

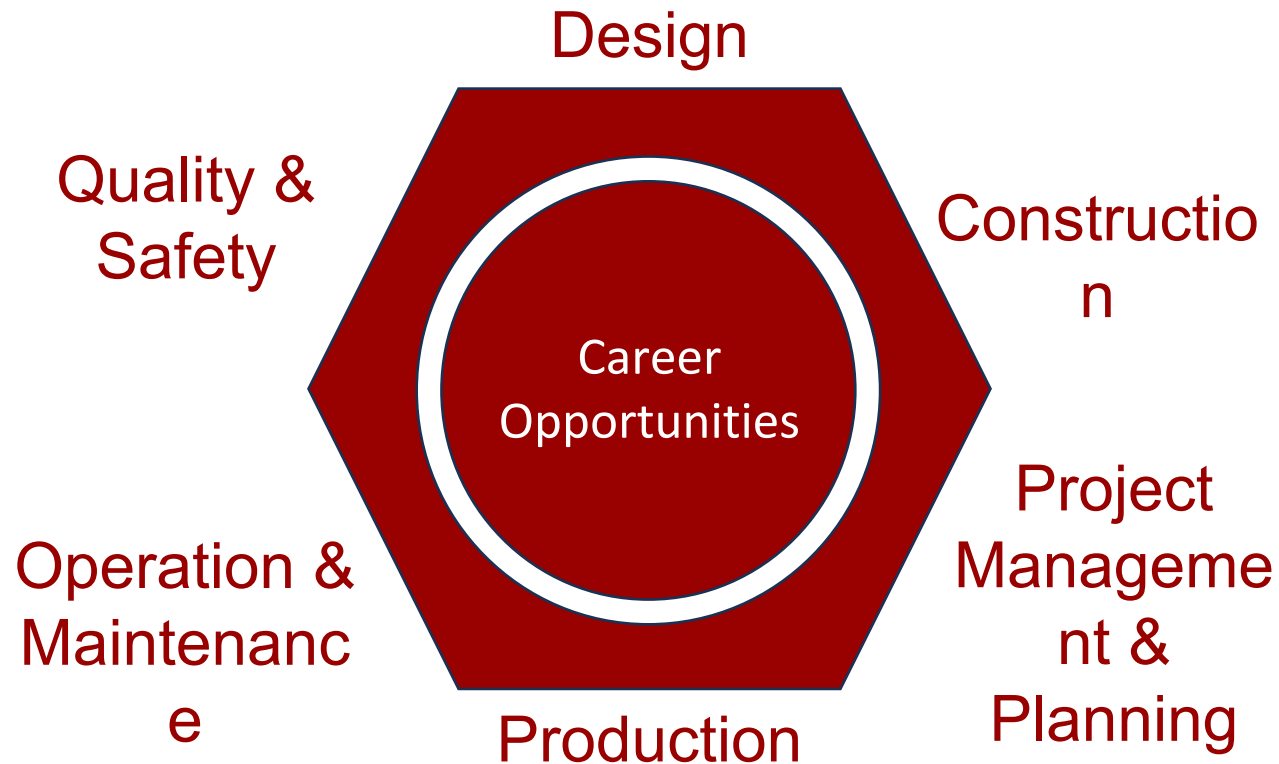
Overview of the Department of Mechanical Engineering

Bharatiya Vidya Bhavan's

Sardar Patel College of Engineering

Munshi Nagar, Andheri (west), MUMBAI-400058

○ Career Opportunities for a Mechanical Engineering Graduate



Domain of Activities:

1. Aerospace Engineering
2. Automotive Industries
3. Automation and Robotics
4. Energy Generation, Distribution and Maintenance
5. Instrumentation and Controls
6. Mining and Materials Engineering
7. Manufacturing and Construction
8. Project Planning and Controls
9. Medicines and Biomedical
10. IT Industries, and
Many Many more

Our Vision and Mission



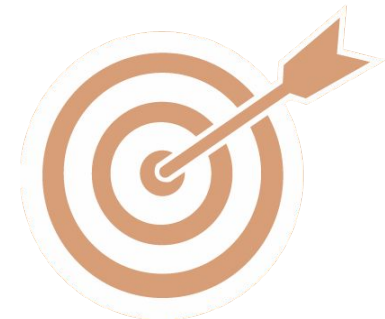
Our Vision

To produce responsible and competent engineering graduates

- **Research Motivation**
- **Human Values**

Our vision is based on our efforts to:

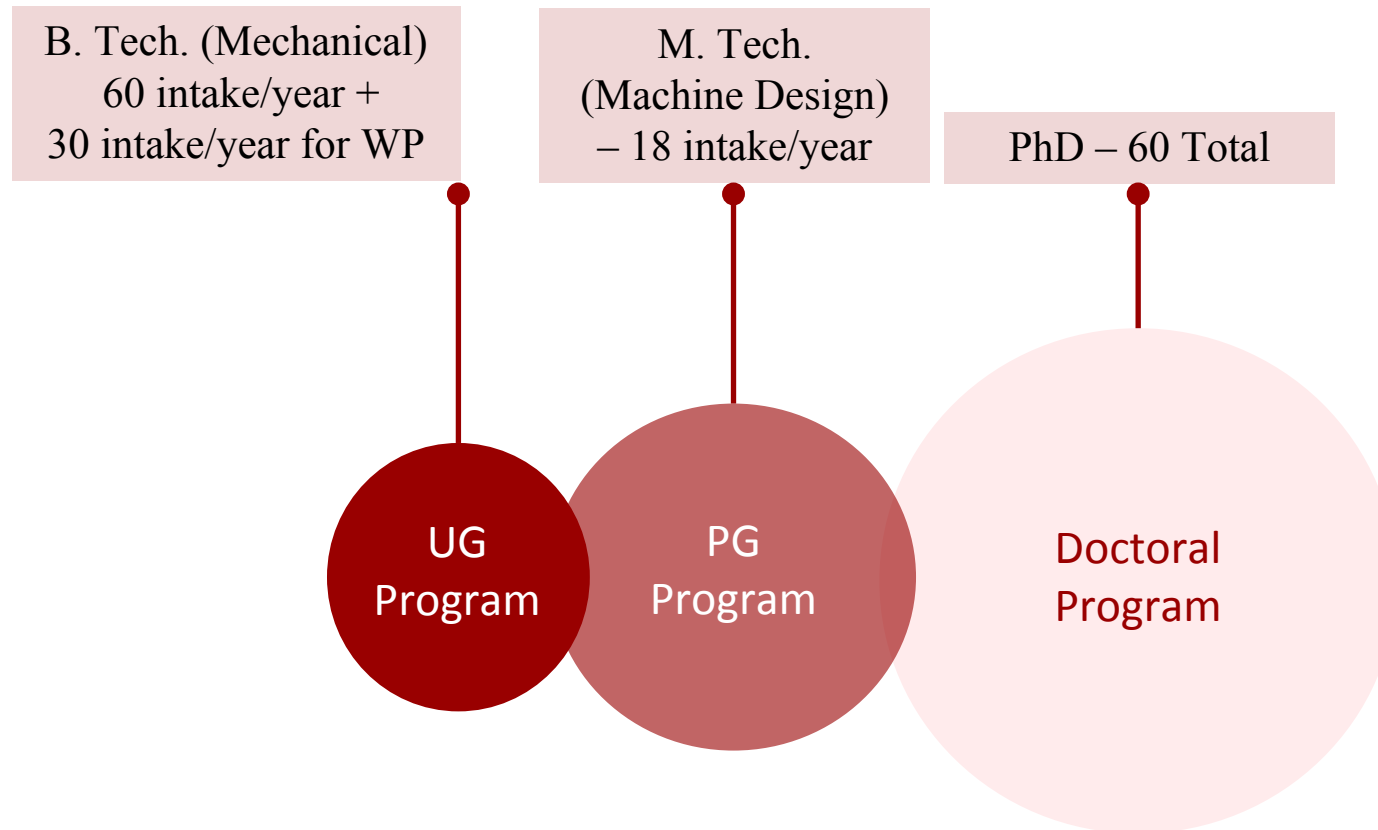
- Develop **need based curriculum** in collaboration to stakeholders.
- Maintain **close ties with industries** and research organizations for excellence in teaching and research.
- Maintain good laboratories which can give exposure to **field knowledge**, generate **innovative ideas** and cultivate **lateral thinking**.
- Motivate students for **overall personality development** by participating in the extracurricular activities.



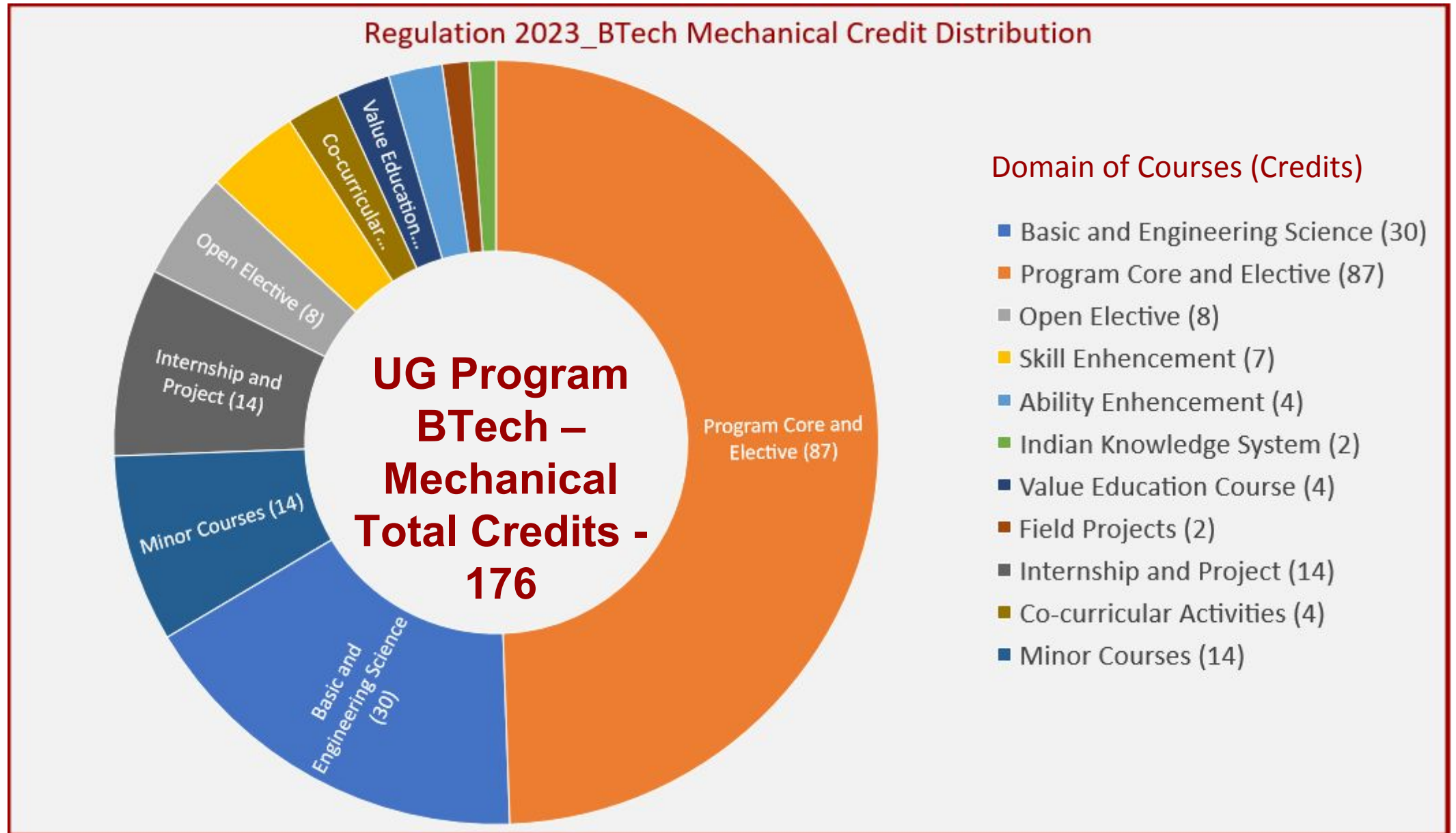
Our Mission

Academic Programs

Mechanical Engineering Department of Sardar Patel College of Engineering commenced in **1962**. The department has modern infrastructure with well-equipped laboratories and computational facilities. The UG and PG **curriculum is aligned with the New Education Policy**. BTech and MTech courses are autonomus.



Curriculum under New Education Policy



Our Faculties

Sr. No.	Name of Faculties	Highest Qualification	Years of Service
1.	Prof R B Buktar	PhD, Mumbai Univ.	+ 20
2.	Prof. D N Jadhav	MTech, IIT Madras	+30 (Industry + Acad.)
3.	Prof. Kiran S Bhole	PhD, IIT Bombay	+20
4.	Prof. R S Maurya	PhD, IIT Madras	+30
5.	Prof. Santhosh B. Rane	PhD, Mumbai Univ.	+25
6.	Prof. Parag K Muley	Pursuing PhD (IIT Bombay)	+20 (Industry + Acad.)
7.	Prof. Megha J. Nagrale	PhD, Mumbai Univ.	+15
8.	Prof. Sachin Vankar	PhD IIT Bombay	+15
9.	Prof. Kunal Bhavsar	Pursuing PhD	+7
10.	Prof. B N Bhasme	PhD, IIT Bombay	+20
11.	Prof. Sharad Valvi	Pursuing PhD	+7
12.	Prof. Haseen Saikh	Pursuing PhD	+7
13.	Prof. Deepak Singh	MTech	+3

Our Supporting Staffs

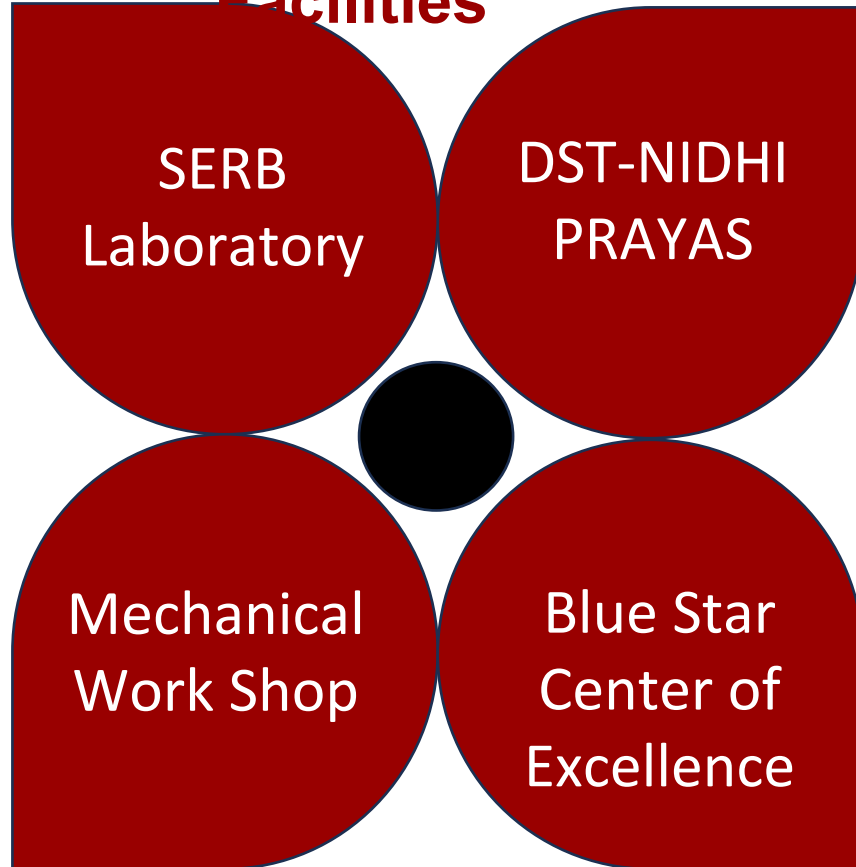
Sr. No.	Name of the Staff	Designation	Sr. No.	Name of the Staff	Designation
1.	Mr. Rajesh B. Keni	Chargeman	8.	Mr. Deepak L. Parab	Lab. Attendant
2.	Mr. Pravin M. Lohar	Blacksmith	9.	Mr. Mahendra L. Rane	Lab. Attendant
3.	Mr. Luis P. Dias	Lab. Attendant	10.	Mr. Maruti T. Bhangre	Lab. Attendant
4.	Mr. Nilesh Kelkar	Fitter	11.	Mr. Aarif Kazi	Lab. Attendant
5.	Mr. Nitin N.Kambale	Turner	12.	Mr. Jafar Patel	Lab. Attendant
6.	Mr. Dadasaheb R. Mane	AC Mechanic	13.	Mr. Vasantkumar H.S	Hamal
7.	Mr. Dhammdarshan Adakute	Engine Mechanic	14.	Mr. Prakash Bachav	Hamal

○ Research Area (Expertise)

- ❖ Design and Analysis of the Thermal System, Computational Fluid Dynamics
- ❖ Information-enabled Technology Integration in Indian Auto Component Industries
- ❖ Fracture Mechanics, FEM and Stress Analysis
- ❖ Microfabrication, Additive Manufacturing, MEMS, Flexural Systems
- ❖ Reliability Engineering, PM, Supply Chain Management, Lean Six Sigma
- ❖ Machine Design, Micro-Manufacturing, Non-conventional Machining
- ❖ Composite Materials(Structure), Micromechanics, and Fatigue
- ❖ Air-conditioning System Design
- ❖ Friction stir welding, Materials and Manufacturing

○ Research Facilities, Ongoing Projects and Fundings

Research Facilities

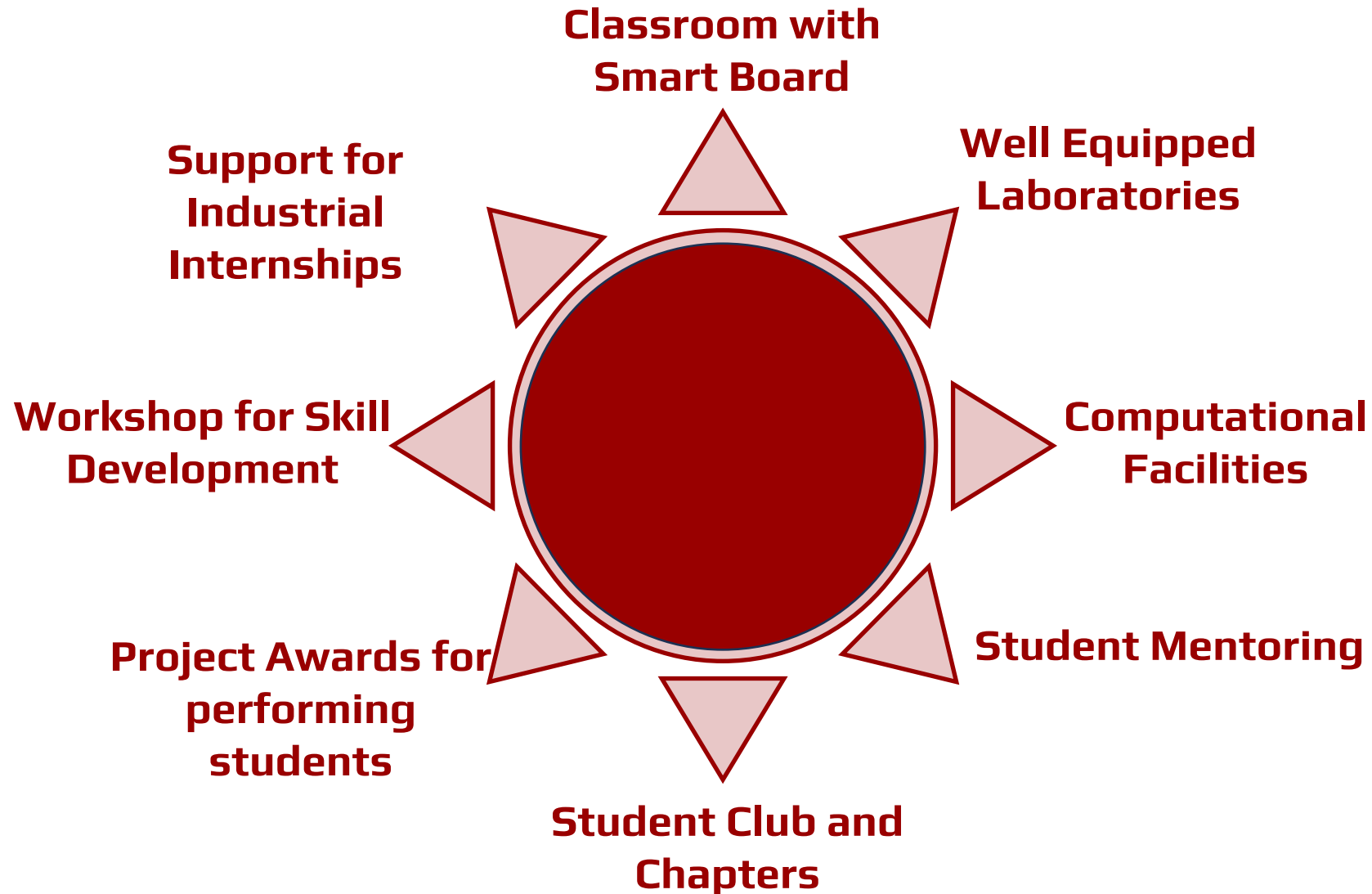


Research / Industrial Collaborations:

- Indian Institute of Technology, Mumbai
- Central Institute of Fisheries Education (CIFE), Mumbai
- Godrej and Boyce Manufacturing, Mumbai
- Sardar Patel Institute of Technology
- Blue Star

Research Funds -210.9 Lakh (Current)

○ Students Resources and Supports



Laboratories

Material Science

Mechanical Workshop

Machines and
Vibrations

Computation and
CAD-CAM

Fluid Mechanics &
Machines

Mechatronics

Measurement and
Metrology

Heat Transfer & Air
Conditioning

Thermal Engineering

Students Organizations

Student's team that designs and develops racing cars and participates in national-level racing competitions.

SPCE Racing Team

Student's team that designs and develops flying prototypes and participates in national-level competitions.

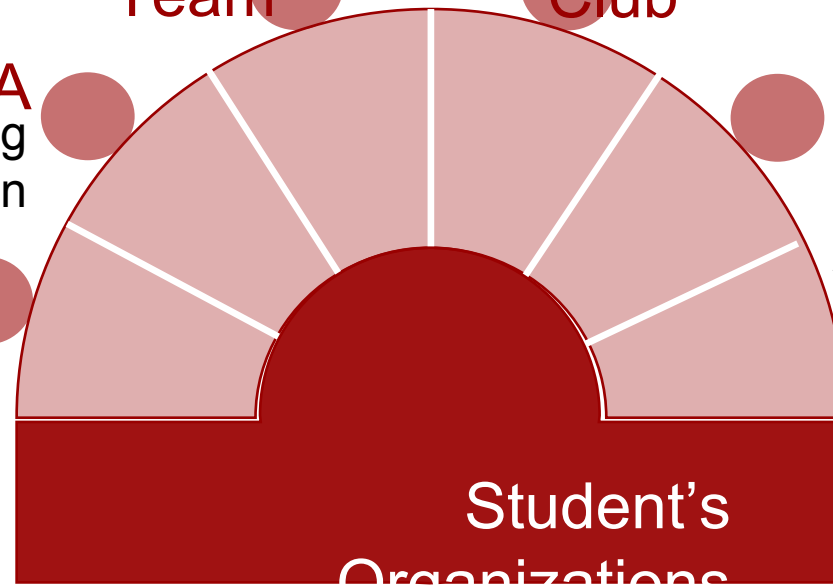
SPCE WAVE Club

TESA
Thermal Engineering Students Association

ISHRAE
Student's chapter who has an interest in heating, refrigeration and Airconditioning.

MESA
Mechanical Engineering Students Association

ROBOCO
Student's Club that designs, develops Robots and participates in different national-level competitions.



Qualities Development-

- Leadership
- Cooperation, Collaboration
- Brainstorming Skill

- Team Working
- Mentoring
- Meeting Skill

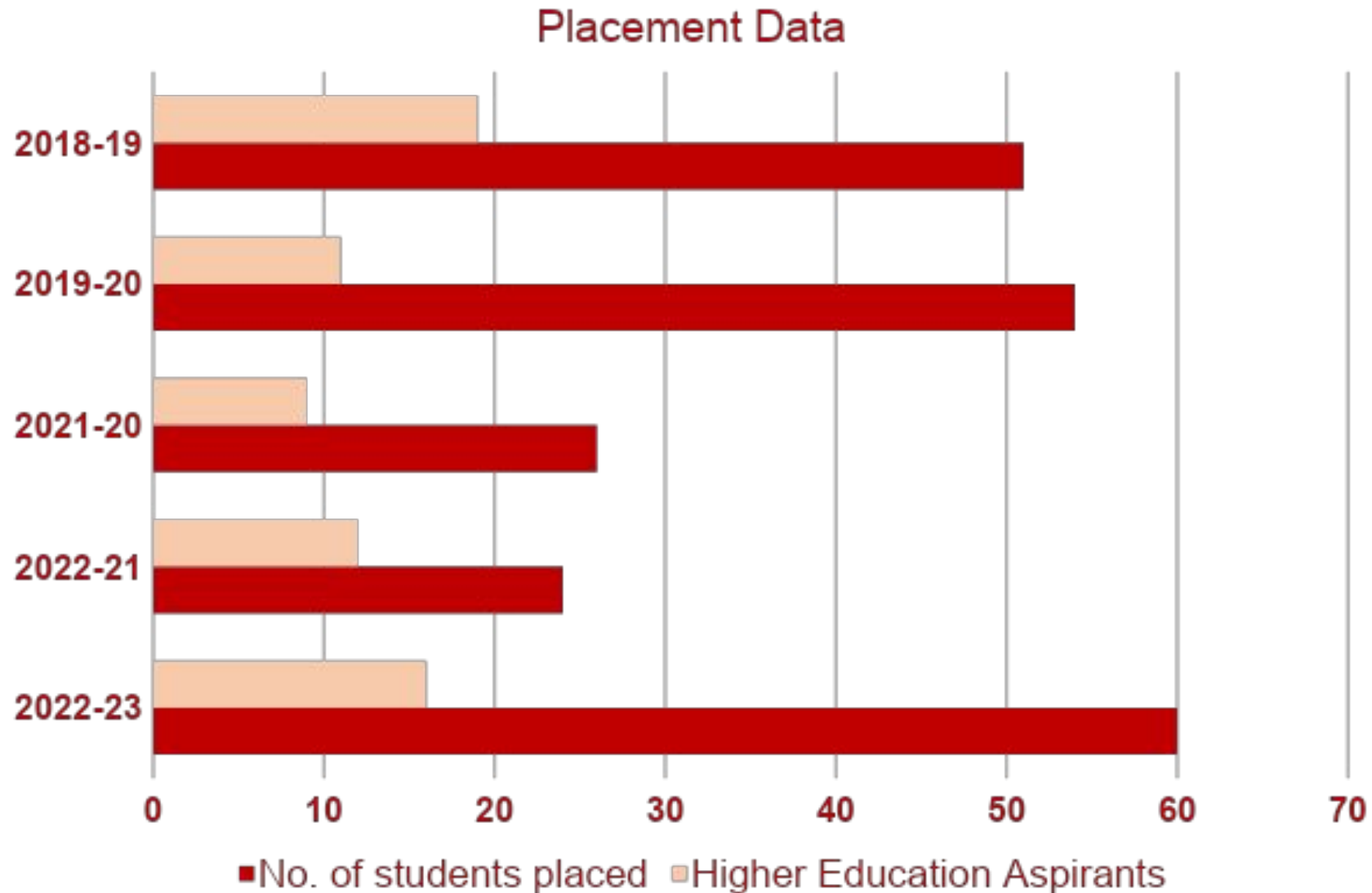
- Sharing Idea
- Assistance
- Management Skill

Result of Passing Out Students

Final B.Tech. (Mechanical) Result*	
2023-24	98.65%
2022-23	96.10%
2021-22	94.59 %
2020-21	100.00 %
2019-20	97.26 %
2018-19	94.44 %

* Based on the total number of eligible students excluding the students gone to higher studies

Student's Placements & Achievements



Student's Recent Achievements and Accolades

- ❖ SPCE Racing team got Rank-1 in the business planning presentation, Rank-4 in the cost presentation, and Rank-9 in the overall category in Formula Bharat-2024.
- ❖ SPCE WAVE Team got 2nd rank in the Best Technical Presentation in 'SAEISS Drone Development Challenge 2023' held at Coimbatore.
- ❖ Team SPCE ROBOCON participated DD ROBOCON hosted by IIT Delhi and won the Best Technical Report award in the event held on 17-18 June 2023 at New Delhi.
- ❖ Mr Tejas M Vaishnav and Mr Kaif H Badshah, received 'Bank of Baroda Achiever Awards' for AY 2023-24.
- ❖ Mr. Aniruddha Deshpande got ALL INDIA RANK-1 in a prestigious Product Design MDes. Examination-2024, NID Ahmedabad.
- ❖ 'Automated Coffee Making and Bottle Filling System using S7-1200 PLC and Ladder Logic Programming' A research paper authored by students – Dhaval Prabhudesai, Anuruddha Nangare and Suyash Mahale, published at Int. Journal of Materials, Mechanics and Manufacturing (2023).
- ❖ Students Mr. Madan Narayan and Mr. Shashank Phulmali, presented their research paper titled "Design, Manufacturing, and Testing of a Portable Cooling Jacket" at the 8th National and 2nd International Conference (NCRAC 2024) held at IIT Madras.

○ Few Student's Events

- ❖ A blood donation camp organized on 10/10/2023 where more than 100 blood donors participated in the noble social activities.
- ❖ A 9 days educational tour was organized from 29/1/2024 to 06/2/2024 to north India (Chandigarh-Kullu-Manali-Amritsar). A group of about 100 student participated in the activity.
- ❖ One day industrial visit to 'Tata Institute of Fundamental Research, Mumbai' on 28/2/2024 was organized where most of the Third Year Mechanical students participated.
- ❖ Industrial Visit to PARLE Factory at Khopoli on 02.12.2023 by 45 students.
- ❖ Mindfulness Awareness Session conducted on 14.10.2023 in association with Vipassana Research Institute, Borivali.
- ❖ Expert talk on "How to achieve your career goals" by Dr. Ganesh Soni, a Quality Control Manager at Hexagon Group on 24 April 2023.
- ❖ An industrial visit to 'Belimo Automation India Private Ltd.' on May 27, 2023 was arranged by Dr. B N Bhasme under ASHRAE Student Chapter. Students saw an entire air conditioning plant equipped with an energy monitoring system during their visit.
- ❖ An industry visit for B.Tech. (Mechanical Engineering) Semester VIII students to MAHAGENCO, Gas Turbine Power Station (GTPS), Uran was organized by Prof. P K Muley on 02/05/2023.

❶ Faculties' Noteworthy Recent Achievements

- ❖ More than 27 research publication during 2023-24,
- ❖ 05 Faculty Development Program has been conducted during 2023-24,
- ❖ Rs. 2.1 Crore research grant / financial aid received by the department,
- ❖ Department faculties participated in more than 50 Social Outreach activities in the form expert lectures, journal paper reviewer, different committees and support to other colleges.
- ❖ Consultancy services in the several domain,
- ❖ 05 PhD scholar's completed their research work and submitted their thesis under supervision of department faculties

Illustrations



Illustrations



○ Contacts us

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