

Course Number and Name												
BEC008 - MEMS AND NEMS												
Course Objectives												
<ul style="list-style-type: none"> <li>• Have a concept on the scope and recent development of the science and technology of micro- and nano-systems;</li> <li>• Gain the physical knowledge underlying the operation principles and design of micro- and nano- systems;</li> <li>• Learn some typical or potentially applicable micro- and nano-systems at the frontier of the development of the field</li> </ul>												
Prerequisites						Co-requisites						
BPH101-Engineering Physics- I, BPH201-Engineering Physics- II, BCH101-Engineering Chemistry - I , BCH201-Engineering Chemistry - II						Nil						
Course Outcomes (COs)												
CO1: Ability to understand the operation of micro devices, micro systems and their applications												
CO2 : Ability to design the micro devices, micro systems using the MEMS fabrication process.												
CO3 : Gain a knowledge of basic approaches for various sensor design												
CO4 : Gain a knowledge of basic approaches for various actuator design												
CO5: Develop experience on micro/nano systems for photonics .												
CO6 : Gain the technical knowledge required for computer-aided design, fabrication, analysis and characterization of nano-structured materials, micro- and nano-scale devices.												
Student Outcomes (SOs) from Criterion 3 covered by this Course												
COs/SOs	a	b	c	d	e	f	g	h	i	j	k	
CO1	H				M	M		H	M	H		
CO2	M	M	M		M		H					
CO3	M	H		M		M						H
CO4	M	H	M				M	M		M		
CO5		M	M		H	M		M	M			M
CO6				M	H	H			M			