# SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY SURAT



#### **ADMISSION INFORMATION BROCHURE**

**MASTER OF TECHNOLOGY (Research)** 

**ACADEMIC SESSION 2024-25** 

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#### M. TECH. (Research) PROGRAMME

#### 1. Important Instructions:

- (a) The application should be submitted only in **ONLINE mode**.
- (b) Candidates must submit the application fee, (Non- refundable) of Rs.500/- (for Open/EWS/OBC) and Rs.250/- (SC/ST/PWD) in ONLINE mode. Also upload the required certificates/documents as envisaged in the Information Brochure at the time of application. The original documents are to be shown at the time of counselling/reporting for interview. In the absence of these documents, candidates will not be interviewed.
- (c) Applications will be processed twice in a year, i.e. Spring Semester (January) and Autumn Semester (July). The schedule for interviews of applicants will be notified separately on institute website in the month of October/November and May/June every year.

#### 2. About the Institute

Sardar Vallabhbhai National Institute of Technology was established in 1961 as one of the RECs for imparting technical education in Civil, Mechanical and Electrical Engineering. In the year 1983-84 the Under Graduate programmes in Electronics Engineering were introduced and in the year 1988-89 the UG programmes in Computer Engineering and Production Engineering were started. In the year 1995-96, UG programme in Chemical Engineering was introduced.

The institute, at present, offers seven UG programmes, twenty-one PG programmes and 5 -Year Integrated M.Sc. Programs in Chemistry, Mathematics, and Physics, along with a full-time/part time Ph.D. Programs in all the disciplines of Engineering, Science, Management, and English. Apart from that, M.Tech. (Research) programs are offered to practicing engineers and working professional in companies or laboratories of national repute. Also, the institute has recently introduced a UG programme in Artificial Intelligence (AI) with an aim to strengthen education and research in the field of Artificial Intelligence, Machine Learning, Social Science, Natural Language Processing, Soft Computing, Computer Vision and allied areas.

In exercise of the powers conferred by section 3 of the University Grants Commission (UGC) Act, 1956, the Central Government on the advice of the University Grants Commission, has declared the Sardar Vallabhbhai Regional College of Engineering & Technology (SVREC), Surat to Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat with status of "Deemed University" with effect from 4th December 2002. Institute is one of the prestigious NITs amongst the 31 institutions in the category of NITs of the country that have been declared as Institutes of National

Importance by the Act of Parliament in 2007. SVNIT Surat currently holds 65th rank as per the National Institutional Ranking Framework (NIRF).

#### 3. About the M Tech. (Research)

The M Tech. (Research) Programmes along with the Full-time M Tech courses (GATE Score, Non-GATE, and Sponsored) are being offered in the following different departments of the Institute.

#### **Department of Chemical Engineering**

(i) Chemical Engineering

#### **Department of Civil Engineering**

- (ii) Geotechnical Engineering
- (iii) Structural Engineering
- (iv) Environmental Engineering
- (v) Urban Planning
- (vi) Transportation Engineering and Planning
- (vii) Water Resource Engineering
- (viii) Construction Technology and Management

#### **Department of Computer Science & Engineering**

- (ix) Computer Science & Engineering
- (x) Information Security and Privacy
- (xi) Data Science

#### Department of Electrical Engineering

- (xii) Power Electronics and Electrical Drives
- (xiii) Power System
- (xiv) Control and Automation

#### **Department of Electronics Engineering**

- (xv) Communication Systems
- (xvi) VLSI and Embedded System

#### **Department of Mechanical Engineering**

- (xvii) CAD/CAM
- (xviii) Mechanical Engineering
- (xix) Thermal Systems Design
- (xx) Turbomachines
- (xxi) Manufacturing Engineering

#### 4. Infrastructure and Facilities

**Hostel**: Sardar Vallabhbhai National Institute of Technology (SVNIT) Surat is residential institute and Hostel section of the institute is established to deal with all the matters related to accommodation, food and general wellbeing of the students. Presently, the Institute Campus has 09 hostels which include 07 boys' hostels and 02

girls' hostels. The activities of hostels are managed by the Council of Wardens (CoW) and Hostel Management Committees (HMC) of the students. Council of Warden includes the Chief Warden and Wardens of the hostels with Co-Chairman as the Associate Dean (Students Welfare) and Chairman as Dean (Students Welfare). All the hostels are equipped with basic facilities like furniture, Wi-Fi/LAN enabled internet, Mess, and recreational facilities like fully equipped sports facilities, music rooms, magazine rooms and television rooms. Most hostel-level meetings take place in common rooms.

All on-roll students are covered under the Medical Insurance scheme for inpatient treatment. The insurance covers hospitalization expenses of up to Rs. 50, 000/-. Students get cover from Day One with cashless hospitalization facilities in-network hospitals of Insurance companies.

Computing, Internet and Intranet: The Central Computer Centre (CCC) primarily caters to the Internet Access requirements throughout the institute and Campus-wide network connectivity throughout the campus, including academic & administration departments, hostels, staff quarters, guest house etc. User Account and Bandwidth are managed with the help firewall. The institute is the participant of MoE, Government of India NMEICT/NKN project through which connectivity of 1 Gbps is functioning. The internet access to the institute is also available from various vendors, who provides 250 Mbps internet bandwidth each amounting to a total of 1.25 Gbps. Thus, total bandwidth of the Institute is amounting to a total of 2.25 Gbps. The Central Computer Centre has Blade Server with 14 TB of Storage space and 6 Blades on which variety of different purpose servers like WEB Server, DNS, NIS Server, FTP Server, DHCP Server, etc. are hosted. Most of the dialects of the operating systems, authorized copies of almost all the common shrink-wrapped software and various Engineering application software's are housed in the laboratories. Superb computing facilities and the abundance of all types of latest software's are added to the glamour and grandeur of this centre.

**Sports/Indoor Games and Gym**: Student Activities Center (SAC) of the institute organizes and manages sports, co-curricular and extracurricular activities of students and staffs. It has adequate sport facilities like Badminton courts with standard size of synthetic flooring, proper light and ventilation, two International standard synthetic Tennis courts with class-3 flood lights and modern seating arrangement for the spectators, two Volleyball grounds with standard quality grounds with flood lights, two Basketball courts facility with standard size of concrete flooring, proper light, Pool Table, Table Tennis and football ground. In addition to above, the institute has a Gymnasium Hall equipped with varieties of equipment's i.e more than 15 stations for specific body part exercise. Further, the SAC provides coaching camps for various games like Athletics, Badminton, Basketball, Cricket, Football, Handball, Kho-Kho, Kabaddi, Swimming and Yoga etc.

Career Development Cell (CDC) Institute has full-fledged Training & Placement Section (T&P) under the Professor In-charge Training & Placemat. It helps the student's community to get the proper placement in various public and private sector organizations by arranging the campus interviews. The placement of final year students starts at the beginning of the academic year. Further, to strengthen the Industry-Institute interaction, CDC section encourages the companies for an internship to B. Tech. 3<sup>rd</sup> year students (maximum 8 weeks in summer vacation) and to M. Tech. students (maximum 1 year) in their 2<sup>nd</sup> year as a dissertation work. Please visit: https://www.svnit.ac.in/web/t&p/about.php

Industry And Alumni Relations: The institute is having its alumni association, which takes an active interest in the growth of the institute. The institute has signed several MoUs with industries such as Reliance, L&T, Essar, Altair, Patni and various Technical Institutions and, Universities in India and abroad. The SVNIT Surat is having wide network of its alumni across the globe. The alumni of the institute are placed at the high rank in the government, semi-government and private institutions serving the country whole heartedly. The networking of students with alumni be carried out through the office of Dean (Alumni and Resources Generation) and office SVNIT Surat Alumni Association situated within the campus of the institute. The networking of the SVNIT Surat Alumni is through Alma Connect. The alumni of institute support the various academic, research, sports and placement activities of the institute apart from financially helping the needy students. The alumni association organizes the annual convention of alumni of institute every year which is one of the most awaited events.

Recreational/Extra Curricular activities: Apart from academics, the institute takes due care of the overall development of students through extracurricular activities like "KASHISH" the welcome program for first-year students. A three-day cultural event "SPARSH" is one of the most cherished activities of the students. A technical event like "MINDBEND" along with activities of various student chapters/clubs such as Association for Computing Machinery (ACM), Centre Humanity Resource Development (CHRD), Chemical Engineering Society (CHES), Civil Engineering Society (CES), Cutting Edge Visionaries (CEV), DRISHTI, Electrical Engineering Society (EES), Indian Institute of Welding (IIW), Indian Institution of Industrial Engineering (IIIE), Indian Society for Technical Education Society (ISTE), Institute of Electrical and Electronics Engineers (IEEE), Institution of Engineers (IE), Literary Affairs Committee (LAC), NIRVANA- a programme of social engineering, RENESA, Society for Cultivation of Science & Humanities (SCOSH), Society of Automotive Engineers (SAE), SPIC-MACAY (Society for the Promotion of Indian Classical Music And Culture Amongst Youth), The Institution of Electronics & Telecommunication Engineers (IETE) etc. are organized throughout a year to keep a student involved in co-curricular activities.

Central library: The institute has a library of world-class standards with an area of 17070 square meters. It contains 97810 print books, 23 print Journals, 11265 e-books, 4035 e-journals, and 5455 e-journals through eSS consortia. The library maintains various Databases and Standards (Online) like IEEE/IET Electronic Library, McGraw Hill Access Engineering Online Database, ASME Standards (Except BPVC), Indian Standards, International Electro-Technical Commission (IEC) Standards, ASTM Standards, American Welding Society Standards, etc. The institute subscribes to several research support tools, including Turnitin (plagiarism detection online software), Grammarly Premium, SCOPUS Database, SciFinder-n, and Web of Science Lease Access. Central Library also subscribes to the GATE preparation platform for all Engineering disciplines. The Central Library is a member of e-Sodh Sindhu: Consortia for Higher Education E-Resources. The library is also a member of the Developing Library Network (DELNET), New Delhi.

**Health Centre:** The Health Centre of SVNIT is established to ensure adequate & qualitative healthcare facilities for all the students, faculties, and staff with their family members at SVNIT. The Health Centre is managed by full-time residential doctor and Medical Officers on a contractual basis. Five (5) Hon. Visiting Medical Consultants, namely Physician, Gynecologist, Radiologist, Ayurveda, and Homeopathy specialists, provide medical services at the extension of the Health Centre at CAD Lab Building and the adolescent Health Clinic in Mother Terasa Bhavan (Girls Hostel). 108 ambulance services are available for the campus residents and are provided at the designated appropriate place on campus.

Location and Accessibility Surat is one of the central nodes on the Bombay-Delhi (National Highway 8) and is connected to the country by Road, Rail, and Air. SVNIT, Surat is located in the city's prime area, locally known as Ichchhanath, at about 10 KMs from the Surat Railway Station. It is on the way to a small seaside resort known as Dumas, from the railway station. The city buses regularly operate from early morning till midnight, between Surat Railway Station and College Campus/Piplod. Other than the city bus, auto-rickshaws (more commonly) or taxis are also available. Surat also has International Airport at Magdalla-*Dumas Road*, approximately 10 KM from the institute campus. The operating airlines connect Surat to Chennai, Bangalore, Bhubaneswar, Delhi, Hyderabad, Goa, Kolkata, Jaipur, Mumbai, and Patna with return flights regularly flies from these locations.

## 5. Admission and Eligibility Criteria for M. Tech. (Research) Programmes \*\*

- (i) A candidate should possess B. E./B. Tech. degree in relevant branch and should have passed with 55% aggregate marks of all 8 Semesters (CGPA-6.0). The candidates should bring valid identity proof at the time of interview.
- (ii) The candidates should have minimum working experience of **Two years** after graduation in a registered firm / company / industry / educational or

- research institute / any government department or government autonomous organizations. However, Institute research project staff should have minimum One years of Experience after graduation.
- (iii) Selection will be based on oral presentation on the proposed area of research in front of a committee duly constituted by DAAC. The chosen supervisor should either be part of interview committee or be invitee member.
- (iv) The candidates for M Tech. (Research) can be
  - (a) Candidates employed by Government / Semi-Government organizations.
  - (b) Sponsored candidates.
  - (c) Institute Staff and Project Staff of the Institute.
  - (d) Faculty, Staff and Project Staff of the other Institute approved by AICTE /UGC.
  - (e) External candidates from any private / public sector organization or research laboratory / organization.

#### Notes:

- (a) There will be no financial support from SVNIT, Surat.
- (b) Faculty/Staff, Project Staff of this or other institute are expected to work for their M. Tech. (Research) Programme while fulfilling their normal duties.
- (c) External candidates are allowed to carry out their Research work at the Institute or at their parent organization after fulfilling certain pre-requisites at the Institute.
- (v) The candidate must enclose self-attested copies of the following documents/certificates. Same must be produced in original at the time of interview/physical documents verification.
  - (a) Appointment letter issued by the current employer.
  - (b) Experience certificate duly signed by competent authority on the letter head of the Company/Organization/Institute.
  - (c) Salary certificates/slips of last 12 months.
  - (d) Income-Tax return or Form-16 of last financial year, and
  - (e) All other documents like Date of Birth and Identity Proofs, all semester marksheets, Degree certificates, sponsorship or no objection certificate.

#### Note:

- a) Sponsorship Certificate Should be from the same organization who has issued the Appointment letter, Experience certificate and Salary slip.
- b) Salary Slip, Experience Certificate of one year must be from same (single) organization.

- (vi) The candidates would be required to deposit the fee within prescribed time in account section of the institute after their selection through interview process. The details of fee is enclosed at APPENDIX "A"
- (vii) The candidates must submit "NO OBJECTION CERTIFICATE" from their employers for taking up their M Tech (Research) work at this institute as per format enclosed at APPENDIX "B" along with the application form. In case the candidates are not able to submit "NO OBJECTION CERTIFICATE" from their employer with the application form, they must submit a certificate as per enclosed format APPENDIX "B1" (candidates employed with Govt. of Gujarat, please refer APPENDIX "B2") from their Head of the Institution. The applications without such certificates will not be considered for further process of admission.

#### 6. M. Tech. (Research) Course Structure

The complete M. Tech. (Research) programme will be of 2.5 years (five semesters) and maximum duration of programme completion is 4 years, provided the fees are paid for each extended year(s). The maximum or minimum period will be counted from the date of registration to the date of submission of dissertation. The candidate has to pay the requisite fee for each extended semester.

All the students are required to register and earn credits as described below. Total 60 credits are required to be earned for M. Tech. (Research) programme.

Credits will be assigned to the M. Tech (Research) programme as follows:

- (a) Semester I: Four theory courses each of 4 credits, One credit seminar of 4 credits (MR 610)
- (b) Semester II: Research Progress Seminar I (MR 620) of 4 credits

#### Note:

- (i) Minimum 8 credits are to be earned in First Semester as well as in Second Semester with above subject combinations. The minimum CGPA for Course Work and Seminar is 6.0 to be eligible to continue the M. Tech. (Research) programme and thereafter the confirmation of registration shall be done.
- (ii) Courses I IV are Theory courses, to be opted from regular M. Tech. programmes. The students have to attend regular class along with M. Tech. (Full Time) students. These courses will have written mid and end semester examinations as per the rules for M. Tech. (Full Time) programmes.

<sup>\*\*</sup> Detail guidelines for M Tech (Research) are available on institute web site <a href="https://www.svnit.ac.in/Data/Notice/2023/October/Academic%20Regulation-2023-24.pdf">https://www.svnit.ac.in/Data/Notice/2023/October/Academic%20Regulation-2023-24.pdf</a>

- (iii) The student will submit two copies of credit/Research Progress seminar report to the supervisor(s). The student shall make oral presentation on his/her seminar topic as per time schedule decided by the supervisor(s) in front of a panel of examiner, namely, research progress committee (RPC), consisting of (a) supervisor(s) (b) one examiner recommended by the supervisor(s), and (c) one examiner to be appointed by the Chairperson, DAAC.
- (c) Semester III: Research Progress Seminar II (MR 810) of 8 credits
- (d) Semester IV: Research Progress Seminar III (MR 820) of 8 Credits

#### Note:

- (i) Research Progress Seminar will have one evaluation at the end semester before registration of next semester.
- (ii) The examinations of Research Progress Seminar will be taken by a research progress committee as mentioned above.
- (e) Semester V: Dissertation (MR 830) of 20 credits

#### 6. M. Tech. (Research) Registration

- 1. Every student is required to register for a seminar and the approved theory courses in respective department at the commencement of 1st semester after consulting the supervisor as notified in the Academic Calendar. Moreover, the students will have to register for each subsequent semester till submission of the dissertation.
- 2. The procedure for registration for M. Tech (Research) shall be as follows:
  - (a) The candidate shall obtain M. Tech (Research) Registration Forms and application form for registration from the Academic Section after payment of the prescribed fees.
  - (b) The entire M. Tech (Research) programme of the candidate shall be finalized by the respective department as per the course structure.
  - (c) The candidate shall fill in the registration form in consultation with the supervisor(s) and submit them to the respective Chairperson DAAC.
  - (d) The Chairperson, DAAC shall approve the M. Tech (Research) programmes of all candidates after due scrutiny.

#### 7. Application and Counselling Procedure

- (i) The applicants for M. Tech. (Research) are required to apply by downloading the application form (enclosed at APPENDIX "C") from institute website with requisite fee.
- (ii) M. Tech. (Research) candidates are required *to report to the respective departments* for written test followed by interview on the date of counselling as per time schedule to be displayed by the departments.

- (iii) The candidates are required to attach and bring all the certificates related to educational qualification, experience, birth and sponsorship certificates. In absence of these certificates, it will not possible to conduct the counselling/interview of the candidate. The desired certificates are to be brought strictly in the format described in relevant appendices of the information brochure.
- (iv) The candidates have to submit an Application and processing Fee (Non- refundable) of Rs.500/- (for Open/EWS/OBC) and Rs.250/- (SC/ST/PWD) with the application. The fee has to be submitted in the form of crossed Demand Draft in favour of "Director, SVNIT MHRD Fund" payable at Surat.

#### **APPENDIX-A**

### TENTATIVE FEE STRUCTURE OF M TECH. (RESEARCH) FOR THE ACADEMIC YEAR 2024-25 (ALL BRANCHES)

Sr. No.	Particular	1 <sup>st</sup> Sem.	2 <sup>nd</sup> Sem.	3 <sup>rd</sup> Sem.	4 <sup>th</sup> Sem.	5 <sup>th</sup> Sem.
1	Tuition Fee	35000	35000	35000	35000	35000
2	Other Fees (Inclusive of Exam. Lib., Mediclaim etc.)	7500	7500	7500	7500	7500
3	Admission Fee	3000				
4	Degree Fee					2500
5	Alumni Fee					2000
6	Institute Development Contribution (IDC)	15000				
7	Security Deposit (Refundable)	5000				
8	Seat Rent (Multiple Occupancy) #	6000		6000		6000
	Total	71500	42500	48500	42500	53000

<sup>•</sup> The fee may be revised during the programme.

Note: The SC/ST/PH students are exempted from Tuition fees as per circular No. E/1982 dated 01/01/2020.

<sup>#</sup> If the student avails single occupancy in Hostel, additional payment of Rs. 4500/- will be included in the Hostel Fee Structure.

#### **APPENDIX - B**

#### (To be typed on letter Head of the Department/Organization)

	hbhai National Institute	of Technology,	
SURAT – 39	5 007.		
Sub.: No Obj	ection Certificate for M.	Tech. (Research) Progra	mme.
Dear Sir,			
We	hereby	permit	Shri/Kum/Smt
			who is ar
employee of	our Institute / Organizat	ion, to join M. Tech. (Re	esearch) Programme ir
Department o	of	Engineering, SVN	NIT, Surat.
period to atte		om duties of the Organi evant courses/examination	
	Name, S	Signature and seal of the	Sponsoring Authority
Date:			
Place:			

#### **APPENDIX - B1**

## Certificate to be issued by Parent Institute/Organization, and be enclosed with the application for M. Tech. (R) candidates

Mr./Ms	<u> </u>	is	а	full	time
employee and working as					_ in
De	partment of this Insti	tute/Organiz	zatio	n.	
He/She is interested in joining M	. Tech. (R) progra t of SVNIT Surat.	m in			
He/She will be issued No Objection prescribed format, if he/she is grante	•	•	utho	rity i	n the
	Name, Signature ar		•		
		(8	stamp	o and	Seal)
Date:					
Place:					

## Certificate to be issued by Parent Institute / Organization of Govt. of Gujarat and be enclosed with the application for M Tech (R) candidates

Date:				
Mr./Ms.		i	is a full Time employe	е
and working as	in	Depa	artment of this Institute	€.
He/she is interested in joir	ning M Tec	n (R) program	in Department of	-
Enginee	ering, SVNIT S	Surat.		
He/she will be issued No Object format, if he/she is granted additional confirmation of admission. In competent authority within the cancelled from SVNIT, Surat.	mission in SV case, the re	/NIT Surat, within	n one year after gettin e is not issued by th	g e
	Name	, Signature and s	seal of Principal/Directo (Stamp and Sea	
			(2.5)	-/
Date:				
Place:				