

**The Course Outcomes (COs) are:**

<b>Course Code</b>	<b>Title</b>	<b>Course Outcomes (COs)</b>
<i>Core Courses</i>		
ECE-6101	Advanced Digital Signal Processing	<p>Completion of this course will enable the students to:</p> <ul style="list-style-type: none"> <li>• Design and Implementation of different transforms like: Fourier Transform, Z Transform, Discrete Cosine Transform, Walsh Transform, Hadamard Transform,</li> <li>• Design and Implementation of Digital Filters like: FIR, IIR..</li> <li>• Design and Implementation of multi-rate and adaptive systems.</li> <li>• Power spectrum estimation and analysis</li> </ul>
ECE-6102	Optical Fiber Communication	<p>Completion of this course will enable the students to:</p> <ul style="list-style-type: none"> <li>• Explain factors responsible for signal degradation in OFS.</li> <li>• Describe types and working of optical transmitters and receivers, and digital and analogue transmission systems.</li> <li>• Describe the working of optical amplifiers and Optical Networks.</li> </ul>
ECE-6103	Advanced Digital Communication	<p>Completion of this course will enable the students to:</p> <ul style="list-style-type: none"> <li>• Describe digital communication systems and various modulation schemes.</li> <li>• Describe optimum receivers for AWGN channels.</li> <li>• Explain carrier and synchronization processes, and multicarrier and multichannel systems.</li> <li>• Describe various spread spectrum techniques used in digital communication systems.</li> </ul>

Course Code	Title	Course Outcomes (COs)
ECE-6104	Advanced Mathematics	Completion of this course will enable the students to: <ul style="list-style-type: none"> <li>• Explain series solutions of differential equations, Power series methods.</li> <li>• Series solution of Bessel's differential equations.</li> <li>• Orthogonal functions, Matrices and their functions.</li> <li>• Describe different system simulation techniques.</li> </ul>
ECE-6105	Digital System Design	Completion of this course will enable the students to: <ul style="list-style-type: none"> <li>• Describe design constraints of digital systems.</li> <li>• Analog interfacing techniques and Combinational logic design implementation.</li> <li>• Sequential logic design implementation and Design for testability.</li> </ul>
ECE-6201	Embedded System Design	Completion of this course will enable the students to: <ul style="list-style-type: none"> <li>• Explain different types of microcontrollers and interfacing buses.</li> <li>• Program modelling methods in single and multiprocessor system. Software development process.</li> <li>• Describe embedded core based design and Real-time operating systems.</li> </ul>

<b>Course Code</b>	<b>Title</b>	<b>Course Outcomes (COs)</b>
ECE-6202	Image Processing	<p>Completion of this course will enable the students to:</p> <ul style="list-style-type: none"> <li>• Describe basic image related concepts.</li> <li>• Explain various image enhancement and restoration techniques.</li> <li>• Describe colour image processing, image compression, image segmentation and representation.</li> <li>• Describe wavelet transforms.</li> </ul>
ECE-6203	Wireless and Mobile Communication	<p>Completion of this course will enable the students to:</p> <ul style="list-style-type: none"> <li>• Explain cellular design concepts and various multiple access systems.</li> <li>• Describe GSM architecture and protocols.</li> <li>• Familiarity with CDMA mobile standards.</li> <li>• Describe multipath propagation and 3G Wireless networks.</li> </ul>
ECE-6204	Advanced Computer Networks	<p>Completion of this course will enable the students to:</p> <ul style="list-style-type: none"> <li>• Describe network architectures and classifications.</li> <li>• Explain different networking protocols.</li> <li>• Describe different types of networks – LANs, PANs, WANs, Gigabit networks, WLANs, WiMax etc.</li> <li>• Describe various network applications, and network security considerations.</li> </ul>

Course Code	Title	Course Outcomes (COs)
ECE-7108	Cryptography & Network Security	Completion of this course will enable the students to: <ul style="list-style-type: none"> <li>• Describe network security services and mechanisms.</li> <li>• Symmetrical and Asymmetrical cryptography.</li> <li>• Data integrity, Authentication, Digital Signatures.</li> <li>• Various network security applications, IPSec, Firewall, IDS, Web security, Email security, and Malicious software etc.</li> </ul>
ECE-6211	VLSI Design	Completion of this course will enable the students to: <ul style="list-style-type: none"> <li>• Matlab based system design</li> <li>• Prototype development and simulation using HDL</li> <li>• FPGA Based synthesis and Implementation</li> <li>• Layout design and simulation for ASIC</li> </ul>
ECE-7101	Neural Network & Fuzzy Logic	Completion of this course will enable the students to: <ul style="list-style-type: none"> <li>• Fundamentals of neural networks and fuzzy logic.</li> <li>• Supervised learning and unsupervised learning.</li> <li>• Neurodynamical models</li> </ul>

Course Code	Title	Course Outcomes (COs)
MTE-7201	Human Resource Development & Training Methods	<p>Completion of this course will enable the students to:</p> <ul style="list-style-type: none"> <li>• Mission, purpose and components of HRD. Stages of HRD.</li> <li>• Training and Training Strategies and methods.</li> <li>• Developing group and Climate.</li> <li>• Evaluation of Training</li> <li>• Approaches to design of training programs.</li> </ul>
MTE-7202	Research Methodology	<p>Completion of this course will enable the students to:</p> <ul style="list-style-type: none"> <li>• Describe research and its types.</li> <li>• Reviewing literature. Identifying and defining research problem.</li> <li>• Explaining research design methods, sampling techniques.</li> <li>• Designing and development of measuring instruments.</li> <li>• Data collection and analysis methods.</li> <li>• Research proposal, research report and evaluating research.</li> </ul>

<b>Course Code</b>	<b>Title</b>	<b>Course Outcomes (COs)</b>
TQM-7105	Total Quality Management	<p>Completion of this course will enable the students to:</p> <ul style="list-style-type: none"> <li>• TQM concepts and achieving excellence through TQM.</li> <li>• Problem solving and QC tools.</li> <li>• Leadership and communication for quality.</li> <li>• Inspection and preventive maintenance.</li> <li>• Six sigma, ISO 9000 and ISO 14000, and Quality audit.</li> </ul>
<i>Thesis Work</i>		
ECE-7106	Thesis Work-I	<ul style="list-style-type: none"> <li>• Skill and ability to do literature survey and define the problem.</li> <li>• Ability to set objectives and state the methodology to be adopted.</li> <li>• Preparing the blueprint of research work to be carried out.</li> </ul>
ECE-7201	Thesis Work-II	<ul style="list-style-type: none"> <li>• Skill and ability to conduct research and report it to the world.</li> </ul>