

CSIR-PGRPE-2011 Programme

High Power Microwave Devices and System Engineering

CSIR-CEERI, Pilani

I SEMESTER			II SEMESTER		
<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>	<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>
MDSE 501	Electromagnetic Theory and Transmission Lines	4	MDSE 602	Slow-wave Devices : Principles and Design	4
MDSE 502	Microwave Communication	2	MDSE 603	Fast-wave Devices : Principles and Design	3
MDSE 601	Numerical Techniques and Computer Aided Design of Microwave Tubes	4	MDSE 604	Microwave and Millimeter-wave Tube Technologies	3
MDSE 611	Lab: Microwave Component Characterization and Tube Processing Techniques	3	MDSE 612	Lab: Microwave Devices Characterization and Tube Sub-assembly Fabrication	3
MDSE 551	Technical Communications	2	MDSE 613	Lab: CAD of Microwave Tubes	2
MDSE 552	Research Methodology	1	MDSE 651	Project Management	2
Total Credits		16	Total Credits		17
III SEMESTER			IV SEMESTER		
<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>	<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>
MDSE 631	High Power Microwave Devices, Systems and Applications	3	MDSE 671	Dissertation Seminar and Viva-voce	4
MDSE 63x	Elective (Electron Emitters and Surface Characterization; Plasma-filled Microwave Sources)	2	MDSE 672	Dissertation Report	14
MDSE 661	Project Work and Seminar	14	Total Credits		18
Total Credits		19			

Total Programme Credits : 70 (Courses : 38; Dissertation : 32).

CSIR-PGRPE-2011 Programme

Advanced Semiconductor Electronics

CSIR-CEERI, Pilani

I SEMESTER			II SEMESTER		
<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>	<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>
ASE 501	Physics of Semiconductor Materials and Devices	4	ASE 601	Characterization Techniques for Semiconductor Materials, Technologies and Devices	3
ASE 502	Unit Processes in Semiconductor Technologies	3	ASE 60x	Elective-I (MEMS Technology, LTCC and Packaging; Nanoelectronic Devices and Technologies; CMOS Analog Design; Optoelectronic Materials, Devices and Technologies)	3
ASE 503	CMOS Digital VLSI Design	3	ASE 60x	Elective-II (Physics and Design of MEMS and Microsensors; Advanced VLSI Technologies and Devices; Advanced VLSI System Architectures; Photonic Materials, Devices and Technologies)	3
ASE 512	Lab: Unit Processes in Semiconductor Technologies	2	ASE 621	Lab: Characterization and Measurement Techniques	2
ASE 513	Lab: Physical CMOS-based Design	2	ASE 62x	Lab/Seminar: Elective-I Related	2
ASE 551	Technical Communications	2	ASE 62x	Lab/Seminar: Elective-II Related	2
ASE 552	Research Methodology	1	ASE 651	Project Management	2
Total Credits		17	Total Credits		17
III SEMESTER			IV SEMESTER		
<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>	<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>
ASE 701	Advanced Self-Study (Special Topic)	4	ASE 671	Dissertation Seminar and Viva-voce	4
ASE 661	Project Work and Seminar	14	ASE 672	Dissertation Report	14
Total Credits		18	Total Credits		18

Total Programme Credits : 70 (Courses : 38; Dissertation : 32).

CSIR-PGRPE-2011 Programme

Advanced Electronic Systems

CSIR-CEERI, Pilani

I SEMESTER			II SEMESTER		
<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>	<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>
AES 601	System Design for Process Control Applications	3	AES 621	Real-time Embedded System Design	3
AES 602	System Modeling and Design Languages	3	AES 622	Advanced Signal and Image Processing	3
AES 603	Intelligent Sensor Systems	3	AES 623	Power Electronics and AC/DC Drives	3
AES 611	Lab: System Design for Process Control Applications	2	AES 631	Lab: Real-time Embedded System Design	2
AES 612	Lab: System Modeling and Design Languages	2	AES 632	Lab: Advanced Image Processing	2
AES 613	Lab: Intelligent Sensor Systems	2	AES 633	Lab: Power Electronics and AC/DC Drives	2
AES 551	Technical Communications	2	AES 651	Project Management	2
AES 552	Research Methodology	1	Total Credits		17
Total Credits		18			
III SEMESTER			IV SEMESTER		
<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>	<i>C. No.</i>	<i>Course Name</i>	<i>Credits</i>
AES 701	Advanced Self-Study (Special Topic)	4	AES 671	Dissertation Seminar and Viva-voce	4
AES 661	Project Work and Seminar	14	AES 672	Dissertation Report	14
Total Credits		18	Total Credits		18

Total Programme Credits : 71 (Courses : 39; Dissertation : 32).