

Master of Technology in ECE
Department of Electronics & Communication Engineering

Subject Code	Course Title	Credit Total(L T P)
Semester 1 (Core Courses)		
ECT661	Advanced Digital Communication Systems	3 (3-0-0)
ECT663	Advanced Error Control Codes	3 (3-0-0)
ECT665	Advanced Microwave Engg.	3 (3-0-0)
ECT679	Advanced Optical Communication Systems	3 (3-0-0)
ECT693	Computer Communication	3 (3-0-0)
ECP667	Comm. Lab-I	3 (0-0-6)
ECT990	Mathematical Methods & Techniques for ECE technologists-I*	3 (3-0-0)
ECT992	Mathematical Methods & Techniques for ECE technologists-II*	3 (3-0-0)
Total Semester Credits		21
Semester 2 (2 + 5 electives)		
ECP668	Comm. Lab-II	3(0-0-6)
ECD666	Minor Project	4(0-0-8)
(Elective Courses)#		
ECT662	Advanced Digital Signal & Image Processing	3 (3-0-0)
ECT664	Estimation and Detection	3 (3-0-0)
ECT670	Satellite Communication and Radar Engg.	3 (3-0-0)
ECT672	Wireless and Mobile Adhoc Networking	3 (3-0-0)
ECT674	Cryptography	3 (3-0-0)
ECT676	Design of Microstrip Antennas	3 (3-0-0)
ECT678	Design of MIC's & MMIC's	3 (3-0-0)
ECT680	Advanced Mobile Systems	3 (3-0-0)
ECT682	Smart and Phased Array Antenna Design	3 (3-0-0)
ECT684	Advance topics in Communication	3 (2-0-2)
ECT686	Photonic Integrated Devices and Systems	3 (3-0-0)
ECT688	EMI/EMC	3 (3-0-0)
ECT690	Wireless Sensor Networks	3 (3-0-0)
ECT692	Computational Electromagnetics	3 (3-0-0)
ECT694	Advanced Photonic Devices and Components	3 (3-0-0)
ECT696	Telecomm. Technology & management	3 (3-0-0)
ECT698	Advanced Networking analysis	3 (3-0-0)
ECT656	Adaptive Signal Processing	3 (3-0-0)
ECT657	VLSI signal processing architectures	3 (3-0-0)
ECT655	Optical Codes and Applications	3 (3-0-0)
Total Semester Credits		22
Semester 3		
ECD699	Dissertation	16(0 0 32)
Total Semester Credits		16
Semester 4		
ECD700	Dissertation	16(0 0 32)
Total Semester Credits		16
Total Credits of all semesters		75

#These courses will be offered by the faculty of Department.

#The students may opt for any of the elective course offered in the Institute on recommendation of supervisor

* only one course out of ECT990 or ECT992 shall be offered



Master of Technology in VLSI Design
Department of Electronics & Communication Engineering

Subject Code	Course Title	Credit Total(L T P)
Semester 1 (Core Courses)		
ECT601	Digital CMOS ICs	3 (3-0-0)
ECT603	CAD Algorithms for Synthesis of Digital Systems	3 (3-0-0)
ECT605	Digital System Design	3 (3-0-0)
ECT607	CAD Algorithms for VLSI Physical Design	3 (3-0-0)
ECP611	System Design lab-1	3 (0-0-6)
ECT631	Analog & Mixed Signal ICs	3 (3-0-0)
ECT990	Mathematical Methods & Techniques for ECE technologists-I*	3 (3-0-0)
ECT992	Mathematical Methods & Techniques for ECE technologists-II*	3 (3-0-0)
Total Semester Credits		21
Semester 2 (2 + 5 electives)		
ECP612	System Design lab-2	3(0-0-6)
ECD656	Minor Project	4(0-0-8)
(Elective Courses)#		
ECT614	VLSI Technology	3 (3-0-0)
ECT616	Computer Arithmetic & Micro-architecture Design	3 (3-0-0)
ECT618	Graph Algorithms & Combinatorial optimization	3 (3-0-0)
ECT620	Microelectronic Devices & Circuits	3 (3-0-0)
ECT622	System Level Design & Modeling	3 (3-0-0)
ECT624	VLSI Testing & Testability	3 (3-0-0)
ECT626	Formal Verification of Digital Hardware & Embedded Software	3 (3-0-0)
ECT628	Memory design & testing	3 (3-0-0)
ECT630	Advanced Computer Architecture	3 (3-0-0)
ECT632	Embedded systems Design	3 (3-0-0)
ECT634	Micro- & Nano- electro-mechanical Systems (MEMS & NEMS)	3 (3-0-0)
ECT638	Design of Asynchronous Sequential Circuits	3 (3-0-0)
ECT640	Electronic manufacturing Technology	3 (3-0-0)
ECT642	FPGAs Physical Design	3 (3-0-0)
ECT650	Special Topics in VLSI-1	3(2-0-2)
ECT652	Special Topics in VLSI-2	3(2-0-2)
ECT654	RF Integrated Circuits	3 (3-0-0)
ECT656	Adaptive Signal Processing	3 (3-0-0)
ECT657	VLSI signal processing architectures	3 (3-0-0)
ECT658	Current-Mode Analog Signal processing	3 (3-0-0)
Total Semester Credits		22
Semester 3		
ECD659	Dissertation	16(0 0 32)
Total Semester Credits		16
Semester 4		
ECD660	Dissertation	16(0 0 32)
Total Semester Credits		16
Total Credits of all semesters		75

Signature

Master of Technology in Embedded Systems
Department of Electronics & Communication Engineering

Draft for approval

Subject Code	Course Title	Credit Total(L T P)
Semester 1 (Core Courses)		
ECT701	Data structures & algorithms	3 (3-0-0)
ECT702	Advanced microcomputer systems & interfacing	3 (3-0-0)
ECT731	Digital System Design & FPGAs	3 (3-0-0)
ECT703	CAD Algorithms for Synthesis of VLSI Systems	3 (3-0-0)
ECT990	Mathematical Methods & Techniques for ECE technologists-I*	3 (3-0-0)
ECP709	Hardware systems Lab	2 (0-0-4)
ECP711	Software systems lab	2 (0-0-4)
Total Semester Credits		19
Semester 2 (2 + 5 electives)		
ECP712	System Design lab	3 (0-0-6)
ECD656	Minor Project	4 (0-0-8)
(Elective Courses)#		
ECT706	Advanced Embedded software design	3 (3-0-0)
ECT704	Computer vision	3 (3-0-0)
ECT714	Advance Computer Architecture	3 (3-0-0)
ECT690	Wireless Sensor Networks	3 (3-0-0)
ECT616	Computer Arithmetic & Micro-architecture Design	3 (3-0-0)
ECT618	Graph Algorithms & Combinatorial optimization	3 (3-0-0)
ECT622	System Level Design & Modeling	3 (3-0-0)
ECT624	VLSI Testing & Testability	3 (3-0-0)
ECT626	Formal Verification of Digital Hardware & Embedded Software	3 (3-0-0)
ECT628	Memory design & testing	3 (3-0-0)
CPTxxx	Parallel & distributed systems	3 (3-0-0)
ECT632	Embedded systems	3 (3-0-0)
ECT634	Micro- & Nano- electro-mechanical Systems (MEMS & NEMS)	3 (3-0-0)
ECT638	Design of Asynchronous Sequential Circuits	3 (3-0-0)
ECT642	FPGAs Physical Design	3 (3-0-0)
ECT654	RF Integrated Circuits	3 (3-0-0)
ECT656	Adaptive Signal Processing	3 (2-0-2)
ECT657	VLSI signal processing architectures	3 (2-0-2)
ECT636	RF MEMS	3 (3-0-0)
ECT662	Advanced Digital Signal & Image Processing	3 (3-0-0)
Total Semester Credits		22
Semester 3		
ECD659	Dissertation	16(0 0 32)
Total Semester Credits		16
Semester 4		
ECD660	Dissertation	16(0 0 32)
Total Semester Credits		16
Total Credits of all semesters		73

Signature

Master of Technology in Wireless and Optical Communications
Department of Electronics & Communication Engineering

Draft for approval

Subject Code	Course Title	Credit Total (L T P)
Semester 1 (Core Courses)		
ECT661	Advanced Digital Communication Systems	3 (3-0-0)
ECT663	Advanced Error Control Codes	3 (3-0-0)
ECT675	Wireless Communications	3 (3-0-0)
ECT679	Advanced Optical Communication Systems	3 (3-0-0)
ECT686	Photonic Integrated Devices and Systems	3 (3-0-0)
ECP669	Comm. Lab-I	3 (0-0-6)
ECT990	Mathematical Methods & Techniques for ECE technologists-I*	3 (3-0-0)
ECT992	Mathematical Methods & Techniques for ECE technologists-II*	3 (3-0-0)
Total Semester Credits		21
Semester 2 (2 + 5 electives)		
ECP671	Comm. Lab-II	3(0-0-6)
ECP666	Minor Project	4(0-0-8)
(Elective Courses)#		
ECT662	Advanced Digital Signal & Image Processing	3 (3-0-0)
ECT664	Estimation and Detection	3 (3-0-0)
ECT670	Satellite Communication and Radar Engg.	3 (3-0-0)
ECT672	Wireless and Mobile Adhoc Networking	3 (3-0-0)
ECT674	Cryptography	3 (3-0-0)
ECT676	Design of Microstrip Antennas	3 (3-0-0)
ECT678	Design of MIC's & MMIC's	3 (3-0-0)
ECT680	Advanced Mobile Systems	3 (3-0-0)
ECT682	Smart and Phased Array Antenna Design	3 (3-0-0)
ECT684	Advance topics in Communication	3 (2-0-2)
ECT658	Optical Networks	3 (3-0-0)
ECT689	Photonic Switching	3 (3-0-0)
ECT690	Wireless Sensor Networks	3 (3-0-0)
ECT692	Computational Electromagnetics	3 (3-0-0)
ECT694	Advanced Photonic Devices and Components	3 (3-0-0)
ECT696	Telecomm. Technology & management	3 (3-0-0)
ECT698	Advanced Networking analysis	3 (3-0-0)
ECT656	Adaptive Signal Processing	3 (3-0-0)
ECT657	VLSI signal processing architectures	3 (3-0-0)
ECT655	Optical Codes and Applications	3 (3-0-0)
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ECP700	Dissertation	16(0 0 32)
Total Semester Credits		16
Total Credits of all semesters		75

