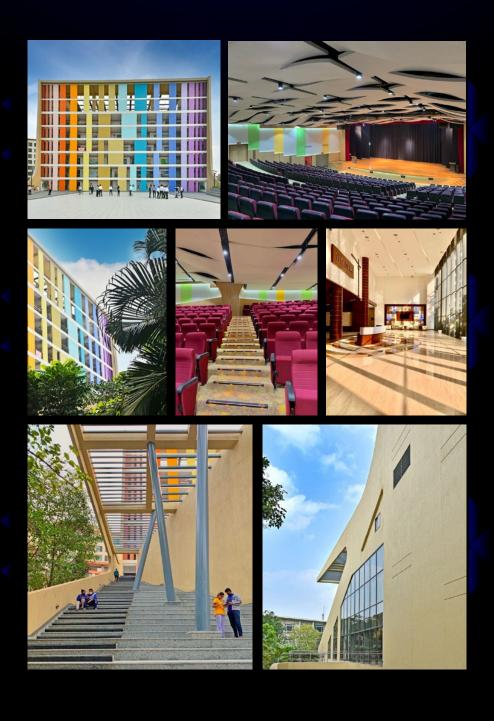


## School of Engineering

## M.Tech in Infrastructure Project Management (IPM)





### **NICMAR University, Pune**



# M.TECH. IN INFRASTRUCTURE PROJECT MANAGEMENT (MTECH IN IPM)

Programme Brochure (2024-26)



#### M.TECH. - INFRASTRUCTURE PROJECT MANAGEMENT

#### INTRODUCTION

The launch of the M.Tech Programme in Infrastructure Project Management marks a significant milestone for NICMAR, School of Engineering, expanding its offerings to address the specialized needs of the infrastructure sector. This specialization aligns well with the principles outlined in the National Education Policy (NEP) and National Higher Education Qualifications Framework (NHEQF) by offering a comprehensive curriculum that encompasses various components to ensure holistic technical learning and skill development.

The philosophy behind the design of this program reflects a commitment to excellence in project management within the context of infrastructure development. It is meticulously crafted to address the complexities and challenges inherent in the execution of diverse infrastructure projects. It ensures that graduates are well-equipped to excel in the dynamic field of infrastructure development. The program prepares individuals to navigate the multifaceted landscape of infrastructure projects not only with advanced technical abilities, problem-solving skills, research acumen, and analytical thinking for addressing complex challenges in the field. Further, the programme also equips the graduates with robust management skills and a strong ethical foundation.

At its core, the program philosophy emphasizes the following principles:

**Strategic Focus on Infrastructure:** The program is tailored to meet the unique challenges and requirements of infrastructure projects. It recognizes the critical role of infrastructure in economic development and societal well-being, and thus places a strategic focus on equipping professionals with the skills and knowledge needed to effectively manage infrastructure projects from conception to completion.

**Technical Abilities:** Recognizing that success in the construction industry requires a diverse skill set, the program aims to equip students with well-rounded technical competencies. In addition to covering a diverse range of infrastructure domains such as hydropower plants and transport infrastructure, the programme delves deep into technical intricacies through courses on advanced construction techniques, construction methods, machinery utilization, geospatial practices, building information modelling, infrastructure. Through rigorous coursework and hands-on training, students develop a comprehensive understanding of advanced technologies and processes in construction, enabling them to implement innovative solutions in real world project settings.

Problem-Solving Abilities through Practical Application and Experiential Learning: Problem-solving lies at the core of successful project management in construction. Students are trained to identify, analyze, and solve problems encountered in infrastructure projects through a combination of theoretical learning and practical application. The program places a strong emphasis on developing problem-solving skills among students through hands-on learning experiences to complement theoretical knowledge. Laboratory sessions, field-based learning, internships, and projects are integral to gaining real-world experience and exposure to real projects in the infrastructure sector. This approach ensures that graduates are challenged to identify, analyse and solve complex problems encountered in infrastructure projects. These experiences enhance critical thinking and creative problem-solving techniques and help the students to overcome challenges and optimize project outcomes.

**Interdisciplinary Approach:** Like the Construction Technology and Management specialization, the Infrastructure Project Management program adopts an interdisciplinary approach. Infrastructure projects are complex endeavors that require meticulous planning, execution, and monitoring. The programme integrates technical knowledge, management strategies, and humanities/life skills to provide a comprehensive education. This multidisciplinary perspective ensures that graduates are equipped to address the challenges inherent in infrastructure projects, including technical complexities, regulatory requirements, and societal impacts.

**Industry Alignment and Collaboration:** Recognizing the rapidly evolving nature of the infrastructure sector, the programme actively engages with industry leaders, experts, and practitioners to ensure that the curriculum remains aligned with current industry trends, best practices, and emerging technologies. Through regular consultations, industry advisory boards, guest lectures, and real-world case studies, students gain insights into current trends, emerging technologies, and industry dynamics. This industry-focused approach not only enhances the relevance and applicability of the programme but also



ensures that students are well-prepared to meet the evolving demands of the infrastructure industry upon graduation.

Research Abilities through Research Project: The programme is designed to cultivate research abilities among students through a rigorous six-month research project conducted on a live infrastructure project. This immersive research experience allows students to delve deep into industry-specific challenges, gather empirical data and propose innovative solutions. Through guided mentorship and collaboration with industry partners, students develop the research skills necessary to contribute valuable insights and drive innovation in the infrastructure sector.

**Analytical Mind Development:** Analytical thinking is integral to effective decision-making in infrastructure project management. The program fosters the development of analytical skills through coursework in data analysis, quantitative methods, and risk assessment. By learning to analyze complex data sets and evaluate project risks, students enhance their ability to make informed decisions and optimize project performance. The programme emphasizes practical problem-solving by challenging students to develop innovative technical solutions to on-site project issues. This hands-on approach fosters creativity, adaptability, and resilience in students as they navigate the complexities of on-site infrastructure project execution.

Continuous Adaptation, Innovation and Entrepreneurship: Recognizing that the construction industry is dynamic and constantly evolving, the program is designed to be adaptable and responsive to changes in technology, regulations, and industry trends, fostering an entrepreneurial mindset among students. Through ongoing curriculum updates and engagement with industry stakeholders, the program ensures that graduates not only stay abreast of the latest developments but also actively seek out opportunities for innovation and entrepreneurship. The programme introduces new construction materials, sustainable practices, and digital technologies for project design, execution, and management and equips the students with the skills and mindset to identify opportunities, take calculated risks and develop innovative ideas into successful ventures. This entrepreneurial approach not only benefits individual graduates but also contributes to the overall growth and competitiveness of the infrastructure sector.

Ethical and Sustainable Practices through Internships/Community Engagement and Service: Recognizing the importance of sustainability and ethical considerations in infrastructure development, the program emphasizes the integration of environmental, social, and governance (ESG) principles into project management processes. Graduates are trained to prioritize sustainability, safety, and social responsibility in their decision-making, ensuring that infrastructure projects contribute to long-term environmental and societal well-being. The curriculum comprises internships, community engagement and service projects to foster social responsibility and ethical considerations in construction practices.

By incorporating these components into the curriculum, the Infrastructure Project Management specialization ensures that graduates are well-prepared to meet the demands of the construction industry and contribute effectively to its dynamic and evolving landscape. Furthermore, aligning with NEP, NHEQF emphasizes the program's commitment to providing a holistic education that prepares individuals for professional success and societal responsibility.

Overall, the M.Tech Programme in Infrastructure Project Management embodies a commitment to advanced technical excellence, research abilities, strong problem-solving skills, innovation, and sustainability in infrastructure development. By providing students with a rigorous and industry-relevant education, the program aims to prepare future leaders who can successfully navigate the complexities of infrastructure projects and drive positive change in the built environment.

#### SCHOOL OF ENGINEERING VISION

To emerge as a globally recognized school for promoting innovation and sustainability, equipping students with the knowledge and skills to tackle complex modern-day challenges and transforming them into holistic professionals and responsible citizens.

#### SCHOOL OF ENGINEERING MISSION

We at the School of Engineering are committed to achieving the vision by,

M1 Provide transformative education by blending academic excellence with hands-on experience

**M2** Promote a culture of interdisciplinary research, Industry Interaction, sustainability, quality and ethical values.



**M3** Aim to nurture creative thinking in entrepreneurial and intrapreneurial endeavors.

**M4** Prepare industry-ready professionals by enhancing industry-institute interactions.

#### **Program Educational Objectives (PEOs):**

- 1. To develop an in-depth understanding of advanced construction trends and practices through technical courses, including design aspects, construction methods, techniques, equipment, and execution practices for infrastructure projects.
- 2. To develop proficiency in designing and executing infrastructure projects effectively, including designing, planning, constructing, and maintaining infrastructure and building projects the project.
- 3. To develop a technical problem-solving ability to address complex challenges in infrastructure projects, by analyzing technical issues, devising innovative solutions, and implementing effective strategies to optimize project outcomes.
- 4. To develop a research-oriented ability to delve deep into industry-specific challenges, conduct empirical research, and propose innovative solutions to onsite construction issues.
- 5. To develop entrepreneurial skills through identifying gaps, and challenges, exploring emerging technologies, developing innovative solutions, and becoming agents of change to drive entrepreneurship within the construction infrastructure sector.
- 6. To demonstrate a strong commitment to sustainable practices and ethical standards in infrastructure project design and execution, considering environmental impacts, social responsibility, and regulatory compliance throughout the infrastructure project lifecycle.

#### PROGRAMME OUTCOMES (POs)

**PO1:** Engage in stakeholder management and communication strategies to foster positive relationships and address conflicts effectively, promoting collaboration and alignment of project objectives among diverse stakeholders in infrastructure projects.

**PO2:** Critically analyze the outcomes of infrastructure projects, identify areas for improvement, and implement corrective measures, leveraging mistakes as opportunities for continuous improvement and learning.

**PO3:** Attain an advanced level of expertise in infrastructure project management, surpassing the standards set by undergraduate programs, and exhibiting a comprehensive understanding of the specialization.

**PO4:** Conduct independent research and development activities aimed at addressing practical challenges in infrastructure projects, demonstrating proficiency in problem-solving within the infrastructure sector.

**PO5:** Produce comprehensive technical reports and documents that effectively communicate project findings, solutions, and recommendations to stakeholders.

**PO6:** Pursue lifelong learning to stay updated with relevant knowledge and cutting-edge technologies in infrastructure development, while upholding professional integrity, ethical conduct, and a commitment to social responsibility for sustainable infrastructure.

#### PROGRAMME SPECIFIC OUTCOMES (PSOs)

**PSO1.** Demonstrate the ability to apply advanced project management tools and techniques to optimize project schedules, budgets, and resources, ensuring timely and cost-effective delivery of infrastructure projects.

PSO2. Demonstrate the ability and sound knowledge of construction project management to accomplish a successful project.

#### **ELIGIBILITY**

- Bachelor's degree in Civil/ Mechanical/Electrical/Electronics Engineering or Equivalent degree in relevant field.
- The candidate must have secured at least 50% marks (45% for the candidates from reserved category) or its equivalent CGPA are eligible to apply.

Final year eligible graduating students can also apply. However, such candidates must have completed (passed) their Graduation before the commencement of programme.



#### **ADMISSION PROCEDURE**

Selection of students is made by the selection committee. Those interested in admission to the programmes offered by the NICMAR University, Pune may apply online, pay fees and upload documents through our website. All specified documents must be submitted. Incomplete applications will not be considered.

#### **Application Fee:**

#### **PG Programmes:**

Single programme preference: INR 2,000/-Two programme preferences: INR 2,200/-Three programme preferences: INR 2,400/-

Candidates' preference of programme will be considered, but the allotment will be done at the sole discretion of the admission department, NICMAR University. Candidates should appear for the selection procedure on the given dates.

Admission process will be conducted online and candidates can attend online PG-NCAT and PI from their residence or any suitable place as per their convenience.

Applications are scrutinised and eligibility is established on the basis of the documents submitted. Eligible candidates will be invited to appear for the selection procedure, which comprises Post Graduate NICMAR Common Admission Test (PG-NCAT), Personal Interview (PI) and Rating of Application (RA).

Valid scores of the aspirants appearing for CUET PG / MH-CET / CAT / MAT / ATMA will be considered as an alternative for PG-NCAT (Written Test) for MBA & PGD programmes. Scores of GATE (*Architecture & Planning / Civil Engineering for the M.Plan programme and Civil Engineering for the M.Tech programmes*) will be considered as an alternative for PG-NCAT (Written Test).

For candidates appearing in NCAT & other additional entrance exams (as mentioned above), the highest score among such exams will be considered for final merit.

Details	Total Marks	
Post Graduate NICMAR Common Admission Test (PG-NCAT)	150 marks	
<ul><li>a) Quantitative and Analytical Ability</li><li>b) Data Interpretation</li><li>c) Verbal and General Ability</li></ul>	60 marks 30 marks 60 marks	
Personal Interview (PI)	50 marks	
Rating of Application (RA)	50 marks	
Total	250 Marks	

The RA is calculated on the basis of weighted scores of the cumulative academic performance along with work experience (wherever applicable) obtained from the documents submitted to NICMAR University by the candidates.

Selection of candidates is done on the basis of merit. Admission offer letters are issued in the order of merit.

#### **RESERVED CATEGORY**

Description of Caste/Tribe/Category/Class of Reserved Category	Percentage of Reservation
Scheduled Castes and Scheduled Castes Converts to Buddhism	13.0%
Scheduled Tribes	7.0%
De-notified Tribes (A)	3.0%
Nomadic Tribes (B)	2.5%
Nomadic Tribes (C)	3.5%
Nomadic Tribes (D)	2.0%
Other Backward Classes	19.0%
Total	50.0%



#### **DOMICILE**

Out of the total approved intake capacity, forty percent of the seats are reserved for the students having domiciled in the State of Maharashtra.

#### FEES AND PAYMENT SCHEDULE

The details of the total amount of fees payable with payment schedule for this programme are given below:

1. At the time of admission

a. Tuition Fee : Rs. 2,50,000/b. Security Deposit : Rs. 10,000/Total : Rs. 2,60,000/-

Within 7 days of the commencement of Semester II
Within 7 days of the commencement of Semester III
Within 7 days of the commencement of Semester IV
Grand Total
Rs. 2,50,000/Rs. 2,50,000/Rs. 2,50,000/Rs. 2,50,000/Rs. 10,10,000/-

#### Note: Hostel and mess charges are additional.

The tuition fee includes classroom teaching, workshops as per the programme structure and other charges i.e. fees for examinations, evaluation, project work and assessments, library and students' welfare fund. The University provides a free group accident insurance and group mediclaim policy that covers all students.

The security deposit (Rs. 10,000/-) is refundable on completion of the programme (after adjustment of dues, if any from the student).

The following conditions apply for the payment of fees and other dues.

#### For 1st Instalment (at the time of admission):

 The fees and other dues payable at the time of admission are as mentioned in the admission offer letter.

#### For 2<sup>nd</sup> Instalment Onwards:

- Fees are payable as per the notification given to the students by the department concerned.
- The fees are payable as per the schedule given, failing which, fees paid after this schedule will be subject to a late fine of Rs.100/- per day for First one Month, Rs. 200/- per day for Second Month, Rs. 300/- per day for Third Month. However, after Third Month, the University may cancel the registration of the student in his/her programme if no valid ground is established for the delay.

The fee above includes the cost of course material, two 'NICMAR University T-Shirts' and one tie.

The NICMAR University reserves the right to revise any/all of the components of the above policy, including payment schedule and refund policy without any prior notice.

#### POLICY FOR CANCELLATION OF ADMISSION AND REFUND OF FEE

The NICMAR University, Pune has a policy of considering refund of the first instalment of tuition fee paid by the student at the time of acceptance of offer, against cancellation of admission. The University strictly follows UGC guidelines in respect of refund of fees. All request applications duly signed by the student must necessarily be received by the Admission Department, NICMAR University, Pune. All such requests in writing must be sent by hand/post/courier only. Any request for refund by e-mail/telephone/fax, etc. if not accompanied by a formal request in writing in the hard copy format within the time stipulated below will not be considered.

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



Sr. No.	Percentage of Refund of Fees	Point of time when notice of withdrawal of admission is received in the University	Deadline	
(1)	100%  15 days or more before the formally-notified commencement of the academic session.  on or before 30.06.2		on or before 30.06.2024	
(2)	90%	Less than 15 days before the formally-notified commencement of the academic session.	01.07.2024 to 14.07.2024	
(3)	80%	15 days or less after the formally-notified commencement of the academic session.	15.07.2024 to 29.07.2024	
(4)	50%	30 days or less, but more than 15 days, after the formally-notified commencement of the academic session.	30.07.2024 to 13.08.2024	
(5)	0%	More than 30 days after the formally-notified commencement of the academic session.	14.08.2024 onwards	

<sup>\*</sup>The security deposit, which is not part of the fees chargeable, shall be refunded in full (after adjustment of dues, if any from the student).

Note 1: In case of (1) in the table above, Processing Charges of Rs.5,000/- will be deducted from the refundable amount (as per refund policy of UGC).

Note 2: The refund policy will be strictly followed by NICMAR University, time to time as per UGC guidelines and updates.

#### **HOSTEL AND LIVING EXPENSES** [2024-25]

Hostel accommodation is available at NICMAR University, Pune. There is a separate hostel for girl students. All students have to abide by the Code of Conduct issued by NICMAR University, Pune.

The hostel accommodation within the campus is allotted purely on the first paid, first served basis (on the basis of hostel & food fees received in the NICMAR University, Pune). However, taking into the account the limited number of rooms available in the campus hostels, students requiring accommodation, who could not be accommodated inside the campus hostels, will be assisted in search of appropriate accommodation in the vicinity of the campus, if requested by the students and subject to availability of such accommodation.

The campus has four hostels which altogether provide 1139 single occupancy rooms for boys and 194 shared occupancy rooms for girl students. The details are as follows:

Sr. No.	Hostel	Capacity	Type of Occupancy	Charges (Rupees Per Month)	Remark
1.	Millennium Hostel	502	Single	7000/-	For boys
2.	Silver Jubilee Hostel	323	Single	7000/-	For boys
3.	Ultima Hostel	314	Single	7000/-	For boys
4.	Millennium Hostel	194	Shared (Double)	5880/-	For girls only

Note: Single occupancy in a two-bedded room for girls (if available) - Rs. 7000/- per month.

Food package charge is Rs. 350/- per head per day. The package includes breakfast with tea, buffet lunch, evening snacks with tea and buffet dinner.

The mess facilities are run by a Contractor hired by NICMAR University, Pune under the supervision of the Sr. Manager – Estate Administration. The Senior Manager according to the suggestions by the Students' Mess Co-ordinator prepares the menu on weekly basis.

#### **Payment Schedule**

Hostel and food fees are payable semester-wise within 7 days of the commencement of the semester. In case of delay, a fine of Rs. 75/- per day will be payable for the first 7 days, after which, the fine will be Rs. 125/- per day. The hostel and food fees once paid are non-transferable. Mess facility is mandatory for all students staying in NICMAR University, Pune.



Typically, the total living expenses including hostel & food fees expenses at Pune are approximately Rs. 18,000/- to Rs. 20,000/- per month.

Note: Hostel Accommodation and Food charges are inclusive of all taxes applicable.

#### **REGULAR TEACHING FACULTY**

Faculty is the foundation on which NICMAR University programs are designed to grow. Therefore, careful attention is paid to attracting the best talent from the academic world and the industry. Expert faculty members of the University teach the courses, eminent practicing managers from leading engineering and construction firms from all over the country, and visiting experts from Indian and foreign universities and international organizations.

#### STUDENT DEVELOPMENT

NICMAR University has several schemes to provide full or partial financial support to various student activities. The University firmly believes that co-curricular and extracurricular activities significantly contribute to the all-round development of its students.

#### **ABOUT NICMAR UNIVERSITY, PUNE**

NICMAR University, Pune is established under State Private University Act. (Government of Maharashtra Act. No. XXXVI of 2022). University is situated at Balewadi, 14 kilometres away from the Pune Central Railway Station and 7 kilometres from the Savitribai Phule Pune University and along the Mumbai-Bangalore expressway. It has over 4,71,853 square feet built up area and more 1,25,000 square feet area under construction on a 10-acre plot of land built using the latest materials and technologies and is equipped with state-of-the-art facilities. The campus buildings blend harmoniously with the landscaped greenery all around.

The University is having barrier-free environment for the independence, convenience and safety of all persons including people with disabilities. The physical infrastructure of the campus includes classrooms, seminar rooms, tutorial rooms, mini auditorium, workshops, engineering laboratories, student common room, multi-purpose hall, placement GD room, placement PI room, placement corporate room, faculty cabins, offices, placement office, student lounge, boys' and girls' hostels, executive hostel, warden and lady warden residence, a library with stack areas, reference section and documentation centre, scholar's cabins, computerised catalogues, inter-campus online library, computer centres, 24-hour internet and e-mail facility, a guest house, a modern and well-equipped kitchen, students, faculty and staff dining halls.

Other facilities include a photocopying centre, solar water heating, sewage treatment plant, vermiculture, rain water harvesting system, lift facilities for all hostels, cafeteria, generator backup to all the buildings, doctor, dispensary, first-aid kits, community hall, indoor and outdoor recreation infrastructure i.e., football ground, basketball court, tennis court, badminton court, volleyball court, gymnasium (separate for boys & girls), recreation hall with table tennis, carrom boards, chess boards, T.V. with dish connection, students' parking facility (two wheeler), stationery and general store, xerox services, laundry facility, multipurpose open court (students' play area of 10000 sq.ft. approx.), auditorium having 1000 seating capacity, classroom, syndicate room, computer lab, amphitheatre, and basement parking etc. The campus is equipped with CCTV and round the clock security services.

#### ANTI-RAGGING POLICY OF NICMAR UNIVERSITY, PUNE

As per the directives issued by the Hon'ble Supreme Court of India and the University Grants Commission (UGC), ragging is a cognizable and punishable offence and is totally banned in or out of the University. The University shall take necessary action in accordance with the UGC Regulations for Curbing the Menace of Ragging in Higher Educational Institutions, 2009, against those found guilty of ragging and/or abetting ragging, actively or passively, or being part of a conspiracy to promote ragging.

The University gives paramount importance to the safety and security of every student and follows a zero-tolerance policy against Ragging. Helpline Numbers: 020–66859248/9322069331/1800-180-5522. Any student found indulging in ragging or any related activity will be dealt with strictly by appropriate disciplinary action as prescribed under Clause 9 of the Anti-Ragging Regulation of UGC.

Please visit: https://www.antiragging.in/ for UGC regulations against ragging.



#### i. Department of Information Technology

Computer centre at NICMAR University Pune, has sufficient number of computers with a state-ofthe-art AR VR studio (Augmented Reality and Virtual Reality), Learning Management System(LMS), leading application packages like Microsoft Project Management, Oracle suite of Project Management packages including Contract Management, Enterprise Portfolio Project Management, Professional Project Management, and Contractor and Risk Analysis; Autodesk suite of Building Information Modeling comprising 24 software products including, AutoCAD, Revit, Navisworks, Infraworks etc.; Project Wise 365 and 15 software products from Bentley Systems India Pvt. Ltd., Risk Management Software packages including, @Risk, Evolver, Stat Tools, Top Rank, Neural Tools, Precision Tree, CANDY, Microsoft Dynamics ERP, Highrise Construction ERP; Orell Digital Language Software package is available for students to develop proficiency in English: TURNITIN for plagiarism check, Prochain for Critical Chain Project Management, VisiLean for Lean Construction & BIM Management, CalQuan for quantity calculation and cross section drawing for linear projects and HDM-4 for checking engineering and economic viability of road projects, etc.; Internet and e-mail facilities are to all students. The centres are open from 9.00 a.m. to 5.30 p.m. Students get hands on practice under the able guidance of qualified and experienced faculty members. The campus of NICMAR University at Pune is equipped with Video Conferencing System, interactive screens, Construction 4.0 lab and virtual classroom platforms such as MS Teams, Webex and Zoom to run online classes and other online activities. Biometric Attendance.

#### ii. Library

The NICMAR University library is designed to support the students, faculty & research scholars. It is a specialized library in the area of Construction Management, Project Management, Real Estate Management & Infrastructure Development. In addition, the library provides knowledge resources in a variety of Management & Engineering subjects such as: Information Technology, Engineering, Environment, Social Sciences, all areas of Management, Smart Cities, Entrepreneurship, Architecture, Planning, Taxation, Law etc.

The Library is the hub of the academic life of the NICMAR University campus. Housed in spacious halls on the first floor of academic block, the library is well stocked with textbooks, technical journals, periodicals and electronic resources. It holds a collection of more than 28000 titles, comprising over 25700 Books, Periodicals, Standards, Cases, Technical Notes, Bound Volumes of Periodicals, Theses & Audio-Visual Materials. It also subscribes to electronic resources which include Scopus – The Citation Database, PROQUEST ABI Inform Complete (9800+ Titles), ASCE Journals (41 Titles), ASCE Proceedings (875 Titles), SCIENCEDIRECT – Business Management & Accounting (121 Journals), TAYLOR & FRANCIS Online (80 Journals), SAGE – Urban Studies & Planning (42 Journals), SAGE – Management (22 Journals), PROQUEST e-Book Central – Business & Engineering (68,500+ Books), ELSEVIER E-Books (155 Titles), PEARSON E-Books (54 Titles), and McGRAW HILL E-Books (35 Titles). Other titles include 'All India Reporter', 'Economic & Political Weekly' and Economic & Business databases of M/s CENTRE FOR MONITORING INDIAN ECONOMY (CMIE) including ProwessIQ, Industry Outlook, Economic Outlook, States of India and the CapEx. It also subscribes to the Anti-plagiarism software 'Turnitin – Originality Check' for the faculty.

#### iii. Internet and E-mail

Dedicated 1+ Gbps Internet bandwidth for 24X7 is provided to students through Wired LAN & WiFi with a backup provision. Each student is provided with the University e-mail ID for academic communications alongwith Office 365 Access.

#### iv. Classrooms

NICMAR University has large, medium and syndicate capacity classrooms which are well-equipped with public audio system, Interactive Display Panel, LCD projectors, computers with internet connections and are fully air-conditioned.

#### v. Extra-curricular Activities

Students' training at NICMAR University, Pune goes beyond the confines of classroom and curriculum. In order to foster a holistic development of students, the University supports and encourages its students to plan, organise and participate in various co & extracurricular activities. The Student Council represents the general body of students and organises various techno-



managerial, sports and cultural events, and celebrates all the major festivals throughout the year, involving the student clubs and student volunteers.

#### Some salient features are as follows:

- Well-equipped, state-of-the-art facilities exist for indoor and outdoor sports such as badminton, table tennis, basketball and football etc.
- Students are encouraged to participate in intra and inter-college co-curricular, cultural and sports competitions.
- Various intra and inter-college events like Udbhav, Sanskriti, Chakraview, Technikala, NICMAR Premier League, Spardha, E-Summit, Academic Conclave, and Reverbs, etc. are organised for the development of co & extra-curricular skills of students.
- Students also bring out in-house magazines, newsletters and similar publications.
- Students of NICMAR University pursue their varied hobbies and interests after academic hours through different special interest clubs actively functional on the campus. Various activities are organised by the Music club, Photography club, Dance club, Technical club, Movies and Dramatics club, Sports club, Literary club, R & D club, Start-up club, Design club and Fashion club throughout the year. All these clubs are managed by students.
- Separate well-equipped gymnasia are available for girls and boys, assisted by qualified sports supervisors.
- An international sports stadium is just across the road and students can access swimming pools, gymnasia, field tracks and other facilities on payment basis.

Thus, the University leaves no stone unturned to ensure that the students have a memorable and enriching campus life contributing to their all round development.

#### NICMAR UNIVERSITY EDUCATIONAL LOAN PARTNERS

The banks/financial organisations mentioned below offer educational loans to the students desirous of pursuing NICMAR University's programmes.

- HDFC Credila Financial Services Ltd. [Toll Free No.: 1800-209-3636/Ph. No.: 9765491467]
- ICICI Bank [Ph. No.: 8956019228 Or SMS ELOAN to 5676766]
- Saraswat Co-operative Bank Ltd. [Ph. No.: 020-27292957/58 OR Give a missed call on this number: 9029050027]
- IDFC First Bank Ltd. [Toll Free No.: 1860-500-9900/Ph. No.: 9096923798/9049873109]
- State Bank of India, SPBB, Baner, Pune [Email: sbi.13295@sbi.co.in]
- Bank of Baroda [Give a missed call on this number 8467001122 Or Toll free number 1800223344/45 Or Ph. No.: 7709977826/8007352007/9948505144]
- Canara Bank [Email: rahcopne@canarabank.com]
- Bank of Maharashtra [Ph.No.: 89992 15408/96232 93296/8888969602]
- Credenc Web Technologies Pvt. Ltd. [Website: https://www.credenc.com/, Ph. No.: 7738486004, Email: contact@credenc.com]
- propelld [Website: https://www.propelld.com/, Mr. Sagar Kaushik, Ph. No.: 8147495172]
- kuhoo [Website: https://www.kuhoo.com/, WhatsApp No.: 74000 03839, Ph.No.: 74000 03940]

Applicants may contact the branches of these banks/financial organisations for further details and information.

#### DISCIPLINE AND CODE OF CONDUCT

Students shall be courteous and formal in conduct with faculty and staff at all times, failing which appropriate disciplinary action shall be taken against the erring student. A Code of Conduct for the students is issued at the time of admission and it is mandatory for all students to abide by.



## Two-Year PG Programme by NICMAR University, Pune M.Tech (Infrastructure Project Management) Structure and Course wise Credit Distribution

			Semester 1				
Sr. No	Туре	Code	Course Name	L	Т	Р	С
1	Course	247101ORB	Organizational Behaviour 1 0 0		0	1	
2	Course	247101HRC	Human Resource Management	1	0	0	1
3	Course	247101PPL	Project Planning and Control in Construction	2	0	0	2
4	Course	247101HPI	Hydropower Plant Infrastructure Engineering	3	0	0	3
5	Course	247101HEP	Hydrocarbon and Energy Projects	2	0	0	2
6	Course	247101TIM	Transportation Infrastructure - Metros	2	0	0	2
7	Course	247101PPS	Principles and Practices of Structural Engineering for Construction Managers	2	0	0	
8	Course	247101CAM	Cloud Adoption and Management Techniques	2	0	0	2
9	Course	247101CDL	Critical Thinking, Design Thinking, Leadership and Teamwork	2	0	0	2
10	Workshop	247101CPW	Construction Workshop Practices	onstruction Workshop Practices 0 0 1		1	
11	MOOC	247101IKS	Indian Knowledge System	2	0	0	2
Semester 1 credits							20
	<del>,</del>		Semester 2			,	
Sr. No.	Туре	Code	Course Name	L	Т	Р	С
12	Course	247102COE	Construction Economics	2	0	0	2
13	Course	247102FIM	Finance Management	2	0	0	2
14	Course	247102TBA	Tools for Business Analytics	2	0	0	2
15	Course	247102PPY	Public Policy for Young Professionals	2	0	0	2
16	Course	247102CCM	Contracts Management of Projects	2	0	0	2
17	Course	247102CQS	Construction Quality and Safety	3	0	0	3
18	Course	247102GTP	Geospatial Techniques in Practice	2	0	0	2
19	Programme Elective		Elective 1 (Specialization)	2	0	0	2
20	Workshop	247102GIS	S Geoinformatics (ArcGIS) / AR - VR 0 0		1	1	
21	MOOC	247102SRC	Sustainability related course	2	0	0	2
	Semester 2	2 credits					20
22	SI	247103SMI	Summer Internship	0	0	0	6



	Semester 3						
Sr. No.	IVNA COMA COURSA NAMA		L	Т	Р	С	
23	Course	247103REI	Renewable Energy Infrastructure	2	0	0	2
24	Course	247103LAE	A Professional's Approach to Law and Ethics	2	0	0	2
25	Course	247103BIC	Building Information Modelling in Construction	2	0	0	2
26	Course	247103CRM	Construction Risk Management	2	0	0	2
27	General Course	247103PIM	Project Management for Professionals	2	0	0	2
28	General Elective	247103END	Entrepreneurship Development/Foreign Language/ Sanskrit/			0	2
29	Programme Elective		Elective 2 (Specialization)	2	0	0	2
30	Programme Elective		Elective 3 (Specialization)	2	0	0	2
	Semester 3 credits (including Internship)						22
			Semester 4				
Sr. No.	Туре	Code	Course Name	L	Т	Р	С
31	Course	247104PRW	Project Work	18	0	0	18
32	Course	247104CEM	Community Engagement	2	0	0	2
	Semester 4 credits						20
	Total Credits 8					82	

	S	pecialization	Specialization			
	Transpor	tation Infrastructure	Building Design			
	Code	Elective 1 (Choose any one)	ne) Code		Elective 1 (Choose any one)	
1	247103SMA	Strategic Management Application to Project Delivery	1	247103SBD	Sustainable Building Design Practices in Construction	
2.	247103CEM	Construction Equipment Management	2.	247103CEM	Construction Equipment Management	
		Electives 2 and 3 (Choose any two)			Electives 2 and 3 (Choose any two)	
3	247104PPI	Public-Private Partnership in Infrastructure Development	3	247104IFI	Industrial Facilities Infrastructure	
4	247104RRS	Rehabilitation and Retrofitting of Structures	4	247104BLS	Integrated Building Services	
5	247104RHP	Roads and Highway Project Development	5	247104HRB	Technology and Management of High-Rise and Special Buildings	
6	247104SCM	Supply Chain Management and Logistics	6	247104SCM	Supply Chain Management and Logistics	



#### **ASSESSMENT**

#### **Course Examination**

The course examination comprises two parts: The semester-end examination and the internal assessment. The weightage for the same is given below.

Evaluation	Weightage (%)
Semester End Examination	50
Internal Assessment	50

The semester-end examination is only for the courses with an L component and shall be of one/two hours.

#### **Internal Assessment**

Internal assessment is the continual assessment of a candidate's performance during the course study and it will be done by the concerned faculty member. For a course with a Term-end examination, 50% weightage is assigned to internal evaluation. This internal evaluation of candidates should be carried out by at least three components, of which the Unit test component is mandatory. For all courses, the Unit test will carry 40% weightage of marks (20 Marks). This will be conducted during the tenth week of the semester, and the syllabus will cover the portion up to the tenth week. The fifth week of the semester will be Internal Assessment 1 (IA1), and the last week of the term will be Internal Assessment 2 (IA2). The syllabus for IA1 will be till the fifth week, and the syllabus for IA2 will be from the Unit test till the last week of the semester (i.e.,15<sup>th</sup> week). For IA1 and IA2, the faculty can select any of the below components. The Controller of Examination (CoE) will conduct the unit test.

The IA1 And IA2 may have the following components:

- Class-participation
- Case analysis and presentation
- Quizzes/ Class test/Surprise test/Assignments (announced/unannounced)
- Term papers/Decision sheets/Project reports
- Research Paper Presentations/Viva
- Individual assignments/Group assignments/Presentations/Decision sheets
- Field project
- Role Play/Simulation
- Any other school/program/course-specific component

#### Summer internship and project work

The summer internship is assessed by the internal faculty only. Summer internship carries 50 marks and is assessed during the third semester. The weightage assigned is 50% for each report writing and presentation.

Students' project work (Seminar and Interim assessment) is evaluated by the assigned guide and an internal faculty (this is done at the end of the 2<sup>nd</sup> and 3<sup>rd</sup> semesters). The final viva voce is evaluated by the guide and an industry expert or other institute faculty members. The seminar and interim assessment are 50 marks, whereas the final viva voce is 100. In seminar and interim assessment, the weightage for contents is 60% and for presentation 40%, whereas in the case of viva voce, 80% weightage is for the content, and 20% weightage is for the presentation.

#### **Failure Cases**

NICMAR University's programmes are highly demanding, and students of a high caliber are admitted through a rigorous evaluation. Consequently, every student is expected to complete the procedure in all subjects and submit their project work promptly unless there are legitimate grounds for delay. A student is declared 'Pass' in a course if they score at least 40% marks each in internal and semester-end examinations.

If any student fails to obtain the minimum passing marks in the internal or semester-end examination, they will be declared fail. Such a student will have to re-appear for examination by paying the re-examination fee of Rs. 2000/- per course and obtaining the minimum passing marks to qualify.



Similarly, non-submission of project work on time is not acceptable. A candidate is not considered to have completed the programme unless they submit the project report and is judged as satisfactory by the guide and given the required ratings by the examiner/s appointed for the purpose.

If the students wish to get their examination paper/s re-evaluated, this can be done on payment of the re-checking/re-assessment fees of Rs. 1000/- per course.

#### **Grading System**

Evaluation will be done on a semester basis. A Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA) will be calculated at the end of every semester. Students should clear all the courses to meet the requirements of the programme.

**Disclaimer:** The NICMAR University reserves the right to revise any/all of the components of the above policy, including payment schedule and refund policy without any prior notice.

The University reserves the right to revise the contents of the brochure from time to time without any prior notice. All matter is subject to NICMAR University, Pune jurisdiction only.

