

*Shram Sadhana Bombay Trust's*  
**COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**BAMBHORI, POST BOX NO. 94, JALGAON – 425001. (M.S.)**

**Best Practice -I**

**Capacity Building Program**

**Objectives of the Practice**

Role of Teaching faculty who are known as the pillars of any educational institute determines the quality of education imparted by the institution. To inculcate quality education, knowledge and progressive technology among students and to make teaching learning process more interesting, interactive, illustrative and participatory, Capacity Building Program for faculty members was arranged in the current developing technologies with following objectives:

- Empowering faculty members with cutting – edge technologies
- Developing a culture of shared learning among faculty members
- Inculcating creativity, critical thinking, communication, and cooperation among faculty members

**The context**

Education is the life process that needs the continuous development and reconstruction of experiences. It involves building the capacity of all those abilities which will enable individuals to energize the environment.

Accelerated technological development, population growth and environmental change lead to constant update in the sociotechnical landscapes in which engineers operate. These changes necessitate responsiveness in engineering education to prepare students for the shifting realities of the workforce and society at large.

Changing expectations for engineering graduates and developments in cognitive science have emphasized the need for educators and institutions to engage in capacity building.

**The Practice**

Capacity building is the process by which individuals and organizations obtain, improve, and retain the skills, knowledge, tools, equipment and other resources needed to do their jobs competently or to a greater capacity.

Adaptive learning is part of interactive learning which addresses the needs of individuals through learning pathways. Case-based teaching strategies use real-life examples, generally think critically. A key element of successful implementation of policy reform is ensuring that local stakeholders have sufficient capacity to meet this challenge. The integration of different areas of engineering is essential for holistic view of the problem and developing new solutions. The culture of shared learning among faculty can generate a passion for learning, empowering them to become lifelong learners shaping future of students where innovation and their potential know no bounds.

Realizing the importance of preparing professionals in cutting - edge areas, the SSBT's College of Engineering & Technology, Bambhori, Jalgaon has initiated steps for continuous professional development of faculty members to meet the need of hour. For inculcation of values within the

education system, and providing training and expertise for enhancing student skills, the institute organized capacity building program for faculty members from 17 January to 4 February 2023. In the program, the senior faculty members were the resource persons and all other faculty members attended the program with full enthusiasm thereby creating the environment of peer - learning.

### **Evidence of Success**

The use of artificial intelligence, virtual reality and augmented reality, digital twins, drones, and robots by different engineering streams for reshaping our future has been discussed. The unique creativity of human experts to collaborate with powerful, smart and accurate machinery conversed interest among faculty members. The exchange of information, skills, experience and expertise between individuals, eventually promoted the dissemination and application of knowledge in order to enhance learning, and encourage innovation. The participation of all faculty members from different streams discussing current and technologies of the future ultimately leads to faculty empowerment and also help in preparing students for taking challenges for socioeconomic development.

The outcomes of the program are as follows:

- Enriching curriculum with cutting - edge technologies
- Motivating students for creativity, critical thinking, communication, and cooperation
- Engaging students to apply engineering knowledge in societal, environmental & sustainable issues
- Engaging in independent and life-long learning

### **Problems Encountered and Resources required**

Academic Calendar of the institute is to be planned according to affiliating University Academic Calendar, which is a challenge as the Term has limited scope to conduct various activities within the stipulated time period.