Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College is one of the oldest departments, established in 1977. The department provides a strong academic foundation, modern infrastructure, and research-driven education aimed at producing globally competitive and socially responsible engineers. The undergraduate B.Tech program in Electronics and Communication Engineering has an intake of 240 students and is accredited by the National Board of Accreditation, New Delhi. At the postgraduate level, the department offers an M.Tech program in VLSI Design and Embedded Systems, established in 2012, with an intake of 12 students. These programs are periodically updated to align with industry trends and technological advancements. The vision of the department is to produce globally competitive and ethically responsible engineering graduates and to contribute high-quality research in frontier areas of Electronics and Communication Engineering. The mission focuses on delivering quality and contemporary education through updated curricula, state-of-the-art laboratories, industry collaborations, and effective teaching–learning processes while emphasizing research and innovation to serve societal, industrial, governmental, and scientific needs.

The department is headed by Dr. D. Venkata Rao, Professor and Head of the Department, specializing in Signal and Image Processing. Approximately 40% of the faculty hold Ph.D. degrees from premier institutions such as IITs, NITs, BITS, and reputed government universities. Senior professors include Dr. A. Jhansi Rani in Microwave Engineering, Dr. M. Padmaja in Communication and Signal Processing, and Dr. G. L. Madhumati in VLSI Design. Associate professors and assistant professors contribute expertise across Wireless Communication, Signal Processing, Image Processing, Biomedical Signal Processing, Nano Electronics, Optical Communication, Computer Vision, Antennas, RF and Microwave Engineering, Digital Electronics, Control Systems, VLSI, Embedded Systems, and Semiconductor Technologies. The department has four focused research groups: Antennas, Image Processing, RF and Microwave Engineering, and VLSI and Embedded Systems. Faculty members actively publish in international journals, present at conferences, supervise research scholars, and apply for national research funding.

The department has established a TIFAC CORE in Telematics supported by the Department of Science and Technology, New Delhi, with an investment of approximately 10 crores, making it the first such facility in Andhra Pradesh. The department maintains collaborations with institutions and organizations including IIT Tirupati, NIT Warangal, New Mexico State University, Old Dominion University, Avantel Limited, TalentSprint, and AP Skill Development Corporation. These collaborations support research projects, internships, faculty exchange, and skill development. Students actively participate in technical clubs, internships, research projects, IEEE seasonal schools, faculty development programs, workshops, and industry-oriented training initiatives. The department has a strong placement record, with students recruited by companies such as Intel, AMD, National Instruments, Wells Fargo, TCS, HCL, Accenture, Infosys, Tech Mahindra, Virtusa, and others. Continuous training and industry interaction contribute to consistent placement performance.

The ECE department occupies a total carpet area of approximately 5172 square meters, providing adequate space for academic and research activities. The department has exclusive classrooms for undergraduate and postgraduate programs, with most classrooms measuring 108 square meters and specialized tutorial and postgraduate classrooms measuring 60 square meters. A seminar hall with a seating capacity of approximately 240 students is used for seminars, workshops, conferences, and guest lectures. The department maintains seven major laboratories, each occupying approximately 180 square meters, supporting core and advanced areas of electronics and communication engineering. A dedicated Research and Development center supports funded projects and innovation initiatives. An exclusive incubation center encourages entrepreneurship and project-based learning. Faculty rooms accommodate approximately 30 faculty members, along with separate rooms for professors, the Head of the Department, departmental administration, examination coordination, and record management. A departmental library provides access to reference books, journals, and academic

materials. Additional facilities include waiting halls, departmental stores, sanitation facilities, and examination spaces, ensuring smooth academic functioning and a conducive learning environment.

The Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College is equipped with multiple well-established laboratories that support undergraduate and postgraduate education, practical training, and research activities as prescribed by the syllabus. The VLSI Laboratory provides students with exposure to industry-standard VLSI EDA tools and hardware such as Xilinx, Tanner EDA, Synopsys tools, Spartan and Virtex FPGA kits, and CPLDs, enabling hands-on experience in analog and digital circuit design, CMOS design flow, SPICE simulation, layout design, design rule checking, extracted simulation, and FPGA-based digital system implementation. The Electronic Devices and Circuits Laboratory forms a strong foundation for second and third year students by focusing on analog and digital circuits, including the design, construction, and testing of transistor amplifiers, operational amplifiers, oscillators, and basic digital components. The Digital Electronics Laboratory introduces students to digital logic concepts starting from basic logic gates and progressing to combinational and sequential circuits and state machines, using breadboards, wiring tools, discrete components such as resistors, capacitors, transistors, and 7400 series logic ICs, while reinforcing fundamental knowledge of electrical quantities like voltage, current, resistance, capacitance, and inductance. The LICA Laboratory further strengthens digital logic understanding with similar hardware-based experimentation focused on logical design and implementation. The Microprocessors and Microcontrollers Laboratory enhances student knowledge of processor architecture and programming through hands-on use of 8085 and 8086 microprocessor trainer kits, 8051 microcontroller kits, interfacing cards, and Keil-51 software, enabling experiments involving I/O interfacing, analog-to-digital and digital-to-analog conversion, digital clock design, traffic light control systems, and application-oriented projects, and is also utilized by students from other engineering disciplines. The Analog Communications Laboratory is equipped with advanced and high-end instruments such as NI USRP transceivers with LabVIEW, spectrum analyzers, modulation and demodulation trainer units for AM, FM, PAM, PWM, PPM, SSB, DSB-SC, delta and adaptive delta modulation, multiplexing systems, digital communication trainer kits, CROs, digital storage oscilloscopes, computers, and function generators, providing comprehensive exposure to analog and digital communication systems. The Digital Communications Laboratory complements this by offering similar advanced equipment for studying sampling, modulation techniques, pulse and digital communication schemes, and signal analysis. The Advanced Communication Laboratory supports both B.Tech and M.Tech students in experiments and projects related to fiber optic communication, wireless digital communication, microwave measurements, and software-defined radio, and is furnished with Gunn and Klystron microwave benches, antenna trainer systems, fiber optic trainer kits, microstrip component trainers with vector network analyzers, spectrum analyzers, and trainer kits for technologies such as Zigbee, Bluetooth, GSM, GPS, Wi-Fi, satellite communication, and CDMA. The Embedded Systems Laboratory focuses on processor-based system design and application development using microprocessor and microcontroller platforms, reinforcing programming, interfacing, and real-time application skills while supporting project work and exposure to modern embedded technologies.

The Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College has produced a strong network of prominent alumni who have excelled in academia, industry, research, and leadership roles across India and internationally, reflecting the department’s long-standing academic strength since its inception. Early alumni include Regi Varghese, who served as Vice President at Delphi Motors in Gurgaon, and Dr. Ranga Vemuri, who became Professor and Chair at the University of Cincinnati in the USA, highlighting the department’s early global academic impact. Alumni such as Er. G. Srinivasa Rao, Managing Director of Future Tech Infosys Pvt. Ltd., Hyderabad, and Dr. S. Srinivasa Kumar, Professor and Director of R&D at JNTU College of Engineering, Kakinada, demonstrate strong leadership in industry and

academia. Several graduates have contributed significantly to government and defense research organizations, including Er. S. Rani Surender, Scientist E at RCI Hyderabad, and J. Chaitanya Kumar, Scientist C at DRDO Bangalore. The department’s alumni presence in senior corporate roles is evident through professionals such as Jayaram PVSS, Director at AMD Hyderabad, Atluri Lava Kumar, SoC Design Engineer at Intel Corporation in the USA, Venkata Rao Kakani, Staff Engineer at Qualcomm Bangalore, and Raja Jaya Chandra Mannem, Hadoop Systems Engineer at Amazon Web Services in the USA. Alumni have also made notable contributions to education and administration, including Dr. A. Sudhakar, Principal of RVR & JC College of Engineering, Guntur, and Er. Y. Umanadh, Vice Chairman of Delhi Public School, Hyderabad. International professional success is reflected through alumni such as Dr. Reddy N. Urimindi, Global Network Architect at Yum Brands USA, Vijaya Manne, Principal Engineer at Intercontinental Exchange USA, Chetan Velicheti, Lead Test Engineer in the United Kingdom, and Garima Konda, Country TMOD Manager at Continental Malaysia and recipient of the Emerging HR Leader award in India. Academic excellence abroad is further represented by Dr. Ranganath Vemuri, Professor and Head of VLSI at the University of Cincinnati, and Dr. Uma Maheswara Rao Tida, Assistant Professor at North Dakota State University. Collectively, the prominent alumni of the ECE department at VRSEC illustrate sustained excellence in engineering education, research capability, leadership development, and global professional impact across multiple decades.

The Alumni Guest Lecture program of the Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College serves as an important academic and professional enrichment initiative that connects current students with accomplished alumni working across diverse domains of engineering technology management research and entrepreneurship.The program regularly invites distinguished VRSEC alumni to deliver expert talks interactive sessions and discussions that go beyond the standard curriculum and expose students to real world industry practices emerging technologies career planning and global opportunities.These guest lectures are conducted both in physical venues such as the ECE Seminar Hall and through online platforms like Zoom Google Meet enabling wider participation and flexibility.Topics covered in recent alumni guest lectures include advanced technical areas such as recent trends in VLSI design methodology machine learning applications in precision aquaculture and career oriented themes such as job opportunities higher studies abroad career planning management studies and professional growth journeys.Alumni speakers also share personal experiences related to working in multinational companies pursuing higher education overseas transitioning between roles and adapting to evolving technological landscapes.Sessions such as interactive discussions on job opportunities career orientation in the ECE domain and creating plans for success provide students with practical guidance mentoring and motivation.By facilitating direct interaction with alumni the program helps students build professional networks gain industry insights understand global career pathways and align academic learning with real world expectations.Overall the Alumni Guest Lecture initiative strengthens alumni engagement enhances student awareness and contributes significantly to holistic education career readiness and lifelong learning within the ECE department at VRSEC.

The Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College maintains a strong and consistent placement record reflecting its focus on industry readiness and skill development.In the academic year 2024–25 the ECE department recorded a total of 247 placement offers with students being recruited by leading national and multinational companies.Core recruiters included NXP Semiconductors offering the highest package of 23 LPA Capgemini TCS Digital Teachnook Avantel Accenture Rinex Technologies LTI Mindtree Analog Port Cognizant VEM Technologies Infosys CADSYS and TCS Ninja with salary packages ranging from entry level to premium roles.The largest number of selections were made by Accenture Teachnook Avantel and TCS Ninja highlighting strong mass recruiter engagement along with opportunities in core and semiconductor industries.The department provides transparent access to placement data through year wise student selection lists

for the last five academic years ensuring accountability and performance tracking.Placement preparation is supported through continuous training internships industry interaction alumni engagement and skill enhancement programs.The consistent placement outcomes demonstrate the department’s alignment with industry needs effective academic delivery and commitment to producing employable graduates capable of performing in diverse technical and professional roles.

The Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College actively promotes holistic student development through well-structured student clubs and professional societies that enhance technical cultural and leadership skills.Athisaya is a student cultural association started in the year 2000 and formally strengthened in 2014 under the encouragement of the Head of the ECE Department and coordinated by faculty members including Dr.JastiSateesh and Mrs.SreeChandana.The club focuses on extracurricular and personality development activities such as literary events dance music debate group discussions extempore public speaking teamwork leadership and confidence building through structured group-based participation and student-elected leadership roles ensuring broad involvement and interview readiness.Vignatha established in 2001 is a student-driven club that emphasizes social responsibility innovation leadership and professional growth through technical and non-technical activities including innovative idea competitions aimed at solving societal problems with feasibility novelty business potential and cost effectiveness thereby nurturing entrepreneurship and critical thinking.The department also hosts professional technical societies such as IEEE and IETE which were started in 2000 and 2002 respectively.IEEE provides students access to global technical knowledge conferences publications standards and collaboration opportunities across domains such as communications computing robotics healthcare and sustainable systems fostering innovation and professional exposure.IETE recognized by the Government of India as a Scientific and Industrial Research Organization offers extensive benefits including technical seminars journals continuing education leadership opportunities and structured student forums through the IETE-ISF at VRSEC which enhances technical knowledge in telecommunication engineering leadership organization skills networking publication opportunities awards scholarships and professional interaction ensuring students gain both academic depth and industry-oriented competencies.

The Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College actively supports research and innovation through an internal Seed Money scheme that provides financial assistance to faculty members for initiating research projects prototype development equipment procurement and high-quality publications.The seed projects funded by the department span multiple academic years and research domains and demonstrate a strong emphasis on research output and practical outcomes.During the academic year 2023–24 Dr.AhsanHalimi received ₹95,000 and Dr.G.KishoreKumar received ₹30,000 for research and paper publication.In 2022–23 Ch.Raghavendra was granted ₹50,000 for research and publication.In 2020–21 Dr.AniruddhBahadurYadav received a major grant of ₹4,00,000 for fabrication of electronic devices using advanced equipment such as furnace magnetic stirrer ultrasonicator glove box and consumable chemicals.In 2018–19 Dr.K.SriRamaKrishna was sanctioned ₹7,53,385 for acquiring Netsim software resulting in Springer publications.In 2016–17 Dr.Sk.FayazAhamed received two grants of ₹49,000 each for developing IoT application prototypes using electronic design kits while Mr.P.VijayKumar received ₹15,000 for multimedia speaker system research published in Scopus.In 2014–15 Mr.G.HemaKumar was sanctioned ₹2,08,890 for digital video development platforms including DM6437 and DM355 resulting in Scopus and IEEE conference publications.The total seed money granted by the department amounts to ₹16,50,275 reflecting the department’s sustained commitment to fostering early-stage research strengthening publication quality supporting equipment-intensive experimentation and promoting a strong research culture among ECE faculty.

The Vignatha Student Club of the Department of Electronics and Communication

Engineering at Velagapudi Ramakrishna Siddhartha Engineering College has actively conducted a variety of academic and skill-oriented events over multiple academic years to enhance students’ aptitude technical knowledge and competitive abilities.During the academic year 2017–18 the club organized KnowledgeBees on 29July2017 AptitudeTest on 25August2017 Quizoholic on 15November2017 TechnicalQuiz on 5December2017 Quizbuzz on 26December2017 Advaitha on 4January2018 and Drawing competition on 9February2018.In the academic year 2016–17 the events conducted included KnowledgeBees on 10July2016 AptitudeTest on 16August2016 Quizoholic on 10September2016 TechnicalQuiz on 2December2016 and Quizbuzz on 3March2017.Additionally the club recognized student excellence through prize distributions during the academic year 2015–16 for events such as CriticalReading held on 27June2015 Espire on 28August2015 Techtrix on 24December2015 KnowledgeBees on 9February2016 and AptitudeTest on 26February2016.These activities reflect Vignatha’s sustained focus on promoting analytical thinking general awareness technical competence and competitive spirit among ECE students while providing consistent platforms for participation learning and recognition.

The Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College has a strong and long-standing research culture with clearly defined research domains including Antennas Image Processing and VLSI and Embedded Systems supported by major funded projects from national agencies.The department is currently executing multiple ongoing sponsored research projects such as Development of Techniques for Scalloping and Banding Removal in Scan-SAR funded by ISRO RESPOND 2023 with a grant of ₹19.45 lakhs coordinated by Dr Turimerla Pratap Development of Compressive Sensing Techniques for SAR Image Reconstruction funded by ISRO RESPOND 2023 with ₹18.17 lakhs coordinated by Dr T Venkata Sainath Gupta Design and Characterization of SRAM-based Dosimeter funded by DST-SERB with ₹18.30 lakhs coordinated by Dr Ch Naga Raghuram Design and experimental validation of a novel AI-powered artificial pancreas funded by DST-SERB with ₹23.03 lakhs coordinated by Dr Jasti Sateesh and Fabrication and characterization of Novel Nanoscale Field Effect Transistor Array for breast cancer screening funded by DAE-BRNS with ₹24.75 lakhs coordinated by Dr Aniruddh Yadav.In addition to ongoing projects the department has successfully completed a large number of high-impact research projects funded by agencies such as DRDO DST-SERB ISRO AICTE UGC and TIFAC including landmark initiatives like the TIFAC CORE in Telematics with a funding of ₹156 lakhs modernization of laboratories under MODROBS schemes biomedical lab-on-chip optimization satellite image analysis systems phased array radar studies entrepreneurship development cell establishment and multiple microwave RF and communication system projects spanning from 1985 onwards.These projects have resulted in advanced laboratory infrastructure research publications technology development industry collaboration doctoral guidance and strong integration of research with teaching thereby establishing the ECE department at VRSEC as a major contributor to applied and sponsored research in electronics communication signal processing and semiconductor technologies.

The Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College has demonstrated strong innovation output through multiple Intellectual Property Rights applications filed by its faculty across recent academic years covering domains such as microwave engineering wireless communication IoT cloud computing artificial intelligence biomedical systems and antenna design.During the academic year 2021–22 the department filed and published several patents including Microwave Amplitude and Phase Distribution Network filed by Dr V Praveen Naidu M Bhagya Lakshmi K Naga Sunanda Dr K Sri Rama Krishna Cloud Computing Based Techniques to Track the Cabs by P Vijaya Kumar video streaming over cognitive radio networks and adaptive reception transmission scheduling for reliable 5G networks by Dr M Padmaja Dr A Jhansi Rani and K Prasuna along with multiple IoT and AI based systems for security health monitoring e commerce analytics and pandemic response authored by faculty such as A Ravi Raja SK Fayaz Ahamed R V H Prasad G Venkata Subbaiah and Dr A Vijaya Sankar.In the academic year 2020–21 patents were filed and processed in areas including smart IoT sensors and deep learning for infectious disease immunity estimation rainfall tracking devices environmental monitoring

systems using wireless sensors and advanced antenna designs for ISM WLAN and Wi-Fi applications by faculty members such as Satyanarayana Pamarthi Dr Durga Prakash Matta and B Alekya with several patents granted or under examination.During 2019–20 notable patent applications included Airbag in Automobile Safety Technology by Dr N Satyanarayana Murthy and a Small Aperture All Metal Vivaldi Antenna for phased array applications by M Bhagya Lakshmi and Dr N Narasimha Sastry reflecting the department’s sustained contribution to applied research product development and technology commercialization through structured IPR activities.

The Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College has a strong doctoral research culture with a total of 21 PhD scholars successfully guided by senior faculty members across diverse and advanced research domains under reputed universities such as JNTUH JNTUK JNTUA ANU and KLU.Under the supervision of Dr D Venkata Rao scholars have completed doctoral research in areas including mobile ad hoc network protocols QoS aware handoff schemes in LTE and LTE-A networks adaptive decision feedback equalizers and image restoration techniques during 2021–22.Dr K Sri Rama Krishna has guided multiple PhD scholars since 2011 in cutting edge areas such as evolvable hardware chips microwave and MIMO antenna design ANN based microwave devices content based image retrieval ECG based cardiac arrhythmia detection tunnel transistors and speech processing with awards spanning from 2011 to 2018.Dr P V Subbaiah has supervised doctoral research focusing on smart antenna beamforming algorithms and speech enhancement techniques with degrees awarded during 2015–16 and 2020–21.Dr A Jhansi Rani has guided several PhD scholars in RFID antenna design smart antenna side lobe reduction low power codec systems FinFET based low power processors retinal recognition systems object detection and tracking systems and electromagnetic compatibility with awards between 2017–18 and 2020–21.This extensive PhD guidance portfolio reflects the department’s sustained commitment to high quality research supervision interdisciplinary innovation and advanced knowledge creation in electronics communication signal processing VLSI antennas biomedical systems and wireless technologies.

The Faculty Reviewers profile of the Department of Electronics and Communication Engineering at Velagapudi Ramakrishna Siddhartha Engineering College highlights the strong academic credibility and research visibility of its faculty at national and international levels. Senior professors and associate professors from the department actively serve as reviewers for reputed journals and conferences published by Springer, IEEE, Elsevier, Inderscience, and other globally recognized publishers, reflecting their subject-matter expertise and scholarly recognition.
The department is led academically by experienced professors such as Dr. D. Venkata Rao, Professor and Head of the Department, who reviews for high-impact Springer journals including Journal of Real-Time Image Processing and Multimedia Tools and Applications. Dr. A. Jhansi Rani contributes as a reviewer for applied nanoscience journals and international conferences like INDISCON and ICISSGT, while Dr. M. Padmaja serves as a reviewer for international conferences in internet engineering and web services. Faculty such as Dr. K. A. Meerja review for top-tier IEEE journals including IEEE Internet of Things Journal, IEEE Access, Journal of Supercomputing, and Mobile Networks and Applications, indicating strong engagement in communication systems and IoT research. Associate professors and assistant professors also play a significant role. Dr. V. Praveen Naidu reviews extensively in RF, microwave, and electromagnetics journals such as Progress in Electromagnetics Research, Wireless Personal Communications, and Microsystem Technologies. Dr. P. S. Suhasini and Dr. B. L. Sirisha contribute to reviewing research in image processing, biomedical signal analysis, traffic perception, and wireless communications. Emerging researchers like Dr. Aniruddh Bahadur Yadav, Dr. T. V. Sainath Gupta, Dr. K. Shri Ramtej, and Dr. J. Sateesh review for IEEE Sensors Journal, IEEE Transactions, renewable energy journals, and international conferences.
Overall, the faculty reviewer portfolio demonstrates the department’s strong research ecosystem, peer recognition, and active participation in maintaining the quality of global scientific publications.

Consultancy Activities – ECE – VR Siddhartha Engineering College

The Department of Electronics and Communication Engineering (ECE) at Velagapudi Ramakrishna Siddhartha Engineering College actively engages in industry-oriented consultancy projects, demonstrating strong collaboration with reputed technology-driven companies. These consultancy activities focus on applying academic expertise to solve real-world engineering problems, particularly in embedded systems, communication technologies, signal processing, and AI & ML domains.

Industry Collaborations

The department has undertaken consultancy projects primarily with Efftronics and Avantel Ltd, both well-known Indian companies working in industrial electronics, communication systems, and defense-related technologies. These collaborations indicate the department’s relevance to practical engineering applications and industry needs.

Faculty Involvement

Multiple faculty members from the ECE department are involved in consultancy work, often collaborating in teams. Faculty expertise spans across:

Artificial Intelligence & Machine Learning

Embedded Systems and ARM Controllers

FPGA and Embedded C programming

Digital Modulation and Communication Systems

Advanced Signal Processing

This multi-faculty participation ensures both depth and breadth in consultancy delivery.

Major Consultancy Projects

Key consultancy engagements include:

AI & ML Technology Development for Efftronics, involving faculty such as Dr. G. Suryanarayana, Dr. T. V. Sainath Gupta, and Dr. Shri Ramtej, with a consultancy value of ₹2,00,000.

ARM Controller Development Technology, handled by Mr. V. Siva Reddy and Mrs. M. Sunitha for Efftronics, also valued at ₹2,00,000.

GMSK Modulation and Demodulation Software Development for Avantel Ltd, undertaken by Dr. T. Pratap.

FPGA and Embedded C Development consultancy for Avantel Ltd by Dr. G. Kishore Kumar and Mr. V. Siva Reddy.

Signal Processing for Advanced Communication Systems, carried out by A. Vijay Shankar and Md. Fiaz for Avantel Ltd.

Financial Impact

The consultancy projects range from approximately ₹94,400 to ₹2,00,000 per project, reflecting both academic value and industry trust in the department’s technical capabilities.

Academic and Student Benefits

These consultancy activities:

Strengthen industry–institute interaction

Enhance faculty exposure to real-world engineering challenges

Support curriculum enrichment with practical insights

Indirectly benefit students through project guidance, internships, and applied research exposure

Teaching–Learning Process – ECE – Velagapudi Ramakrishna Siddhartha Engineering College

The Teaching–Learning process in the ECE department follows experiential, participative, problem-solving, and ICT-enabled methodologies. Academic activities strictly follow the academic calendar. A proctor diary system is used for counseling and monitoring academic and personal issues. Learning levels of students are identified (slow and fast learners), and additional training is provided to slow learners. Facilities are extended to Divyangan students. Faculty encourage academic discussions using blackboards and share study materials. Modern teaching aids such as LCD projectors and Wi-Fi enabled laptops are used. EPICS (Engineering Projects for Community Services) is integrated into the curriculum along with mini and major projects. Expert video lectures and e-resources like NPTEL, MOOCs, e-journals, and video conferencing are utilized. Faculty continuously upgrade skills through FDPs, workshops, and short-term

courses.
Innovative Teaching–Learning Methods and Activities
Activity-based teaching: Think–Pair–Share, Flipped Classroom, In-class Teams, Think Aloud Pair Problem Solving, Concept Mapping, Plickers, Quiz using Mentimeter
Project-based learning: Engineering Project for Community Services, Mini Project, Major Project
Self-learning: NPTEL, Coursera, MOOCs
Experiential learning: Internships, Quality Circles, Open-ended Laboratory Problems
Participative learning: Seminars, Workshops, Value Added Courses, Innovative Projects, Competitions, Industrial Training
Multimedia learning: Moodle, Web-based Learning
Placement-based learning: E-BOX Training, CCC Training, Mock Interviews

Activity-Based Learning
Think–Pair–Share: Collaborative problem solving and improved confidence in sharing ideas
Flipped Classroom: Improved engagement, teamwork, communication, and critical thinking
In-class Teams: Better collaboration, course management, and interaction
Think Aloud Pair Problem Solving: Enhanced analytical skills and error identification
Concept Mapping: Higher-order thinking and meaningful concept connections
Mentimeter: Increased engagement, attention, and instant feedback
Plickers: On-the-spot formative assessment and remedial teaching

Project-Based Learning
Engineering Projects for Community Services: Field visits to villages, hospitals, towns to identify real-life problems and propose solutions
Mini Project: Faculty-guided feasibility studies and preparation for major projects
Major Project: Implementation and detailed project reporting based on the mini project

Self-Learning
Students undertake MOOCs such as NPTEL, Coursera, edX, Cisco, Oracle. Credit transfer is permitted under VR14 regulations. The institute secured AAA ranking and All India 7th position in NPTEL/SWAYAM participation. Faculty are also encouraged to complete advanced certifications.

Experiential Learning
Internships: Minimum 3 weeks industrial internship, with an option for 6-month training in the 8th semester
Quality Circles: Fast learners support slow learners, improving learning environment and satisfaction
Open-ended Lab Problems: Hands-on solutions using core ECE knowledge and current technologies

Participative Learning
Seminars and Workshops: Regular exposure to modern trends and expert knowledge
Value Added Courses: Bridging skill gaps and enhancing industry readiness
Innovative Projects and Competitions: Participation in hackathons and idea competitions with awards

Multimedia Learning
Moodle: LMS for personalized, secure, and flexible learning
Web-based Learning: Online lectures, forums, and video conferencing enabling flexible learning schedules
Placement-Based Learning
E-BOX Training: Python, DSA, OOPs, Dynamic Programming for III & IV semester students
CCC Training: C programming, data structures, DBMS, analytics for V semester students

Mock Interviews: Faculty and alumni-led sessions improving confidence, communication, and placement outcomes

VELAGAPUDI RAMAKRISHNA SIDDHARTHA ENGINEERING COLLEGE (Autonomous)
Department of Electronics and Communication Engineering
Training & Placement Cell
Academic Year: 2022–2023

PLACEMENT DATA — CLEANED STRUCTURE (ECE)

Data notes (important):
• Same student appears multiple times because of multiple offers (higher package counted separately)
• Same roll number + same company + same package = treated as one offer
• Branch is uniformly ECE
• Packages are in LPA

TOP PACKAGE OFFERS (≥7 LPA)

AT&T – 11.50 LPA
• Kadali Vasavi – 198W1A0487
• Katabathula Nithin Sai – 198W1A04L4

EPAM – 9.00 LPA
• Valanukonda Sarath Brahmma – 198W1A04O7

Deloitte – 7.60 LPA
• Kundeti Chandra Kiran – 198W1A04F8
• Pasam Priyanka – 198W1A04G9
• Seelam Lavanya – 198W1A04H5
• Vasamsetti Gayathri – 198W1A04I3
• Pabolu Ravi Kanth – 208W5A0404

TCS Digital – 7.20 LPA
• Garlapati Phanindra – 198W1A0421
• Narayanapuram Hari Krishna – 198W1A0440
• Chivukula Sri Venkata Nagasai Lakshmi Amulya – 198W1A0477
• Kandula Hemanth Kumar – 198W1A0490
• Karimikonada Venkata Rohith Kumar – 198W1A0491
• Sajja Naga Krishna Chaitanya – 198W1A04H2
• Shaik Abdul Gouse Basha – 198W1A04H6
• Chintam Pranathi – 198W1A04K2
• Gorantla Prathap Kumar – 198W1A04K9
• Bojja Sulochana Devi – 208W5A0416

TCS Digital PEGA – 7.20 LPA
• Rasamsetty Pranay – 198W1A0448
• Ganapavarapu Manasa Lakshmi – 198W1A0481
• Esther Rani Chalamalasetti – 198W1A04E4
• Gorrepeti Bala Pavan – 198W1A04E6
• Korada Kusuma Kumari – 198W1A04F6
• Vekolla Suharika – 198W1A04I6
• Vytla Anusha – 198W1A04J1
• Ogirala Devi Sai Revanth – 198W1A04M3

Capgemini – 7.25 LPA
• Avutapalli Ram Kumar – 198W1A04D4

MID-HIGH PACKAGE OFFERS (5.0 – 6.99 LPA)

Virtusa / Virtusa PEGA – 5.50 LPA
• 20+ students (bulk recruiter, multiple PEGA roles)

Hyundai Mobis – 5.50 LPA
• 10+ students

Hexaware – 6.00 LPA

• Pothapu Aditya – 198W1A04B3

Blue Danio Sea Services – 6.00 LPA
• 5 students

ANBlicks – 6.00 LPA
• 17 students

Tory Harris – 5.00 LPA
• 10 students

Byju’s – 4.75 LPA
Schneider Electric – 4.75 LPA

MASS RECRUITERS (3.5 – 4.5 LPA)

Accenture / Accenture PEGA – 4.50 LPA
Capgemini – 4.50 LPA
Deloitte – 4.50 LPA
Cognizant GENC / GENC Elevate / GENC Pro PEGA – 4.00–5.40 LPA
Mindtree – 4.00 LPA
Infosys PEGA – 4.00 LPA

ENTRY-LEVEL / CORE / SERVICE ROLES (≤3.96 LPA)

TCS CodeVita – 3.96 LPA
TCS Ninja / Ninja PEGA – 3.96 LPA
Tessolve Semiconductors – 4.00 LPA
VEM Technologies – 3.50 LPA
Tekworks – 3.50 LPA
Movate – 3.20 LPA
Blaplug – 3.00 LPA
Polycab Support Force – 3.00 LPA
United Online – 3.00 LPA
Just Dial – 2.70 LPA
Sightplan – 2.50 LPA
SmartGig – 2.40 LPA
Efftronics – 2.16 LPA
Majili Pvt Ltd – 1.80 LPA
Tectoro – 1.80 LPA

VELAGAPUDI RAMAKRISHNA SIDDHARTHA ENGINEERING COLLEGE (Autonomous)
Department of Electronics and Communication Engineering
Training & Placement Cell
Academic Year: 2024–2025

PLACEMENT DATA — CLEANED & STRUCTURED (ECE)

Important processing rules applied:
• Same student appearing multiple times = multiple offers
• Highest package per student is not auto-merged unless requested
• Branch is uniformly ECE
• Packages are in LPA

HIGHEST PACKAGE OFFERS (≥7 LPA)

NXP Semiconductors – 23.00 LPA
• Jagabattula Rupa – 218W1A0486
→ Highest package in ECE (2024–25)
→ Core semiconductor product company

Capgemini – 7.50 LPA
• Chintalacheruvu V S M Sri Charan – 218W1A0471

TCS Digital – 7.20 LPA
• Nagulapati Jyothsna – 218W1A0448
• Nagothu Hemanth Nirmal Kumar – 218W1A04N4

MID-HIGH PACKAGE OFFERS (5.0 – 6.99 LPA)

Teachnook – 6.00 LPA
• 36 students (largest recruiter this year at this band)
• Strong non-core tech/EdTech hiring

Avantel – 5.00 LPA
• 35+ students
• Core ECE / defense & communication domain
• Strong core-company presence

SERVICE / MASS RECRUITERS (4.0 – 4.99 LPA)

Accenture – 4.50 LPA
• 50+ students

Rinex Technologies – 4.50 LPA
• 15 students

Capgemini – 4.25 LPA
• 11 students

LTI Mindtree – 4.05 LPA
• 5 students

Analog Port – 4.00 LPA
• 3 students

CTS GENC – 4.00 LPA
• 4 students

VEM Technologies – 4.00 LPA
• 1 student

ENTRY-LEVEL / BULK HIRING (≤3.99 LPA)

TCS PEGA – 3.86 LPA
• 2 students

Infosys – 3.60 LPA
• 3 students

CADSYS – 3.52 LPA
• 18 students (core design / CAD focus)

TCS Ninja – 3.36 LPA
• 65+ students (largest bulk recruiter)

KEY VERIFIED INSIGHTS (2024–25)

• Highest package jumped from 11.5 → 23 LPA (YoY growth)
• Core semiconductor presence via NXP Semiconductors
• Teachnook replaced TCS Digital as dominant mid-band recruiter
• Avantel continues strong core-ECE hiring
• Heavy dependency on TCS Ninja at entry level
• PEGA ecosystem still active (TCS, Accenture, Rinex)
• Approximate total offers listed: 247+

COMPARISON SNAPSHOT (ECE)

2022–23 vs 2024–25
• Highest package: 11.5 → 23 LPA (↑100%)
• Core companies: AT&T/EPAM → NXP, Avantel
• Bulk recruiter: TCS Ninja → still dominant
• Service-company saturation remains high

VELAGAPUDI RAMAKRISHNA SIDDHARTHA ENGINEERING COLLEGE (Autonomous)
Department of Electronics and Communication Engineering
Training & Placement Cell
Academic Year: 2023–2024

PLACEMENT DATA — CLEANED & STRUCTURED (ECE)

Processing rules applied:
• Multiple offers per student are preserved
• No automatic deduplication unless asked
• Branch normalized to ECE
• Packages in LPA

HIGHEST PACKAGE OFFERS (≥10 LPA)

AT&T – 16.00 LPA
• Chandaluri Yaswanth Reddy – 208W1A04D8
• Narala Venkateswari – 208W1A04N2
→ Highest package for ECE (2023–24)
→ Core telecom MNC

HIGH PACKAGE OFFERS (7.0 – 9.9 LPA)

TCS Digital – 7.20 LPA
• 12 students (non-PEGA)
• 6 students (PEGA)
→ Total TCS Digital offers: 18
→ Dominant high-band recruiter this year

MID PACKAGE OFFERS (5.0 – 6.99 LPA)

Posidex – 6.00 LPA
• 2 students

Soctronics – 6.00 LPA
• 2 students

Efftronics – 5.30 LPA
• 2 students

KITECH – 5.20 LPA
• 11 students (strong electronics hiring)

Hyundai Motors – 5.00 LPA
• 4 students

NYERA – 5.00 LPA
• 4 students

Medha Servo Drives – 4.90 LPA
• 1 student

SERVICE / IT MAJOR RECRUITERS (4.0 – 4.99 LPA)

Accenture – 4.50 LPA
• 66+ students
→ Largest recruiter by volume

Avantel – 4.50 LPA
• 21 students
→ Core ECE / defense & comm domain

Qualzeal – 4.50 LPA
• 5 students

Ernst & Young – 4.25 LPA
• 1 student

4.00 LPA BAND (HIGH SATURATION)

Capgemini – 4.00 LPA
• 11 students

Analog Port – 4.00 LPA
• 2 students

CTS-GENC – 4.00 LPA
• 2 students

Ericsson – 4.00 LPA
• 1 student

IBM – 4.00 LPA
• 3 students

Indosol Solar Ltd – 4.00 LPA
• 6 students

Intrainz – 4.00 LPA
• 8 students

LTI Mindtree – 4.00 LPA
• 7 students

People Tech – 4.00 LPA
• 4 students

Teachnook – 4.00 LPA
• 30+ students (very strong presence)

Ulearn EduTech – 4.00 LPA
• 6 students

Zolo Pvt Ltd – 4.00 LPA
• 1 student

ENTRY-LEVEL / BULK HIRING (≤3.99 LPA)

TCS Ninja PEGA – 3.96 LPA
• 22 students

TCS Ninja – 3.86 LPA
• 20+ students

Avitron Aerospace – 3.80 LPA
• 4 students

VEM Technologies – 3.50 LPA
• 3 students

Tech Mahindra – 3.25 LPA
• 3 students

KEY VERIFIED INSIGHTS (2023–24)

• Highest package dropped from 2022–23 (11.5) → 16 LPA, then surged to 23 LPA in 2024–25
• AT&T remained the top-paying core recruiter
• TCS Digital peaked strongly before declining in 2024–25
• Accenture dominated volume hiring
• Teachnook emerged strongly (precursor to 2024–25 dominance)
• Healthy mix of core ECE + IT + EdTech
• Approximate total offers listed: 270+

YEAR-ON-YEAR SNAPSHOT (ECE)

2022–23 → 2023–24 → 2024–25
• Highest Package: 11.5 → 16 → 23 LPA
• Core Presence: AT&T, Hyundai, Avantel → NXP added
• Bulk Recruiter Trend: Accenture/TCS → TCS Ninja dominance
• EdTech Rise: Minimal → Teachnook strong

Research Calls and Sponsored Research Project Proposals with relevant submission deadlines are listed below.
The DBT–EU Cooperation Programme on R&I under 'Horizon Europe' Calls 2023–2024 includes Topic 1: Development of smart concepts of integrated energy-driven bio-refineries for the co-production of advanced biofuels, bio-chemicals, and biomaterials. Calls for proposals are invited under the WISE-SCOPE Fellowship in the areas of Energy, Water and Waste Management (EWWM), Engineering and Technology Development (ETD), Environment, Climate and Sustainable Development (ECSD), Agriculture and Allied Sciences (AAS), and Health, Food and Nutrition (HFN). Relevant links include the DBT–EU joint call web notice and the DST call for proposals. The last date for submission is 05 September 2024.
The IGSTC 2+2 Call 2024 focuses on the overall thematic area "AI for Sustainability." Details are available at the IGSTC website. The submission deadline is 30 April 2024. Proposals under the WISE-SCOPE Fellowship must be submitted by 31 August 2024.

The eProMIS Portal is open from 01 April 2023 for submission of PI-driven proposals with a funding cap of Rs. 90 lakhs. Investigators are not eligible to apply for a fresh proposal if they are currently receiving funding from DBT for three ongoing projects.

Another DBT–EU Cooperation Programme on R&I under 'Horizon Europe' Calls 2023–2024 includes Topic 5: Pandemic preparedness and response, focusing on host–pathogen interactions of infectious diseases with epidemic potential. Submission-related notifications and the joint call web notice are available through DBT links. Relevant dates include 11 April 2024 and 30 April 2024.

The WIDUSHI (Women's Instinct for Developing and Ushering in Scientific Heights & Innovation) program has announced an open call for submission of proposals. The official advertisement is available through the DST website.

BIRAC has announced a call for proposals under the Early Translational Accelerator scheme. Proposal submissions are currently open through the BIRAC portal.

The Uttar Pradesh Council of Science & Technology has invited proposals for organizing Seminars, Symposia, Conferences, and Workshops for the year 2023. Submissions are open via the council's official website.

The Department of Science & Technology (DST) has announced the Post-Doctoral Fellowship under the Women in Science and Engineering – KIRAN (WISE-KIRAN) program. Proposal submissions are open, with the deadline being Sunday, 31 March 2024.

The CET Partnership Joint Call 2023 has been announced, with details available on the CET Partnership website. The submission deadline is 27 March 2024.

The European Commission has released a call titled “Novel applications of AI and other enabling technologies for Security Operation Centres.” Details are available on the EU funding and tenders portal. The submission deadline is 26 March 2024.

DST has invited pre-proposals for setting up Thematic Hubs (T-Hubs) under the National Quantum Mission. The last date for submission is 21 March 2024.

The Medical Research Council (MRC) has announced the Public Health Intervention Development (PHIND) call, focusing on human-centered and ethical development of digital interventions. Relevant details are available through UKRI and EU funding portals. The deadline is 19 March 2024.

Under Horizon Europe, the European Commission has announced a call on industrial technologies (HORIZON-CL4-2024-HUMAN-01). Additionally, DST has announced a co-funding partnership under the EU Framework Programme on R&I ‘Horizon Europe’ for the topic “Explainable and Robust AI” under the AI, Data, and Robotics Partnership. The submission deadline is 19 March 2024.

The 2nd cycle of the first call for VAIBHAV Fellowships has been announced by DST. The last date for submission is 15 March 2024.

The Medical Research Council (MRC) has also announced funding for early-stage development of new healthcare interventions. Details are available through the UKRI portal, with a submission deadline of 13 March 2024.

The Department of Electronics and Communication Engineering has an Electronic Devices and Circuits Laboratory equipped with major instruments to support undergraduate and postgraduate practical work. The laboratory is furnished with 23 regulated power supplies rated at 0–30V and 1A. A total of 45 digital storage oscilloscopes are available for signal analysis and measurement. The lab also includes 22 function generators with frequency ranges of 2 MHz and 10 MHz. For digital and circuit testing purposes, the laboratory has one digital IC tester and nine general-purpose trainer kits. Measurement and experimental support equipment includes 27 decade resistance boxes, 27 decade inductance boxes, and 27 decade capacitance boxes. Additionally, the lab is equipped with 65 digital multimeters for voltage, current, and resistance measurements. Power conditioning and advanced measurement facilities include one voltage stabilizer rated at 3 KVA and 5 KVA, one LCR meter bridge, one LC transmission line setup, and one RC transmission line setup. The laboratory also houses eight desktop computers to support simulation, data analysis, and documentation work. The Electronic Devices and Circuits Laboratory operates under the supervision of the Lab In-charge with oversight from the Head of the Department, Department of Electronics and Communication Engineering, R.Siddhartha Engineering College, Vijayawada – 520007.

V. R. Siddhartha Engineering College hosts the ATHISAYA Club (Beyond the Book), a student-driven initiative of the Department of Electronics and Communication Engineering that brings students together and offers unmatched opportunities for learning, growth, and career development. The primary objective of the club is to imbibe strong public speaking and interpersonal skills among students by training them to converse, interact, and behave confidently in group settings. Along with skill development, the club emphasizes enjoyment through carefully designed activities that nurture industry-relevant competencies such as English expression (oral and written), teamwork, organizational ability, and leadership. These activities include movie recommendations, group discussions, extempore speaking, word or phrase of the week, debates, picture descriptions, movie quizzes, dumb charades, stand-up comedy, and experience sharing, all aimed at building self-confidence and self-efficacy in an engaging manner. To ensure equal participation and consistent skill enhancement, each group is limited to 25 students, with multiple groups functioning simultaneously every day. Monthly

inter-group competitions are planned at the department level, along with inter-departmental competitions at the college level, and outstanding performers are encouraged to participate in inter-college and university-level events. Through its balanced blend of knowledge and entertainment, the ATHISAYA Club significantly helps students develop the confidence and skills required to perform effectively in job interviews and excel in their future careers.

The Department of Electronics and Communication Engineering has a Digital Electronics and Linear Integrated Circuit Applications Laboratory equipped with essential instruments to support practical experimentation and learning. The laboratory is provided with 36 dual tracking power supplies, 25 digital storage oscilloscopes, and 25 function generators to facilitate circuit testing and signal analysis. For integrated circuit verification and measurements, the lab includes one universal IC tester and 20 multimeters. In addition, 20 fixed and logic signal generators are available to support digital logic and linear IC experiments. The Digital Electronics and Linear Integrated Circuit Applications Laboratory functions under the supervision of the Lab In-charge with oversight from the Head of the Department, Department of Electronics and Communication Engineering, V. R. Siddhartha Engineering College, Vijayawada – 520007.

The Department of Electronics and Communication Engineering has a Microprocessor and Microcontroller Laboratory equipped to support hands-on learning in embedded systems and processor-based applications. The laboratory is furnished with 36 desktop computers configured with Intel Core i5 processors operating at 3.1 GHz, 4 GB RAM, and 500 GB hard disk storage. Power infrastructure includes one Power One make 10 KVA power unit and one 24-port hub with 10/100 Mbps capability. Measurement and debugging facilities include three digital storage oscilloscopes. The lab is equipped with 30 numbers of 8086 microprocessor trainer kits and 18 numbers of 8051 trainer kits for processor-level experimentation. For peripheral interfacing, 10 interfacing boards are available supporting stepper motors, ADC, DAC, LCD, and keyboard modules. Programming and development support includes three Atmel 8051 programmers and 20 ARM7 and 8051 single-board systems. The laboratory is supported by licensed software through the NI Academic Site License for Multisim, teaching use only. The Microprocessor and Microcontroller Laboratory operates under the supervision of the Lab In-charge with oversight from the Head of the Department, Department of Electronics and Communication Engineering, V. R. Siddhartha Engineering College, Vijayawada – 520007.

The Department of Electronics and Communication Engineering recorded extensive research output during the academic year 2020–2021 through publications in international journals and conferences. Faculty members and co-authors, including student contributors, published research across diverse domains such as wireless communications, antennas and microwave engineering, VLSI and low-power circuit design, signal and image processing, biomedical applications, machine learning and deep learning, IoT systems, FPGA architectures, graphene-based transistors, FinFET and tunneling FET devices, power systems, computer vision, and network optimization. Publications appeared in reputed international journals including IEEE Access, Wireless Personal Communications, AEU – International Journal of Electronics and Communications, Progress in Electromagnetics Research, Journal of Critical Reviews, Materials Today: Proceedings, Applied Nanoscience, Silicon, SN Computer Science, Analog Integrated Circuits and Signal Processing, Journal of Circuits Systems and Computers, Statistical Methods in Medical Research, and other Springer, Elsevier, Wiley, Sage, World Scientific, and IEEE journals, with indexing in Scopus, SCI, Web of Science, and Emerging Sources Citation Index, and impact factors ranging approximately from 0.9 to above 3.3. The department also demonstrated strong participation in international conferences, including IEEE-sponsored and Springer book series conferences such as the International Conference on Smart and Intelligent Systems, IEEE Women in Engineering Conference, International Conference on Electronics, Communication and Aerospace Technology, ERCICA, ICBSII, INCET, SCI-2020, ICAECT, and several others, held across India and online platforms. Conference papers covered topics such as MIMO and UWB antenna design, image enhancement, pest detection using AI, FPGA and FFT

processor design, biomedical signal denoising, IoT-based smart systems, surveillance robots, satellite communication antennas, wireless sensor networks, OFDM PAPR reduction, computer vision-based applications, and assistive technologies for visually impaired users. Many conference proceedings were published by Springer, IEEE Xplore, Taylor & Francis, ASME, and IOP, with ISBN or ISSN registration and Scopus indexing. Overall, the AY 2020–2021 research contributions reflect the department's strong emphasis on high-impact, interdisciplinary research and active engagement at national and international academic platforms.

Faculty: Dr. D. Venkata Rao. Co-authors: Battineni G., Hossain M. A., Chintalapudi N., Traini E., Mariappan Ramasamy, Amenta. Student Co-authors: NIL. Title: Improved Alzheimer's Disease Detection by MRI Using Multimodal Machine Learning Algorithms. Journal: Diagnostics (MDPI). Publication Details: ISSN 2075-4418, Volume 11, Issue 11, Publisher: MDPI. Month/Year: November 2021. DOI: NIL. Indexing: SCI. Impact Factor: 3.992.

Faculty: Dr. D. Venkata Rao. Co-authors: P. J. Reginald. Student Co-authors: NIL. Title: Energy Efficient Routing Mechanisms for Ad hoc Network Optimization and Analysis. Journal: International Journal of Special Education. Publication Details: Volume 37, Issue 3, Article in Press, Publisher: SPED sp. z o.o. Year: 2022. DOI: NIL. Indexing: Scopus. Impact Factor: NIL.

Faculty: Dr. M. Padmaja. Co-authors: Mathe M., Tirumala Krishna B. Student Co-authors: NIL. Title: Intelligent Approach for Artifacts Removal from EEG Signal Using Heuristic-Based Convolutional Neural Network. Journal: Biomedical Signal Processing and Control. Publication Details: ISSN 1746-8094, Volume 70, Publisher: Elsevier. Month/Year: September 2021. DOI: NIL. Indexing: SCI. Impact Factor: 3.88.

Faculty: Dr. M. Padmaja. Co-authors: Shitharth S., Prasuna. Student Co-authors: NIL. Title: Growth of Artificial Intelligence to Challenge Security in IoT Applications. Journal: Wireless Personal Communications. Publication Details: ISSN 1572-834X / 0929-6212, Publisher: Springer. Month/Year: July 2021. DOI: NIL. Indexing: SCI. Impact Factor: 1.782.

Faculty: Dr. M. Padmaja. Co-authors: M. Kondaiah. Student Co-authors: NIL. Title: A Review on Spectral Efficiency in Wireless Networks. Journal: Webology. Publication Details: ISSN 1735-188X, Volume 18, Issue 6, Pages 4137–4144, Publisher: Webology. Month/Year: 2021. DOI: NIL. Indexing: Scopus. Impact Factor: NIL.

Faculty: Khalkha Amjad Meerja. Co-authors: V. S. Prasanna, Mani Ram Kumar Achyutha, Yacob Avanigadda, Krishna Mohan Bathula. Student Co-authors: NIL. Title: High-Performance PAM4 Equalizer for Underwater Optical Wireless Communication. Journal: Journal of Harbin Institute of Technology (Harbin Gongye Daxue Xuebao). Publication Details: ISSN 0367-6234, Volume 54, Issue 4, Publisher: Harbin Institute of Technology. Year: 2022. DOI: NIL. Indexing: NIL. Impact Factor/Quartile: NIL.

Faculty: Dr. Praveen Naidu Vummadisetty. Co-authors: Rohith Sai, Sai Chilla Haranadh Akkapanthula. Student Co-authors: NIL. Title: Diversity Performance Analysis of Four-Port Triangular Slot MIMO Antenna for WiBro and Ultrawide Band (UWB) Applications. Journal: Journal of RF Engineering and Telecommunications. Publication Details: ISSN 2191-6349, Volume 75, Issues 11–12, Publisher: De Gruyter. Date: 01 December 2021. DOI: NIL. Indexing: SCI. Impact Factor: 0.72.

Faculty: Dr. Praveen Naidu Vummadisetty. Co-authors: Dhanekula Mahesh Babu, A. Sai Haranadh, Sanjeev Kumar, Arvind Kumar, Neelima Vummadisetty, Dudi. Student Co-authors: NIL. Title: Design and Performance Analysis of 4-Port Trophy Shaped MIMO Antenna for Tri-Band Applications. Journal: Microsystem Technologies. Publication Details: Volume 28, Issue 3, Publisher: Springer Berlin Heidelberg. Date: 20 February 2022. DOI: NIL. Indexing: SCI. Impact Factor: 2.276.

Faculty: Dr. Praveen Naidu Vummadisetty. Co-authors: Dhanekula Mahesh Babu, A. Sai Haranadh, Sanjeev Kumar, Arvind Kumar, Neelima Vummadisetty, Lam Sumanji, K. A. Meerja. Student Co-authors: NIL. Title: A Compact Four-Port High Isolation Hook Shaped ACS Fed MIMO Antenna for Dual Frequency Band Applications. Journal: Progress In Electromagnetics Research C (PIERC). Publication Details: Volume 11, Issue 3, Publisher: The Electromagnetics Academy. Year: 2021. DOI: NIL. Indexing: Scopus. Impact Factor/Quartile: NIL.

Faculty: Dr. Praveen Naidu Vummadisetty. Co-authors: Dhanekula Mahesh Babu, Sai Haranadh Akkapanthula, Arvind Kumar, Neelima Vummadisetty, Sanjeev Kumar. Student Co-authors: NIL. Title: A Tri-Band Triangular Lamp Post Shaped Quad Port MIMO Antenna. Journal: International Journal of Communication Systems. Publication Details: Volume 35, Issue 9, Publisher: John Wiley & Sons. Date: 21 February 2022. DOI: NIL. Indexing: SCI. Impact Factor: NIL.

Faculty: Dr. M. Durga Prakash. Co-authors: Beulah Grace Nelam, Shaik Ahmadsaidulu, Alluri Navaneetha, Asisa Kumar Panigrahy. Student Co-authors: NIL. Title: Performance Analysis of Ion-Sensitive Field Effect Transistor with Various Oxide Materials for Biomedical Applications. Journal: Silicon. Publication Details: ISSN 1876-9918, Publisher: Springer. Date: 02 October 2021. DOI: https://doi.org/10.1007/s12633-021-01413-9
. Indexing: SCI. Impact Factor: 2.67.

Faculty: Dr. M. Durga Prakash. Co-authors: Siva Sankara, Phani Tammireddy, Mamatha Samson, P. Rahul Reddy, Akishore Reddy, Asisa Kumar Panigrahy, Sudharsan Jayabalan. Student Co-authors: NIL. Title: An Energy-Efficient Reconfigurable Accelerators-Core Systems Using PULP-NN. Journal: Applied Nanoscience. Publication Details: ISSN 2190-5509, Publisher: Springer. Date: 28 August 2021. DOI: https://doi.org/10.1007/s13204-021-02069-y
. Indexing: SCI. Impact Factor: 3.674.

Faculty: Dr. M. Durga Prakash. Co-authors: B. Vamsi Krishna, Shaik Ahmadsaidulu, Surapaneni Sai Tarun Teja, D. Jayanthi, Alluri Navaneetha, P. Rahul Reddy. Student Co-authors: NIL. Title: Design and Development of Graphene FET Biosensor for the Detection of SARS-CoV-2. Journal: Silicon. Publication Details: ISSN 1876-9918, Publisher: Springer. Date: 12 September 2021. DOI: https://doi.org/10.1007/s12633-021-01372-1
. Indexing: SCI. Impact Factor: 2.67.

Faculty: Dr. M. Durga Prakash. Co-authors: B. Vamsi Krishna, B. V. V. Satyanarayana, N. Arun Vignesh, Asisa Kumar Panigrahy, Shaik Ahmadsaidulu. Student Co-authors: NIL. Title: A Study of an Ultrasensitive Label-Free Silicon Nanowire FET Biosensor for Cardiac Troponin I Detection. Journal: Silicon. Publication Details: ISSN 1876-9918, Publisher: Springer. Date: 02 September 2021. DOI: https://doi.org/10.1007/s12633-021-01352-5
. Indexing: SCI. Impact Factor: 2.67.

Faculty: Anitha Arumalla. Co-authors: Madhavi Latha Makkena. Student Co-authors: NIL. Title: Efficient Architecture for Block Parallel Convolution Using Two-Dimensional Polyphase Decomposition. Journal: Circuits, Systems, and Signal Processing. Publication Details: Publisher: Springer. Date: 23 July 2021. DOI: https://doi.org/10.1007/s00034-021-01811-9
. Indexing: SCI. Impact Factor: 2.225.

Faculty: Satyanarayana Murthy Nimmagadda. Co-authors: NIL. Student Co-authors: NIL. Title: A New HBS Model in Millimeter Wave Beamspace MIMO NOMA Systems Using Alternative Grey Wolf with Beetle Swarm Optimization. Journal: Wireless Personal Communications. Publication Details: Publisher: Springer. Month/Year: October 2021. DOI: https://doi.org/10.1007/s11277-021-08696-6
. Indexing: SCI. Impact Factor: 1.671.

Faculty: Satyanarayana Murthy Nimmagadda. Co-authors: K. Sai Harish. Student Co-authors: NIL. Title: Review Paper on Technology Adoption and Sustainability in India Towards Smart Cities. Journal: Multimedia Tools and Applications.

Publication Details: ISSN 1573-7721, Publisher: Springer Nature. Month/Year: March 2022. DOI: NIL. Indexing: SCI. Impact Factor: 2.757.

Faculty: Aniruddh Bahadur Yadav. Co-authors: Basavaraj S. Sannakashappanavar. Student Co-authors: NIL. Title: Investigation of Schottky Barrier Height Using Area as Parameter: Effect of Hydrogen Peroxide Treatment on Electrical and Optical Properties of Schottky Diode. Journal: Optical Materials. Publication Details: ISSN 0925-3467, Volume 119, Publisher: Elsevier. Month/Year: September 2021. DOI: https://doi.org/10.1016/j.optmat.2021.111341
. Indexing: SCI. Impact Factor: 3.08.

Faculty: Aniruddh Bahadur Yadav. Co-authors: Gopal Rawat, Basavaraj S. Sannakashappanavar. Student Co-authors: NIL. Title: A Low-Cost Sn-Doped ZnO Thin Film Based Schottky Diode for UV Detection. Journal: Materials Today Communications. Publication Details: Volume 31, Article 103751, Publisher: Elsevier. Date: 03 June 2022. DOI: NIL. Indexing: SCI. Impact Factor: 3.4.

Faculty: B. L. Sirisha. Co-authors: B. Chandra Mohan. Student Co-authors: NIL. Title: Review on Spatial Domain Image Steganography Techniques. Journal: Journal of Discrete Mathematical Sciences and Cryptography. Publication Details: ISSN 2169-0065, Volume 24, Issue 6, Publisher: Taylor & Francis. Month/Year: October 2021. DOI: NIL. Indexing: Scopus. Impact Factor: 0.57.

Faculty: Gunnam Suryanarayana. Co-authors: Chandrakumar Thangavel, Ramya Thangavel, Karthik Chandran, Subrata Chowdhury, Nguyen Duc Uyen, Thi-Thu Nguyen, Duc-Tan Tran. Student Co-authors: NIL. Title: A Study on Agricultural Engineering Equipment in South Tamilnadu Using Linear Regression. Journal: Bulletin of Electrical Engineering and Informatics. Publication Details: ISSN 2089-3191, e-ISSN 2302-9285, Volume 11, Issue 3, Publisher: Elsevier. Month/Year: April 2022. DOI: NIL. Indexing: Scopus. Impact Factor: NIL.

Faculty: Suryanarayana Gunnam. Co-authors: Priyanka Yadlapalli, D. Bhavana. Student Co-authors: NIL. Title: Intelligent Classification of Lung Malignancies Using Deep Learning Techniques. Journal: International Journal of Intelligent Computing and Cybernetics. Publication Details: ISSN 1756-378X, Volume 15, Issue 3, Pages 345–362, Publisher: Emerald Publishing Limited. Year: 2022. DOI: NIL. Indexing: ESCI and Scopus. Impact Factor: NIL.

Faculty: P. Satyanarayana. Co-authors: T. Mahalakshmi, P. Rama Koteswara Rao, Adlin Sheeba, Jampani Ravi, J. Nageswara Rao. Student Co-authors: NIL. Title: Enhancement of Energy Efficiency and Network Lifetime Using Modified MPCT Algorithm in Wireless Sensor Networks. Journal: Journal of Interconnection Networks. Publication Details: Article in Press, Publisher: World Scientific. Month/Year: January 2022. DOI: NIL. Indexing: ESCI and Scopus. Impact Factor: 0.459.

Faculty: V. Saritha. Co-authors: Pechetti Divya Naga Sai Prasanna, Chakali Chandrasekhar, Areti Jhansi Rani, Manikonda. Student Co-authors: NIL. Title: A Triple Band Pattern Reconfigurable Planar Antenna for 5G Applications. Journal: Frequenz. Publication Details: Article in Press, Publisher: De Gruyter. Month/Year: May 2022. DOI: NIL. Indexing: SCI. Impact Factor: NIL.

Faculty: V. B. K. L. Aruna. Co-authors: Ch. V. N. L. Venkateswararao Mounika. Student Co-authors: NIL. Title: Implementation of ECG Signal Compression by Using FFT System. Journal: Turkish Online Journal of Qualitative Inquiry. Publication Details: Volume 12, Issue 8, Publisher: TOJQI. Month/Year: July 2021. DOI: NIL. Indexing: NIL. Impact Factor: NIL.

Faculty: A. Ravi Raja. Co-authors: Shaik Fayaz Ahamed, Sunitha Munappa, V. H. Prasad Reddy. Student Co-authors: NIL. Title: Implementation of 6T & 8T SRAM Using GAA-SiNT-FET. Journal: Webology. Publication Details: ISSN 1735-188X, Volume 19, Issue 2, Publisher: Webology. Month/Year: January 2022. DOI: NIL. Indexing: NIL. Impact Factor: 0.66.

Faculty: Dr. G. Kishore Kumar. Co-authors: NIL. Student Co-authors: NIL. Title: High Speed FIR Filter Using Radix Multiplier and Its Application for Denoising EOG Signal. Journal: Journal of Circuits, Systems and Computers. Publication Details: ISSN 0218-1266, Volume 30, Issue 13, Publisher: World Scientific Publishing Company. Month/Year: October 2021. DOI: NIL. Indexing: SCI. Impact Factor: 1.333.

Faculty: Dr. G. Kishore Kumar. Co-authors: Balaji Narayanam. Student Co-authors: NIL. Title: FPGA Implementation of Eye Movement Detection Algorithm. Journal: Microprocessors and Microsystems – Embedded Hardware Design. Publication Details: Publisher: Elsevier. Date: 11 November 2021. DOI: NIL. Indexing: SCI. Impact Factor: 1.525.

Faculty: V. Siva Reddy. Co-authors: Uma Shankar Kumar, R. Ashok Kumar, M. Balaji Prasath. Student Co-authors: NIL. Title: Artificial Intelligence for Predicting Progression of Age-Related Macular Degeneration. Journal: Bulletin of Environment, Pharmacology and Life Sciences. Publication Details: ISSN 2277-1808, Volume 11, Issue 5. Month/Year: April 2022. DOI: NIL. Indexing: Web of Science. Impact Factor: 0.876.

Faculty: K. Premchand. Co-authors: Hari Krishna P. Student Co-authors: NIL. Title: Stripline Fed Slotted Edge Balanced Antipodal Vivaldi Antenna for Advanced Radar Applications. Journal: PIER Letters. Publication Details: ISSN 1937-6480, Volume 103, Issue 15, Publisher: PIER. Month/Year: April 2022. DOI: NIL. Indexing: Scopus (Q3). Impact Factor: 0.85.

Faculty: K. Premchand. Co-authors: Hari Krishna P. Student Co-authors: NIL. Title: High Performance CPW Fed Printed Antenna with Double Layered Frequency Selective Surface Reflector for Bandwidth and Gain Improvement. Journal: PIER Letters. Publication Details: ISSN 1937-6480, Volume 102, Issue 10, Publisher: PIER. Month/Year: March 2022. DOI: NIL. Indexing: Scopus (Q3). Impact Factor: 0.85.

Faculty: Dr. Venkata Sainath Gupta T. Co-authors: Sudhakar Tummala, Barbara A. K. Kreilkamp, Erik B. Dam, Niels K. Focke. Student Co-authors: NIL. Title: Fully Automated Quality Control of Rigid and Affine Registrations of T1w and T2w MRI in Big Data Using Machine Learning. Journal: Computers in Biology and Medicine. Publication Details: ISSN 0010-4825, Volume 139, Article 104501, Publisher: Elsevier. Year: 2021. DOI: NIL. Indexing: SCI. Impact Factor: 4.58.

Faculty: Siva Ramakrishna Pillutla. Co-authors: Lakshmi Boppana. Student Co-authors: NIL. Title: Low-Latency Area-Efficient Systolic Bit Parallel GF(2m) Multiplier for a Narrow Class of Trinomials. Journal: Microelectronics Journal. Publication Details: Volume 117, Publisher: Elsevier. Month/Year: October 2021. DOI: https://doi.org/10.1016/j.mejo.2021.105275
. Indexing: SCIE. Impact Factor: 1.605.

Faculty: Dr. Jasti Sateesh. Co-authors: Koushik Guha, Arindam Dutta, Pratim Sengupta, Srinivasa Rao. Student Co-authors: NIL. Title: Design and Modeling of Bioreactor Utilizing Electrophoresis and Dielectrophoresis Techniques for Regenerating Reabsorption Function of Human Kidney PCT in Microfluidics Environment. Journal: IEEE Transactions on Nanobioscience. Publication Details: Print ISSN 1536-1241, Electronic ISSN 1558-2639, Publisher: IEEE. Month/Year: November 2021. DOI: NIL. Indexing: SCI and PubMed. Impact Factor: 2.935.

Faculty: Dr. Kamalaksha Baral. Co-authors: Ashish Kumar Singh, Manas Ranjan Tripathy, Satyabrata Jit. Student Co-authors: NIL. Title: Design and Performance Assessment of HfO_2/SiO_2 Gate Stacked Ge/Si Heterojunction TFET on SELBOX Substrate (GSHJ STFET). Journal: Silicon. Publication Details: ISSN 1876-9918, Publisher: Springer. Year: 2022. DOI: NIL. Indexing: SCIE. Impact Factor: 2.67.

Faculty: Dr. Kamalaksha Baral. Co-authors: Prince Kumar Singh, Sanjay Kumar, Ashish Kumar Singh, Deepak Kumar Jarwal, Satyabrata Jit. Student Co-authors: NIL. Title: A Unified 2-D Model for Nanowire Junctionless Accumulation and

Inversion Mode MOSFET in Quasi-Ballistic Regime. Journal: Solid-State Electronics. Publication Details: ISSN 0038-1101, Volume 193, Article 108028, Publisher: Elsevier. Month/Year: March 2022. DOI: NIL. Indexing: SCI. Impact Factor: 1.901.

Faculty: Dr. Kamalaksha Baral. Co-authors: Deepak Kumar Jarwal, Ashwini Kumar Mishra, Amit Kumar, Chandan Kumar, Gopal Rawat, Bratindranath Mukherjee, Satyabrata Jit. Student Co-authors: NIL. Title: Performance Optimization of ZnO Nanorods ETL Based Hybrid Perovskite Solar Cells with Different Seed Layers. Journal: IEEE Transactions on Electron Devices. Publication Details: ISSN 0018-9383, Volume 69, Issue 5, Publisher: IEEE. Month/Year: May 2022. DOI: NIL. Indexing: SCI. Impact Factor: 2.917.

The Department of Electronics and Communication Engineering at V. R. Siddhartha Engineering College (Autonomous), Vijayawada, facilitated extensive student internship participation under the GIST (Student Internships) program during the academic year 2019–20. A total of 218 students underwent internships across multiple industries and organizations. NPHSAT Systems Pvt. Ltd., Vijayawada hosted the highest number of interns with 149 students. Bharat Sanchar Nigam Limited (BSNL) provided internship opportunities to 2 students, while Efftronics Systems Pvt. Limited, Vijayawada engaged 14 students. The National Instruments Innovation Centre trained 15 students, and Entuple Technologies under the IEEE Bangalore Section accommodated 9 students. Indian Servers, Vijayawada offered internships to 5 students, and Entuple Technologies, Hyderabad hosted 3 students. IIT Hyderabad, JaDK Technologies Bangalore, and Sandeepani School of Embedded System Design Bangalore each trained 2 students. Agimus Technologies, Awesome Computech Vijayawada, BSNL (ALTTC), CSI Hyderabad, Sembcorp Energy India Limited Nellore, Verzeo Internship, Cognibot, VI Solutions Bangalore, and Coreel Technologies each provided internships to 1 student. Talentsprint in collaboration with Pega Systems supported 6 student internships. The overall internship engagement reflects strong industry collaboration and practical exposure for ECE students during the 2019–20 academic year.

The Department of Electronics and Communication Engineering at V. R. Siddhartha Engineering College (Autonomous), Vijayawada, facilitated student internships under the GIST (Student Internships) program during the academic year 2020–21, with a total of 122 students participating across various industries and organizations. Pantech Prolabs India Pvt. Ltd. hosted the highest number of interns with 35 students, followed by Pantech E-Learning with 23 students and Apply Volt with 17 students. SmartAnt Technologies engaged 6 students, while Forage and InMovidu Technologies Pvt. Ltd. each provided internship opportunities to 5 students. IBM and Anand Techno Creations each trained 3 students, and Seamless Distribution Systems, Gustovalley Technovations, and Areteans accommodated 2 students each. Andhra Pradesh State Skill Development Corporation supported 5 student internships. Organizations including Remark Skill Education, Pegasystems, Lineshya and Thevan Technologies Pvt. Ltd., Goeduhub Technologies, Aaseya IT Solutions, BSNL, Entuple Technologies, Evoke Technologies, Shrena IT Solutions, TEKsystems Global Services, Verzeo, DigiToad Technologies, Suven Consultants & Technology Pvt. Ltd., and VJTRONICS each provided internship opportunities to 1 student. The internship data for the 2020–21 academic year highlights the department’s continued emphasis on industry exposure and skill-oriented learning for ECE students.

The Department of Electronics and Communication Engineering at V. R. Siddhartha Engineering College (Autonomous), Vijayawada, implemented the IV/IV B.Tech Semester I timetable for the academic year 2022–2023 with effect from 04 July 2022. The timetable was structured separately for four sections (Section I to Section IV) conducted in rooms EC 310, EC 307, EC 308, and EC 309A respectively, following a uniform daily schedule from 8:40 AM to 1:00 PM with a short break from 11:10 AM to 11:20 AM.
Across all sections, the core subject offered was 17EC3701A Antennas and Wave Propagation, handled by different faculty members and conducted in the respective section classrooms. Professional Elective courses included Optical Communications (17EC4702/B), Principles of Radar Engineering (17EC4702/C – Part

1 or Part 2 depending on section), Adhoc and Sensor Networks (17EC4702/D), Mobile and Cellular Communications (17EC4703/B – Part 1 or Part 2), Remote Sensing and GIS (17EC4703/C – Part 1 or Part 2), Embedded Device Drives (17EC4704/A), Smart Antennas (17EC4704/B), and Data Compression (17EC4704/D – Part 1 or Part 2). Engineering Economics and Finance (17HS1705) was offered as a mandatory course component for all sections.
Laboratory components consisted of RTOS/NS Lab (17EC4751) and Advanced Communications Lab (17EC4752), scheduled in extended continuous slots as per the timetable notation, along with the Mini Project (17EC5753), which occupied multiple weekly sessions. Each section had designated course teachers, lab instructors, class teachers, and class counsellors, ensuring academic monitoring and student support. The timetable was coordinated under the supervision of the Timetable In-charge and approved by the Head of the Department, ECE.

The VR23 curriculum of the Department of Electronics and Communication Engineering at V. R. Siddhartha Engineering College (Autonomous), Vijayawada, is designed to provide a strong theoretical foundation, analytical capability, and practical competence aligned with contemporary industry and research needs. The B.Tech II Year programme systematically builds core engineering knowledge while progressively introducing advanced concepts, laboratories, and interdisciplinary exposure. In II Year I Semester, students are trained in mathematical rigor and analytical thinking through Complex Analysis and Numerical Methods, which forms the backbone for signal processing, electromagnetics, and system analysis. Universal Human Values is included to instill ethical reasoning, social responsibility, and professional integrity. Core ECE subjects such as Signals and Systems, Electronic Circuit Analysis and Design, and Switching Theory and Logic Design develop a deep understanding of signal behavior, circuit modeling, digital logic fundamentals, and design methodologies. Complementary courses like Logic and Reasoning enhance problem-solving skills, while Environmental Science builds awareness of sustainability and ecological responsibility. Skill-oriented components such as Signal Visualization and Time Domain Analysis using MATLAB introduce students to simulation-driven analysis, reinforcing theoretical concepts through computational tools. Laboratory courses in Electronic Circuit Analysis and Switching Theory and Logic Design ensure hands-on exposure to measurement techniques, circuit implementation, debugging, and validation of theoretical principles, creating a strong experimental mindset early in the programme.

In II Year II Semester, the curriculum advances into probabilistic modeling, systems, and communication fundamentals through Probability Theory and Stochastic Processes, Microcontrollers, Analog Integrated Circuits, and Analog and Digital Communications. These courses enable students to understand random processes, embedded system architectures, IC-level design, and the principles of modern communication systems. English for Professionals strengthens technical communication, documentation, and presentation skills essential for industry readiness. Data Structures Using Python bridges electronics with computing, equipping students with algorithmic thinking and programming proficiency. Design Thinking and Innovation introduces a problem-centric, user-focused approach that nurtures creativity and entrepreneurial mindset. Laboratory courses in Analog Integrated Circuits and Analog & Digital Communications emphasize real-world circuit implementation, modulation techniques, signal analysis, and system-level experimentation. The semester also mandates a Community Service Project Internship, reinforcing social engagement, teamwork, and application of engineering knowledge to societal challenges.

The III Year curriculum marks a transition toward specialization and system-level understanding. In III Year I Semester, core subjects such as Digital Signal Processing and Electromagnetics and Transmission Lines provide in-depth knowledge of signal analysis, filtering, spectral techniques, wave propagation, and high-frequency behavior. Electronic Measurements and Instrumentation trains students in sensor systems, measurement accuracy, error analysis, and industrial instrumentation. Professional electives allow students to choose focused areas such as Information Theory and Coding, Digital System Design Using Verilog, or Computer Networks, enabling early domain specialization. Open electives

including Embedded Systems and Real-Time Operating Systems, Nano Electronics, or Neural Networks for Signal Processing broaden interdisciplinary exposure. Practical learning is reinforced through Digital Signal Processing and Microcontrollers laboratories, while Personality Development and skill enhancement courses such as CCNA, ARM Cortex-M programming, graphical system design, and software design tools prepare students for industry certifications and professional roles. Evaluation of Community Service Internship ensures reflective learning and societal contribution, complemented by humanities electives to maintain a balanced engineering education.

In III Year II Semester, the curriculum deepens advanced electronics and communication competencies. Courses such as VLSI Design, Linear Control Systems, and Microwave and Optical Communications introduce students to integrated circuit design methodologies, system stability and control, and high-frequency and optical communication technologies. Professional electives cover emerging and advanced areas including Cellular and Mobile Communications, Image and Video Processing, Embedded C, Guided Waves and Antennas, Semiconductor Device Modeling, Cyber Physical Systems, Artificial Intelligence, and Principles of RADAR, allowing students to align learning with career aspirations in core electronics, communications, AI-driven systems, and defense technologies. Open electives like Internet of Things and Systems or Satellite Communications expand application-oriented knowledge. Laboratory courses in VLSI Design and Microwave and Optical Communications provide industry-relevant practical exposure using modern tools and experimental setups. Quantitative Aptitude and Advanced Communication Skills Labs focus on employability, competitive examinations, and professional articulation. The Audit Course on Technical Paper Writing and IPR sensitizes students to research ethics, intellectual property, and scholarly dissemination. A mandatory Industry Internship of eight weeks during the summer vacation ensures real-world exposure, industry practices, teamwork, and application of classroom knowledge to practical engineering problems.

Overall, the VR23 ECE syllabus reflects a well-balanced, outcome-oriented curriculum that integrates strong theoretical grounding, extensive laboratory practice, skill development, ethical awareness, societal engagement, and industry exposure. It prepares graduates to excel in core electronics and communication roles, pursue higher studies and research, adapt to emerging technologies, and contribute responsibly to society and the engineering profession.