



JSPM GROUP OF INSTITUTE, PUNE

SHRI BHAGWANT EDUCATION & RESEARCH CHARITABLE TRUST'S

# **BHAGWANT INSTITUTE OF TECHNOLOGY, BARSHI.**

(Approved by AICTE New Delhi, Govt. of Maharashtra & Affiliated to DBATU Lonere, MSBTE)

Gat.No.1242/01, Tadsoudane Road, Barshi, 413401. Mob.No.:9049076781/9049086781|

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**Prof. Dr. T. J. Sawant**

**President**

Ref. No.: SBERCT/BIT/NAAC/2022-23/Cr.-07/7.2.1

Date: 19/12/2023

To,  
The Coordinator,  
NAAC, Bengaluru.

**Subject:** Best practices successfully implemented by the Institution

**Reference:** 7.2.1 Best practices successfully implemented by the Institution

**Dear Sir/Madam,**

Following best practices conducted in the institute

- 1) **Title of the Best Practice:** Employability enhancement through industry Internship and Trainings
- 2) **Title of the Best Practice:** Product Design and Development Practices for Enhancing Students' Interdisciplinary Skills

The detailed documents are available at following link:

[https://bitbarshi.edu.in/iqac/ay\\_22-23/criterion7/7.2.1.pdf](https://bitbarshi.edu.in/iqac/ay_22-23/criterion7/7.2.1.pdf)

**Enclosures:**

1. Reports of the activities conducted in the institutes.

**PRINCIPAL**  
**Principal**  
**Bhagwant Institute of Technology**  
**Barshi.**





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**Prof. Dr. T. J. Sawant**

**President**



## 7.2 Best Practices

7.2.1 Following best practices conducted in the institute

1. **Title of the Best Practice:** Employability enhancement through industry **Internship and Trainings**
2. **Title of the Best Practice:** **Product Design and Development Practices** for Enhancing Students' Interdisciplinary Skills

### Best Practice 1: Industry Internship and Trainings

#### 1. The Context:

The institute has conducted industry internship and training programs. These programs cover aptitude tests, group discussions, interviews, communication skills and presentation skills. Students are encouraged to take assessments provided by MNC and other than MNCs campus connects platforms and similar sources.

Aptitude training typically begins in the sixth semester for all students. Senior students offer guidance to their juniors on aptitude preparation and resume building. Additionally, professional training institutes deliver ongoing instruction in areas such as aptitude, programming, language skills, and soft skills to ensure comprehensive preparation for placements.

#### 2. Objectives of the Practice

- To develop industry-relevant skills.
- To bridge the gap between theory and practice.
- To improve employability and job readiness.
- To promote professional growth and development.
- To strengthen industry-academia linkages.
- To enhance problem-solving and critical thinking skills.
- To promote career exploration and planning.
- To support entrepreneurship and innovation.



### 3. The Practice:

The institute support and create career opportunities for engineering graduates. To facilitate training and internships for students, the institute has established Memorandum of Understanding (MOUs) with reputed organizations and industries. First year onwards, it offers a range of training programs for all enrolled students, including induction programs and seminars. Specialized faculty oversees these training activities.

#### Communication skills training details:

**Table 1. Communication skills training details**

Sr. No	Year	Students count
1	2022-23	130

Pre-final year students are assessed based on comprehensive data collected from their departments. Institute also collaborate with external agencies to offer training tailored to specific company requirements, including mock interviews and assessments conducted by these agencies.

Institute is proud to support students by facilitating valuable internship opportunities that align with their academic pursuits. By offering these internships, Institute aim to bridge the gap between theoretical knowledge and practical application, empowering students to gain hands-on experience in their chosen fields. This initiative enhances students learning journey and provides a platform to develop essential professional skills, build a robust network, and gain insights into industry practices. Institute encourages all students to take full advantage of these internships, as they are a vital step towards a successful career and a chance to make a tangible impact in your area of study.

### 4. Evidences of Success

**Table 2. No. of students registered for internship**

Sr. No	Academic Year	Students Placed Through Internship
1	2022-23	10

#### Top Recruiters and Record-Breaking Numbers:

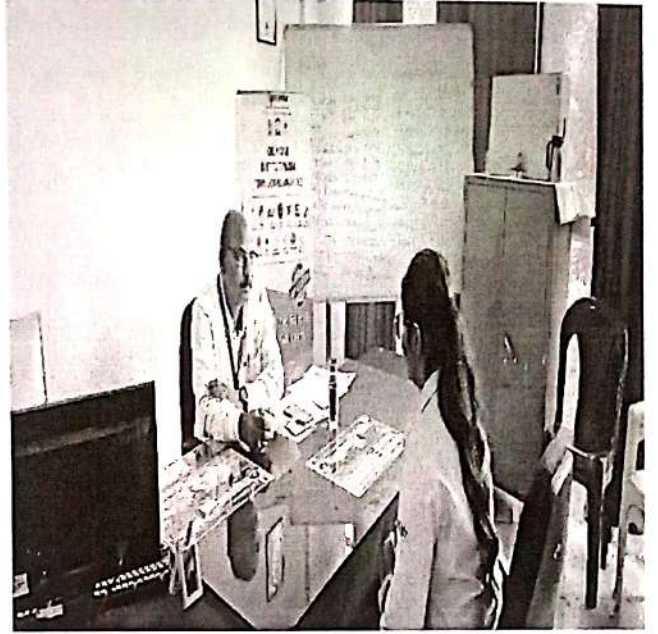
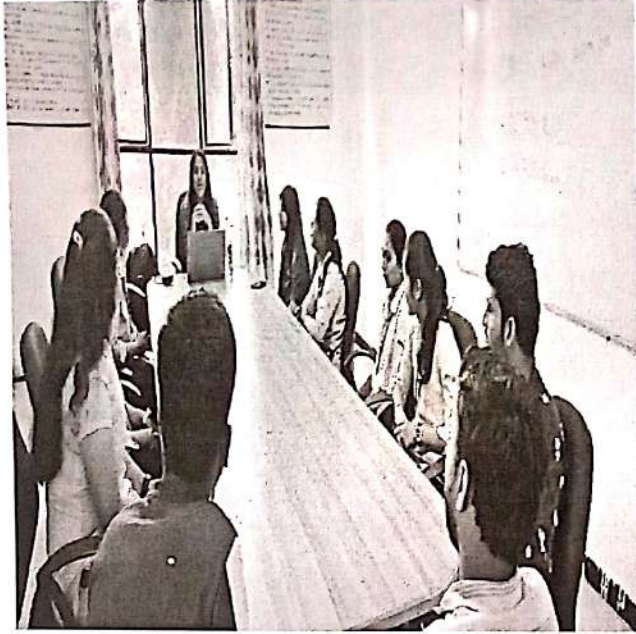
- Delivered one of the best and highest numbers for TCS and Capgemini in the Pune region.
- Highest package close to 6 LPA.

#### Internship Excellence:

- 200+ internships\*.



# Group Discussion and Personal Interview



## 5. Problem encountered and resources required

- **Poor Communication Skill:** Most of the students belong to rural background creating a challenge of communicating in English language. Institute offers English language course to improve the communication skills and also arranges group discussions to improve their leadership skills.
- **Performance Assessment:** Evaluating a student's internship performance can be challenging because they are fully immersed in their internship activities. Mentor of the student from institute evaluate internship performance along with industry mentor.
- **Integration into Company Culture:** Interns may struggle to adapt to the workplace culture, which can affect their ability to collaborate effectively with colleagues and fully engage in the learning experience. To adopt the industry culture Institute motivate the students to do short term internship (15 days to 1 month) during their summer and winter vacations.

## 6. Conclusion:

Industry internships and training programs significantly enhance employability by providing students with practical experience and exposure to real-world challenges. These opportunities foster essential skills, such as teamwork, communication, and technical proficiency. Networking with industry professionals helps students build valuable connections that can lead to job opportunities. Additionally, internships allow students to apply theoretical knowledge in practical settings, making them more competitive in the job market. Overall, such experiences bridge the gap between education and employment, preparing students for successful careers.



## Best Practice 2: Product Design and Development

### 1. The Context:

Product design and development represent critical phases in the creation of products, systems, and solutions that address complex challenges across various industries. These processes are essential in translating theoretical concepts into practical applications, ensuring that innovations are feasible, effective, and aligned with user needs and industry standards.

### 2. Objectives of the Practice

- To equip students with the ability to identify, analyze, and solve complex engineering problems.
- To encourage students and teams to develop novel solutions to real-world problems.
- To develop students' ability to work effectively in a team.
- To bridge the gap between theoretical knowledge and practical application.
- To ensure students acquire both technical skills in engineering disciplines and soft skills essential for professional success.
- To strengthen the connection between academic learning and industry or community needs.
- To promote research and development activities that contributes to advancements in engineering and technology.

### 3. The Practice:

Institute is dedicated to fostering a culture of creativity and innovation by offering students unparalleled opportunities in engineering design and innovation. Institute provides a dynamic environment where students can explore cutting-edge technologies, engage in collaborative projects, and push the boundaries of traditional engineering practices. Through hands-on workshops, design challenges, and real-world problem-solving experiences, students are encouraged to transform their ideas into tangible solutions. This commitment to nurturing ingenuity not only enhances academic growth but also prepares students to become leaders in the ever-evolving field of engineering.

The students can choose the problem statement from the following domains from Table 1.

**Table 1. Reference Domains for the student to select problem statement**

E- Vehicles	Waste Recycling	Defense and Security	Robotics
Smart City	Environment	Healthcare	Woman Safety
Energy Conservation	Clean Water	Food Technology	Agriculture
Transportation	Renewable Energy	Pollution Control	Rural Development



The technology chosen to address the problem is detailed in Table 2.

**Table 2. Various Technologies used by student**

3D Printing	Data Science	Optimization	IOT
Robotics	MEMS	Artificial Intelligence	Data Analytics
PLC Automation	Machine Learning	Cyber Security	Cloud Computing

Students choose one or more tools from Table 3.

**Table 3. Tools Used for PDD**

JAVA	C++	Arduino Uno	Auto CAD
Network simulator	Python	CATIA-V5	MATLAB

#### 4. Evidences of Success

The results of the PDD-Best Practice in relation to undergraduate research outcomes indicate that students have successfully done their Mini-projects and Major-projects as illustrated in Tables.

**Table 4. No. of Products Designed**

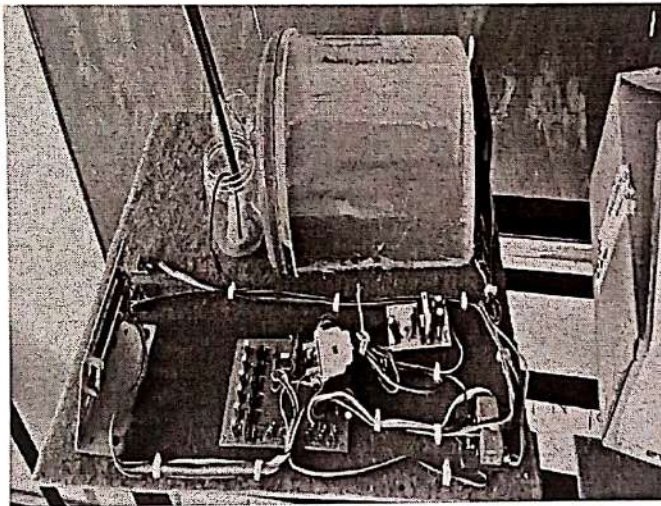
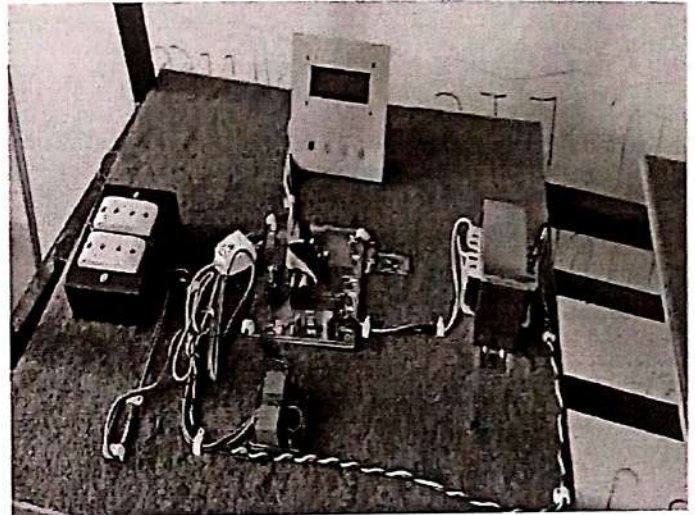
Sr. No	Academic Year	Total Product Developed including FY, SY and TY	Major Project B. Tech
1	2022-23	260	90

#### 5. Problem encountered and resources required

- **Financial needs to develop product:** For good products, Institute provides financial support.
- **Time Constraints to complete the project:** The concerned labs are open beyond working hours to complete the project work.
- **Mentorship for innovative business model:** Few projects are sponsored and mentored from industry.



**Students work in a team to develop the product and explain in front of higher authorities**



## **6. Conclusion:**

The Product design and development process is a systematic approach that transforms ideas into practical solutions. It emphasizes creativity, problem-solving, and collaboration among diverse teams. Effective communication and iterative testing are crucial for refining designs and ensuring functionality. Ultimately, this process fosters innovation and meets the needs of users and industries. By integrating feedback and adapting to challenges, successful engineering outcomes can be achieved.





Academic Year 2022-2023  
Project Guide Sheet

Class: - B.Tech E&TC

SUB: Project Part -II

R.N.	Group Number	Student name	Name of Guide	Title of Project	Sign
4	1	Mahajan Riyaj Rafik	Prof. Ms. Patil J. K.	"Transformer Monitoring System"	
14		Ahemadsab Shikur Tamboli			
12		Patil Chaitanya Chandrakant			
3	2	Hingmire Vishwajit Annasaheb	Prof. Kakade S. K.	"Automatic irrigation system with soil moisture sensor"	
5		Tamboli Arshad Jalal			
15		Katkar Vaibhav Hanumant			
10	3	Kadam Pramod Shivaji	Prof. Londhe K. P.	"Smart air purifier using STM-2"	
8		Mane Niranjana Krishna			
9		Ghongade Amar Chandrakant			
2	4	Pawar Supriya Dinesh	Dr. Deshmane A. K.	"Fingerprint and IOT based Exam Hall Authentication"	
7		Swami Utkarsha Arun			
13		Shiral Vaishnavi Appasaheb			
16	5	Deshmukh Shrinath Anil	Prof. Mrs. Shendge M. V.	"Vehicle to Vehicle communication & dedicated short range communication for autonomous vehicle"	
21		Dhumal Nitin Suresh			
17		Patil Akshay Sanjay			
6	6	Kalase Vishakha Baliram	Mr. Katakdhonde K.N	"Solar Power Mobile operated Automatic Grass Cutter"	
19		Ware Swapnali Ramesh			
1		Zambare Mahesh Mahadev			
18	7	Manjare Avinash Kurmudas	Prof. Andhare P. S.	"IOT based weather monitoring system using arduino"	
20		Shinde Sujitrao Balasaheb			
22		Sonawane Prajaya Arjun			
11	8	Jadhav Mukund Rajendra	Prof. Mrs. Shendge M. V.	"Facial recognition with convolutional Neural Network for driver"	



Project Coordinator

**Head of Department**  
Electronics & Telecommunication Engineering (Barshi)  
Bhagwant Institute of Technology, Barshi.



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**Prof. Dr. T. J. Sawant**

President

Department of Civil Engineering

Group No.	Name Of Student	Title Of Project	Name Of Project Guide
1	Waghmare Akashdeep Sunil Raut Swapnil Krishna Kokate Gaurav Shitalrav Basangoudar Mantej Mallikarjun	Use Of titaniumum dioxide in cement concrete to remove air pollution	Mr.Bhutekar R.D
2	Awaghade Prajakta Sanjay Betale Aishwarya Prabhuappa Mulani Karishma Chand Waykule Neha Jayant Patil Jyoti Laxman	Behaviour of concrete by replacement of fine aggregate with recycled plastic granules	Mr.Bhutekar R.D
3	Baglane Amar Rajendra Wagh Rushikesh Tatya Raut Sourabh Sanjay Raut Sourabh Sanjay Kadam Shashank Rajendra	Design Of G+5 building using Etabs	Mr.Gaikwad S.S.

  
Project Coordinator

  
HOD



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Email: bitbarshi6781@gmail.com



Website: www.bitbarshi.edu.in

Date: -20/04/2023

### Project Exhibition

Name of program	Project Exhibition
Date:	18-19/05/2023
Venue/address	Project Lab
Guest	Hon. Director , Principal, Vice Principal
Audience	All Students of E&TC department

**Aim:** To organize Project Exhibition.

**Objectives of program:**

The Department of E&TC Engineering hosted PROJECT EXHIBITION on May 18, 2023. Participants in this exhibition are students in their Third and final year.

The main goal of organizing this exhibition was to give students a platform to showcase their creative projects that they developed in the final year, either as solutions to industry-defined problems or solutions to user-defined problems, and to help them demonstrate their learning experiences.

The inaugural of the project exhibition witnessed the presence of **Mr. Raturaj Sawant Director, Dr. A. K. Deshmane Principal**, BIT Barshi, along with the faculty and staff members of Department.

Students have the opportunity to present their projects and ideas to other students and professionals by establishing this project exhibition. Other faculty members offered advice to students on how to advance their projects and enhance it. SY students were motivated by this endeavor as well.63


**Participants:**

The Third and Final year students of E&TC department actively participated in the session.

**Conclusion:**

The student of E&TC department has participated in Project exhibition enthusiastically.



  
**Head of Department**  
Electronics & Telecommunication  
Engineering (Degree)  
Bhagwant Institute of Technology, Barshi

ISPM Group of Institutes, Pune  
BHAGWANT INSTITUTE OF TECHNOLOGY, BARSHI  
(Approved by AICTE, New Delhi, Govt. of Maharashtra,  
Affiliated to MSBTE Mumbai)

Gat no. 1242/01, Tadsoundane Road, Barshi 413401

Email: bitbarshi6781@gmail.com

Website: www.bitbarshi.edu.in

Date: 28/04/2023

## NOTICE

All the students of Third and Final year are here by informed that department Electronics and Telecommunication is going to organize the project exhibition on 18/05/2023. So each group have to attend the exhibition along with their hardware/software etc.

The Detailed schedule is as follows;

Sr. no	Date	Course	Time
1	18/05/2023	TY and B. Tech E&TC	11-04PM

Venue: Project Lab

Kindly Note - Inform to project coordinator if any additional requirement is required to run the project.

  
Project Coordinator



  
HOD 28/4

For Head of Department  
Electronics & Telecommunication  
Engineering (Degree)  
Bhagwant Institute of Technology, Barshi.



BHAGWANT Group of Institutes, Pune  
SDFRECT'S

BHAGWANT INSTITUTE OF TECHNOLOGY, BARSHI  
Department of Electronics & Telecommunication Engineering

Address: BHAGWANT Group of Institutes, Barshi, Dist. Solapur, Maharashtra, 431 201  
Barshi, Dist. Solapur, Maharashtra, 431 201



### Project Exhibition Attendance

Class: TY E&TC

Ac. Yr. 2022-23

Date: 18th, 19th May 2023

Sr. No.	Group No.	Name of students	Project Title	Students Sign
	1	1) Vibhute Akanksha	Laser Beam Security System	<u>Akanksha</u>
		2) Pawase Dipali		<u>Dipali</u>
	2	1) Vishwajeet Parande	obstacle detection	<u>Supriya</u>
		2) Jamadar Supriya		
	3	1) Shashank Shingade	Clap based switching	<u>Shashank</u>
		2) Devkate Balaji		<u>Devkate</u>
	4	1) Andhare Sridata	Mini Audio Amplifier	<u>Santhosh</u>
		2) Sutar Vishal		<u>Sutar V</u>
	5	1) Sayyad Shahid	Wireless Doorbell calling system	<u>Shahid</u>
		2) Kute Rahul		<u>Rahul</u>
	6	1) Mote Mayur	Sun tracking solar panel.	<u>Mayur</u>
		2) Deekar Harinjay		<u>Deekar</u>
	7	1) Prakash Ohol	Short circuit indicator	<u>Prakash</u>
		2) Sandip Jagtap		<u>Sandip</u>
	8	1) Priti Jadhav	Rain Alarm	<u>Priti</u>
		2) Akanksha Kulkarni		<u>Akanksha</u>

Indya  
CC

1. Indya  
2. Indya  
Project Coordinator

Indya  
DAC



Indya  
Head of Department  
Electronics & Telecommunication Engineering (Degree)  
Bhagwant Institute of Technology, Barshi



**Students work in a team to develop the product and explain in front of higher authorities**

