUTIFULCODE - 10.00	
27	19071A04M4	L. Yashaswi	NCR CORPORATION - 10.00	
28	19071A0437	P. Tejas	NCR CORPORATION -10.00	
29	19071A04G4	P. Aditya	SYNOPSYS - 10.00	

"Successful people are not gifted; they just work hard, then succeed on purpose." — G.K. Nielson

Professional Society Activities

• IEEE VNRVJIET Student branch in association with Swecha conducted a Professional Development Program on "Research opportunities in the Transformation towards digital ecosystems" by Dr. L. Pratap Reddy, Professor, JNTUH on 23rd March 2023 for faculty.



Dr. L. Satya Prasad delivering lecture to B.Tech., M.Tech. Students and faculty



Professional Development Program by Dr. L. Pratap Reddy

• Guest Lecture on "Problem Solving Skills" by Dr. L. Satya Prasad, Principal, Stanley College of Engineering and Technology for Women, Hyderabad in association with IEEE, ISTE and IETE professional chapters on 3rd February 2023 for B.Tech., M.Tech. Students and faculty.

PhD Awarded

Ms. N. Dhana Lakshmi, Assistant Professor successfully completed Ph.D. viva-voce titled "HMM based video classification using multiple features" under the guidance of Dr. Y. Madhavi Latha and Dr. A. Damodaram on 07th February 2023.



Ms. N. Dhana Lakshmi receiving her PhD degree

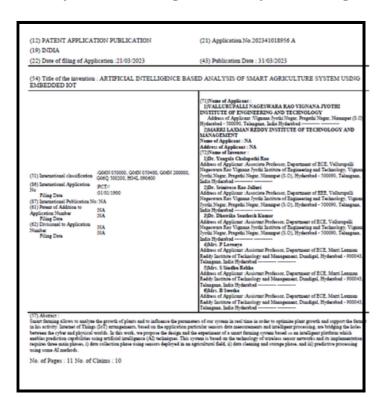
Research and Development Activities

Project Applied

• Dr. Y. Chalapathi Rao, Associate Professor & Dr. L.V. Rajani Kumari, Assistant Professor published a project titled "A Deep Learning System for Predicting Heart Attacks and Paralysis Symptoms in Advancing Healthy Living CRG" on 18th March 2023, File No: CRG/2023/006461/EEC, Rs. 41,57,340/-(41.57 Lakhs).

Patent Published

• Dr. Y. Chalapathi Rao, Associate Professor & Dr. D. Santhosh Kumar, Assistant Professor published Patent (Patent Application-202341018956) title "Artificial Intelligence based analysis of smart agriculture system using Embedded IoT" on 31st March 2023.





• Dr. Y. Chalapathi Rao, Associate Professor, Dr. L.V. Rajani Kumari, Assistant Professor, Mr. V. Naveen Kumar, Assistant Professor, Dr. V. Sagar Reddy, Assistant Professor & Mr. Ch. Anil Kumar, Assistant Professor published Patent (Patent Application-202341018492) titled "Security system for women safety and Real-Time monitoring" on 31st March 2023.

Journals/ Conferences/ Book Chapters

Conferences: 14 Journals: 7 Total: 21

Total:	21		
S.No.	Name of the Faculty	Title of the Paper	Conference/Journal
I	Mr. A. Ramesh Kumar, Associate Professor	Realization of 5G NR Primary Synchronization Signal Detector Using Systolic FIR Filter	Machine Learning, Image Processing, Network Security and Data Sciences, Part of the Lecture Notes in Electrical Engineering book series (LNEE,volume 946) pp 863–875 on OISt January 2023
2	Dr. D. Santhosh Kumar, Assistant Professor	Detection of COVID-19 Using Screen Printed Electrode based Biosensor	Journal of Machine and Computing, Vol.03, Issue 01, pp. 001-010 on 05th January2023
3	Dr. L. V. Rajani Kumari, Assistant Professor	ECG beat classification using proposed pattern adaptive wavelet-based hybrid classifiers	Signal, Image and Video Processing , Vol.17, Issue 3, pp. 1-9 on 13th March 2023
4	Mr. D. Ramesh Reddy, Assistant Professor	Design and Development of a Low-Cost Crop Protection System Using Internet of Things and Machine Learning	2022 IEEE International Symposium on Smart Electronic Systems (iSES) organized from 18th to 22nd December 2022, Warangal , pp. 610-614. Published on 02nd February 2023

I've learned that anything in life worth having comes from patience and hard work.

5	Mr. Ch. Anil Kumar, Assistant Professor	Indian Sign Language Translator	2022 IEEE International Symposium on Smart Electronic Systems (iSES) organized from 18th to 22nd December 2022, Warangal, pp. 7-12. Published on 02nd February 2023
6	Dr. G. Vijayakumar, Assistant Professor	Sleep stage-based sleep disorder detection using single-channel electroencephalogram	International Journal of Nanotechnology, Vol.19, Issue 6-11, pp. 1075-1090 on 05th February 2023
7	Dr. V. Priyanka, Assistant Professor	Intelligent assistant to predict and control the home appliances in user environment through brain computer interface using hybrid deep learning model	Journal of Complementary Medicine Research Vol. 14, No. 2, pp. 150-156 on 15th February 2023
8	Dr. A. Sai Kumar, Assistant Professor	Design and Performance Analysis of 32x 32 Memory Array SRAM for Low-Power Applications	Electronics (MDPI), Vol. 12, Issue 4, pp.834, February 2023.
9	Dr. A. Sai Kumar, Assistant Professor	A Novel RRAM-based FPGA architecture with Improved Performance and Optimization Parameters	2022 IEEE 19th India Council International Conference (INDICON) from 24th to 27th November 2022 organized by Cochin University of Science & Technology (CUSAT), Cochin, Published on 16th February 2023

"Hard work pays off if you're patient enough to see it through."

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10	Dr. A. Sai Kumar, Assistant Professor	An Efficient Low-Power VIP- based VC Router Architecture for Mesh-based NoC	2022 IEEE 19th India Council International Conference (INDICON) from 24th to 27th November 2022 organized by Cochin University of Science & Technology (CUSAT), Cochin Cochin. Published on 16th February 2023
11	Mr. A. Ramesh Kumar, Associate Professor	FPGA Implementation of Systolic FIR Filter Using Single-Channel Method	2023 13th International Conference on Cloud Computing, Data Science & Engineering (Confluence-23) on 19th & 20th January 2023 organized by Amity University, Noida in association with IEEE UP Section, pp. 215-220. Published on 22nd February 2023
12	Dr. A. Sai Kumar, Assistant Professor	An Efficient AVR interfaced bluetooth controlled Robotic Car system	2023 13th International Conference on Cloud Computing, Data Science & Engineering (Confluence-23) on 19th & 20th January 2023 organized by Amity University, Noida in association with IEEE UP Section, pp. 499-502. Published on 22nd February 2023
13	Ms. N. Neelima, Assistant Professor	Performance Evaluation of Clustering Based Tone Mapping Operators with State-of-Art Methods	2023 13th International Conference on Cloud Computing, Data Science & Engineering (Confluence-23) on 19th & 20th January 2023 organized by Amity University, Noida in association with IEEE UP Section, pp. 492-497. Published on 22nd February 2023

14	Mr. Ch. Ganesh, Assistant Professor	Reconfigurable negative bit line collapsed supply write-assist for 9T-ST static random access memory cell	International Journal of Electrical and Computer Engineering (IJECE), Vol.13, No.4, pp. 3747-3755, 26th February 2023
15	Dr. A. Sai Kumar, Assistant Professor	Using advanced distributed energy efficient clustering increasing the network lifetime in wireless sensor networks	Soft Computing, Springer, pp.1-12, published on 05th March 2023
16	Dr. Pradeep Kumar, Assistant Professor	Automatic Detection and Localization of Breast Cancer from Mammogram Imaging Modality using Modified Faster RCNN	2023 5th International Conference on Smart Systems and Inventive Technology (ICSSIT) on 23rd to 25th January 2023 organized by Francis Xavier Engineering College, Tirunelveli, pp. 1549-1553. Published on 14th March 2023
17	Dr. Ch. Naga Deepa, Assistant Professor	A novel embedded system for cyber physical system using crypto mechanism	Multimedia Tools and Applications on 27th March 2023
18	Dr. Archana K Bhange, Assistant Professor	Semantic Knowledge Base Ontology Framework for Discovery Stage of the Design Thinking Using Web Ontology Language	2022 4th International Conference on Advances in Computing, Communication Control and Networking (ICAC3N) on 16th & 17th December 2022, Noida. Published on 28th March 2023

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Ms. K. Aruna Kumari, Assistant Professor	Semantic Segmentation of Cells in Microscopy Images via Pretrained Autoencoder and Attention Unet	2022 International Conference on Machine Learning, Computer Systems and Security (MLCSS) on August 5th & 6th by Institute of Technical Education and Research, Siksha O Anusandhan University Bhubaneswar, pp.94-99. Published on 28th March 2023
Ms. Helan Satish, Assistant Professor	An In-Silico Study on Effect of KCNQI P535T Mutation in Cardiac Ventricular Cells	2022 IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES 2022) on 8th December 2022 organized by IEEE-Engineering in Medicine and Biology Society (EMBS), Malaysia Chapter, Kuala Lampur, pp.234-239. Published on 30th March 2023
Mr. T. Srinivas, Assistant Professor	Black gram disease classification using a novel deep convolutional neural network	Multimedia Tools and Applications on 30th March 2023
	Ms. Helan Satish, Assistant Professor Mr. T. Srinivas,	Ms. Helan Satish, Assistant Professor An In-Silico Study on Effect of KCNQI P535T Mutation in Cardiac Ventricular Cells Mr. T. Srinivas, Assistant Professor Black gram disease classification using a novel deep



Electrocomm-in-vision Volume 2| Issue 2 | Japuary 2028 - March 2023



INDUSTRIAL VISITS

Visit to India Science Festival ISF-2023

21st January 2023

Insights

- Exposure to cutting-edge advancements in fields such as artificial intelligence, machine learning, robotics, genomics, neuroscience, space research, healthcare, stem cell research, drone technologies, computing, nanotechnology, and climate sciences.
- Experienced how an MR (mixed reality) works.
- Attended interactive science show with David Price's exhilarating science busking performance and interactive sessions with ICMR-NIN scientists.
- Attended the seminar conducted by a space scientist about the galaxy.
- Attended the workshop on social media, professional networking, braincomputer interfaces, and even creating our own coin batteries.
- Got to know about many new inventions in the biological field by CCMB and IICT.



"Confidence and Hard-work is the best medicine to kill the disease called failure.

- Abdul Kalam



Insights

Visit to INCOIS

- Hyderabad is chosen for the present center as it is (a) 550 m above sea level (b) non-seismic zone(c) Center of radius (2800 km).
- After the tsunami in December 2004, the center was established.
- Provides information to approximately 25 countries about tsunami warnings on Indo-Australian tectonic plate.
- Operational services continuously provide data uninterrupted.
- Global Ocean Analysis data using mathematical models and observations on a daily basis to provide the initial conditions to ocean-atmosphere coupled models used for the prediction of the monsoon and to understand oceanic processes.
- Provides services like swell alert, marine search and rescue and navigation.
- Operation of earth station and generation of tsunami were explained in detail.
- Provides round-the-clock monitoring and warning services for the coastal population on tsunamis, storm surges, high waves, etc. through the in-house Indian Tsunami Early Warning Centre (ITEWC).

Visit to India **Science Festival** ISF-2023 at **Hyderabad Public** School, Begumpet, Hyderabad on 21st January 2023.

ECE, VNRVJIET



Industrial visit to INCOIS at Pragathi Nagar, Hyderabad on 31st March 2023.



Visit to India Science Festival ISF-2023

"Educaion is what remains after one has forgotten what one has learned in school."

Upcoming Events

- IEEE 4th International Conference on Electrical, Communication, and Computer Engineering, 12th & 13th June 2023, Kuala Lumpur & Online, Malaysia.
- IEEE International Symposium on Broadband Multimedia Systems and Broadcasting, 14th to 16th June 2023, Beijing, China.
- IEEE International Conference on Compatibility, Power Electronics and Power Engineering, 14th to 16th June 2023, Tallinn.
- IEEE 32nd International Symposium on Industrial Electronics (ISIE), 19th to 21st June 2023, Aalto University, Helsinki, Finland.
- IEEE International NEWCAS Conference, 19th to 23rd June 2023, Edinburgh, United Kingdom.
- IEEE 19th International Conference on Wireless and Mobile Computing, Networking and Communications, 21st to 23rd June 2023, Montreal, Canada.
- IEEE International Symposium on Information Theory, 25th to 30th June 2023, Taipei, Taiwan.
- IEEE International Conference on Modern Circuits and Systems Technologies, 28th to 30th June 2023, Athens, Greece.
- 23rd IEEE International Conference on Nanotechnology, 2nd to 5th July 2023, Jeju, South Korea.
- IEEE Statistical Signal Processing Workshop, 2nd to 5th July 2023, Hanoi, Vietnam.
- IEEE OptoElectronics and Communications Conference, 2nd to 6th July 2023, Shanghai, China.
- IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting, 23rd to 28th July 2023, Portland, United States.
- 18th IEEE Conference on Industrial Electronics and Applications, 30th July to 3rd August 2023, Ningbo, China.
- IEEE International Symposium on Electromagnetic Compatibility, Signal Integrity and Power Integrity, 31st July to 4th August 2023, Grand Rapids, United States.
- ACM/IEEE International Symposium on Low Power Electronics and Design, 7th & 8th August 2023, Vienna, Austria.
- IEEE 21st International Symposium on Modeling and Optimization in Mobile, Ad hoc, and Wireless Networks, 24th to 27th August 2023, Singapore.
- IEEE 37th Symposium on Microelectronics Technology and Devices, 28th August to 1st September 2023, Rio de Janeiro, Brazil.
- 32nd IEEE International Symposium on Robot and Human Interactive Communication, 28th to 31st August 2023, Busan, South Korea.
- 31st European Signal Processing Conference, 4th to 8th September 2023, Helsinki, Finland.
- IEEE Biomedical Circuits and Systems Conference (BioCAS 2023), 19th to 21st October 2023 Toronto, Canada.

- NASA's "all-electric" plane X-57 soon set to take off, the US space agency. The plane has 14 propellers along its wings and is powered entirely by electricity.
- Jupiter beats Saturn to become the Planet with most Moons.
- SpaceX intends to fire up all 33 of its engines before launching its massive Starship launch system into orbit for the first time. This is an important step in the company's mission to the moon and Mars.
- ISRO successfully launched the second edition of the Small Satellite Launch Vehicle (SSLV-D2) from the first launch pad of Satish Dhawan space centre at Sriharikota, Andhra Pradesh.
- The Science Center and Planetarium will be constructed in Kota, Rajasthan. The Science Center and Planetarium will be one of the best science centers and planetariums in the world.
- India's first hybrid sounding rocket was successfully launched by private players from Pattipulam village in the Chengalpattu district of Tamil Nadu.
- Japan, the United States, South Korea and Taiwan held the first meeting of senior officials under a new U.S.-led framework to help ensure a stable supply of semiconductors.
- Narendra Modi, inaugurated the International Telecommunication Union (ITU) Area Office and Innovation Centre in the country.



Tech News

- IIT Madras Centre of Excellence is working with DRDO on Advanced Defence Technologies including Combat Vehicle Technologies. IIT Madras is operating a Research Centre dedicated to defence technologies jointly with DRDO to develop advanced technologies for the national defence and security needs of the nation.
- Taiwan-headquartered electric vehicle and infrastructure company Gogoro is advancing its plans to deploy battery swapping network in India. The company along with Belrise Industries (formerly known as Badve Engineering) inked a strategic energy partnership with the Maharashtra government to establish a battery swapping infrastructure.
- ISRO and Microsoft signed a Memorandum of Understanding (MoU) to help Indian Space tech start-ups with technology tools, go-to-market support, and mentoring to help them scale and become business ready.
- ISRO's Biggest Space Missions in 2023: ISRO's biggest year could be 2023 as the launch of Aditya Li, Gaganyaan and Chandrayaan-3 by ISRO are all set for 2023.
- ISRO launch vehicle will carry a satellite built by 750 girls attending government schools across the nation, according to Space Kidz India, a Chennai-based space tech business.
- The entire country will be covered by Doppler Weather Radar Network by 2025 to help predict extreme weather events more accurately, union minister Jitendra Singh said.
- Astronomers from McGill University in Canada and IISc in Bengaluru, India used data from the Giant Metrewave Radio Telescope (GMRT) in Pune, India to detect a radio signal originating from atomic hydrogen in an extremely distant galaxy.
- The United States space agency NASA said the country plans to test a spacecraft engine powered with nuclear fission by 2027.
- DRDO developed an unmanned aerial vehicle (UAV) to carry out logistic operations in the Himalayan frontier. The DRDO-developed UAV is capable of flying in the Himalayan Environment with 5kg of payload and even dropping bombs in the areas required.
- Samsung Semiconductor India Research (SSIR) announced a new partnership with the Indian Institute of Science (IISc) to promote research and development in the field of on-chip Electrostatic Discharge (ESD) Protection. Samsung India announced that it will hire around 1000 engineers for its R&D institutes, including its Samsung Semiconductor India Research in Bengaluru last year.
- India's lunar mission, Chandrayaan-3 successfully underwent EMI-EMC (Electro-Magnetic Interference/ Electro-Magnetic Compatibility). The EMI-EMC test conducted for satellite missions to ensure functionality of the satellite subsystems in the space environment and their compatibility with the expected electromagnetic levels.
- ISRO and IIT Madras plans to develop a training module for the Indian Spaceflight Programme using Augmented Reality / Virtual Reality / Mixed Reality (AR / VR / MR).

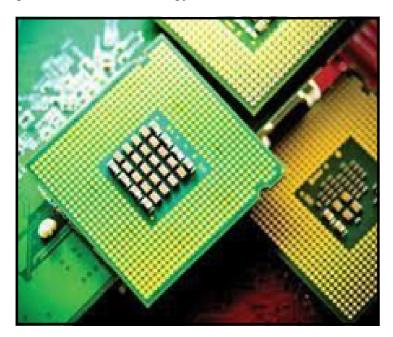
Articles

A New Era in Semiconductors

In the realm of semiconductor industries, Silicon has long reigned as the kingpin, powering giants like TSMC (Taiwan Semiconductor Manufacturing Company Limited), INTEL (Integrated Electronics), SK Hynix, and more. Its stable structure and reliability have made it the preferred raw material for semiconductors.

However, Silicon's reign might be facing a formidable challenger: Gallium Arsenide.

The significance of Silicon cannot be understated, yet a new chapter is unfolding as researchers uncover the immense potential of GaAs. In fact, recent research suggests that the backbone of today's electronics industry, deeply entrenched in Silicon-based technology, might undergo a transformation with the adoption of GaAs, potentially leading to devices that run ten times faster. Beyond speed, the purification process of Gallium Arsenide demands less power compared to Silicon, heralding a greener and more energy-efficient era.



The intrinsic superiority of GaAs as a semiconductor compared to Silicon is the driving force behind its emergence. While Silicon maintains its dominance, GaAs brings to the table a slew of advantages that might catalyze a revolution in various electronic industries. GaAs boasts an electron mobility around 30% higher than that of Silicon, offering enhanced efficiency, heightened heat and moisture resistance, a direct band gap, and greater breakdown voltages. This arsenal of properties has earmarked GaAs for high-frequency applications, where its capabilities are being thoroughly explored.

It is said that every once in a while, a new technology, an old problem, and a big idea turn into an innovation...

Innovation in the semiconductor industry is the cornerstone of technological advancement. However, in the midst of this pursuit, it's important to remember that different materials and technologies complement one another.

As GaAs vies for its place under the spotlight, the landscape of electronics could very well be shaped by a synergistic combination of materials, each contributing to a future defined by unprecedented capabilities and efficiency.



Sai Kumar Byagari 20071A04C7 ECE C ECE,VNRVJIET

"The elevator to success is out of order.

You'll have to use the stairs... one step at a time.".

– Joe Girard.











"Nobody who ever gave his best regretted it." – George Halas

HOME

Dear bird, take me with you, I wanna fly, fly free like you.

Dear kid, I wanna be like you,
Having a home to come back to.
No matter how long I fly I can never find one,
Where ever I go, I want to come back to a home.

Please dear bird, take me with you,
People are annoying I wanna leave this all.
Little bird, come back and take me too,
I wanna fly, fly free like you.

Dear Kid, I wanna be like you,
It's too lonely up here and cold too.
I wish I had a warm house with welcoming people,
Where ever I go, I want to come back to a home.

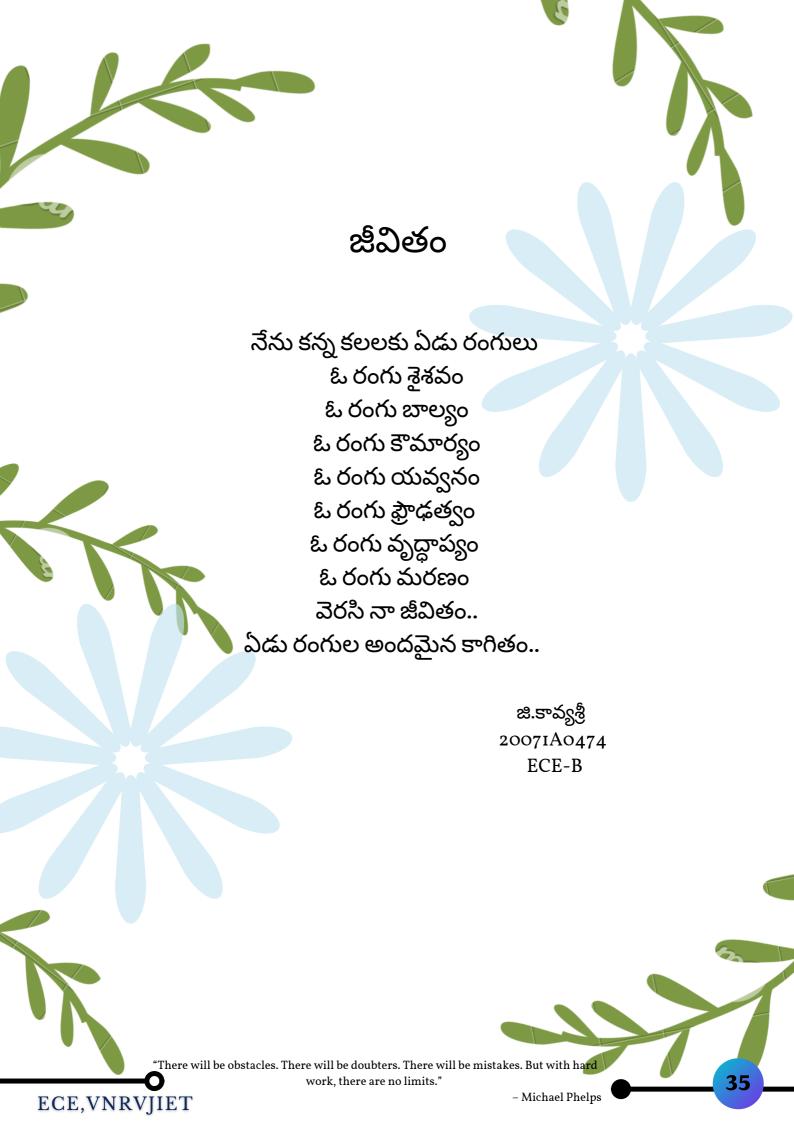
Please dear bird, take me with you,
Gliding through the rain I wanna feel free too.
Little bird, come back and take me too,
I wanna fly, fly free like you.

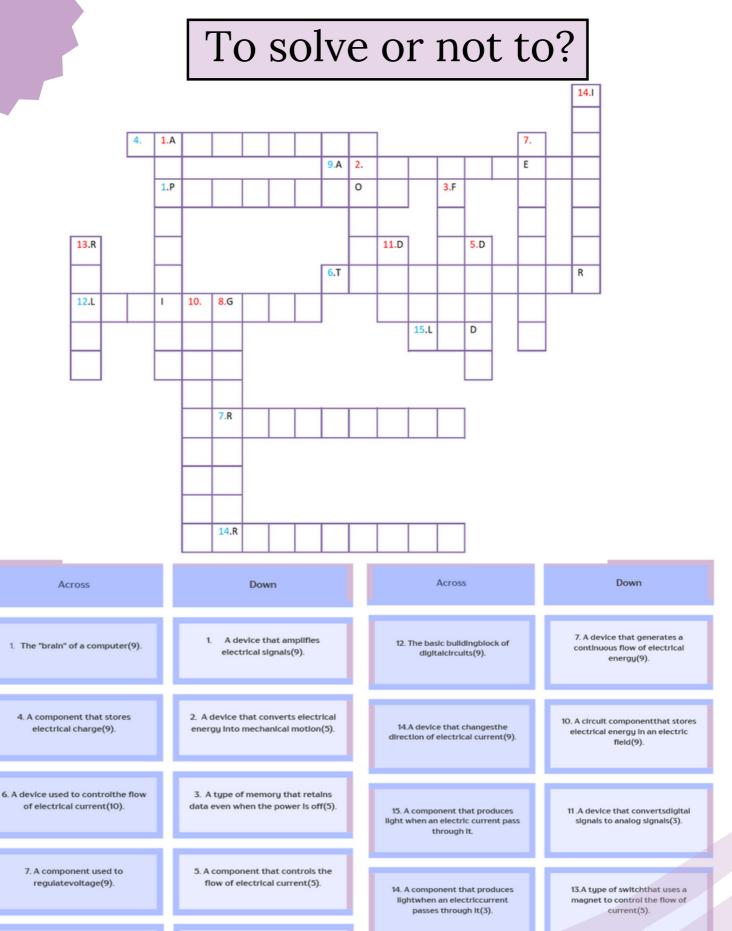
Dear Kid, I wanna be like you
Hiding in a sheltered house during hail storms and thunders
Freedom of choice and not struggle to survive
Where ever I go, I want to come back to a home.

Please dear bird, take me with you
I wanna fly, fly free like you.
Dear Kid, I wanna be like you
Where ever I go, I want to come back to a home.

By: B. Chandana 22071A0409 ECE-A







"Start by doing what's necessary; then do what's possible; and suddenly you are doing the impossible. "
– Francis of Assisi

7. A unit of electrical resistance(8).

36

13.A device that convertsalternating current (AC) to directcurrent (DC)(8).

A devicethat detects and amplifies radiosignals(9).

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