

<b>Course Number and Name</b>												
BEE019 & Smart Grid												
<b>Credits and Contact Hours</b>												
3 & 45												
<b>Course Coordinator's Name</b>												
Dr.V.Jayalakshmi												
<b>Text Books and References</b>												
<b>Text Books:</b>												
1.Vehbi C. Güngör, DilanSahin, TaskinKocak, SalihErgüt, ConcettinaBuccella, Carlo Cecati, and Gerhard P. Hancke, Smart Grid Technologies: Communication Technologies and Standards IEEE Transactions On Industrial Informatics, Vol. 7, No. 4, November 2011.												
<b>References:</b>												
1. Xi Fang, SatyajayantMitra, GuoliangXue, and Dajun Yang “Smart Grid – The New and Improved Power Grid: A Survey” , IEEE Transaction on Smart Grids, 2011.												
2. Stuart Borlase “Smart Grid :Infrastructure, Technology and Solutions”,CRC Press 2012.												
3. <a href="https://www.youtube.com/watch?v=JwRTpWZReJk&amp;list=PLzcxA4YJjE1s6NOlhCA34vrsFCeokjs9_">https://www.youtube.com/watch?v=JwRTpWZReJk&amp;list=PLzcxA4YJjE1s6NOlhCA34vrsFCeokjs9_</a>												
4. <a href="https://iit.edu/news/iittoday/?tag=smart-grid">https://iit.edu/news/iittoday/?tag=smart-grid</a>												
<b>Course Description</b>												
To enable the students acquire knowledge on smart grid, different options of architectural design and communication technology for various aspects of smart grid , System analysis and stability analysis in smart grid, renewable energy sources and storage integration with smart grid.												
<b>Prerequisites</b>						<b>Co-requisites</b>						
Power Generation System						Nil						
required, elective, or selected elective (as per Table 5-1)												
Required												
<b>Course Outcomes (COs)</b>												
CO1: To understand The concepts and design of Smart grid.												
CO2: To understand the various communication and measurement technologies in smart grid.												
CO3: To study the smart meters used in smart grid.												
CO4: To learn the renewable energy resources and storages integrated with smart grid.												
CO5: To familiarize the high performance computing for Smart Grid applications.												
<b>Student Outcomes (SOs) from Criterion 3 covered by this Course</b>												
COs/SOs	a	b	c	d	e	f	g	h	i	j	k	l
CO1	L	M	H	L	L	H	M	L	M	M	L	M
CO2	M	H	M	H	L	M	M	L	M	M	L	L
CO3	M	L	H	M	M	M	L	L	M	M	M	M
CO4	H	H	H	L	H	M	H	L	H	M	H	H
CO5	H	H	M	M	M	M	H	L	H	M	H	H
<b>List of Topics Covered</b>												

