# Digital Learning Methodology
(Best Practice - 1)

Objectives:

- To increase the students' understanding capability.
- To motivate the students as self-learners.
- To formulate the learning process anywhere and anytime
- To create the opportunity to learn from pioneer institutions through online guest lectures and webinars
- To build a research-oriented environment for the students
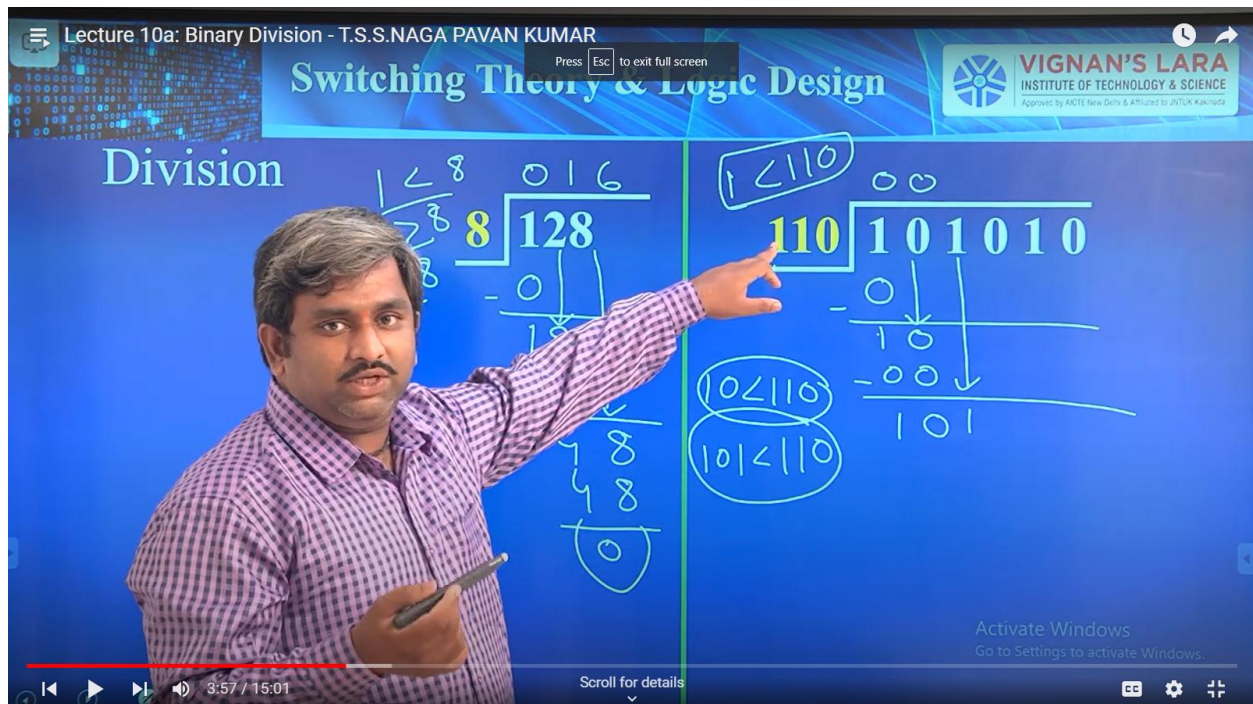
The Context:

The institution aims to improve and generate a culture of innovation and development of a self-support spirit among the students, encouraging budding engineers to learn through the digital resource. It also attempts to train and equip them with the knowledge and connect them to the real world's problems. Due to the digital learning initiatives, an increased number of students choosing the right career is observed post their course completion.

The Practice:

Online Learning

- Students are learning through online platforms like NPTEL, Coursera, etc.
- The faculty members learn through online courses to upgrade themselves in cutting edge technologies.
- The aspirants become globally competitive.

Blended Learning

- Blended Learning is used as an integrated online education to imbibe conventional and virtual learning methods.
- It provides access to global resources and materials that meet the students' level of knowledge and interest.
- Self-pacing for slow and advanced learners reduces stress and increases satisfaction.

E-learning

- Lecture notes, course material, PPTs and videos are shared online for student reference.

ICT Facility

- To make the teaching-learning process simple and more effective through audio visuals.
- The realization of the course content is straightforward.
- Classroom dynamics got improved and learning rate improved.

Evidence of Success:

- *719* students and staff members completed their NPTEL courses in various domains in the last two academic years.
- Faculty developed *3,000* hours of quality video lectures for *75* subjects.
- *700* students qualified in competitive examinations (GRE/GMAT/GATE etc.,) out of 766 appeared.
- *80%* of the students have got placement/progressed to higher studies during last five years.

Problems Encountered and Resources Required:

Problems Encountered:

- Faculty has to devote extra hours to prepare digital content beyond conventional notes preparation.

Resources Required:

- High-speed Wi-Fi facility.

Glimpses of Faculty in Preparing the Digital Content

Faculty Empowerment and Motivational Strategies
(Best Practice - 2)

Introduction

Human resources play a vital role to fulfil the vision of the academic institutions. The institution strongly believes this fact and recruits the qualified teaching and non-teaching staff. Although, they are qualified and experienced, they need empowerment and continuous motivation to excel their duties. To fulfil this, faculty development programs (FDPs) and motivational strategies are adopted.

Objectives:

- To provide the skills and techniques in the art of teaching.
- To identify various levels of understanding capabilities of students and train them according to their potential levels.
- To impart the philosophy and work culture of the institution.
- To train the faculty for effective student counselling and mentoring.
- To motivate the faculty for continuous improvement in their performance.

Context:

The knowledge levels of fresh and young teachers may be extremely well in their domains and low in the skills of knowledge transfer. Thus, FDPs are arranged to train the faculty in all respects before being involved in the teaching learning process. These programs and below said motivational strategies help in continuous faculty quality upgradation.

The Practice:

Faculty empowerment strategies

A well-designed in-house faculty development programs are organized to encourage and empower the newly recruited faculty along with regular faculty members. The resource persons are distinguished academicians from reputed organizations and Vignan's Group of Institutions. In this program, the faculty are addressed to know

1. Academic and administration duties.
2. Blackboard, ICT, and dais management.

3. Preparation of lecture notes, models, and teaching aids.
4. Question paper setting as per revised Bloom's Taxonomy.
5. Evaluation of theory and lab examinations according to scheme of evaluation.
6. Significance of outcome-based education and implementation.
7. Inculcating the culture of Research and development.

Faculty are encouraged to complete NPTEL, Coursera and Udemy certification courses in advanced technologies and also motivated to participate in FDPs organized by the reputed institutions. Special invited lectures are arranged to train the faculty towards technical writing and methodology for submitting projects and patents.

Faculty motivational Strategies

- With respect to the performance appraisal, category 'A' faculty are rewarded with a cash prize of Rs. 10,000 to Rs 15,000 and category 'B' with cash prize of Rs. 5,000.
- Cash reward of Rs. 5000/- and certificate of appreciation for the faculty achieving 100% pass and NPTEL certifications.
- Cash reward of Rs. 5000 to Rs.10000 and a certificate for publishing research papers in Scopus/SCI journals.
- Monthly research incentive of Rs. 10000 for above 20 lakhs funded project and Rs 5000 for below 20 lakhs funded project for project period.
- Provided registration fees to attend FDPs, workshops, conferences along with paid on duty leave.

Evidence of success:

- 40 FDPs were organized
- 771 faculty members attended FDPs at reputed organizations.
- *69%* faculty members received cash rewards based on their appraisal.
- Faculty members produced 100% result in 17% of subjects during last five years and the respective faculty were rewarded.

Problems Encountered:

Availability of competent resource persons for long durations to the rural location.