Bharatiya Vidya Bhavan's

SARDAR PATEL INSTITUTE OF TECHNOLOGY

(Empowered Autonomous Institute Affiliated to University of Mumbai)

- B.Tech.
- MCA
- M.Tech.
- Ph.D.

2024-25

The Heritage - Beliefs and Values

Education would fail ignominiously in its objective, if it manufactures only a robot . . . . A university cannot afford to ignore the cultural aspects of education whatever studies it specializes in. Science is a means, not an end. Whereas culture is an end in itself. Even though you may ultimately become a scientist, a doctor, or an engineer, you must while in college, absorb fundamental values which will make you a man of culture. An engineer has not merely to build bridges; he has to be a devoted husband, a kind father, a friendly neighbor, a dutiful citizen, and a man true to himself. He will have trials and tribulations; his heart will fail him at times; he will then need the strength which true culture alone can give.

- Kulpati Dr. K. M. Munshi

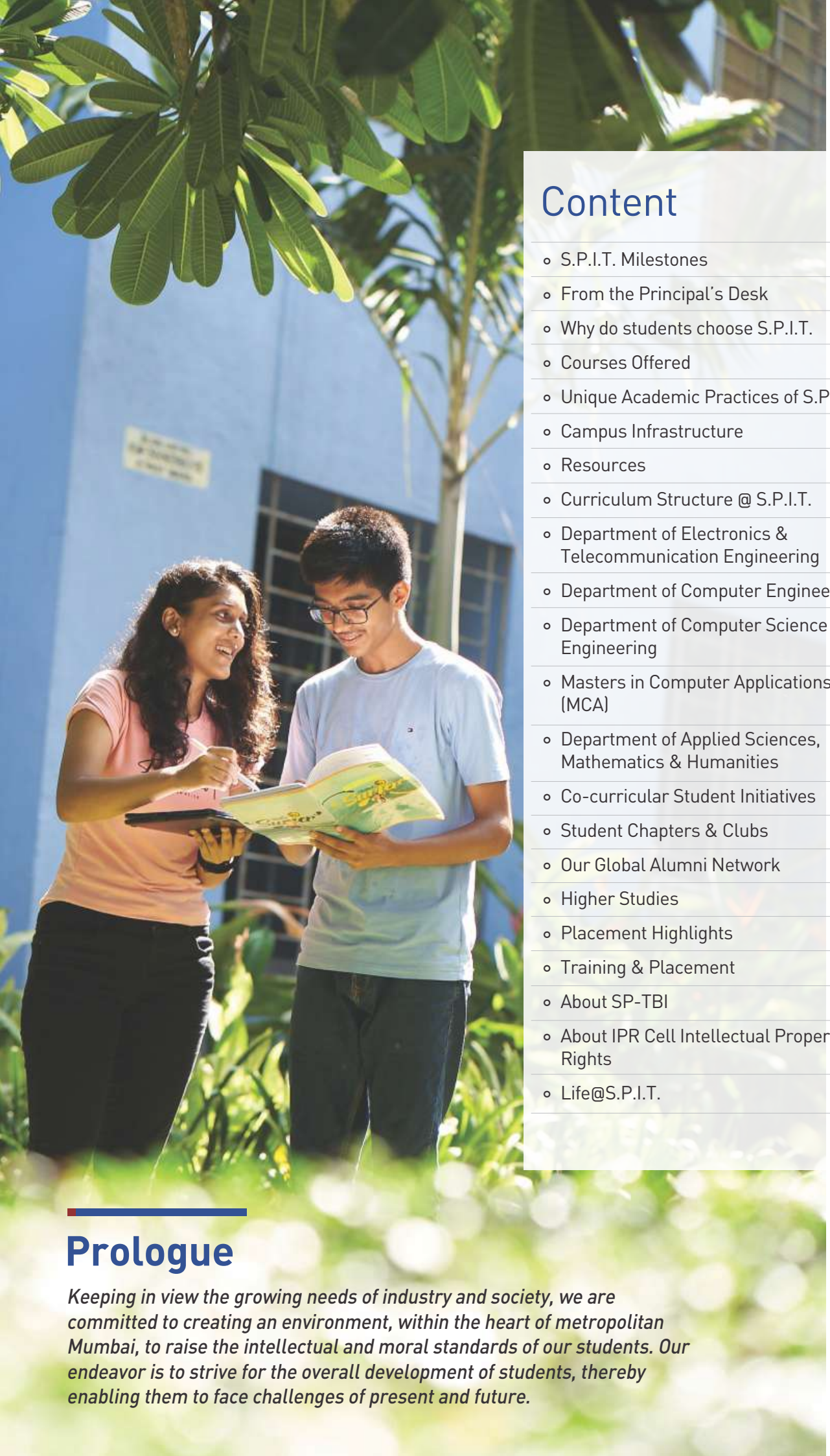
Our Mission

- Provide high quality education in engineering and technology promoting the Indian Values and Ethos that will prepare the participants to lead lives of personal integrity and civic responsibility in a global society.
- Promote an Educational Environment that combines academic study with the excitement of intellectual curiosity for engineers of tomorrow.
- Enhance career opportunities for students through Industry-Institute interaction, value-added courses and projects in cutting edge technology.
- Inculcate Entrepreneurial mindset in students to make them job creators.
- Focus on applied research to create next generation technologies.

Vision

Bharatiya Vidya Bhavan prides itself in following the beliefs and values upheld by the founder members and the management.

" To build a renowned institute which will produce graduate engineers with global competency and social sensitivity."



Content

Prologue

Keeping in view the growing needs of industry and society, we are committed to creating an environment, within the heart of metropolitan Mumbai, to raise the intellectual and moral standards of our students. Our endeavor is to strive for the overall development of students, thereby enabling them to face challenges of present and future.

A leading Engineering Institute

We are Sardar Patel Institute of Technology (S.P.I.T.), a leading engineering college in the heart of India's financial centre of Mumbai. With consistent efforts, we have grown over the years to be recognized as one of the best institutes for aspiring engineers.

We are a part of the Bharatiya Vidya Bhavan and function as an autonomous Institute with entrepreneurial agility. We strive to influence, practice and promote value-based growth. We build on this mission through pedagogic innovations and pioneering programmes, which have helped us stand out for our unique and distinctive path in engineering education.

S.P.I.T. Milestones

1962 — SPCE - Bharatiya Vidya Bhavan's Sardar Patel College of Engineering was inaugurated

1995 — SPCE (unaided wing) with Electronics Engg., Computer Engg., Information Technology Engg., was added

2005 — Bharatiya Vidya Bhavan's SPCE (unaided wing) was established in its new building under the name of Bharatiya Vidya Bhavan's Sardar Patel Institute of Technology (S.P.I.T.)

Over the years Masters Degree and Ph.D Degree courses were added

2017 — S.P.I.T Became an Autonomous Institute, affiliated to University of Mumbai

2021 — Started UG programs CSE Consistently ranked in the bracket of top 100-200 institutes in NIRF in the Country

2023 — Granted Empowered Autonomy Status by the University of Mumbai

From the Principal's Desk

I have great pleasure in expressing my thoughts as the Principal of Sardar Patel Institute of Technology (S.P.I.T.), the numero uno, self-financed, autonomous institution of Maharashtra. We are a constituent of the Bharatiya Vidya Bhavan, not just a conglomeration of more than 300 institutions, but a culture, a saga, a holy journey, started by Dr. K.M. Munshiji with the support of Mahatma Gandhi in 1938. Imparting value-based education with indian cultural ethos has always been the prime objective of the Bhavan.

Engineers and technologists form the backbone of any nation's economic development. The world has recently undergone a very unprecedented, extraordinary, challenging time. We are witnessing an explosion of disruptive technologies. Artificial Intelligence, Machine Learning, Blockchain and Cloud Computing are rapidly growing and penetrating almost every field of engineering. Education, in particular, professional technical education, has landed at a new normal and is rapidly changing its practices.

S.P.I.T. is constantly adapting itself to these changes. It has observed an extraordinary growth in placements during this challenging time, while the majority of other technical institutions were struggling.

DIsruptions like covid will come again and again, and humanity will have to face it bravely again and again. Future engineers will work for 50-55 years of their life, they will have 3 to 4 diversified careers in technologies we cannot think of today. To make aspiring minds confident, and courageous to face future challenges, education must prepare them for the "why" and the "how". At S.P.I.T. our teaching-learning and evaluation processes focus on these aspects.

We believe in multi-disciplinary exposure to the learners, yet ensuring growth in one vertical, cherishing human sensitivity and empathy. Our thoughtfully articulated, unique academic model aims towards developing a holistic, all-rounded technocrat. It simultaneously develops knowledge, attitude and skills. We also give importance to physical, philosophical and spiritual growth.

Pursuing a research internship during 6th semester; an industry internship during 8th semester; a provision of simultaneously acquiring a minor in management from SP Jain Institute of Management Research; liberal learning courses spanning from performing arts to trekking, photography, working with NGOs etc, are some of the salient features of academics at S.P.I.T.

Our splendid academic performance, sparkling placements (quantitative and qualitative), enrollment for higher studies at the best places of the world, prizes won by our students in national/international level technical competitions, consistently over many years are the true testimonials of life at S.P.I.T. With the support of a dedicated and hardworking faculty and staff, the institute has achieved enviable visibility and ranking in a short span of time. On behalf of all stakeholders of S.P.I.T., I welcome you to this family and look forward to your valuable association with us for a better tomorrow. Four years of education at Sardar Patel Institute of Technology will undoubtedly empower you to lead a successful life.

Let's learn together. Let's grow together.

Dr. Bhalchandra N. Chaudhari,
Principal

> "We focus on "How to learn?" rather than "What to learn?". We believe in multi disciplinary exposure to the learners, yet ensuring growth in one vertical, cherishing human sensitivity and empathy."

Why do students choose S.P.I.T.

Strong Reputation

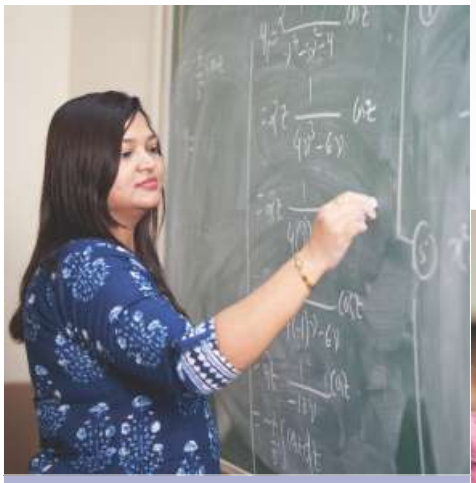
S.P.I.T. has consistently ranked high in the National Insitutional Ranking Framework (NIRF), Govt. of India. NIRF has been accepted by MHRD and outlines a methodology to rank institutions across the country. The parameters are - Teaching Learning & Resources, Research & professional practice, Graduation Outcome, Outreach & Inclusivity, and Perception. The only Engineering Institute granted Empowered Autonomy Status by the University of Mumbai from 2023-24.

Curriculum

S.P.I.T. offers unique, flexible, globally competent curriculum aiming holistic development of learners. New and updated curriculum under autonomy provides flexibility for Semester Long Internships. The new curriculum caters to industry expectations in India and the world. This ensures students learn state of the art technologies and are therefore easily absorbed in the industry. The syllabus also offers students to complete a six month internship, even before graduating. This gives students industry experience, along with theoretical learning in classrooms.

Placement

Excellent Placement. with super dream companies like Amazon and Microsoft, recruiting students. S.P.I.T. is proud to have the best placement in Mumbai, after IIT Bombay. S.P.I.T. has been consistently achieving 100% placement since the last few years and the average package for the last placement round was 15.14 lacs, the highest being 42 lacs. This is commendable considering the average package in India for placements for engineering graduates is 4.5 lacs.



Finest Faculty

Faculty members are well experienced in their respective domains and consistently make efforts to stay updated. The college also deputes the faculty members to Faculty Development Programmes, Short Term Training Programmes and developmental programmes to ensure continuous up gradation. Many faculty members are also actively engaged in research work. Several faculty members regularly publish papers and research articles in leading journals nationally and internationally.

Multi disciplinary Experience

Students are exposed to global experience with elective courses conducted by multinational conglomerates, which also guides them towards industry expectations and enables them to perform well in placements and be generally successful in their careers compared to their peers from other institutions.

State- of- the- art Laboratories

24X7 Lab facilities available for students for experimentation and research with upgraded tools. The college extends its laboratory facilities to students beyond college hours. Students are free to use the resources for their own research work or practice related to the theory taught in classrooms. The labs also boast of upgraded tools and resources to enable students to pursue any experiment without any limitations.

Courses Offered

4yr. Bachelors of Technology (B.Tech.)

Computer Engineering	Computer Science and Engineering	Electronics and Telecommunication Engineering
Intake 240	Intake 120	Intake 120

2yr. Master of Computer Applications (MCA)

Intake 60

2 yr. Masters of Technology (M.Tech.)

Computer Engineering	Electronics and Telecommunication Engineering
Intake 18	Intake 18

3yr. Ph.D.

Computer Engineering	Electronics and Telecommunication Engineering	Electronics Engineering	Master of Computer Applications (MCA)
Intake 30	Intake 20	Intake 10	Intake 10

Unique Academic Practices of S.P.I.T.

Liberal, Pi-Model of Engineering Education @ SPIT

First-of-its-kind-in-education blend to Engineering Curriculum. "ABLL@LLC"® (Activity Based Liberal Learning about Life, Literature and Culture) in all EIGHT semesters, ensuring all dimensional holistic growth of the learner. These eight activity based mini courses are offered as two sequels namely "SEVA"® (Social Empowerment through Various Activities", and "SATVA"® (Self Accomplishment through Various Activities).

160-Credit Liberal Model for Engineering Education, including a 50-50 division of classroom and laboratory education. We understand that attitude and skills are equally important. **Recognized for the depth and breadth covered at our institute, we are the only Engineering Institute granted Empowered Autonomy Status by the University of Mumbai from 2023-24.**

Special sequel of optional industry floated courses for interested learners, ensuring high technical skills, in the diversified cutting-edge technologies.

A strong **program core of 12 courses and 6 baskets of program electives** to ensure the breadth and depth in a chosen domain of studies. Program electives are arranged either to grow in a specified vertical or have diversified exposure.

Unique, multi-track model of "Honors" Certification, for well performers for enhanced depth in the domain of study.

Full semester industry internship to interested students. Full semester research internship at prestigious institutes of the country (IIT-Bombay, IIT-Patna, Inter-University Centre for Astronomy and Astrophysics) to interested students.

Special tracks for "Minor" Certification for interested learners, ensuring significant awareness of additional discipline leading to multiple specializations. (For example, while studying B.Tech Computer one can earn "Minor" in Management / Finance OR one can earn "Minor" in Computer Engineering while pursuing studies for B.Tech Electronics and Communication)

Aggressive model of "Learning-by-doing". (Ratio of Theory and Hands on is @ 50:50). Implemented since 2021, our model goes in hand-in-hand with the National Education Policy philosophies and guidelines, which most institutes are yet to adopt.

This curriculum aims at development of an all-rounded personality. It follows holistic approach of education, ensures strong science, mathematics foundation and program core, develops expertise in domain vertical though sequel of electives, ensures significant exposure of additional discipline through "Minor" program, collaborates outside world for the imparting relevant skills through "value-addition" courses, challenges good learners through "Honors" evaluation, and systematically develops soft skills, and social, physical, mental, spiritual personality through carefully articulated Liberal Learning and Humanities sequels. Thus, offers a unique, liberal "Pi-Model" of Engineering Education.

Campus Infrastructure

The institute is located in 47 acres of green campus at Andheri (W), the most populous suburb of Mumbai. The campus also houses four Bhavan's Institutions of great repute namely Bhavan's College (the arts, commerce and science college), Sardar Patel College of Engineering, (Government aided Engineering college) S.P. Jain Institute of Management & Research and A. H. Wadia, higher secondary school.

The Bharatiya Vidya Bhavan's campus houses an auditorium, an open-air amphitheater, a botanical garden, a nature park and huge grounds for sports – providingideal venues for a myriad range of cultural, sports and extra-mural activities.

Resources

The institute believes that a great deal of attention on resources provided is a must to achieve world class standards in engineering education. Resources can also act as a catalyst in supporting quality research and development in the industry. It therefore has the capability of contributing towards the scientific and economic progress of the country.

The well-equipped Library

The Central Library of S.P.I.T. is well-managed in 500 sq. meter Area, and acts as the knowledge hub of the institute. It has good quality of information resources related to engineering and technology field. It identifies, evaluates, and procures, processes then make resources available to faculty, students, and researchers to support teaching, learning and research activities of the institute.

The library is having subscription to IEEE ASPP (All Society Periodicals Package), IEEE POP and ACM Digital Library. Library has E-books with multi user, IP based 24X7 access with no limit on the number of downloads. It is a member of National Digital Library. NPTEL online lectures by eminent personalities of various IITs are made available to users in Library. An On-line Public Access Catalogue (OPAC) is available on Intranet for searching library books, number of copies and other details.

The Library has institutional repository in Dspace Open Source Software which includes Student and staff publications, Question Papers Syllabus, Project Reports, Events, Institute Magazine etc

The Library provides Book Bank facility to economically backward students and to three top ranking students of all branches Engineering and MCA as well. The library also provides 20% Book Bank facility in which on payment of 20% of the cost of the book, it can be issued for a till the end of semester examination.

Internet connectivity is available through a network in the Library. Library is Wi-Fi enabled also. S.P.I.T. Library is open to other academic users for reference.

The library boasts of a collection of

23,000
print books

8,000
e-books

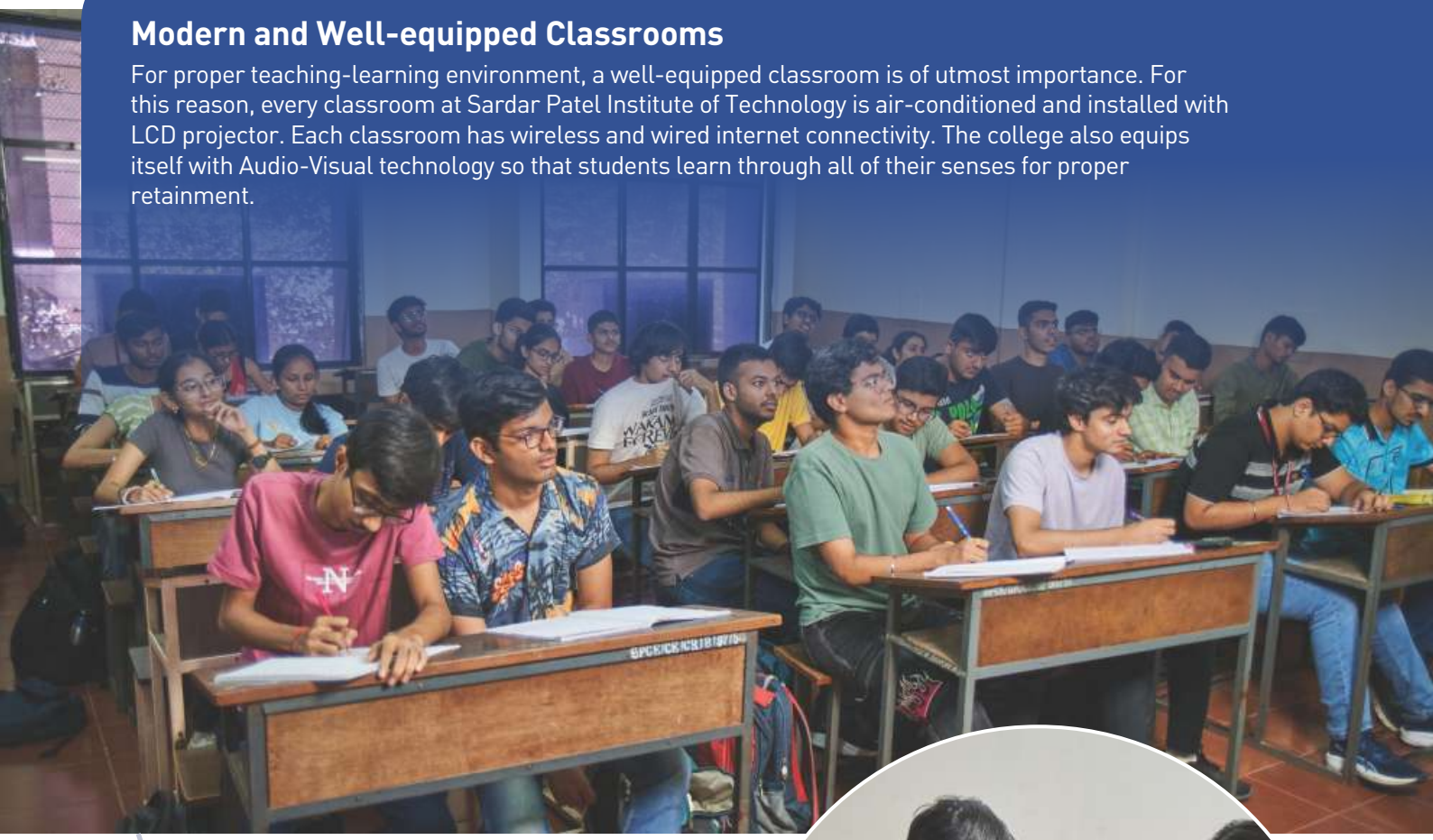
Subscribing Periodicals, on-line Courses and Journals

60
National

287
International

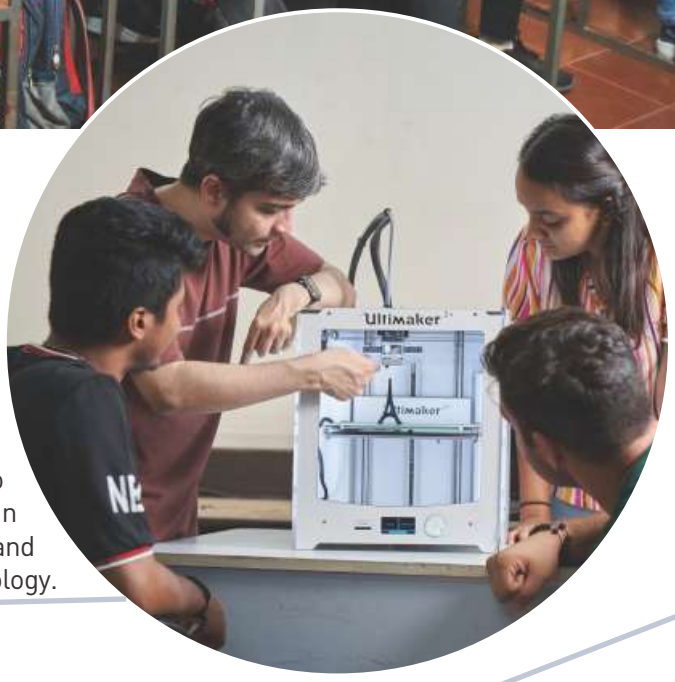
Modern and Well-equipped Classrooms

For proper teaching-learning environment, a well-equipped classroom is of utmost importance. For this reason, every classroom at Sardar Patel Institute of Technology is air-conditioned and installed with LCD projector. Each classroom has wireless and wired internet connectivity. The college also equips itself with Audio-Visual technology so that students learn through all of their senses for proper retainment.



The well-stocked Laboratory

Engineering education is incomplete without laboratory sessions. To ensure satisfactory laboratory experience, the institution makes an effort to provide students with a well-stocked laboratory so that they have hands on experience with the apparatus that they study about in their books. It also enables students to explore beyond their syllabus and experiment in the fields of science and technology.



Central Computing Facilities

The Central computing facility is open for all students. Each department has its own specialized laboratories for software development activities in various disciplines. 'Business India' a weekly magazine made a special mention of our state-of-the art Linux lab. The total number of nodes in the college is 600+ and is still growing, with Internet connectivity for every node.

Curriculum Structure

Common for all streams

Semester-I

1. Mathematics I (ECL)
2. Programming Lab I
3. **Basic & Engg. Sciences Elective –** Engineering Physics/ Engineering Chemistry/ Biology for Engineers/ Engineering Mechanics/ Engineering Graphics/ Material Science/ Environmental Science/ Energy Science/ Thermal & Fluid Engineering (Students should select any one course from the elective)
4. Tech Shop/ Soft Skill I
5. Digital Systems / Basic Electrical Engineering
6. **Ability enhancement course - IKS / UHV**
7. **Co-curricular Courses -** LLCX

Semester-II

1. Mathematics II (DECA)
2. Programming Lab II
3. **Basic & Engg. Sciences Elective –** Engineering Physics/ Engineering Chemistry/ Biology for Engineers/ Engineering Mechanics/ Engineering Graphics/ Material Science/ Environmental Science/ Energy Science/ Thermal & Fluid Engineering (Students should select any one course from the elective)
4. Tech Shop/ Soft Skill I
5. Digital Systems / Basic Electrical Engineering
6. **Ability enhancement course -** IKS / UHV
7. **Co-curricular Courses –** LLCXX

Common for Domains

EXTC Engineering

Semester-III

1. Linear Algebra
2. Basic & Engg. Sciences (Only for Lateral Entry Students) - Foundation of Mathematics-I
3. Soft Skill II – Professional Communication Skills
4. **Basic & Engg. Sciences Elective** – Engineering Physics/ Engineering Chemistry/ Biology for Engineers/ Engineering Mechanics/ Engineering Graphics/ Material Science/ Environmental Science/ Energy Science/ Thermal & Fluid Engineering (Students should select any one course from the elective)
5. **Humanities** - Course I
6. Electromagnetic Wave Engineering
7. Electronic Devices and Circuits
8. Signal, Network and System
9. Hardware Description Language programming
10. **Co-curricular Courses** – LLCXX

Semester-IV

1. Probability and Stochastic Process
2. **Basic & Engg. Sciences (Only for Lateral Entry Students) -** Foundation of Mathematics-II
3. Programming Lab III – Computational numerical methods
4. **Humanities -** Course II
5. Analog and Digital Communication
6. Computer Architecture & Processor Organization
7. Mixed Signal Integrated Circuit
8. **Co-curricular Courses –** LLCXX
9. **Multidisciplinary Minor –** MDM-I

Semester-V

1. Mini Project I
2. Control Systems
3. Computer Communication Networks
4. Digital Signal Processing
5. Digital CMOS VLSI Design
6. Fundamental of Power Electronics
7. Embedded Systems
8. MDM-II

- Research internship of minimum 1 month for the "Honors by Research" for 3 credits HR31 (Notfor DSY).
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Semester-VI

1. Fundamentals of Antenna
2. Mobile Wireless Communication
3. MDM-III
4. Main Project Stage I
5. PE-I
6. PE-II
7. Special Lab (domain specific) - Internet of Things Laboratory

Semester-VII

1. Multidisciplinary Minor - MDM-IV
2. Program Elective Courses - PE-III
3. Program Elective Courses - PE-IV
4. Open Elective - OE-I
5. Experiential Learning - Main Project Stage II

Semester-VIII

1. Open Elective - OE-II
2. Experiential Learning - Research/ Industry Internship/Main Project Stage III

- Research internship of minimum 1 month for the "Honors by Research" for 3 credits HR41 (Not for DSY).
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Indicative List of Humanities courses (HSSM-I):

- Law for Engineers-I
- Law for Engineers-II
- Psychology -I
- Psychology -II
- Finance for Engineers-I
- Finance for Engineers-II
- Economics-I
- Economics-II
- French-I
- French-II
- German-I
- German-II
- Japanese-I
- Japanese-II
- NPTEL (HSS/Management)
- NPTEL (HSS/Management)

Indicative List of Cocurricular courses (LLC):

- Dance (Kathak)
- Dance (Bharatnatyam)
- Fundamentals of Photography
- Art of Short Film Making / Cinematography
- Film Appreciation
- Basics of Music Composition
- Basics of Keyboard playing
- Physical Fitness
- Self Defense for Women
- Pran-Vidya (Combo of Yoga and Pranayam)
- Jeevan Vidya (Work Life Balance)
- Integrated Personality Development-I
- Indian Knowledge System-I
- Design Thinking
- Innovation and Creativity
- Principle Centered Leadership
- Social Psychology
- Mentoring of School Children at SPIT (Abhudaya)
- Basics of Fire Safety
- Study of one of the Identified Books
- Teaching Assistantship
- Trekking
- Kannada Language
- Telugu Language
- Tamil Language
- Any other Course approved by Dean Academics and Research

Program Elective Course

4 Electives are sufficient to specialize in a particular domain

PE-I	PE-II	PE-III	PE-IV
Ec311 Optical Fiber Communication	**Ec312** Error Correction & Coding	**Ec413** Microwave Communication	**Ec414** Space Communication on Technologies
Ec321 Cyber Security and Digital Forensic	**Ec322** Software Defined networks	**Ec423** Network Virtualization	**Ec424** Telecom Network Operation and Management
Ec331 Embedded System Design and Development	**Ec332** Real Time Operating System	**Ec433** Advanced Wireless Networks	**Ec434** Wireless Sensor Networks
Ec341 Speech and Audio Processing	**Ec342** Image and Video Processing	**Ec443** Communication Protocol for loT	**Ec444** loT Applications and Analytics
Ec351 Natural Language Processing	**Ec352** Biomedical Signal Processing	**Ec453** DSP System Design	**Ec454** Multimedia System Design
Ec361 Semiconductor Technologies	**Ec362** Analog CMOS VLSI Design	**Ec463** Mixed CMOS VLSI Design	**Ec464** ASIC Verification
Ec371 Control of Power Electronics Converters	**Ec372** Electric Motor Drive Systems	**Ec473** Embedded & Digital Control of PE Systems	**Ec474** Selected topic in Power Electronics & Drives

Program Elective Courses

Students can choose any one of the tracks mentioned below

Track	PE-I	PE-II	PE-III	PE-IV
Artificial Intelligence	**CE311:** Natural Language Processing	**CE312:** Deep Learning	**CE313:** Generative AI	**CE314:** Explainable AI
Network and Security	**CE321:** Ethical Hacking	**CE322**: Information and System Security	**CE323:** Blockchain Technology	**CE324:** Digital Forensics and Cyber Security
Data Science	**Ce331:** Data Analytics	**Ce332:** Information Visualization	**Ce333:** Time-series analysis	**Ce334:** Decision Making and Business Intelligence

Indicative list of Multidisciplinary Minors
MDM Sequels for EXTC

- Computer Engineering
- AIML
- Data Science
- Interface and Experience Design
- IT Infrastructure

Course Category of Multidisciplinary Minor	MDM-I (Semester IV)	MDM-II (Semester V)	MDM-III (Semester VI)	MDM-IV (Semester VII)
Computer Engineering	**MDCE11:** Database Management Systems	**MDCE12:** Data Structures and Algorithms	**MDCE13:** Cloud Computing	**MDCE14:** Internet and Web Technology + DevOps (Project)
Artificial Intelligence and Machine Learning	**MDCE21:** Fundamentals of NNFL (NN, Fuzzy)	**MDCE22:** Artificial Intelligence Machine Learning (AI, ML, Deep Learning)	**MDCE23:** Natural Language Processing	**MDCE24:** Image Processing and Pattern Recognition + Project
Data Science	**MDCS31**: Fundamentals of Data Science	**MDCS32:** Data Analytics and Visualization	**MDCS33:** Decision Making and Business Intelligence	**MDCS34:** Social Media Analytics
Interface and Experience Design	**MDCS41:** UI/UX Fundamentals	**MDCS42:** Design Thinking and Innovations	**MDCS43:** Human Computer Interaction	**MDCS44:** Total Experience Design
IT Infrastructure	**MDCE51:** IT Infrastructure and DevOps Lab	**MDCE52:** Virtualization and Computing	**MDCE53:** SDN and NFV	**MDCE54:** Network Management + Project

MDM Sequels for CE/CSE

- Industrial IoT
- Digital Signal Processing
- Electronics Communication
- VLSI
- Mathematics and Statistics
- Finance
- Economics

Course Category of Multidisciplinary Minor	MDM-I (Semester IV)	MDM-II (Semester V)	MDM-III (Semester VI)	MDM-IV (Semester VII)
Industrial IOT	**MDEC11:** Fundamental of Internet of Things	**MDEC12:** Embedded "C" and Micro Python for IOT	**MDEC13:** IOT Communication and Network Layer Protocols	**MDEC14:** IOT Applications and Security
Digital Signal Processing	**MDEC21:** Digital Signal Processing	**MDEC22:** Digital Image Processing	**MDEC23:** Multimedia Signal Processing	**MDEC24:** Digital Signal Processor System Design
Electronics Communication	**MDEC31:** Linear Electronics Circuit	**MDEC32:** Principles of Communication & Systems	**MDEC33:** Data Compression and Encryption	**MDEC34:** Wireless Communication and Networks
VLSI	**MDEC41:** Hardware Description Language programming	**MDEC42:** Digital CMOS VLSI Design	**MDEC43:** VLSI Physical Design	**MDEC44:** ASIC Verification

Computer Engineering

Semester-I

1. Mathematics I (ECL)
2. Programming Lab I
3. **Basic & Engg. Sciences Elective –** Engineering Physics/ Engineering Chemistry/ Biology for Engineers/ Engineering Mechanics/ Engineering Graphics/ Material Science/ Environmental Science/ Energy Science/ Thermal & Fluid Engineering (Students should select any one course from the elective)
4. Tech Shop/ Soft Skill I
5. Digital Systems / Basic Electrical Engineering
6. **Ability enhancement course -** IKS / UHV
7. **Co-curricular Courses -** LLCXX

Semester-II

1. Mathematics II (DECA)
2. Programming Lab II
3. **Basic & Engg. Sciences Elective –** Engineering Physics/ Engineering Chemistry/ Biology for Engineers/ Engineering Mechanics/ Engineering Graphics/ Material Science/ Environmental Science/ Energy Science/ Thermal & Fluid Engineering (Students should select any one course from the elective)
4. Tech Shop/ Soft Skill I
5. Digital Systems / Basic Electrical Engineering
6. **Ability enhancement course - IKS /** UHV
7. **Co-curricular Courses –** LLCXX

Semester-III

1. Discrete Structures and Graph Theory
2. Foundation of Mathematics-I*
3. Soft Skill II-Professional Communication Skills
4. Basic & Engg. Sciences Elective
5. Humanities Course- I
6. Data Structures
7. Computer Architecture and Organization
8. Database Management Systems
9. **Co-curricular Courses** – LLC-III

Semester-IV

1. Statical methods in Computer Science (Linear Algebra, Probability and Statistics)
2. Foundation of Mathematics-II
3. Python programming for data science/ Web Technology Lab
4. Humanities Course- II
5. Operating Systems
6. Design and Analysis of Algorithms
7. Computer Communications and Networks
8. LLC-IV
9. Multidisciplinary Minor - MDM-I

- Students are expected to start working for the Mini Project I during the summer.
- Research internship of minimum 2 months for the "Honors by Research" for 6 credits- Hr21 (Not for DSY)
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Semester-V

1. Mini Project I
2. Distributed Computing
3. Software Engineering
4. Artificial Intelligence and Soft Computing
5. Theory of Computation
6. Cryptography and Network Security
7. MDM-II

- Research internship of minimum 2 month for the "Honors by Research" for 6 credits HR32 (Not for DSY)
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Semester-VI

1. System Programming and Compiler Construction
2. Machine Learning
3. MDM-III
4. Main Project Stage I
5. Program Elective Courses- PE-I
6. PE-II

- Research internship of minimum 2 month for the "Honors by Research" for 6 credits Hr32 (Not for DSY)
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Semester-VII

1. Multidisciplinary Minor- MDM-IV
2. Program Elective Courses- PE-III
3. Program Elective Courses- PE-IV
4. Open Elective- OE-I
5. Experiential Learning- Main Project Stage II

- Research internship of minimum 1 month for the "Honors by Research" for 3 credits HR41 (Not for DSY)
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Semester-VIII

1. Open Elective- OE-II
2. Experiential Learning- Research/ Industry Internship

Indicative List of Humanities courses (HSSM-I):

- Law for Engineers-I
- Law for Engineers-II
- Psychology -I
- Psychology -II
- Finance for Engineers-I
- Finance for Engineers-II
- Economics-I
- Economics-II
- French-I
- French-II
- German-I
- German-II
- Japanese-I
- Japanese-II
- NPTEL (HSS/Management)
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Indicative List of Cocurricular courses (LLC):

- Dance (Kathak)
- Dance (Bharatnatyam)
- Fundamentals of Photography
- Art of Short Film Making / Cinematography
- Film Appreciation
- Basics of Music Composition
- Basics of Keyboard playing
- Physical Fitness
- Self Defense for Women
- Pran-Vidya (Combo of Yoga and Pranayam)
- Jeevan Vidya (Work Life Balance)
- Integrated Personality Development-I
- Indian Knowledge System-I
- Design Thinking
- Innovation and Creativity
- Principle Centered Leadership
- Social Psychology
- Mentoring of School Children at SPIT (Abhudaya)
- Basics of Fire Safety
- Study of one of the Identified Books
- Teaching Assistantship
- Trekking
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Ec321 Cyber Security and Digital Forensic	**Ec322** Software Defined networks	**Ec423** Network Virtualization	**Ec424** Telecom Network Operation and Management
Ec331 Embedded System Design and Development	**Ec332** Real Time Operating System	**Ec433** Advanced Wireless Networks	**Ec434** Wireless Sensor Networks
Ec341 Speech and Audio Processing	**Ec342** Image and Video Processing	**Ec443** Communication Protocol for IoT	**Ec444** IoT Applications and Analytics
Ec351 Natural Language Processing	**Ec352** Biomedical Signal Processing	**Ec453** DSP System Design	**Ec454** Multimedia System Design
Ec361 Semiconductor Technologies	**Ec362** Analog CMOS VLSI Design	**Ec463** Mixed CMOS VLSI Design	**Ec464** ASIC Verification
Ec371 Control of Power Electronics Converters	**Ec372** Electric Motor Drive Systems	**Ec473** Embedded & Digital Control of PE Systems	**Ec474** Selected topic in Power Electronics & Drives

Program Elective Courses

Students can choose any one of the tracks mentioned below

Track	PE-I CE3X1	PE-II CS3X2	PE-III CS3X3	PE-IV CS3X4
Artificial Intelligence	**Ce311:** Natural Language Processing	**CE312:** Deep Learning	**CE313:** Generative AI	**CE314:** Explainable AI
Network and Security	**CE321:** Ethical Hacking	**CE322**: Information and System Security	**CE323:** Blockchain Technology	**CE324:** Digital Forensics and Cyber Security
Data Science	**Ce331:** Data Analytics	**Ce332:** Information Visualization	**Ce333:** Time-series analysis	**Ce334:** Decision Making and Business Intelligence

Indicative list of Multidisciplinary Minors

MDM Sequels for EXTC

- Computer Engineering
- AIML
- Data Science
- Interface and Experience Design
- IT Infrastructure

Course Category of Multidisciplinary Minor	MDM-I (Semester IV)	MDM-II (Semester V)	MDM-III (Semester VI)	MDM-IV (Semester VII)
Computer Engineering	**MDCE11:** Database Management Systems	**MDCE12:** Data Structures and Algorithms	**MDCE13:** Cloud Computing	**MDCE14:** Internet and Web Technology + DevOps (Project)
Artificial Intelligence and Machine Learning	**MDCE21:** Fundamentals of NNFL (NN, Fuzzy)	**MDCE22:** Artificial Intelligence Machine Learning (AI, ML, Deep Learning)	**MDCE23:** Natural Language Processing	**MDCE24:** Image Processing and Pattern Recognition + Project
Data Science	**MDCS31**: Fundamentals of Data Science	**MDCS32:** Data Analytics and Visualization	**MDCS33:** Decision Making and Business Intelligence	**MDCS34:** Social Media Analytics
Interface and Experience Design	**MDCS41:** UI/UX Fundamentals	**MDCS42:** Design Thinking and Innovations	**MDCS43:** Human Computer Interaction	**MDCS44:** Total Experience Design
IT Infrastructure	**MDCE51:** IT Infrastructure and DevOps Lab	**MDCE52:** Virtualization and Computing	**MDCE53:** SDN and NFV	**MDCE54:** Network Management + Project

MDM Sequels for CE/CSE

- Industrial IoT
- Digital Signal Processing
- Electronics Communication
- VLSI
- Mathematics and Statistics
- Finance
- Economics

Course Category of Multidisciplinary Minor	MDM-I (Semester IV)	MDM-II (Semester V)	MDM-III (Semester VI)	MDM-IV (Semester VII)
Industrial IOT	**MDEC11:** Fundamental of Internet of Things	**MDEC12:** Embedded "C" and Micro Python for IOT	**MDEC13:** IOT Communication and Network Layer Protocols	**MDEC14:** IOT Applications and Security
Digital Signal Processing	**MDEC21:** Digital Signal Processing	**MDEC22:** Digital Image Processing	**MDEC23:** Multimedia Signal Processing	**MDEC24:** Digital Signal Processor System Design
Electronics Communication	**MDEC31:** Linear Electronics Circuit	**MDEC32:** Principles of Communication & Systems	**MDEC33:** Data Compression and Encryption	**MDEC34:** Wireless Communication and Networks
VLSI	**MDEC41:** Hardware Description Language programming	**MDEC42:** Digital CMOS VLSI Design	**MDEC43:** VLSI Physical Design	**MDEC44:** ASIC Verification

Computer Science and Engineering - Curriculum Structure

Semester-I

1. Mathematics I (ECL)
2. Programming Lab I
3. **Basic & Engg. Sciences Elective –** Engineering Physics/ Engineering Chemistry/ Biology for Engineers/ Engineering Mechanics/ Engineering Graphics (Students should select any one course from the elective)
4. Tech Shop/ Soft Skill I
5. Basic Electrical Engineering / Digital Systems
6. **Ability enhancement course -** IKS / UHV
7. **Co-curricular Courses -** LLCXX

Semester-II

1. Mathematics II (DECA)
2. Programming Lab II
3. **Basic & Engg. Sciences Elective –** Engineering Physics/ Engineering Chemistry/ Biology for Engineers/ Engineering Mechanics/ Engineering Graphics (Students should select any one course from the elective)
4. Tech Shop/ Soft Skill I
5. Basic Electrical Engineering / Digital Systems
6. **Ability enhancement course -** IKS / UHV
7. **Co-curricular Courses –** LLCXX

Semester-III

1. Discrete Structures and Graph Theory
2. Foundation of Mathematics-I*
3. Soft Skill II-Professional Communication Skills
4. Basic & Engg. Sciences Elective
5. Humanities Course- I
6. Data Structures
7. Computer Architecture and Organization
8. Database Management Systems
9. **Co-curricular Courses –** LLC-III

Semester-IV

1. Statical methods in Computer Science (Linear Algebra, Probability and Statistics)
2. Foundation of Mathematics-II*
3. Python programming for data science/ Web Technology Lab
4. Humanities Course- II
5. Operating Systems
6. Design and Analysis of Algorithms
7. Computer Communications and Networks
8. LLC-IV
9. **Multidisciplinary Minor -** MDM-I

- Students are expected to start working for the Mini Project I during the summer.
- Research internship of minimum 2 months for the "Honors by Research" for 6 credits- Hr21 (Not for DSY)
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Semester-V

1. Mini Project I
2. Distributed Computing
3. Software Engineering
4. Artificial Intelligence and Soft Computing
5. Theory of Computation
6. Cryptography and Network Security
7. MDM-II

- Research internship of minimum 1 month for the "Honors by Research" for 3 credits HR31 (Not for DSY)
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Semester-VI

1. Machine Learning
2. Human Machine Interaction
3. MDM-III
4. Main Project Stage I
5. **Program Elective Courses-** PE-I
6. PE-II
7. **Skill enhancement course -** DevOps Lab

- Research internship of minimum 2 months for the "Honors by Research" for 6 credits Hr32 (Not for DSY)
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Semester-VII

1. Multidisciplinary Minor- MDM-IV
2. Program Elective Courses- PE-III
3. Program Elective Courses- PE-IV
4. Open Elective- OE-I
5. Experiential Learning- Main Project Stage I

- Research internship of minimum 1 month for the "Honors by Research" for 3 credits HR41 (Not for DSY)
- For Enrollment to Honors by research, Minimum CGPA must be 8.25

Semester-VIII

1. Open Elective- OE-II**
2. Experiential Learning- Research/ Industry Internship

Indicative List of Humanities courses (HSSM-I):

- Law for Engineers-I
- Law for Engineers-II
- Psychology -I
- Psychology -II
- Finance for Engineers-I
- Finance for Engineers-II
- Economics-I
- Economics-II
- French-I
- French-II
- German-I
- German-II
- Japanese-I
- Japanese-II
- NPTEL (HSS/Management)
- NPTEL (HSS/Management)

Indicative List of Cocurricular courses (LLC):

- Dance (Kathak)
- Dance (Bharatnatyam)
- Fundamentals of Photography
- Art of Short Film Making / Cinematography
- Film Appreciation
- Basics of Music Composition
- Basics of Keyboard playing
- Physical Fitness
- Self Defense for Women
- Pran-Vidya (Combo of Yoga and Pranayam)
- Jeevan Vidya (Work Life Balance)
- Integrated Personality Development-I
- Indian Knowledge System-I
- Design Thinking
- Innovation and Creativity
- Principle Centered Leadership
- Social Psychology
- Mentoring of School Children at SPIT (Abhudaya)
- Basics of Fire Safety
- Study of one of the Identified Books
- Teaching Assistantship
- Trekking
- Kannada Language
- Telugu Language
- Tamil Language
- Any other Course approved by Dean Academics and Research

Program Elective Course

4 Electives are sufficient to specialize in a particular domain

PE-I	PE-II	PE-III	PE-IV
Ec311 Optical Fiber Communication	**Ec312** Error Correction & Coding	**Ec413** Microwave Communication	**Ec414** Space Communication on Technologies
Ec321 Cyber Security and Digital Forensic	**Ec322** Software Defined networks	**Ec423** Network Virtualization	**Ec424** Telecom Network Operation and Management
Ec331 Embedded System Design and Development	**Ec332** Real Time Operating System	**Ec433** Advanced Wireless Networks	**Ec434** Wireless Sensor Networks
Ec341 Speech and Audio Processing	**Ec342** Image and Video Processing	**Ec443** Communication Protocol for loT	**Ec444** loT Applications and Analytics
Ec351 Natural Language Processing	**Ec352** Biomedical Signal Processing	**Ec453** DSP System Design	**Ec454** Multimedia System Design
Ec361 Semiconductor Technologies	**Ec362** Analog CMOS VLSI Design	**Ec463** Mixed CMOS VLSI Design	**Ec464** ASIC Verification
Ec371 Control of Power Electronics Converters	**Ec372** Electric Motor Drive Systems	**Ec473** Embedded & Digital Control of PE Systems	**Ec474** Selected topic in Power Electronics & Drives

Track	PE-I CE3X1	PE-II CS3X2	PE-III CS3X3	PE-IV CS3X4
Emerging Networking Technologies	**CS311:** Digital Forensic	**Cs312:** Cloud Computing	**Cs413:** Block chain Technology	**Cs414:** IT Infrastructure Monitoring and Management
Emerging AI	**CS321:** Natural Language Processing	**Cs322:** Deep Learning	**Cs423:** Generative AI	**Cs424:** Explainable AI
Data Analytics	**CS331:** Business analytics with Python	**Cs332:** Big data Analytics	**Cs433:** Data Warehouse and Mining	**Cs434:** AI for Healthcare Analytics
Digital Visualization	**Cs341:** Fundamentals of Signal & Image Processing	**Cs332:** Augmented Reality & Virtual Reality [AR-VR]	**Cs433:** Computer Vision	**Cs434:** Visual Intelligence

Indicative list of Multidisciplinary Minors:

MDM Sequels for EXTC

- Computer Engineering
- AIML
- Data Science
- Interface and Experience Design
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Department of Electronics and Telecommunications Engineering

The Department was established in 2005 and offers B. Tech. degree in Electronics and Telecommunications Engineering with a dream to provide a broad liberal education as well as to impart both knowledge and skills to strengthen the foundation in engineering sciences, mathematical and scientific fundamentals, and to gain expertise in various domains of electronics, communications, and computing. This dream achieved a new pedestal when the first batch of students of Masters in Electronics and Telecommunications Engineering started in the academic year 2010 with an intake of 18 students. The department is scaling new heights by launching a Ph.D. program in 2012.

Programs and Intake offered:

Undergraduate	Postgraduate	Ph.D.
120 students+ 10% lateral entry	18 students	20 students
Bachelor of Technology **(B.Tech.)** Duration: 4 years	Master of Technology **(M.Tech.)** Duration: 2 years	Doctoral of Philosophy **(Ph.D.)** Duration: 3 years

Vision

To graduate professionally competent Electronics and Telecommunication engineers with research aptitude and social sensitivity.

Mission

- To innovate constantly and adopt teaching, learning, evaluation strategies to suit the learners, and ensure academic and research conducive infrastructure.
- To ensure fruitful collaborations with academia and industry for excellence in academic and research.
- To undertake the continuous value addition of faculty and staff with suitable empowerment policies.
- To inculcate sensitivity to societal issues, communication skills and teamwork, lifelong learning attitude, and relevant skills amongst the learners.
- To ensure flexibility, inclusivity and all rounded development of the learners.

Faculty Strength:

The department currently consists of 23 highly qualified, dedicated, and sincere teaching faculty members. There are 2 Post-Doctorate and 11 doctorate faculty members. 8 faculty members are currently pursuing Ph.D. in their respective academic field. Two faculties are post-graduates.

Key highlights/achievements of Faculty Members:

- Highly qualified, experienced & professionally skilled faculty members with enriched experience in academics, and rigorous involvement in research and consultancy.
- Regularly conducts training programs in the areas of Network Administration, Communication, Design & Optimization, Network Security, Embedded Systems, Real-time DSP applications, VLSI design and RTOS.
- Completed consultancy projects of Rs. 18 Lakhs and projects of Rs. 8 Lakhs are ongoing for industries and other organizations.
- Received a research grant of around Rs.1.2 Million from government bodies like DST NIDHI Prayas, DST Trainer Development Programme (TDP), AICTE MODROB, IEEE etc in the form of Modernization of laboratories, IDEA Lab, Distributed Sensor Technology and Education Imitative (DSTEI) R10 Region for the project on Smart Drone to IEEE-AESS Student Branch.
- Received funds of around Rs. 3.13 Lakhs under the title of AICTE SPICES, AICTE ATAL FDP, IEEE-AESS student Chapter etc for conducting various developmental activities for students & faculty members.

Best Paper/Project Award:

- At International Conference on Computational Intelligence Paradigms (CLIP2022), NIT, Tiruchirappalli, 2023.
- At 7th International Conference ICIRTE 2022, Mumbai.
- At ATAL IDEA Lab Advanced FDP on "ELECTRONIC SYSTEM DESIGN", Tamil Nadu.
- At "The Inventors Challenge-2022" organized by Arm Education and STMicroelectronics & AICTE, New Delhi.
- At IEEE Conference MTTS APS-MAPCON, Bangalore.

Publications:

The research work has been published in reputed international journals like IEEE, IET, AIP, ASP, Elsevier, Springer, ASME, Taylor & Francis, etc. and also in international conferences.

Patent Published	Patent granted	Research papers published at International Conferences	Research papers published at Journal
02	02	40	10

Departments Labs

- ICT Enabled Laboratories with 200+ Desktop Pcs
- Cutting Edge Tools - Matlab, Mentor Graphics, National Instruments and more
- Branded Equipment - Dynalog, Tektronix, Texas Instruments
- Industry Sponsored Laboratories by Texas Instruments, Silicon Labs, Microchip, Cypress
- System-on-chip design lab with the support of AICTE

- A DST-assisted full-fledged prototype development facility with Rs. 1 crore invested in state-of-the-art fabrication and development equipment is available to all students working on research projects of S.P.I.T.
- Completed consultancy projects of Rs. 18 Lakhs and projects of Rs. 8 Lakhs are ongoing for industries and other organizations.
- Received a research grant of around Rs. 1.2 Million from government bodies like DST NIDHI Prayas, DST Trainer Development Programme (TDP), AICTE MODROB, IEEE etc. in the form of Modernization of laboratories, IDEA Lab, Distributed Sensor Technology and Education Imitative (DSTEI) R10 Region for the project on Smart Drone to IEEE-AESS Student Branch.
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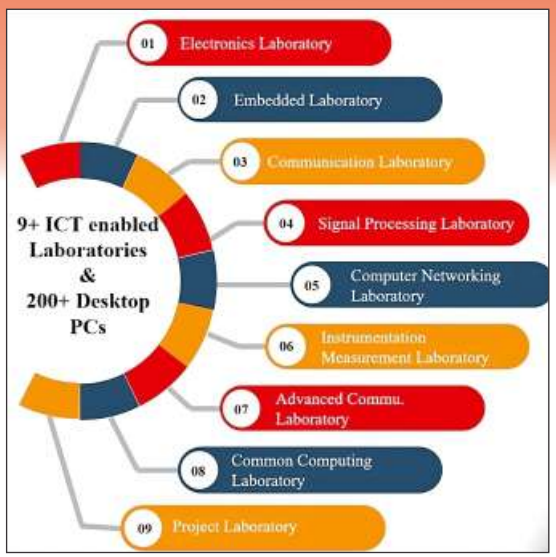
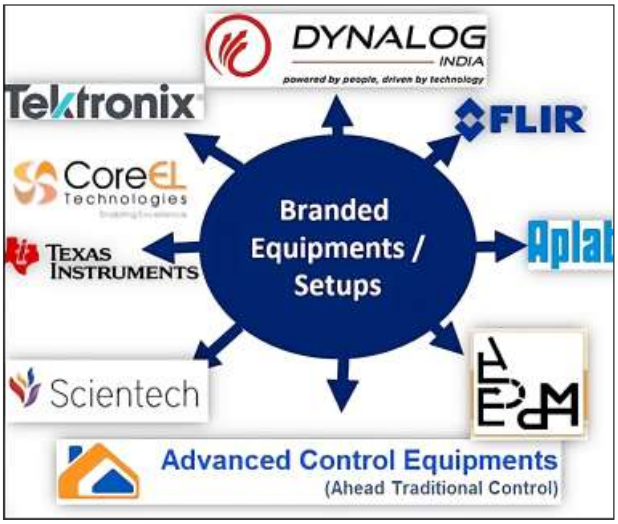
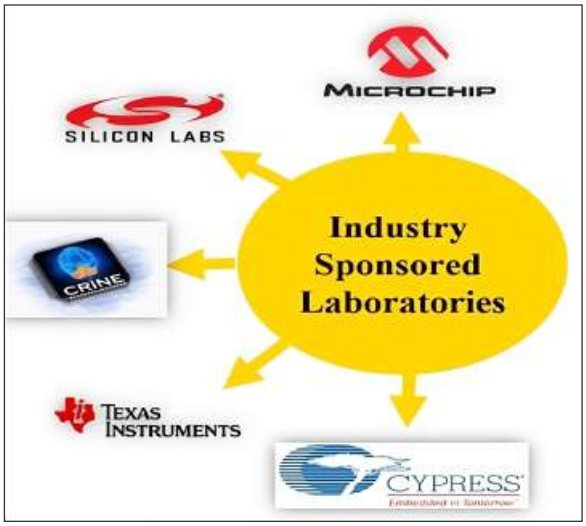
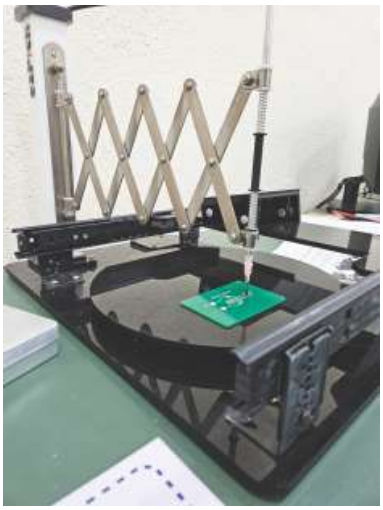






Significant milestone achieved by the department

- 1 faculty successfully completed for Post Doctoral Fellowship Programme.
- 1 faculty member awarded PhD. And 2 Faculty members submitted Ph.D. Thesis
- 121 students completed a 6-Months Industry Internship.
- 16 students completed a 6-month Research Internship.
- 5 MoUs signed for collaborative research and other development activities.

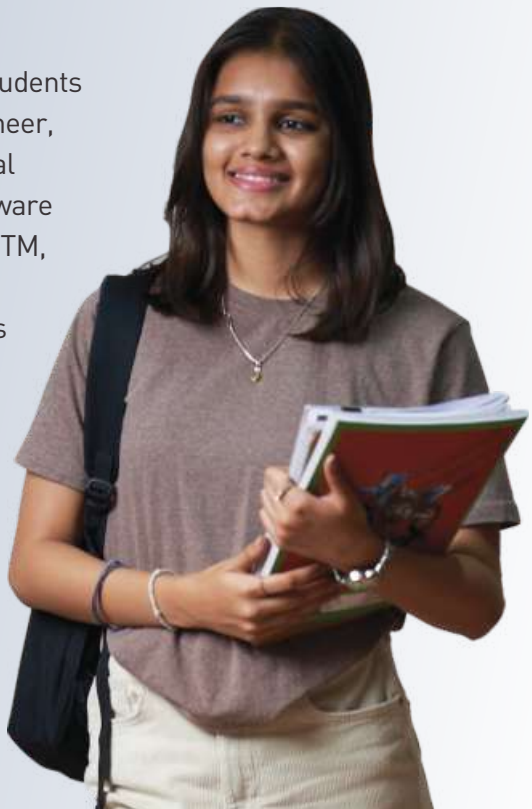


Dr. Y. S. Rao
Dean, Academics & Dean, Research & Development,
EXTC Department

Dr. K. T. Talele
Dean, Student Affairs,
EXTC Department

Career Opportunities for Students

Graduates of Electronics and Telecommunication department students have opportunities to excel in various profiles like Telecom Engineer, Electronic Design Engineer, Desktop Support Engineer, Technical Director, Network Planning Engineer, Sales Manager, R&D Software Engineer, Software Analyst etc. at esteemed organizations like STM, Qualcomm, Intel, Google, etc. In the past, graduates of the department have been consistently recruited by communications and networking companies, and in technology-driven fields such as financial services and consulting practices in which computing and information management are central to the operation of the enterprise.

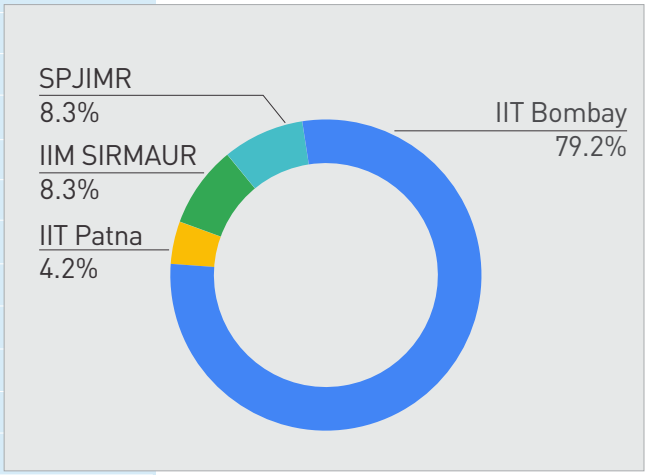


EXTC Head of Department:
Dr. Reena Sonkusare
reena_kumbhare@spit.ac.in

Research Internship

Department of Electronics and Telecommunications Engineering

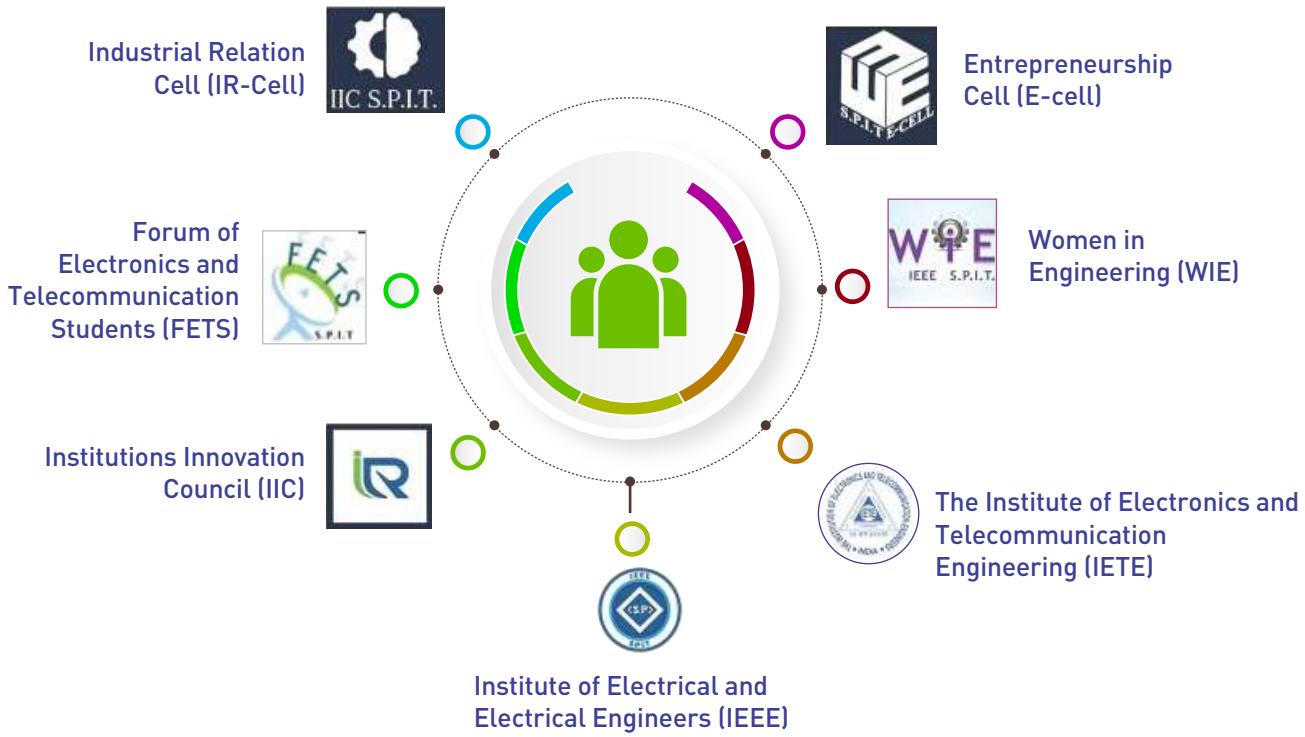
No.	Name	Internship Organization
1	Ansh Bhansali	IIT Bombay
2	Kunj Anil Chauhan	IIT B
3	Kris Dcosta	IIT Bombay
4	Niranjan Devadiga	IIT Patna
5	Shreejit Gherde	IIT B
6	Raghavendra Joshi	IITB
7	Esha Khot	IIT B
8	Sahil Kurkure	IIT B
9	Saket Lad	IIT Bombay
10	Preyes Parab	IIT B
11	Malay Phadke	IIT B
12	Mayuresh Pitale	IIT-B
13	Ansh Singhal	IIM SIRMAUR
14	Om Bhushan Patil	SPJIMR
15	Neel patel	IIT B
16	Ansh Bhansali	IIT B
17	Kunj Chauhan	IITB
18	Malay Phadke	IIT B
19	Saket Lad	IIT Bombay
20	Bhavisha Chafekar	SPJIMR
21	Esha Khot	IIT B
22	Ansh Singhal	IIM SIRMAUR
23	Shreejit Gherde	IIT B
24	Mayuresh Pitale	IIT-B

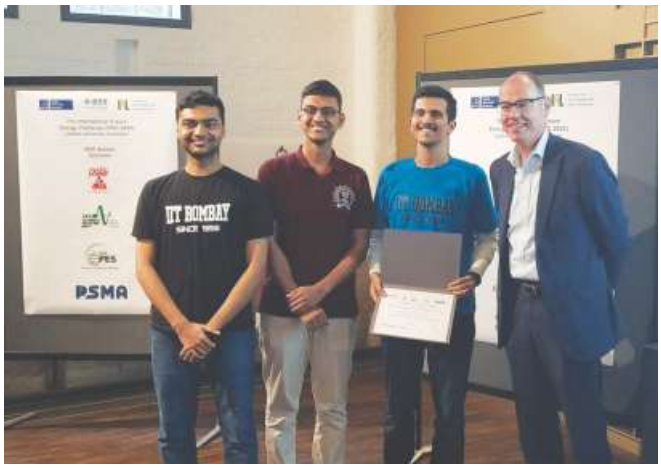


Department of Electronics and Telecommunications Engineering Competitions & Awards

The students keep themselves equipped with the knowledge of their field with the help of organizations like the IEEE, IETE and department student club body FETS, and student clubs like Enactus, Rotaract Club, CSI, NISP, etc.

Student Forums





Finals at Leibniz University, Hannover, Germany. International Future Energy Challenge 2023: "Innovative Concept Award"

Finalist at Advanced Computation and Communications Society Design Challenge:2023

Winner of Kavach Hackathon organized by BPR&D, AICTE, I4C

Winner of Microapp event of Voltus Midspark23 organized by College of Engineering, Pune

Semi Finalist of Amaethon: The Food & Agribusiness Conclave organized by IIM Ahmedabad

Second Runner up of Adomania: A Marketing Event Organized by VJTI, Mumbai

Runner up of Intercollegiate Cricket organized by KJ Somaiya Vidyavihar, Mumbai

2nd Runner up of National Case Study organized by E-summit by E-Cell S.P.I.T.

Winners of "Cryptic Bonds" organized by GAEE IIFT KAKINADA

Finalists of Samriddhi (ECO-LUTION) organized by GIM (Goa Institute of Management)

Finalist of Resilient Routes- Sustainable Supply Chain Challenge organized by IIFM Bhopal

Winner of Video Content Competition organized by Larana ,Inc

Winner of Vishleshan: Annual Flagship Case Competition organized by VNIT Nagpur

Winner of Consulting Challenge organized by MPSTME, NMIMS Mumbai

Department of Computer Engineering

The Department of Computer Engineering was established in 1995. The department consists of 24 faculty members, 4 technical assistants and around 540 students working towards their Bachelors', Masters' and Doctoral degrees. The department attracts high-quality students from all over Maharashtra; also from all over India and has an impressive placement record and results. The department has received accreditation from the National Board of Accreditation. In the recent past, we benchmarked our curriculum with select institutions of higher learning around the world and we are currently, carefully reviewing the impact of these consequent changes to make our programs stronger and more competitive. The department also attracts interaction with many reputable industrial organizations such as Barclays, JPMC, IBM, Apple etc. to provide training to the students.

Programs and Intake offered:

Undergraduate	Postgraduate	Ph.D.
240 students+ 10% lateral entry	18 students	30 students
Bachelor of Technology **(B.Tech.)** Duration: 4 years	Master of Technology **(M.Tech.)** Duration: 2 years	Doctor of Philosophy **(Ph.D.)** Duration: 3 years

Vision:

To consistently produce globally competent, socially sensitive, and contributory computer professionals.

Mission:

- To provide a rigorous conducive academic environment and constantly innovate in the design of the curriculum and its deployment (T-L-E-A Processes). To promote research and innovations through collaborations.
- To collaborate with industries and academia to strengthen education and ensure relevant research.
- To focus on experiential learning and inculcate problem-solving, leadership, ethics, teamwork and sensitivity to world problems.
- To ensure a professional growth mindset that translates to lifelong learning for all.

Faculty Strength:

The department currently consists of 20 highly qualified, dedicated, and sincere teaching faculty members. There are 8 faculty members who are doctorate in their respective academic field and 6 faculty members are pursuing Ph. D.

Key highlights/achievements of faculty members (2023-2024) :

- Dr. P. B. Bhavathankar (Co-ordinator), Dr. Rupali Sawant (Co-Cordinator), Prof. Jignesh Sisodia (Member), Prof. Aditya Rajmane (Member), Prof. Siddhartha Chandra (Member) successfully organized ATAL FDP on "Generative AI: Concerns and Solutions"
- Dr. Surekha Dholay Attended an FDP titled "MACHINE LEARNING, DEEP LEARNING AND RASPBERRY PI INTEGRATION FOR REAL WORLD SOLUTION"
- Dr. P. B. Bhavathankar was a jury member at "VJTI Hackathon (HackXcelerate)"
- Prof. A. A. Godbole completed NPTEL/SWAYAM FDP on "Design of Analysis of Algorithms"
- Prof Jyoti Ramteke attended FDPs on the topic of "Generative AI : Concerns and Solutions" and "Recent trends in Smart Engery Market (AIML, BlockChain Application"
- Prof. Jyoti Ramteke was awarded "HPC Master Trainer Certification" by AICTE and CDAC Pune
- Prof. Jyoti Ramteke completed "Industrial Training on BlockChain Technology and Its Applications" by Eduxlabs and Mechanica IIT Madras
- Prof. Natasha Raul published patent titled 'A Collaborative AI-Powered Intrusion Detection System with Edge Computing' in Jan 2024.
- Dr. Nataasha Raul participated in "Regional Meet of IIC of MoE's Innovation cell (Govt. of India)" at Pillai HOC College of Engg & Technology, Mumbai,
- Dr. Nataasha Raul was the co-ordinator of IEEE YESIST'12 2024, S.P.I.T.
- Dr. Nataasha Raul attended/completed FDP on Cyber Security and Privacy-NPTEL
- Dr. Nataasha Raul was guest speaker for the topic "Backtracking Basics and Algorithm " for the subject Design and Analysis of Algorithms
- Dr. Nataasha Raul was reviewer in International Conference on Technologies for Energy, Agriculture, and Healthcare (ICTEAH 2024), Mumbai, India organized by K.J.Somaiya College of Engineering
- Dr. Nataasha Raul was resource Person in "Impact Lecture series Programme-Design Thinking and Innovation" in collabration with MoE's innovation cell & AICTE
- Prof. Pramod Bide conducted - BITS Pilani Dubai Guest Lecture On Research Paper Writing to PHD students Bits Pilani Dubai
- Prof. Pramod Bide was Session Chair at Mosicom 2023
- Prof. Pramod Bide conducted guest Lecture on Power BI to MCA Students Marwadi University Gujrat
- Prof. Pramod Bide conducted guest Lecture on Power BI to Computer Enngineering Students Marwadi University Gujrat
- Prof. Pramod Bide conducted guest Lecture on Machine Vision Applications to Computer Enngineering Students Arwind Gawali College of Engineering Satara
- Prof. Pramod Bide attended MOSICOM 2023 Bits Pilani Dubai
- Prof. Pramod Bide attended PPPA ISA Maharashtra
- Prof. Pramod Bide attended HTC Conference
- Prof. Pramod Bide attended HTA Congress
- Prof. Pramod Bide attended AISYWLC 2023
- Prof. Pramod Bide attended ICACTA 2023
- Prof. Pramod Bide attended SMELT 2024
- Prof. Pramod Bide is IEEE Senior Member
- Prof. Pramod Bide received the Best Paper Award ICACTA 2023
- Prof. Pramod Bide received IEEE Best Student Volleteer Award for Standing Committiiee
- Prof. Pramod Bide organized AERAVAT 1.0 at SPIT.
- Prof. Pramod Bide received IEEE CS Initiative Fund of Rs. 60,000 for one year
- Prof. Jignesh Sisodia attended One week FDP on Cloud Infrastucture(AWS) in Collaboration with AICTE and Brainovision
- Prof. Jignesh Sisodia completed 12 Week NPTEL FDP on Machine Learning and Deep Learning

- Dr. Rupali Sawant attended One week FDP on Cloud Infrastucture(AWS) in Collaboration with AICTE and Brainovision
- Dr. Rupali Sawant completed 12 Week NPTEL FDP on Machine Learning and Deep Learning
- Prof. Swapnali Kurhade attended FDP on "Generative AI : Concerns and Solutions" at SPIT.
- Prof. Aditya Rajmane Completed NPTEL FDP on "Edge Computing"

Publications:

IJ = International Journal **IC = International Conference**

2023-24		2022-23		2021-22		2020-21	
IJ	IC	IJ	IC	IJ	IC	IJ	IC
5	56	10	65	9	35	10	60

Departments Labs

The department has the following well-equipped labs with advanced computers and software :

Sr. No.	Lab No.	Lab Name
1	Room-607B (Lab-1)	Project Lab
2	Room-603 (Lab-2)	Networking Lab
3	Room-603 (Lab-3)	Algorithms Lab
4	Room-606 (Lab-4)	Database Systems Lab
5	Room-606 (Lab-5)	Computer Graphics and Multimedia Lab
6	Room-608 (Lab-6)	System Programming Lab
7	Room-603 (Lab-7)	Research Lab
8	Room-702 (Lab-8)	Common Computing Facility
9	Room-702 (Lab-9)	Common Computing Facility
10	Room-604 (Lab-10)	IIC Lab
11	Room-607A (Lab-11)	Post Graduate Lab
12	Room-703 (Lab-12)	Machine Learning Lab
13	Room-801 (Lab-13)	Apple Lab

The laboratories are also equipped with Drone, IOT and machine learning devices in order to provide hands-on practice to the students.

Wi-Fi: The Department is fully Wi-Fi enabled which can be accessed by students and staff members in the academic block, tutorial block and corridors. Users are provided secure access with a login ID and password for using Wi-Fi facility through laptops.

The department has received a grant of Rs. 15 lacs from AICTE for development of AICTE Idea Lab jointly with Dr. B. N. Chaudhari, Dr. Y. S. Rao and Dr. D. R. Kalbande(2021-22).

Funded Research Projects 2021-22

Project Title	Funding Agency	Duration
Project sanctioned vide letter (APD/ICD/2019-20/762 Project No. 914)	University of Mumbai	1 Year
Project sanctioned vide letter (APD/ICD/2019-20/762 Project No. 974)	University of Mumbai	1 Year
Event detection in social media streams (APD/ICD/2019-20/762 Project No. 911)	University of Mumbai	1 Year

E learning - Departmental library (content based learning)

The department has a Content Based Learning, E-Learning facility to lend relevant technological support to the ongoing instructional activities as well as the in-service education programmes. It has a rich library of educational films, film-strips, video recording and audio cassettes besides the requisite hardware.

Currently, the department is trying to be equipped with the facilities of digitizing the video and audio cassettes. The functions of the E-Learning cell are: To provide audio resource support to the pre and in-service training programmes of the Institute; and To develop prototype audio educational software and E-content in different subject areas for wider dissemination to students, faculties and institutions.

No. of Titles	No. of books	No. of CBTs	No. of Video Courses
330	357	38	19

Dr. Sudhir Dhage
Dean, Administration & Dean, Quality Assurance
Computer Engineering Department

Career Opportunities for Students

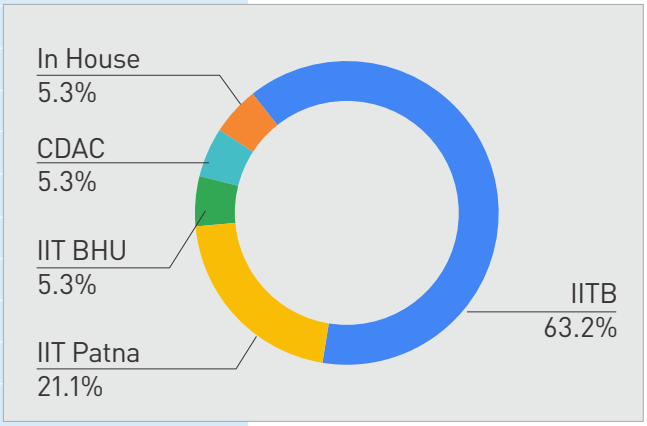
Computer Engineering has been consistently ranked among the most sought-after career choices for young aspirants. This popularity is largely due to the field's wide array of specialisations, offering numerous career paths for Computer Engineers. Among the several paths, the following are the most common ones: Big Data Engineer, Machine Learning Engineer, Data Scientist, Data Analyst, Blockchain Developer/Engineer, Software Developer, Computer Network Architect, Computer Systems Analyst, Database Administrator, Information Security Analyst, Full Stack Developer, Information Systems Manager, Network Engineer, Video Game Developer, AI Engineer and Cybersecurity Specialist.

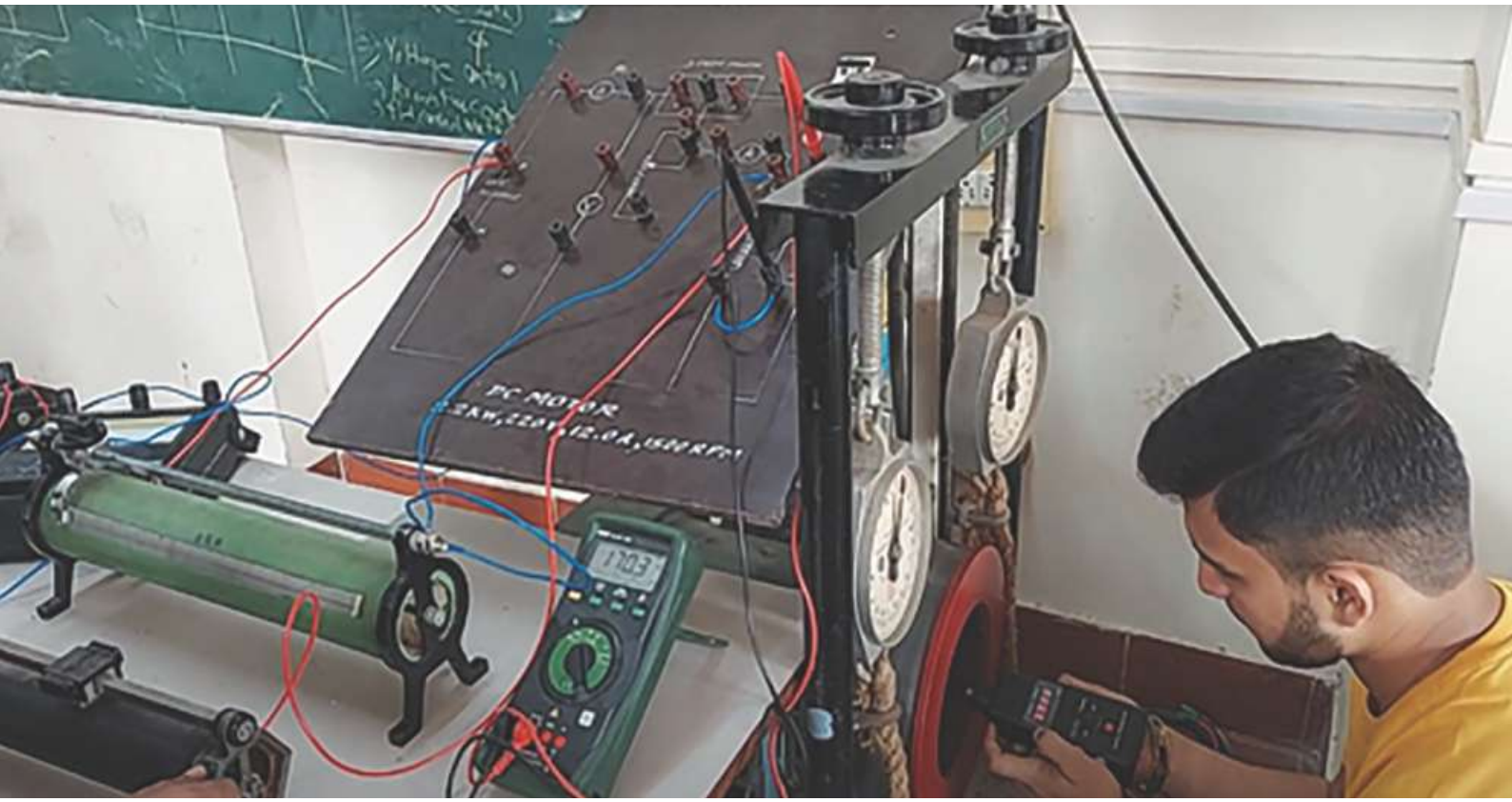
Computer Engineering Head of Department:
Dr. Prasenjit B. Bhavathankar
Email ID: p_bhavathankar@spit.ac.in

Research Internship

Department of Computer Engineering

No.	Name	Internship Organization
1	Ansari Mohammed Shanouf Valijan	IITB
2	Utsav Avaiya	IITB
3	Allen Andrew	IITB
4	Naman Badlani	IITB
5	Harshal Chawan	IIT Patna
6	Aryaman Chokhani	IITB
7	Vedant Deshmukh	IITB
8	Kevin Doshi	IITB
9	Shaun D'Souza	IITB
10	Parth Gandhi	IITB
11	Hoskote Arnav Gurucharan	IIT Patna
12	Krish Mehta	IIT Patna
13	Kunal Pasad	IIT Patna
14	Sheshasai Kumar Reddy	CDAC
15	Onam Sarode	IITB
16	Anant Shah	IITB
17	Vignesh Milind Shinde	In-House
18	Haridas Singh	IIT Patna
19	Harsh Vora	IITB





Department of Computer Engineering Competitions & Awards

Winners of Smart India Hackathon 2022

FACE cup

Department of Computer Science and Engineering

The Department of Computer Science and Engineering was established in the year 2021 with the aim of providing students with the necessary skills to excel in the rapidly evolving tech industry. The department consists of 14+ faculty members, 3 technical assistants and more than 220 students working towards their Bachelors', Masters' and Doctoral degrees. The department attracts competent and capable students from all over Maharashtra and also from other parts of the country. In the recent past, we have benchmarked our curriculum with distinguished institutions of higher learning around the world and we are carefully reviewing the impact of these consequent changes with a view to make our programs even stronger and more competitive. The intake capacity of the department is 120 students.

Master of Computer Applications (MCA)

S.P.I.T. is one of the most sought-after colleges by students for MCA and is renowned for its ongoing course since 2009, the year it was established. Though started in 2009, the course has managed to excel quickly. With the highest cutoff this year, the course has proven its phenomenal growth. The course has an intake of 60 seats.

Master of Computer Applications (MCA) is a full time two-year interdisciplinary postgraduate programme with 6 months internship designed to meet the demand of skilled manpower in the field of computer applications and technology in industries or organizations.

Programs and Intake offered:

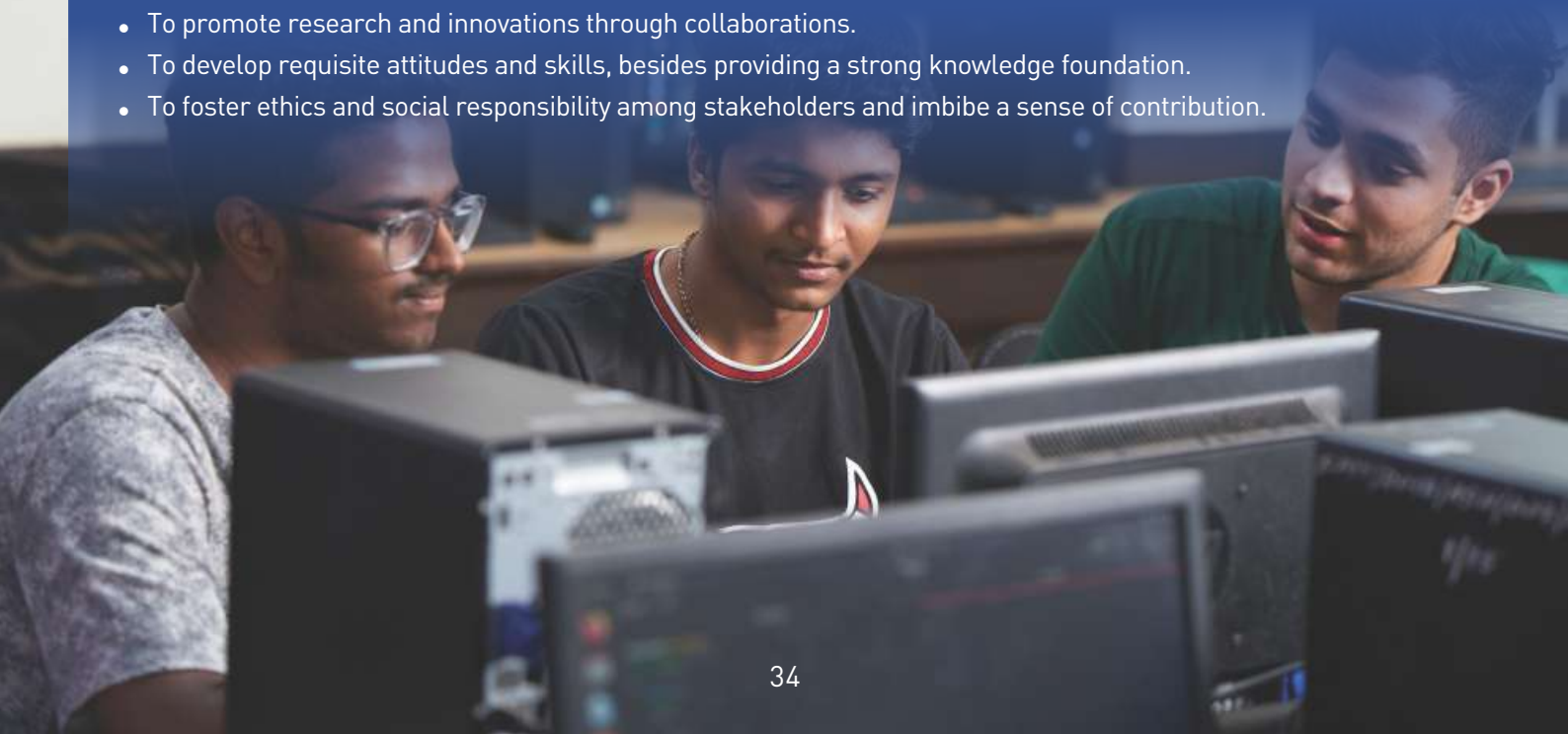
Undergraduate	Postgraduate	Ph.D
120 students+ 10% lateral entry	60 students	10 students
Bachelor of Technology **(B.Tech.)** Duration: 4 years	Master of Technology **(M.Tech.)** Duration: 2 years	Doctor of Philosophy **(Ph.D)** Duration: 3 years

VISION:

To develop globally competent and ethical professionals in Computer Science and engineering and enable them to contribute to society.

MISSION:

- To provide rigorous, high-standard, multidisciplinary curriculum and innovative T-L-E-A processes and ensure a stimulating academic environment.
- To promote research and innovations through collaborations.
- To develop requisite attitudes and skills, besides providing a strong knowledge foundation.
- To foster ethics and social responsibility among stakeholders and imbibe a sense of contribution.



Faculty Strength:

The department currently consists of 08 highly qualified, dedicated and sincere teaching faculty members. 02 faculty members have doctorates in their respective academic fields, and 05 faculty members are pursuing Ph.D.

Publications:

International Conference	International Journal	Patents
63	10	02

Departments Labs

- The institute has dedicated and well-equipped labs with high-configuration machines to give students the best experience.
- These labs are available 24*7 for research and project work.
- We also have one newly established Apple Computer lab with high-end computers to cater the need of extensive computing for project development and research work.

The department has the following well-equipped labs with advanced computers and software :

Sr. No.	Lab No.	Lab Name
1	404	Computer Network Lab
2	406-A	Database Management Lab
3	406-B	Software Engineering Lab
4	408	Operating System Lab
5	410-A	Project Lab
6	410-B	Programming Lab
7	410-C	Cloud Computing Lab
8	412	Research & Development Lab
9	402A, 402B, 403A, 403B, 702A	Labs for MCA

406-A Database Management System Lab

MCA Students in their dedicated labs

Significant milestones achieved by the department

- Dr. D. R. Kalbande received 'Devang Mehta National Education Leadership Award' in the category of the Most Influential Professor on 24th November 2023.
- Dr. D. R. Kalbande received a Patent Grant on 01st December 2023 under the title 'Big Data Architecture for Predicting Malaria and Dengue Incidence'.
- Dr. D. R. Kalbande received a copyright for the architectural design for integrating deep learning with 'AI driven services : A holistic student platform for emotion recognition, psychological evaluation and career guidance' on 22nd February 2024.
- Dr. D. R. Kalbande received a German Patent Grant on 26th February 2024 with the title 'System for developing a deep scattering Convolution network for cosmetic skin classifications'.
- Dr. D. R. Kalbande is nominated as the Chairperson of IEEE CS Chapter in IEEE Bombay Section for 2023-24.
- Dr. D. R. Kalbande is nominated as a BoS member in Computer Engineering at University of Mumbai.
- Dr. D. R. Kalbande was a reviewer at ICICBDA 2024.
- Dr. Pooja Raundale is appointed as the Director, Board of Examination and Evaluation (BoEE) at the University of Mumbai.
- Prof. Harshil Kanakia is certified as 'DevOps Engineer' from Edureka.
- Prof. Suhas Kakade has published a research article, 'Bi-manual Haptic Perception: A Kinesthetic Study' at IEEE Transactions on Haptics and he has been invited to deliver the talk on the same at IEEE Haptics Symposium, Long Beach, CA, USA.
- Prof. Suhas Kakade visited University of Southern California, and University of California, Los Angeles to explore possible interaction which resulted in a few internship offers and collaborative research work.
- Prof. Suhas Kakade has chaired a session at 16th International Conference on Machine Learning and Computing 2024 held in Shenzhen, China.
- Prof. Suhas Kakade has been invited to attend the International Conference on Digital Applications, Transformation, and Economy (ICDATE) 2023 at Curtin University, Miri, Malaysia.
- Prof. Suhas Kakade was a reviewer at 2023 IEEE Pune Section International Conference.

Career Opportunities for Students (mapping to corresponding sectors):

The department recently proposed two new tracks, along with Data Science & Software Testing, as thread electives named Design and Full-stack for MCA. Full-stack development is a highly sought-after skill in the tech industry. With the ever-increasing demand for web applications, full-stack developers are in high demand. UI/UX design is a good career choice for several reasons. With the increasing use of technology and the internet, the demand for user-friendly and intuitive digital products is on an increase, driving demand for skilled UI/UX designers.

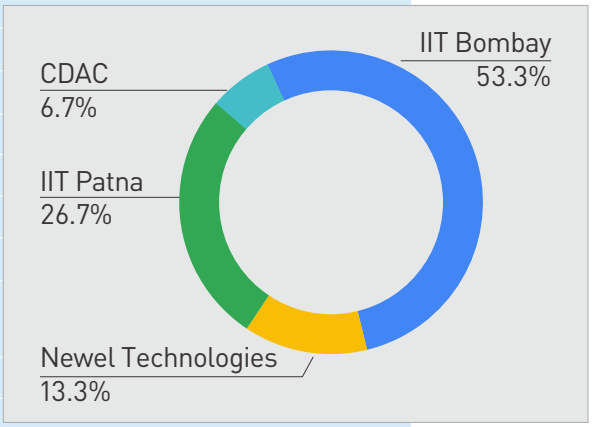
MCA Programme curriculum has all the latest technologies and emerging areas such as Artificial Intelligence, Machine Learning, Deep Learning, Blockchain, etc.

Computer Science and Engineering
Head of the Department:
Dr. Dhananjay Kalbande
Email: drkalbande@spit.ac.in

Research Internship

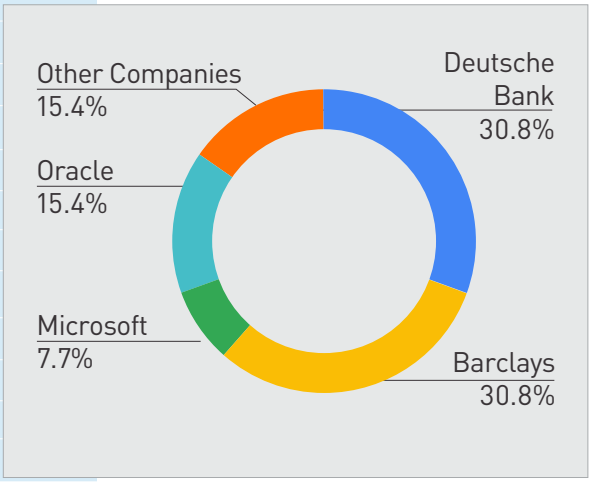
Department of Computer Science and Engineering

No.	Name	Branch	Name of organization where internship is obtained (IIT B / IIT Patna / IIM etc)
1	Amey Agarwal	AIML	CDAC
2	Sarvesh Deshpande	AIML	IIT B
3	Chaitya Arun Dobariya	AIML	IIT B
4	Sanika Gadkari	AIML	IIT Patna
5	Vidhi Gajra	AIML	CDAC
6	Shubh Gupta	AIML	IIT B
7	Gargi Sunil Kadam	AIML	IIT Patna
8	Arshad Husenmiya Mapari	AIML	IIT B
9	Dhruv Mehta	AIML	IIT B
10	Pratham Shelke	AIML	Newel Technologies with Stipend
11	Yash Sonawane	AIML	IIT Patna
12	Sanika Tiwarekar	AIML	IIT Patna
13	Omkar Yellaram	AIML	Newel Technologies with Stipend
14	Aayush Nayan Patel	AIML	IIT B
15	Karthik Iyer	DS	IIT B
16	Anusha Maniar	DS	IIT B



Students securing Summer Internship

No.	Name	Branch	Company
1	Manan Hemant Chhajed	CSE-AIML	Deutsche Bank
2	Sonal Dilip Gholap	CSE-AIML	Barclays
3	Mahek Gupta	CSE-AIML	General Mills
4	Samarth Gupta	CSE-AIML	Barclays
5	Faiz Khan	CSE-AIML	Oracle
6	Navneet Nair	CSE-AIML	Oracle
7	Komal Tarachandani	CSE-AIML	Microsoft
8	Rashmi Rajeshirke	CSE-DS	Deutsche Bank
9	Kinnari Shah	CSE-DS	Deutsche Bank
11	Omkar Ajit Bhoir	CSE-AIML	Barclays
12	Pavan Gole	CSE-AIML	Barclays
13	Glen Dsouza	CSE-DS	Deutsche Bank
14	Omkar Gajanan Phansopkar	CSE-DS	PayPal



Department of Computer Science and Engineering
Competitions & Awards

Smart India Hackathon Winners

Box Cricket 2nd position

TSEC Hackathon Winning team

Data to Knowledge Hackathon winning teams

Events by Computer Science and Engineering Department

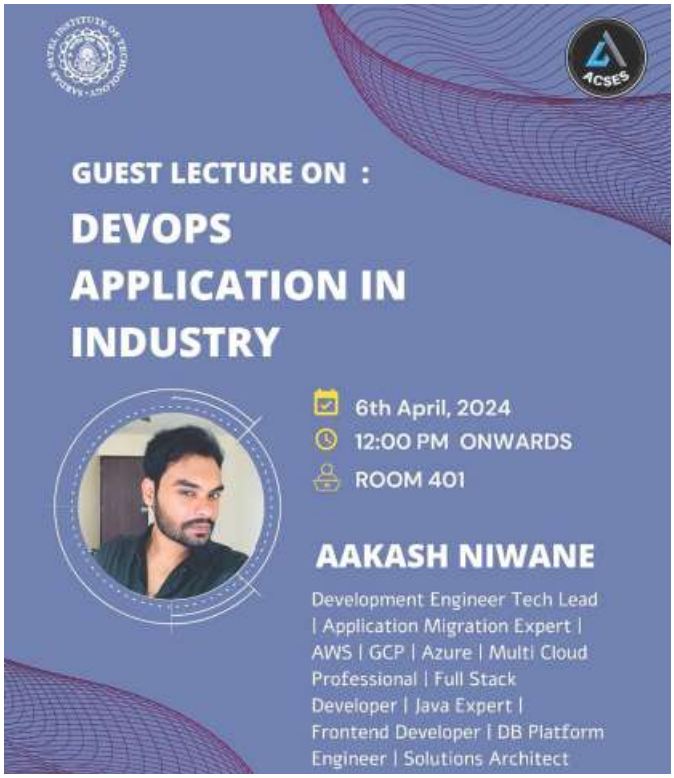
International conference IECON 2023 at Singapore

AESS Funding Project DSTEI Evaluation(USD 25000)

Guest Lecture

SPTBI Visit

Events by MCA Department



Guest session by Alumni

Internal Hackathon Conducted for FYMCA

Guest Session on Spring Boot

Cyber Saga ESports Event

SP-TBI Visit

MCA Batch 21-23

First Batch of CSE 21-25

CSE Department Faculty Gathering

CSE Department Get-together event

CSE Departmental Magazine Inauguration

ATAL FDP on Generative AI Concerns and Solutions (Organizers and participants)

FDP on IoT and Machine Learning

IoT FabLab Session by Dr. Y.S. Rao

Machine Learning using MATLAB session by Mr. Kunal Khandelwal

FDP Activities

FDP Activities

Inauguration of FDP

Department of Applied Sciences, Mathematics and Humanities

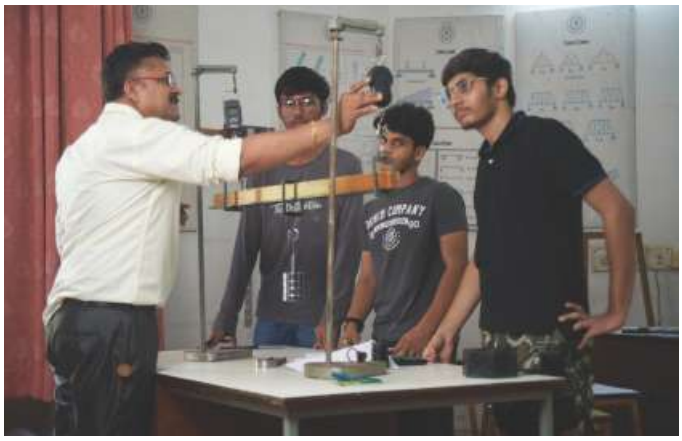
The Department of Applied Sciences and Humanities equips the students of first year engineering, across all branches with fundamentals in applied sciences, basic engineering and subjects in the domain of humanities. The curricula of the department have been totally redesigned under autonomy to suit the requirement of the programmes that we offer. The department prides itself on its strong student connect, ensuring that every student who enters the institute adapts to the needs and demands of the engineering course and can acclimatize to the course's hectic schedule in a student-friendly and conducive atmosphere.

Department Objectives

- To strengthen the fundamentals in Applied Sciences, Mathematics and Basic Engineering.
- To develop the ability to communicate effectively as technical professionals.
- To provide an environment for working effectively in groups.
- To sensitise students to environmental and ethical issues.
- To create a good base for further engineering education.

Departments Labs

- Applied Physics Lab
- Applied Chemistry Lab
- Language Lab
- AutoCAD Lab
- Engineering Workshop
- Programming Lab



- Comprehensive 2 week induction programme (online / offline) consisting of Yoga sessions and lectures on universal human values, bonding sessions, expert lectures and interaction with Deans, Heads of Department, placement cell and Student Council, and virtual tour of heritage sites.
- Environmental awareness programmes like plantation drives, e waste management, single use plastic waste collection drive
- Field visit

Co-curricular Student Initiatives

Spark

Spark is the official institute magazine, reporting and photography club. It aims to promote creativity through the literary and visual domains in the college. Students write and design content for SPark's official magazine, online website and social media throughout the year. Various events and workshops are organized to enhance the students' literary, design and photography skills. Photo-walks across the entire city are scheduled for students. SPark also covers all major events that take place in the college.

E-Cell

S.P.I.T.'s E-Cell has won first place in the Advance Track of IIT-Bombay's National Entrepreneurship Challenge with over 500 competing teams twice in the past five years. Our E-Cell strives to generate enthusiasm and awareness about startups and entrepreneurship in the college. It encourages students to instill an entrepreneurial mindset and provide all possible guidance along the way. The E-Cell is successfully creating a self sustaining entrepreneurial community in our college, thus making it a better place to be in.

IDEA Lab

S.P.I.T.'s IDEA (Idea Development, Evaluation, and Application) Lab, setup in accordance with AICTE's scheme guidelines, encourages students for the application of STEM fundamentals towards enhanced hands-on experience, learning by doing and even product visualization. It is a long-term intervention aiming to transform education imparted in the institution.

IIC Committee

Institution's Innovation Council is formed as per the prescribed format by MIC (MHRD Innovation Cell). The purpose of this committee is to promote innovation in the institution through multitudinous modes leading to an innovation promotion ecosystem in the campus.

MHRD'S INNOVATION CELL (GOVERNMENT OF INDIA)

Coding Club

Keeping in mind the significance of competitive programming, this club has been established. The club aims to create a platform for students to come together and start exploring coding culture. Club conduct various activities throughout the year that keep the participants engaged in developing coding skills. Club conduct sessions, in addition to contests. Instructors guide the students through various coding techniques and common algorithms. Club keep the students updated on the upcoming national hackathons and coding contests.

Student Chapter & Clubs

Rotaract Club of S.P.I.T.

Rotaract club of S.P.I.T. is an institution based club belonging to Rotaract district 3141. It is sponsored by the Rotary Club of Mumbai Juhu. The club was chartered in the year 2012. Club promote the holistic development of every individual who is working for the betterment of the society. Club executes qualitative projects in order to provide maximum service to our society.

FSAI Student Chapter

Fire and Security Association of India (FSAI) is one of its kind student chapter at S.P.I.T. FSAI student chapter is formed to create awareness about Fire, Safety and Electronic Security among students, involve them in related product development and explore career opportunities. Mission of this chapter is to help in achieving the objective of 'Surakshit Bharat'.

CSI Student Chapter

Formed in 2009, C.S.I. Student Branch of Sardar Patel Institute of Technology (CSI-S.P.I.T.) is an altruistic society in college initiating workshops, events and seminars to explore the cornucopia of information other than the regular curriculum offered by the university. As part of our endeavour to bring together and assimilate various aspects of technical and non-technical education, number of seminars and workshops are conducted by professionals imparting knowledge to the students of the college. Student chapter encourage member students to organize events by themselves so that it imbibes in them the skills of management, self-confidence and helps to exchange views and information, learn and share ideas.

IETE S.P.I.T

The Institution of Electronics and Telecommunication Engineers (IETE) is India's leading recognized professional society devoted to the advancement of Science and Technology of Electronics, Telecommunication & IT. IETE is a committee that organizes technical events like webinars, workshops etc. and also non-tech events such as treks. IETE recently organised S'kribbl Wars' (Fun event), 'Web Development Workshop' and 'Stop Stressing, Start Living' Webinar.

IEEE S.P.I.T

IEEE S.P.I.T is a student branch of IEEE Global under IEEE Bombay Section located in Region 10. It is one of the student organizations which organizes annual intercollegiate events. It throws light on the capabilities of students and aims to assist them in enhancing it. IEEE S.P.I.T organizes events in broadly three domains: Technical, Non-technical and Humanitarian. Events such as 'Business relations in Industry 4.0', 'Digital Marketing', 'Project Innovation Challenge', 'IoT in healthcare', 'Web development', 'App Development', were a few in many conducted by the team in the previous academic year (2020-21) in order to help the students up-skill and showcase their abilities. Few of the recent events organized are Let's Connect: Build Yourself on LinkedIn, IEEE Entrepreneurship Bootcamp and Human Library Series

WIE IEEE S.P.I.T.

WIE-IEEE S.P.I.T is the student branch of IEEE Women in Engineering (WIE) dedicated to promote women engineers and scientists and inspiring girls around the world to follow their academic interests to a career in engineering. Main focus of this student branch is to conduct events for girl students and faculty. WIE IEEE S.P.I.T were the winners of R10 Women in Engineering Outstanding student branch affinity group awards last year.

FETS S.P.I.T.

FETS S.P.I.T. is a Forum for Electronics and Telecommunications Students, which bridges the gap between professors and students of EXTC Department. FETS Committee aims to create the best academic experience for all the students by arranging various technical and non-technical events not only for EXTC students but also students of other branches.

FACE S.P.I.T

FA.C.E is a techno-cultural committee of S.P.I.T that is exclusively for the Computer Engineering Department. Aim is to make the learning fun with various engaging workshops. Some of flagship events are Monsoon Trek, FACE Cup and Branch Day strengthen the bonds of friendship among Computer students along with working as fun distractor to their fully loaded minds. Regularly conducted event by FACE are On Campus vs Off Campus Placement Webinar, Code It Out, CP workshop, APP development, IPL Auction, Football Auction, FACE Cup, Masters Webinar, Trek and BE comps fairwell.

ACSES SPIT

ACSES is the committee made to represent the students of the CSE and IT Departments. The committee is involved in organizing events that help in building the overall character of students. From hackathons and career fairs to sports tournaments and treks, ACSES does it all. Various events recently conducted by ITSA are ITSA CodeIt-Out, ITSA Technical Placement Webinar, Resume Building Workshop, Day in the life and Data Science Workshop.

ESA S.P.I.T.

Electronics Students Association (ESA) is the student body of electronics department students. ESA regularly organised various events motivating students to take up challenging tasks and engage in practical problem solving. One of the flagship event of ESA is 'Troubleshooting Activity' and 'Project Competition'.

Our Global Alumni Network

S.P.I.T. Graduates are in demand at various organisations worldwide. Our alumni are recruited by global organisations and that makes S.P.I.T.'s presence known across the world. Our alumni are based at US, South America, Europe, Asia, Australia reaching all the way up to Argentina, New Zealand, Japan and South Korea. S.P.I.T. Graduates are the most sought after engineers in our homeland India.

Garima Kaushik
Morgan Stanley

Sarah Gawde
Microsoft

Aman Agarwal
WorkIndia

Palak Davda
Amazon

Apoorva Chaudhari
Deutsche Bank

Tania Rajabally
Deutsche Bank

Rishi Kaul
Deutsche Bank

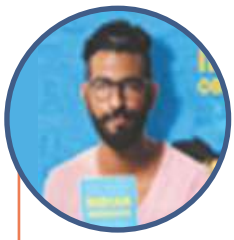
Prerak Parekh
Amazon

Afaan Ansari
MSCI

Mahipal Purohit
PhonePe

Sarika Singh
Google

Saurabh Netravalkar
Captain of the United States cricket team, represented India under-19 team.



Adhitya Iyer
Author of "The Great Indian Obsession: The Untold Story of India's Engineers".
He Delivered a TEDx talk on 'The interesting story of our educational system" garnering over 2 Million views making it one of the most popular talks on education globally

Priyank Singhal
Product Manager, Uber

Manas Gajare
Founder of HFD-Ghar Ka Khana, HFD aims to connect home chefs to consumers.

Manisha Prakash
Assistant Director in Indian Information Service at Government of India. In the past, she served as a Software Development Engineer at Microsoft and pursued Master of Business Administration (MBA) in finance.

Vidur Shah
Silicon Engineer
at Google

Rahul Chari
Founder & CTO, PhonePe, Mobile Payment App
Graduated in 1999

Sumit Gouthaman
Senior Software Engineer,
Google, Redmond,
Washington, United States
Graduated in 2014

Soumil Rao
Co-Founder, Workindia
Job to Blue Collar Worker
Graduated in 2016

Vinit Jain
Founder & CEO, Viola Digi
Entertainment Industry
Graduated in 2019

Tanvi Dhope
Software Engineer, Microsoft,
Mumbai, Maharashtra, India
Graduated in 2021

Sarah Gawde
Software Engineer, Microsoft,
Mumbai, Maharashtra, India
Graduated in 2021

Dr Akshay Bhagwatkar
Program Manager,
Amazon, AWS
Graduated in 2008

Manish Jain
ASIC Design Engineer,
Apple, USA
Graduated in 2008

Dr. Abhishek Sharma
Component Research
Intel Corp.,
Graduated in 2007

Dr. Nutan Limaye
Professor, IIT Bombay
Graduated in 2003

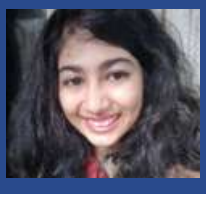
Dr. Prashant Nair
Professor,
University of British
Columbia
Graduated in 2007

Higher Studies - Electronics & Telecommunication Engineering

Graduating year: 2020

Siddharth Mehta
MiM (Master in Management), INSEAD, France

Upasana Thakuria
M.S., Arizona State University, U.S.



Rashmi Phadnis
M.S.,University of Pennsylvania, U.S.

Graduating year: 2021

Siddharth Das
M.S., Rochester Institute of Technology, New York, USA

Manish D'silva
MBA, Indian Institute of Management, Ahmedabad, India

Urja Kulkarni
M.S., Columbia University, New York, U.S.A

Graduating year: 2022

Kaustubh Venkatesh
M.S., Technical University of Munich, Germany

Adwait Kaundanya
M.S., Arizona State University, U.S.A

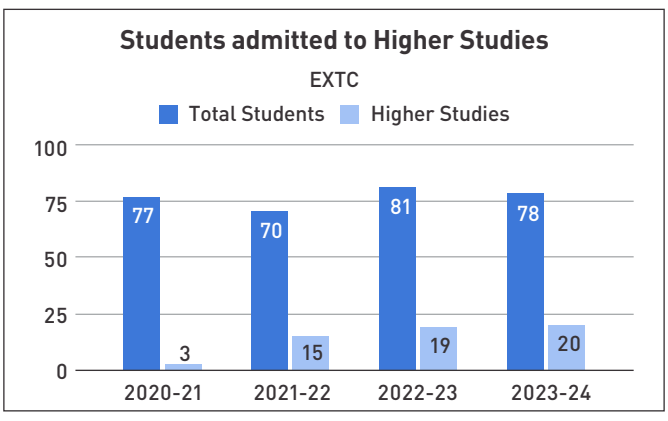
Chinayi Rane
M.S., Oklahoma State University, USA

Graduating year: 2023

Sudhanshu Kulkarni
M.S., University of Massachusetts, Amherst

Ishika Raipure
PGP, Indian Institute of Management, Kozhikode

Aryaman Gokarn
M.S.,University of California, Los Angeles



Electronics Engineering

Graduating year: 2018

Ms. Devanshi Bhatt
M.S., University of Illinois,
Urbana-Champaign

Mr. Kaushal Malviya
M.S.,
The University of Texas, Dallas

Mr. Shreyas Palande
M.S.,
TU Delft

Graduating year: 2019

Mr. Nitin Shetty
M.S.,
Georgia Institute of Technology

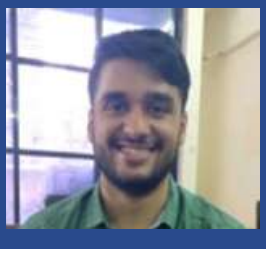
Ms. Isha Dongre
M.S.,
North Carolina State University

Mr. Aditya Khopkar
M.S.,
University of Maryland

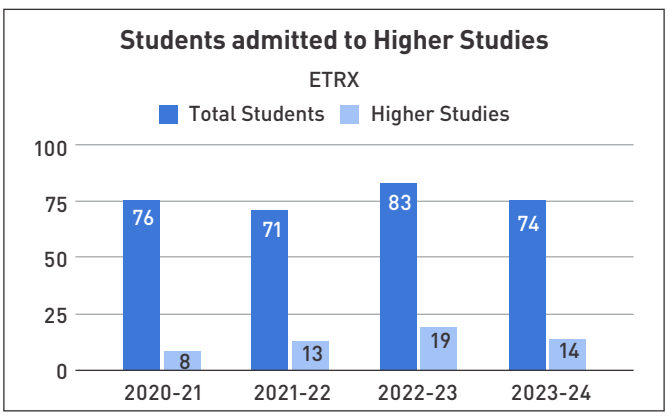
Graduating year: 2020

Anand Varma
M.S., University of California,
San Diego U.S.

Ameya Mungekar
M.S.,
University of California Irvine U.S.



Ameya Phadke
M.S.,
University of Pennsylvania U.S.



Computer Engineering

Graduating year: 2018

Suyash Sunil Thakare
M.S.,
Georgia Institute of Technology

Rucha Rangnekar
M.S., University of California, Los Angeles

Sheryl Paul
M.S.,
University of Oxford

Graduating year: 2019

Aditya Desai
M.S.,
Columbia University, U.S.

Ananya Ojha
M.S.,
Georgia Institute of Technology

Neil Miten Daftary
M.S.,
Purdue University, U.S.

Graduating year: 2020

Advait Lad
M.S., University of California, Berkeley, U.S.

Vaibhav Bagri
M.S.,
Arizona State University, U.S.

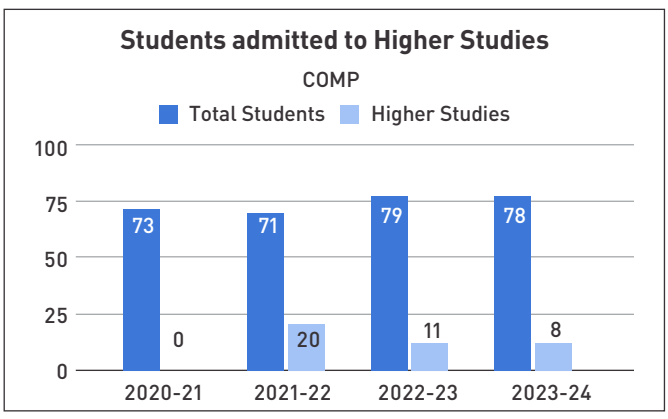
Shivani Butala
M.S.,
Carnegie Mellon University, U.S.

Graduating year: 2021

Muskan Sahu
Post Graduate Program (PGP) in Management (MBA) from IIM Kozhikode

Harshit Barot
Master of Science in Computer Science from Stony Brook

Mohit Bhat
Master of Science in Management Information System from Texas A&M



Information Technology Engineering

Graduating year: 2019

Adhrit Shetty
MS (Computer Science)
College of Computing Georgia Tech

Kevin Puthusseri
MS (Computer Science)
The University of Texas Austin

Parth Tamane
MS (Computer Science)
College of Computing Georgia Tech

Graduating year: 2020

Aditya Mehta
M.S.,
University of Southern California, U.S.

Mukund Vora
M.S.,
North Carolina State University, U.S.

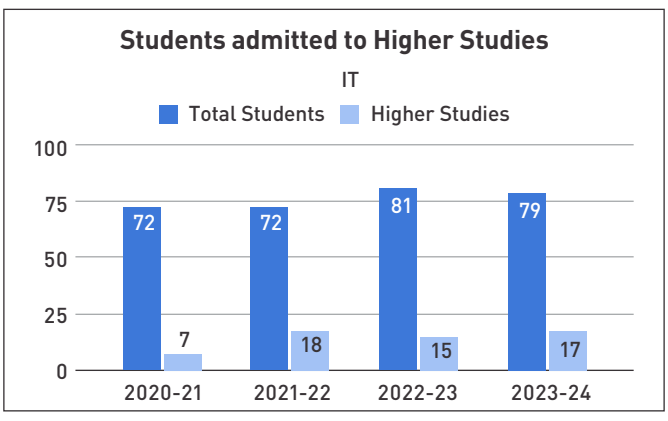
Hany Raza
M.S.,
Northeastern University U.S.

Graduating year: 2023

Shubham Thakar
MS (Computer Science)
University of Illinois

Samkit Shah
MS (Computer Science)
New York University

Manan Shah
MS (Computer Science)
New York University



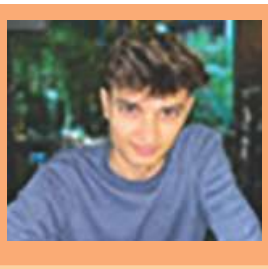
Placement Highlights

Graduating year: 2023-24

Noman Khan
Zomato

Shubh Shah
PhonePe

Khushal Dhanuka
PhonePe



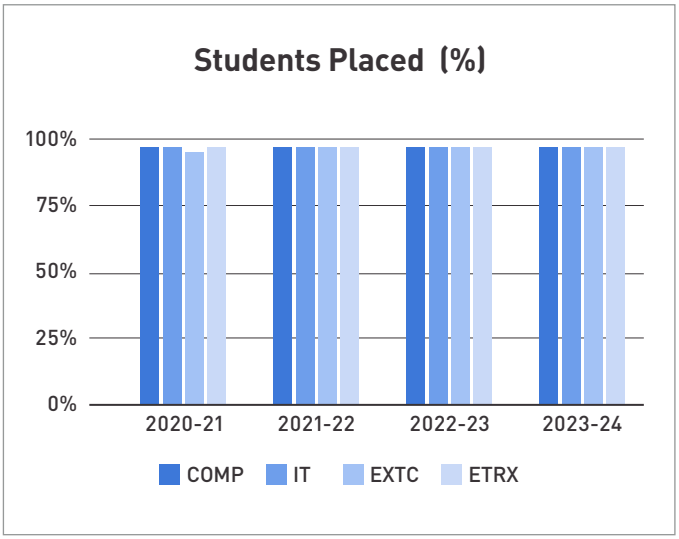
Param Kothari
J.P.Morgan & Chase

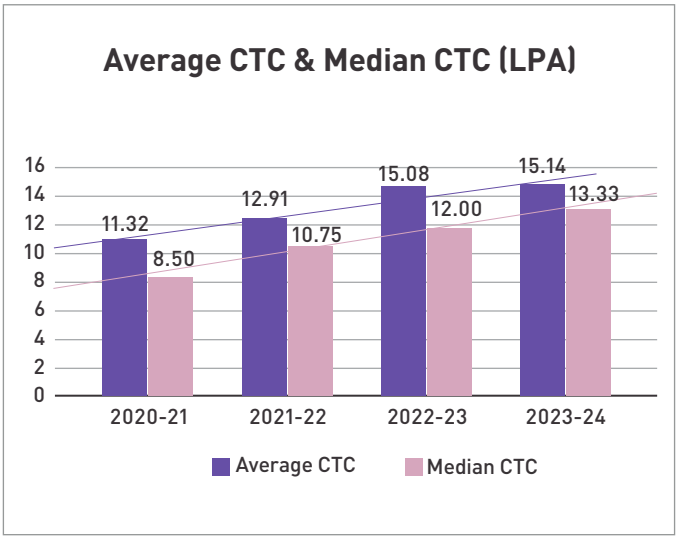
Nishtha Sharma
J.P.Morgan & Chase

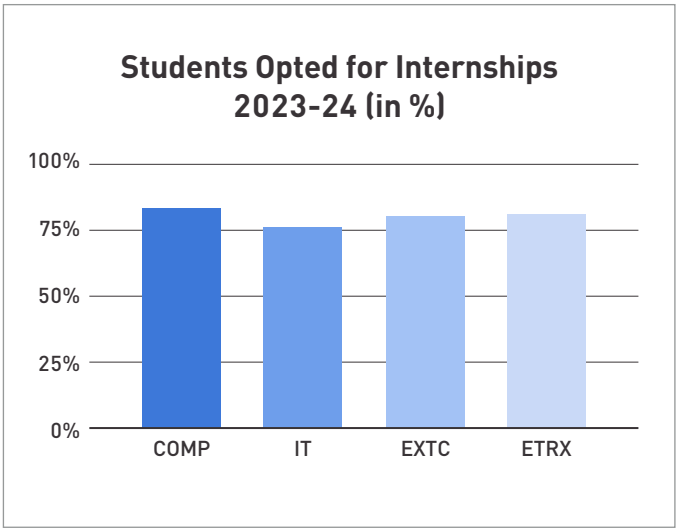
Rupin Malik
Deutsche Bank

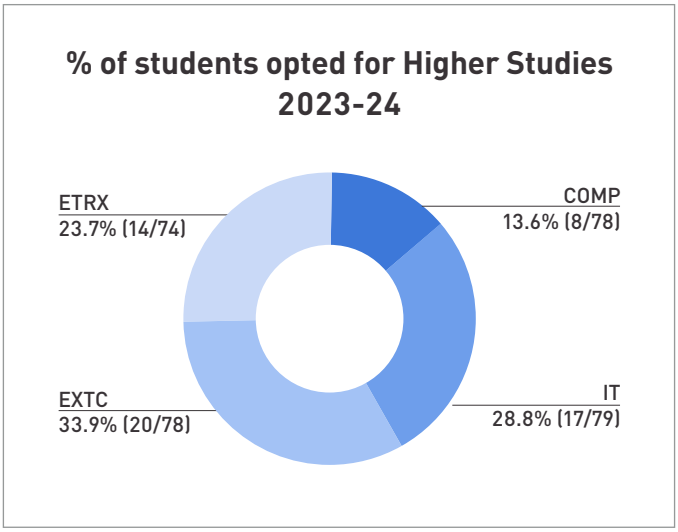
Training and Placement

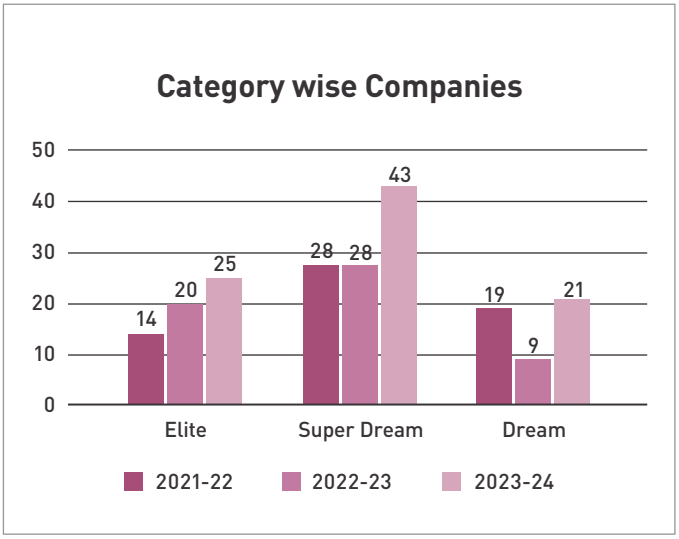
The Training & Placement Cell caters to the industrial training needs of students and also provides placement services to students through campus interviews. Many multinational and well-known Indian conglomerates regularly visit our campus every year for their requirement of high caliber human resources. The cell takes pride in offering student services like consultation on a wide range of issues such as employment, career planning, opportunities available, etc. thereby preparing students effectively for their careers.

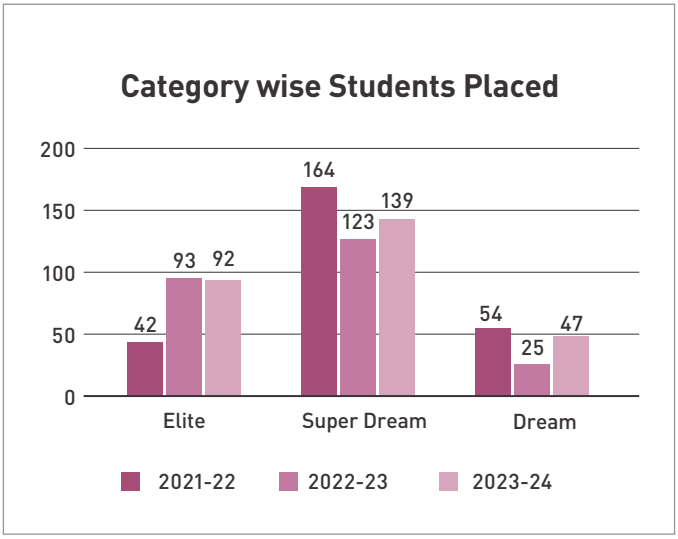












Our Partners

PhonePe Microsoft MSCI TRILOGY INNOVATIONS

JPMorganChase WorkIndia Morgan Stanley

Deutsche Bank BARCLAYS IBM SIEMENS

MERKLE a dentsu company Baker Hughes NOMURA quantiphi

ORACLE ISS DOLAT CAPITAL Deloitte.

Interactive Brokers GEP TransUnion wohlig Transformations

OMPARTNERS VERSOR InCred Borrow. With Confidence. enfusion

About Sardar Patel - Technology Business Incubator (SP-TBI)

SP-TBI is an initiative of Bharatiya Vidya Bhavan's Sardar Patel Institute of Technology and is affiliated with Department of Science and Technology, Govt of India.

It is an incubation centre that supports daring entrepreneurs by helping them in building great technology ventures of future.

Our vision is to generate 10,000+ jobs through 500 new ventures in the next 5 years.

Our Aim is to Create a State of the Art Holistic Ecosystem to Encourage And Support Aspiring Entrepreneurs.

We strive to make startups successful and help them grow to new heights.

SP-TBI works as a catalyst behind entrepreneurs ensuring they get the best infrastructure, technology support, seed funding, talent pool, mentoring, training and much more.

We are currently a tribe of 75+ founders promoting 40+ companies and creating 300+ job opportunities.

DST Gov. of India Supported.

50 + Incubatees

500 + Jobs created

300 + Internships

42 + Innovations

4.17 Cr. Operational Fund from DST

10 Cr. SEED Fund from DST

What SP-TBI Offers to Its Startups?

Seed Funding

SP-TBI invests in companies through its seed funds. A few companies where SP-TBI has invested through its seed fund are Liminal, SchoolAtlas, Forehotels, RGM Technologies, Scholr, etc.

Advanced Technology Infrastructure

SP-TBI has a high-end Advanced Technology Hub housing the necessary hardware and software required for building AR/VR, IoT and AI and Data Analytics products. The lab has equipment such as high-end servers, 3D printers, high-performance computing machines with graphic cards, VR gears such as Oculus Rift, HTC Vive etcto name a few.

Access to Talent

SP-TBI gives startups access to technology and management talent. It also provides hiring platform for startups through its Jobs and Internship Initiatives.

Mentoring and Proficiency Building Events SP-TBI looks out for every opportunity to help develop the startups across a broad spectrum of functions such as Capital raising, Legal issues pertaining to startups, Marketing, Technology etc. through its various programs. SP-TBI has also introduced structured entrepreneurship programs for founders in the ideation stage of their company.

Community

SP-TBI is a tribe of more than 75 founders promoting more than 40 companies across sectors such as Consumer Internet, Fintech, Ad Tech, Augmented Reality, Machine Learning and Artificial Intelligence, Health Tech etc. We keep on hosting community building events to strengthen the ties of the TBI Tribe.

Infrastructure

Located in the most accessible part of Mumbai (Andheri West) with plug and play office space, co-working space, conference rooms, meeting rooms, cafeteria etc.

Few of Our Successful Startups

Work India – Founded by students of S.P.I.T, Work India today is the largest blue and grey collar jobs portal and heavily funded by VCs.

Scholr – Scholr uses Image processing technology to disrupt the education landscape by providing 24X7 academic help to millions of students.

Quidich – Quidich is India's leading aerial solutions company that pioneers in three primary verticals: aerial cinematography, sports broadcast and asset management.

Liminal – Liminal provides end-to-end experiential marketing solutions, using Virtual Reality and Augmented Reality to help you cut a niche in the world of digital transformation.

Jumpr.ai – Jumper is an AI-based social commerce enabler, powering the fastest checkout experience for your business #everywhere -on social media, blogs and the World Wide Web.

Switch Me – Switch Me is an end-to-end service that helps you with everything related to your Home Loans - identifying the right lenders to figuring out the best tenure, interest rates to even balance transfers.

Kan Innovations – People are often unaware of the root cause of foot aches, and if ignored or left unattended they may result in more serious foot, ankle, back, knee and hip related ailments. Most often, it's the wrong choice and fit of footwear that is to blame! Kan Innovations' team is seized with this problem and is working towards building solutions for it.

Summit Games – Summit Games is a gaming website company that develops 3rd party video game website for MMORPG's. Summit games flagship website is EVE-Summit.com, which provides top tier content for players of CCP Games MMORPG, EVE Online.

PODS Ventures – A Lending Technology platform company, enabling instant and seamless credit to consumers for purchases at Digital Point of Sale.

About IPR Cell (Intellectual Property Rights)

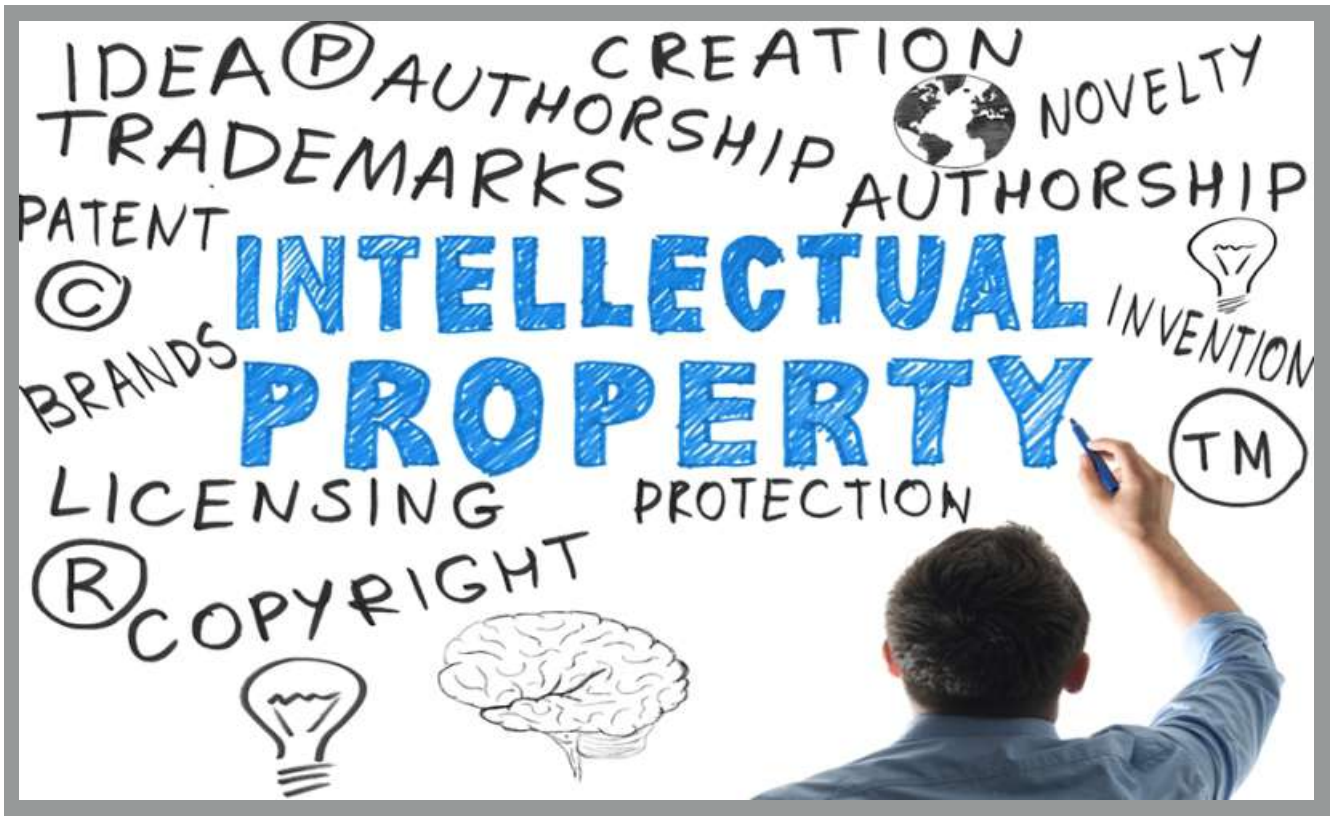
IPR Cell was established in SP-IT in 2012 to protect the invention of students and faculty. Campus has taken the initiative to promote innovations and to facilitate protection of Intellectual Property (IP) created at the campus. The Intellectual Property Rights Cell(IPR Cell) at campus is formed to provide guidance, support and resources to all campus personnel and facilitates protection and deployment of intellectual property. IPR-Cell conducts workshops to enhance awareness on related issues, it also provides templates and guidelines for the contracts, agreements and MOUs governing the effective exploitation of the IP produced by faculties and students. Towards this goal an Intellectual Property Policy of the Institute has been formulated. SP-IT has published a total of 88 patents since June 2013 till now.

Vision:

Secure innovative ideas of inventors to create an ambience of research and innovation for the future leaders and innovators.

Mission:

To create environment for development of IPR through research innovation



Life@S.P.I.T.

Life at S.P.I.T. is not just limited to academic pursuit. S.P.I.T. provides an opportunity for holistic development of students by promoting and facilitating activities from all spheres of life. Our students make us proud by winning national, state and district level sporting events. Some even win internationally acclaimed coding and hackathon competitions. Students often have published research papers before they graduate. Apart from all this, achievements in cultural activities and performances are common and very much appreciated by the institution. Students also participate in various social activities for giving back to the society. Life at S.P.I.T. can guarantee Success, Professionalism, Intelligence and being Trendy.

Oculus Inauguration

Navratri Celebration


abl-fsai-installation-ceremony


Convocation

Spoorthi-keynote-speaker


ecell-panel-discussion


ecell-food-challenge


women_s-week


oculus


oculus


teachers-day


ROONEY
10

Bharatiya Vidya Bhavan's

SARDAR PATEL INSTITUTE OF TECHNOLOGY

Munshi Nagar, Andheri (West), Mumbai 400 058

S.P.I.T. Highlights

Strong Reputation

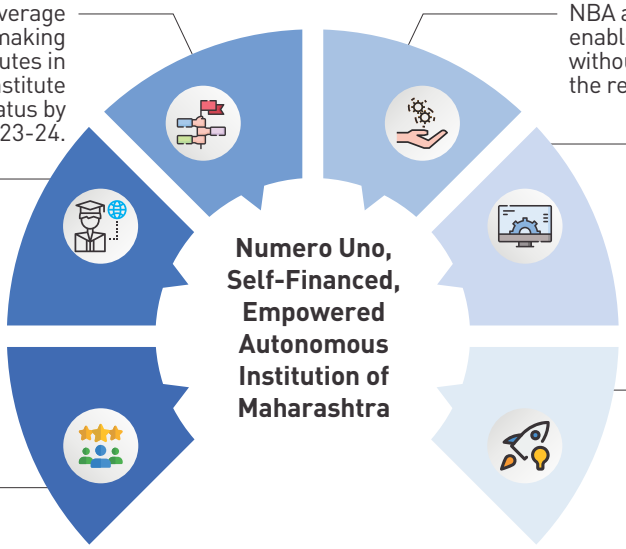
S.P.I.T. has the highest consistent average salary in the Maharashtra region, making it one of the most sought-after institutes in the region. The only Engineering Institute granted Empowered Autonomy Status by the University of Mumbai from 2023-24.

Curriculum

Unique, flexible, globally competent curriculum aiming holistic development of learners with humanities courses already integrated in the academic structure. Opportunity to pursue a minor from SPJIMR and emerging technologies such as blockchain and cloud computing.

Finest Professors

Faculty are well experienced in their respective domains. Actively engaged in research work and publish papers and research articles in leading journals nationally and internationally.



Well Equipped Department & Labs

NBA accredited departments. 24X7 Lab facilities enable students to pursue any experiment without any limitations. Students are free to use the resources for their own research work also.

Industry Experience

Strong culture of innovation, research and entrepreneurship. Fruitful industry association for Semester long industry internship as well as an opportunity to pursue a research internship in the 3rd year.

Technology Business Incubator

- DST, GOI Supported
- 50 Incubatees
- 500 Jobs created
- 300 Internships
- 42 Innovations
- 4.17 Cr. Operational Fund DST, GOI
- 10 Cr. SEED Fund from DST, GOI

AICTE approved UG Programs — 4yr. Bachelors of Technology (B.Tech.)

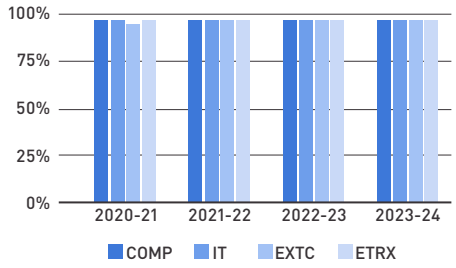
Intake	Computer Engineering
240	

Intake	Computer Science and Engineering
120	

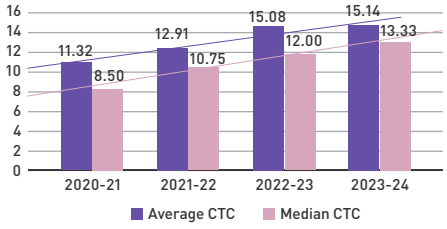
Intake	Electronics and Telecommunication Engineering
120	

Placement Highlights

Students Placed (%)



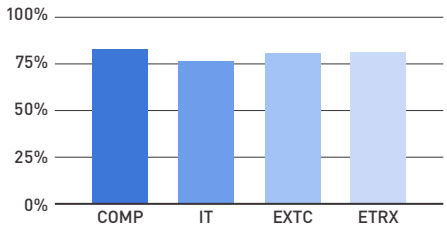
Average & Median CTC (LPA)



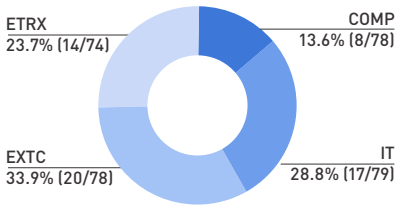
Some of our Partner Companies

PhonePe, Microsoft, MSCI, TRILOGY, JPMorganChase, WorkIndia, Morgan Stanley, Deutsche Bank, BARCLAYS, IBM, SIEMENS, MERKLE, Baker Hughes, NOMURA, quantiphi, ORACLE, ISS, DOLAT CAPITAL, Deloitte., Interactive Brokers, GEP, TransUnion, wohlig, VERSOR, InCred, enfusion

Students Opted for Internships 2023-24 (in %)



% of students opted for Higher Studies 2023-24



Some of SP-TBI Incubatees

Vidyalaya, Eatabl, scholr, pykih, Rama Life Science, Embedos, WorkIndia, LIMINAL

Our Alumni

Saurabh Netravalkar
Captain of the United States cricket team, represented India under-19 team

Mr. Rahul Chari
Co-Founder
Phone Pe

Dr. Abhishek Sharma
Component Research
Intel Corp.

Dr. Akshay Bhagwatwar
Manager, Research Science, Amazon

Mr. Vidur Shah
Silicon Engineer at Google

Dr. Nutan Limaye
Professor at
IIT Bombay

Dr. Prashant Nair
Professor at University of British Columbia

For more information log on to **www.spit.ac.in**

For admission: **https://www.spit.ac.in/admissions/**

Let noble thoughts come to us from every side

Fees

Fees for 2024-25 batch sanctioned by Fees Regulating Authority :

- UG Engineering - Rs. 1,96,000/- (Likely to be revised)
- PG Engineering - Rs. 1,00,000/-
- MCA - Rs. 1,31,000/-
- PhD - Rs. 1,00,000/-

Mandatory Facilities

- Ramp & Lift for Handicapped students.
- Fee concessions as per Government norms for category students admitted through CAP by competent authority
- Fee concession for Minority & EBC students as per Government norms.

Transparent Process

Sardar Patel Institute of Technology takes pride in offering admissions strictly on the basis of merit. The constant efforts of the administrative team, which is the backbone of the institution, at maintaining transparency right from student admission to day-to-day functioning makes them very approachable to the students and faculty alike. The fees of the institution are finalized only after approval from FRA. It also provides all facilities and amenities as per statutory requirement prescribed by various government bodies.

Bhavan's Global Presence

International Centres

- Dubai
- Durban(South Africa)
- London
- New York
- Sydney
- Doha
- Kuwait
- Abu Dhabi

National Centres

- Andhra Pradesh
- Assam
- Chhattisgarh
- Delhi
- Gujarat
- Haryana
- Himachal Pradesh
- Jammu & Kashmir
- Jharkhand
- Karnataka
- Kerala
- Madhya Pradesh
- Maharashtra
- Orissa
- Punjab
- Rajasthan
- Tamil Nadu
- Tripura
- Uttar Pradesh
- Uttaranchal
- West Bengal

Bharatiya Vidya Bhavan's

SARDAR PATEL INSTITUTE OF TECHNOLOGY

(Autonomous Institute Affiliated to University of Mumbai)

Munshi Nagar, Andheri (West), Mumbai - 400 058
Tel: 91-22-2670 8520, 2670 7440, 2628 7250 Fax : 91-22-2670 1422
E mail: principal@spit.ac.in Website: www.spit.ac.in