



Karunya INSTITUTE OF TECHNOLOGY AND SCIENCES

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

MoE, UGC & AICTE Approved

NAAC A++ Accredited

DIVISION OF MECHANICAL ENGINEERING

Centre for Research in Design and Manufacturing Engineering (CRDM)

The Centre for Research in Design and Manufacturing Engineering (CRDM) in the School of Mechanical Sciences established in 2006, is well- equipped with facilities for regular academic purposes, research and consultancy. It has its credit a lot of research and consultancy work for the benefit of academicians and industries who sought after for the solutions for their research problems. Several academic and industrial problems were investigated especially in the area of machining and solutions were provided.

The main objective of the center is to foster research in Design and Manufacturing Engineering through collaborations with Researchers, R & D organizations and industries, to disseminate the research findings through publications, seminars, conferences, workshops and technology transfer schemes and to generate funds through consultancy services, patents and proposals to funding agencies.

Thrust areas of research and consultancy:

- Hard turning with minimal cutting fluid application
- Hard milling with minimal cutting fluid application
- Machinability studies on stainless steel and composites
- Investigations on Electric Discharge Machining
- Suppression of cutting tool vibration
- Cutting temperature reduction through heat pipes.

Facilities available for research, consultancy and testing:

- Centre lathe with variable speed and feed drive (Kirloskar make)
- Automatic precision surface grinding machine (Craftsman make)
- Universal milling machine (BFW Make)
- Pillar type Drilling Machine with variable feed drive (CKP Make)
- Kistler multicomponent dynamometer with dynaware software
- Surface roughness tester (Mitutoyo Make)
- Electronic Top Loading Balance (Shimadzu make)
- Infrared Thermometer (Amprobe make)
- Triaxial accelerometer (Dytran Make)
- Qualitek – 4 Software
- Minitab – 15 Software

Major Equipment's



Kistler multicomponent dynamometer



Electronic Top Loading Balance (Shimadzu)



Automatic precision surface grinding machine
(Craftsman)



Centre lathe with variable speed and feed drive
(Kirloskar)



Surface roughness tester (Mitutoyo Make)



Infrared Thermometer (Amprobe)

Faculty In-charge



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