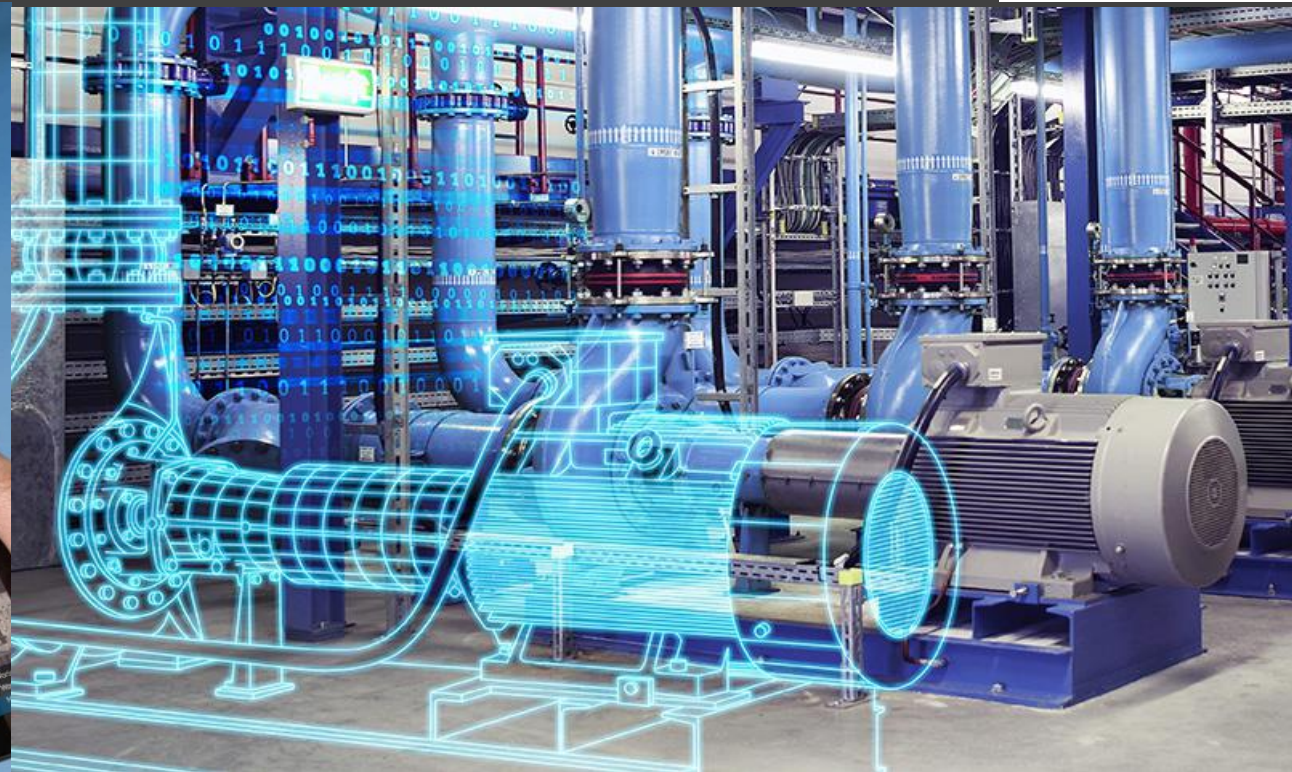




**Mechanical
Engineering
offers Minor in**

DIGITAL MANUFACTURING



| | |
|-------------|--|
| Starting | September 2020 |
| Credits | 20 |
| Capacity | 60 Students Only |
| Eligibility | Students of CE, ECE, EEE, CSE & CST |

Digital Manufacturing – will decorate the Engineer world. Digital manufacturing is the application of computer systems to manufacturing services, supply chains, products and processes. Digital manufacturing technologies link systems and processes across all areas of production to create an integrated approach to manufacturing, from design to production and on to the servicing of the final products.



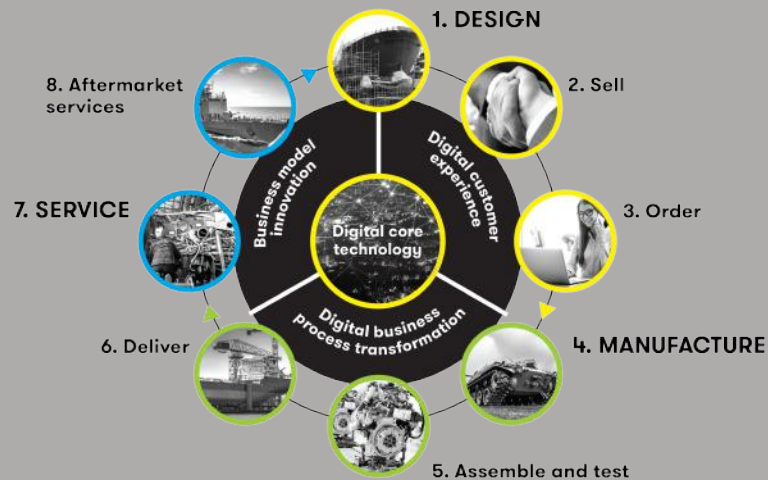
Digital Manufacturing Perspectives

Digital manufacturing looks set to continue and grow in the future as the use of information for production processes becomes increasingly automated. With systems that can interact with each other, the growth of **industry 4.0** looks set to continue the trend for joined-up production in order to increase competition and improve and streamline processes.

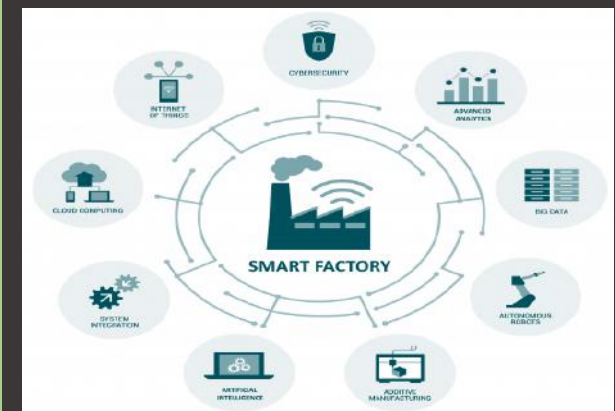
The **smart factory** involves the use of smart machines, sensors and tooling to provide real time feedback about the processes and manufacturing technology. By uniting operations technology and information technology, this digital transformation allows for greater visibility of factory processes, control, and optimisation to improve performance.

About this Course

This course will expose you to the transformation taking place, throughout the world, in the way that products are being designed and manufactured. By the end of this course, you'll understand what DMT is and how it is impacting careers, practices and processes in companies both large and small. You will gain an understanding of and appreciation for the role that technology is playing in this transition. The technology we use every day – whether it is communicating with friends and family, purchasing products or streaming entertainment – can benefit design and manufacturing, making companies and workers more competitive, agile and productive. Discover how this new approach to making products makes companies more responsive, and employees more involved and engaged, as new career paths in advanced manufacturing evolve. Main concepts of this course will be delivered through lectures, readings, discussions and various videos.



Program Structure



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Think to be the part of digital manufacturing world

This Minor is offered to all the technophiles from Depts. of Civil Engg., ECE, EEE, CSE & CST. The eligibility is based on the regulations as formulated by MITS. Zeal to learn is expected.

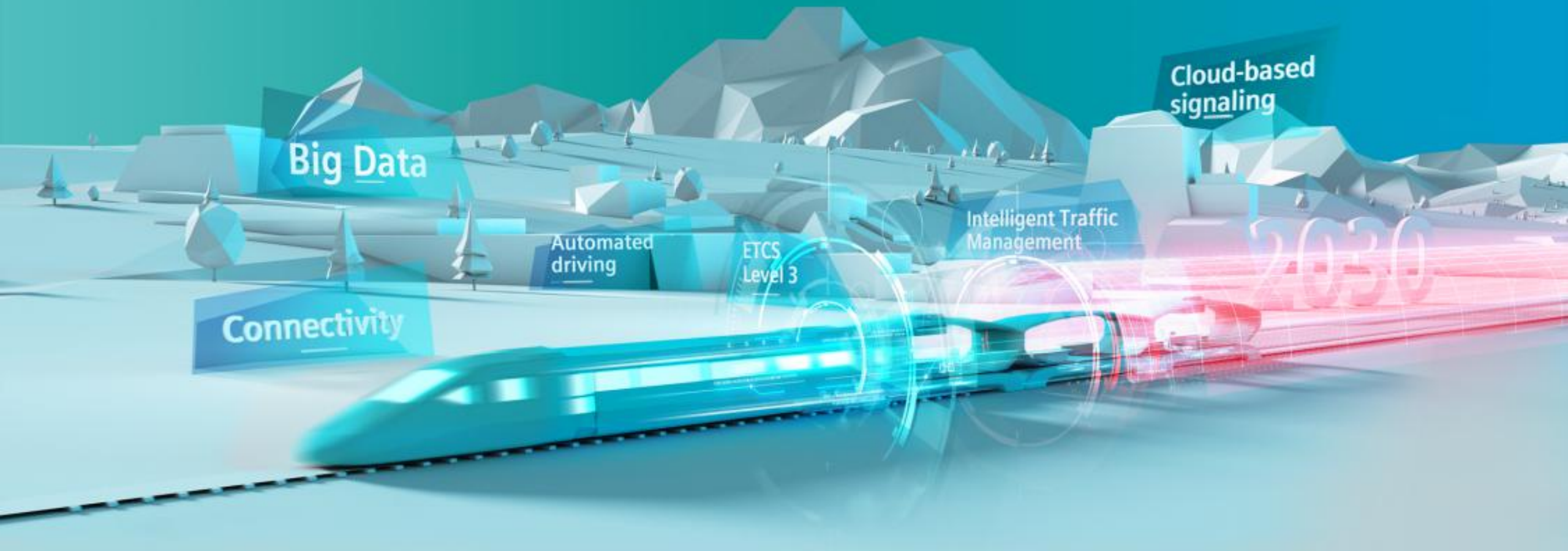
Outcome skills

Import knowledge of Computer Aided Manufacturing Processes on that explores the many facets of manufacturing activities starts from selection of materials, design of product, process simulation, quality control, data processing and manufacturing of components .

CAD / CAM lab provides hands on training in CAD package and CNC machining practice. A culminating project to achieve a self-established digital manufacturing technologies on the-related professional goal.

| Sl. No | Category | Course Code | Course Title | Credits |
|-------------------------------|--------------------------|-------------|---|---------|
| III Year – I Semester | | | | |
| 1 | Professional Core Course | 18MDME106 | Computer Aided Manufacturing Process | 3 |
| 2 | Professional Core Course | 18MDME107 | Product Design and Development | 3 |
| III Year – II Semester | | | | |
| 3 | Professional Core Course | 18MDME108 | Digital Manufacturing Planning and Control | 3 |
| 4 | Professional Core Course | 18MDME109 | Big Data Analytics for Manufacturing | 3 |
| 5 | Professional Core Course | 18MDME202 | Computer Aided Design and Manufacturing Lab | 2 |
| IV Year – I Semester | | | | |
| 6 | Professional Core Course | 18MDME110 | Smart Sensors and Industry 4.0 | 3 |
| 7 | Project | 18MDME701 | Mini Project | 3 |
| Total | | | | 20 |

Department of Mechanical Engineering, Madanapalle Institute of Technology & Science, Madanapalle, Chittoor, A. P, India – 517325 .



You are on the way of excellence with pride of
MIT