





-ELECTRIFING THE FUTURE

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DEPARTMENT VISION

To become centre of excellence in Electronics and Communication Engineering to meet the challenges of industry and the society

DEPARTMENT MISSION

DM1: Impart high quality education to enable students to face challenges Of Electronics and Communication Engineering.

DM2: Provide all possible support to promote activities in the related areas of VLSI, Communications, Signal Processing, and Micro Processors & Micro Controllers.

DM3: Inculcate ethical, professional values and life-long learning skills to address the societal needs.

PROGRAM EDUCATIONAL OBJECTIVES

PEO1: Graduates shall accomplish Excellence in professional career and pursue higher studies with innovation.

PEO2: Graduates shall be competent professionals by inculcating values with profound knowledge in Electronics and Communication Engineering.

PEO3: Graduates shall have an attitude to apply technical knowledge to solve real time industrial problems and develop lifelong learning attitude.

PEO4: Graduates shall aware of multi disciplinary knowledge in the context of teamwork.

DEPARTMENTOF ELECTRONICS AND COMMUNICATIONENGINEERING

The goal is to impart value-based technical education and train students to become well-rounded engineers in the field of Electronics and Communication Engineering, equipping them for successful careers in industry, research, or higher education. The program commenced in the academic year 2008– 09 with an initial intake of 60 students. Currently, the intake for the ECE Department is 120 students. The department has a faculty strength of 23 well-qualified, experienced, and dedicated postgraduate members, including five Ph.D. holders, with several others pursuing their doctorates in various specializations. Additionally, the department is supported by five technical staff members.

The department actively encourages students to pursue postgraduate studies and prepares them for leadership roles in research and development. In addition to the undergraduate program, the department has been offering an M.Tech course in VLSI System Design since the academic year 2012-13, with an intake of 18 students.

The ECE department boasts well-established infrastructure, including five specialized laboratories: Microwave Engineering Lab, Microprocessor & Microcontroller/Simulation Lab, Communications Lab, Electronic Devices and Circuits (EDC) Lab, and a dedicated Research & Development (R&D) Lab.

The department has an E-Yantra Laboratory, established in 2019 and sponsored by the Ministry of Human Resource Development (MHRD). This lab serves as a collaborative platform between IIT Bombay and SVIET, Nandamuru. All laboratories in the department are fully equipped to support advanced technologies and modern engineering practices.

The ECE department also extends its support to the Atal Tinkering Lab at Z.P.H. School, Guduru. It hosts professional chapters such as the IETE Student Forum. All departmental activities are conducted under the IETE banner. In addition, the student association Versatile Electronic Designers' Association (VEDA) organizes various technical events such as seminars, quizzes, poster presentations, paper presentations, and project expos.

Each semester, the department arranges a minimum of two guest lectures and one workshop to further enrich the academic experience. Students are actively encouraged to participate in international, national, and state-level technical contests.

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ALUMNI ARTICLE

From Campus to Chip: My Journey into the VLSI Industry

Stepping out of college with a degree in Electronics and Communication Engineering and dreams in my eyes, I wasn't quite sure what path I would carve for myself. Like many of my batchmates, I was at a crossroads—software jobs were abundant, but my heart was set on something that had fascinated me since my second year: **VLSI (Very Large Scale Integration)** design.

I still remember the first time I saw a simulation of a digital circuit in our lab—it felt like magic. From that moment, I knew I wanted to be part of the invisible architecture that powers our visible world: from smartphones to satellites. Here's how I turned that fascination into a full-fledged career.

Laying the Foundation:

During my third year, I took every opportunity to deepen my knowledge in digital electronics, CMOS design, and HDL (Hardware Description Languages). I participated in workshops, online courses (especially on platforms like NPTEL and Coursera), and most importantly, I joined a VLSI project under one of my faculty mentors. That hands-on experience proved invaluable.

I also focused on learning

Verilog,

SystemVerilog, and

VHDL

which are essential in the VLSI design world. Tools like **Xilinx Vivado**, **Cadence**, and **Mentor Graphics** became part of my regular vocabulary.

The Turning Point: Internships and GATE

To break into VLSI, I knew just a degree wouldn't be enough. I needed **industry exposure** or **postgraduate specialization**. I chose both.

Reflections and Advice to Juniors

If you're an ECE student curious about the **VLSI** domain, here

In my final year, I secured a 2-month internship at a small semiconductor design startup in Bengaluru. It wasn't glamorous, but it gave me insight into the ASIC flow, testing methodologies, and working with RTL design.

Simultaneously, I prepared for the **GATE exam**, which I cracked with a decent rank, earning me a seat at [IISc/IIT/IIIT Hyderabad or other reputed institute]. My M.Tech specialization in VLSI Design gave me access to world-class labs, real tape-out projects, and eventually, strong industry connections.

Breaking Into the Industry: After my postgraduation, I was offered a role at [Company Name: Intel] as a Physical Design Engineer. The learning curve was steep. Deadlines were real. But I was finally doing what I loved.

The VLSI industry is demanding, but it's also incredibly rewarding. You work on silicon that millions—or even billions—of people will use. It's high precision, high impact.

1. Master the Basics: Focus on Digital Electronics, CMOS, and Signals & Systems. These are your

foundation.

- 2. Pick Up HDL Early: Verilog and VHDL are the languages of VLSI.
- **Explore Tools**: Gain familiarity with industry tools—even student versions are enough to start.
- **Take Up Mini Projects**: Build small IP blocks—ALUs, counters, FSMs—on FPGA boards or simulators.
- **Consider GATE/PG**: A master's in VLSI from a reputed institute opens doors to core jobs.
- **Network**: Attend VLSI conferences, join LinkedIn groups, and don't hesitate to message alumni.

Conclusion

Looking back, the journey from a curious student to a chip design engineer was not easy, but every late night in the lab and every failed simulation taught me something new. Today, I contribute to designing systems that make our digital lives faster, smarter, and better.

For those wondering if the VLSI industry is worth it—absolutely yes. It's not just a job; it's a place where creativity meets precision, and where your designs power the future.



Kothamasu Arun 17MQ1A0492 Passed out: 2021

STUDENT ARTICLE

From Struggles to Strength: My First Year in Engineering

When I first stepped into the engineering campus, my heart was filled with excitement, but my mind was flooded with anxiety. I thought I was ready for college life—but the reality of my **first year** was far more challenging than I expected.

Here's my story of how I struggled, stumbled, and slowly learned to stand strong—shared in the hope that it will help my juniors face their own journeys with courage.

The Initial Shock

Back in school, I was among the top scorers. But engineering college was a different world. In the first few weeks, I was overwhelmed by:

New subjects like Circuit Theory, Engineering Graphics, and Programming.

Fast-paced lectures that felt impossible to keep up with.

Language barriers, especially when technical terms flew over my head.

Hostel life adjustments—sharing rooms, homesickness, food that felt alien.

Most of all, I faced **self-doubt**. I started comparing myself to others who seemed smarter, faster, and more confident. I silently asked myself, "Do I really belong here?"

Moments of Breakdown

There was a moment I'll never forget. After failing my first internal test in M-I, I locked myself in the hostel room and cried. I felt like giving up.

But two things changed everything for me:

Supportive Seniors – One of my seniors noticed I wasn't attending lab sessions regularly and invited me to study with her group. They never judged me—they guided me. That kindness gave me a reason to try again.

A Shift in Mindset – I stopped trying to be the best. Instead, I started trying to be *better than yesterday*. I created my own small goals—understanding one topic a day, solving one problem without looking at the answer key.

Small Habits That Helped Me

Here are a few things I started doing, and they truly worked:

Time Table: I made a realistic study plan, mixing study with breaks.

JULY- DECEMBER 2023

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Peer Learning: Studying in small groups made even tough topics easier.

Asking Questions: I stopped being afraid to raise my hand in class.

Journaling: Writing down what I felt helped me manage stress.

Calling Home: Regular talks with family kept me grounded.

Slowly, my confidence returned. My second internals went better. I even participated in a mini tech quiz and scored third!

My Message to Juniors

Dear juniors, if you're facing difficulties right now—you are not alone. Many of us struggle silently in our first year. What matters is not how you start, but how you respond.

Here's my humble advice to you:

Don't be afraid to **ask for help**—from teachers, seniors, or even batchmates.

Don't let one failure define your journey.

Focus on **understanding**, not just memorizing.

Take care of your **mental health**—your peace is your power.

Believe this: *Even the strongest students were once lost first-years.*

Closing Thoughts

Today, I stand stronger—not because I never fell, but because I chose to rise every time I did. First year taught me not just engineering, but resilience, patience, and self-belief.

And if I can do it, so can you.



Metla Jyothsna Uma Venkta Naga Sai 22MQ1A0474 II ECE B

FACULTY ARTICLE

Shaping Futures at Sri Vasavi Institute of Engineering & Technology, Nandamuru





Sri Vasavi Institute of Engineering & Technology (SVIET) is more than just an academic institution—it is a place where young minds are shaped, nurtured, and prepared to become the innovators and leaders of tomorrow.

As a faculty member in the **Electronics and**Communication Engineering (ECE) department, I've had the

privilege of witnessing the transformation of students from hesitant fresher's into confident professionals, ready to take on the challenges of the real world.

A Campus That Breathes Learning

The moment one steps onto the SVIET campus, there is a sense of purpose in the air. Our classrooms are not confined by four walls—they extend into our labs, workshops, seminars, and community outreach programs.

We are proud of our **state-of-the-art infrastructure**, including well-equipped laboratories, digital classrooms, and modern computing facilities. But beyond the infrastructure, what truly sets SVIET apart is our **culture of care and mentorship**.

Our Students, Our Strength

Many of our students come from rural or semi-urban backgrounds. They bring with them a wealth of raw potential, strong values, and a willingness to work hard. But we also understand that for many, the transition to professional education can be overwhelming.

At SVIET, we focus not just on academic delivery, but on **holistic student development**. Our bridge courses, mentoring programs, English communication labs, and soft skills training ensure that students are not only technically sound but industry-ready.

One of the most rewarding moments for me as a faculty member was watching one of our ECE

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students—who once struggled with public speaking—present a paper confidently at an inter-college symposium. That is the SVIET spirit: nurturing growth, one step at a time.

Innovation and Industry Exposure

The college regularly organizes workshops, tech fests, industrial visits, and guest lectures by industry experts. Our MoUs with leading companies enable students to gain real-time exposure to technologies like VLSI, IoT, AI, and Embedded Systems.

We strongly encourage project-based learning. Whether it's developing a smart irrigation system using microcontrollers or designing a prototype for energy-efficient street lighting, our students are always encouraged to think beyond textbooks.

Faculty: Beyond the Chalk and Talk

As faculty, our role is not just to teach—we guide, mentor, and walk with our students in their journey. At SVIET, we are proud of the **close student-faculty bond** we share. The faculty are approachable and actively involved in student clubs, hackathons, research mentoring, and even cultural activities.

This institution has given me the platform to grow not just as a teacher but as a **lifelong** learner. Our management supports faculty development, encourages research, and promotes a healthy balance between tradition and innovation.

A Vision That Inspires

Our college lives by the motto: "Knowledge, Discipline, and Excellence." We aim to provide value-based education that not only prepares students for jobs but also empowers them to be **responsible** citizens, ethical professionals, and visionary leaders.

Final Thoughts

Sri Vasavi Institute of Engineering & Technology is not just a college—it is a family, a temple of learning, and a launchpad for dreams. As faculty, I take great pride in being part of this journey shaping young minds and, in turn, being shaped by their energy, enthusiasm, and

To all aspiring engineers who walk through our gates: dream big, stay grounded, and never stop learning. At SVIET, we are with you—every step of the way.



K. Sai Sudheer **Assistant Professor**

resilience.









Chandana. Sai Harini Nag 20MQ1A0405

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