

## **Innovation in Teaching and Learning:**

As an innovation for teaching and learning process, we are effectively implementing the virtual lab scheme offered as an Initiative of Ministry of Human Resource Development (MHRD) Under the National Mission on Education through ICT

### **Objectives of Virtual Lab:**

- To enthuse students to conduct experiments by arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.
- To provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self-evaluation.

<b>S.NO</b>	<b>TITLE OF THE EXPERIMENT</b>
	<b>THERMAL LAB</b>
1	To determine overall heat transfer co-efficient (U) in a parallel flow heat exchanger
2	To determine overall heat transfer co-efficient (U) in a counter flow heat exchanger
3	Conduction analysis of single material sphere
4	Conduction analysis of Double material slab
	<b>DYNAMICS LAB</b>
1	To investigate the Lambert's distance law
2	To investigate the Lambert's direction law (Cosine law)
3	Free Vibration of Cantilever beam
4	Free Vibration of Simply supported beam
5	Free Vibration of Fixed beam
6	Position analysis of Slider crank mechanism
7	Velocity analysis of Slider crank mechanism
8	Acceleration analysis of Slider crank mechanism
9	Position analysis of Slider crank mechanism with Offset
	<b>MANUFACTURING TECHNOLOGY –II LAB</b>
1	To study influence of process parameters on the Wire EDM
2	Laser spot welding using NdYAG laser system
3	Study of Electrochemical machining process
4	Study the effect of process parameters in electrochemical grinding

Students are trained with virtual lab experiments at least two exercises to expose them to the advanced online learning practical experiments.