Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences and teachers use ICT- enabled tools including online resources for effective teaching and learning process

EXPERIENTIAL LEARNING

Experiential learning Experiential learning is the process of learning through experience. Institute is inculcating self-learning and life-long skills through following activities:
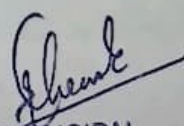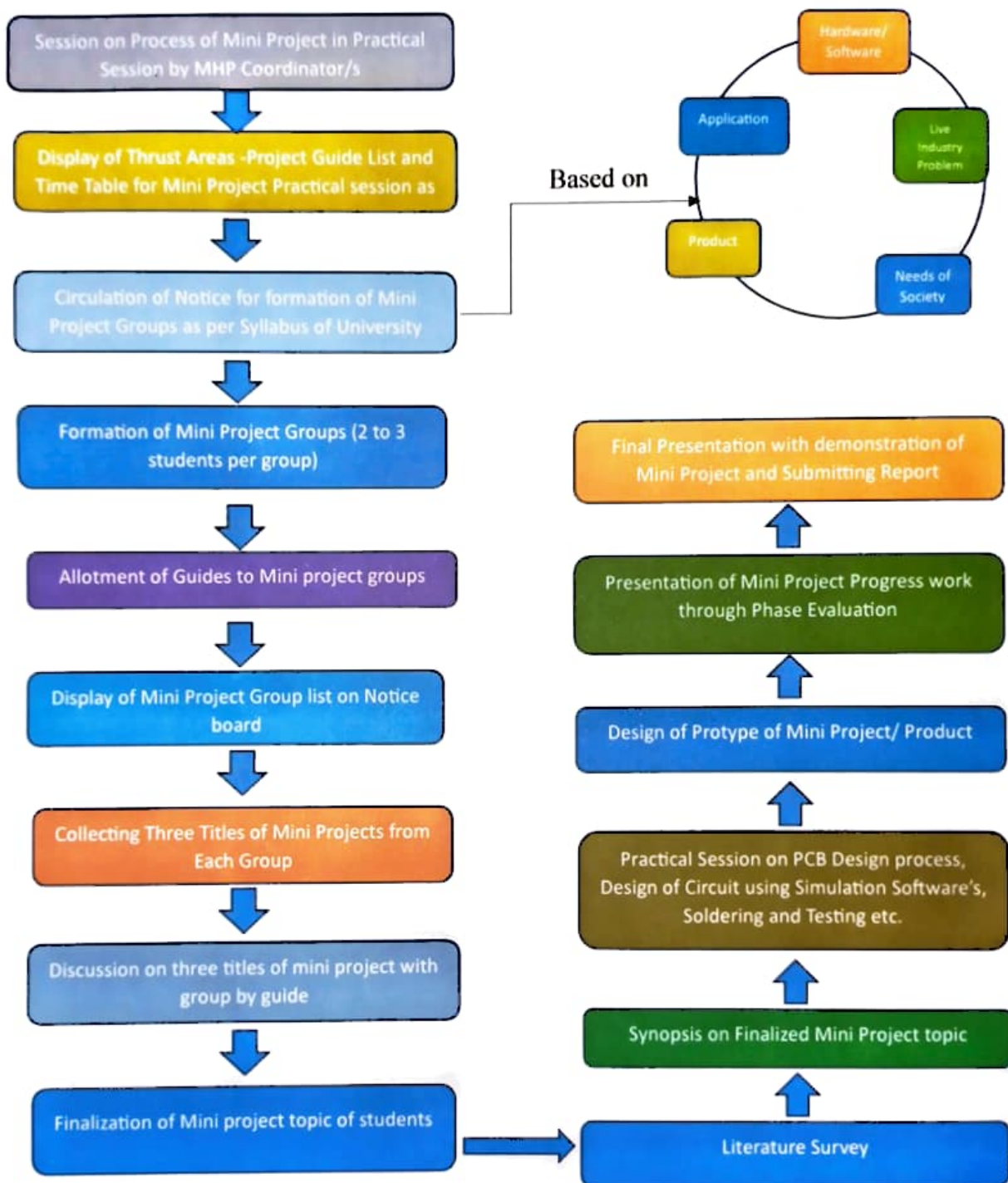
Internships / Field training

Diagram of Experiential Learning with surrounding activities: Industry Experts and Researchers, Mini projects, Teaching in classroom & Laboratory, Final Year Projects, Use of Visualization, Industrial Visits, Internships / Field training, Placement Activity, Use of Virtual Labs, Arranging technical symposium, Workshops with hands on sessions.

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Sr. No.	Name of the Activity	Purpose of Activity
1	Mini Projects	The purpose is to develop the product/ project using modern tools/techniques to solve complex engineering problems of the industry and society
2	Final Year Projects	The purpose is to develop the product/ project using practical tools/techniques and advanced labs to solve complex engineering problems of the industry and society.
3	Industrial Visits	Industrial visits are arranged for students with an objective of providing students functional opportunity in different sectors. It gives an industrial exposure to grow their knowledge and skills.
4	Internships/ Vocational/Field Training	Vocational training allows students to gain practical experience in industry before they graduate
5	Virtual Labs	The Virtual Laboratory is an interactive environment for creating and conducting simulated experiments.
6	Hands-on Workshops	A hands-on workshop helps students to expertise in practical domain
7	Technical Symposium	Technical Symposiums enhance the technical knowledge of students and provide them a platform to exhibit their talents.
8	Placement Activity (Mock Interview)	A mock interview process helps candidates gain confidence with the chance to reflect on their non-verbal and verbal communication abilities. It also provides an opportunity for interviewees to make mistakes and work on correcting them in a safe atmosphere.
9	Use of Visualizations	The purpose of using Visualizations like animations, videos and simulator is to convey a complex and concrete information effortlessly.
10	Teaching in classroom and laboratories	Purpose of teaching in classroom and laboratories is to give students first-hand experience and offer better opportunities for learning. Teaching in a classroom gives students the opportunity to engage in live discussions.
11	Industry Expert/ Researchers Lecture	Industrial Experts speakers have become an important part of the educational experience for students. They expose students to real-world life experiences. Students get to see the insight and perspective of the guest speaker's particular field.

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Mini Projects Guidelines

Session on Process of Mini Project in Practical Session by MHP Coordinator/s

↓

Display of Thrust Areas -Project Guide List and Time Table for Mini Project Practical session as

Based on

- Hardware/ Software
- Application
- Live Industry Problem
- Product
- Needs of Society

↓

Circulation of Notice for formation of Mini Project Groups as per Syllabus of University

↓

Formation of Mini Project Groups (2 to 3 students per group)

↓

Allotment of Guides to Mini project groups

↓

Display of Mini Project Group list on Notice board

↓

Collecting Three Titles of Mini Projects from Each Group

↓

Discussion on three titles of mini project with group by guide

↓

Finalization of Mini project topic of students → Literature Survey

↑

Synopsis on Finalized Mini Project topic

↑

Practical Session on PCB Design process, Design of Circuit using Simulation Software's, Soldering and Testing etc.

↑

Design of Protype of Mini Project/ Product

↑

Presentation of Mini Project Progress work through Phase Evaluation

↑

Final Presentation with demonstration of Mini Project and Submitting Report

Participative Learning

- Group Discussion
- Smart India Hackathon (SIH)
- Quiz Solving on Model
- Project Competition
- Debates Shows Like Mock Parliament and Mock Security
- IIC Projects
- Participative learning
- Robot Making Competition
- Sports Activity- 'Glance'
- Paper Presentat
- Cultural Program- 'Beats'
- Blood Donation Camp
- Publication in Journals and Conferences

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Sr. No.	Name of the Activity	Purpose of Activity
1	Technical Competitions like Tech-manthan, Project Competitions	The purpose for conducting such a competition for sharing their projects ideas with the world
2	Participation in Paper Presentation Competition / Publications / Conferences	Participation in Conferences helps to exchange knowledge also helps students to gain deeper insights after meeting people and make meaningful connections, and bring back valuable ideas and strategies.
3	Extra and Co-curricular Activities	Co-curricular activities improve the learning experiences of students, help them identify and develop their inner talents like creative & public speaking skills, leadership qualities, etc.
4	Quiz Solving and Group discussion	It encourages active participation, exchange of ideas and boosts confidence of students when they are able to provide the solutions by themselves. It improves their analytical thinking and problem-solving skills to a great extent.

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Problem Solving Methodologies
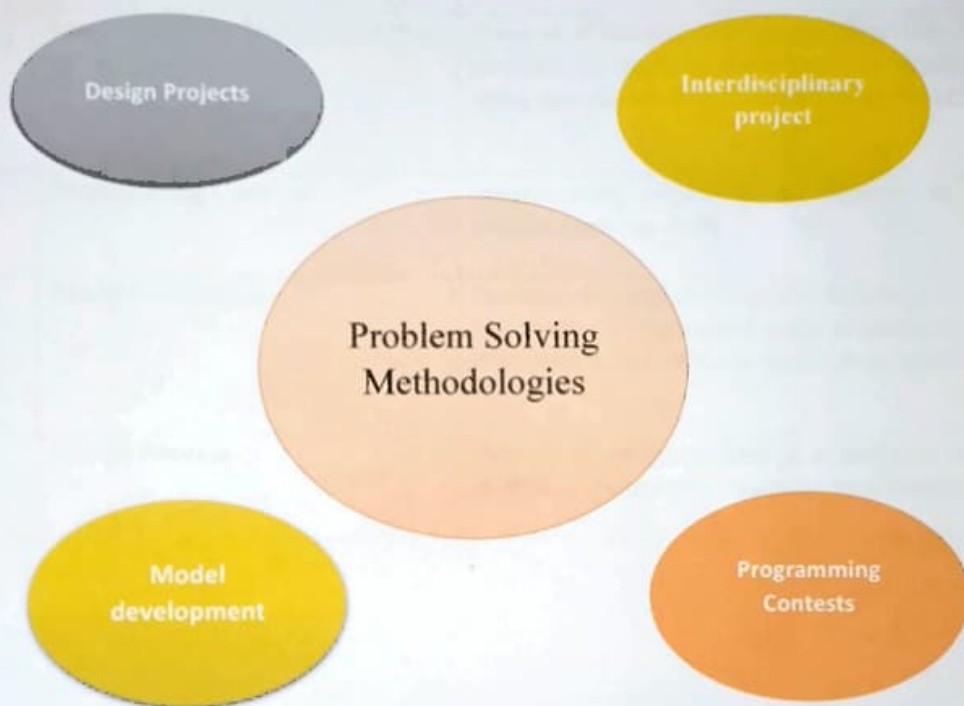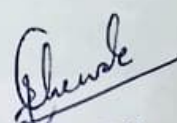
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Sr. No.	Name of the Activity	Purpose of Activity
1	Interdisciplinary Project Activities	Purpose of interdisciplinary activities is to enable students to improve their analysis abilities by using approaches from different disciplines.
2	Programming Contests	programming contest helps students to build problem-solving skills
3	Model Development	Purpose of model development is to help students to visualize a system and make predictions about how systems will behave under given conditions
4	Design Projects	Purpose of design project is to problem solving skills and incorporate creativity into learning

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Final Year Project Process

Processes related to BE (Final Year) project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing the relevance of projects
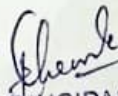
Formation of thrust area Display of Thrust Areas - Project Guide List

List of Three project topics collected from each faculty members

Circulation of notice for formation of project groups as per area of interest

Formation of project group (3-4 Students per group)

Allotment of project guide

Display of project group list on notice board

Selection of project topics collected from faculty member and students

Finalization of project topic of students

Based on

- Hardware/Software
- Application
- Live Industry Problem
- Product
- Needs of Society

Paper Publication in UGC approved Journal OR Participation in National/International Conferences OR Project Competitions

Testing, Results, Project reports and Final presentation

Presentation of project work completed through phase evaluation I, II and III

Design/Development and analysis of project based on innovation, economical, creativity, ecofriendly, etc.

Synopsis on Finalized Project topic

Literature Survey

Mini Project

Sr. No	A.Y.	Department	Total Group
1	2023-24	Electronics & Computer Science	18
2	2023-24	Computer Science & Engineering	20

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Final Year Projects

Sr. No.	A. Y.	Department	Total Groups
1		Civil Engineering	19
2	2023-24	Mechanical Engineering	14
3		Electrical Engineering	12

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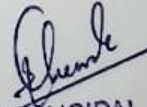
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Industrial Visit

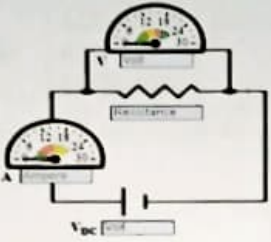| Sr. No	A.Y.	Department	Industry Name	Date	Total Students
1		Electronics & Computer Science	Electrosal Hi Tech Pvt LTD. Shirpewadi	10/11/2023	23
2		Civil Engineering	Chatrapati Rajaram Maharaj Airport, Kolhapur	16/04/2024	25
3	2023-24	Civil Engineering	Radhanagari Dam & Hydropower station	16/04/2024	25
4		Civil Engineering	Tilarinagar Power station, Tilarinagar	05/04/2024	27
5		Mechanical Engineering	Paras Motor Driving Institute, Gadhinglaj.	16/04/2024	20
6			Vignaharta Enterprises, Gadhinglaj.	22/11/2023	21

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Internship / Field Training

Sr. No	A.Y.	Department	No of students
1	2023-24	Mechanical Engineering	58
2	2023-24	Civil Engineering	86

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Use of Virtual Labs

Virtual Labs
An MoE Govt of India Initiative

Ohm's Law

INSTRUCTION			CONTROLS

EXPERIMENTAL TABLE

Resistance: _____ KΩ

Serial No.	Voltage(Volt) V	Current(milliAmpere) mA

DC volt — Volt
Resistance — Kohms

Add to Table | Plot | Clear

GRAPH PLOT

Simulation of Polar 3D Printer Machine

r-axis
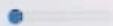
y-axis

z-axis
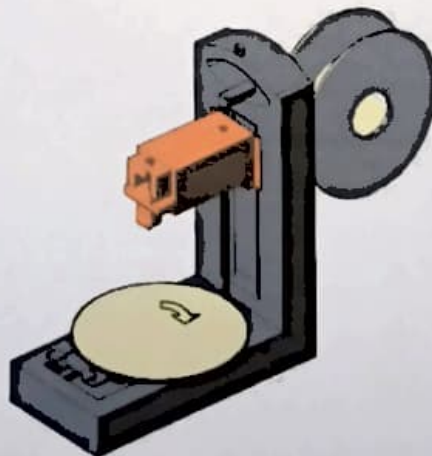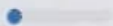
Placement Activity

Sr. No	Name of Activity	Topic	Date	No of students	Vendor	Expert
1	Aptitude	Soft skill and domain specific training.	27/02/2024 to 01/03/2024	100	Aptech solution limited, Kolhapur.	Mr. Sanir Kittur.

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Students Participation

Sr. No	Academic Year	Department Name	No of students Participated	Activity
1		Electronics & Computer Science	29	Technical event
2		Mechanical Engineering	21	Technical event
3	2023-24	Civil Engineering	5	Technical event
4		Electrical Engineering	4	Technical event
5		Computer Science & Engineering	23	Technical event

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Expert Lectures

Sr. No	Academic Year	Expert Name	Topic	Department	No of Students	Date
1		Dr. G. A. Patil	AIML	Electronics & Computer Science	31	04-12-2023
2		Mrs. Ujwala Dalavi	Importance of Sanskrit Language	First Year Engineering	41	04-10-2023
3	2023-24	Mr. Eknath Patil	How IT Industries works.	Electronics & Computer Science	29	09-12-2023
4		Mrs. N. P. Thorat	Water Treatment units and methods	Civil Engineering	27	05-08-2024
5		Mr. Ramesh B. Desai	Boiler safety standards	Mechanical Engineering.	46	22-01-2024

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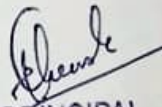
Other Activity Participation

Sr. No	Academic Year	Name of event	Date	No of students.
1		Voter Registration	01-12-2023	32
2		Tree Plantation	15-09-2023	27
3	2023-24	Nirmalya Sankalan	23-09-2023	6
4		Swatcha Bharat Abhiyan	31-08-2023	105
5		Environment Awareness program	30-06-2023	92

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