

**JSPM's**  
**BHIVARABAI SAWANT INSTITUTE OF TECHNOLOGY AND**  
**RESEARCH, WAGHOLI, PUNE 412 207**

Gate No. 720/2, Nagar Road, Wagholi, Pune, Maharashtra 412207  
Approved By AICTE, New Delhi, Govt.Of Maharashtra & Affiliated To Savitribai Phule Pune University



**ANNUAL REPORT 2022-23**

## **Institute's Vision**

"Satisfy the aspirations of youth force, who want to lead nation towards prosperity through techno-economic development."

## **Institute's Mission**

“To provide, nurture and maintain an environment of high academics excellence, research and entrepreneurship for all aspiring students, which will prepare them to face global challenges maintaining high ethical and moral standards.”

## **Introduction:**

JSPM’s Bhivarabai Sawant Institute of Technology and Research (BSIOTR) is approved by the All India Council for Technical Education (AICTE) and Directorate of Technical Education (DTE) Government of Maharashtra and Affiliated to Savitribai Phule Pune University (SPPU), Maharashtra State. The institute is a self-financed private organization established in the year 2009. It is located at GAT No.720/1&2, Pune-Nagar road, Wagholi, Pune and its geographical location is latitude 18.58614 and longitude 74.003956. The institute is offering full-time five undergraduate courses and two post-graduate courses in an engineering discipline. Eleven batches of students have graduated from the institute. The institution is committed to imparting quality technical education to achieve its vision and mission.

The institute is offering five undergraduate and two postgraduate programs affiliated to the Savitribai Phule Pune University (SPPU). The Institution provides adequate facilities and ensures the best possible utilization of physical infrastructure to support the teaching-learning process, co-curricular, extracurricular activities and an ecosystem for research and innovation. The infrastructure and facilities fulfil the norms laid by AICTE, DTE, and SPPU. The facilities are regularly upgraded considering the need of stake holders.

## **Principals Message:**

JSPM's Bhivarabai Sawant Institute of Technology & Research (BSIOTR) is an institution where students are groomed into technocrats having the skill sets compatible to the industries/employers and the society at large. The academic infrastructure of the institute is having state of the art facilities like smart boards, virtual class rooms and internet and Wi-Fi enabled class rooms to facilitate the teacher to implement the well-crafted curriculum in an effective manner to achieve the goal of outcome based education. Different teaching methodologies and modern teaching tools adopted by the teacher in teaching-learning process, supplemented with extra-curricular and co-curricular activities help the students to acquire the skills required to pursue their dream career. We believe in strong and cordial interaction between teachers and students which is an essential parameter to help the students to achieve greatness in academics, extracurricular and co-curricular achievements. This is being practiced in this institute with great care and devotion. BSIOTR expects its graduating students to excel with their skills both inside and outside of the classroom. I would like to express through this message that, you being part of this institution as a student or staff member, would definitely feel proud of yourself because of its excellent teaching-learning environment and commitment to serve the nation for its techno-economic development. I welcome all the students who wish to be part of BSIOTR to fulfill their aspirations of becoming an able engineer who will fulfil the needs of the industries, society and the nation. Good intention and smart efforts never go waste. And team work is a key factor for success. So we believe in team work for grooming the students.

Dr. T. K. Nagaraj  
Principal

### **Enrollment and Admission:**

- In the academic year 2022-23, the institution witnessed a total of 355 students admitted in the First Year Engineering (FE) program, compared to the allocated intake of 492. In the Direct Second year (DSE) 88 students have been admitted. Existing SE-310, TE-448 and BE-495.
- The Postgraduate (PG) program, which includes students ME-I and ME-II total enrolled students are 11. Collectively, across all engineering disciplines, the institution welcomed a total of 1707 students during this academic period 2022-23.

### **Faculty and Staff:**

- In the academic year 2022-23, the institution employed a total of 95 teaching staff members. Additionally, there were 81 non-teaching staff members contributing to the overall functioning of the institution.
- This collaborative effort from both teaching and non-teaching staff played a crucial role in maintaining the academic and operational excellence of the institution during that period.
- Expenditure excluding salary component year wise during the years 22-23 is 581.3500 (INR in lakhs)
- Numbers of full time teachers are eleven (11) with NET/SET/Ph.D. in academic year 2022-23 in JSPM's BSIOTR.
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### **Curriculum and Program Updates:**

- Well-planned and implemented curriculum by adhering to academic calendar.
- For effective delivery of curriculum more emphasis is given on Teaching methods & Techniques, Quality of delivery of content, Continuous Internal Evaluation, Remedial measures for slow learners, Use of ICT tools and Project Based Learning.
- Continuous assessment of the student is carried out using various assessment tools to ascertain attainment level of the students. Remedial actions are taken for slow learners.
- Video links from NPTEL are provided to students for self-learning. The MOODLE is being used for Assessment and Evaluation by conduction of tests, assignments and mini-projects. Self-made videos are used to explain the laboratory experiments.
- Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on Institute website.

- The MOODLE is being used for Assessment and Evaluation by conduction of tests, assignments and mini-projects.
- Twenty three (23) add-on courses, Value added, courses, workshops, seminar conducted during 2022-23
- One thousand seven (1007) students from all programs has been enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students 1707 during 2022-23 and successfully completed.
- Institution integrates cross cutting issues into the curriculum by offering the audit courses prescribed by affiliating university, which address cross cutting issues. In addition the various community approach activities are also conducted under the banner of National Service Scheme (NSS) and Student Development Cell (SDC).
- Other activities initiated by the institute Blood donation camp: Inculcating human values Tree plantation: Environment and Sustainability Celebration of birth anniversary of great Indian personalities: Inculcating human values & culture Visit to Orphanage : Inculcating human values and social responsibility. Speech by spiritual leaders: Professional Ethics, Gender, Human Values, Community approach activities under NSS camp: Social Responsibilities.
- Feedback collected, analyzed, action taken& communicated to the relevant bodies and feedback hosted on the institutional website.
- The Project Based Learning is adopted for the self-study components. The students have to do projects pertaining to a course. The final year Projects are mentored and evaluated by externals from other institutes and industry. These projects are evaluated by a well-defined detailed rubrics framework to ensure quality of the projects. The best projects are sponsored to attend the project competitions.
- Audit courses as per syllabus of SPPU and twenty three Value added programmes are conducted on various topics. The students are also trained towards abstract writing, technical paper writing and literature survey.
- The OBE is practiced in true spirit resulting in more focused all-round development of our students.
- Modern Tool Usage: Wi-Fi enabled smart Boards, LCD projectors, MOODLE are used in teaching learning process.
- Industry-Institute-Interaction: Soft Skill training programs, Expert lectures, industrial visits are conducted with the industry personnel for enhancing the learning

levels of the graduates.

- One thousand sixty (1060) students completed online courses of MOOCs, SWAYAM, NPTEL with value added courses and add-on as well.

### **Research and Publications:**

- Grant received from BCUD SPPU is point one five (0.15) lakh.
- Centre for Innovation Incubation and Entrepreneurship Development (CIIED) within institute by Industry.
- Research Initiatives: Project funding schemes are offered to encourage students to undertake research projects. Project based learning and internships are encouraged and students have completed it successfully. Financial support was provided by the management to students to participate in project competitions, conferences, publications in journal.
- Technical Clubs/Labs: The Institution has well equipped and dedicated labs, technical clubs for development of innovative projects. e.g. Robotics and E-Yantra Lab, Coders Club, etc.
- Professional Society Chapters - The Institution has well established chapters under professional societies like IEEE, ISTE, IETE, CSI, Various project competitions, seminars, community development activities, etc are organized under the societies.
- Centre for Innovation Incubation & Linkage: This cell established in collaboration with the affiliating university to promote innovation and incubation.
- Research Initiatives: Project funding schemes are offered to encourage students to undertake research projects. Project based learning and internships are encouraged and students have completed it successfully. Financial support was provided by the management to students to participate in project competitions, conferences, publications in journal.
- Students of electrical engineering won the following prizes for their project

“ADVANCED CAR JACK CONTROLLED BY WIRELESS DEVICE 1st Winner of PROJIT at JIT,Nashik, India. 3rd Winner of TECHPRO at JSPMS’s BSIOTR, Pune, India. 3rd Winner of IEEE SETC 2023 at California,USA,June 2023 3rd Winner of “TECHNOTHAN at SPCOE Baramati, India.

- One hundred and forty research papers are published in the Journals notified on UGC CARE during 2022-23.
- Twenty four books and chapters are published during 2022-23

**Outreach and extension Activities:**

- National Service Scheme: NSS unit (Unit No:A98)recognized by affiliating university (Savitribai Phule Pune University) for 150 students is one of the platform created for conduction of community approach activities to help the students to sensitize them towards social problems, environment and sustainability, giving back to society.
- Twenty three (23) activities have been conducted under National Service Scheme.
- Workshops/seminars/conferences including programs conducted on Research Methodology,
- Intellectual Property Rights (IPR) and entrepreneurship are eighteen (18) in numbers during 2022-23.
- Total six functional MoUs have signed with institutions/ industries in India for internship, on-the-job training, project work and collaborative research during AY 2022-23.
- The institution promotes various extension activities under National Service Scheme (NSS), IETE & IEEE Student Chapter and various clubs established at the institute. A Scheme for Promoting Interests, Creativity and Ethics among Students(SPICES) was sanctioned by All India Council for Technical Education with financial assistance of Rs.100000/- with equal contribution from the management. Under this scheme different clubs namely 1. Cultural Club ("Balgandharva") 2. Personality Club("Swami Vivekanand ") 3. Technical Club( " C. V. Raman") 4. Social Club( " Baba Amte") 5. Sports Club ( " P. V. Sindhu"). The main aim is to identify development challenges in rural area and propose appropriate solutions for accelerating sustainable growth. Entrepreneurship Development (ED) Cell at the Institution aims to encourage students to consider self-employment as a career option. Institution has received many awards for innovative projects.
- The main aim of the NSS Unit is to develop a sense of social and civic responsibility

in the students. Several activities are carried out such as cleanliness, tree plantation, water conservation, use of solar energy, environmental awareness, national integrity, blood donation camps, health check-up camps, road safety and plastic eradication. In addition to this, students volunteered during pandemic. The student volunteers have organized weekly camps in nearby adopted villages.

- Apart from this, departments have their department students associations to continuously encourage students to take active participation in welfare of society by engaging them in social activities. The participation in extension activities helps students in sensitizing towards social issues and encourages them to provide solutions. This leads towards holistic personality development of students.

### **Result AY 2022-23 and Participation:**

- Number of final year students who passed the university examination in academic year 2022-23 are 393 out of 487.
- 1345 students get benefited of guidance for competitive examinations and career counseling offered by the Institution during 2022-23.
- 215 students placed and progressed to higher education year wise during 2022-23.
- Four students qualifying in state/ national/ international level examinations year wise during 2022-23 (eg: IIT/JAM/NET/SLET/GATE/GMAT/GPAT/CLAT/CAT/GRE/TOEFL/ IELTS/Civil Services/State government examinations etc.)
- Three students awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the 2022-23, students in project completions, paper presentation of the Institution participated during 2022-23.
- 22 students participated in sports and cultural programs in which students of the Institution participated during 2022-23.

### **Infrastructure:**

- The Institution provides adequate facilities and ensures the best possible utilization of physical infrastructure to support the teaching-learning process, co-curricular, extracurricular activities and an ecosystem for research and innovation.
- The infrastructure and facilities fulfill the norms laid by AICTE, DTE, and SPPU.
- Physical infrastructure like Classrooms, Tutorial Rooms, Laboratories, Machine



Shop (Workshop) and Seminar Halls are available to conduct session/Expert talk etc.

- In addition to this, the Institution has distinctive auditorium with seating capacity of three twenty people, administrative rooms, and examination control room, central and departmental libraries, a computer center, two language laboratories, Video Conferencing Room, Sick room and ambulance available twenty four by seven.
- The Institution has adequate number of ICT-enabled classrooms and seminar halls. All classrooms and seminar halls have Wi-Fi/internet facilities for an effective teaching-learning process. They are well equipped with green boards, LCD projectors, and Smart boards.
- An expenditure of 71.29 lakhs has been allocated and expended for the development of infrastructure, reflecting a commitment to enhancing the overall growth and progress of the designated area.
- Band Width: 300 Mbps Content Ratio: 1:1(Gold) Campus Level Updating: 300 Mpbs to 300Mpbs.
- 163.84 Lakhs, Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year wise during academic year 2022-23.
- 1345 students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the 2022-23.
- Sixty five activities organized in capacity development and skills enhancement activities are organized for improving students' capability 1.Soft skills 2.Language and communication skills 3.Life skills (Yoga, physical fitness, health and hygiene) 4.ICT/computing skills
- One thousand and eighty two (1082) students get benefitted by guidance for competitive examinations and career counseling offered by the Institution during the 2022-23.
- The Alumni Association was registered with the charity commissioner office in August 2017(MAHA/1097/2017/Pune).
- Alumni contributed in terms to deliver the expert session as their expertise. (Guiding and Motivating)
- Institution implements e-governance in its operations 1.Administration 2.Finance and Accounts 3.Student Admission and Support 4.Examination.

- Thirty teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during 2022-23.
- 125 teaching and non-teaching staff members participated in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the academic year 2018-19.
- The institute has a strong ethical work culture that is based on inclusivity. Gender sensitivity is an inherent value in the cultural ethos of the institute as is evidenced by the following facilities – Safety and Security, Counseling.
- National and international commemorative days, events and festivals celebrated by students associations. The Institution celebrates Engineer’s Day on 15th September to recognise and honour the achievements of the great engineer Sir Mokshagundam Visvesvaraya.
- Various national festivals and Women’s day is celebrated on International Women’s Day i.e. 8th March to show respect towards women in all the efforts taken by them to manage their personal and professional life and for their contributions. International Yoga Day is celebrated in the Institution on 21st June to bring awareness about the health benefits of yoga among the students and the faculties. Gender audit is carried out to evaluate participation of male and female students in various types of events.

### **Library Facilities:**

- The central library is automated with software and is equipped with e-resources.
- Open access software “Koha” is used for management of library support.
- OPAC software used for quick access to library resources.
- There are a total of 3646 titles and 16644 volumes
- A digital library is made available for browsing/searching.
- The reading room is well furnished with seating capacity of around 200 students / faculty.
- The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.
- Vision Statement of the Institution To satisfy the aspirations of the youth force, who wants to lead the nation towards prosperity through techno-economic development.

Mission Statement of the Institution To provide, nurture and maintain an environment of high academic excellence, research and entrepreneurship for all aspiring students, which will prepare them to face global challenges maintaining high ethical and moral standards. The Institution's Vision emphasizes creating workforce to lead the nation towards prosperity through techno-economic development.

- To ensure the realization of the Vision, the Mission statements have created actionable areas with an emphasis on the development of entrepreneurial skills, the impetus for research and development activities, creating an environment of inclusiveness for the overall development of students.
- The Institution is working towards the accomplishment of the mission statements, which are clearly aligned to the vision. For the fulfilment of the stated mission, the leadership ensures the monitoring and enforcement of the policy statements and strategic action plans which are formulated based on careful consideration of all the stakeholders.
- Decentralization and participation The Institution promotes decentralization and participative management where each committee is given freedom to make a perspective development plan for smooth functioning.
- Effective leadership is visible through planning, implementing, and executing the quality policy of the Institution. The Institution has formed various committees that are constituted by staff members to manage different institutional activities and to promote academic leadership. The Principal discusses with the Heads of the Departments the needs, problems, suggestions for improvement in the educational quality, infrastructure, etc. to propose to the management for further action.
- As a part of the quality initiative the IQAC, statutory Committees, CDC, and Governing Body (GB) continuously work on quality improvement. The committees are headed by faculty in-charges and comprise inter-departmental teams along with student representatives.

### **Conclusion:**

The institution is dedicated to executing a well-structured teaching-learning process, emphasizing the significance of Outcome Based Education for a diverse student body. The goal is to equip students with the skills necessary to embark on their professional journeys while upholding moral and ethical values for socio-economic development. This presents a valuable opportunity for the institution to shape the future of its students, emphasizing

Academic Flexibility, student-centric activities, project-based learning, internships, and community-oriented initiatives. Simultaneously, it poses a significant challenge to prepare students for the dynamic demands of industry and evolving technologies.

To address this challenge, the institution has embraced a learner-centered teaching approach employing methodologies such as participative learning, experiential learning, and collaborative learning modes, fostering effective learning. The institution's faculty members are well-prepared and proficient in utilizing Information and Communication Technology (ICT) tools and innovative teaching methods, enhancing the overall learning experience for students.

Noteworthy in this context is the institution's transparent and dedicated governance, coupled with unwavering support from the management. Their commitment is evident in facilitating both academic and administrative processes by providing essential amenities, state-of-the-art facilities, and necessary financial support. This holistic approach ensures a conducive environment for the holistic development of students.

**P V Jatti**  
**IQAC Coordinator**

**Dr. T. K. Nagaraj**  
**Principal (Chairperson IQAC)**