

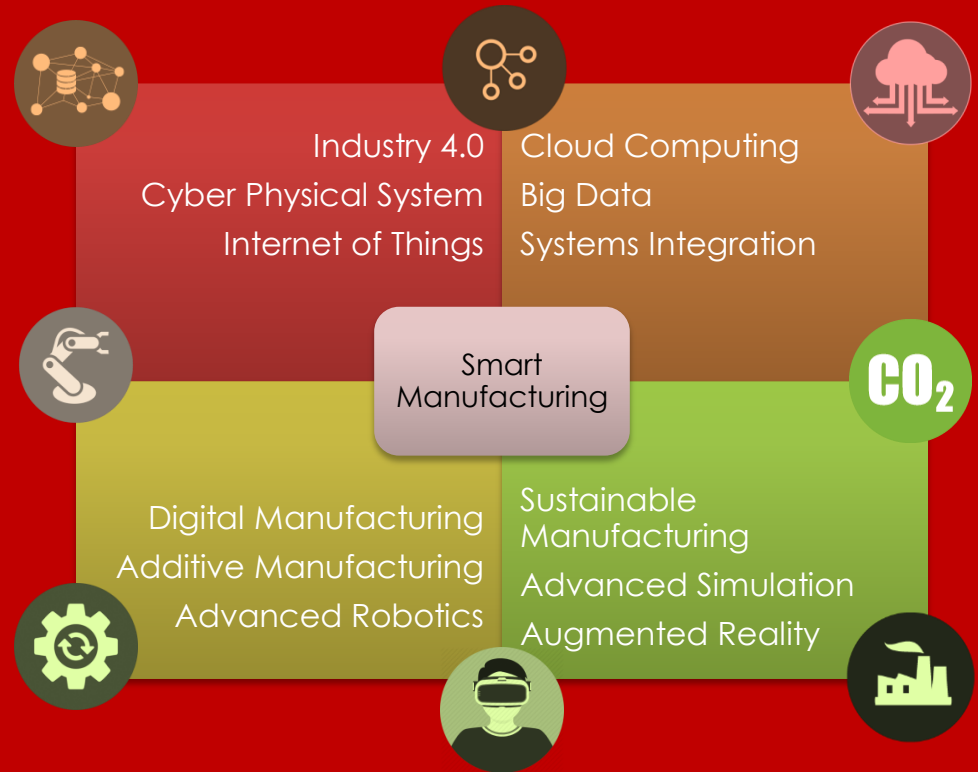
B.TECH - MECHANICAL (SMART MANUFACTURING)

A New Undergraduate Program from 2016
for Next Generation Industries

Smart Manufacturing

The 21st century manufacturing facilities have ushered a new wave of manufacturing with an amalgamation of technologies from advanced information technology to fully integrated production systems. With Smart Manufacturing or Industry 4.0, manufacturers are moving towards a new level of interconnected and intelligent manufacturing system which incorporates the latest advances in sensors, robotics, big data, and controllers.

To keep pace with the evolution of these "smart" factories requires highly skilled and nimble engineers to manage the increasing complexity and shorter mind-to-market product cycles. Future manufacturing engineers need to have basic knowledge on IT. Strong problem-solving skills can equate to the ability to autonomously adjust robots and production systems real-time.



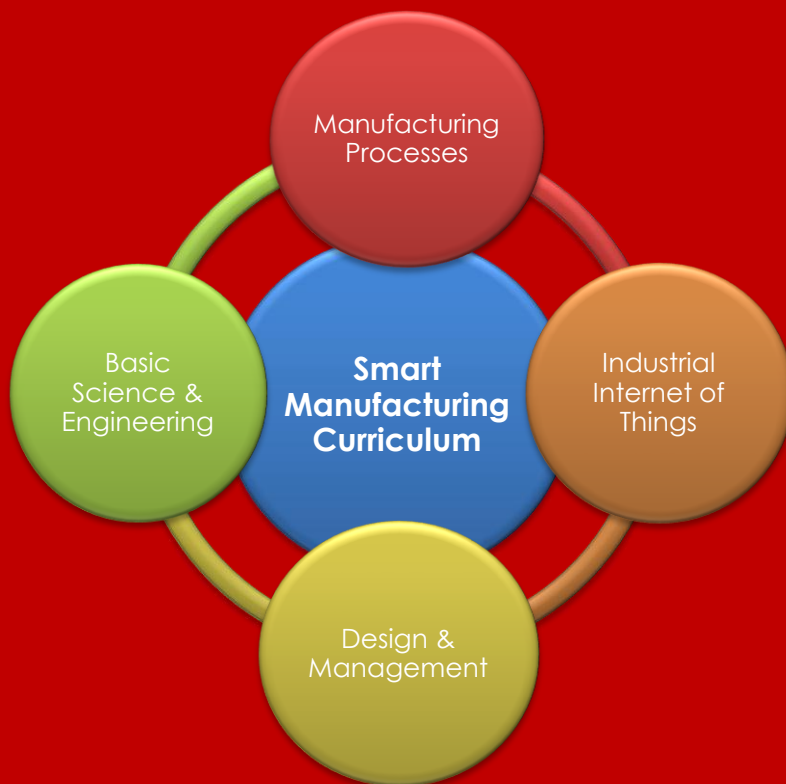
Government Initiatives

About the Program

B.Tech. Mechanical (Smart Manufacturing) program has adopted a multi-faceted approach to manufacturing, education by giving equal importance to basic sciences & engineering courses, unit manufacturing processes, automation, assembly, electronic manufacturing, virtual manufacturing, and information systems technology.

Students will be trained in manufacturing processes, manufacturing systems, systems engineering, IT, Networks, and basic shop floor communications. Experiential learning approach will be followed and students will be gaining hands-on experience in many spheres of technology related to smart manufacturing.

Students will also undergo internships for five months duration and will be exposed to real world challenges of the present day industry. The students will have an option to serve in smart factories of automobile, defense, space and consumer goods manufacturing industries.



About IIITDM Kancheepuram

Indian Institute of Information Technology Design and Manufacturing Kancheepuram (IIITDM Kancheepuram) is an Institute of National Importance established in 2007 by the Ministry of Human Resource Development, Government of India to pursue design and manufacturing oriented engineering education and research and to promote the competitive advantage of Indian products in global markets. IIITDM Kancheepuram functions in its modern campus located at outskirts of Chennai.



“The Design and Manufacturing Centric Engineering programs offered at IIITDM Kancheepuram are designed to meet the demands of next generation industries. Our graduands are capable of designing and making smart products needed for the Society”

Prof Gnanamoorthy
Director

Graduating Students of IIITDM



IIITDM Admin and Academic Buildings

Program Structure

B Tech - Mechanical (Smart Manufacturing)

Semesters

1	Calculus	Concepts in Engg. Design	Earth, Envir. & Design	English	Computational Engineering	Engineering Mechanics	Engineering Graphics	Engineering Skills	
2	Differential Equations	Basic Electrical & Electronics Engg	Design History	Prof. Ethics	Science & Engg of Materials	Engineering Electro Magnetics	Industrial Design Sketching	Design Realization	Measurement & Data Analysis
3	Probability & Statistics	Thermal Concepts for Manufacturing	Engg Economics	Manufacturing Processes - I		Data Structures and Algorithms	Production Drawing & Manufacturability Analysis	Electrical Drives	
4	Mathematics Elective	Database Management Systems	Operations & Supply Chain Management	Manufacturing Processes - II		Machine to Machine Communications	Sensors & Controls	Expert Lecture	
5	Entrepreneurship & Managt	Mechanical Design Concepts	Manufacturing Systems	Robotics & Automation		Embedded Systems	Quality Inspection & Product Validation	Expert Lecture	
6	Elective - I	Elective - II	Operations Research	Special Manufacturing Processes	Product Design Practice	Smart Connected Systems	Computer Aided Design and Manufacturing		
7	Free Elective-I	Data Analytics	Design and Manufacturing Project			Internship (5 Months)			
8	Elective - III	Free Elective-II	Management Elective	Project					

Color Codes

Basic Sciences	Design	Manufacturing	ICT Courses	Basic Engineering	Humanities & Management	Elective Courses	Border Lines	Theory Courses	Theory & Practice Courses
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www.iiitdm.ac.in/smartmanufacturing

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