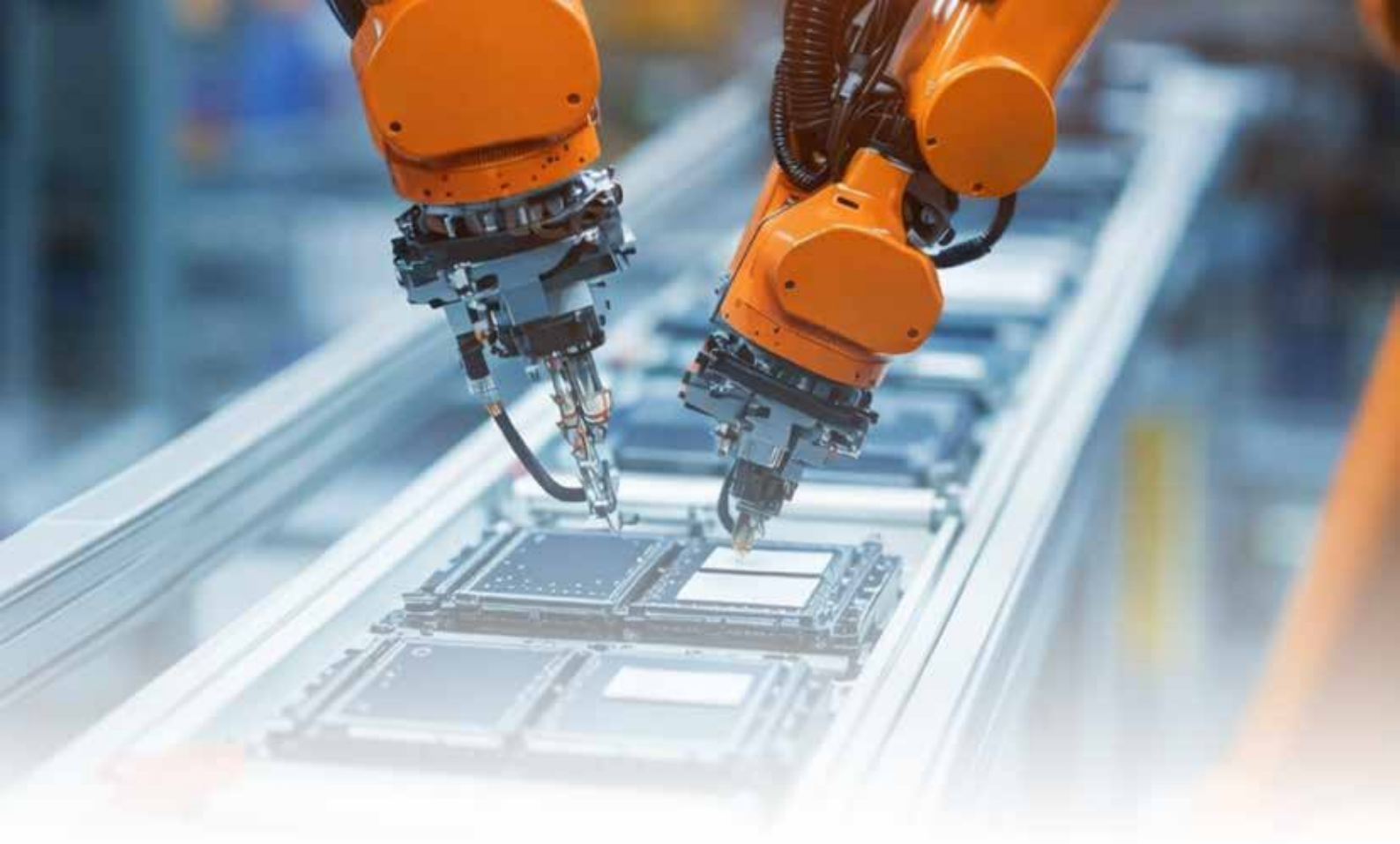
NAM:TECH
Institute of Manufacturing Innovation

Fellowship Program in Smart Manufacturing & Industry 4.0 Systems

2-Months Hybrid Fellowship Program for B.Tech Final Year Students



About NAMTECH

NAMTECH (New Age Makers' Institute of Technology), an educational initiative by ArcelorMittal Nippon Steel India, is India's first Manufacturing Engineering Technology (MET) Institution. Aligned with Make in India and Viksit Bharat 2047 initiatives, NAMTECH equips ambitious engineers with advanced, experiential programs that build a sustainable and innovative industrial future.

NAMTECH holds the Ministry of Education's Letter of Intent (LOI) for conferment of deemed university status, positioning it as a premier destination for industry-integrated engineering

About School of Smart Manufacturing

The School of Smart Manufacturing (SoSM) stands at the crossroads of physical production and digital intelligence. In an era shaped by cyber-physical systems, autonomous factories, and AI-driven decisions, SoSM equips engineers to reimagine how the world makes things.

From AI-powered quality control and live digital twins to IIoT-connected machinery and sustainable production intelligence SoSM is where tomorrow's factory floors are designed today. The school collaborates with global industry leaders to provide students with hands-on access to real equipment, real data, and real-world challenges.

NAMTECH Fellowship Program in Smart Manufacturing & Industry 4.0 Systems

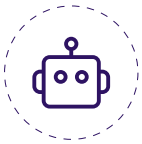
A structured, three-phase hybrid fellowship program designed to take final year B.Tech students from foundational exposure to live project deployment inside an actual smart factory environment.

Online Component:
Concept building and guided challenges through expert-led virtual sessions.

On-Campus Component:
Hands-on project deployment on NAMTECH's Industry 4.0 factory floor, working with live machines and real production data.

Why This Internship is Different?

Not Just Another Internship.
Not Just Another Internship. A Launchpad into the Future of Manufacturing.



Live Factory Access
Work on NAMTECH's operational Industry 4.0 mini factories.

AI and Manufacturing Integration
Deploy ML models on real sensor data from live production lines, not textbook datasets.

Digital Twin Projects
Build and simulate digital replicas of real manufacturing cells used in industry.

Expert Mentorship
Guidance from faculty with IIT and international background, plus professionals from global MNCs.

Industry Case Studies
Solve real challenges sourced from ArcelorMittal Nippon Steel India's production ecosystem.

Fellowship Credentials
Receive a Certificate, Letter of Recommendation, and a real project to show.

Program Structure – Three Phases

Phase 1: April 2026 (Online)

A curated introduction to the intelligence behind modern manufacturing with expert-led sessions paired with guided mini-challenges that give you a real taste of what is possible. Designed to spark curiosity. The rest unfolds on campus.

Topic 1	**The Smart Factory Decoded** How Industry 4.0 is rewriting the rules of production; cyber-physical systems; real factory architecture from NAMTECH's floor.	**Mini-Challenge** Sketch a data flow map for one manufacturing process identify where intelligence can be added and where it is missing.
Topic 2	**AI & Data on the Factory Floor** How machines generate data, what patterns mean, and how AI turns noise into actionable manufacturing decisions.	**Mini-Challenge** Given a sample sensor dataset, complete a guided Python snippet to identify anomalies scaffold provided, you supply the logic.
Topic 3	**Seeing What Machines See** Introduction to computer vision in quality inspection and how a camera replaces manual inspection at scale.	**Mini-Challenge** Run a pre-built defect detection script on sample images. Tweak one parameter and observe how detection accuracy shifts.
Topic 4	**Your Factory's Digital Twin** What a digital twin is, why global manufacturers are racing to build them, and what it really takes to create one.	**Mini-Challenge** In a simplified simulation environment, modify one variable in a virtual conveyor model and document how the system responds.
Topic 5	**The Connected Factory** IIoT basics, sensor-to-cloud pipelines, and how real-time data powers smarter manufacturing decisions.	**Mini-Challenge** Trace a live data stream from sensor to dashboard in a guided environment. Identify and explain the bottleneck in the pipeline.
Topic 6	**Additive Manufacturing & Smart Production** Additive manufacturing is transforming production through design freedom, efficiency, and digital integration in Industry 4.0.	**Mini-Challenge** Design and fabricate a component using AM, selecting and optimizing process parameters to reduce defects and enhance performance.

Phase 2: May 2026 (Online)

Expert-led seminars, industry masterclasses, live case studies from the manufacturing floor, and guided project formulation the bridge between knowledge and execution.

Week 1	**Industry Masterclass** Global and Indian manufacturing leaders share live factory insights, career pathways, and in demand skills.
Week 2	**Research Seminar** Faculty experts and external researchers present cutting-edge work in digital twins, AI quality control, and sustainable production.
Week 3	**Project Floating** Curated real-world projects are unveiled. Students review briefs, assess feasibility, and align before team formation begins.
Week 4	**Design Challenge** Teams present solution architecture to faculty mentors for review and finalization before the on-campus phase begins.

Phase 3: June 2026 (Two weeks, On-Campus)

Full-time, immersive project execution on NAMTECH's smart manufacturing campus. Students work alongside faculty mentors, using industry-grade equipment from Festo, Schneider, Siemens, to build, test, and demonstrate real solutions.

- AI-Based Visual Quality Inspection System
- Digital Twin for a Live Factory
- Predictive Maintenance for Industrial Robots
- Smart Energy Monitoring & Optimization Platform
- IIoT Real-Time Production Dashboard
- AI-Driven Adaptive Scheduling for Smart Assembly

Fellowship Program Benefits

- Build and deploy projects on live Industry 4.0 factory equipment.
- Project funding support for approved hardware and development expenses.
- Free access to the Phase 1 online Smart Manufacturing & AI course.
- Webinars, industry masterclasses, and expert talks fully sponsored by NAMTECH.
- Direct exposure to ArcelorMittal Nippon Steel India's real manufacturing challenges.
- Academic mentoring by international Academic experts and Industry professionals.
- On-campus accommodation (subject to availability, at actual fees).
- Fellowship Certificate and Letter of Recommendation upon successful completion.
- Access to NAMTECH's world-class Smart Manufacturing Labs.
- Gain real-world industry exposure in Automation.

Eligibility

All branches of final-year students, except Civil and Chemical Engineering

Faculties

Expert seminars, industry talks, applied case studies, project floating, and guided group discussions for project formulation.

Keynote Speaker
Prof. Velagapudi Vasu
Professor and Director,
School of Smart Manufacturing, NAMTECH
Post-Doc, Politecnico di Milano, Italy
Professor, NIT - Warangal

Keynote Speaker
Dr. Sunil Pathak
Associate Professor,
PhD from IIT Indore,
Ex - Scientist, Czech Academy of Sciences, Europe

Experts
Dr. Litton Bhandari
Assistant Professor,
PhD - IIT Roorkee

Experts
Dr. Shrishti Paliwal
Assistant Professor,
PhD - IIT BHU, Prime Minister Research Fellow

Experts
Dr. Hardik Patel
Assistant Professor,
PhD - IIT Delhi

Experts
Dr. Ajit Kumar Sharma
Assistant Professor,
PhD - IIT Delhi
Post-Doc, IISc Bangalore

Experts
Dr. Lalit Kumar
Assistant Professor,
PhD - IIT BHU

Experts
Dr. Sankata Tiwari
Assistant Professor,
PhD - IIT BHU

Application Process

Scan here
for registration

Click here for registration
https://forms.gle/Gb7ofb4Nubx78ihS9

Applications Deadline
12TH APR 2026

Step 1
Submit online application via registration link/QR code

Step 2
Upload scanned Student ID and latest semester marksheet.

Step 3
Write a Statement of Interest (max 200 words)

Step 4
List projects, research, papers, or internships completed to date, with your latest resume.

Shortlisting Criteria

Candidates will be shortlisted based on the following weightage:

50% Academic Performance

20% Statement of Interest

30% Projects/ Papers/ Conferences/ Research Work

NAMTECH students, Dhrumil Gandhi and Sathyajith Balakrishna, brought Bronze medal for India in Industry 4.0 category, competing against 21 countries in WorldSkills Competition at Lyon, France 2024.

NAMTECH Campus

NAMTECH's final home is a smart campus that is currently under development on over 150 acres of land in Ahmedabad and will accommodate 5 Schools, 2 centers and 1 center of Excellence.

This new campus of NAMTECH is scheduled to be fully operational by July 2026.

Take the First Step Toward Building the Factory of the Future

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Research Park, IIT Gandhinagar, Palaj, Gandhinagar, Gujarat - 382055, India

www.namtech.ac | **info@namtech.ac**

For more details contact: **Uttam Biswas +91 70653 62436**

Scan here
for registration