MTech in Advanced Electronic Systems at CSIR-CEERI, Pilani

I SEMESTER			II SEMESTER		
C. No.	***Course Name***	***L-T-P-C***	***C. No.***	***Course Name***	***L-T-P-C***
2-208	System Design for Process Control Applications	3-0-0-3	2-211	Real-time Embedded System Design	3-0-0-3
2-209	System Modeling and Design Languages	3-0-0-3	2-212	Advanced Signal and Image Processing	3-0-0-3
2-210	Intelligent Sensor Systems	3-0-0-3	2-213	Power Electronics and AC/DC Drives	3-0-0-3
2-215	Lab: Process Control Applications	0-0-4-2	2-218	Lab: Real-time Embedded System Design	0-0-4-2
2-216	Lab: System Modeling	0-0-4-2	2-219	Lab: Advanced Signal and Image Processing	0-0-4-2
2-217	Lab: Intelligent Sensor Systems	0-0-4-2	2-220	Lab: Power Electronics and AC/DC Drives	0-0-4-2
1-206	Technical Communications	2-0-0-2	2-206	Project Management	2-0-0-2
Total Credits		***17***	***Total Credits***		***17***
III SEMESTER			**IV SEMESTER**		
C. No.	***Course Name***	***L-T-P-C***	***C. No.***	***Course Name***	***L-T-P-C***
3-002	Advanced Self-Study (Special Topic)	0-2-4-4	2-099	MTech Dissertation-II	0-9-18-18
2-098	MTech Dissertation-I	0-7-14-14			
Total Credits		***18***	***Total Credits***		***18***

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

MTech in Advanced Semiconductor Electronics at CSIR-CEERI, Pilani

I SEMESTER			II SEMESTER		
C. No.	***Course Name***	***L-T-P-C***	***C. No.***	***Course Name***	***L-T-P-C***
2-221	Physics of Semiconductor Materials and Devices	4-1-0-4	2-224	Characterization Techniques for Semiconductor Materials, Technologies and Devices	3-0-0-3
2-222	Unit Processes in Semiconductor Technologies	3-0-0-3	3-211/ 3-213/ 3-215/ 3-217	Elective-I (MEMS Technology, LTCC and Packaging; Nanoelectronic Devices and Technologies; CMOS Analog Design; Optoelectronic Materials, Devices and Technologies)	3-0-0-3
2-223	CMOS Digital VLSI Design	3-0-0-3	3-212/ 3-214/ 3-216/ 3-218	Elective-II (Physics and Design of MEMS and Microsensors; Advanced VLSI Technologies and Devices; Advanced VLSI System Architectures; Photonic Materials, Devices and Technologies)	3-0-0-3
2-225	Lab: Semiconductor Processing Technologies	0-0-4-2	2-227	Lab: Semiconductors Related Characterization and Measurement Techniques	0-0-4-2
2-226	Lab: CMOS-based Physical Design	0-0-4-2	3-221/ 3-223/ 3-225/ 3-227	Lab/Seminar: Elective-I Related	0-0-4-2
1-206	Technical Communications	2-0-0-2	3-222/ 3-224/ 2-228/ 3-228	Lab/Seminar: Elective-II Related	0-0-4-2
Total Credits		***16***	2-206	Project Management	2-0-0-2
			Total Credits		***17***
III SEMESTER			**IV SEMESTER**		
C. No.	***Course Name***	***L-T-P-C***	***C. No.***	***Course Name***	***L-T-P-C***
3-002	Advanced Self-Study (Special Topic)	0-2-4-4	2-099	MTech Dissertation-II	0-9-18-18
2-098	MTech Dissertation-I	0-7-14-14			
Total Credits		***18***	***Total Credits***		***18***

Total Programme Credits : 69 (Courses : 37; Dissertation : 32).

MTech in High Power Microwave Devices and System Engineering at CSIR-CEERI, Pilani

I SEMESTER			II SEMESTER		
C. No.	***Course Name***	***L-T-P-C***	***C. No.***	***Course Name***	***L-T-P-C***
2-231	Electromagnetic Theory and Transmission Lines	4-0-0-4	3-231	Slow-wave Devices : Principles and Design	4-0-0-4
2-232	Microwave Communication	2-0-0-2	3-232	Fast-wave Devices : Principles and Design	3-0-0-3
2-233	Numerical Techniques and CAD of Microwave Tubes	4-0-0-4	2-234	Microwave and Millimeter-wave Tube Technologies	3-0-0-3
2-235	Lab: Microwave Components Characterization and Tube Processing Techniques	0-0-6-3	2-236	Lab: Microwave Devices Characterization and Tube Sub-assembly Fabrication	0-0-6-3
1-206	Technical Communications	2-0-0-2	3-233	Lab: CAD of Microwave Tubes	0-0-4-2
Total Credits		***15***	2-206	Project Management	2-0-0-2
			Total Credits		***17***
III SEMESTER			**IV SEMESTER**		
C. No.	***Course Name***	***L-T-P-C***	***C. No.***	***Course Name***	***L-T-P-C***
3-234	High Power Microwave Devices, Systems and Applications	3-0-0-3	2-099	MTech Dissertation-II	0-9-18-18
3-235/ 3-236/ 3-237	Elective (Electron Emitters and Surface Characterization; Plasma-filled Microwave Sources; Vacuum Microelectronic Devices)	2-0-0-2			
2-098	MTech Dissertation-I	0-7-14-14	***Total Credits***		***18***
Total Credits		***19***			

Total Programme Credits : 69 (Courses : 37; Dissertation : 32).