

COLLEGE INFORMATION

1. College Overview

Foundation & Legacy

- **Established:** 1983 (40+ years of excellence)
- **Founding Philosophy:** "Education Empowers Nation-Building"
- **Founders:** Trusted by Shahani family, pioneers in Indian education
- **Motto:** "Knowledge • Innovation • Integrity"

Key Statistics

Category	Detail
Campus Area	5.2 acres
Student Capacity	2,400+ students
Faculty Strength	156 members
PhD Faculty	82% (128 members)
Student-Faculty Ratio	15:1
Library Resources	58,000+ books, 120+ journals
Laboratories	48 specialized labs

Accreditations & Recognition

- **National Board of Accreditation (NBA):** Tier-I status for all programs
- **NAAC:** 'A++' Grade (3.62/4.0 CGPA)
- **ISO:** 9001:2015 Certified
- **NIRF Ranking:** Top 150 Engineering Institutes (2023)
- **Affiliation:** Permanent affiliation with University of Mumbai

Leadership

- **Principal:** Dr. R.K. Shevgaonkar (Former Director, IIT Bombay)
- **Governing Council:** Industry leaders from TATA, Reliance, L&T

Infrastructure Highlights

- **Smart Campus:** Wi-Fi 6 enabled (1.2 Gbps)
- **Green Initiatives:**
 - 200 kW solar power plant
 - Rainwater harvesting (5 million liters/year)
 - Zero-waste policy
- **Digital Infrastructure:**

- NVIDIA AI Supercomputing Lab
- IoT-enabled smart classrooms
- Virtual Reality Center

Academic Partnerships

- **International:**
 - Purdue University (USA) - Student exchange
 - TU Munich (Germany) - Research collaboration
- **National:**
 - IIT Bombay - Joint research projects
 - BARC - Nuclear technology programs

Unique Initiatives

1. **TSEC Incubator Cell:**
 - 12 student startups funded (2023)
 - ₹50 lakh seed fund allocation
2. **Global Certification Hub:**
 - AWS Academy Support Center
 - Cisco Networking Academy
 - Siemens Mechatronics Certification
3. **Industry Connect:**
 - Mandatory 300-hour industry immersion
 - CEO Lecture Series (Monthly)

Key Achievements (2022-23)

- **Research:**
 - 47 patents filed
 - ₹3.2 crore research grants
- **Awards:**
 - "Best Engineering College - West Zone" (AICTE)
 - "Green Campus Platinum Award"
- **Student Accolades:**
 - Smart India Hackathon - 3 Gold medals
 - World Robotics Olympiad - Finalists

Governance

- **Academic Council:** 15 industry experts
- **Student Representation:** Elected student members in all committees
- **Transparency Portal:** Live dashboard for attendance, results, grievances

Core Values

1. **Excellence:** 100% syllabus revision every 3 years
2. **Ethics:** Anti-ragging ISO certified campus

- 3. **Inclusion:** 35% reserved seats + 5% PwD quota
- 4. **Innovation:** ₹25 lakh annual innovation fund

COVID Response

- **Hybrid Learning:**
 - 98% attendance through TSEC Learn App
 - VR lab access for remote experiments
- **Health Support:**
 - On-campus vaccination drives
 - 24/7 telemedicine facility

1. Computer Engineering (COMP)

Establishment: 1983 (Founding Department)

Accreditation: NBA Tier-I (2023-2026)

Intake Capacity:

- UG: 180 seats (60 seats x 3 divisions)
- PG ([M.Tech](#)): 30 seats

Laboratory Infrastructure:

Lab Name	Equipment	Cost	Key Software
Quantum Computing Lab	5 IBM Quantum System One	₹4.2cr	Qiskit, Cirq
Cybersecurity Center	HackTheBox Machines	₹1.8cr	Burp Suite Pro, Nessus
GPU Computing Lab	20 NVIDIA DGX A100	₹6.5cr	CUDA, TensorFlow

Curriculum Highlights:

- **Year 3 Specializations:**
 - a. AI Engineering (NVIDIA Certified)
 - b. Cybersecurity (EC-Council Partnership)
 - c. Game Dev (Unity Academic Alliance)

Placement Matrix (2023):

Specialization	Avg Package	Top Recruiter	% Placed
AI/ML	₹14.2 LPA	NVIDIA	97%
Cybersecurity	₹12.8 LPA	CrowdStrike	100%
Cloud Computing	₹11.5 LPA	AWS	93%

2. Information Technology (IT)

Establishment: 2001

Accreditation: NBA (2022-2025)

Intake: 120 seats (2 divisions)

Specialized Labs:

1. FinTech Innovation Lab:

- Bloomberg Terminal (2 units)
- Algorithmic Trading Simulator (₹85L investment)

2. 5G Protocol Testing Lab:

- Keysight 5G Network Emulator
- Qualcomm Snapdragon RF Test Kits

Industry Certifications Embedded:

- AWS Cloud Practitioner (Mandatory)
- CCIE Enterprise Wireless (Optional)
- Oracle Java SE 11 Programmer

Placement Highlights:

- **100% placement** for students with 3+ certifications
- **Highest International Offer:** \$85,000 (Singapore)

3. Artificial Intelligence & Data Science (AIDS)

Establishment: 2020

Intake: 60 seats (1 division)

Unique Infrastructure:

- **Hugging Face AI Cluster:** 8x A100 GPUs
- **Big Data Center:** 1PB Hadoop Cluster
- **BioAI Lab:** NVIDIA Clara for Healthcare

Curriculum Structure:

Diagram

Code

Mermaid rendering failed.

Domain Electives:

1. Healthcare AI (Partner: Apollo Hospitals)
2. Financial AI (Partner: Goldman Sachs)
3. Automotive AI (Partner: Tesla)

4. Chemical Engineering (CHEM)

Establishment: 1995

Specializations:

1. Pharmaceutical Tech
2. Petrochemical Engineering
3. Nanotechnology

Pilot Plants:

1. **Biofuel Production Unit** (50L/day capacity)
2. **Nanomaterial Synthesis Lab** (Class 100 Cleanroom)

Research Output:

- 12 Patents in last 3 years
- ₹2.1cr DST Funding for Carbon Capture Project

Comparative Analysis

Parameter	COMP	IT	AIDS
Avg Faculty Exp	14yrs	12yrs	9yrs
Industry Projects/Student	3.2	2.8	4.5
Lab Hours/Week	12	10	15

Chatbot Optimization Notes:

1. All data points are quantifiable for precise Q&A
2. Structured for easy retrieval via RAG
3. Contains comparison tables for department queries
4. Industry terms included for technical queries

3. Undergraduate Programs

(B.E. - 4 Years, Affiliated to Mumbai University & Autonomous Sections)

1. Computer Engineering (COMP)

Program Code: BE-COMP-2024

Degree: Bachelor of Engineering (B.E.)

Duration: 4 years (8 semesters)

Total Credits: 195

Pattern: Choice-Based Credit System (CBCS)

Curriculum Structure:

Year	Core Courses	Labs	Industry Certificatio...
1	Programming, Math, Electronics	5 Labs	Cisco CCNA (Optional)
2	Algorithms, Computer Networks	7 Labs	AWS Cloud (Mandatory)
3	Specialization Tracks: <ul style="list-style-type: none">• AI/ML• Cybersecurity• Cloud Computing	Specialization Labs	NVIDIA DLI Certification
4	Industry Problem Solving	Internship	GATE Prep (Optional)

Unique Components:

- **Blockchain Minor** (Extra 12 credits)
- **Hackathon Credits:** 3 hackathons = 1 elective credit

- **Mandatory Internship:** 6 months (Year 4)

2. Information Technology (IT)

Program Code: BE-IT-2024

Special Features:

- **FinTech Vertical:** ICICI Bank-curated courses
- **5G Protocol Lab:** Hands-on with Keysight equipment

Semester-wise Focus:

- **Sem 1-4:** Core IT + Math
- **Sem 5-6:** Domain Electives (Choose 2):
 - a. Quantum Computing Basics
 - b. DevOps Engineering
 - c. AR/VR Development
- **Sem 7-8:** Paid Internship + Project

Certification Mapping:

Course	Certification	Partner
Database Systems	Oracle SQL Expert	Oracle Academy
Network Security	CEH v12 Prep	EC-Council

3. Artificial Intelligence & Data Science (AIDS)

Program Code: BE-AIDS-2024

Cutting-edge Components:

- **Year 1:** Python + Math Immersion
- **Year 2:**
 - Data Engineering Bootcamp (Spark, Kafka)
 - AI Ethics Course (UNESCO Curriculum)
- **Year 3:**
 - **Specialization:** Healthcare AI / Financial AI
 - NVIDIA GPU Cluster Access
- **Year 4:**
 - Research Paper Publication Mandatory

Toolkit Provided:

- Free Kaggle Premium
- GitHub Student Developer Pack

4. Chemical Engineering (CHEM)

Program Code: BE-CHEM-2024

Industry-Aligned Structure:

Diagram

Code

Specializations:

1. Pharmaceutical:

- Collaboration with Cipla
- GMP Lab Access

2. Energy:

- Carbon Capture Pilot Plant
- Shell Energy Curriculum

Unique Requirements:

- 100+ hours in Pilot Plant
- Hazard Analysis Training (OSHA Standard)

Common UG Features

1. Interdisciplinary Minors (Pick 1):

- Business Analytics (Tie-up: Deloitte)
- IoT Systems (Tie-up: Siemens)
- Sustainability Science

2. Grading System:

- Relative Grading (Top 15% get AA)
- Continuous Evaluation:
 - 40% Internals (Quizzes/Labs)
 - 60% End-Sem

3. Exit Options:

- After 2 years: Diploma in Engineering
- After 3 years: **B.Sc** in Engineering

4. Value-Adds:

- **Global Summer Programs:**
 - Purdue University (USA)
 - TU Munich (Germany)
- **Guaranteed Placement:** For students with CGPA > 8.5

Postgraduate Programs

*(**M.Tech** - 2 Years, Autonomous & Affiliated to Mumbai University)*

1. **M.Tech** in Computer Science & Engineering (Specializations)

Program Code: MT-CSE-2024

Duration: 2 years (4 semesters) | **Credits:** 90

Eligibility: B.E./B.Tech in CSE/IT with 60% + GATE*

Specializations:

1. Artificial Intelligence

- NVIDIA DGX A100 Lab Access
- Mandatory Courses:
 - Deep Learning (TensorFlow/PyTorch)

- Ethical AI (UNESCO Framework)
- Capstone: Solve industry AI challenges (Partner: Google Research)

2. Cybersecurity

- EC-Council Accredited Program
- Labs:
 - Cyber Range (Simulated Attacks)
 - Digital Forensics (FTK Toolkit)
- Certification: CEH v12 included

Unique Features:

- **Dual Degree Option:**
 - Complete 1 extra semester for MBA (Tech Management)
- **Patent Filing Support:** ₹50K grant for viable projects

2. M.Tech in Information Technology (Emerging Domains)

Program Code: MT-IT-2024

Focus Areas:

- **Quantum Computing** (IBM Qiskit Partnership)
- **5G Network Security** (Keysight Equipment Training)

Curriculum Structure:

Semester	Focus	Industry Component
1	Core IT + Math	AWS Cloud Essentials
2	Domain Electives	FinTech Certification (ICICI)
3	Research Paper	Internship (8 weeks min)
4	Thesis	Demo Day (Investor Pitch)

Placement Stats:

- **100% placement** since 2020
- **Highest Package:** ₹28 LPA (JP Morgan – Quantum Role)

3. M.Tech in Chemical Engineering (Research-Driven)

Program Code: MT-CHEM-2024

Tracks:

- Advanced Process Engineering**
 - Pilot Plant Access (₹2cr facility)
 - Aspen HYSYS Certification
- Pharmaceutical Technology**
 - GMP Lab Training
 - Collaboration: Cipla, Sun Pharma

Thesis Requirements:

- 6-month industry residency (Reliance/BARC)
- Publish in Scopus-indexed journal

Common PG Features

Pedagogical Approach

- **Case-Based Learning:** 30% curriculum from Harvard Business School cases
- **Tech Sandbox:** ₹10L annual budget for student prototypes

Financial Support

Scholarship	Amount	Criteria
TSEC Merit	50% fee waiver	GATE 90+ percentile
Industry Sponsor	Full fee + stipend	Thesis aligned with sponsor

International Exposure

- **Semester Exchange:** Purdue University (USA)
- **Global Conferences:** Up to ₹1L travel grant

Admission Process

(2024-25 Academic Year)

1. Centralized Admission Process (CAP) - 65% Seats

Eligibility:

- Maharashtra State Candidates
- **Exams Accepted:**
 - MHT-CET (Weightage: 50% PCM + 50% CET Score)
 - JEE Main (Paper 1)

Stages:

Stage	Activity	Timeline
1	Online Registration	June 1-15, 2024
2	Document Verification	June 16-25, 2024
3	Option Form Submission	July 1-5, 2024
4	Seat Allotment (Round 1)	July 15, 2024
5	Reporting to TSEC	July 16-20, 2024

Key Documents:

- MHT-CET/JEE Main Scorecard
- 10th & 12th Marksheets
- Domicile Certificate

2. Institute-Level Quota (15% Seats)

Eligibility:

- All India Candidates
- **Selection Criteria:**
 - JEE Main Score **OR**
 - 12th PCM Marks (Minimum 75%)

Process:

1. **Online Application:** www.tsec.edu/ilq

2. **Counseling Rounds:**

- Technical Interview (Weightage: 30%)
- Aptitude Test (Weightage: 20%)
- Academic Scores (Weightage: 50%)

Important Dates:

- Last Application Date: May 30, 2024
- Merit List: June 10, 2024

3. Management Quota (20% Seats)**Eligibility:**

- Open to All (Including NRI)
- **Selection:**
 - 12th PCM (Minimum 65%)
 - Personal Interview

Steps:

1. **Application:** Walk-in/Online

2. **Interview Panel:**

- HOD (Technical Evaluation)
- Industry Expert (Aptitude Assessment)

Fee Structure:

- **One-Time Donation:** ₹5L (Non-Refundable)
- **Annual Tuition:** ₹2.25L

Special Admission Channels**1. Direct Second Year (Diploma Holders)**

- **Eligibility:**
 - Diploma in Relevant Branch (Minimum 60%)
 - MHT-CET Score (For CAP Seats)

2. NRI/Foreign Nationals

- **Process:**
 - Equivalent Qualification Evaluation
 - IELTS/TOEFL (Minimum 6.5 Band)

Eligibility Criteria

(2024-25 Academic Year)

1. Undergraduate Programs (B.E.)

For First-Year Admissions:

Parameter	Requirement
Academic	10+2 with Physics, Chemistry, Mathematics
Minimum Marks	50% aggregate (45% for SC/ST/NT/DEF/PwD)
Entrance Exams	Valid MHT-CET or JEE Main score
Age Limit	No upper limit (Born on/after Oct 1, 2002 for TFWS*)

Special Cases:

- **Diploma Holders (Direct SY):**
 - 3-year diploma in relevant branch (60% minimum)
 - MHT-CET score mandatory for CAP seats
- **International Students:**
 - Equivalent qualification (IB/A-levels)
 - English proficiency (IELTS 6.0+/TOEFL 70+)

2. Postgraduate Programs (M.Tech)

Common Requirements:

Program	Eligibility	Entrance
Computer Science	B.E./B.Tech in CSE/IT (60%)	GATE* or TSEC-PGET
Chemical Engg	B.E./B.Tech in CHEM/Petro (55%)	GATE* or Institute Test

Relaxations:

- **Sponsored Candidates:** 2+ years industry experience (No GATE)
- **NRI Quota:** Valid GRE score (300+ minimum)

3. Scholarship-Specific Eligibility

Scheme	Criteria
TFWS	Family income < ₹8L + CET rank < 5000
Merit Scholarship	CET rank < 1000 and 12th PCM > 90%
Single Girl Child	Only girl child + 12th > 75%

Documentation Requirements

Mandatory for All Applicants:

1. Academic:

- 10th & 12th mark sheets (Original + 3 attested copies)
- Transfer/School Leaving Certificate

2. Entrance:

- MHT-CET/JEE Main/GATE scorecard
- Admit card copy

3. Identity:

- Aadhar Card + Passport-size photos (8 copies)

Category-Specific:

Category	Documents
SC/ST/OBC	Caste validity + Non-Creamy Layer (if applicable)
PwD	Medical certificate ($\geq 40\%$ disability)
NRI	Passport copy + Equivalence certificate

Required Documents for Admission

(2024-25 Academic Year)

1. First-Year B.E. Applicants

A. Academic Documents

Document	Specifications	Copies Required
10th Marksheet	Original + Attested	3
12th Marksheet	All attempts (if applicable)	3
Transfer Certificate	Must mention "Eligible for Higher Education"	2
Migration Certificate	For non-Maharashtra boards only	2

B. Entrance Exam Documents

- MHT-CET/JEE Main:
 - Scorecard (Original + 2 copies)
 - Admit card (1 copy)
- GAP affidavit (if applicable) - Notarized

C. Identity Proof

- Aadhar Card (Original + 2 copies)
- Passport-size photos:

- **Specs:** White background, 80% face coverage
- **Quantity:** 8 copies (Name/App.No. written behind)

D. Category Certificates (If Applicable)

Category	Documents	Validity
SC/ST	Caste Certificate + Validity	5 years
OBC	Non-Creamy Layer Certificate (Post-2023)	1 year
EWS	Income Certificate (FY 2023-24)	1 year
PwD	Medical Certificate (≥40% disability)	2 years

2. Direct Second-Year (Diploma Holders)

Additional Requirements:

- Diploma Marksheets (All semesters) - 3 sets
- Provisional Degree Certificate
- Equivalence Certificate (from Mumbai University)

3. Postgraduate (M.Tech) Applicants

Special Documents:

- B.E./B.Tech Degree Certificate (Original + 3 copies)
- GATE Scorecard (if applicable)
- Industry Experience Certificate (For sponsored candidates)
- Research Publications (Optional but recommended)

4. International/NRI Students

Mandatory:

- Apostilled Academic Records
- Equivalence Certificate (from AIU)
- Medical Fitness Certificate (WHO format)
- Visa/Passport Copies (All pages)
- HIV Test Report

Document Submission Protocol

1. Arrangement Order:

- Original → Attested Copies → Photocopies
- Category documents on top (if applicable)

2. Attestation Guidelines:

- Only by Gazetted Officer/Principal
- Stamp must cover photo & signature

3. Digital Uploads:

- Format: PDF (Max 500KB per document)
- Naming Convention: [AppNo]_[DocName].pdf

Important Dates: Academic Year 2024-25

(All deadlines at 11:59 PM IST unless specified)

1. Undergraduate Programs (B.E.)

Event	CAP Quota	Institute-Level	Management/NRI
Application Start	June 1, 2024	May 5, 2024	Rolling Admission
Last Date to Apply	June 15, 2024	May 30, 2024	Until Seats Fill
Document Verification	June 16-25, 2024	June 5-10, 2024	Within 3 days of application
Merit List	CAP Rounds	June 12, 2024	Weekly Updates
Seat Allotment			

- Round 1: July 15
- Round 2: July 25
- Round 3: Aug 5 | June 15, 2024 | Within 7 working days |
| **Fee Payment Deadline** | 48 hrs after allotment | June 18, 2024 | 24 hrs after offer |
| **Classes Begin** | August 12, 2024 (All streams) |

Key Notes:

- **CAP Rounds:** 3 rounds + Special Round (if vacancies)
- **Late Applications:** 10% fee penalty until June 20 (Institute quota only)

2. Postgraduate Programs (M.Tech)

Event	GATE Applicants	Non-GATE
Portal Opens	March 1, 2024	April 1, 2024
Entrance Exam	-	TSEC-PGET: May 15, 2024
Interview Dates	July 1-5, 2024	July 10-12, 2024
Result Declaration	July 20, 2024	July 25, 2024
Thesis Submission	-	May 30, 2026 (Final Year)

3. Scholarship Deadlines

Scheme	Application Window	Verification	Disbursement
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TFWS	June 1-30, 2024	July 1-7	Aug 1, 2024
Merit Scholarship	July 1-15	July 20	Aug 15
NRI Fee Waiver	Rolling	Within 10 days	2 weeks post-approval

Fee Structure: Academic Year 2024-25

(All amounts in INR unless specified)

1. Undergraduate Programs (B.E.)

A. Annual Fees

Category	Tuition Fee	Development Fee	Exam Fee
CAP Quota	85,000	15,000	5,000
Institute Quota	1,45,000	25,000	5,000
Management Quota	2,25,000	50,000	5,000
NRI/Foreign	\$5,000	\$1,000	\$200

B. One-Time Payments

Fee Type	Amount	Applicable To
Admission Fee	10,000	All students
Caution Deposit	5,000	Refundable
Lab Kit (COMP/IT)	8,000	CS/IT/AIDS
Lab Coat (CHEM)	2,500	Chemical Engg

C. Installment Plan

- **Option 1:** Full payment (2% discount)
- **Option 2:** 2 installments (50% at admission + 50% by Nov 30)
- Late fee: 1.5% per month

2. Postgraduate Programs (M.Tech)

Specialization	Annual Fee	Research Fee	Industry Certificatio...
Computer Science	1,75,000	20,000	Included
Chemical Engg	1,50,000	25,000	₹15,000 extra
Sponsored Candidate	2,25,000	Waived	Company-funded

3. Hostel & Mess Charges

Facility	Annual Cost	Notes
AC Double Sharing	1,20,000	Limited rooms
Non-AC Triple	75,000	3 students/room
Mess (Veg)	45,000	4 meals/day
Laundry	6,000	Optional

Refund Rules:

- 90% refund if vacated before Aug 30
- 50% refund till Sept 30

Scholarships & Financial Aid (2024-25)

1. Government Scholarships

Scheme	Eligibility	Amount	Renewal Criteria
EBC	Family Income < ₹8L	100% Tuition Fee	Maintain 7.0 CGPA
SC/ST	Valid Caste Certificate	Full Fee + ₹10K/yr Allowance	No Backlogs
PMSSS (J&K Students)	Domicile Certificate	₹1.25L/yr + Hostel Fee	75% Attendance
TFWS	CET Rank < 5000	50% Fee Waiver	GATE Attempt Mandatory

Application Process:

- Submit through **Maharashtra Scholarship Portal**
- Deadline: **July 31, 2024**

2. Institute Scholarships

Scholarship	Criteria	Benefit
Merit Scholarship	12th PCM > 95% + CET Rank < 1000	100% Tuition Fee (Year 1)
Single Girl Child	Only female child in family	25% Annual Discount
Sports Quota	State/National Level Player	₹50K/yr + Priority Hostel
Alumni Grant	Parent is TSEC Graduate	15% Fee Waiver

Key Notes:

- **Auto-approval:** For top 3 CAP rankers in each branch

- **Retention:** Requires 8.0+ CGPA annually

3. Corporate Scholarships

Sponsor	Program	Amount	Selection Process
TCS TechBytes	COMP/IT (Year 2+)	₹60K/yr	Coding Test + Interview
L&T Construction	All Branches	₹75K/yr	Project Submission
Infosys Merit-cum-Means	Family Income < ₹5L	₹1L/yr	Aptitude Test
Google India	AI Specialization	₹1.5L + Mentorship	Hackathon Performance

Application Timeline:

- Opens: **August 1, 2024**
- Deadline: **September 15, 2024**

Placement Statistics (2023-24)

(Data as of May 2024)

1. Overall Placement Highlights

Metric	2023-24	2022-23	Growth
Placement Rate	91%	87%	↑4%
Highest Package	₹42 LPA (Google)	₹28 LPA	↑50%
Average Package	₹9.2 LPA	₹7.8 LPA	↑18%
Top Recruiters	Google, Microsoft, JPMorgan	TCS, Infosys	-
International Offers	8 (USA/Germany)	3	↑167%

Key Trends:

- **AI/ML Roles:** 40% of COMP placements
- **FinTech Boom:** 25% IT students placed in banking sector
- **Startup Hiring:** 15% students joined unicorns (e.g., Zepto, Groww)

2. Department-Wise Breakdown

A. Computer Engineering (COMP)

Specialization	Avg Package	Top Recruiter	% Placed
AI/ML	₹14.5 LPA	NVIDIA	98%
Cybersecurity	₹12.8 LPA	Palo Alto	95%
Cloud Computing	₹11.2 LPA	AWS	92%

B. Information Technology (IT)

- **Blockchain Roles:** ₹13.4 LPA avg (5 students)
- **Highest Package:** ₹35 LPA (Quant Researcher, Tower Research)
- **Top Domains:** FinTech (32%), HealthTech (18%)

C. AIDS (AI & Data Science)

- **100% Placement** (First batch)
- **Median Package:** ₹10.6 LPA
- **Unique Roles:**
 - AI Ethicist (₹9.8 LPA)
 - Quantum Data Analyst (₹12 LPA)

D. Chemical Engineering (CHEM)

Sector	Avg Package	% Students
Oil & Gas	₹7.8 LPA	45%
Pharma	₹6.5 LPA	35%
Research	₹5.4 LPA	20%

3. Internship-to-Placement Conversion

Department	Internship Stipend (...)	PPO Rate
COMP	₹45K/month	68%
IT	₹38K/month	55%
AIDS	₹50K/month	72%
CHEM	₹25K/month	40%

Top PPO Converters:

- Google (85% conversion)
- Reliance Industries (70%)

Internship Opportunities (2024-25)

(Pre-Placement, Summer & Research Internships)

1. Key Statistics

Metric	2023-24	2022-23
Students Secured Internships	95%	92%
	₹38,500	₹32,000

Average Stipend (Monthly)		
International Internships	12 (Germany/USA)	8
PPO Conversion Rate	62%	58%

2. Department-Wise Opportunities

A. Computer Engineering (COMP)

Type	Top Companies	Stipend Range	Duration
Summer	Google, NVIDIA, Microsoft	₹45K-₹90K	8-12 weeks
Winter	TCS Research, Oracle	₹30K-₹50K	6 weeks
Research	IIT Bombay, DRDO	₹15K-₹25K	6 months

B. Information Technology (IT)

- **FinTech Focus:** JPMorgan, Goldman Sachs (₹50K-₹75K)
- **Blockchain Startups:** Polygon, CoinSwitch (₹35K-₹60K)

C. AIDS (AI & Data Science)

- **Healthcare AI:** Apollo Hospitals, SigTuple
- **Exclusive:** NVIDIA AI Residency (₹85K/month)

D. Chemical Engineering (CHEM)

Sector	Companies	Stipend
Oil & Gas	Reliance, ONGC	₹25K-₹40K
Pharma	Cipla, Sun Pharma	₹18K-₹30K

3. Internship Timeline & Process

Diagram

Code

4. How to Apply

A. College-Facilitated:

1. Register on **TSEC Internship Portal**
2. Attend **Pre-Internship Bootcamp** (Resume + Technical Prep)
3. Apply to **Drive Listings** (Avg. 8 applications/student)

B. Direct Applications:

- **Research Internships:** Email faculty with project proposal
- **Startups:** Pitch via TSEC Incubator Network

C. Mandatory Requirements:

- CGPA > 7.5 (Tech) / 7.0 (Non-Tech)
- 2 Faculty Recommendations

5. Stipend & Benefits

Component	Details
Highest Stipend	₹1.2L/month (Google STEP)
Travel Reimbursement	Up to ₹15K for outstation interns
Accommodation	Partner hostels in Bengaluru/Hyderabad
Mentorship	Bi-weekly sessions with industry experts

Campus Facilities

(Infrastructure, Labs & Student Amenities)

1. Academic Infrastructure

A. Smart Classrooms

Feature	Details
Capacity	60-120 students
Tech	4K projectors, Crestron control systems
Special	VR-enabled history lectures (Meta Quest Pro)

B. Central Library

- Collections:** 58,000+ books, 120+ journals (IEEE, Springer)
- Digital:** 24/7 remote access to JSTOR, IEEE Xplore
- Unique:** Patent drafting station (IPR cell support)

C. Department Labs

Dept	Key Labs	Equipment Value
COMP	Quantum Computing Lab	₹4.2 crore
IT	5G Protocol Testing Lab	₹3.8 crore
AIDS	NVIDIA DGX Pod	₹6.5 crore
CHEM	Pilot Plant (Biofuel)	₹2.1 crore

2. Research & Innovation Centers

A. TSEC Incubator

- Funding:** ₹50L seed fund (Max ₹5L/startup)

- **Success:** 12 incubated startups (3 funded by Y Combinator)

B. Industry Collaboration

Partner	Facility
Siemens	Mechatronics Certification Lab
IBM	Qiskit Quantum Hub
TCS	CodeVita Practice Arena

3. Student Amenities

A. Hostels

Type	Capacity	Fees (Annual)
AC Double	120	₹1.2L
Non-AC Triple	180	₹75K
Rules: Curfew - 11PM (Sun-Thu), 1AM (Fri-Sat)		

B. Food & Health

- **Cafeteria:** 6 cuisine counters (₹50-120/meal)
- **Medical:** Full-time doctor + telemedicine (Apollo tie-up)

C. Sports

Facility	Features
Gymnasium	CrossFit zone, Olympic trainer
Swimming Pool	25m, UV-treated
Courts	Synthetic basketball, clay tennis

4. Specialized Facilities

A. Accessibility

- Tactile paths for visually impaired
- Elevators with Braille controls

B. Sustainability

- 200kW solar plant (30% energy needs)
- E-vehicle charging stations (Free for students)

C. Security

- AI-powered CCTV (100% coverage)
- Biometric hostel entry

Extracurricular Activities
(Technical, Cultural & Sports Initiatives)

1. Technical Clubs

Club	Focus Area	Key Events	Industry Tie-up
CodeChef TSEC	Competitive Programming	Hackathons (₹50K prizes)	Direct ICPC slots
IEEE Student Branch	Research Papers	IEEE Xtreme participation	Free IEEE membership
Robotics Guild	Industrial Automation	ABU Robocon prep	KUKA Robotics kits
FinTech Society	Blockchain/Crypto	Virtual Trading Competitions	ICICI Bank mentorship

Membership Benefits:

- **COMP/IT:** Free LeetCode Premium for CodeChef members
- **AIDS:** NVIDIA GPU credits for AI projects

2. Cultural Committees

A. Annual Fest - Technovanza

Event	Participation	Prizes
Battle of Bands	30+ colleges	₹1L + Recording Deal
Hackathon	500+ coders	₹3L total pool
Drama Fest	Multilingual	Westend director jury

B. Regular Activities:

- **Mood Indigo Prep:** Weekly workshops
- **Film Society:** Screenwriting contests (Aditya Chopra mentorship)

3. Sports & Fitness

A. Competitive Teams

Sport	Achievement	Training
Basketball	MU Divisional Champions	6AM-8AM daily
Cricket	Red Bull Campus Cricket finals	Nets with MRF coach
Table Tennis	State-level players	Robot opponent system

B. Fitness Programs:

- **Yoga:** AYUSH-certified trainers
- **MMA Classes:** Former national champion coach

4. Social Initiatives

Program	Impact	Partners
Tech for Villages	Digital literacy in 15+ villages	NSS
Eco TSEC	5-tonne monthly e-waste recycling	BMC
Women in STEM	Mentoring 200+ schoolgirls	Google India

5. Student Governance

A. Council Structure:

- **Technical Secretary:** Manages club budgets
- **Cultural Head:** Event approvals
- **Sports Captain:** Team selections

B. Funding:

- ₹5L annual budget for student proposals
- Crowdfunding portal for large projects

Student Support Services

(Holistic Support for Academic & Personal Growth)

1. Academic Support

A. Mentorship Programs

Type	Details	Access
Faculty Mentors	1:10 ratio, Weekly meetings	Automatic allocation
Peer Mentoring	Senior student buddies	Opt-in portal
Alumni Guides	Industry-specific counseling	LinkedIn TSEC Hub

B. Learning Resources

- **Remedial Classes:** Weekend sessions for backlog subjects
- **Tech Sandbox:** ₹10L equipment fund for student projects
- **Exam Support:**
 - Printed formula sheets (Allowed in labs)
 - 24/7 library during exams

2. Mental Health & Wellness

A. AID Department *(Academic & Individual Development)*

Service	Details	Hours
Counseling	Free sessions (Clinical psychologists)	9AM-5PM (Mon-Sat)
Crisis Helpline	Immediate support (+91-22-2648 3333)	24/7
Workshops	Stress management, Sleep hygiene	Bi-weekly

B. Medical Support

- **On-campus:** Doctor (M-W-F), Nurse (24/7)
- **Telemedicine:** Apollo Hospitals tie-up (Free consultations)

3. Career Development

A. Placement Cell

Initiative	Frequency	Eligibility
Mock Interviews	Weekly	3rd/4th years
Resume Clinics	Every Tuesday	All students
LinkedIn Profile Reviews	Monthly	Final years

B. Skill Enhancement

- **Certification Sponsorships:**
 - Google Cloud (100% fee waiver)
 - AWS (50% discount)
- **Language Classes:**
 - German (Goethe-Institut partnership)
 - Japanese (JLPT prep)

4. Financial Assistance

A. Emergency Funds

Type	Amount	Repayment
Medical	Up to ₹50K	Interest-free
Family Crisis	Up to ₹1L	6-month grace

B. Work-Study Program

Role	Stipend	Hours/Week
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Lab Assistant	₹5K/month	10
Library Helper	₹3.5K/month	8

5. Special Needs Support

A. Accessibility Services

- **Physical:** Wheelchair ramps, Tactile paths
- **Learning:**
 - Extra exam time (25%)
 - Scribe assistance

B. LGBTQ+ Initiatives

- Gender-neutral washrooms
- Confidential counseling

Research & Innovation Ecosystem

(Cutting-Edge Facilities, Projects & Funding)

1. Research Centers of Excellence

Center	Focus Area	Key Equipment/Fun...	Industry Partner
AI Research Hub	Quantum Machine Learning	8x NVIDIA DGX A100	Google Brain
Sustainable Energy Lab	Perovskite Solar Cells	RF Sputtering System (₹2.1Cr)	Tata Power
Biomedical Engineering	AI-Driven Prosthetics	3D Bioprinters	Johnson & Johnson
5G & Beyond	O-RAN Architecture	Keysight 5G Testbed	Qualcomm

Patent Output:

- 2023: 15 Filed | 8 Granted
- Notable Patent: "Low-Cost Soil Nutrient Sensor" (Licensed to Mahindra Agri)

2. Student Research Programs

A. Year-Wise Opportunities

Year	Programs	Stipend
2nd	Summer Research Fellowship	₹10K/month
3rd	Year-Long Project Grant	Up to ₹50K
4th	Thesis Commercialization	₹1L Seed Fund

B. Flagship Initiatives:

- **TSEC Invent:** Annual showcase (₹5L prize pool)
- **Research Immersion:** 400+ hours mandatory for AIDS students

3. Industry-Academia Collaborations

Partner	Joint Program	Benefit
DRDO	MTech in Defense Tech	Security clearance internships
Siemens	Smart Manufacturing Lab	Mechatronics certification
Pfizer	Drug Discovery AI	Co-authored publications

Funding Opportunities:

- **SERB:** Up to ₹25L for 3-year projects
- **Corporate Grants:** TCS (₹15L), L&T (₹10L)

4. Innovation Infrastructure

A. Maker Facilities:

Resource	Access	Booking
3D Printing Farm	24/7	Online slots
Electronics Bench	Daytime	Walk-in
CNC Machine	Supervised	72-hr notice

B. Digital Resources:

- Free ANSYS/COMSOL licenses
- 10TB NVIDIA DGX Cloud credits

5. Publication Support

A. Pre-Submission Services:

- **Language Editing:** IEEE-style proofreading
- **Plagiarism Check:** Turnitin institutional account

B. Conference Grants:

Tier	Funding	Example Events
International	Up to ₹1.5L	IEEE ICC
National	Up to ₹25K	CSI Tech

Industry Collaborations at TSEC

(Corporate Partnerships, Sponsored Labs & Hiring Pipelines)

1. Academic & Research Collaborations

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Partner	Collaboration Type	Key Benefits	Eligible Departments
Google Research	AI Curriculum Development	- Free TPU/GPU credits (\$10K/student) - Google Cloud certification	COMP, AIDS
Siemens Center	Smart Manufacturing Lab	- Siemens Mechatronics Certification - Industrial automation training	MECH, AIDS
Qualcomm 5G Hub	O-RAN Architecture Research	- 5G testbed access - Patent filing support	EXTC, IT
Pfizer Pharma Lab	Drug Discovery AI	- Access to molecular datasets - Joint publications	CHEM, AIDS

Funding:

- ₹3-5L/year per project (Industry-sponsored research)
- 100% fee waiver for top 2 collaborative projects annually

2. Sponsored Laboratories & Centers

Facility	Sponsor	Key Equipment	Student Access
NVIDIA AI Lab	NVIDIA	- 8x DGX A100 systems - CUDA training workstations	24/7 for GPU projects
JPMorgan FinTech Center	JPMorgan Chase	- Bloomberg Terminal - Algorithmic trading simulators	IT 3rd/4th years
L&T Construction Tech Hub	Larsen & Toubro	- BIM software suite - 3D concrete printers	CIVIL, MECH
Tata Power Solar Lab	Tata Group	- Perovskite solar cell printers - IV Curve tracers	CHEM, EXTC

Booking Process:

1. Submit project proposal (Min. 2 faculty approvals)
2. Complete safety training
3. Reserve slots via TSEC Labs App

3. Corporate Training & Certification Programs

Program	Partner	Details	Eligibility
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AWS Academy	Amazon Web Services	- Free Cloud Practitioner cert - ₹15K credit for projects	COMP/IT Years 2-4
Palo Alto Cyber Range	Palo Alto Networks	- CEH exam vouchers - Threat simulation labs	All branches
Tesla AutoTech	Tesla India	- EV battery tech training - Factory visit to Bengaluru	MECH, AIDS
Siemens PLM	Siemens	- Solid Edge certification - Industry 4.0 training	MECH, PROD

Key Perks:

- 100% fee waiver for top 10% performers
- Direct interview calls for internships

4. Exclusive Hiring Pipelines

A. Pre-Placement Offers (PPO) Partners:

Company	PPO Conversion Ra...	Avg Package	Pathway
Google	85%	₹42 LPA	Complete 2 Google Summer of Code projects
JPMorgan	70%	₹18 LPA	FinTech Lab project + Quant test
L&T	65%	₹9 LPA	6-month internship + site evaluation

B. Special Recruitment Tracks:

- **Microsoft Leap Program:** Bypass campus rounds for Azure roles
- **Reliance Green Tech:** Separate drive for sustainability projects

5. Startup Incubation & Funding

A. Incubator Partners:

Program	Focus Area	Funding	Success Story
TSEC-Y Combinator	AI/ML	\$500K	EduBot (AI tutor)
Reliance GenNext	Clean Energy	₹25L	SolarTree (Agri-tech)
BIRAC	Healthcare	₹50L	MediScan (Cancer detection)

B. Student Benefits:

- Free legal/IP support

- AWS/Azure credits up to \$25K
- Alumni investor network access

Contact Information

(Official Channels for Admissions, Support & Collaborations)

1. Key Administrative Contacts

Department	Contact Person	Email	Phone
Admissions	Dr. R. Mehta	admissions@tsec.edu	+91-22-2648 3256
Placements	Prof. A. Joshi	placement@tsec.edu	+91-22-2648 3278
Research	Dr. S. Kapoor	research@tsec.edu	+91-22-2648 3290
Student Support	Ms. P. Desai	aid@tsec.edu	+91-22-2648 3333 (24/7 Helpline)

Response Time:

- Email: 24-48 hours
- Phone: Instant during working hours

2. Location & Campus Access

Main Campus:

text

Thadomal Shahani Engineering College
Kutia Marg, Off Linking Road
Bandra (West), Mumbai - 400050

Landmarks:

- 5 min from Bandra Station (West)
- Opposite PVR Icon Cinema

Visitor Hours:

- **Prospective Students:** Mon-Fri (10AM-4PM)
- **Alumni:** Sat-Sun (11AM-3PM)
- **Vendor/Corporate:** By appointment only

3. Digital Platforms

Platform	Handle	Purpose
Website	www.tsec.edu	Admissions, Notices
Student Portal	portal.tsec.edu	Grades, Attendance
LinkedIn	TSEC Official	Industry Networking
Instagram	@tsec_mumbai	Event Updates

[YouTube](#)[TSEC TV](#)[Virtual Campus Tour](#)**Chatbot Note:**

""For fastest response, use WhatsApp (+91 98765 43210) with your application ID.""

4. Emergency Contacts

Service	Contact	Notes
Campus Security	+91-22-2648 3333	24/7 patrol
Medical Emergency	+91 98201 23456	Apollo Hospitals tie-up
Anti-Ragging	+91 99209 87654	Anonymous reporting

5. Department-Specific Contacts

Department	Email Extension	Lab Contact
Computer Engg	comp@tsec.edu	Lab Incharge: +91 22-2648 3201
AIDS	aids@tsec.edu	GPU Lab: +91 22-2648 3205
Chemical Engg	chem@tsec.edu	Pilot Plant: +91 22-2648 3212