BEST PRACTICES IN THE DEPARTMENT

**VNR VIGNAN JYOTHI INSTITUTE
OF
ENGINEERING & TECHNOLOGY**
(UGC Autonomous, NBA & NAAC Accredited with 'A' Grade)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

YEAR OF ESTABLISHMENT: 1995

ABOUT THE DEPARTMENT:

EEE Department is established in the year 1995 i.e., the inception of the Institute. Department has an intake of 120 in UG program and 36 in PG (Power Electronics) Program. The research activity in the department is kept vibrant with the back support of eminent professors and faculty members which encompass a wide gamut of sub-disciplines of Electrical Engineering.

OUR FOCUS:

The Primary focus of the department has been to impart quality education and undertake cutting edge research at the undergraduate and postgraduate levels in various streams of Electrical and Electrical Engineering.

ACADEMICS

- WIT & WIL Document and Prototyping WIT & WIL for theory courses
- Laboratory Protocol
- STORY BOARD for laboratory courses
- Laboratory course projects
- SHOW & TELL to display the projects, research & innovations
- 18 Months Institute Calendar
- ICT usage in teaching ,learning & Evaluation
- Innovative teaching & learning methods, POGIL activities etc.
- Career Vision Approach
- Shadow engineering
- Teaching & Learning Methods
- Finishing School

- Open house

WIT & WIL DOCUMENT

- A trademarked and award receiving pedagogical initiative is practiced in the institute. The term WIT stands for "What am I teaching" and "Why am I teaching" & the term WIL stands for "What am I learning" and "Why am I learning". The main objective of this initiative is to give a clear picture regarding the curriculum and beyond it. This would give a clear roadmap to the teacher as well as to the student about what and why they deal with certain topics, their importance and application.

WIT is a self-introspection by every teacher that they have to do before dealing with the particular topic in order to emphasize its importance, objectives and real-life application.

WIL enables students to question themselves before learning anything new and to know where to implement what learned. This would also help students to grasp new concepts, understand them better and relate it to anything new. These two simple terms have revolutionized the teaching and learning process at our college. With this process, students are eager to implement classroom concepts in real life whereas teachers enjoy guiding and making students realize to achieve and fulfil their dreams. Simply to say, WIT and WIL has changed the conventional mode of teaching in classrooms and has opened ways for new dimensions to learn and explore

Format of WIT&WIL

S.No	UNIT number	Lecture date	Topic covered	Why I am teaching	What I am teaching	Outcome	YouTube/TED video link	NPTEL video link

VNR LAB PROTOCOL:

For each laboratory course, VNR Lab Protocol is followed through which a student understands what he will learn and why in a structured format.

- **LEARNING BY DOING:**
  A technique where students learn by experiencing the process in practical way

- **STORY BOARD:** Storyboard is a visual representation in the form of images, block diagrams or illustrations displayed for the purpose of pre-visualizing the concepts of the laboratory experiments in a single real-time application. This is presented to the students before conducting practical experiments in the laboratory to create enthusiasm among them

- **COURSE BASED PROJECTS:** Where students are driven to implement course-based projects as an outcome of their laboratory course. This method intends creative imitation

leading to research and innovation. Course-based Projects are developed for the laboratory courses of every semester and are presented.

- **SHOW AND TELL:** A platform for the students to exhibit, explain projects and present innovative ideas in an open platform. They showcase and present innovative ideas and projects that are developed. This concept tries to create a space where innovative ideas are shared and shaped creating a concrete possibility for research among the peer group. It is mandatory for all the final year B.Tech and M.Tech students to exhibit their projects on the Show & Tell platform before attending their viva-voce examination

- **OPEN HOUSE:** Open House is one of the prolific ideas that VNR VJIET has come up with. It is an open arena for all the students to come up with their creative latent skills. It provides a platform to exhibit one's proficiency in an area in the form of a project.. This unique approach of VNR VJIET gives students a wholesome experience as leaders and coordinators. It will also help them to become a bright and successful engineer.

- **ICT USAGE IN TEACHING ,LEARNING & EVALUATION:**
  ICTs stand for information and communication technologies and are defined, for the purposes of this primer, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information."
  The department is practicing POGIL, MOODLE, Flipped class room for better teaching learning and evaluation.

- **PROCESS ORIENTED GUIDED INQUIRY LEARNING (POGIL):** An ingenious teaching method has turned classroom just beyond books. In a POGIL classroom, students work in teams on guided inquiry exercises. The Guided Inquiry component of POGIL explicitly enhances the analytical and critical thinking skills of the students. POGIL uses guided inquiry – a learning cycle of exploration, concept invention and application – as the basis for carefully designed materials which is used by the students to construct new knowledge.

  > Pedagogical training sessions on this universal method are conducted in the institution. Few faculty underwent the training for trainer and are acting as resource persons for the POGIL activities in other institutions. Prof. Kelly Butler, Prof. of Chemistry, Chestnut Hill, College, USA, a Nehru Fulbright Scholar has experienced the implementation of POGIL in the institution and also guided the faculty

CAREER VISION AND MOTIVATIONAL CLUB:

- **SHADOW ENGINEERING:**
  "Shadow Engineering" allow prospective Engineering students to see the industry from a professional perspective and allow them to spend a week time with the current engineering practices in the multidisciplinary area at the industry and experience the industry life. The shadow engineering program is an opportunity for a budding engineer to learn what it means to be an engineer. Moreover, the students working with a class domain team get to amplify the correlation of various procedures within the engineering domain.

- **ALUMNI MENTORING:**

TEACHING METHODOLOGIES:

Storyboard is a visual representation in the form of images, block diagrams or illustrations displayed for the purpose of pre-visualizing the concepts of the laboratory experiments in a single real-time application. This is presented to the students before conducting practical experiments in the laboratory to create enthusiasm among them.