# SVKM's NMIMS (Deemed to be University) Mukesh Patel School of Technology Management & Engineering

# Ph.D. Engineering and Technology Management (Full time and Part time) - (Batch-2024)

## **Instruction Sheet**

### 1. Introduction:

The MPSTME PhD program has been designed with the objective of strengthening and supporting research culture among research scholars. They are encouraged to develop adequate depth in the subject area. Emphasis is laid on interdisciplinary research. Research Scholars are encouraged to pursue interdisciplinary research and propose and develop solutions to real life issues. The institute supports students in gaining knowledge and developing the right attitude and skills to do world class research.

Experienced, dedicated supervisors with a wide range of research skills assist in achieving the above goals. Needless to mention that MPSTME Supervisors and Research Scholars have published papers in reputed journals with high impact factor.

Progress of the work done by research scholars monitored by leading academicians and experts from the industries. Frequent monitoring of progress in research work and participation in quality publications ensures regular, timely and guality research.

Institute has MoUs with various Hospitals and Research centers. Additionally, research scholars get options to choose collaborative research. State of the art AI lab with high end Processors with GPUs are available to encourage research in latest cutting technology.

The emphases have been given to latest development in industry wherein expertise is required. The steps have been taken to further strengthen the present system in the country while framing the syllabus of course work.

### 2. Duration of the Programme: Minimum o3 years including course work & maximum o6 years

Sr No	Department	Eligibility	Campus	Domain
1	Electronics & Telecommunic ation Engineering	Masters degree in Computer, Information Technology, Electronics, Electronics & Telecommunication Engineering, Electrical, Mechatronics	Mumbai	<ul> <li>Wireless Communication and Satellite Communication</li> <li>Signal Processing, Speech and Image processing, Embedded Systems</li> <li>Computer vision, Bio medical Signal Processing</li> <li>IoT and Power Electronics</li> <li>Renewable Energy, materials</li> <li>Error Coding, Image Processing</li> </ul>
		•		

### 3. Intake \*:

2	Computer Engineering	Masters degree in Computer, Information Technology, Electronics, Electronics & Telecommunication Engineering, Electrical, Mechatronics	Mumbai Shirpur Navi Mumbai	<ul> <li>Data Analytics, Image Processing, Computer Vision, Image Analytics</li> <li>Artificial Intelligence, Machine Learning and semantic web</li> <li>Data Mining</li> <li>Cyber Security</li> <li>Quantum Computing</li> <li>Machine Learning, Deep Learning, NLP</li> <li>VANET</li> <li>Image Processing</li> <li>IOT with Cross domain Applications</li> <li>Data Mining, Data warehousing, Data base &amp; Data Science</li> <li>Big Data Analytic</li> <li>Cloud Computing, Internet of Things Fog Computing</li> <li>Blockchain Technology</li> <li>information security</li> <li>Distributed Systems</li> <li>Cloud Computing</li> <li>Big data Analytics</li> <li>Hardware Security</li> <li>Internet of Things</li> <li>Artificial Intelligence and Machine Learning</li> <li>Block chain</li> <li>Data Mining, Evolutionary Computing</li> </ul>
			Chandigarh	<ul> <li>Computational Sciences, Artificial Intelligence &amp; Machine learning</li> <li>Cloud, Distributed and Grid Computing</li> <li>Image Processing</li> <li>Networking</li> </ul>
		·		
3	Information Technology	Masters degree in Computer, Information Technology, Electronics, Electronics & Telecommunication Engineering, Electrical, Mechatronics	Mumbai	<ul> <li>NLP and Social Media Analytics</li> <li>Data Mining and Machine Learning and data science</li> <li>Computer Networks</li> <li>Big Data Analytics, Deep learning, in Smart city, Internet of Things, Energy</li> <li>DevOps (DevSecOps &amp; DevOpsML ), Data Security in IoT</li> <li>cybersecurity and forensics, cyber risk management, technology adoption</li> </ul>

4	Artificial Intelligence	Masters degree in Computer, Information	Shirpur Mumbai	<ul> <li>Artificial Intelligence and Machine Learning</li> <li>Networking</li> <li>IoT and Block Chain Technology</li> <li>Computer Security</li> <li>Nature Inspired Computing</li> </ul> Machine Learning, Deep Learning, NLP, Network Security
		Technology, Electronics, Electronics & Telecommunication Engineering, Electrical, Mechatronics, Data Science		
5	Civil Engineering	Masters degree in Civil Engineering, Construction	Mumbai	<ul> <li>Geotechnical Engineering</li> <li>Water Resource Engineering</li> <li>Structural Engineering</li> <li>Geology</li> </ul>
6	Mechanical Engineering	Masters degree in Mechanical, Production, Mechatronics, Automobile, Automation, Robotics Engineering	Mumbai	<ul> <li>Manufacturing and Operations</li> <li>Remanufacturig, Quality Control and Friction Stir Welding</li> <li>Applied Heat Transfer, Energy Management, CFD</li> <li>Mathematical Modeling, Manufacturing</li> <li>Solar Thermal Systems, Heat Transfer, Alternative Fuels</li> </ul>
			Chandigarh	<ul> <li>Nano Materials and Optimization Techniques</li> </ul>
7	Data Science	Masters degree in Data Science and Analytics Computer Science Engineering Electrical Engineering Information Technology Electronics and Telecommunications Engineering, Instrumentation Engineering Artificial Intelligence	Mumbai	<ul> <li>Fog Computing</li> <li>Sentiment Analysis</li> </ul>
8	Applied Physics	M.Phil. or Masters degree in Physics	Mumbai	<ul> <li>Nanotechnology</li> <li>Material Science and condensed matter Physics</li> <li>Quantum Computation</li> <li>Microwave and Plasma Physics</li> <li>Dielectric Spectroscopy</li> <li>Theoretical Condensed Matter Physics</li> </ul>

			Shirpur Indore Chandigarh	<ul> <li>Nonlinear Dynamics and Quantum Physics</li> <li>High Energy Statistical Physics</li> <li>Energy Science</li> <li>Nanostructure synthesis and field emission</li> <li>Computational Atomic Physics</li> <li>Computational Condensed Matter Physics</li> <li>Nanomaterials, composite materials and material Science</li> </ul>
9	Applied Mathematics	M.Phil. or Masters degree in Applied Mathematics	Mumbai	<ul> <li>Integral transforms and special functions</li> <li>Computational fluid dynamics</li> <li>Fractal Geometry, Discrete Mathematics</li> <li>Mathematical Modelling</li> <li>Operational Research</li> <li>Partial Differential Equations</li> </ul>
			Indore Chandigarh	<ul> <li>Computational fluid dynamics</li> <li>Data Analytics</li> <li>Differential Equations</li> <li>Fixed Point Theorem</li> <li>Computational Methods for</li> </ul>
10	Technology Management	Masters degree in any of the following: Business Management (provided Bachelor's degree in any branch of Engineering) Computer Applications Electronics and Telecommunication Engineering Computer Engineering Information Technology Civil Engineering Mechanical Engineering Chemical Or allied branches	Mumbai	<ul> <li>Differential Equations</li> <li>Finance</li> <li>Operations &amp; SCM</li> <li>Business Intelligence and Analytics</li> <li>Economics</li> <li>Human Resource Management</li> <li>General Management</li> </ul>
			Shirpur	<ul> <li>Corporate Finance</li> <li>Financial Markets &amp; Services</li> <li>Financial Economics, Cost &amp; Management Accounting</li> </ul>

# \* Number of seats will be confirmed at the time of admission process.

Admission for PhD program through Entrance Test and Personal Interview conducted by NMIMS.

### 4. Eligibility:

The basic qualification criteria for the purpose of admission to Ph. D. Programme shall be as under:

#### a) Ph.D. (Engineering):

Candidates for admission to the Programme shall have a Master's degree (M.E. / M.Tech.) / (M.Phil / M.Sc. for Applied Physics, Applied Mathematics). Minimum 2 years Programme or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.

#### b) Ph.D. (Technology Management):

Candidates for admission to the Programme shall have a Master's degree M.E./ M.Tech. / (MBA with B.E. / B.Tech.) (Minimum 2 years Program) / M.C.A. or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.

- c) Candidates working in reputed Research Organizations or Academic Institutions, situated in the close vicinity of Mumbai, Shirpur or Hyderabad campuses are eligible for admission to the Ph.D. programme if they satisfy the conditions mentioned below-
  - Candidates working in an organization, which encourages and facilitates research.
  - The Academic Institution should have at least one running PG programme in any specialization.
  - Candidates should have a minimum of two years of work experience (full time) in research organization, academic institutions or Industry.
  - Candidates should furnish a 'Consent and No Objection Certificate' from his / her Academic Institution and 'MOU' in case of industry or research organization.

#### Note:

• Candidates appearing or waiting for the final year result are eligible to apply.

The candidate must have appeared for all his subject(s) / exams before the commencement of the program. However, their admission would be considered provisional, subject to their meeting the minimum eligibility criteria after their final examination results are announced.

- Candidates whose final mark sheet of the qualified examination is not available at the time of their provisional admission, is required to submit their final marksheet copy as soon as the result is declared. In such case, if the candidate fails to meet the required eligibility criteria, then his/her admission will be cancelled and the fees will be refunded as per NMIMS refund rules.
- Candidates are required to submit mark sheets of all degrees, degree certificates and AIU certificate (by the candidate who has completed their studies at foreign country) at the time of admission.
- Candidates who have obtained their degree by doing a part-time course or through distance learning, correspondence courses, externally, open school from recognized University are eligible to apply and register as per UGC guidelines.
- All admitted students will have to complete Ph. D. course work as prescribed by the SVKM's NMIMS (Deemed to be University). On successful completion of Ph.D. course work student will be eligible for registration for Ph.D. programme.

Ph.D. in Engineering and Technology Management			
Step 1	<u>Step 2</u>	<u>Step 3</u>	<u>Step 4</u>
Initial Registration, Pay the application fees and complete the process	Download call letter & Upload required documents for Entrance Test & Pl	To appear for Entrance Test and Personal Interview	To complete admission formalities
<ul> <li>Visit <u>www.nmims.edu</u></li> <li>For registration click on "Apply Now" and create an account.</li> <li>Candidate will get the registration number on their registered email ID to fill and complete the application form.</li> <li>Before filling the online form, please read all the instructions carefully mentioned in the instruction handout, important dates and</li> </ul>	<ul> <li>Candidates, who register successfully, only will be confirmed for Entrance Test &amp; Personal Interview.</li> <li>Candidates are required to download the call letter from login dashboard. No separate call letter will be mailed or posted.</li> <li>Upload mentioned documents for Entrance Test &amp; Personal Interview.</li> </ul>	<ul> <li>The Entrance Test and Personal Interview will be held at Mumbai Campus only.</li> </ul>	<ul> <li>Selected Candidate has to confirm his / her provisional admission by filling up e- admission form, uploading required document and paying fees within given timeline.</li> <li>Only those candidates who complete the process by paying fees will be provisionally admitted to the program.</li> </ul>

### 5. Admission process:

### 6. Online registration & Payment of Registration Fees:

- Online registration available at <u>www.nmims.edu</u>
- Registration fees is non-refundable / non-transferable.
- Online Registration Fee of Rs. 2,500/- plus GST if applicable (Please refer online registration for payment details)
- Before filling the online registration form, please read all the instructions carefully mentioned in instruction sheet, important dates and Terms & Conditions given in online application form.

### 7. Selection Process: Entrance Test & personal interview

a) Entrance Test: (100 marks, 90 minutes), will be conducted at Mumbai campus only.

Section A: 50% Research methodology

Section B: 50% Area / Domain Specific

The candidate must have qualified written test with qualifying marks as 50% conducted by the SVKM's NMIMS Deemed to be University. Only entrance test qualified candidate will be called for Personal Interview.

Note: Candidates those who have qualified (with valid period & valid score) in NET / SET / GATE / GPAT / JRF examination of the apex bodies in higher / technical professional education such as UGC, CSIR, ICMR or other equivalent examinations mentioned on the score card, such candidates are exempted from NMIMS entrance test. However, they have to appear for Personal Interview.

- b) Personal Interview:
  - Presentation based on Statement of Purpose will be followed by Personal Interview.
  - During interviews, candidates are expected to discuss their research interest/area.
  - Final merit list will be based on entrance test & personal interview marks.
- c) Weightage
  - Entrance Test : 100 marks (70%)
  - Personal Interview : 50 marks (30%)

### 8. Program Fees:

Effective fees for all Ph.D. students will be Rs. 50,000/- p.a.

Annual fees: Rs. 2,50,000/-

Annual Scholarship: Rs. 2,00,000/-

Scholarship form is available on website- https://engineering.nmims.edu/academics/programmes/phd/

The duly filled scholarship form (hardcopy) should be submitted at following address along with the copy of registration form, copy of SOP, complete resume, admission form and the admission offer letter copy (which is available on student's dashboard):

Mukesh Patel School of Technology Management & Engineering V. L. Mehta Road, Opp Cooper Hospital, Vile Parle (W), Mumbai – 400 056, India.

### Note:

- Scholarship will be provided for up to 05 years or completion of PhD program, whichever is earlier.
- If student is found indulging in any unlawful activity, the scholarship will stand cancelled with immediate effect.
- PhD student will not be entitled to avail the scholarship if he/she re-registers for PhD or take re-admission for the PhD program.

### 9. Fellowship: Fellowship will be provided to full time PhD students in line with UGC.

### 10. Refund rules:

If a student chooses to withdraw from the program of study in which he / she is enrolled, SVKM's NMIMS shall follow the following five-tier system for the refund of fees remitted by the student.

Sr.	Percentage of Refund of	Point of time when notice of withdrawal of admission is served to HEI
No.	Aggregate fees*	
(1)	100%	15 days or more before the formally-notified last date of admission
(2)	90%	Less than 15 days before the formally-notified last date of admission.
(3)	80%	15 days or less after the formally-notified last date of admission.
(4)	50%	30 days or less, but more than 15 days, after formally-notified last date of admission.
(5)	00%	More than 30 days after formally-notified last date of admission.

In case of (1) in the table above, the SVKM's NMIMS shall deduct an amount not more than 5% of the fees paid by the student, subject to a maximum of Rs. 5,000/- as processing charges from the refundable amount.

Note: 1) The above refund rules are subject to revision as applicable

2) Candidates to refer Important Dates of the respective programme & refer refund rules mentioned in the offer letter.

### 11. Important Instructions:

- Candidate has to check website for all details. Please check the important dates. All announcements from the SVKM's NMIMS (Deemed to be University) will be through its website <u>www.nmims.edu</u>
- For cancellation/ withdrawal of admission: Withdrawal / cancellation means voluntary withdrawal / cancellation by candidate for any reason. Candidate has to upload cancellation form duly filled and signed, fees paid receipt copy & cancelled cheque (personal account) to mentioned link : https://upload.nmims.edu/admission/cancellation/

- The candidate who is pursuing PhD at SVKM's NMIMS (Deemed to be University), should not take PG / PhD admission in any other University.
- If at any stage, it is found that a candidate does not satisfy the eligibility criteria or the information furnished by him/ her in the application form is incorrect, his/her application for the admission to the program, even if selected, will stand cancelled and fees will be refunded as per SVKM's NMIMS (Deemed to be University) refund rules.
- Candidate's document/s will be verified at the time of admission (if selected) and if found not eligible, admission will be cancelled and fees will be refunded as per SVKM's NMIMS (Deemed to be University) refund policy.
- It is the sole responsibility of the candidate to ascertain whether they possess the necessary and requisite qualification for the admission at SVKM's NMIMS (Deemed to be University), as verification of the documents is done at the time of final admission.
- SVKM's NMIMS (Deemed to be University) has full right to disqualify a candidate at any stage of admission process if found ineligible.
- Candidates whose final mark sheet of the qualified examination is not available at the time of their provisional admission, is required to submit their final marksheet copy as soon as the result declared. In such case, if the candidate fail to meet the required eligibility criteria then his/her admission will be cancelled and the fees will be refunded as per SVKM's NMIMS (Deemed to be University) refund rules.
- Admission to program is considered as "Provisional Admission" till all required and mandatory documents are submitted by the candidate and the same are verified and approved. If it is found that the candidate is not eligible at any stage (even after the course commencement), admission will be cancelled and fees will be refunded as per refund rule clauses even if selected/ admitted to the program.
- Canvassing in any form will disqualify the candidate.
- All matters of dispute will be subject to the legal jurisdiction of Mumbai only.

### 12. Contact Information:

NMIMS Admission / Application / Technical related queries:

- (a) Toll Free No: 18001025138 Monday to Saturday (Except public holidays)
- (b) For any support and assistance kindly login to dashboard & raise query in my query section