

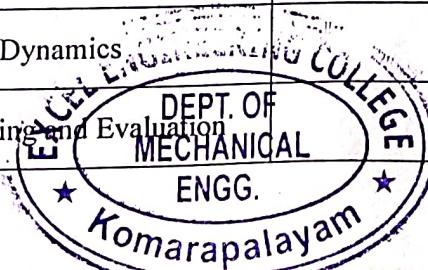
Department of Mechanical Engineering

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which are reflected in Programme Outcomes (POs), Programme

Specific Outcomes (PSOs) and Course Outcomes (COs) of the various Programmes offered by the Institution:

Classification / Mapping of Course with their societal needs

Course Code and name	Local needs	Regional Needs	National Needs	Global Needs
B.E MECHANICAL 2017 REGULATION				
ME8792-Power Plant Engineering		✓	✓	✓
ME8793-Process Planning and Cost Estimation	✓	✓	✓	✓
ME8791-Mechatronics	✓		✓	✓
ME8711-Simulation and Analysis Laboratory		✓	✓	✓
ME8781-Mechatronics Laboratory	✓		✓	✓
ME8712-Technical Seminar		✓	✓	✓
MG8591-Principles of Management	✓		✓	✓
ME8811-Project Work	✓	✓	✓	✓
ME8071-Refrigeration and Air conditioning	✓		✓	✓
ME8072-Renewable Sources of Energy		✓	✓	✓
ME8098-Quality Control and Reliability Engineering	✓		✓	✓
ME8073-Unconventional Machining Processes		✓	✓	✓
MG8491-Operations Research		✓	✓	✓
MF8071-Additive Manufacturing		✓	✓	✓
GE8077-Total Quality Management	✓		✓	✓
ME8099-Robotics		✓	✓	✓
ME8095-Design of Jigs, Fixtures and Press Tools		✓	✓	✓
ME8093-Computational Fluid Dynamics		✓	✓	✓
ME8097-Non Destructive Testing and Evaluation		✓	✓	✓

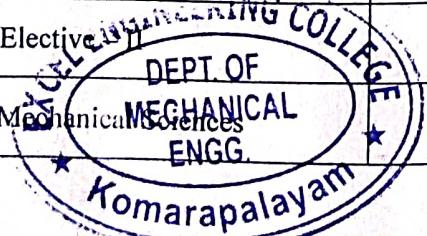


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ME8092-Composite Materials and Mechanics		✓	✓	✓
GE8072-Foundation Skills in Integrated Product Development	✓		✓	✓
GE8074-Human Rights	✓		✓	✓
GE8071-Disaster Management	✓		✓	✓
IE8693-Production Planning and Control		✓	✓	✓
MG8091-Entrepreneurship Development	✓		✓	✓
ME8094-Computer Integrated Manufacturing Systems		✓	✓	✓
ME8074-Vibration and Noise Control		✓	✓	✓
EE8091-Micro Electro Mechanical Systems		✓	✓	✓
GE8076-Professional Ethics in Engineering	✓		✓	✓
OIE751-Robotics		✓	✓	✓

B.E MECHANICAL 2020 REGULATION

20MA105-Mathematics – I for Mechanical Sciences	✓		✓	✓
20EC103-Basics of Electrical and Electronics Engineering		✓	✓	✓
20ME102-Fundamentals of Mechanical Engineering	✓		✓	✓
20ENEXX-Language Elective – I	✓		✓	✓
20CH103-Chemistry for Mechanical Sciences		✓	✓	✓
20ME101-Engineering Graphics		✓	✓	✓
20MC101-Induction Programme		✓	✓	✓
20ENE01-Communicative English	✓		✓	✓
20ENE02-Advanced Communicative English	✓		✓	✓
20MA205-Mathematics – II for Mechanical Sciences		✓	✓	✓
20ME201-Engineering Mechanics		✓	✓	✓
20ENEXX-Language Elective	✓		✓	✓
20PH203-Physics for Mechanical Sciences		✓	✓	✓

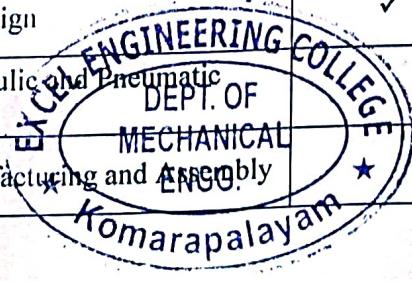


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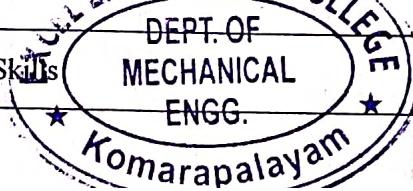
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20ME501-Design of Machine Elements	✓		✓	✓
20ME502-Heat and Mass Transfer		✓	✓	✓
20ME503-Computer Aided Manufacturing		✓	✓	✓
20YYOXX-Open Elective – I		✓	✓	✓
20ME504-Dynamics of Machinery		✓	✓	✓
20ME505-Heat Transfer Laboratory		✓	✓	✓
20ME506-Computer Aided Manufacturing Laboratory		✓	✓	✓
20ME601-Design of Transmission System		✓	✓	✓
20ME602-Finite Element Analysis		✓	✓	✓
20YYOXX-Open Elective – II		✓	✓	✓
20ME603-Mechatronics Engineering		✓	✓	✓
20ME604-Modeling Laboratory	✓		✓	✓
20ME605-Mini Project	✓		✓	✓
20ME606-Internship	✓		✓	✓
20ME701-Entrepreneurship and Professional Ethics	✓		✓	✓
20ME702-Total Quality Management	✓		✓	✓
20YYOXX-Open Elective – III		✓	✓	✓
20ME704-Simulation and Analysis Laboratory		✓	✓	✓
20ME705-Design Project	✓		✓	✓
20ME801-Major Project	✓		✓	✓
20MEE01-Design Thinking	✓		✓	✓
20MEE02-Product Design	✓		✓	✓
20MEE03-Tool and Die Design	✓		✓	✓
20MEE04-Design of Hydraulic and Pneumatic Systems	✓		✓	✓
20MEE05-Design for Manufacturing and Assembly	✓		✓	✓



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20CS201-Problem Solving using Python	✓		✓	✓
20ME202-Mechanical Engineering Practices Laboratory	✓		✓	✓
20MC201-Environmental Sciences	✓		✓	✓
20ENE02-Advanced Communicative English	✓		✓	✓
20ENE03-Hindi	✓		✓	✓
20ENE04-French		✓	✓	✓
20ENE05-German		✓	✓	✓
20MA301-Transforms and Boundary Value Problems	✓		✓	✓
20ME301-Engineering Thermodynamics		✓	✓	✓
20ME302-Engineering Materials and Metallurgy		✓	✓	✓
20ME303-Fluid Mechanics and Machinery		✓	✓	✓
20ME304-Kinematics of Machinery		✓	✓	✓
20ME305-Manufacturing Technology – I		✓	✓	✓
20ME306-Computer Aided Machine Drawing Laboratory		✓	✓	✓
20ME307-Fluid Mechanics and strength of materials laboratory	✓		✓	✓
20MC302-Interpersonal skills	✓		✓	✓
20MA401-Numerical Analysis and Statistics		✓	✓	✓
20ME401-Strength of Materials		✓	✓	✓
20ME402-Thermal Engineering		✓	✓	✓
20ME403-Manufacturing Technology – II		✓	✓	✓
20ME404-Engineering Metrology		✓	✓	✓
20EC406-Electrical Drives and Microprocessor		✓	✓	✓
20ME405-Thermal Engineering Laboratory	✓		✓	✓
20ME406-Manufacturing Technology Laboratory – II	✓		✓	✓
20MC401-Soft Skills	✓		✓	✓

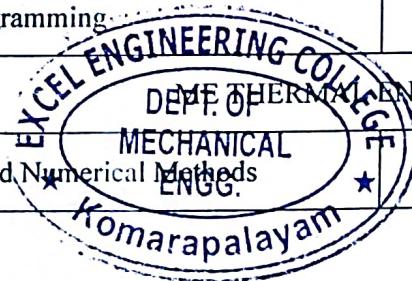


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20MEE51-Supply chain management	✓		✓	✓
20MEE61-Automobile Engineering	✓		✓	✓
20MEE62-Automotive transmission systems	✓		✓	✓
20MEE63-Vehicle body engineering	✓		✓	✓
20MEE64-Alternate fuels for automobiles	✓		✓	✓
20MEE65-Automotive emission and control	✓		✓	✓
20MEE66-Two and three wheelers	✓		✓	✓
20MEE67-Off road vehicles	✓		✓	✓
20MEE68-Electric and hybrid vehicles	✓		✓	✓
20MEE69-Vehicle maintenance		✓	✓	✓
20MEE70-Smart mobility	✓		✓	✓
20MEO01-Integrated Product Development		✓	✓	✓
20MEO02-Manufacturing processes		✓	✓	✓
20MEO03-Automotive Technology		✓	✓	✓
20MEO04-Alternate energy sources		✓	✓	✓
20MEO05-Robotics		✓	✓	✓
20MEO06-Principles of management		✓	✓	✓
20MEA01-Lean Manufacturing		✓	✓	✓
20MEA02-Internet of things		✓	✓	✓
20MEA03-Plastics – Processing, Tooling, Assembly and Testing	✓		✓	✓
20MEA04-Automotive Electronics	✓		✓	✓
20MEA05-CNC Programming		✓	✓	✓
20MEA06-PLC Programming		✓	✓	✓
DEPT. OF THERMAL ENGINEERING R2020				
20PMA105-Advanced Numerical Methods ENGG.		✓	✓	✓

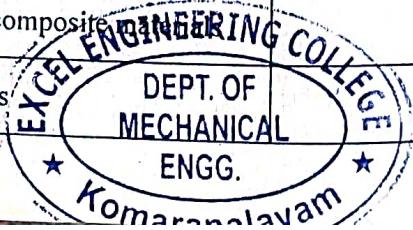


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20MEE06-Optimization Techniques in Engineering Design		✓	✓	✓
20MEE07-Computational Fluid Dynamics		✓	✓	✓
20MEE08-Engineering Tribology		✓	✓	✓
20MEE09-Mechanical Vibrations	✓		✓	✓
20MEE10-Design of pressure vessels	✓		✓	✓
20MEE21-Non-Conventional Energy Sources		✓	✓	✓
20MEE22-Power Plant Engineering		✓	✓	✓
20MEE23-Refrigeration and Air Conditioning	✓		✓	✓
20MEE24-Turbo Machines	✓		✓	✓
20MEE25-Gas Dynamics and Jet Propulsion		✓	✓	✓
20MEE26-Internal Combustion Engines		✓	✓	✓
20MEE27-Cryogenic Engineering		✓	✓	✓
20MEE28-Design of Heat exchangers		✓	✓	✓
20MEE29-Refrigerants	✓		✓	✓
20MEE30-Gas turbines		✓	✓	✓
20MEE41-Additive Manufacturing		✓	✓	✓
20MEE42-Industrial Automation		✓	✓	✓
20MEE43-Modern Manufacturing Processes	✓		✓	✓
20MEE44-Industrial Robotics		✓	✓	✓
20MEE45-Advanced casting techniques	✓		✓	✓
20MEE46-Advanced welding techniques	✓		✓	✓
20MEE47-Process Planning and cost estimation	✓		✓	✓
20MEE48-Operations Research	✓		✓	✓
20MEE49-Manufacturing of composite		✓	✓	✓
20MEE50-CNC Machine tools		✓	✓	✓

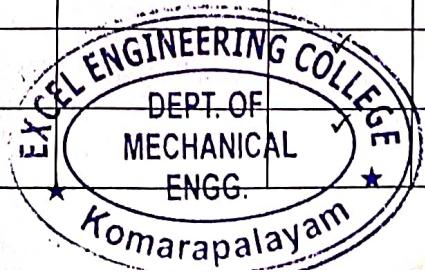


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20PTE101-Advanced Heat Transfer		✓	✓	✓
20PTE102-Advanced Thermodynamics		✓	✓	✓
20PTE103-Advanced Fluid Mechanics		✓	✓	✓
20PTE104-Thermal Engineering Laboratory		✓	✓	✓
20PTE201-Instrumentation for Thermal Engineering		✓	✓	✓
20PTE202-Fuels and Combustion		✓	✓	✓
20PTE203-Environmental Engineering and Pollution Control		✓	✓	✓
20PTE204-Design and Optimization of Thermal Energy Systems	✓		✓	✓
20PTE205-Thermal Systems Simulation Laboratory		✓	✓	✓
20PTE206-Technical Seminar	✓		✓	✓
20PEE301-Research Methodology and Intellectual Property Rights	✓		✓	✓
20PTE301-Project Work Phase – I	✓		✓	✓
20PTE401-Project Work Phase – II	✓		✓	✓
20PTEE01-Aircraft and Jet Propulsion		✓	✓	✓
20PTEE02-Hydrogen and Fuel Cell Technologies		✓	✓	✓
20PTEE03-Energy Resources		✓	✓	✓
20PTEE04-Advanced Internal Combustion Engines	✓		✓	✓
20PTEE05-Advances in Metrology and inspection	✓		✓	✓
20PTEE06-Non Destructive testing and Failure analysis		✓	✓	✓
20PTEE07-Polymers and Composite Materials		✓	✓	✓
20PTEE11-Computational Fluid Dynamics for Thermal Systems		✓	✓	✓
20PTEE12-Fans, Blowers and Compressors	✓		✓	✓
20PTEE13-Food Processing, Preservation and Transport	✓		✓	✓
20PTEE14-Cryogenic Engineering	✓			
20PTEE15-Air Conditioning Systems	✓			



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20PTEE16-Materials Testing and Characterization Techniques	✓		✓	✓
20PTEE17-Alternative Fuels for IC Engines		✓	✓	✓
20PTEE21-Advanced Power Plant Engineering		✓	✓	✓
20PTEE22-Advanced Thermal Storage Technologies		✓	✓	✓
20PTEE23-Cogeneration and Waste Heat Recovery Systems		✓	✓	✓
20PTEE24-Measurements in Thermal Engineering		✓	✓	✓
20PTEE25-Design of Heat Transfer Equipment		✓	✓	✓
20PTEE26-New & Renewable Sources of Energy		✓	✓	✓
	Prepared by	Reviewed by	Approved By	
SIGN	1. <i>[Signature]</i> 2. <i>[Signature]</i>	1. <i>[Signature]</i> 2. <i>[Signature]</i>	<i>N.Natarajan</i>	
NAME	1. Mr.V.Karthikeyan 2. Mr.T.Karthikeyan	1. Dr.R.Vinoth 2. Dr.N.Tamilselvan	Dr.N.Natarajan Head of the Department	

HOD / MECH

