

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC - AUTONOMOUS)

Report on
Guest Lecture on Latest Trends in New Product Development in CNC Machining
Organized by Dept. of Mechanical Engg. - MITS
6 October 2015



Submitted by: Mr Rayudu Peyyala, Associate Professor, Dept. of Mechanical Engg.

Department of Mechanical Engg., MITS, Madanapalle organized a Guest Lecture on "**Latest Trends in New Product Development in CNC Machining**" by **Mr. Ajitha Prabu, Director, Kriatec Services Pvt Ltd, Chennai** for B.Tech final year Mechanical students on 6th October 2015.

The lecture is specifically on new product development in CNC machining. The highlighted points are:

1. The CNC machining latest trends and various applications of CNC machining in the fields of automobile, marine, Medical, aerospace, oil and gas etc.,
2. The benefits of CNC machining and steps involved in new product development cycle which includes process planning, fixture design ,cutting tool selection, CAM programming, manufacturing documentation. Also discussed the importance of reading the drawings, various conventions's used in assembly and detailed drawings.
3. Discussed the procedure to identify the input parameters (components, machines, diagrams, operations) how these input parameters help to get a desired output.
4. Differentiated the vertical CNC and horizontal CNC machining centres.
5. Explained in detail the various steps involved in CNC machining. Which are listed below
 - ✓ Identifying the process
 - ✓ Sequence of operations
 - ✓ Selection of tools
 - ✓ Development of program
 - ✓ Design of fixtures
6. Explained in detail about the fixture design which includes C-Clamping, L-Location, R-Resting and O-Orientation and the importance of the same
7. Explained the various provisions in Edge cam software and its applications in various fields of engineering. Explained the scope of skill development which would enable them to be employable.