

PRODUCT DESIGN & ENGINEERING

Product Design & Engineering (PDE) is the hub of all special products development activity / projects at CMTI. PDE undertakes design & development of Advanced Technology products and Special products and has been rendering this service for the past 60 years to the Indian manufacturing industry sectors like General Engineering, Machine Tool, Auto-components, Aerospace, Space, Shipbuilding, Process and Textile, among others.

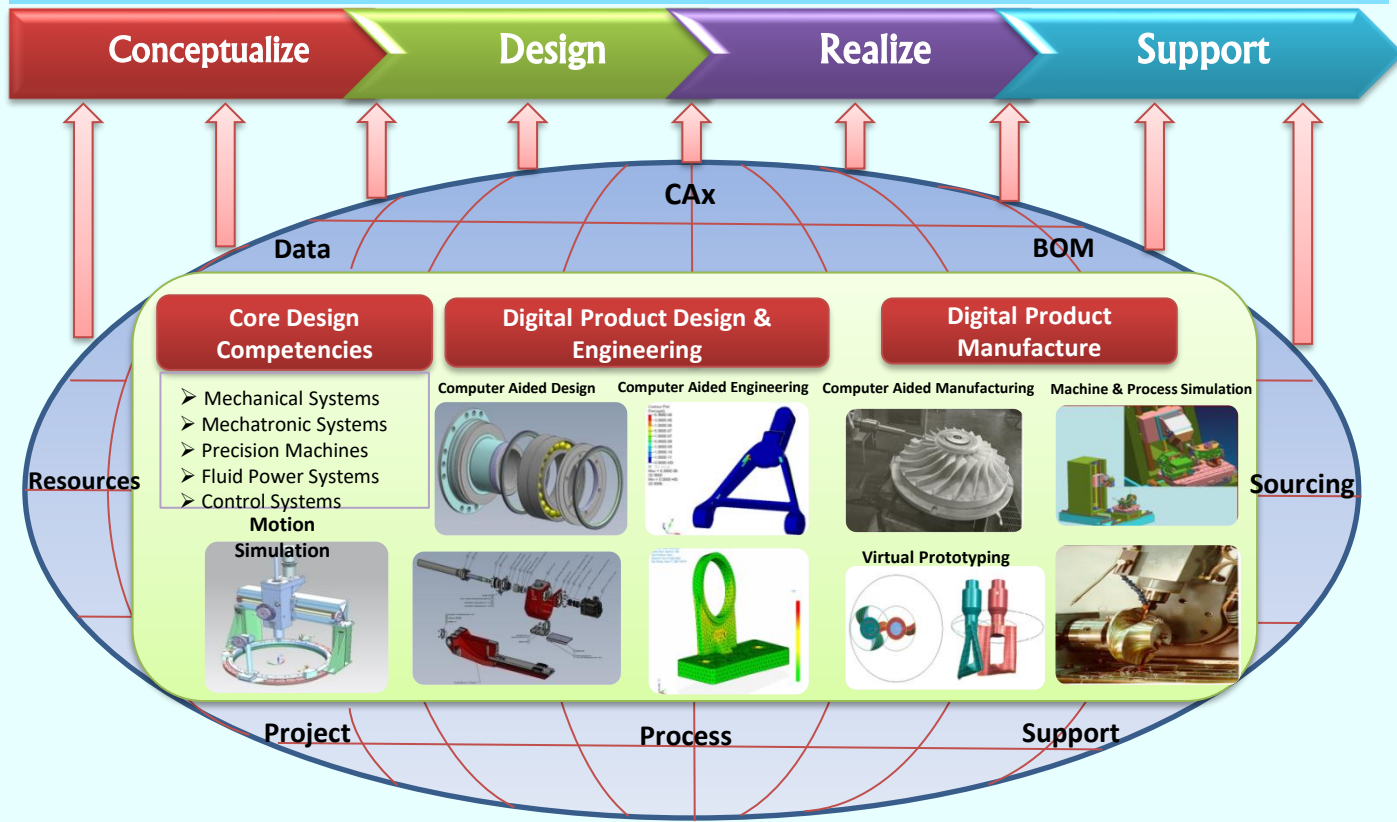
Products designed & developed at CMTI span a very diverse range including machine tools, process machinery, medical devices, equipments & accessories, special test systems, multi-gauging systems to name a few.

Core Objective
 Provide Product development support to Indian Manufacturing Industries in their quest for innovation & indigenous technology development.

Value Added Features:

- ❑ New Product Development support offered by CMTI spans Project Incubation to Product conceptualization, design & engineering to Product Realization to Pre-production trial runs to Product commissioning & support.
- ❑ Product Development value chain at CMTI encompasses Design, Manufacture, Inspection, Assembly, Quality , Testing & Validation, Condition monitoring competencies & facilities.
- ❑ Product Development process digitally integrated & managed in PLM.

NEW PRODUCT DEVELOPMENT at CMTI



PRODUCT DESIGN & ENGINEERING

Expertise & Experience

- Highly qualified Design manpower is a rich combination of expertise & experience with both national & international exposure
- Skill sets include Precision Machine Design, Robotics, Mechatronics, Hydraulics, Pneumatics, FEA, FMEA, Electrical & Control systems.

Facilities

- Advanced CAD/CAM/CAE packages (UG-NX, SOLIDWORKS, ANSYS, HYPERMESH, AUTODESK INVENTOR, KISSOFT, MATLAB)
- PLM for digital management of the design process.

Services Offered

- Special and Advanced Technology Product Development
- Engineering Services – Design verification, Design calculations, FE analysis, Virtual simulations
- Research streams from ongoing projects to facilitate PG/PhD projects for the academic fraternity.

Machine Tools



Centreless Bar Turning Machine



Centreless Grinding Machine



Engraving machine



Goliath Facing & Taper Boring Machine

Auto Components Sector



CNC Piston Ring Finish Turning and Grooving Machine



CAM Turning Machine



Parallel Kinematics Machine



Diamond Turning Machine

Inspection Systems



Multi Gauging System



Flexible Inspection System

Technology Innovations



Rotary Actuator



Angular Gearbox

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