



Bharatiya Vidya Bhavan's

## **Sardar Patel Institute of Technology**

(Empowered Autonomous Institute Affiliated to University of Mumbai)  
Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India

### **Multidisciplinary Minor (MDM) Programs offered to undergraduate students**

In accordance with the directives from the Government of Maharashtra, Autonomous Colleges are encouraged to revise their curriculum to align with the provisions of the National Education Policy (NEP) 2020. As part of this transformative initiative, the 'Minor Program' has been introduced which strongly advocates for the integration of multidisciplinary learning at the undergraduate level. These minor programs are designed to equip students with interdisciplinary expertise in emerging domains, preparing them to meet the dynamic demands of the global job market while complementing their core academic disciplines.

At S.P.I.T., minor programs across various disciplines have been introduced to offer students the opportunity to explore areas beyond their primary B.Tech curriculum. These programs are designed to allow students from specific disciplines to broaden their expertise. For instance, students pursuing Electrical Engineering can earn a Minor in Computer Science, thereby gaining valuable interdisciplinary knowledge that enhances their academic and professional versatility.

**At present, we are offering 23 MDM courses for the 2024-2028 batch.**

### **Guidelines:**

#### **1. Common Rules:**

- 1.1. The entry point to any MDM program is in the 4<sup>th</sup> semester.
- 1.2. A student can opt for only one track /minor program from the given list of MDM courses.
- 1.3. A student must continue with the selected track consistently for all four semesters.
- 1.4. A student may request a change of track within one week of the allotment. Such requests shall be considered only upon review by the Institute MDM Coordinators and are subject to the approval of the Dean Academics. No change of track shall be permitted thereafter under any circumstances.

1.5 Following are the guidelines for students taking IIT/IIM minors:

- a) The courses should not be repeated.
- b) The courses must not belong to the same branch as your primary field of study.
- c) The courses should be a minimum of 14 credits.
- d) No fee reimbursement will be done by SPIT.
- e) Additionally, all such requests shall be considered only upon review by the Institute MDM Coordinators and are subject to the approval of the Dean Academics.

## **2. Allotment of MDM courses:**

2.1. Students must submit their MDM course preferences through the Google Form within the specified timeline. The form link and details will be shared via email.

2.2 Any failure to submit the form within the given deadline will result in a penalty being imposed.

2.3. Students should ensure that they provide their accurate CGPA in the Google form to prevent any discrepancies.

2.4. Course allotment will be based on first-year CGPA and indicated preferences. Each MDM course has a fixed seat limit; no additional allotments will be made once the cap is reached.

## **3. Attendance Policy:**

### **Attendance requirement for External Courses**

3.1. 100% Attendance is compulsory for all minor courses offered by external institutions or bodies outside SPIT.

3.2. Students must seek prior approval from the concerned faculty member before missing any lectures. Failure to comply with this requirement may lead to the cancellation of their admission to the course.

### **Attendance requirement for S.P.I.T. Courses**

3.3. The attendance requirements for minor courses offered by SPIT will follow the institute's academic norms.

## **4. Payment of Additional Fees**

4.1. Students must pay the fees for external paid courses within the prescribed deadline. S.P.I.T. courses will be funded by the institute.

4.2. Failure to make timely payment may result in penalties or the cancellation of course enrolment.

S.No.	MDM (No.)	Courses Code	Name of the courses	Offered to	Offered by (Organization)	Fees structure	Conducted Online/ Offline	Syllabus Link
1	<b>Industrial IoT (MDM-01)</b>	M011	Fundamental of Internet of Things	CE & CSE	SPIT	Free	Offline	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf</a>
		M012	Embedded "C" and Micro Python for IoT					
		M013	IOT Communication and Network Layer Protocols					
		M014	IoT Applications and Security					
2	<b>Signal Processing and Communication (MDM-02)</b>	M021	Digital Signal Processing	CE & CSE	SPIT	Free	Offline	<a href="https://drive.google.com/file/d/1Vw5ccGZTa0qb2QUnsFAAX61F1895XrZ1/view?usp=sharing">https://drive.google.com/file/d/1Vw5ccGZTa0qb2QUnsFAAX61F1895XrZ1/view?usp=sharing</a>
		M022	Principles of Communication & Systems					
		M023	Digital Image Processing					
		M024	Wireless Communication and Networks					
3	<b>VLSI (MDM-04)</b>	M041	Hardware Description Language Programming	CE & CSE	SPIT	Free	Offline	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf</a>
		M042	Digital CMOS VLSI Design					
		M043	VLSI Physical Design					
		M044	ASIC Verification					
4	<b>Computer Engineering (MDM-05)</b>	M051	Database Management Systems	EXTC	SPIT	Free	Offline	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf</a>
		M052	Data Structures and Algorithms					
		M053	Cloud Computing					
		M054	Internet and Web Technology + DevOps (Project)					
5	<b>Artificial Intelligence and Machine Learning (MDM-06)</b>	M061	Fundamentals of NNFL (NN, Fuzzy)	EXTC	SPIT	Free	Offline	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf</a>
		M062	Machine Learning					
		M063	Deep Learning					
		M064	Generative AI and application					
6	<b>AI ( For Non CS Students) (MDM-09)</b>	M091	Foundations in AI and ML	EXTC	Vizuara Technologies Pvt Ltd	INR 25000 (per course)	Online	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf</a>
		M092	Machine Learning and Deep Learning Mastery					
		M093	NLP and CV Mastery, Capstone Project					
		M094	Large Language Models Theory and Deployment, Capstone Project					
7	<b>Financial &amp; Strategic Management (MDM-11)</b>	M111	Economics and Strategic Management	All the Branches	Six Ladders	INR 25000 (per course)	Offline	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf</a>
		M112	Introduction to Financial Analysis					
		M113	Introduction to Finance					
		M114	Industry Project (FNSM)					
8	<b>UI/UX Design Programme (MDM-13)</b>	M131	Foundations of UI/UX Design	All the Branches	Pearl Academy Pvt. Ltd	INR 25000 (per course)	Online	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf</a>
		M132	Intermediate UI/UX Design					
		M133	Advanced UI/UX Design and Specializations					
		M134	Advanced Research and Emerging Practices in					
9	<b>Management (MDM-15)</b>	M151	Fundamentals of Accounting & Finance	All the Branches	SPJIMR Management	INR 25000 (per course)	Offline	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf</a>
		M152	Supply Chain Management					
		M153	IT for Business					
		M154	Marketing Management					
10	<b>Barclays Minor in Banking Technology (MDM-16)</b>	M161	BFSI, Data Management & Analytics	All the Branches	SPIT in association with Barclays	Free	Online	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_MDM_2023-24.pdf</a>
		M162	Enterprise Risk Management & Applied cyber security					
		M163	Agile Methodology					
		M164	Academic-Industry collab Project					
11	<b>FinTech Engineering &amp; Digital Financial Systems</b>		Foundations of FinTech & Digital Financial Systems	All the Branches	L&T EduTech	INR 7000 + GST For >=60 enrolment, else INR 4.2L + GST to be divided among enrolled students (per semester)	Online	<a href="https://drive.google.com/file/d/1CIE5lnrvlQtzyNQws7JxriH6nJu-yh/view?usp=sharing">https://drive.google.com/file/d/1CIE5lnrvlQtzyNQws7JxriH6nJu-yh/view?usp=sharing</a>
			Digital Payments, Open Banking & Blockchain Basics					
			AI, Data & Risk Analytics for FinTech					
			FinTech Innovation Studio & RegTech					
12	<b>Data Engineering &amp; Scalable Data Systems</b>		Data Engineering Foundations (Python, SQL, Linux)	EXTC	L&T EduTech	INR 7000 + GST For >=60 enrolment, else INR 4.2L + GST to be divided among enrolled students (per semester)	Online	<a href="https://drive.google.com/file/d/1CIE5lnrvlQtzyNQws7JxriH6nJu-yh/view?usp=sharing">https://drive.google.com/file/d/1CIE5lnrvlQtzyNQws7JxriH6nJu-yh/view?usp=sharing</a>
			Big Data & Hadoop Ecosystem (HDFS, Hive, Sqoop, Flume)					
			Distributed Processing with Scala & Apache Spark					
			Streaming & Data Pipelines Studio (Kafka, Spark, Orchestration)					
13	<b>Electric Vehicle: Powertrain and Control</b>		Signal System Design & Simulation Plant Modeling & Battery Systems, Power Electronics & Control, Code Generation & Deployment	All the Branches	DesignTech Systems (Authorized Reseller for MathWorks India Private Limited)	INR 61,600 + GST For >=50 enrolment, else INR 30.8L + GST to be divided among enrolled students (per course)	Online (To be confirmed with Design Tech)	<a href="https://drive.google.com/file/d/1M9pLg27K-tnl_m0heUrGELc54JmPr9mHs/viww7usp=sharing">https://drive.google.com/file/d/1M9pLg27K-tnl_m0heUrGELc54JmPr9mHs/viww7usp=sharing</a>
14	<b>Autonomous UAV Design: Simulation to Flight</b>		Explore UAV types, applications and flight dynamics	All the Branches	DesignTech Systems (Authorized Reseller for MathWorks India Private Limited)	INR 61,600 + GST For >=50 enrolment, else INR 30.8L + GST to be divided among enrolled students (per course)	Online (To be confirmed with Design Tech)	<a href="https://drive.google.com/file/d/1M9pLg27K-tnl_m0heUrGELc54JmPr9mHs/viww7usp=sharing">https://drive.google.com/file/d/1M9pLg27K-tnl_m0heUrGELc54JmPr9mHs/viww7usp=sharing</a>
			Use Simulink for UAV Modelling and MATLAB					
			Build foundational skills for control and autonomy					
15	<b>Time-Triggered Reliable Systems Engineering (T2RSE)</b>	TTA0	Programming ARM-The Baremetal way	CE & CSE	SkillsUniverse Technologies (Training Partner SafeTty Systems Ltd. UK) Course ivered by <b>Govind (Professor of Practice S.P.I.T.)</b>	INR 50000-to be divided among enrolled students per course. (Max students-50). Student wishing to appear for international SafeTty Level-1 Certification from SafeTty Systems Ltd (UK) have to pay INR8000 additional for Certification Exam	Offline	Syllabus link: <a href="https://drive.google.com/file/d/1WLlqdzYwBHo_U-VwTMBd-aPw6ZJaqtq/view?usp=sharing">https://drive.google.com/file/d/1WLlqdzYwBHo_U-VwTMBd-aPw6ZJaqtq/view?usp=sharing</a>
		TTA1	Foundations of Time-Triggered Architectures					
		TTA2	Advanced Time-Triggered Systems Design					<a href="https://skillsuniverse.in/courses/minor-degree/">https://skillsuniverse.in/courses/minor-degree/</a>
		TTA3	Engineering Reliable Time Triggered Systems					
16	<b>Entrepreneurship &amp; Innovation</b>		Fundamentals of Entrepreneurship	All the Branches	SP-TBI & Six Ladders	6000+GST	Offline	<a href="https://drive.google.com/file/d/1XbhmSH9C2mLBkretCcYOB10PYJfCWQcx/view?usp=sharing">https://drive.google.com/file/d/1XbhmSH9C2mLBkretCcYOB10PYJfCWQcx/view?usp=sharing</a>
			Entrepreneurial Finance and Management			6000+GST		
			Building Business Model			Free		
			Ideate and Launch Your Startup			Free		

S.No.	MDM (No.)	Courses Code	Name of the courses	Offered to	Offered by (Organization)	Fees structure	Conducted Online/ Offline	Syllabus Link
17	Digital Transformation		Digital Mindset, Agentic AI, Salesforce for Developers, Consulting Fundamentals	EXTC	Deloitte	17,500 +GST for two courses and 8,500/- + GST for Two Courses	Deloitte & Six ladders	<a href="#">Minor in Digital Tranformation by Deloitte.pdf</a>
18	Embedded Software Deep Skilling Program		Embedded Software Deep Skilling	CE & CSE	NASSCOM	Train the Trainers (INR 25K) Students INR 5000 + GST	NASSCOM Trained SP-IT Faculty: Offline Students: Offline	<a href="https://drive.google.com/file/d/1x3CUEfICKN2kAGQc1R3XpXFahwB0tnW5X/view?usp=sharing">https://drive.google.com/file/d/1x3CUEfICKN2kAGQc1R3XpXFahwB0tnW5X/view?usp=sharing</a>
19	Supply Chain & Product Management		Supply Chain & Product Management	All the Branches	Cantilever	INR 7,200 + GST	Online/Offline	<a href="https://docs.google.com/spreadsheets/d/107xki6avK307DMJY2V25aYGAJNipOnah-7I2JVpY_3w/edit?gid=0#gid=0">https://docs.google.com/spreadsheets/d/107xki6avK307DMJY2V25aYGAJNipOnah-7I2JVpY_3w/edit?gid=0#gid=0</a>
20	AI/ML, MERNSTACK and DSA		AI/ML, MERNSTACK and DSA	EXTC	Cantilever	INR 8,400 incl. taxes	Online/Offline	<a href="https://docs.google.com/spreadsheets/d/1CrApm20dVWtSaPvhDKgzh8PRknrxoBP/edlt7_gid=566331550#gid=566331550">https://docs.google.com/spreadsheets/d/1CrApm20dVWtSaPvhDKgzh8PRknrxoBP/edlt7_gid=566331550#gid=566331550</a>
21	Courses offered by IIT/ IIM			All the Branches	IIT/ IIM	Paid	Online	
22	Data Science		Fundamentals of Data Science	EXTC	SPIT	Free	Offline	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_DM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_DM_2023-24.pdf</a>
			Data Analytics and Visualization					
			Decision Making and Business Intelligence					
			Social Media Analytics					
23	Interface and Experience Design		UI/UX Fundamentals	EXTC	SPIT	Free	Offline	<a href="https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_DM_2023-24.pdf">https://www.spit.ac.in/wp-content/uploads/2025/01/SPIT_DM_2023-24.pdf</a>
			Design Thinking and Innovations					
			Human Computer Interaction					
			Total Experience Design					