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## Principal

1.1.3: List of courses having focus on employability/entrepreneurship/ skill development offered by the institution during the academic year 2021-2022.

| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 1. | Applied Mechanics | CE3501 | B. Tech-CE | Employability |
| 2. | Engineering Graphics | ME3503 | B. Tech-CE | Employability |
| 3. | Applied Mechanics Lab \& Building Trade Practice | CE3502 | B. Tech-CE | Employability |
| 4. | Engineering Physics | PH3501 | B. Tech-CE | Employability |
| 5. | Problem Solving Using C | CT3501 | B. Tech-CE | Employability |
| 6. | Engineering Physics Lab | PH3503 | B. Tech-CE | Skill <br> Development |
| 7. | Linear Algebra and Calculus | MA3501 | B. Tech-CE | Employability |
| 8. | Integral Transforms and Vector Calculus | MA3505 | B. Tech-CE | Employability |
| 9. | Engineering Chemistry | CH3501 | B. Tech-CE | Employability |
| 10. | Engineering Chemistry Lab | CH3502 | B. Tech-CE | Skill Development |
| 11. | Fluid Mechanics | CE3505 | B. Tech-CE | Employability |
| 12. | Building Materials and Building Construction | CE3503 | B. Tech-CE | Employability |
| 13. | Mechanics of Solids | CE3504 | B. Tech-CE | Employability |
| 14. | Fluid Mechanics | CE3505 | B. Tech-CE | Employability |
| 15. | Surveying | CE3506 | B. Tech-CE | Employability |
| 16. | Survey Field Work | CE3508 | B. Tech-CE | Skill <br> Development |
| 17. | Logic Building and Basic Coding Principles | SD3501 | B. Tech-CE | Skill <br> Development |
| 18. | Structural Analysis | CE3510 | B. Tech-CE | Employability |
| 19. | Hydraulics \& Hydraulic Machines | CE3511 | B. Tech-CE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on <br> Employability/ <br> Entrepreneurshi <br> p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 20. | Concrete Technology | CE3512 | B. Tech-CE | Employability |
| 21. | Python Programming | CT3508 | B. Tech-CE | Employability |
| 22. | Fluid Mechanics \& Hydraulic Machines Lab | CE3515 | B. Tech-CE | Skill <br> Development |
| 23. | Concrete Technology Lab | CE3516 | B. Tech-CE | Skill <br> Development |
| 24. | Programming for Corporate | SD3503 | B. Tech-CE | Skill <br> Development |
| 25. | Engineering Geology \& GeoSpatial Applications | CE3507 | B. Tech-CE | Employability |
| 26. | Circuit Theory - I | EE3504 | B. Tech-EEE | Employability |
| 27. | Linear Algebra and Calculus | MA3501 | B. Tech-EEE | Employability |
| 28. | Integral Transforms and Vector Calculus | MA3505 | B. Tech-EEE | Employability |
| 29. | Solid State Physics | PH3504 | B. Tech-EEE | Employability |
| 30. | Solid State Physics Lab | PH3505 | B. Tech-EEE | Skill <br> Development |
| 31. | Applied Chemistry Lab | CH3504 | B. Tech-EEE | Skill <br> Development |
| 32. | Applied Chemistry | CH3503 | B. Tech-EEE | Employability |
| 33. | Problem Solving Using C | CT3501 | B. Tech-EEE | Employability |
| 34. | Python Programming | CT3508 | B. Tech-EEE | Employability |
| 35. | Circuit Theory - II | EE3508 | B. Tech-EEE | Employability |
| 36. | Control Systems | EE3509 | B. Tech-EEE | Employability |
| 37. | DC Machines and Transformers | EE3510 | B. Tech-EEE | Employability |
| 38. | Digital Circuits | EC3505 | B. Tech-EEE | Employability |
| 39. | Electronic Devices and Circuits | EC3504 | B. Tech-EEE | Employability |
| 40. | Electronic Devices and Circuits Lab | EC3506 | B. Tech-EEE | Skill <br> Development |
| 41. | Digital Circuits Lab | EC3507 | B. Tech-EEE | Skill <br> Development |
| 42. | Logic building and Basic Coding Principles | SD3501 | B. Tech-EEE | Skill <br> Development |
| 43. | Digital Circuits | EC3505 | B. Tech-EEE | Employability |
| 44. | Power Generation Systems | EE3512 | B. Tech-EEE | Employability |
| 45. | Numerical Methods with | MA3514 | B. Tech-EEE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
|  | Computer Applications |  |  |  |
| 46. | Induction \& Synchronous Machines | EE3511 | B. Tech-EEE | Employability |
| 47. | Power generation Systems | EE3512 | B. Tech-EEE | Employability |
| 48. | Signals and Systems | EC3510 | B. Tech-EEE | Employability |
| 49. | DC Machines and Transformers Lab | EE3515 | B. Tech-EEE | Skill <br> Development |
| 50. | Electrical Circuits Lab | EE3516 | B. Tech-EEE | Skill <br> Development |
| 51. | Simulation of Electrical Engineering Systems | EE3517 | B. Tech-EEE | Employability |
| 52. | Programming for Corporate | SD3503 | B. Tech-EEE | Employability |
| 53. | Linear Algebra and Calculus | MA3501 | B. Tech-ME | Employability |
| 54. | Engineering Graphics | ME3503 | B. Tech-ME | Employability |
| 55. | Problem Solving Using C | CT3501 | B. Tech-ME | Employability |
| 56. | Integral Transforms and Vector Calculus | MA3505 | B. Tech-ME | Employability |
| 57. | Physics for Engineers | PH3502 | B. Tech-ME | Employability |
| 58. | Chemistry for Engineers | CH3504 | B. Tech-ME | Employability |
| 59. | Engineering Mechanics | ME3504 | B. Tech-ME | Employability |
| 60. | Engineering Workshop | ME3505 | B. Tech-ME | Skill <br> Development |
| 61. | Engineering Mechanics Lab and Fuel \& Lubricants Lab | ME3506 | B. Tech-ME | Skill <br> Development |
| 62. | Electrical \& Electronics Engineering Lab | EE3506 | B. Tech-ME | Skill <br> Development |
| 63. | Engineering Thermodynamics | ME3508 | B. Tech-ME | Employability |
| 64. | Fluid Mechanics \& Hydraulic Machines | ME3516 | B. Tech-ME | Employability |
| 65. | Logic Building and Basic Coding Principles | SD3501 | B. Tech-ME | Skill <br> Development |
| 66. | Manufacturing Processes Lab \& Machine Dynamics Lab | ME3520 | B. Tech-ME | Skill <br> Development |
| 67. | Manufacturing Science | ME3513 | B. Tech-ME | Employability |
| 68. | Materials Engineering | ME3511 | B. Tech-ME | Employability |
| 69. | Mechanics of Solids | ME3510 | B. Tech-ME | Employability |
| 70. | Mechanics of Solids Lab and | ME3512 | B. Tech-ME | Skill |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
|  | Materials Lab |  |  | Development |
| 71. | Numerical \& Statistical Methods | MA3513 | B. Tech-ME | Employability |
| 72. | Numerical \& Statistical Methods Lab | MA3515 | B. Tech-ME | Skill <br> Development |
| 73. | Programming for Corporate | SD3503 | B. Tech-ME | Employability |
| 74. | Python Programming | CT3508 | B. Tech-ME | Employability |
| 75. | Problem Solving Using C | CT3501 | B. Tech-ECE | Employability |
| 76. | Electronic Workshop | EC3503 | B. Tech-ECE | Skill <br> Development |
| 77. | Linear Algebra and Calculus | MA3501 | B. Tech-ECE | Employability |
| 78. | Integral Transforms and Vector Calculus | MA3505 | B. Tech-ECE | Employability |
| 79. | Solid State Physics | PH3504 | B. Tech-ECE | Employability |
| 80. | Solid State Physics Lab | PH3506 | B. Tech-ECE | Skill <br> Development |
| 81. | Applied Chemistry | CH3503 | B. Tech-ECE | Employability |
| 82. | Linear Electrical Networks | EE3502 | B. Tech-ECE | Employability |
| 83. | Logic Building and Algorithmic Programming | SD3502 | B. Tech-ECE | Skill <br> Development |
| 84. | Digital Circuit Design | EC3512 | B. Tech-ECE | Employability |
| 85. | Probability Theory and Stochastic Processes | EC3508 | B. Tech-ECE | Employability |
| 86. | Semiconductor Devices and Circuits | EC3509 | B. Tech-ECE | Employability |
| 87. | Signals and Systems | EC3510 | B. Tech-ECE | Employability |
| 88. | Electromagnetic Field Theory | EC3511 | B. Tech-ECE | Employability |
| 89. | Semiconductor Devices and Circuits Lab | EC3513 | B. Tech-ECE | Skill <br> Development |
| 90. | Linear Electrical Networks <br> Lab | EE3507 | B. Tech-ECE | Skill <br> Development |
| 91. | Transmission Lines and Waveguides | EC3516 | B. Tech-ECE | Employability |
| 92. | Analog Circuits | EC3517 | B. Tech-ECE | Employability |
| 93. | Analog and Digital Communications | EC3518 | B. Tech-ECE | Employability |
| 94. | VLSI Design | EC3519 | B. Tech-ECE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 95. | Data Structures | CT3509 | B. Tech-ECE | Employability |
| 96. | Analog Circuits Lab | EC3522 | B. Tech-ECE | Skill <br> Development |
| 97. | Numerical Methods \& Complex Analysis | MA3508 | B. Tech-ECE | Employability |
| 98. | VLSI Design | EC3519 | B. Tech-ECE | Employability |
| 99. | Digital Circuit Design lab | EC3536 | B. Tech-ECE | Skill <br> Development |
| 100. | Programming for Corporate | SD3503 | B. Tech-ECE | Employability |
| 101. | Programming for Problem Solving | CT3502 | B. Tech-CSE | Employability |
| 102. | C Programming Lab | CT3503 | B. Tech-CSE | Skill <br> Development |
| 103. | Python Programming | CT3504 | B. Tech-CSE | Employability |
| 104. | Data Structures | CT3505 | B. Tech-CSE | Employability |
| 105. | Python programming lab | CT3506 | B. Tech-CSE | Skill <br> Development |
| 106. | Data Structures Lab | CT3507 | B. Tech-CSE | Skill <br> Development |
| 107. | Java Programming Lab | CT3514 | B. Tech-CSE | Skill <br> Development |
| 108. | Database Management Systems Lab | CT3515 | B. Tech-CSE | Skill <br> Development |
| 109. | Logic Building and Algorithmic Programming | SD3502 | B. Tech-CSE | Employability |
| 110. | Software Engineering | CS3502 | B. Tech-CSE | Employability |
| 111. | Digital Logic Design | CT3510 | B. Tech-CSE | Employability |
| 112. | Object Oriented Programming through JAVA | CT3511 | B. Tech-CSE | Employability |
| 113. | Database Management Systems | CT3512 | B. Tech-CSE | Employability |
| 114. | Operating Systems Lab | CT3523 | B. Tech-CSE | Skill <br> Development |
| 115. | Computer Organization | CT3518 | B. Tech-CSE | Employability |
| 116. | Design and Analysis of Algorithms | CS3501 | B. Tech-CSE | Employability |
| 117. | Operating Systems | CT3519 | B. Tech-CSE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 118. | Game Programming lab | CT3524 | B. Tech-CSE | Skill <br> Development |
| 119. | Programming for Corporate | SD3503 | B. Tech-CSE | Employability |
| 120. | Probability and statistics using R Lab | MA3510 | B. Tech-CSE | Skill <br> Development |
| 121. | Discrete Mathematical structures | MA3511 | B. Tech-CSE | Employability |
| 122. | Linear Algebra and Calculus | MA3501 | B. Tech-IT | Employability |
| 123. | Integral Transforms and Vector Calculus | MA3505 | B. Tech-IT | Employability |
| 124. | Applied Chemistry | CH3506 | B. Tech-IT | Employability |
| 125. | Programming for Problem Solving | CT3502 | B. Tech-IT | Employability |
| 126. | Applied Chemistry Lab | CH3507 | B. Tech-IT | Skill <br> Development |
| 127. | C Programming Lab | CT3503 | B. Tech-IT | Skill <br> Development |
| 128. | Applied Physics | PH3509 | B. Tech-IT | Employability |
| 129. | Applied Physics Lab | PH3510 | B. Tech-IT | Skill <br> Development |
| 130. | Data Structures Lab | CT3507 | B. Tech-IT | Skill <br> Development |
| 131. | Data Structures | CT3505 |  | Employability |
| 132. | Object Oriented Programming through JAVA | CT3511 | B. Tech-IT | Employability |
| 133. | JAVA Programming Lab | CT3514 | B. Tech-IT | Skill <br> Development |
| 134. | Linux Programming Lab | IT3502 | B. Tech-IT | Skill <br> Development |
| 135. | R Programming Lab | IT3501 | B. Tech-IT | Skill <br> Development |
| 136. | Python Programming | IT3503 | B. Tech-IT | Employability |
| 137. | Python Programming Lab | IT3506 | B. Tech-IT | Skill <br> Development |
| 138. | Mobile Application Development | CT3525 | B. Tech-IT | Skill <br> Development |
| 139. | Logic Building and Algorithmic Programming | SD3502 | B. Tech-IT | Skill <br> Development |


| S. No | Name of the Course | Course <br> Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 140. | Programming for Corporate | SD3503 | B. Tech-IT | Skill <br> Development |
| 141. | Discrete Mathematical Structures | MA3511 | B. Tech-IT | Employability |
| 142. | Digital Logic Design | CT3510 | B. Tech-IT | Employability |
| 143. | Formal Languages and Automata Theory | CT3513 | B. Tech-IT | Employability |
| 144. | Database Management Systems | CT3512 | B. Tech-IT | Employability |
| 145. | Computer Organization | CT3518 | B. Tech-IT | Employability |
| 146. | Database Management Systems Lab | CT3515 | B. Tech-IT | Employability |
| 147. | Object Oriented Programming through Java | CT3511 | B. Tech-AIDS | Skill <br> Development |
| 148. | Java Programming Lab | CT3514 | B. Tech-AIDS | Skill <br> Development |
| 149. | Database Management Systems | CT3512 | B. Tech-AIDS | Employability |
| 150. | Database Management Systems Lab | CT3515 | B. Tech-AIDS | Skill <br> Development |
| 151. | Logic Building and Algorithmic Programming | SD3502 | B. Tech-AIDS | Skill <br> Development |
| 152. | Artificial Intelligence | CT3521 | B. Tech-AIDS | Employability |
| 153. | Artificial Intelligence Lab | AD3501 | B. Tech-AIDS | Skill <br> Development |
| 154. | Software Engineering | CS3502 | B. Tech-AIDS | Employability |
| 155. | Game Programming lab | CT3524 | B. Tech-AIDS | Skill <br> Development |
| 156. | Programming for Corporate | SD3503 | B. Tech-AIDS | Skill <br> Development |
| 157. | Descriptive Statistics | MA3502 | B. Tech-AIDS | Employability |
| 158. | Statistics using R Lab | MA3503 | B. Tech-AIDS | Skill <br> Development |
| 159. | Engineering Calculus | MA3504 | B. Tech-AIDS | Employability |
| 160. | Integral Transforms and Vector Calculus | MA3505 | B. Tech-AIDS | Employability |
| 161. | Linear Algebra | MA3507 | B. Tech-AIDS | Employability |
| 162. | Discrete Mathematics | MA3511 | B. Tech-AIDS | Employability |


| S. No | Name of the Course | Course <br> Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
|  | Structures |  |  |  |
| 163. | Advanced Statistics | MA3512 | B. Tech-AIDS | Employability |
| 164. | Programming for problem solving | CT3502 | B. Tech-AIDS | Employability |
| 165. | C Programming Lab | CT3503 | B. Tech-AIDS | Skill <br> Development |
| 166. | Python Programming | CT3504 | B. Tech-AIDS | Employability |
| 167. | Data Structures | CT3505 | B. Tech-AIDS | Employability |
| 168. | Data Structures Lab | CT3507 | B. Tech-AIDS | Skill <br> Development |
| 169. | Python Programming Lab | CT3506 | B. Tech-AIDS | Employability |
| 170. | Managerial Economics and Financial Analysis | BA3502 | B. Tech-AIDS | Entrepreneurship |
| 171. | Applied physics | PH3507 | B. Tech-IOT | Employability |
| 172. | Engineering Physics Lab | PH3508 | B. Tech-IOT | Skill <br> Development |
| 173. | Problem Solving using C | CT3501 | B. Tech-IOT | Employability |
| 174. | Basic Electrical Engineering | EE3501 | B. Tech-IOT | Employability |
| 175. | Basic Electrical Engineering Lab | EE3503 | B. Tech-IOT | Skill <br> Development |
| 176. | Electronic workshop for IoT | IN3502 | B. Tech-IOT | Employability |
| 177. | Principles of Communication Systems | IN3504 | B. Tech-IOT | Employability |
| 178. | Analog and Digital Communications Lab | EC3515 | B. Tech-IOT | Skill <br> Development |
| 179. | Analog Devices and Circuits | IN3503 | B. Tech-IOT | Employability |
| 180. | Analog Devices and Circuits Lab | IN3506 | B. Tech-IOT | Skill <br> Development |
| 181. | Electronic Instrumentation and Measurement Principles | EC3514 | B. Tech-IOT | Employability |
| 182. | Transducers and Signal Conditioning | IN3505 | B. Tech-IOT | Employability |
| 183. | Data Structures | CT3509 | B. Tech-IOT | Employability |
| 184. | Signal Analysis and Processing | IN3507 | B. Tech-IOT | Employability |
| 185. | Signal Analysis and Processing Lab | IN3509 | B. Tech-IOT | Skill <br> Development |
| 186. | Digital Circuits Design | EC3512 | B. Tech-IOT | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 187. | Digital Circuits Design Lab | EC3523 | B. Tech-IOT | Skill <br> Development |
| 188. | Object Oriented Programming through JAVA | CT3516 | B. Tech-IOT | Employability |
| 189. | Computer Organization and Architecture | IN3508 | B. Tech-IOT | Employability |
| 190. | Object Oriented Programming through Java | CT3511 | B. Tech-IOT | Employability |
| 191. | Java Programming Lab | CT3514 | B. Tech-IOT | Skill <br> Development |
| 192. | Database Management Systems | CT3512 | B. Tech-IOT | Employability |
| 193. | Database Management Systems Lab | CT3515 | B. Tech-IOT | Skill <br> Development |
| 194. | Logic Building and <br> Algorithmic Programming | SD3502 | B. Tech-IOT | Skill <br> Development |
| 195. | Artificial Intelligence | CT3521 | B. Tech-IOT | Employability |
| 196. | Artificial Intelligence Lab | AD3501 | B. Tech-IOT | Skill <br> Development |
| 197. | Software Engineering | CS3502 | B. Tech-IOT | Employability |
| 198. | Game Programming lab | CT3524 | B. Tech-IOT | Skill <br> Development |
| 199. | Programming for Corporate | SD3503 | B. Tech-IOT | Skill <br> Development |
| 200. | Descriptive Statistics | MA3502 | B. Tech-IOT | Employability |
| 201. | Statistics using R Lab | MA3503 | B. Tech-IOT | Skill <br> Development |
| 202. | Engineering Calculus | MA3504 | B. Tech-IOT | Employability |
| 203. | Integral Transforms and Vector Calculus | MA3505 | B. Tech-IOT | Employability |
| 204. | Linear Algebra | MA3507 | B. Tech-IOT | Employability |
| 205. | Discrete Mathematics Structures | MA3511 | B. Tech-IOT | Employability |
| 206. | Advanced Statistics | MA3512 | B. Tech-IOT | Employability |
| 207. | Programming for problem solving | CT3502 | B. Tech-IOT | Employability |
| 208. | C Programming Lab | CT3503 | B. Tech-IOT | Skill <br> Development |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 209. | Python Programming | CT3504 | B. Tech-IOT | Employability |
| 210. | Data Structures | CT3505 | B. Tech-IOT | Employability |
| 211. | Data Structures Lab | CT3507 | B. Tech-IOT | Skill <br> Development |
| 212. | Python Programming Lab | CT3506 | B. Tech-IOT | Skill <br> Development |
| 213. | Managerial Economics and Financial Analysis | BA3502 | B. Tech-IOT | Entrepreneurship |
| 214. | Object Oriented Programming through Java | CT3511 | B. Tech-AIML | Employability |
| 215. | Java Programming Lab | CT3514 | B. Tech-AIML | Employability |
| 216. | Database Management Systems | CT3512 | B. Tech-AIML | Employability |
| 217. | Database Management Systems Lab | CT3515 | B. Tech-AIML | Employability |
| 218. | Logic Building and <br> Algorithmic Programming | SD3502 | B. Tech-AIML | Employability |
| 219. | Artificial Intelligence | CT3521 | B. Tech-AIML | Employability |
| 220. | Artificial Intelligence Lab | AD3501 | B. Tech-AIML | Employability |
| 221. | Software Engineering | CS3502 | B. Tech-AIML | Employability |
| 222. | Game Programming lab | CT3524 | B. Tech-AIML | Employability |
| 223. | Programming for Corporate | SD3503 | B. Tech-AIML | Employability |
| 224. | Descriptive Statistics | MA3502 | B. Tech-AIML | Employability |
| 225. | Statistics using R Lab | MA3503 | B. Tech-AIML | Employability |
| 226. | Engineering Calculus | MA3504 | B. Tech-AIML | Employability |
| 227. | Integral Transforms and Vector Calculus | MA3505 | B. Tech-AIML | Employability |
| 228. | Linear Algebra | MA3507 | B. Tech-AIML | Employability |
| 229. | Discrete Mathematics Structures | MA3511 | B. Tech-AIML | Employability |
| 230. | Advanced Statistics | MA3512 | B. Tech-AIML | Employability |
| 231. | Programming for problem solving | CT3502 | B. Tech-AIML | Employability |
| 232. | C Programming Lab | CT3503 | B. Tech-AIML | Employability |
| 233. | Python Programming | CT3504 | B. Tech-AIML | Employability |
| 234. | Data Structures | CT3505 | B. Tech-AIML | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 235. | Data Structures Lab | CT3507 | B. Tech-AIML | Employability |
| 236. | Python Programming Lab | CT3506 | B. Tech-AIML | Skill <br> Development |
| 237. | Managerial Economics and Financial Analysis | BA3502 | B. Tech-AIML | Entrepreneurship |
| 238. | Theory of Structures | CE2522 | B. Tech-CE | Employability |
| 239. | Geotechnical Engineering | CE2523 | B. Tech-CE | Employability |
| 240. | Hydrology and Water Resources Engineering | CE2524 | B. Tech-CE | Employability |
| 241. | Water and Waste Water Engineering | CE2525 | B. Tech-CE | Employability |
| 242. | Water and Waste Water Engineering Lab | CE2533 | B. Tech-CE | Skill <br> Development |
| 243. | Infrastructure Development | CE2534 | B. Tech-CE | Employability |
| 244. | Foundation Engineering | CE2536 | B. Tech-CE | Employability |
| 245. | Highway Engineering | CE2537 | B. Tech-CE | Employability |
| 246. | Highway Engineering Lab | CE2546 | B. Tech-CE | Skill <br> Development |
| 247. | Smart Buildings and Automation | CE2548 | B. Tech-CE | Employability |
| 248. | Building Information Modelling | CE2549 | B. Tech-CE | Employability |
| 249. | Project Management and Finance | CE2551 | B. Tech-CE | Entrepreneurship |
| 250. | Project Scheduling and Contracts | CE2566 | B. Tech-CE | Employability |
| 251. | Geo informatics | CE2530 | B. Tech-CE | Employability |
| 252. | Environmental Sanitation | CE2531 | B. Tech-CE | Employability |
| 253. | Hydrology | CE2543 | B. Tech-CE | Employability |
| 254. | Planning for Sustainable Development | CE2544 | B. Tech-CE | Employability |
| 255. | Repair and Retrofitting Techniques | CE2563 | B. Tech-CE | Employability |
| 256. | Advanced Strength of Materials | CE2526 | B. Tech-CE | Employability |
| 257. | GIS and GPS | CE2527 | B. Tech-CE | Employability |
| 258. | Green Buildings | CE2528 | B. Tech-CE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 259. | Construction Management | CE2529 | B. Tech-CE | Employability |
| 260. | Ground Improvement Techniques | CE2542 | B. Tech-CE | Employability |
| 261. | Advanced Foundation Engineering | CE2555 | B. Tech-CE | Employability |
| 262. | Traffic Engineering | CE2556 | B. Tech-CE | Employability |
| 263. | Advanced Design of RC Structures | CE2558 | B. Tech-CE | Employability |
| 264. | Hydraulic Structures | CE2559 | B. Tech-CE | Employability |
| 265. | Geo synthetics | CE2560 | B. Tech-CE | Employability |
| 266. | Disaster Preparedness and Planning | CE2561 | B. Tech-CE | Employability |
| 267. | Logistics Infrastructure Engineering | CE2569 | B. Tech-CE | Employability |
| 268. | Pre-Engineered Buildings | CE2572 | B. Tech-CE | Employability |
| 269. | Urban Transportation Planning | CE2573 | B. Tech-CE | Employability |
| 270. | Soil Dynamics and Machine Foundations | CE2574 | B. Tech-CE | Employability |
| 271. | Mechatronics | ME2549 | B. Tech-EEE | Employability |
| 272. | Electrical Measurements \& Instrumentation | EE2520 | B. Tech-EEE | Employability |
| 273. | Signals and Systems | EC2508 | B. Tech-EEE | Employability |
| 274. | Power Systems - II | EE2521 | B. Tech-EEE | Employability |
| 275. | Control Systems Lab | EE2525 | B. Tech-EEE | Skill <br> Development |
| 276. | Electrical Machines- II Lab | EE2526 | B. Tech-EEE | Skill <br> Development |
| 277. | Mini Project | EE2527 | B. Tech-EEE | Skill <br> Development |
| 278. | Control System Design | EE2528 | B. Tech-EEE | Employability |
| 279. | Probability and Fuzzy Mathematics | MA2511 | B. Tech-EEE | Employability |
| 280. | Microprocessors, Microcontrollers and Its Applications | EC2510 | B. Tech-EEE | Employability |
| 281. | Microprocessors, Microcontrollers and Its Applications Lab | EC2515 | B. Tech-EEE | Skill <br> Development |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 282. | Data Base Management Systems | CT2513 | B. Tech-EEE | Employability |
| 283. | Nano Electronics | EC2516 | B. Tech-EEE | Employability |
| 284. | Solar and Wind Energy Systems | EE2535 | B. Tech-EEE | Employability |
| 285. | Optional Elective- IV MOOCS | EE2529 | B. Tech-EEE | Employability |
| 286. | Optional Elective- VI MOOCS | EE2536 | B. Tech-EEE | Employability |
| 287. | Engineering Optimization | MA2512 | B. Tech-EEE | Employability |
| 288. | Power Electronics | EE2530 | B. Tech-EEE | Employability |
| 289. | Electrical Systems Simulation Lab | EE2533 | B. Tech-EEE | Skill <br> Development |
| 290. | Electrical measurements \& Instrumentation Lab | EE2534 | B. Tech-EEE | Skill <br> Development |
| 291. | Power System Analysis | EE2537 | B. Tech-EEE |  |
| 292. | Power Electronics Lab | EE2544 | B. Tech-EEE | Skill <br> Development |
| 293. | Power Systems Lab | EE2545 | B. Tech-EEE | Skill <br> Development |
| 294. | Internship/Industrial <br> Training/Practical Training | EE2546 | B. Tech-EEE | Skill <br> Development |
| 295. | Analog and Digital Communication | EC2519 | B. Tech-EEE | Employability |
| 296. | Introduction to Python Programming | CS2502 | B. Tech-EEE | Employability |
| 297. | Integration of Renewable Energy Sources | EE2547 | B. Tech-EEE | Employability |
| 298. | Optional Elective-VIII MOOCS | EE2548 | B. Tech-EEE | Employability |
| 299. | Geo informatics | CE2503 | B. Tech-EEE | Employability |
| 300. | Environmental Sanitation | CE2531 | B. Tech-EEE | Employability |
| 301. | Power Systems Engineering | EE2524 | B. Tech-EEE | Employability |
| 302. | Elements of Mechanical Transmission | ME2532 | B. Tech-EEE | Employability |
| 303. | Material Handling Equipment | ME2533 | B. Tech-EEE | Employability |
| 304. | Introduction to MEMS | EC2544 | B. Tech-EEE | Employability |
| 305. | Data Science | CS2508 | B. Tech-EEE | Employability |
| 306. | Virtual and Augmented Reality | CT2524 | B. Tech-EEE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 307. | Quality, Reliability and Operations Research | MA2517 | B. Tech-EEE | Employability |
| 308. | Hydrology | CE2543 | B. Tech-EEE | Employability |
| 309. | Planning for Sustainable Development | CE2544 | B. Tech-EEE | Employability |
| 310. | Electrical and Hybrid Vehicles | EE2531 | B. Tech-EEE | Employability |
| 311. | Material Science | ME2541 | B. Tech-EEE | Employability |
| 312. | Bio-Medical Engineering | EC2507 | B. Tech-EEE | Employability |
| 313. | Node and Angular JS | CS2512 | B. Tech-EEE | Employability |
| 314. | Cyber Security | CS2513 | B. Tech-EEE | Employability |
| 315. | Software Project Management | CT2531 | B. Tech-EEE | Employability |
| 316. | Elements of Stochastic Processes | MA2518 | B. Tech-EEE | Employability |
| 317. | Academic Communication | EG2505 | B. Tech-EEE | Employability |
| 318. | Repair and Retrofitting Techniques | CE2563 | B. Tech-EEE | Employability |
| 319. | Non Destructive Evaluation | ME2554 | B. Tech-EEE | Employability |
| 320. | Cyber Physical Systems | EC2563 | B. Tech-EEE | Employability |
| 321. | Digital Forensics | CS2521 | B. Tech-EEE | Employability |
| 322. | Business Intelligence \& Decision Support Systems | CS2522 | B. Tech-EEE | Employability |
| 323. | Adhoc and Sensor Networks | IT2521 | B. Tech-EEE | Employability |
| 324. | Information Retrieval Systems | CT2537 | B. Tech-EEE | Employability |
| 325. | Fuzzy Logic | MA2514 | B. Tech-EEE | Employability |
| 326. | Switch Gear and Protection | EE2522 | B. Tech-EEE | Employability |
| 327. | Computer Networks | CT2519 | B. Tech-EEE | Employability |
| 328. | Pulse and Integrated Circuits | EC2509 | B. Tech-EEE | Employability |
| 329. | Data Structures | CT2505 | B. Tech-EEE | Employability |
| 330. | Digital Signal Processing | EC2511 | B. Tech-EEE | Employability |
| 331. | Embedded System Design | EC2512 | B. Tech-EEE | Employability |
| 332. | Principles of VLSI Design | EC2513 | B. Tech-EEE | Employability |
| 333. | DSP Processors and Architecture | EC2514 | B. Tech-EEE | Employability |
| 334. | Big Data Analytics | CT2534 | B. Tech-EEE | Employability |
| 335. | CMOS Digital IC Design | EC2517 | B. Tech-EEE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 336. | Power Semiconductor Drives | EE2538 | B. Tech-EEE | Employability |
| 337. | Flexible AC Transmission Systems | EE2539 | B. Tech-EEE | Employability |
| 338. | Cyber Security | CS2513 | B. Tech-EEE | Employability |
| 339. | Digital Image Processing | EC2518 | B. Tech-EEE | Employability |
| 340. | Advanced Control Systems | EE2551 | B. Tech-EEE | Employability |
| 341. | Digital Control Systems | EE2554 | B. Tech-EEE | Employability |
| 342. | Metal Cutting and Machine Tools | ME2527 | B. Tech-ME | Employability |
| 343. | Numerical and Statistical Methods | MA2509 | B. Tech-ME | Employability |
| 344. | Computer Aided Engineering Analysis Lab | ME2548 | B. Tech-ME | Skill <br> Development |
| 345. | Computer Aided Machine Drawing Lab | ME2536 | B. Tech-ME | Skill <br> Development |
| 346. | Design of Machine Members | ME2539 | B. Tech-ME | Employability |
| 347. | Engineering Economics and Accountancy | BA2503 | B. Tech-ME | Entrepreneurship |
| 348. | Fluid Mechanics and Turbo Machinery Lab | ME2534 | B. Tech-ME | Skill <br> Development |
| 349. | Fuzzy Logic Systems | EE2503 | B. Tech-ME | Employability |
| 350. | Heat Transfer | ME2540 | B. Tech-ME | Employability |
| 351. | Heat Transfer Lab | ME2546 | B. Tech-ME | Skill <br> Development |
| 352. | Mechatronics | ME2549 | B. Tech-ME | Employability |
| 353. | Micro Processors and Interfacing | EC2520 | B. Tech-ME | Employability |
| 354. | Object Oriented Programming Through JAVA | CT2507 | B. Tech-ME | Employability |
| 355. | Turbo machinery | ME2528 | B. Tech-ME | Employability |
| 356. | Industrial Engineering and Management | ME2551 | B. Tech-ME | Entrepreneurship |
| 357. | Big Data Analytics | CT2534 | B. Tech-ME | Employability |
| 358. | Computer Organization and Architecture | CT2512 | B. Tech-ME | Employability |
| 359. | Cryogenics | ME2565 | B. Tech-ME | Employability |
| 360. | Simulation Lab | ME2562 | B. Tech-ME | Skill |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Development |
| 361. | Academic Communication | EG2505 | B. Tech-ME | Employability |
| 362. | Assistive Technologies | EC2523 | B. Tech-ME | Employability |
| 363. | Bio-Medical Engineering | EC2507 | B. Tech-ME | Employability |
| 364. | Computer Graphics | CT2514 | B. Tech-ME | Employability |
| 365. | Cyber Security | CS2513 | B. Tech-ME | Employability |
| 366. | Data Science | CS2508 | B. Tech-ME | Employability |
| 367. | Electrical and Hybrid Vehicles | EE2531 | B. Tech-ME | Employability |
| 368. | Elements of Mechanical Transmission | ME2532 | B. Tech-ME | Employability |
| 369. | Elements of Stochastic Processes | MA2518 | B. Tech-ME | Employability |
| 370. | Environmental Sanitation | CE2531 | B. Tech-ME | Employability |
| 371. | Hydrology | CE2543 | B. Tech-ME | Employability |
| 372. | Introduction to MEMS | EC2544 | B. Tech-ME | Employability |
| 373. | Material Handling Equipment | ME2533 | B. Tech-ME | Employability |
| 374. | Node and Angular JS | CS2512 | B. Tech-ME | Employability |
| 375. | Planning for Sustainable Development | CE2544 | B. Tech-ME | Employability |
| 376. | Power Plant Instrumentation | EE2532 | B. Tech-ME | Employability |
| 377. | Power Systems Engineering | EE2524 | B. Tech-ME | Employability |
| 378. | Quality, Reliability and Operations Research | MA2517 | B. Tech-ME | Employability |
| 379. | Software Project Management | CT2531 | B. Tech-ME | Employability |
| 380. | Virtual and Augmented Reality | CT2524 | B. Tech-ME | Employability |
| 381. | Disaster Management | CE2562 | B. Tech-ME | Employability |
| 382. | Repair and Retrofitting Techniques | CE2563 | B. Tech-ME | Employability |
| 383. | Non Destructive Evaluation | ME2554 | B. Tech-ME | Employability |
| 384. | Cyber Physical Systems | EC2563 | B. Tech-ME | Employability |
| 385. | Signals and Systems | EC2508 | B. Tech-ME | Employability |
| 386. | Digital Forensics | CS2521 | B. Tech-ME | Employability |
| 387. | Business Intelligence and Decision Support Systems | CS2522 | B. Tech-ME | Employability |
| 388. | Adhoc and Sensor Networks | IT2521 | B. Tech-ME | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 389. | Information Retrieval Systems | CT2537 | B. Tech-ME | Employability |
| 390. | Fuzzy Logic | MA2514 | B. Tech-ME | Employability |
| 391. | Data Structures | CT2505 | B. Tech-ME | Employability |
| 392. | Database Management Systems | CT2513 | B. Tech-ME | Employability |
| 393. | Mechanical Vibrations | ME2530 | B. Tech-ME | Employability |
| 394. | Mechanics of Composite Materials | ME2531 | B. Tech-ME | Employability |
| 395. | Non-Conventional Sources of Energy | ME2529 | B. Tech-ME | Employability |
| 396. | Principles of Finite Element Method | ME2543 | B. Tech-ME | Employability |
| 397. | Robotics | ME2544 | B. Tech-ME | Employability |
| 398. | Optimization Techniques | MA2515 | B. Tech-ME | Employability |
| 399. | Refrigeration and Air Conditioning | ME2555 | B. Tech-ME | Employability |
| 400. | Unconventional Machining Processes | ME2556 | B. Tech-ME | Employability |
| 401. | Total Quality Management | ME2558 | B. Tech-ME | Entrepreneurship |
| 402. | Design of Transmission Elements | ME2561 | B. Tech-ME | Employability |
| 403. | Design for Manufacturing and Assembly | ME2567 | B. Tech-ME | Employability |
| 404. | Theory of Elasticity | ME2570 | B. Tech-ME | Employability |
| 405. | Gas Dynamics and Jet Propulsion | ME2572 | B. Tech-ME | Employability |
| 406. | Non Destructive Techniques | ME2574 | B. Tech-ME | Employability |
| 407. | Linear Integrated Circuits Applications | EC2536 | B. Tech-ECE | Employability |
| 408. | Digital Communications | EC2537 | B. Tech-ECE | Employability |
| 409. | Antennas and Wave Propagation | EC2538 | B. Tech-ECE | Employability |
| 410. | Principles of VLSI Design | EC2539 | B. Tech-ECE | Employability |
| 411. | Linear Integrated Circuits Applications Lab | EC2545 | B. Tech-ECE | Skill development |
| 412. | Analog and Digital Communications Lab | EC2546 | B. Tech-ECE | Skill development |


| S. No | Name of the Course | Course Code | Programme Name | Focus on <br> Employability/ <br> Entrepreneurshi <br> p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 413. | Microprocessors, Microcontrollers and Applications | EC2510 | B. Tech-ECE | Employability |
| 414. | Microprocessor and Microcontroller Interfacing Lab | EC2515 | B. Tech-ECE | Skill development |
| 415. | VLSI Lab | EC2553 | B. Tech-ECE | Skill <br> development |
| 416. | Data Warehousing and Data Mining | CT2528 | B. Tech-ECE | Employability |
| 417. | Mechatronics | ME2549 | B. Tech-ECE | Employability |
| 418. | CMOS Digital IC Design | EC2517 | B. Tech-ECE | Employability |
| 419. | Embedded System Design | EC2512 | B. Tech-ECE | Employability |
| 420. | Digital Control Systems | EE2554 | B. Tech-ECE | Employability |
| 421. | Artificial Intelligence | CT2521 | B. Tech-ECE | Employability |
| 422. | Transform Techniques | EC2567 | B. Tech-ECE | Employability |
| 423. | Geo informatics | CE2503 | B. Tech-ECE | Employability |
| 424. | Microwave and Optical Communications Lab | EC2564 | B. Tech-ECE | Skill development |
| 425. | Mini Project on Smart Applications | EC2565 | B. Tech-ECE | Skill development |
| 426. | Internship / Industrial Training / Practical Training | EC2566 | B. Tech-ECE | Skill development |
| 427. | Environmental Sanitation | CE2531 | B. Tech-ECE | Employability |
| 428. | Power Systems Engineering | EE2524 | B. Tech-ECE | Employability |
| 429. | Elements of Mechanical Transmission | ME2532 | B. Tech-ECE | Employability |
| 430. | Material Handling Equipment | ME2533 | B. Tech-ECE | Employability |
| 431. | Introduction to MEMS | EC2544 | B. Tech-ECE | Employability |
| 432. | Data Science | CS2508 | B. Tech-ECE | Employability |
| 433. | Virtual and Augmented Reality | CT2524 | B. Tech-ECE | Employability |
| 434. | Quality, Reliability and Operations Research | MA2517 | B. Tech-ECE | Employability |
| 435. | Hydrology | CE2543 | B. Tech-ECE | Employability |
| 436. | Planning for Sustainable Development | CE2544 | B. Tech-ECE | Employability |
| 437. | Electrical and Hybrid Vehicles | EE2531 | B. Tech-ECE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 438. | Material Science | ME2541 | B. Tech-ECE | Employability |
| 439. | Node and Angular JS | CS2512 | B. Tech-ECE | Employability |
| 440. | Cyber Security | CS2513 | B. Tech-ECE | Employability |
| 441. | Software Project Management | CT2531 | B. Tech-ECE | Employability |
| 442. | Elements of Stochastic Processes | MA2518 | B. Tech-ECE | Employability |
| 443. | Academic Communication | EG2505 | B. Tech-ECE | Employability |
| 444. | Repair and Retrofitting Techniques | CE2563 | B. Tech-ECE | Employability |
| 445. | Non Destructive Evaluation | ME2554 | B. Tech-ECE | Employability |
| 446. | Cyber Physical Systems | EC2563 | B. Tech-ECE | Employability |
| 447. | Digital Forensics | CS2521 | B. Tech-ECE | Employability |
| 448. | Business Intelligence \& Decision Support Systems | CS2522 | B. Tech-ECE | Employability |
| 449. | Adhoc and Sensor Networks | IT2521 | B. Tech-ECE | Employability |
| 450. | Information Retrieval Systems | CT2537 | B. Tech-ECE | Employability |
| 451. | Fuzzy Logic | MA2514 | B. Tech-ECE | Employability |
| 452. | CAD for VLSI | EC2540 | B. Tech-ECE | Employability |
| 453. | Computer Organization | EC2541 | B. Tech-ECE | Employability |
| 454. | Computer And Communication Networks | EC2542 | B. Tech-ECE | Employability |
| 455. | Biomedical Engineering | EC2507 | B. Tech-ECE | Employability |
| 456. | Analog IC Design | EC2549 | B. Tech-ECE | Employability |
| 457. | Nano Electronics | EC2516 | B. Tech-ECE | Employability |
| 458. | Smart Antennas | EC2550 | B. Tech-ECE | Employability |
| 459. | Coding Theory | EC2551 | B. Tech-ECE | Employability |
| 460. | Mixed Signal IC Design | EC2557 | B. Tech-ECE | Employability |
| 461. | System on Chip Design | EC2560 | B. Tech-ECE | Employability |
| 462. | Low Power VLSI Circuits | EC2569 | B. Tech-ECE | Employability |
| 463. | Real Time Operating Systems | EC2570 | B. Tech-ECE | Employability |
| 464. | Adaptive Signal Processing | EC2572 | B. Tech-ECE | Employability |
| 465. | ASIC Design | EC2573 | B. Tech-ECE | Employability |
| 466. | Embedded C | EC2574 | B. Tech-ECE | Employability |
| 467. | Multi Rate Signal Processing | EC2576 | B. Tech-ECE | Employability |
| 468. | Computer Networks | CT2519 | B. Tech-CSE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 469. | Web Technologies | CT2520 | B. Tech-CSE | Employability |
| 470. | Computer Networks and Compiler Design Lab | CS2509 | B. Tech-CSE | Skill <br> development |
| 471. | Web Technologies Lab | CT2525 | B. Tech-CSE | Skill development |
| 472. | Digital Signal Processing | EC2511 | B. Tech-CSE | Employability |
| 473. | Control Systems | EE2512 | B. Tech-CSE | Employability |
| 474. | UML and Design Patterns | CS2511 | B. Tech-CSE | Employability |
| 475. | Data Mining Lab | CS2514 | B. Tech-CSE | Skill development |
| 476. | Graph Theory | CS2516 | B. Tech-CSE | Employability |
| 477. | Embedded System Design | EC2512 | B. Tech-CSE | Employability |
| 478. | Digital Control Systems | EE2554 | B. Tech-CSE | Employability |
| 479. | Cyptography and Network Security | CT2533 | B. Tech-CSE | Employability |
| 480. | Big Data Analytics | CT2534 | B. Tech-CSE | Employability |
| 481. | Big Data Analytics Lab | CT2538 | B. Tech-CSE | Skill development |
| 482. | Cryptography and Network Security Lab | CS2523 | B. Tech-CSE | Skill development |
| 483. | Network Programming | CS2525 | B. Tech-CSE | Employability |
| 484. | Systems Software | CT2515 | B. Tech-CSE | Employability |
| 485. | Data Science | CS2508 | B. Tech-CSE | Employability |
| 486. | Virtual and Augmented Reality | CT2524 | B. Tech-CSE | Employability |
| 487. | Node and Angular JS | CS2512 | B. Tech-CSE | Employability |
| 488. | Cyber Security | CS2513 | B. Tech-CSE | Employability |
| 489. | Business intelligence and decision support systems | CS2522 | B. Tech-CSE | Employability |
| 490. | Digital Forensics | CS2521 | B. Tech-CSE | Employability |
| 491. | C\#.NET | CS2506 | B. Tech-CSE | Employability |
| 492. | Advanced Data Structures | CT2522 | B. Tech-CSE | Employability |
| 493. | Software Testing Methodologies | CT2523 | B. Tech-CSE | Employability |
| 494. | Principles of Programming Languages | CS2507 | B. Tech-CSE | Employability |
| 495. | Artificial Intelligence | CT2521 | B. Tech-CSE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 496. | Scripting Languages | CT2529 | B. Tech-CSE | Employability |
| 497. | microprocessors and Interfacing | EC2520 | B. Tech-CSE | Employability |
| 498. | Machine Learning | CS2518 | B. Tech-CSE | Employability |
| 499. | Internet of Things | CT2535 | B. Tech-CSE | Employability |
| 500. | NoSQL Databases | CS2519 | B. Tech-CSE | Employability |
| 501. | Software Requirements Engineering and Estimation | CS2520 | B. Tech-CSE | Employability |
| 502. | Mobile Computing | CT2536 | B. Tech-CSE | Employability |
| 503. | Image processing | CT2530 | B. Tech-CSE | Employability |
| 504. | Information Retrieval System | CT2537 | B. Tech-CSE | Employability |
| 505. | Optimization techniques | MA2515 | B. Tech-CSE | Employability |
| 506. | Web Mining | CS2527 | B. Tech-CSE | Employability |
| 507. | Cloud Computing | CT2540 | B. Tech-CSE | Employability |
| 508. | Agile Software Development Process | CT2532 | B. Tech-CSE | Employability |
| 509. | Block chain Technologies | CT2541 | B. Tech-CSE | Employability |
| 510. | Distributed Systems | CS2528 | B. Tech-CSE | Employability |
| 511. | Social Networks | CT2539 | B. Tech-CSE | Employability |
| 512. | Deep Learning | CS2530 | B. Tech-CSE | Employability |
| 513. | Web Technologies | CT2520 | B. Tech-IT | Employability |
| 514. | Web Technologies Lab | CT2525 | B. Tech-IT | Skill <br> Development |
| 515. | Computer Networks and Data Mining Lab | IT2513 | B. Tech-IT | Skill <br> Development |
| 516. | Software Engineering | CT2517 | B. Tech-IT | Employability |
| 517. | Compiler Design | CT2518 | B. Tech-IT | Employability |
| 518. | Operating Systems | CT2510 | B. Tech-IT | Employability |
| 519. | Operating Systems and Compiler Design Lab | IT2507 | B. Tech-IT | Skill <br> Development |
| 520. | Design and Analysis of Algorithms | CT2527 | B. Tech-IT | Employability |
| 521. | Data Warehousing and Data Mining | CT2528 | B. Tech-IT | Employability |
| 522. | Object Oriented Analysis and Design | IT2510 | B. Tech-IT | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on <br> Employability/ <br> Entrepreneurshi <br> p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 523. | Computer Networks | CT2519 | B. Tech-IT | Employability |
| 524. | Mini Project | IT2522 | B. Tech-IT | Skill <br> Development |
| 525. | Internship / Industrial Training / Practical Training | IT2523 | B. Tech-IT | Skill <br> Development |
| 526. | Big Data Analytics | CT2534 | B. Tech-IT | Employability |
| 527. | Big Data Analytics Lab | CT2538 | B. Tech-IT | Skill <br> Development |
| 528. | Social Networks | CT2539 | B. Tech-IT | Employability |
| 529. | Scripting Languages | CT2529 | B. Tech-IT | Employability |
| 530. | Open Source Software | IT2505 | B. Tech-IT | Employability |
| 531. | Software Project Management | CT2531 | B. Tech-IT | Employability |
| 532. | Cyber Laws | IT2506 | B. Tech-IT | Employability |
| 533. | Machine Learning and Pattern Recognition | IT2517 | B. Tech-IT | Employability |
| 534. | Distributed Operating Systems | IT2518 | B. Tech-IT | Employability |
| 535. | Software Testing Methodologies | CT2523 | B. Tech-IT | Employability |
| 536. | Embedded System Design | EC2512 | B. Tech-IT | Employability |
| 537. | Advanced Data Structures | CT2522 | B. Tech-IT | Employability |
| 538. | Soft Computing Techniques | IT2511 | B. Tech-IT | Employability |
| 539. | Real Time Systems | T2512 | B. Tech-IT | Employability |
| 540. | Agile Software Development Process | CT2532 | B. Tech-IT | Employability |
| 541. | Adhoc and Sensor Networks | IT2521 | B. Tech-IT | Employability |
| 542. | Information Retrieval Systems | CT2537 | B. Tech-IT | Employability |
| 543. | Stenography and Biometrics | IT2525 | B. Tech-IT | Employability |
| 544. | Parallel Computing | T2526 | B. Tech-IT | Employability |
| 545. | Virtual and Augmented Reality | CT2524 | B. Tech-IT | Employability |
| 546. | Internet of Things | CT2535 | B. Tech-IT | Employability |
| 547. | Cloud Computing | CT2540 | B. Tech-IT | Employability |
| 548. | Block chain Technologies | CT2541 | B. Tech-IT | Employability |
| 549. | Design Patterns | IT2528 | B. Tech-IT | Employability |
| 550. | Advanced Structural Analysis | CE3901 | M. Tech-SE | Employability |
| 551. | Research Methodology and IPR | BA3901 | M. Tech-SE | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
| 552. | English for Research Paper Writing | EG3901 | M. Tech-SE | Employability |
| 553. | Theory of Elasticity | CE3902 | M. Tech-SE | Employability |
| 554. | Advanced Structural Engineering Lab | CE3908 | M. Tech-SE | Skill <br> Development |
| 555. | Advanced Concrete Technology Lab | CE3909 | M. Tech-SE | Skill <br> Development |
| 556. | Finite Element Methods in Structural Engineering | CE3910 | M. Tech-SE | Employability |
| 557. | Structural Dynamics | CE3911 | M. Tech-SE | Employability |
| 558. | Computer Applications in Structural Engineering Lab | CE3918 | M. Tech-SE | Skill <br> Development |
| 559. | Structural Design Lab | CE3919 | M. Tech-SE | Skill <br> Development |
| 560. | Mini Project with Seminar | CE3920 | M. Tech-SE | Skill <br> Development |
| 561. | Advanced R.C Design | CE3903 | M. Tech-SE | Employability |
| 562. | Experimental Stress Analysis | CE3904 | M. Tech-SE | Employability |
| 563. | Repairs and Retrofitting of Structures | CE3916 | M. Tech-SE | Employability |
| 564. | Sustainable Development | CE3924 | M. Tech-SE | Employability |
| 565. | Analysis of Power Electronic Converters | EE3902 | M. Tech-PEED | Employability |
| 566. | Power Electronics Simulation Laboratory | EE3909 | M. Tech-PEED | Skill <br> Development |
| 567. | Power Converters Laboratory | EE3910 | M. Tech-PEED | Skill <br> Development |
| 568. | Switched Mode Power Conversion | EE3911 | M. Tech-PEED | Employability |
| 569. | Power Electronic Control of Electrical Drives | EE3912 | M. Tech-PEED | Employability |
| 570. | Electric Drives Simulation Laboratory | EE3919 | M. Tech-PEED | Skill <br> Development |
| 571. | Electric Drives Laboratory | EE3920 | M. Tech-PEED | Skill <br> Development |
| 572. | Mini Project with Seminar | EE3921 | M. Tech-PEED | Skill <br> Development |
| 573. | English for Research Paper | EG3901 | M. Tech-PEED | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
|  | Writing |  |  |  |
| 574. | Modern Control Theory | EE3903 | M. Tech-PEED | Employability |
| 575. | Power Quality and custom power devices | EE3904 | M. Tech-PEED | Employability |
| 576. | Programmable Logic Controllers and Applications | EE3905 | M. Tech-PEED | Skill <br> Development |
| 577. | Artificial Intelligence Techniques | EE3906 | M. Tech-PEED | Employability |
| 578. | Renewable Energy Technologies | EE3907 | M. Tech-PEED | Employability |
| 579. | Flexible AC Transmission Systems | EE3908 | M. Tech-PEED | Employability |
| 580. | Control \& Integration of Renewable Energy Systems | EE3913 | M. Tech-PEED | Employability |
| 581. | Hybrid Electric Vehicles | EE3914 | M. Tech-PEED | Employability |
| 582. | Advanced Digital Control Systems | EE3915 | M. Tech-PEED | Employability |
| 583. | Advanced Digital Signal Processing | EE3916 | M. Tech-PEED | Employability |
| 584. | Application of Power Converters | EE3917 | M. Tech-PEED | Employability |
| 585. | Microcontrollers | EE3918 | M. Tech-PEED | Employability |
| 586. | Digital Signal Processing Controlled Drives | EE3922 | M. Tech-PEED | Employability |
| 587. | Smart Grid Technologies | EE3923 | M. Tech-PEED | Employability |
| 588. | MOOCs-I | EE3924 | M. Tech-PEED | Employability |
| 589. | Energy audit conservation and management | EE3925 | M. Tech-PEED | Employability |
| 590. | Mechanical Vibrations and Acoustics | ME3901 | M. Tech-MD | Employability |
| 591. | Advanced Mechanics of Solids | ME3902 | M. Tech-MD | Employability |
| 592. | Machine Dynamics Lab | ME3909 | M. Tech-MD | Skill <br> Development |
| 593. | Advanced Material Testing Lab | ME3910 | M. Tech-MD | Skill <br> Development |
| 594. | Computational Methods in Engineering | MA3902 | M. Tech-MD | Employability |
| 595. | Advanced Finite Element | ME3911 | M. Tech-MD | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
|  | Methods |  |  |  |
| 596. | Modelling and Simulation Lab | ME3918 | M. Teeh-MD | Skill <br> Development |
| 597. | Computational Methods Lab | ME3919 | M. Tech-MD | Skill <br> Development |
| 598. | Mini Project with Seminar | ME3920 | M. Tech-MD | Skill <br> Development |
| 599. | Analysis and Synthesis of Mechanisms | ME3903 | M. Tech-MD | Employability |
| 600. | Advanced materials | ME3904 | M. Tech-MD | Employability |
| 601. | Industrial Robotics | ME3905 | M. Tech-MD | Employability |
| 602. | Gear Engineering | ME3906 | M. Tech-MD | Employability |
| 603. | Advanced Optimization Techniques | ME3907 | M. Tech-MD | Employability |
| 604. | Rotor Dynamics | ME3908 | M. Tech-MD | Employability |
| 605. | Design for Manufacturing and Assembly | ME3912 | M. Tech-MD | Employability |
| 606. | Mechatronics | ME3913 | M. Tech-MD | Employability |
| 607. | Vehicle Dynamics | ME3914 | M. Tech-MD | Employability |
| 608. | Signal Analysis and Condition Monitoring | ME3915 | M. Tech-MD | Employability |
| 609. | Fracture Mechanics | ME3916 | M. Tech-MD | Employability |
| 610. | Experimental Stress Analysis | ME3917 | M. Tech-MD | Employability |
| 611. | Tribology | ME3921 | M. Tech-MD | Employability |
| 612. | Composite materials | ME3922 | M. Tech-MD | Employability |
| 613. | Sustainable Development | CE3923 | M. Tech-MD | Employability |
| 614. | Energy Audit, Conservation \& Management | EE3924 | M. Tech-MD | Employability |
| 615. | Rapid Prototyping | ME3924 | M. Tech-MD | Employability |
| 616. | Automotive Electronics | EC4924 | M. Tech-MD | Employability |
| 617. | Soft Computing Techniques | CS3924 | M. Tech-MD | Employability |
| 618. | English for Research paper writing | EG3901 | M. Tech-MD | Employability |
| 619. | CMOS VLSI Design | EC4901 | M. Tech-VLSI\&ED | Employability |
| 620. | Advanced Microcontrollers | EC4902 | M. Tech-VLSI\&ED | Employability |
| 621. | CMOS VLSI Design Lab | EC4909 | M. Tech-VLSI\&ED | Skill |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill <br> Development |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Development |
| 622. | Advanced Microcontrollers Lab | EC4910 | M. Tech-VLSI\&ED | Skill <br> Development |
| 623. | Research Methodology and IPR | BA3901 | M. Tech-VLSI\&ED | Employability |
| 624. | Embedded Systems based IoT | EC4912 | M. Tech-VLSI\&ED | Employability |
| 625. | VLSI System Design Lab | EC4919 | M. Tech-VLSI\&ED | Skill <br> Development |
| 626. | Embedded Systems and IoT Lab | EC4920 | M. Tech-VLSI\&ED | Skill <br> Development |
| 627. | Mini Project with Seminar | EC4921 | M. Tech-VLSI\&ED | Skill <br> Development |
| 628. | English for Research Paper Writing | EG3901 | M. Tech-VLSI\&ED | Employability |
| 629. | Digital Signal and Image Processing | EC4905 | M. Tech-VLSI\&ED | Employability |
| 630. | VLSI Signal Processing | EC4906 | M. Tech-VLSI\&ED | Employability |
| 631. | System Design with Embedded Linux | EC4907 | M. Tech-VLSI\&ED | Employability |
| 632. | Parallel Processing | EC4908 | M. Tech-VLSI\&ED | Employability |
| 633. | Advances in VLSI Design | EC4913 | M. Tech-VLSI\&ED | Employability |
| 634. | Communication Buses and Interfaces | EC4917 | M. Tech-VLSI\&ED | Employability |
| 635. | Low power VLSI Design | EC4922 | M. Tech-VLSI\&ED | Employability |
| 636. | Network Security and Cryptography | EC4923 | M. Tech-VLSI\&ED | Employability |
| 637. | MOOCs | EC4924 | M. Tech-VLSI\&ED | Employability |
| 638. | Sustainable Development | CE3924 | M. Tech-VLSI\&ED | Employability |
| 639. | Energy Audit, Conservation \& Management | EE3924 | M. Tech-VLSI\&ED | Employability |
| 640. | Rapid Prototyping | ME4924 | M. Tech-VLSI\&ED | Employability |
| 641. | Automotive Electronics | EC4925 | M. Tech-VLSI\&ED | Employability |
| 642. | Soft Computing Techniques | CS4924 | M. Tech-VLSI\&ED | Employability |
| 643. | Data Science | CS3902 | M. Tech-AI\&ML | Employability |
| 644. | Digital Image Processing | CS3903 | M. Tech-AI\&ML | Employability |
| 645. | Ad hoc and Sensor Networks | CS3904 | M. Tech-AI\&ML | Employability |
| 646. | Intelligent Systems | CS3905 | M. Tech-AI\&ML | Employability |


| S. No | Name of the Course | Course Code | Programme Name | Focus on Employability/ Entrepreneurshi p/ Skill Development |
| :---: | :---: | :---: | :---: | :---: |
| 647. | Internet of Things | CS3906 | M. Tech-AI\&ML | Employability |
| 648. | Principles of Computer Security | CS3907 | M. Tech-AI\&ML | Employability |
| 649. | Distributed Systems | CS3908 | M. Tech-AI\&ML | Employability |
| 650. | Data Science Lab | CS3910 | M. Tech-AI\&ML | Skill <br> Development |
| 651. | MEAN Stack Technologies | CS3911 | M. Tech-AI\&ML | Employability |
| 652. | Machine Learning | CS3912 | M. Tech-AI\&ML | Employability |
| 653. | Block chain Technology | CS3913 | M. Tech-AI\&ML | Employability |
| 654. | Data Preparation and Analysis | CS3914 | M. Tech-AI\&ML | Employability |
| 655. | Natural Language Processing | CS3915 | M. Tech-AI\&ML | Employability |
| 656. | Cloud Computing | CS3916 | M. Tech-AI\&ML | Employability |
| 657. | Quantum Computing | CS3917 | M. Tech-AI\&ML | Employability |
| 658. | Digital Forensics | CS3918 | M. Tech-AI\&ML | Employability |
| 659. | MEAN Stack Technologies Lab | CS3919 | M. Tech-AI\&ML | Skill <br> Development |
| 660. | Machine Learning using Python Lab | CS3920 | M. Tech-AI\&ML | Skill <br> Development |
| 661. | Mini Project with Seminar | CS3921 | M. Tech-AI\&ML | Skill <br> Development |
| 662. | English for Research Paper Writing | EG3901 | M. Tech-AI\&ML | Employability |
| 663. | Deep Learning | CS3922 | M. Tech-AI\&ML | Employability |
| 664. | Recommender Systems | CS3923 | M. Tech-AI\&ML | Employability |
| 665. | Soft Computing Techniques | CS3924 | M. Tech-AI\&ML | Employability |
| 666. | Retail Management | BA3919 | MBA | Entrepreneurship |
| 667. | Human Resources Analytics | BA3925 | MBA | Entrepreneurship |
| 668. | Business communication and skill development | BA3905 | MBA | Entrepreneurship |
| 669. | Management of Retail Operations | BA3928 | MBA | Entrepreneurship |
| 670. | Perspectives of Management 4 | BA3902 | MBA | Employability |
| 671. | Managerial Economics | BA3903 | MBA | Employability |
| 672. | Accounting for Managers | BA3904 | MBA |  |
| 673. | Business Communication \& Skill Development | BA3905 | MBA | Skill <br> Development |


| S. No | Name of the Course | Course <br> Code | Programme Name | Focus on <br> Employability/ <br> Entrepreneurshi <br> p/ Skill <br> Development |
| :---: | :--- | :--- | :--- | :--- |
| 674. | Business Environment and <br> Legislation | BA3906 | MBA | Employability |
| 675. | Quantitative Analysis for <br> Business Decisions | BA3907 | MBA | Employability |
| 676. | Business Law | BA3908 | MBA | Employability |
| 677. | B Information Technology Lab <br> for Business Management | A3909 | MBA | Skill <br> Development |
| 678. | Financial Management | BA3910 | MBA | Employability |
| 679. | Marketing Management | BA3911 | MBA | Employability |
| 680. | Human Resource Management | BA3912 | MBA | Employability |
| 681. | Production \& Operations <br> Management | BA3913 | MBA | Employability |
| 682. | Business Research Methods | BA3914 | MBA | Employability |
| 683. | International Business | BA3915 | MBA | Employability |
| 684. | Organizational Behaviour | BA3916 | MBA | Employability |



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I Year-I Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L3 | T | P |  |
| 1 | EG3501 | Functional English |  |  |  | 3 |
| 2 | MA3501 | Linear Algebra and Calculus | 3 | 1 | - | 4 |
| 3 | PH3501 | Engineering Physics | 3 | - | - | 3 |
| 4 | CT3501 | Problem Solving Using C * | 3 | - | 2 | 4 |
| 5 | ME3503 | Engineering Graphics * | 2 | - | 4 | 4 |
| 6 | EG3502 | Functional English Lab | - | - | 2 | 1 |
| 7 | PH3503 | Engineering Physics Lab | - | - | 2 | 1 |
|  |  | Total | 14 | 1 | 10 | 20 |
| 8 | EN3501 | Environmental Studies <br> (Mandatory Non-Credit Course) | 2 | - | - | - |

* Integrated Course with Theory and Laboratory

I Year-II Semester

| $\begin{array}{\|l\|l} \hline \text { Sl. } \\ \text { No. } \end{array}$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.ofCredits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG3503 | Professional Communication | 2 | - | - | 2 |
| 2 | MA3505 | Integral Transforms and Vector Calculus | 3 | 1 | - | 4 |
| 3 | CH3501 | Engineering Chemistry | 3 | - | - | 3 |
| 4 | CE3501 | Applied Mechanics | 3 | 1 | - | 4 |
| 5 | UH3501 | Universal Human Values 2: <br> Understanding Harmony | 2 | 1 | - | 3 |
| 6 | EG3504 | Professional Communication Lab | - | - | 4 | 2 |
| 7 | CH3502 | Engineering Chemistry Lab | - | - | 2 | 1 |
| 8 | CE3502 | Applied Mechanics Lab \& Building Trade Practice | - | - | 2 | 1 |
|  |  | Total | 13 | 3 | 8 | 20 |
| 9 | BA3501 | Constitution of India (Mandatory Non-Credit Course) | 2 | - | - | - |

L: Lecture
T: Tutorial
P: Practical

Civil Engineering

II Year - I Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L2 | $\mathrm{T}$ | $\mathrm{P}$ |  |
| 1 | CE3503 | Building Materials and Building Construction |  |  |  | 2 |
| 2 | ME3507 | Elements of Mechanical and Electrical Engineering | 2 | 1 | - | 3 |
| 3 | CE3504 | Mechanics of Solids | 3 | 1 | - | 4 |
| 4 | CE3505 | Fluid Mechanics | 2 | 1 | - | 3 |
| 5 | CE3506 | Surveying | 2 | 1 | - | 3 |
| 6 | CE3507 | Engineering Geology \& Geo-Spatial Applications * | 2 | - | 2 | 3 |
| 7 | CE3508 | Mechanics of Solids Lab | - | - | 2 | 1 |
| 8 | CE3509 | Survey Field Work | - | - | 2 | 1 |
| 9 | SD3501 | Logic Building and Basic Coding Principles | - | - | 2 | 1 |
| Total |  |  | 13 | 4 | 8 | 21 |
| 10 | SG3501 | Sports and Games / Cultural (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory

II Year - II Semester

| $\begin{aligned} & \text { Sl. } \\ & \text { No. } \end{aligned}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \hline \mathbf{L} \\ & 2 \end{aligned}$ | $\begin{aligned} & \hline \mathrm{T} \\ & 1 \end{aligned}$ | $\overline{\mathbf{P}}$ |  |
| 1 | MA3513 | Numerical \& Statistical Methods |  |  |  | 3 |
| 2 | CE3510 | Structural Analysis | 3 | 1 | - | 4 |
| 3 | CE3511 | Hydraulics \& Hydraulic Machines | 2 | 1 | - | 3 |
| 4 | CE3512 | Concrete Technology | 3 | - | - | 3 |
| 5 | CT3508 | Python Programming* | 2 | - | 2 | 3 |
| 6 |  | Open Elective - I | 3 | - | - | 3 |
| 7 | CE3515 | Fluid Mechanics \& Hydraulic Machines Lab | - | - | 2 | 1 |
| 8 | CE3516 | Concrete Technology Lab | - | - | 2 | 1 |
| 9 | SD3503 | Programming for Corporate | - | - | 2 | 1 |
|  |  | Total | 15 | 3 | 8 | 22 |
| 10 | NS3501 | NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course) | - | - | 2 | - |


| L: Lecture | T : Tutorial | P : Practical |  |
| :---: | :---: | :---: | :---: |



I Year-I Semester

| $\begin{array}{\|l} \hline \text { SI. } \\ \text { No. } \end{array}$ | Course Code | Name of the Course / Laboratory | $\begin{gathered} \text { No.of Periods } \\ \text { per week } \end{gathered}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG3501P | Functional English | 3 | - | - | 3 |
| 2 | MA3501 | Linear Algebra and Calculus | 3 | 1 | - | 4 |
| 3 | CH3503 | Applied Chemistry | 3 | - | - | 3 |
| 4 | CT3501 | Problem Solving Using C * | 3 | - | 2 | 4 |
| 5 | UH3501 | Universal Human Values 2: Understanding Harmony | 2 | 1 | - | 3 |
| 6 | CH3504 | Applied Chemistry Lab | - | - | 2 | 1 |
| 7 | EG3502 | Functional English Lab | - | - | 2 | 1 |
|  |  | Total | 14 | 2 | 6 | 19 |
| 8 | BA3501 | Constitution of India (Mandatory Non-Credit Course) | 2 | - | - | - |

* Integrated Course with Theory and Laboratory

I Year-II Semester

| $\begin{array}{\|l\|} \hline \text { Sl. } \\ \text { No. } \end{array}$ | $\begin{gathered} \text { Course } \\ \text { Code } \end{gathered}$ | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L2 | T | $\mathbf{P}$ |  |
| 1 | EG3503 | Professional Communication |  |  |  | 2 |
| 2 | MA3505 | Integral Transforms and Vector Calculus | 3 | 1 | - | 4 |
| 3 | PH3504 | Solid State Physics | 3 | - | - | 3 |
| 4 | EE3504 | Circuit Theory - I | 2 | 1 | - | 3 |
| 5 | MA3506 | Discrete Mathematics | 2 | 1 | - | 3 |
| 6 | ME3501 | Engineering Drawing | 1 | - | 4 | 3 |
| 7 | EG3504 | Professional Communication Lab | - | - | 4 | 2 |
| 8 | PH3505 | Solid State Physics Lab | - | - | 2 | 1 |
|  | ${ }^{\circ}$ | Total | 13 | 3 | 10 | 21 |
| 9 | EN3501 | Environmental Studies <br> (Mandatory Non-Credit Course) | 2 | - | - | - |

L: Lecture
T: Tutorial
P: Practical

Electrical and Electronics Engineering



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Seshadri Rao Knowiod ge Village
Gudlavalleru - 521356 , Krishna District. A.P.

II Year - I Semester

| SI. | Course | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Code |  | L | T | P | Credits |
| 1 | CT3508 | Python Programming * | 2 | - | 2 | 3 |
| 2 | EE3508 | Circuit Theory - II | 2 | 1 | - | 3 |
| 3 | EE3509 | Control Systems | 2 | 1 | - | 3 |
| 4 | EE3510 | DC Machines and Transformers | 2 | 1 | - | 3 |
| 5 | EC3504 | Electronic Devices and Circuits | 2 | 1 | - | 3 |
| 6 | EC3505 | Digital Circuits | 3 | - | - | 3 |
| 7 | EC3506 | Electronic Devices and Circuits Lab | - | - | 2 | 1 |
| 8 | EC3507 | Digital Circuits Lab | - | - | 2 | 1 |
| 9 | SD3501 | Logic Building and Basic Coding Principles | - | - | 2 | 1 |
|  |  | Total | 13 | 4 | 8 | 21 |
| 10 | NS3501 | NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory

II Year - II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | $\mathrm{T}$ | $\begin{aligned} & \mathbf{P} \\ & 2 \end{aligned}$ |  |
| 1 | MA3514 | Numerical Methods with Computer Applications* | $2$ |  |  | 3 |
| 2 | EE3511 | Induction \& Synchronous Machines | 2 | 1 | - | 3 |
| 3 | EE3512 | Power generation Systems | 3 | 1 | - | 4 |
| 4 | EC3510 | Signals and Systems | 2 | 1 | - | 3 |
| 5 |  | Open Elective - I | 3 | - | - | 3 |
| 6 | EE3515 | DC Machines and Transofrmers Lab | - | - | 2 | 1 |
| 7 | EE3516 | Electrical Circuits Lab | - | - | 2 | 1 |
| 8 | EE3517 | Simulation of Electrical Engineering Systems | - | - | 4 | 2 |
| 9 | SD3503 | Programming for Corporate | - | - | 2 | 1 |
|  |  | Total | 12 | 3 | 12 | 21 |
| 10 | SG3501 | $\left\lvert\, \begin{aligned} & \text { Sports and Games / Cultural } \\ & \text { (Mandatory Non-Credit Course) }\end{aligned}\right.$ | - | - | 2 | - |

* Integrated Course with Theory and Laboratory
L: Lecture $\quad$ : : Tutorial $\quad \mathbf{P}$ : Practical

Electrical and Electronics Engineering


I Year-I Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course Code | Name of the Course / Laboratory | $\begin{gathered} \text { No.of Periods } \\ \text { per week } \end{gathered}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG3501 | Functional English | 3 | - | - | 3 |
| 2 | MA3501 | Linear Algebra and Calculus | 3 | 1 | - | 4 |
| 3 | PH3502 | Physics for Engineers | 3 | - | - | 3 |
| 4 | CT3501 | Problem Solving Using C * | 3 | - | 2 | 4 |
| 5 | ME3503 | Engineering Graphics * | 2 | - | 4 | 4 |
| 6 | EG3502 | Functional English Lab | - | - | 2 | 1 |
| 7 | PH3503 | Engineering Physics Lab | - | - | 2 | 1 |
|  |  | Total | 14 | 1 | 10 | 20 |
| 8 | EN3501 | Environmental Studies <br> (Mandatory Non-Credit Course) | 2 | - | - | - |

* Integrated Course with Theory and Laboratory

I Year-II Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \hline \mathbf{L} \\ & 2 \\ & \hline \end{aligned}$ | T | P |  |
| 1 | EG3503 | Professional Communication |  |  |  | 2 |
| 2 | MA3505 | Integral Transforms and Vector Calculus | 3 | 1 | - | 4 |
| 3 | CH3504 | Chemistry for Engineers | 3 | - | - | 3 |
| 4 | ME3504 | Engineering Mechanics | 3 | 1 | - | 4 |
| 5 | UH3501 | Universal Human Values 2: Understanding Harmony | 2 | 1 | - | 3 |
| 6 | EG3504 | Professional Communication Lab | - | - | 4 | 2 |
| 7 | ME3505 | Engineering Workshop | - | - | 2 | 1 |
| 8 | ME3506 | Engineering Mechanics Lab and Fuel \& Lubricants Lab | - | - | 2 | 1 |
| Total |  |  | 13 | 3 | 8 | 20 |
| 9 | \|BA3501 | Constitution of India (Mandatory Non-Credit Course) | 2 | - | - | - |

L: Lecture $\quad$ T:Tutorial $\quad$ P: Practical
Mechanical Engineering


II Year - I Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | $\begin{aligned} & \hline \mathbf{P} \\ & 2 \end{aligned}$ |  |
| 1 | CT3508 | Python Programming* | 2 |  |  | 3 |
| 2 | EE3505 | Elements of Electrical and Electronics Engineering | 3 | - | - | 3 |
| 3 | ME3508 | Engineering Thermodynamics | 2 | 1 | - | 3 |
| 4 | ME3509 | Kinematics of Machines | 2 | 1 | - | 3 |
| 5 | ME3510 | Mechanics of Solids | 2 | 1 | - | 3 |
| 6 | ME3511 | Materials Engineering | 3 | - | - | 3 |
| 7 | EE3506 | Electrical \& Electronics Engineering Lab | - | - | 2 | 1 |
| 8 | ME3512 | Mechanics of Solids Lab and Materials Lab | - | - | 2 | 1 |
| 9 | SD3501 | Logic Building and Basic Coding Principles | - | - | 2 | 1 |
| Total |  |  | 14 | 3 | 8 | 21 |
| 10 | SG3501 | Sports and Games / Cultural (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | , | T | $\mathbf{P}$ |  |
| 1 | MA3513 | Numerical \& Statistical Methods | 2 |  |  | 3 |
| 2 | ME3513 | Manufacturing Science | 3 | - | - | 3 |
| 3 | ME3514 | Applied Thermodynamics | 2 | 1 | - | 3 |
| 4 | ME3515 | Dynamics of Machines | 2 |  | - | 3 |
| 5 | ME3516 | Fluid Mechanics \& Hydraulic Machines | 2 | 1 | - | 3 |
| 6 |  | Open Elective - I | 3 | - | - | 3 |
| 7 | ME3519 | Thermal Engineering Lab | - | - | 2 | 1 |
| 8 | MA3515 | Numerical \& Statistical Methods Lab | . | - | 2 | 1 |
| 9 | ME3520 | Manufacturing Processes Lab \& Machine Dynamies Lab | - | - | 2 | 1 |
| 10 | SD3503 | Programming for Corporate | - | - | 2 | 1 |
|  |  | Total | 14 | 4 | 8 | 22 |
| 11 | NS3501 | NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory
L: Lecture
T: Tutorial
P: Practical

Mechanical Engineering


I Year-I Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG3501 | Functional English | 3 | - | - | 3 |
| 2 | MA350 | Linear Algebra and Calculus | 3 | 1 | - | 4 |
| 3 | CH3503 | Applied Chemistry | 3 | - | - | 3 |
| 4 | CT3501 | Problem Solving Using C * | 3 | - | 2 | 4 |
| 5 | UH3501 | Universal Human Values 2: Understanding Harmony | 2 | 1 | - | 3 |
| 6 | EC3503 | Electronic Workshop | - | - | 4 | 2 |
| 7 | EG3502 | Functional English Lab | - | - | 2 | 1 |
| 8 | CH3504 | Applied Chemistry Lab | - | - | 2 | 1 |
|  |  | Total | 14 | 2 | 10 | 21 |
| 9 | BA3501 | Constitution of India (Mandatory Non-Credit Course) | 2 | - | - | - |

* Integrated Course with Theory and Laboratory

I Year - II Semester

| $\begin{array}{\|l} \text { SI. } \\ \text { No. } \end{array}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \mathbf{L} \\ & 2 \end{aligned}$ | $\mathrm{T}$ | $\mathbf{P}$ |  |
| 1 | EG3503 | Professional Communication |  |  |  | 2 |
| 2 | MA3505 | Integral Transforms and Vector Calculus | 3 | 1 | - | 4 |
| 3 | EE3502 | Linear Electrical Networks | 3 | - | - | 3 |
| 4 | PH3504 | Solid State Physics | 3 | - | - | 3 |
| 5 | ME3501 | Engineering Drawing | 1 | - | 4 | 3 |
| 6 | EG3504 | Professional Communication Lab | - | - | 4 | 2 |
| 7 | PH3506 | Solid State Physics Lab | - | - | 4 | 2 |
|  |  | Total | 12 | 1 | 12 | 19 |
| 8 | EN3501 | $\begin{aligned} & \text { Environmental Studies } \\ & \text { (Mandatory Non-Credit Course) } \end{aligned}$ | 2 | - | - | - |

Electronics and Communication Engineering

II Year - I Semester

| SI. <br> No. | $\begin{aligned} & \text { Course } \\ & \text { Code } \end{aligned}$ | Name of the Course / Laboratory | No.of Periods per week |  |  | $\begin{gathered} \text { No.of } \\ \text { Credits } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L3 | T <br> - | $\mathbf{P}$ |  |
| 1 | EC3508 | Probability Theory and Stochastic Processes |  |  |  | 3 |
| 2 | EC3509 | Semiconductor Devices and Circuits | 3 | - | - | 3 |
| 3 | EC3510 | Signals and Systems | 2 | 1 | - | 3 |
| 4 | EC3511 | Electromagnetic Field Theory | 3 | - | - | 3 |
| 5 | EC3512 | Digital Circuit Design | 2 | 1 | - | 3 |
| 6 | MA3508 | Numerical Methods and Complex Analysis | 2 | 1 | - | 3 |
| 7 | EC3513 | Semiconductor Devices and Circuits Lab | - | - | 2 | 1 |
| 8 | EE3507 | Linear Electrical Networks Lab | - | - | 2 | 1 |
| 9 | SD3502 | Logic Building and Algorithmic Programming | - | - | 2 | 1 |
| Total |  |  | 15 | 3 | 6 | 21 |
| 10 | NS3501 | NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory

II Year - II Semester

| SI. <br> No. | $\begin{aligned} & \text { Course } \\ & \text { Code } \end{aligned}$ | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \mathrm{L} \\ & 3 \end{aligned}$ | T | $\mathbf{P}$ |  |
| 1 | EC35I6 | Transmission Lines and Waveguides |  |  |  | 3 |
| 2 | EC3517 | Analog Circuits | 3 | - | - | 3 |
| 3 | EC3518 | Analog and Digital Communications | 3 | 1 | - | 4 |
| 4 | EC3519 | VLSI Design | 3 | - | - | 3 |
| 5 | CT3509 | Data Structures* | 2 | - | 2 | 3 |
| 6 |  | Open Elective - I | 3 | - | - | 3 |
| 7 | EC3522 | Analog Circuits Lab | - | - | 2 | 1 |
| 8 | EC3523 | Digital Circuits Design Lab | - | - | 2 | 1 |
| 9 | SD3503 | Programming for Corporate | - | - | 2 | 1 |
| Total |  |  | 17 | 1 | 8 | 22 |
| 10 | SG3501 | Sports and Games / Cultural (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory
L: Lecture $\quad$ T:Tutorial P: Practical

Electronics and Communication Engineering


Gudlavalleru Enfineering College

I Year-I Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | CourseCode | Name of the Course / Laboratory | No.of Periodsper week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG3501 | Functional English | 3 | - | - | 3 |
| 2 | MA350 | Linear Algebra and Calculus | 3 | 1 | - | 4 |
| 3 | PH3509 | Applied Physics | 3 | - | - | 3 |
| 4 | CT3502 | Programming for Problem Solving | 3 | - | - | 3 |
| 5 | UH3501 | Universal Human Values 2: Understanding Harmony | 2 | 1 | - | 3 |
| 6 | EG3502 | Functional English Lab | - | - | 2 | 1 |
| 7 | PH3510 | Applied Physics Lab | - | - | 2 | 1 |
| 8 | CT3503 | C Programming Lab | - | - | 4 | 2 |
|  |  | Total | 14 | 2 | 8 | 20 |
| 9 | \|BA3501 | Constitution of India (Mandatory Non-Credit Course) | 2 | - | - | - |

I Year-II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods <br> per week |  |  | No.of <br> Credits |  |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | T | P |  |  |  |  |  |  |  |  |
| 1 | EG3503 | Professional Communication | 2 | - | - | 2 |  |  |  |  |  |  |
| 2 | MA3505 | Integral Transforms and Vector Calculus | 3 | 1 | - | 4 |  |  |  |  |  |  |
| 3 | EC3502 | Basic Electronic Devices | 2 | - | - | 2 |  |  |  |  |  |  |
| 4 | CT3504 | Python Programming | 3 | - | - | 3 |  |  |  |  |  |  |
| 5 | CT3505 | Data Structures | 3 | - | - | 3 |  |  |  |  |  |  |
| 6 | EG3504 | Professional Communication Lab | - | - | 4 | 2 |  |  |  |  |  |  |
| 7 | CT3506 | Python Programming Lab | - | - | 4 | 2 |  |  |  |  |  |  |
| 8 | CT3507 | Data Structures Lab | - | - | 4 | 2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | Total | $\mathbf{1 3}$ | $\mathbf{1}$ | $\mathbf{1 2}$ | $\mathbf{2 0}$ |
| 9 | EN3501 | Environmental Studies <br> (Mandatory Non-Credit Course) | 2 | - | - | - |  |  |  |  |  |  |

L: Lecture
T:Tutorial
P : Practical


Gudlavalleru Engineering College
Seshadrt Rao knowtedge Village
Gudlavaileru - 521350 , Krishina District. A.P.

II Year - I Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | $\begin{gathered} \text { No.of Periods } \\ \text { per week } \\ \hline \end{gathered}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \hline \mathbf{L} \\ & 3 \end{aligned}$ | $\mathrm{T}$ | $\mathbf{P}$ |  |
| 1 | BA3502 | Managerial Economics and Financial Analysis |  |  |  | 3 |
| 2 | MA3509 | Probability and Statistics | 2 | 1 | - | 3 |
| 3 | CT3510 | Digital Logic Design | 2 | 1 | - | 3 |
| 4 | CT3511 | Object Oriented Programming through Java | 3 | - | - | 3 |
| 5 | CT3512 | Database Management Systems | 3 | - | - | 3 |
| 6 | MA3510 | Probability and Statistics Using R Lab | - | - | 2 | 1 |
| 7 | CT3514 | Java Programming Lab | - | - | 4 | 2 |
| 8 | CT3515 | Database Management Systems Lab | - | - | 4 | 2 |
| 9 | SD3502 | Logic Building and Algorithmic Programming | - | - | 2 | 1 |
|  |  | Total | 13 | 2 | 12 | 21 |
| 10 | SG3501 | Sports and Games / Cultural (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory

II Year - II Semester

| SI. <br> No. | $\begin{aligned} & \text { Course } \\ & \text { Code } \end{aligned}$ | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \hline \mathbf{L} \\ & 2 \end{aligned}$ | $\begin{aligned} & \mathrm{T} \\ & 1 \end{aligned}$ | $\mathbf{P}$ |  |
| 1 | MA3511 | Discrete Mathematical Structures |  |  |  | 3 |
| 2 | CT3518 | Computer Organization | 3 | - | - | 3 |
| 3 | CS3501 | Design and Analysis of Algorithms | 3 | - | - | 3 |
| 4 | CT3519 | Operating Systems | 3 | - | - | 3 |
| 5 | CS3502 | Software Engineering * | 3 | - | 2 | 4 |
| 6 |  | Open Elective - I | 3 | - | - | 3 |
| 7 | CT3523 | Operating Systems Lab | - | - | 2 | 1 |
| 8 | CT3524 | Game Programming | 1 | - | 2 | 2 |
| 9 | SD3503 | Programming for Corporate | - | - | 2 | 1 |
|  |  | Total | 18 | 1 | 8 | 23 |
| 10 | NS3501 | NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory
L: Lecture
T: Tutorial
P: Practical

Computer Science and Engineering


Seshadri Rao
Gudlavalleru Ingineering College
Seshadri Rao Knowtedge Village
Gudlavailoru - 521356 , Krishna District. A.P

I Year-I Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Course } \\ & \text { Code } \end{aligned}$ | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L3 | T | $\mathrm{P}$ |  |
| 1 | EG3501 | unctional English |  |  |  | 3 |
| 2 | MA3501 | Linear Algebra and Calculus | 3 | 1 | - | 4 |
| 3 | CH3506 | Applied Chemistry | 3 | - | - | 3 |
| 4 | EC3501 | Elements of Electronics Engineering | 3 | - | - | 3 |
| 5 | CT3502 | Programming for Problem Solving | 3 | - | - | 3 |
| 6 | EG3502 | Functional English Lab | - | - | 2 | 1 |
| 7 | CH3507 | Applied Chemistry Lab | - | - | 2 | 1 |
| 8 | CT3503 | C Programming Lab | - | - | 4 | 2 |
|  |  | Total | 15 | 1 | 8 | 20 |
| 9 | EN3501 | Environmental Studies (Mandatory Non-Credit Course) | 2 | - | - | - |

I Year - II Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | $P$ |  |
| 1 | EG3503 | Professional Communication | 2 |  |  | 2 |
| 2 | MA3505 | Integral Transforms and Vector Calculus | 3 | 1 | - | 4 |
| 3 | PH3509 | Applied Physics | 3 | - | - | 3 |
| 4 | CT3505 | Data Structures | 3 | - | - | 3 |
| 5 | UH3501 | Universal Human Values 2: Understanding Harmony | 2 | 1 | - | 3 |
| 6 | EG3504 | Professional Communication Lab | - | - | 4 | 2 |
| 7 | PH3510 | Applied Physics Lab | - | - | 2 | 1 |
| 8 | CT3507 | Data Structures Lab | - | - | 4 | 2 |
|  |  | Total | 13 | 2 | 10 | 20 |
| 9 | BA3501 | Constitution of India (Mandatory Non-Credit Course) | 2 | - | - | - |

L: Lecture $\quad$ T: Tutorial $\quad \mathbf{P}:$ Practical
Information Technology


| SI. <br> No. |  | Name of the Course / Laboratory | No.of Periodsper week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | $\begin{aligned} & \mathrm{T} \\ & 1 \end{aligned}$ | $\mathbf{P}$ |  |
| 1 | MA3511 | Discrete Mathematical Structures |  |  |  | 3 |
| 2 | BA3502 | Managerial Economics and Financial Analysis | 3 | - | - | 3 |
| 3 | CT3510 | Digital Logic Design | 2 | 1 | - | 3 |
| 4 | CT3511 | Object Oriented Programming through JAVA | 3 | - | - | 3 |
| 5 | CT3513 | Formal Languages and Automata Theory | 2 | 1 | - | 3 |
| 6 | CT3514 | JAVA Programming Lab | - | - | 4 | 2 |
| 7 | IT3501 | R Programming Lab | - | - | 2 | 1 |
| 8 | IT3502 | Linux Programming Lab | - | - | 2 | 1 |
| 9 | SD3502 | Logic Building and Algorithmic Programming | - | - | 2 | 1 |
| Total |  |  | 12 | 3 | 10 | 20 |
| 10 | NS3501 | NSS / Fine Arts / Yoga / Self Defense <br> (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory

II Year - II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | $\begin{gathered} \text { No.of } \\ \text { Credits } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \hline \mathbf{L} \\ & 2 \end{aligned}$ | $\begin{aligned} & \hline \mathbf{T} \\ & 1 \end{aligned}$ | $\mathbf{P}$ |  |
| 1 | MA3509 | Probability and Statistics |  |  |  | 3 |
| 2 | CT3512 | Database Management Systems | 3 | - | - | 3 |
| 3 | CT3518 | Computer Organization | 3 | - | - | 3 |
| 4 | IT3503 | Python Programming | 3 | - | - | 3 |
| 5 |  | Open Elective - I | 3 | - | - | 3 |
| 6 | CT3515 | Database Management Systems Lab | - | - | 4 | 2 |
| 7 | IT3506 | Python Programming Lab | - | - | 4 | 2 |
| 8 | CT3525 | Mobile Application Development | - | - | 4 | 2 |
| 9 | SD3503 | Programming for Corporate | - | - | 2 | 1 |
|  |  | Total | 14 | 1 | 14 | 22 |
| 10 | SG3501 | Sports and Games / Cultural (Mandatory Non-Credit Course) | - | - | 2 | - |

## COURSE STRUCTURE

I Year - I Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG3501 | Functional English | 3 | - | - | 3 |
| 2 | MA3502 | Descriptive Statistics | 2 | 1 | - | 3 |
| 3 | MA3504 | Engineering Calculus | 2 | 1 | - | 3 |
| 4 | CT3502 | Programming for Problem Solving | 3 | - | - | 3 |
| 5 | UH3501 | Universal Human Values 2: Understanding Harmony | 2 | 1 | - | 3 |
| 6 | EG3502 | Functional English Lab | - | - | 2 | 1 |
| 7 | MA3503 | Statistics Using R Lab | - | - | 2 | 1 |
| 8 | CT3503 | C Programming Lab | - | - | 4 | 2 |
|  |  | Total | 12 | 3 | 8 | 19 |
| 9 | BA3501 | Constitution of India (Mandatory Non-Credit Course | 2 | - | . | - |

| Year - II Semester

| SI. <br> No. | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG3503 | Professional Communication | 2 | - | - | 2 |
| 2 | MA3505 | Integral Transforms and Vector Calculus | 3 | 1 | - | 4 |
| 3 | MA3507 | Linear Algebra | 2 | 1 | - | 3 |
| 4 | CT3504 | Python Programming | 3 | - | - | 3 |
| 5 | CT3505 | Data Structures | 3 | - | - | 3 |
| 6 | EG3504 | Professional Communication Lab | - | - | 4 | 2 |
| 7 | CT3506 | Python Programming Lab | - | - | 4 | 2 |
| 8 | CT3507 | Data Structures Lab | - | - | 4 | 2 |
|  |  | Total | 13 | 2 | 12 | 21 |
| 9 | EN3501 | Environmental Studies <br> (Mandatory Non-Credit Course) | 2 | - | - | - |

L: Lecture T: Tutorial P: Practical
Artificial Intelligence and Data Science


Seshadn Rao
Gudlavalleru Engineering College
Seshadri Rao Knowledge Village
Gudlavaileru-521 356, Krishna District. A.P.

II Year - I Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | BA3502 | Managerial Economics and Financial Analysis | 3 | - | - | 3 |
| 2 | MA3512 | Advanced Statistics | 3 | - | - | 3 |
| 3 | CT3510 | Digital Logic Design | 2 | 1 | - | 3 |
| 4 | CT3511 | Object Oriented Programming through Java | 3 | - | - | 3 |
| 5 | CT3512 | Database Management Systems | 3 | - | - | 3 |
| 6 | CT3513 | Formal Languages and Automata Theory | 2 | 1 | - | 3 |
| 7 | CT3514 | Java Programming Lab | - | - | 4 | 2 |
| 8 | CT3515 | Database Management Systems Lab | - | - | 4 | 2 |
| 9 | SD3502 | Logic Building and Algorithmic Programming | - | - | 2 | 1 |
|  |  | Total | 16 | 2 | 10 | 23 |
| 10 | SG3501 | Sports and Games / Cultural (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory

II Year - II Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | MA3511 | Discrete Mathematical Structures | 2 | 1 | - | 3 |
| 2 | CT3518 | Computer Organization | 3 | - | - | 3 |
| 3 | CT3520 | Compiler Design | 2 | 1 | - | 3 |
| 4 | CT3521 | Artificial Intelligence | 3 | - | - | 3 |
| 5 | CS3502 | Software Engineering * | 3 | - | 2 | 4 |
| 6 |  | Open Elective - I | 3 | - | - | 3 |
| 7 | AD3501 | Artifical Intelligence Lab | - | - | 2 | 1 |
| 8 | CT3524 | Game Programming | 1 | - | 2 | 2 |
| 9 | SD3503 | Programming for Corporate | - | - | 2 | 1 |
|  |  | Total | 17 | 2 | 8 | 23 |
| 10 | NS3501 | NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory

L: Lecture T:Tutorial P: Practical
Artificial Intelligence and Data Science


## COURSE STRUCTURE

I Year - I Semester

| SI. <br> No. | $\begin{array}{\|c} \text { Course } \\ \text { Code } \end{array}$ | Name of the Course / Laboratory | No.of Periodsper week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG3501 | Functional English | 3 | - | - | 3 |
| 2 | MA3501 | Linear Algebra and Calculus | 3 | 1 | - | 4 |
| 3 | PH3507 | Applied Physics | 3 | - | - | 3 |
| 4 | EE3501 | Basic Electrical Engineering | 3 | - | - | 3 |
| 5 | CT3501 | Problem Solving Using C* | 3 | - | 2 | 4 |
| 6 | EG3502 | Functional English Lab | - | - | 2 | 1 |
| 7 | PH3508 | Engineering Physics Lab | - | - | 2 | 1 |
|  |  | Total | 15 | 1 | 6 | 19 |
| 8 | EN3501 | Environmental Studies (Mandatory Non-Credit Course) | 2 | - | - | - |

- Integrated Course with Theory and Laboratory

I Year - II Semester

| SI. <br> No. | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG503 | Professional Communication | 2 | - | - | 2 |
| 2 | MA3505 | Integral Transforms and Vector Calculus | 3 | 1 | - | 4 |
| 3 | IN3501 | Introduction to Internet of Things | 3 | - | - | 3 |
| 4 | ME3502 | Computer Aided Engineering Drawing* | 1 | - | 4 | 3 |
| 5 | UH3501 | Universal Human Values 2: Understanding Harmony | 2 | 1 | - | 3 |
| 6 | EG3504 | Professional Communication Lab | - | - | 4 | 2 |
| 7 | IN3502 | Electronic Workshop for lo T | - | - | 4 | 2 |
| 8 | EE3503 | Basic Electrical Engineering Lab | - | - | 4 | 2 |
|  |  | Total | 11 | 2 | 16 | 21 |
| 9 | BA3501\| | Constitution of India (Mandatory Non-Credit Course) | 2 | - | - | - |

- Integrated Course with Theory and Laboratory
L: Lecture
$T$ : Tutorial
P: Practical

Internet of Things


Gudlavalleru Engineering College
Seshadri Rao Knowledge Village
Gudlavalleru-521 356, Krishna District. A.P.

II Year - I Semester.

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | IN3503 | Analog Devices and Circuits | 3 | - | - | 3 |
| 2 | IN3504 | Principles of Communication Systems | 3 | - | - | 3 |
| 3 | MA3509 | Probability and Statistics | 2 | 1 | - | 3 |
| 4 | EC3514 | Elecronic Instumentajion and Measurement Pinciples | 3 | - | - | 3 |
| 5 | IN3505 | Transducers and Signal Conditioning | 3 | - | - | 3 |
| 6 | CT3509 | Data Structures* | 2 | - | 2 | 3 |
| 7 | IN3506 | Analog Devices and Ciruits Lab | . | - | 2 | 1 |
| 8 | EC3515 | Analog and Digital Communications Lab | - | - | 2 | 1 |
| 9 | SD3502 | Logic Building and Algorithmic Programming | - | - | 2 | 1 |
|  |  | Total | 16 | 1 | 8 | 21 |
| 10 | NS3501 | NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course) | - | - | 2 | - |

- Integrated Course with Theory and Laboratory

II Year - II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods <br> per week |  |  | No.of <br> Credits |
| :---: | :---: | :--- | :---: | :---: | :---: | :---: |
|  |  |  | Signal Analysis and Processing | 2 | 1 |  |
| 2 | CT3516 | Object Oriented Programming through JAVA* | 2 | - | 2 | 3 |
| 3 | EC3512 | Digital Circuits Design | 2 | 1 | - | 3 |
| 4 | IN3508 | Computer Organization and Architecture | 3 | - | - | 3 |
| 5 | MA3508 | Numerical Methods and ComplexAnalysis | 2 | 1 | - | 3 |
| 6 |  | Open Elective - I | 3 | - | - | 3 |
| 7 | EC3523 | Digital Circuits Design Lab | - | - | 2 | 1 |
| 8 | IN3509 | Signal Analysis and Processing Lab | - | - | 2 | 1 |
| 9 | CT3517 | Python Programming | - | - | 4 | 2 |
| 10 | SD3503 | Programming for Corporate | - | - | 2 | 1 |
| Total |  |  |  |  |  |  |
| 10 | SG3501 | Sports and Games / Cultural <br> (Mandatory Non-Credit Course) | -3 | 12 | 23 |  |

- Integrated Course with Theory and Laboratory
L: Lecture
T:Tutorial
P: Practical

Internet of Things



Gudlavalleru Erigineering College Seshadri Rao Knowledge Village Gudlavalleru-521 356, Krishna Distitct. A.P.

## COURSE STRUCTURE

I Year - I Semester

| SI. <br> No. | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EG3501 | Functional English | 3 | - | - | 3 |
| 2 | MA3502 | Descriptive Statistics | 2 | 1 | - | 3 |
| 3 | MA3504 | Engineering Calculus | 2 | 1 | - | 3 |
| 4 | CT3502 | Programming for Problem Solving | 3 | - | - | 3 |
| 5 | UH3501 | Universal Human Values 2: Understanding Harmony | 2 | 1 | - | 3 |
| 6 | EG3502 | Functional English Lab | - | - | 2 | 1 |
| 7 | MA3503 | Statistics Using R Lab | - | - | 2 | 1 |
| 8 | CT3503 | C Programming Lab | - | - | 4 | 2 |
|  |  | Total | 12 | 3 | 8 | 19 |
| 9 | BA3501 | Constitution of India (Mandatory Non-Credit Course) | 2 | - | - | - |

## I Year - II Semester



Artificial Intelligence and Machine Learning


Gudlavalleru Erginsering College
Seshadri Rau Knowledge Village
Gudlavalleru-521356, Krishna District.A.P.

II Year - I Semester

| $\begin{array}{\|l\|} \hline \text { SI. } \\ \text { No. } \end{array}$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | BA3502 | Managenia Economics and Financial Analysis | 3 | - | - | 3 |
| 2 | MA3512 | Advanced Statistics | 3 | - | - | 3 |
| 3 | CT3510 | Digital Logic Design | 3 | - | - | 3 |
| 4 | CT3511 | Object Oriented Programming through Java | 3 | - | - | 3 |
| 5 | CT3512 | Database Management Systems | 2 | 1 | - | 3 |
| 6 | CT3513 | Formal Languages and Automata Theory | 2 | 1 | - | 3 |
| 7 | CT3514 | Java Programming Lab | - | - | 4 | 2 |
| 8 | CT3515 | Database Management Systems Lab | - | - | 4 | 2 |
| 9 | SD350 | Logic Building and Algorithmic Programming | - | - | 2 | 1 |
|  |  | Total | 16 | 2 | 10 | 23 |
| 10 | SG3501 | Sports and Games / Cultural (Mandatory Non-Credit Course) | - | - | 2 | - |

* Integrated Course with Theory and Laboratory

II Year - II Semester

| II Year - II Semester |
| :--- |
| SI. <br> No. Course <br> Code Name of the Course / Laboratory |
| 1 |

Integrated Course with Theory and Laboratory
L: Lecture
T: Tutorial
P : Practical

Artificial Intelligence and Machine Learning


Gudlavalleru Engineering College
Seshadri Rau Knowledge Village
Gudlavalleru-52: 350 , Krishna District. A.P.

III Year - I Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\mathbf{L}$ | T | P |  |
| 1 | CE2522 | Theory of Structures | 3 | 1 | - | 3 |
| 2 | CE2523 | Geotechnical Engineering | 2 | 1 | - | 2 |
| 3 | CE2524 | Hydrology and Water Resources Engineering | 4 | - | - | 3 |
| 4 | CE2525 | Water and Waste Water Engineering | 3 | 1 | - | 3 |
| 5 |  | Professional Elective - I | 4 | - | - | 3 |
| 6 |  | Open Elective-II (see list of Open Electives) | 4 | - | - | 3 |
| 7 | CE2532 | Geotechnical Engineering Lab | - | - | 4 | 2 |
| 8 | CE2533 | Water and Waste Water Engineering Lab | - | - | 4 | 2 |
| Total |  |  | 20 | 3 | 8 | 21 |
| 9 | $\begin{aligned} & \mathrm{CE} 2534 \\ & \text { ME2509 } \\ & \text { CT2507 } \\ & \hline \end{aligned}$ | Optional Elective - III <br> i) Infrastructure Development <br> ii) Basics of Power Plant Engineering <br> iii) Object Oriented Programming through JAVA | - | - | - | 3 |
| 10 | CE2535 | Optional Elective - IV (MOOCs) | - | $-$ | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by |  |  |  |  |

III Year - II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \mathbf{L} \\ & 3 \end{aligned}$ | T | $\mathbf{P}$ |  |
| 1 | CE2536 | Foundation Engineering |  |  |  | 2 |
| 2 | CE2537 | Highway Engineering | 4 | - | - | 3 |
| 3 | CE2538 | Design of RC Structures | 3 | 1 | - | 3 |
| 4 |  | Professional Elective - II | 4 | - | - | 3 |
| 5 |  | Open Eletive-III (see list of Open Electives) | 4 | - | - | 3 |
| 6 | CE2545 | Structural Engineering Lab | - | - | 4 | 2 |
| 7 | CE2546 | Highway Engineering Lab | - | - | 4 | 2 |
| 8 | CE2547 | Mini Project / Survey Camp | - | - | 4 | 2 |
| Total |  |  | 18 | 1 | 12 | 20 |
| 9 | $\begin{aligned} & \text { CE2548 } \\ & \text { CE2549 } \\ & \text { CT2513 } \end{aligned}$ | Optional Elective - V <br> i) Smart Buildings and Automation <br> ii) Building Information Modeling <br> iii) Database Management Systems | - | - | - | 3 |
| 10 | CE2550 | Optional Elective - VI (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by the Department) |  |  |  |  |

* Integrated Course with Theory and Laboratory
L: Lecture T:Tutorial P: Practical


IV Year - I Semester

| $\begin{array}{\|l\|l\|} \hline \text { SI. } \\ \text { No. } \end{array}$ | $\begin{gathered} \text { Course } \\ \text { Code } \end{gathered}$ | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| 1 | CE2551 | Project Management and Finance | 4 | - |  | 3 |
| 2 | CE2552 | Estimation, Costing and Valuation | 3 | 1 | - | 3 |
| 3 | CE2553 | Design of Steel Structures | 3 | 1 | - | 3 |
| 4 |  | Professional Elective - III | 4 | - | - | 3 |
| 5 |  | Professional Elective - IV | 4 | - | - | 3 |
| 6 |  | Open Elective-IV(see list of Open Electives) | 4 | - | - | 3 |
| 7 | CE2564 | Computer Applications in Civil Engineering Lab | - | - | 4 | 2 |
| 8 | CE2565 | Internship / Industrial Training / Practical Training | - | - | - | 2 |
|  |  | Total | 22 | 2 | 4 | 22 |
| 9 |  | Optional Elective - VII <br> i) Project Scheduling and Contracts <br> ii) Optimization Techniques <br> iii) Entrepreneurship | - | - | - | 3 |
| 10 | CE2567 | Optional Elective - VIII (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by the Department) |  |  |  |  |

IV Year - II Semester

| Sl. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | $T$ | P |  |
| 1 |  | Professional Elective - V | 4 | - | - | 3 |
| 2 |  | Professional Elective - VI | 4 | - | - | 3 |
| 3 | CE2576 | Project | - | - | 20 | 10 |
|  |  | Total | 8 | - | 20 | 16 |

L: Lecture T:Tutorial P: Practical
 Gudlavalleru Engineering College

Seshadri Rao Knowledge Village
Gudlavalleru - 52 i 356 , Krishna District. A.P.

Open Elective - I

| SI. |  | Title of the Subject | Department Offering the |  |  |  | No.of |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. |  |  | Subject | L | T | P | Credits |
| 1 | CE2515 | Elements of Civil Engineering Other than CE | CE | 4 | - | - | 3 |
| 2 | CE2516 | Building Services | CE | 4 | - | - | 3 |
| 3 | EE2515 | Electrical Materials | EEE | 4 | - | - | 3 |
| 4 | EE2516 | Control Systems Engineering (Other than EEE \& ECE) | EEE | 4 | - | - | 3 |
| 5 | ME2520 | Elements of Manufacturing Processes (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2521 | Automotive Engineering | ME | 4 | - | - | 3 |
| 7 | EC2531 | Introduction to MPMC | ECE | 4 | - | - | 3 |
| 8 | EC2532 | Fundamentals of Communications (Other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CT2514 | Computer Graphics (Other than IT) | CSE | 4 | - | - | 3 |
| 10 | CT2507 | Object Oriented Programming through Java (other than CSE \& IT) | CSE | 4 | - | - | 3 |
| 11 | CT2515 | Systems Software | IT | 4 | - | - | 3 |
| 12 | IT2502 | Web Programming(Other than CSE \& IT) | IT | 4 | - | - | 3 |
|  | MA2516 | Mathematical Cryptography(Oher than CSE) | BS\&H | , | - | - | 3 |
|  | PH2508 | Semiconductor Physics (Other than ECE) | BS\&H | 4 | - | - | 3 |

Open Elective - II

| $\begin{gathered} \text { Sl. } \\ \text { No. } \end{gathered}$ |  | Title of the Subject | Department Offering the Subject | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 | CE2530 | Geoinformatics (other than CE) | CE | 4 | - | - |  |
| 2 | CE2531 | Environmental Sanitation | CE | 4 | - | - | 3 |
| 3 | EE2523 | Modeling \& Simulation of Engineering Systems | EEE | 4 | - | - | 3 |
| 4 | EE2524 | Power Systems Engineering (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2532 | Elements of Mechanical Transmission (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2533 | Material Handling Equipment | ME | 4 | - | - | 3 |
| 7 | EC2543 | Automotive Electronics | ECE | 4 | - | - | 3 |
| 8 | EC2544 | Introduction to MEMS (other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2508 | Data Science | CSE | 4 | - | - | 3 |
| 10 | CT2524 | Virtual and Augmented Reality (other than IT) | CSE | 4 | - | - | 3 |
| 11 | IT2505 | Open Source Software | IT | 4 | - | - | 3 |
| 12 | 172506 | Cyber Laws | IT | 4 | - | - | 3 |
|  | MA2517 | Quality, Reliability and Operations Research | BS\&H | 4 | - | - | 3 |

L: Lecture $\quad$ T:Tutorial $\quad \mathbf{P}$ : Practical
Civil Engineering



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Open Elective - III

| SI. |  | Title of the Subject | Department Offering the |  | Per |  | No.of |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. |  |  | Subject | L | T | P | Credits |
| 1 | CE2543 | Hydrology (Other than CE) | CE | 4 | - | - | 3 |
| 2 | CE2544 | Planning for Sustainable Development | CE | 4 | - | - | 3 |
| 3 | EE2531 | Electrical and Hybrid Vehicles | EEE | 4 | - | - | 3 |
| 4 | EE2532 | Power Plant Instrumentation | EEE | 4 | - | - | 3 |
| 5 | ME2541 | Material Science (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2542 | Renewable Energy Sources (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2523 | Assistive Technologies (Other than ECE) | ECE | 4 | - | - | 3 |
| 8 | EC2507 | Bio-Medical Engineering (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2512 | Node and Angular JS | CSE | 4 | - | - | 3 |
| 10 | CS2513 | Cyber Security | CSE | 4 | - | - | 3 |
| 11 | CT2529 | Scripting Languages (Other than CSE) | IT | 4 | - | - | 3 |
| 12 | CT2531 | Software Project Management (Other than CSE) | IT | 4 | - | - | 3 |
| 13 | MA2518 | Elements of Stochastic Processes | BS\&H | 4 | - | - | 3 |
| 14 | EG2505 | Academic Communication | ENGLISH | 4 | - | - | 3 |

Open Elective - IV

| $\begin{array}{\|c\|} \hline \text { SI. } \\ \text { No. } \end{array}$ |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  | No.of <br> Credits <br> 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | 1 | P |  |
| 1 | CE2562 | Disaster Management (Other than CE) | CE | 4 | - | - |  |
| 2 | CE2563 | Repair and Retrofitting Techniques | CE | 4 | - | - | 3 |
| 3 | EE2542 | Modern Optimization Techniques | EEE | 4 | - | - | 3 |
| 4 | EE2543 | Electrical Power Utilization (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2553 | Green Engineering | ME | 4 | - | - | 3 |
| 6 | ME2554 | Non Destructive Evaluation (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2563 | Cyber Physical Systems | ECE | 4 | - | - | 3 |
| 8 | EC2508 | Signals and Systems (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2521 | Digital Forensics | CSE | 4 | - | - | 3 |
| 10 | CS2522 | Business Intelligence \& Decision Support Systems | CSE | 4 | - | - | 3 |
| 11 | IT2521 | Adhoc and Sensor Networks | IT | 4 | - | - | 3 |
| 12 | CT2537 | Information Retrieval Systems (Other than CSE) | IT | 4 | - | - | 3 |
| 13 | MA2514 | Fuzzy Logic (Other than EEE, ME \& CSE) | BS\&H | 4 | - | - | 3 |

L: Lecture $\quad$ T:Tutorial $\quad \mathbf{P}$ : Practical


Professional Electives

| SI. <br> No. | $\begin{gathered} \text { Course } \\ \text { Code } \end{gathered}$ | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\left\lvert\, \begin{aligned} & \text { CE2526 } \\ & \text { CE2527 } \\ & \text { CE2528 } \\ & \text { CE2529 } \end{aligned}\right.$ | Professional Elective - I <br> i) Advanced Strength of Materials <br> ii) GIS and GPS <br> iii) Green Buildings <br> iv) Construction Management | 4 | - |  | 3 |
|  | $\left\|\begin{array}{l} \text { CE2539 } \\ \text { CE2540 } \\ \text { CE2541 } \\ \text { CE2542 } \end{array}\right\|$ | Professional Elective - II <br> i) Advanced Structural Analysis <br> ii) Environmental Pollution and Its Control <br> iii) Ground Water Development and Management <br> iv) Ground Improvement Techniques | 4 | - | - | 3 |
|  | CE2554 CE2555 CE2556 CE2557 | Professional Elective - III <br> i) Pre-stressed Concrete <br> ii) Advanced Foundation Engineering <br> iii) Traffic Engineering <br> iv) Industrial Wastewater Management | 4 | - | - | 3 |
|  | $\left\|\begin{array}{l} \mathrm{CE} 2558 \\ \mathrm{CE} 2559 \\ \mathrm{CE} 2560 \\ \mathrm{CE} 2561 \end{array}\right\|$ | Professional Elective - IV <br> i) Advanced Design of RC Structures <br> ii) Hydraulic Structures <br> iii) Geosynthetics <br> iv) Disaster Preparedness and Planning | 4 | - | - | 3 |
|  | $\begin{aligned} & \mathrm{CE} 2568 \\ & \mathrm{CE} 2569 \\ & \mathrm{CE} 2570 \\ & \mathrm{CE} 2571 \end{aligned}$ | Professional Elective - V <br> i) Earthquake Resistant Design of Structures <br> ii) Logistics Infrastructure Engineering <br> iii) Finite Element Methods <br> iv) Design and Drawing of Irrigation Structures | 4 | - | - | 3 |
|  | $\begin{aligned} & \mathrm{CE} 2572 \\ & \mathrm{CE} 2573 \\ & \mathrm{CE} 2574 \\ & \mathrm{CE} 2575 \end{aligned}$ | Professional Elective - VI <br> i) Pre-Engineered Buildings <br> ii) Urban Transportation Planning <br> iii) Soil Dynamics and Machine Foundations <br> iv) Environmental Impact Assessment | 4 | - | - | 3 |

L: Lecture $\quad$ T:Tutorial $\quad \mathbf{P}$ : Practical


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Gudlavalleru - $52 i 356$, Krishna Distret. A.P.

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EE2520 | Electrical Measurements \& Instrumentation | 4 | - | - | 3 |
| 2 | EC2508 | Signals and Systems | 3 | 1 | - | 3 |
| 3 | EE2521 | Power Systems - II | 3 | 1 | - | 3 |
| 4 |  | Professional Elective - I | 4 | - | - | 3 |
| 5 |  | Open Elective-II (see list of Open Electives) | 4 | - | - | 3 |
| 6 | EE2525 | Control Systems Lab | - | - | 4 | 2 |
| 7 | EE2526 | Electrical Machines-II Lab | - | - | 4 | 2 |
| 8 | EE2527 | Mini Project | - | - | 4 | 2 |
|  |  | Total | 18 | 2 | 12 | 21 |
| 9 | $\begin{aligned} & \text { ME2549 } \\ & \text { CT2507 } \\ & \text { EE2528 } \end{aligned}$ | Optional Elective - III <br> i) Mechatronics <br> ii) Object Oriented Programming Through Java <br> iii) Control System Design | - | - | - | 3 |
| 10 | EE2529 | Optional Elective - IV (MOOCs) | - | - | - | 2 |

III Year - II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | $\begin{gathered} \text { No.of Periods } \\ \text { per week } \\ \hline \end{gathered}$ |  |  | $\begin{gathered} \text { No.of } \\ \text { Credits } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L3 | T1 | $\mathbf{P}$ |  |
| 1 | EE2530 | Power Electronics |  |  |  | 3 |
| 2 | MA2511 | Probability and Fuzzy Mathematics | 3 | 1 | - | 3 |
| 3 | EC2510 M | licroprocessors, Microcontrollers and Its Applications ** | , | 1 | - | 3 |
| 4 |  | Professional Elective - II | 4 | - | - | 3 |
| 5 |  | Open Elective-III(see list of Open Electives) | 4 | . | - | 3 |
| 6 | EE2533 | Electrical Systems Simulation Lab | - | - | 4 | 2 |
| 7 | EE2534 Electrical Measurements \& Instrumentation Lab |  | - | - | 4 | 2 |
| 8 | EC2515 Microprocessors, Microcontrollers and Its Applications Lab |  | - | - | 4 | 2 |
|  |  | Total | 17 | 3 | 12 | 21 |
| 9 | $\begin{aligned} & \text { CT2513 } \\ & \text { EC2516 } \end{aligned}$ EE2535 | Optional Elective - V <br> i) Data Base Management Systems <br> ii) Nano Electronics <br> iii)Solar and Wind Energy Systems | - | - | - | 3 |
| 10 | EE2536 | Optional Elective - VI (MOOCs) - - - <br> Students shall opt from the list of MOOCS given by the Department)    |  |  |  | 2 |
|  |  |  |  |  |  |  |

* Project Based Theory Course
L: Lecture
I : Tutorial
P: Practical



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IV Year - I Semester

| $\begin{array}{\|l\|} \hline \text { SI. } \\ \text { No. } \end{array}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L3 |  | $\mathbf{P}$ |  |
| 1 | EE2537 | Power System Analysis |  | 1 |  | 3 |
| 2 |  | Professional Elective - III | 3 | 1 | - | 3 |
| 3 |  | Professional Elective - IV | 3 | 1 | - | 3 |
| 4 |  | Open Elective-IV(see list of Open Electives) | 4 | - | - | 3 |
| 5 | MA2512 | 2 Engineering Optimization | 2 | 1 | - | 2 |
| 6 | EE2544 | Power Electronics Lab | - | - | 4 | 2 |
| 7 | EE2545 | Power Systems Lab | - | - | 4 | 2 |
| 8 | EE2546 | Internship / Industrial Training / Practical Training | - | - | 4 | 2 |
| Total |  |  | 15 | 4 | 12 | 20 |
| 9 | $\begin{aligned} & \mathrm{EC} 2519 \\ & \mathrm{CS} 2502 \\ & \mathrm{EE} 2547 \end{aligned}$ | Optional Elective - VII <br> i) Analog and Digital Communication <br> ii) Introduction to Python Programming <br> iii) Integration of Renewable Energy Sources | - | - | - | 3 |
| 10 | EE2548 | Optional Elective - VIII (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by | by the |  |  |  |

IV Year - II Semester

| Sl. <br> No. | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ${ }_{\mathrm{L}}^{\mathrm{p}}$ | T | P |  |
| 1 |  | Professional Elective - V | 3 | 1 | - | 3 |
| 2 |  | Professional Elective - VI | 3 | 1 | - | 3 |
| 3 | EE2557 | Project | - | - | 20 | 10 |
|  |  | Total | 6 | 2 | 20 | 16 |

L: Lecture T:Tutorial P: Practical



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Seshadri Rao Knowledge Village
Gudlavalleru - 521 356, Krishna District. A.P.

Open Elective - I

| $\begin{gathered} \text { Sl. } \\ \text { No. } \end{gathered}$ |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  | $\begin{array}{\|c} \text { No.of } \\ \text { Credits } \\ 3 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2515 | Elements of Civil Engineering (Other than CE) | CE | 4 | - | - |  |
| 2 | CE2516 | Building Services | CE | 4 | - | - | 3 |
| 3 | EE2515 | Electrical Materials | EEE | 4 | - | - | 3 |
| 4 | EE2516 | Control Systems Engineering (Other than EEE \& ECE) | EEE | 4 | - | - | 3 |
| 5 | ME2520 | Elements of Manufacturing Processes (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2521 | Automotive Engineering <br> (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2531 | Introduction to MPMC (Other than ECE/EEE/CSE/T) | ECE | 4 | - | - | 3 |
| 8 | EC2532 | Fundamentals of Communications (Other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CT2514 | Computer Graphics (Other than IT) | CSE | 4 | - | - | 3 |
| 10 | CT2507 | Object Oriented Programming through Java (other than CSE \& IT) | CSE | 4 | - | - | 3 |
| 11 | CT2515 | Systems Software | IT | 4 | - | - | 3 |
| 12 | IT2502 | Web Programming(Other than CSE \& IT) | IT | 4 | - | - | 3 |
| 13 | MA2516 | Mathematical Cryptography(Other than CSE) | BS\&H | 4 | - | - | 3 |
| 14 | PH2508 | Semiconductor Physics (Other than ECE) | BS\&H | 4 | - | - | 3 |

Open Elective - II

| Sl. <br> No. |  | Title of the Subject | Department <br> Offering the | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2530 | Geoinformatics (other than CE) | CE | 4 | - | - | 3 |
| 2 | CE2531 | Environmental Sanitation | CE | 4 | - | - | 3 |
| 3 | EE2523 | Modeling \& Simulation of Engineering Systems | EEE | 4 | - | - | 3 |
| 4 | EE2524 | Power Systems Engineering (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2532 | Elements of Mechanical Transmission (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2533 | Material Handling Equipment | ME | 4 | - | - | 3 |
| 7 | EC2543 | Automotive Electronics | ECE | 4 | - | - | 3 |
| 8 | EC2544 | Introduction to MEMS (other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2508 | Data Science | CSE | 4 | - | - | 3 |
| 10 | CT2524 | Virtual and Augmented Reality (other than IT) | CSE | 4 | - | - | 3 |
| 11 | IT2505 | Open Source Software | 1T | 4 | - | - | 3 |
| 12 | IT2506 | Cyber Laws | IT | 4 | - | - | 3 |
| 13 | MA2517 | Quality, Reliability and Operations Research | BS\&H | 4 | - | - | 3 |

L: Lecture $\quad$ T: Tutorial $\quad$ P: Practical

Electrical and Electronics Engineering


Open Elective - III

| SI. |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2543 | Hydrology (Other than CE) | CE | 4 | - | - | 3 |
| 2 | CE2544 | Planning for Sustainable Development | CE | 4 | - | - | 3 |
| 3 | EE2531 | Electrical and Hybrid Vehicles | EEE | 4 | - | - | 3 |
| 4 | EE2532 | Power Plant Instrumentation | EEE | 4 | - | - | 3 |
| 5 | ME2541 | Material Science (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2542 | Renewable Energy Sources (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2523 | Assistive Technologies (Other than ECE) | ECE | 4 | - | - | 3 |
| 8 | EC2507 | Bio-Medical Engineering (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2512 | Node and Angular JS | CSE | 4 | - | - | 3 |
| 10 | CS2513 | Cyber Security | CSE | 4 | - | - | 3 |
| 11 | CT2529 | Scripting Languages (Other than CSE) | IT | 4 | - | - | 3 |
| 12 | CT2531 | Software Project Management (Other than CSE) | IT | 4 | - | - | 3 |
| 13 | MA2518 | Elements of Stochastic Processes | $\begin{gathered} \text { BS\&H } \\ \text { ENGLISH } \end{gathered}$ | 4 | - | - | 3 |
|  | EG2505 | Academic Communication | ENGLISH | 4 | - | - | 3 |

Open Elective - IV

| $\begin{gathered} \text { SI. } \\ \text { No. } \end{gathered}$ |  | Title of the Subject | Department Offering the Subject | No.of Periods per week $\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 | CE2562 | Disaster Management (Other than CE) | CE | 4 | - | - | $3$ |
| 2 | CE2563 | Repair and Retrofitting Techniques | CE | 4 | - | - | 3 |
| 3 | EE2542 | Modern Optimization Techniques | EEE | 4 | - | - | 3 |
| 4 | EE2543 | Electrical Power Utilization (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2553 | Green Engineering | ME | 4 | - | - | 3 |
| 6 | ME2554 | Non Destructive Evaluation (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2563 | Cyber Physical Systems | ECE | 4 | - | - | 3 |
| 8 | EC2508 | Signals and Systems (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2521 | Digital Forensics | CSE | 4 | - | - | 3 |
|  | CS2522 | Business Intelligence \& Decision Support Systems | CSE | 4 | - | - | 3 |
|  | IT2521 | Adhoc and Sensor Networks | IT | 4 | - | - | 3 |
| 12 | CT2537 | Information Retrieval Systems (Other than CSE) | IT | 4 | - | - | 3 |
|  | 3 MA 2514 | Fuzzy Logic (Other than EEE, ME \& CSE) | BS\&H | 4 | - | - | 3 |

L: Lecture T:Tutorial P: Practical


Professional Electives

| $\begin{gathered} \text { Sl. } \\ \text { No. } \end{gathered}$ | $\begin{aligned} & \text { Course } \\ & \text { Code } \end{aligned}$ | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EE2522 CT2519 EC2509 CT2505 | Professional Elective - I <br> i) Switch Gear and Protection <br> ii) Computer Networks <br> iii) Pulse and Integrated Circuits <br> iv) Data Structures | 4 | - | - | 3 |
|  | $\left\|\begin{array}{l} \mathrm{EC} 2511 \\ \mathrm{EC} 2512 \\ \mathrm{EC} 2513 \\ \mathrm{EC} 2514 \end{array}\right\|$ | Professional Elective - II <br> i) Digital Signal Processing <br> ii) Embedded System Design <br> iii) Principles of VLSI Design <br> iv) DSP Processors and Architecture | 4 | - | - | 3 |
|  | CT2534 EC2517 EE2538 EE2539 | Professional Elective - III <br> i) Big Data Analytics <br> ii) CMOS Digital IC Design <br> iii) Power Semiconductor Drives <br> iv) Flexible AC Transmission Systems | 3 | 1 | - | 3 |
|  | $\begin{aligned} & \mathrm{CS} 2513 \\ & \mathrm{EC} 2518 \\ & \mathrm{EE} 2540 \\ & \mathrm{EE} 2541 \end{aligned}$ | Professional Elective - IV <br> i) Cyber Security <br> ii) Digital Image Processing <br> iii) Power System Operation \& Control <br> iv) High Voltage Engineering | 3 | 1 | - | 3 |
|  | $\begin{aligned} & \mathrm{EE} 2549 \\ & \mathrm{EE} 2550 \\ & \mathrm{EE} 2551 \\ & \mathrm{EE} 2552 \end{aligned}$ | Professional Elective - V <br> i) Electrical Distribution System <br> ii) Artificial Intelligence Techniques <br> iii) Advanced Control Systems <br> iv) Energy Audit, Conservation and Management | 4 3 | 1 | - - - - -- | 3 |
|  | $\begin{aligned} & \mathrm{EE} 2553 \\ & \mathrm{EE} 2554 \\ & \mathrm{EE} 2555 \\ & \mathrm{EE} 2556 \end{aligned}$ | Professional Elective - VI <br> i) Special Electrical Machines <br> ii) Digital Control Systems <br> iii) Utilization of Electrical Energy <br> iv) HVDC Transmission Systems | 3 | 1 | - | 3 |

L: Lecture $\quad$ T:Tutorial $\quad \mathbf{P}$ : Practical


Gudlavalleru Engineering College Seshadri Rao Knowledge Village
Gudtavalleru - 521 356, Krishna District. A.P.

III Year - I Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | $\begin{aligned} & \text { No.of } \\ & \text { Credits } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | MA2509 | Numerical and Statistical Methods | 3 | 1 | - | 3 |
| 2 | ME2527 | Metal Cutting and Machine Tools | 4 | - | - | 3 |
| 3 | ME2528 | Turbo Machinery | 3 | 1 | - | 3 |
| 4 |  | Professional Elective - I | 4 | - | - | 3 |
| 5 |  | Open Elective-II (see list of Open Electives) | 4 | - | - | 3 |
| 6 | ME2534 | Fluid Mechanics and Turbo Machinery Lab | - | - | 4 | 2 |
| 7 | ME2535 | Machine Tools Lab | - | - | 4 | 2 |
| 8 | ME2536 | Computer Aided Machine Drawing Lab | - | - | 4 | 2 |
|  |  | Total | 18 | 2 | 12 | 21 |
| 9 | $\begin{aligned} & \mathrm{CT} 2514 \\ & \mathrm{EE} 2503 \\ & \mathrm{EC} 2520 \end{aligned}$ | Optional Elective - III <br> i) Computer Graphics <br> ii) Fuzzy Logic Systems <br> iii) Micro Processors and Interfacing | - | - | - | 3 |
| 10 | ME2537 | Optional Elective - IV (MOOCs) | - | - | - | 2 |

III Year - II Semester


L: Lecture $\quad$ T:Tutorial P:Practical
Mechanical Engineering


Gudlavalleru Engineering College
Seshadri Rao Knowledge Village
Gudlavalleru - 521356 , Krishna District. A.P.

IV Year - I Semester

| $\begin{gathered} \text { SI. } \\ \text { No. } \end{gathered}$ | $\begin{aligned} & \text { Course } \\ & \text { Code } \end{aligned}$ | Name of the Course / Laboratory | $\begin{aligned} & \text { No.of Periods } \\ & \text { per week } \end{aligned}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | ME2551 | Industrial Engineering and Management | 3 | 1 | - | 3 |
| 2 | ME2552 | CAD / CAM | 3 | 1 | - | 3 |
| 3 |  | Professional Elective - III | 4 | - | - | 3 |
| 4 |  | Professional Elective - IV | 4 | - | - | 3 |
| 5 |  | Open Elective-IV(see list of Open Electives) | 4 | - | - | 3 |
| 6 | ME2562 | Simulation Lab | - | - | 4 | 2 |
| 7 | ME2563 | Mini Project | - | - | 4 | 2 |
| 8 | ME2564 | Internship / Industrial Training / Practical Training | - | - | - | 2 |
|  |  | Total | 18 | 2 | 8 | 21 |
| 9 | $\left\lvert\, \begin{aligned} & \text { CT2534 } \\ & \text { CT2512 } \\ & \text { ME2565 } \end{aligned}\right.$ | Optional Elective - VII <br> i) Big Data Analytics <br> ii) Computer Organization and Architecutre <br> iii) Cryogenics | - | - | - | 3 |
| 10 | ME2566 | Optional Elective - VIII (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by the Department) |  |  |  |  |

IV Year - II Semester

| SI. <br> No. | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\mathbf{L}$ | T | P |  |
| 1 |  | Professional Elective - V | 4 | - | - | 3 |
| 2 |  | Professional Elective - VI | 4 | - | - | 3 |
| 3 | ME2575 | Project | - | - | 20 | 10 |
|  |  | Total | 8 | - | 20 | 16 |

L: Lecture
T: Tutorial
P: Practical


Gudlavalleru Engineering College Seshadri Rao Knowledge Village
Gudlavalleru-521 356, Krishna District. A.P.

Open Elective - I

|  |  | Title of the Subject | Department <br> Offering the | No.of Periods per week |  |  | No.of <br> Credits <br> 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2515 | Elements of Civil Engineering (Other than CE) | CE | 4 | - | - |  |
| 2 | CE2516 | Building Services | CE | 4 | - | - | 3 |
| 3 | EE2515 | Electrical Materials | EEE | 4 | - | - | 3 |
| 4 | EE2516 | Control Systems Engineering (Other than EEE \& ECE) | EEE | 4 | - | - | 3 |
| 5 | ME2520 | Elements of Manufacturing Processes (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2521 | Automotive Engineering (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2531 | Introduction to MPMC (Other than ECE/EEE/CSE/IT) | ECE | 4 | - | - | 3 |
| 8 | EC2532 | Fundamentals of Communications (Other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CT2514 | Computer Graphics (Other than IT) | CSE | 4 | - | - | 3 |
| 10 | CT2507 | Object Oriented Programming through Java (other than CSE \& IT) | CSE | 4 | - | - | 3 |
| 11 | CT2515 | Systems Software | IT | 4 | - | - | 3 |
| 12 | IT2502 | Web Programming(Other than CSE \& IT) | IT | 4 | - | - | 3 |
| 13 | MA2516 | Mathematical Cryptography(Other than CSE) | BS\&H | 4 | - | - | 3 |
| 14 | PH2508 | Semiconductor Physics (Other than ECE) | BS\&H | 4 | - | - | 3 |

Open Elective - II

| SI. <br> No. |  | Title of the Subject | Department Offering the Subject | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 | CE2530 | Geoinformatics (other than CE) | CE | 4 | - | - | 3 |
| 2 | CE2531 | Environmental Sanitation | CE | 4 | - | - | 3 |
| 3 | EE2523 | Modeling \& Simulation of Engineering Systems | EEE | 4 | - | - | 3 |
| 4 | EE2524 | Power Systems Engineering (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2532 | Elements of Mechanical Transmission (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2533 | Material Handling Equipment | ME | 4 | - | - | 3 |
| 7 | EC2543 | Automotive Electronics | ECE | 4 | - | - | 3 |
| 8 | EC2544 | Introduction to MEMS (other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2508 | Data Science | CSE | 4 | - | - | 3 |
| 10 | CT2524 | Virtual and Augmented Reality (other than IT) | CSE | 4 | - | - | 3 |
| 11 | IT2505 | Open Source Software | IT | 4 | - | - | 3 |
| 12 | IT2506 | Cyber Laws | 1 T | 4 | - | - | 3 |
| 13 | MA2517 | Quality, Reliability and Operations Research | BS\&H | 4 | - | - | 3 |

$$
\text { L: Lecture } \quad \text { T: Tutorial } \quad \text { P: Practical }
$$

Mechanical Engineering


Open Elective - III

| $\begin{gathered} \text { SI. } \\ \text { No. } \end{gathered}$ |  | Title of the Subject | Department Offering the Subject | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 | CE2543 | Hydrology (Other than CE) | CE | 4 | - | - | 3 |
| 2 | CE2544 | Planning for Sustainable Development | CE | 4 | - | - | 3 |
| 3 | EE2531 | Electrical and Hybrid Vehicles | EEE | 4 | - | - | 3 |
| 4 | EE2532 | Power Plant Instrumentation | EEE | 4 | - | - | 3 |
| 5 | ME2541 | Material Science (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2542 | Renewable Energy Sources (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2523 | Assistive Technologies (Other than ECE) | ECE | 4 | - | - | 3 |
| 8 | EC2507 | Bio-Medical Engineering (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2512 | Node and Angular JS | CSE | 4 | - | - | 3 |
| 10 | CS2513 | Cyber Security | CSE | 4 | - | - | 3 |
| 11 | CT2529 | Scripting Languages (Other than CSE) | IT | 4 | - | - | 3 |
| 12 | CT2531 | Software Project Management (Other than CSE) | IT | 4 | - | - | 3 |
| 13 | MA2518 | Elements of Stochastic Processes | $\begin{gathered} \text { BS\&H } \\ \text { ENGLISH } \end{gathered}$ | 4 | - | - | 3 3 |
|  | EG2505 | Academic Communication | ENGLISH | 4 | - | - | 3 |

Open Elective - IV

| SI. <br> No. |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | 1 | P |  |
| 1 | CE2562 | Disaster Management (Other than CE) | CE | 4 | - | - | $3$ |
| 2 | CE2563 | Repair and Retrofitting Techniques | CE | 4 | - | - | 3 |
| 3 | EE2542 | Modern Optimization Techniques | EEE | 4 | - | - | 3 |
| 4 | EE2543 | Electrical Power Utilization (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2553 | Green Engineering | ME | 4 | - | - | 3 |
| 6 | ME2554 | Non Destructive Evaluation (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2563 | Cyber Physical Systems | ECE | 4 | - | - | 3 |
| 8 | EC2508 | Signals and Systems (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2521 | Digital Forensics | CSE | 4 | - | - | 3 |
| 10 | CS2522 | Business Intelligence \& Decision Support Systems | CSE | 4 | - | - | 3 |
|  | IT2521 | Adhoc and Sensor Networks | IT | 4 | - | - | 3 |
| 12 | CT2537 | Information Retrieval Systems (Other than CSE) | IT | 4 | - | - | 3 |
| 13 | MA2514 | Fuzzy Logic (Other than EEE, ME \& CSE) | BS\&H | 4 | - | - | 3 |

L: Lecture T:Tutorial P: Practical
Mechanical Engineering


Professional Electives

| SI. <br> No. | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
|  | ME2529 ME2530 ME2531 CT2505 | Professional Elective - I <br> i) Non Conventional Sources of Energy <br> ii) Mechancial Vibrations <br> iii) Mechancis of Composite Materials <br> iv) Data Structures | 4 | - | - | 3 |
|  | ME2543 ME2544 ME2545 CT2513 | Professional Elective - II <br> i) Principles of Finite Element Method <br> ii) Robotics <br> iii) Automobile Engineering <br> iv) Database Management Systems | 4 | - | - | 3 |
|  | $\begin{aligned} & \text { MA2515 } \\ & \text { ME2555 } \\ & \text { ME2556 } \\ & \text { ME2557 } \end{aligned}$ | Professional Elective - III <br> i) Optimization Techniques <br> ii) Refrigeration and Air Conditioning <br> iii) Unconventional Machining Process <br> iv) Tribology | 4 | - | - | 3 |
|  | $\begin{aligned} & \text { ME2558 } \\ & \text { ME2559 } \\ & \text { ME2560 } \\ & \text { ME2561 } \end{aligned}$ | Professional Elective - IV <br> i) Total Quality Management <br> ii) Computational Fluid Dynamics <br> iii) Condition Monitoring <br> iv) Design of Transmission Elements | 4 | - | - | 3 |
|  | ME2567 <br> ME2568 <br> ME2569 <br> ME2570 | Professional Elective - V <br> i) Design for Manufacturing and Assembly <br> ii) Production Planning and Control <br> iii) Power Plant Engineering <br> iv) Theory of Elasticity | 4 | - | - | 3 |
|  | $\begin{aligned} & \text { ME2571 } \\ & \text { ME2572 } \\ & \text { ME2573 } \\ & \text { ME2574 } \end{aligned}$ | Professional Elective - VI <br> i) Rapid Prototyping <br> ii) Gas Dynamics and Jet Propulsion <br> iii) Automation in Manufacturing <br> iv) Non Destructive Techniques | 4 | - | - | 3 |

L: Lecture $\quad \mathbf{T}:$ Tutorial $\quad \mathbf{P}:$ Practical
Mechanical Engineering


Seshadri Rao
Gudlavalleru Engineering College
Seshadri Rao Knowiedge Village
Gudlavalleru - 521 356, Krishna District. A.P.

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | $\begin{aligned} & \text { No.of } \\ & \text { Credits } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EC2536 | Linear Integrated Circuits Applications | 3 | 1 | - | 3 |
| 2 | EC2537 | Digital Communications | 3 | - | - | 2 |
| 3 | EC2538 | Antennas and Wave Propagation | 4 | - | - | 3 |
| 4 | EC2539 | Principles of VLSI Design | 3 | - | - | 2 |
| 5 |  | Professional Elective - I | 4 | - | - | 3 |
| 6 |  | Open Elective-II (see list of Open Electives) | 4 | - | - | 3 |
| 7 | EC2545 | Linear-Integrated-Gireuits Applications Lab | - | - | 4 | 2 |
| 8 | EC2546 | Analog and Digital Communications Lâb | - | - | 4 | 2 |
|  |  | Total | 21 | 1 | 8 | 20 |
| 9 | $\begin{aligned} & \mathrm{CT} 2528 \\ & \text { ME2549 } \\ & \text { EC2544 } \end{aligned}$ | Optional Elective - III <br> i) Data Warehousing and Data Mining <br> ii) Mechatronics <br> iii) Introduction to MEMS | - | - | - | 3 |
| 10 | EC2547 | Optional Elective - IV (MOOCs) | - | - | - | 2 |

III Year - II Semester

| $\begin{aligned} & \text { Sl. } \\ & \text { No. } \end{aligned}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EC2511 | Digital Signal Processing | 4 | - | - | 3 |
| 2 | EE2512 | Control Systems | 3 | 1 | - | 3 |
| 3 | EC2510 | Microprocessors, Microcontrollers and Applications** | 3 | - | 1 | 3 |
| 4 | EC2548 | Microwave and Optical Communications | 3 | - | - | 2 |
| 5 |  | Professional Elective - II | 4 | - | - | 3 |
| 6 |  | Open Eletive-III (see list of Open Electives) | 4 | - | - | 3 |
| 7 | EC2515 | Microprocessor and Microcontroller Interfacing Lab | - | - | 4 | 2 |
| 8 | EC2552 | Digital Signal Processing Lab | - | - | 4 | 2 |
| 9 | EC2553 | VLSI Lab | - | - | 4 | 2 |
|  |  | Total | 21 | 1 | 13 | 23 |
| 10 | $\begin{aligned} & \text { CT2534 } \\ & \text { EC2554 } \\ & \text { CT2533 } \end{aligned}$ | Optional Elective - V <br> i) Big Data Analytics <br> ii) Cognitive Radio Networks <br> iii) Cryptography and Network Security | - | - | - | 3 |
| 10 | EC2555 | Optional Elective - VI (MOOCs) | - | - | - | 2 |

* Project Based Theory Course

L: Lecture T:Tutorial P: Practical

Electronics and Communication Engineering



Seshadi Rao
Gudlavalleru Engineering College
Seshadri Rao Knowiedge Village
Gudlavalleru - 521356 , Krishna District. A.P.

IV Year - I Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | , | T | P |  |
| 1 | EC2517 | CMOS Digital IC Design | 4 | - | - | 3 |
| 2 | EC2512 | Embedded System Design | 3 | - | - | 2 |
| 3 | EC2556 | Electronic Measurements and Instrumentation | 3 | - | - | 2 |
| 4 |  | Professional Elective - III | 4 | - | - | 3 |
| 5 |  | Professional Elective - IV | 4 | - | - | 3 |
| 6 |  | Open Elective-IV(see list of Open Electives) | 4 | - | - | 3 |
| 7 | EC2564 | Microwave and Optical Communications Lab | - | - | 4 | 2 |
| 8 | EC2565 | Mini Project on Smart Applications | - | - | 4 | 2 |
| 9 | EC2566 | Internship / Industrial Training / Practical Training | - | - | - | 2 |
| Total |  |  | 22 | - | 8 | 22 |
| 9 | $\begin{aligned} & \mathrm{EE} 2554 \\ & \mathrm{CT} 2521 \\ & \mathrm{EC} 2567 \end{aligned}$ | Optional Elective - VII <br> i) Digital Control Systems <br> ii) Artificial Intelligence <br> iii) Transform Techniques | - | - | - | 3 |
| 10 | EC2568 | Optional Elective - VIII (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by the Department) |  |  |  |  |

IV Year - II Semester

| $\begin{array}{\|c\|} \mathrm{Sl} . \\ \mathrm{No} . \end{array}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | $T$ | P |  |
| 1 |  | Professional Elective - V | 4 | - | - | 3 |
| 2 |  | Professional Elective - VI | 4 | - | - | 3 |
| 3 | EC2577 | Project | - | - | 20 | 10 |
|  |  | Total | 8 | - | 20 | 16 |

L: Lecture $\quad$ T : Tutorial $\quad$ : Practical

Electronics and Communication Engineering


Open Elective - I

| SI. |  | Title of the Subject | Department Offering the |  |  |  | No.of |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. |  |  | Subject | L | T | P | Credits |
| 1 | CE2515 | Elements of Civil Engineering | CE | 4 | - | - | 3 |
| 2 | CE2516 | (Other than CE) Building Services | CE | 4 | - | - | 3 |
| 3 | EE2515 | Electrical Materials | EEE | 4 | - | - | 3 |
| 4 | EE2516 | Control Systems Engineering | EEE | 4 | - | - | 3 |
| 5 | ME2520 | Elements of Manufacturing Processes | ME | 4 | - | - | 3 |
| 6 | ME2521 | Automotive Engineering | ME | 4 | - | - | 3 |
| 7 | EC2531 | (Other than ME) Introduction to MPMC | ECE | 4 | - | - | 3 |
|  | EC2531 | (Other than ECE/EEE/CSE/T) |  |  |  |  |  |
| 8 | EC2532 | Fundamentals of Communications (Other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CT2514 | Computer Graphics (Other than IT) | CSE | 4 | - | - | 3 |
| 10 | CT2507 | Object Oriented Programming through Java (other than CSE \& IT) | CSE | 4 | - | - | 3 |
| 11 | CT2515 | Systems Software | IT | 4 | - | - | 3 |
| 12 | IT2502 | Web Programming(Other than CSE \& IT) | IT | 4 | - | - | 3 |
| 13 | MA2516 | Mathematical Cryptography(Oher than CSE) | BS\&H | 4 | - | - | 3 |
| 14 | PH2508 | Semiconductor Physics (Other than ECE) | BS\&H | 4 | - | - | 3 |

Open Elective - II

| SI. <br> No. |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2530 | Geoinformatics (other than CE) | CE | 4 | - | - |  |
| 2 | CE2531 | Environmental Sanitation | CE | 4 | - | - | 3 |
| 3 | EE2523 | Modeling \& Simulation of Engineering Systems | EEE | 4 | - | - | 3 |
| 4 | EE2524 | Power Systems Engineering (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2532 | Elements of Mechanical Transmission (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2533 | Material Handling Equipment | ME | 4 | - | - | 3 |
| 7 | EC2543 | Automotive Electronics | ECE | 4 | - | - | 3 |
| 8 | EC2544 | Introduction to MEMS (other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2508 | Data Science | CSE | 4 | - | - | 3 |
| 10 | CT2524 | Virtual and Augmented Reality (other than IT) | CSE | 4 | - | - | 3 |
| 11 | IT2505 | Open Source Software | IT | 4 | - | - | 3 |
| 12 | IT2506 | Cyber Laws | IT | 4 | - | - | 3 |
| 13 | MA2517 | Quality, Reliability and Operations Research | BS\&H | 4 | - | - | 3 |

L:Lecture T:Tutorial P: Practical
Electronics and Communication Engineering


Open Elective - III

| Sl. <br> No. |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2543 | Hydrology (Other than CE) | CE | 4 | - | - | $3$ |
| 2 | CE2544 | Planning for Sustainable Development | CE | 4 | - | - | 3 |
| 3 | EE2531 | Electrical and Hybrid Vehicles | EEE | 4 | - | - | 3 |
| 4 | EE2532 | Power Plant Instrumentation | EEE | 4 | - | - | 3 |
| 5 | ME2541 | Material Science (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2542 | Renewable Energy Sources (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2523 | Assistive Technologies (Other than ECE) | ECE | 4 | - | - | 3 |
| 8 | EC2507 | Bio-Medical Engineering (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2512 | Node and Angular JS | CSE | 4 | - | - | $3$ |
| 10 | CS2513 | Cyber Security | CSE | 4 | - | - | $3$ |
| 11 | CT2529 | Scripting Languages (Other than CSE) | IT | 4 | - | - | 3 |
| 12 | CT2531 | Software Project Management (Other than CSE) | IT | 4 | - | - | 3 |
| 13 | MA2518 | Elements of Stochastic Processes | BS\&H | 4 | - | - | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ |

Open Elective - IV

| SI. <br> No. |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  | No.of <br> Credits <br> 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2562 | Disaster Management (Other than CE) | CE | 4 | - | - | $3$ |
| 2 | CE2563 | Repair and Retrofitting Techniques | CE | 4 | - | - | 3 |
| 3 | EE2542 | Modern Optimization Techniques | EEE | 4 | - | - | 3 |
| 4 | EE2543 | Electrical Power Utilization (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2553 | Green Engineering | ME | 4 | - | - | 3 |
| 6 | ME2554 | Non Destructive Evaluation (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2563 | Cyber Physical Systems | ECE | 4 | - | - | 3 |
| 8 | EC2508 | Signals and Systems (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2521 | Digital Forensics | CSE | 4 | - | - | 3 |
| 10 | CS2522 | Business Intelligence \& Decision Support Systems | CSE | 4 | - | - | 3 |
| 11 | IT2521 | Adhoc and Sensor Networks | IT | 4 | - | - | 3 |
| 12 | CT2537 | Information Retrieval Systems (Other than CSE) | IT | 4 | - | - | 3 |
|  | MA2514 | Fuzzy Logic (Other than EEE, ME \& CSE) | BS\&H | 4 | - | - | 3 |

L: Lecture $\quad$ T:Tutorial $\quad$ P: Practical
Electronics and Communication Engineering



Gudlavalieru Engineering College
Seshadri Rao Knowledge Village
Gudlavalleru - 521 356, Krishna District. A.P.

Professional Electives

|  | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | T | P |  |
|  | EC2540 EC2541 EC2542 EC2507 | Professional Elective - I <br> i) CAD for VLSI <br> ii) Computer Organization <br> iii) Computer and Communication Networks <br> iv) Biomedical Engineering | 4 | - | - | 3 |
|  | EC2549 EC2516 EC2550 EC2551 | Professional Elective - II <br> i) Analog IC Design <br> ii) Nano Electronics <br> iii) Smart Antennas <br> iv) Coding Theory | 4 | - | - | 3 |
|  | $\left\|\begin{array}{l} \mathrm{EC2557} \\ \mathrm{EC} 2558 \\ \mathrm{EC} 2559 \\ \mathrm{EC} 2514 \end{array}\right\|$ | Professional Elective - III <br> i) Mixed Signal IC Design <br> ii) Cellular and Mobile Communications <br> iii) Digital TV Engineering <br> iv) DSP Processors and Architectures | 4 | - | - | 3 |
|  | $\left\lvert\, \begin{aligned} & \text { EC2560 } \\ & \text { EC2561 } \\ & \text { EC2562 } \\ & \text { EC2518 } \end{aligned}\right.$ | Professional Elective - IV <br> i) System on Chip Design <br> ii) Wireless Sensor Networks <br> iii) Satellite Communication <br> iv) Digital Image Processing | 4 | - | - | 3 |
|  | $\left\|\begin{array}{l} \mathrm{EC2569} \\ \mathrm{EC} 2570 \\ \mathrm{EC2571} \\ \mathrm{EC} 2572 \end{array}\right\|$ | Professional Elective - V <br> i) Low Power VLSI Circuits <br> ii) Real Time Operating Systems <br> iii) Speech Processing <br> iv) Adaptive Signal Processing | 4 | - | - | 3 |
|  | $\begin{array}{\|l\|} \mathrm{EC} 2573 \\ \mathrm{EC} 2574 \\ \mathrm{EC} 2575 \\ \mathrm{EC} 2576 \\ \hline \end{array}$ | Professional Elective - VI <br> i) ASIC Design <br> ii) Embedded C <br> iii) RADAR Engineering <br> iv) Multi Rate Signal Processing | 4 | - | - | 3 |

$\mathbf{L}:$ Lecture $\quad T:$ Tutorial $\quad \mathbf{P}$ Practical
Electronics and Communication Engineering 27


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Gudlavalleru-521356, Krishna District. A.P.

III Year - I Semester

| $\begin{gathered} \text { Sl. } \\ \text { No. } \end{gathered}$ | Course <br> Code | Name of the Course / Laboratory | $\begin{gathered} \text { No.of Periods } \\ \text { per week } \end{gathered}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | $\mathrm{T}$ | P |  |
| 1 | CT2517 | Software Engineering | 3 | 1 | - | 3 |
| 2 | CT2518 | Compiler Design | 3 | 1 | - | 3 |
| 3 | CT2519 | Computer Networks | 3 | 1 | - | 3 |
| 4 | CT2520 | Web Technologies | 4 | - | - | 3 |
| 5 |  | Professional Elective - I | 4 | - | - | 3 |
| 6 |  | Open Elective-II (see list of Open Electives) | 4 | - | - | 3 |
| 7 | CS2509 | Computer Networks and Compiler Design Lab | - | - | 4 | 2 |
| 8 | CT2525 | Web Technologies Lab | - | - | 4 | 2 |
|  |  | Total | 21 | 3 | 8 | 22 |
| 9 | $\begin{aligned} & \text { CT2526 } \\ & \text { EC2511 } \\ & \text { EE2512 } \end{aligned}$ | Optional Elective - III <br> i) Human Computer Interaction <br> ii) Digital Signal Processing <br> iii) Control Systems | - | - | - | 3 |
| 10 | CS2510 | Optional Elective - IV (MOOCs) | - | - | - | 2 |

III Year - II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \mathbf{L} \\ & 3 \end{aligned}$ | $\begin{aligned} & \mathrm{T} \\ & 1 \end{aligned}$ | $\mathbf{P}$ |  |
| 1 | CT2527 | Design and Analysis of Algorithms |  |  |  | 3 |
| 2 | CT2528 | Data Warehousing and Data Maining | 4 | - | - | 3 |
| 3 | CS2511 | UML and Design Patterns* | 3 | - | 2 | 3 |
| 5 |  | Professional Elective - II <br> (OR) <br> Any other Elective Depending on Industry Needs | 4 | - | - | 3 |
| 6 |  | Open Elective-III(see list of Open Electives) | 4 | - | - | 3 |
| 7 | CS2514 | Data Mining Lab | - | - | 4 | 2 |
| 8 | CS2515 | Mini Project | - | - | 4 | 2 |
|  |  | Total | 18 | 1 | 10 | 19 |
| 9 | $\begin{aligned} & \mathrm{CS} 2516 \\ & \mathrm{EC} 2512 \\ & \mathrm{EE} 2554 \end{aligned}$ | Optional Elective - V <br> i) Graph Theory <br> ii) Embedded System Design <br> iii) Digital Control Systems | - | - | - | 3 |
| 10 | CS2517 | Optional Elective - VI (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by the Department) |  |  |  |  |

* Integrated Course with Theory and Laboratory
L: Lecture T:Tutorial P:Practical


IV Year - I Semester

| $\begin{array}{\|l} \hline \text { SI. } \\ \text { No. } \end{array}$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | CT2533 | Cyptography and Network Secuirty | 4 |  | - | 3 |
| 2 | CT2534 | Big Data Analytics | 4 | - | - | 3 |
| 3 |  | Professional Elective - III | 4 | - | - | 3 |
| 4 |  | Professional Elective - IV | 4 | - | - | 3 |
| 5 |  | Open Elective-IV(see list of Open Electives) | 4 | - | - | 3 |
| 6 | CT2538 | Big Data Analytics Lab | - | - | 4 | 2 |
| 7 | CS2523 | Cryptography and Network Security Lab | - | - | 4 | 2 |
| 8 | CS2524 | Internship / Industrial Training / Practical Training | - | - | - | 2 |
| Total |  |  | 20 | - | 8 | 21 |
| 9 |  | Optional Elective - VII | - | - | - | 3 |
|  | CS2525 | i) Network Programming |  |  |  |  |
|  | CT2515 | i) Systems Software |  |  |  |  |
|  | ME2544 | iii) Robotics |  |  |  |  |
| 10 | CS2526 | Optional Elective - VIII (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by the Department) |  |  |  |  |

IV Year - II Semester

| Sl. <br> No. | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | $T$ | P |  |
| 1 |  | Professional Elective - V | 4 | - | - | 3 |
| 2 |  | Professional Elective - VI | 4 | - | - | 3 |
| 3 | CS2531 | Project | - | - | 20 | 10 |
|  |  | Total | 8 | - | 20 | 16 |

L: Lecture $\quad \mathbf{T}:$ Tuterial $\quad \mathbf{P}$ Practical



Open Elective - I

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  | $\begin{gathered} \text { No.of } \\ \text { Credits } \\ 3 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2515 | Elements of Civil Engineering (Other than CE) | CE | 4 | - | - |  |
| 2 | CE2516 | Building Services | CE | 4 | - | - | 3 |
| 3 | EE2515 | Electrical Materials | EEE | 4 | - | - | 3 |
| 4 | EE2516 | Control Systems Engineering (Other than EEE \& ECE) | EEE | 4 | - | - | 3 |
| 5 | ME2520 | Elements of Manufacturing Processes (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2521 | Automotive Engineering <br> (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2531 | Introduction to MPMC (Other than ECE/EEE/CSE/T) | ECE | 4 | - | - | 3 |
| 8 | EC2532 | Fundamentals of Communications (Other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CT2514 | Computer Graphics (Other than IT) | CSE | 4 | - | - | 3 |
| 10 | CT2507 | Object Oriented Programming through Java (other than CSE \& IT) | CSE | 4 | - | - | 3 |
| 11 | CT2515 | Systems Software | IT | 4 | - | - | 3 |
| 12 | IT2502 | Web Programming (Other than CSE \& IT) | IT | 4 | - | - | 3 |
| 13 | MA2516 | Mathematical Cryptography(Other than CSE) | BS\&H | 4 | - | - | 3 |
| 14 | PH2508 | Semiconductor Physics (Other than ECE) | BS\&H | 4 | - | - | 3 |

Open Elective - II

| SI. <br> No. |  | Title of the Subject | Department Offering the Subject | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 | CE2530 | Geoinformatics (other than CE) | CE | 4 | - | - |  |
| 2 | CE2531 | Environmental Sanitation | CE | 4 | - | - | 3 |
| 3 | EE2523 | Modeling \& Simulation of Engineering Systems | EEE | 4 | - | - | 3 |
| 4 | EE2524 | Power Systems Engineering (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2532 | Elements of Mechanical Transmission (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2533 | Material Handling Equipment | ME | 4 | - | - | 3 |
| 7 | EC2543 | Automotive Electronics | ECE | 4 | - | - | 3 |
| 8 | EC2544 | Introduction to MEMS (other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2508 | Data Science | CSE | 4 | - | - | 3 |
| 10 | CT2524 | Virtual and Augmented Reality (other than IT) | CSE | 4 | - | - | 3 |
| 11 | IT2505 | Open Source Software | IT | 4 | - | - | 3 |
| 12 | IT2506 | Cyber Laws | IT | 4 | - | - | 3 |
| 13 | MA2517 | Quality, Reliability and Operations Research | BS\&H | 4 | - | - | 3 |


| L: Lecture | T: Tutorial | P:Practical |
| :--- | :--- | :--- |
| Computer Science and Engineering | 25 |  |




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Gudlavalleru - 521356 , Krishna District. A.P.

Open Elective - III

| SI. <br> No. |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2543 | Hydrology (Other than CE) | CE | 4 | - | - |  |
| 2 | CE2544 | Planning for Sustainable Development | CE | 4 | - | - | 3 |
| 3 | EE2531 | Electrical and Hybrid Vehicles | EEE | 4 | - | - | 3 |
| 4 | EE2532 | Power Plant Instrumentation | EEE | 4 | - | - | 3 |
| 5 | ME2541 | Material Science (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2542 | Renewable Energy Sources (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2523 | Assistive Technologies (Other than ECE) | ECE | 4 | - | - | 3 |
| 8 | EC2507 | Bio-Medical Engineering (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2512 | Node and Angular JS | CSE | 4 | - | - | 3 |
| 10 | CS2513 | Cyber Security | CSE | 4 | - | - | 3 |
| 11 | CT2529 | Scripting Languages (Other than CSE) | IT | 4 | - | - | 3 |
| 12 | CT2531 | Software Project Management (Other than CSE) | IT | 4 | - | - | 3 |
| 13 | MA2518 | Elements of Stochastic Processes | BS\&H | 4 | - | - | 3 |
|  | EG2505 | Academic Communication | ENGLISH | 4 | - | - | 3 |

Open Elective - IV

| $\begin{array}{\|c\|} \hline \text { SI. } \\ \text { No. } \end{array}$ |  | Title of the Subject | Department Offering the Subject | No.of Periods per week |  |  | No.of Credits 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 | CE2562 | Disaster Management (Other than CE) | CE | 4 | - | - |  |
| 2 | CE2563 | Repair and Retrofitting Techniques | CE | 4 | - | - | 3 |
| 3 | EE2542 | Modern Optimization Techniques | EEE | 4 | - | - | 3 |
| 4 | EE2543 | Electrical Power Utilization (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2553 | Green Engineering | ME | 4 | - | - | 3 |
| 6 | ME2554 | Non Destructive Evaluation (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2563 | Cyber Physical Systems | ECE | 4 | - | - | 3 |
| 8 | EC2508 | Signals and Systems (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2521 | Digital Forensics | CSE | 4 | - | - | 3 |
| 10 | CS2522 | Business Intelligence \& Decision Support Systems | CSE | 4 | - | - | 3 |
| 11 | IT2521 | Adhoc and Sensor Networks | IT | 4 | - | - | 3 |
| 12 | CT2537 | Information Retrieval Systems (Other than CSE) | IT | 4 | - | - | 3 |
|  | MA2514 | Fuzzy Logic (Other than EEE, ME \& CSE) | BS\&H | 4 | - | - | 3 |

L: Lecture T:Tutorial P: Practical
Computer Science and Engineering


Professional Electives

| $\begin{array}{\|c\|} \hline \text { SI. } \\ \text { No. } \end{array}$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { CS2506 } \\ & \text { CT2522 } \\ & \text { CT2523 } \\ & \text { CS2507 } \end{aligned}$ | Professional Elective - I <br> i) C\#.NET <br> ii) Advanced Data Structures <br> iii) Software Testing Methodologies <br> iv) Principles of Programming Languages | 4 | - | - | 3 |
|  | $\begin{aligned} & \text { CT2521 } \\ & \text { CT2529 } \\ & \text { EC2520 } \\ & \text { CT2531 } \end{aligned}$ | Professional Elective - II <br> i) Artificial Intelligence <br> ii) Scripting Languages <br> iii) Microprocessors and Interfacing <br> iv) Software Project Management | 4 | - | - | 3 |
|  | CS2518 CT2535 CS2519 CS2520 | Professional Elective - III <br> i) Machine Learning <br> ii) Internet of Things <br> iii) NoSQL Databases <br> iv) Software Requirements Engineering and Estimation | 4 | - | - | 3 |
|  | CT2536 CT2530 CT2537 MA2515 | Professional Elective - IV <br> i) Mobile Computing <br> ii) Image Processing <br> iii) Information Retrieval Systems <br> iv) Optimization Techniques | 4 | - | - | 3 |
|  | CS2527 CT2540 CT2532 CT2541 | Professional Elective - V <br> i) Web Mining <br> ii) Cloud Computing <br> iii) Agile Software Development Process <br> iv) Blockchain Technologies | 4 | - | - | 3 |
|  | CS2528 CT2539 CS2529 CS2530 | Professional Elective - VI <br> i) Distributed Systems <br> ii) Social Networks <br> iii) Web Services <br> iv) Deep Learning | 4 | - | - | 3 |


| L: Lecture $\quad$ T: Tutorial | P: Practical |  |
| :--- | :--- | :--- |
| Computer Science and Engineering | 27 |  |



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III Year - I Semester

| $\begin{gathered} \text { SI. } \\ \text { No. } \end{gathered}$ | Course <br> Code | Name of the Course / Laboratory | $\begin{gathered} \text { No.of Periods } \\ \text { per week } \end{gathered}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| I | CT2517 | Software Engineering | 3 | 1 | - | 3 |
| 2 | CT2518 | Compiler Design | 3 | 1 | - | 3 |
| 3 | CT2510 | Operating Systems | 3 | 1 | - | 3 |
| 4 | CT2520 | Web Technologies | 4 | - | - | 3 |
| 5 |  | Professional Elective - I | 4 | - | - | 3 |
| 6 |  | Open Elective-II (see list of Open Electives) | 4 | - | - | 3 |
| 7 | 172507 | Operating Systems and Compiler Design Lab | - | - | 4 | 2 |
| \% 8 | CT2525 | Web Technologies Lab | - | $\cdot$ | 4 | 2 |
|  |  | Total | 21 | 3 | 8 | 22 |
| 9 | $\begin{array}{\|l} \hline \text { IT2508 } \\ \text { EC2522 } \\ \text { CE2549 } \\ \hline \end{array}$ | Optional Elective - III <br> i) Object Oriented Programming through C++ <br> ii) Data Communication <br> iii) Building Information Modelling | - | - | - | 3 |
| 10 | IT2509 | Optional Elective - IV (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by |  |  |  |  |

III Year - II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | $\begin{aligned} & \mathrm{T} \\ & 1 \end{aligned}$ | P |  |
| 1 | CT2527 | Design and Analysis of Algorithms |  |  |  | 3 |
| 2 | CT2528 | Data Warehousing and Data Maining | 4 | - | - | 3 |
| 3 | 172510 | Object Oriented Analysis and Design * | 4 | - | 2 | 4 |
| 4 | CT2519 | Computer Nerworks | 3 | 1 | - | 3 |
| 5 |  | Professional Elective - II | 4 | - | - | 3 |
| 6 |  | Open Elective-III(see list of Open Electives) | 4 | - | - | 3 |
| 7 | 172513 | Computer Networks and Data Mining Lab | - | - | 4 | 2 |
|  |  | Total | 22 | 2 | 6 | 21 |
| 8 | $\begin{aligned} & \text { IT2514 } \\ & \text { IT2515 } \\ & \text { ME2544 } \end{aligned}$ | Optional Elective - V <br> i) Secure Web Technologies <br> ii) Management Information Systems <br> iii) Robotics | - | - | - | 3 |
| 9 | IT2516 | Optional Elective - VI (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given | the | , |  |  |

* Integrated Course with Theory and Laboratory

L: Lecture T:Tutorial P:Practical
Information Technology



Gudlavalleru - 521356 , Krishna District. A.P.

IV Year - I Semester

| $\begin{array}{c\|c} \text { SI. } \\ \text { No. } \end{array}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L3 | T | P |  |
| 1 | BA2502 | Managerial Economics and Financial Analysis |  |  |  | 2 |
| 2 | CT2534 | Big Data Analytics | 4 | - | - | 3 |
| 3 |  | Professional Elective - III | 4 | - | - | 3 |
| 4 |  | Professional Elective - IV | 4 | - | - | 3 |
| 5 |  | Open Elective-IV(see list of Open Electives) | 4 | - | - | 3 |
| 6 | CT2538 | Big Data Analytics Lab | - | - | 4 | 2 |
| 7 | 4T2522 | Mini Project | - | - | 4 | 2 |
| 8 | 4T2523 | Internship / Industrial Training / Practical Training | - | - | - | 2 |
| Total |  |  | 19 | - | 8 | 20 |
| 9 | $\begin{aligned} & \text { CT2539 } \\ & \text { EC2523 } \\ & \text { ME2542 } \end{aligned}$ | Optional Elective - VII <br> i) Social Networks <br> ii) Assistive Technologies <br> iii) Renewable Energy Sources | - | - | - | 3 |
| 10 | IT2524 | Optional Elective - VIII (MOOCs) | - | - | - | 2 |
|  |  | Students shall opt from the list of MOOCs given by the Department) |  |  |  |  |

IV Year - II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | Professional Elective - V | 4 | - | . | 3 |
| 2 |  | Professional Elective - VI | 4 | - | - | 3 |
| 3 | IT2529 | Project | - | - | 20 | 10 |
|  |  | Total | 8 | - | 20 | 16 |

L: Lecture T:Tutorial P: Practical


Open Elective - I

| SI. | Course | Title of the Subject | Department Offering the | No.of Periods per week $\qquad$ |  |  | No.of |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Code |  | Subject | L | T | P | Credits |
| 1 |  | Elements of Civil Engineering (Other than CE) | CE | 4 | - | - | $3$ |
| 2 | CE2516 | Building Services | CE | 4 | - | - | 3 |
| 3 | EE2515 | Electrical Materials | EEE | 4 | - | - | 3 |
| 4 | EE2516 | Control Systems Engineering (Other than EEE \& ECE) | EEE | 4 | - | - | 3 |
| 5 | ME2520 | Elements of Manufacturing Processes (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2521 | Automotive Engineering (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2531 | Introduction to MPMC (Other than ECE/EEE/CSE/IT) | ECE | 4 | - | - | 3 |
| 8 | EC2532 | Fundamentals of Communications (Other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CT2514 | Computer Graphics (Other than IT) | CSE | 4 | - | - |  |
| 10 | CT2507 | Object Oriented Programming through Java (other than CSE \& IT) | CSE | 4 | - | - | 3 |
| 11 | CT2515 | Systems Software | IT | 4 | - | - | $3$ |
| 12 | IT2502 | Web Programming(Other than CSE \& IT) | IT | 4 | - | - | 3 |
| 13 | MA2516 | Mathematical Cryptography(Other than CSE) | BS\&H | 4 | - | - | 3 |
| 14 | PH2508 | Semiconductor Physics (Other than ECE) | BS\&H | 4 | - | - | 3 |

Open Elective - II

| SI. <br> No. |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2530 | Geoinformatics (other than CE) | CE | 4 | - | - |  |
| 2 | CE2531 | Environmental Sanitation | CE | 4 | - | - | 3 |
| 3 | EE2523 | Modeling \& Simulation of Engineering Systems | EEE | 4 | - | - | 3 |
| 4 | EE2524 | Power Systems Engineering (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2532 | Elements of Mechanical Transmission (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2533 | Material Handling Equipment | ME | 4 | - | - | 3 |
| 7 | EC2543 | Automotive Electronics | ECE | 4 | - | - | 3 |
| 8 | EC2544 | Introduction to MEMS (other than ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2508 | Data Science | CSE | 4 | - | - | 3 |
| 10 | CT2524 | Virtual and Augmented Reality (other than IT) | CSE | 4 | - | - | 3 |
| 11 | IT2505 | Open Source Software | IT | 4 | - | - | 3 |
| 12 | IT2506 | Cyber Laws | IT | 4 | - | - | 3 |
| 13 | MA2517 | Quality, Reliability and Operations Research | BS\&H | 4 | - | - | 3 |


| L: Lecture $\quad$ T: Tutorial | P : Practical |  |
| :--- | :--- | :--- | :--- |
| Information Technology |  | 25 |



Open Elective - III

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ |  | Title of the Subject | Department Offering the | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2543 | Hydrology (Other than CE) | CE | 4 | - | - |  |
| 2 | CE2544 | Planning for Sustainable Development | CE | 4 | - | - | 3 |
| 3 | EE2531 | Electrical and Hybrid Vehicles | EEE | 4 | - | - | 3 |
| 4 | EE2532 | Power Plant Instrumentation | EEE | 4 | - | - | 3 |
| 5 | ME2541 | Material Science (Other than ME) | ME | 4 | - | - | 3 |
| 6 | ME2542 | Renewable Energy Sources (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2523 | Assistive Technologies (Other than ECE) | ECE | 4 | - | - | 3 |
| 8 | EC2507 | Bio-Medical Engineering (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2512 | Node and Angular JS | CSE | 4 | - | - | 3 |
| 10 | CS2513 | Cyber Security | CSE | 4 | - | - | 3 |
| 11 | CT2529 | Scripting Languages (Other than CSE) | IT | 4 | - | - | 3 |
| 12 | CT2531 | Software Project Management (Other than CSE) | IT | 4 | - | - | 3 |
|  | MA2518 | Elements of Stochastic Processes | BS\&H | 4 | - | - | $3$ |
|  | EG2505 | Academic Communication | ENGLISH | 4 | - | - | 3 |

Open Elective - IV

| $\begin{gathered} \text { SI. } \\ \text { No. } \end{gathered}$ |  | Title of the Subject | Department Offering the | No.of Periods per week $\qquad$ |  |  | No.of <br> Credits <br> 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Subject | L | T | P |  |
| 1 | CE2562 | Disaster Management (Other than CE) | CE | 4 | - | - |  |
| 2 | CE2563 | Repair and Retrofitting Techniques | CE | 4 | - | - | 3 |
| 3 | EE2542 | Modern Optimization Techniques | EEE | 4 | - | - | 3 |
| 4 | EE2543 | Electrical Power Utilization (Other than EEE) | EEE | 4 | - | - | 3 |
| 5 | ME2553 | Green Engineering | ME | 4 | - | - | 3 |
| 6 | ME2554 | Non Destructive Evaluation (Other than ME) | ME | 4 | - | - | 3 |
| 7 | EC2563 | Cyber Physical Systems | ECE | 4 | - | - | 3 |
| 8 | EC2508 | Signals and Systems (Other than EEE \& ECE) | ECE | 4 | - | - | 3 |
| 9 | CS2521 | Digital Forensics | CSE | 4 | - | - | 3 |
|  | CS2522 | Business Intelligence \& Decision Support Systems | CSE | 4 | - | - | 3 |
|  | IT2521 | Adhoc and Sensor Networks | IT | 4 | - | - | 3 |
| 12 | CT2537 | Information Retrieval Systems (Other than CSE) | IT | 4 | - | - | 3 |
|  | MA2514 | Fuzzy Logic (Other than EEE, ME \& CSE) | BS\&H | 4 | - | - | 3 |

L: Lecture $\quad$ T:Tutorial $\quad \mathbf{P}:$ Practical

Information Technology


Professional Electives

|  | Course | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CT2521 EC2512 CT2514 CT2522 | Professional Elective - I <br> i) Artificial Intelligence <br> ii) Embedded System Design <br> iii) Computer Graphics <br> iv) Advanced Data Structures | 4 | - |  | 3 |
|  | $\begin{aligned} & \text { IT2511 } \\ & \text { IT2512 } \\ & \text { CT2530 } \\ & \text { CT2532 } \end{aligned}$ | Professional Elective - II <br> i) Soft Computing Techniques <br> ii) Real Time Systems <br> iii) Image Processing <br> iv) Agile Software Development Process | 4 | - | - | 3 |
|  | $\left\lvert\, \begin{aligned} & \text { IT2517 } \\ & \text { IT2518 } \\ & \text { CT2526 } \\ & \text { CT2523 } \end{aligned}\right.$ | Professional Elective - III <br> i) Machine Learning and Pattern Recognition <br> ii) Distributed Operating Systems <br> iii) Human Computer Interaction <br> iv) Software Testing Methodologies | 4 | - | - | 3 |
|  | $\left\lvert\, \begin{aligned} & \text { IT2519 } \\ & \text { CT2536 } \\ & \text { IT2520 } \\ & \text { CT2533 } \end{aligned}\right.$ | Professional Elective - IV <br> i) Business Intelligence <br> ii) Mobile Computing <br> iii) Multimedia Tools <br> iv) Cryptography and Network Security | 4 | - | - | 3 |
|  | $\begin{aligned} & \text { IT2525 } \\ & \text { IT2526 } \\ & \text { CT2524 } \\ & \text { IT2527 } \end{aligned}$ | Professional Elective - V <br> i) Steganography and Biometrics <br> ii) Parallel Computing <br> iii) Virtual and Augmented Reality <br> iv) E-Commerce | 4 | - | - | 3 |
|  | $\begin{aligned} & \text { CT2535 } \\ & \text { CT2540 } \\ & \text { CT2541 } \\ & \text { IT2528 } \end{aligned}$ | Professional Elective - VI <br> i) Internet of Things <br> ii) Cloud Computing <br> iii) Blockchain Technologies <br> iv) Design Patterns | 4 | - | - | 3 |


| L: Lecture $\quad$ T: Tutorial | P: Practical |  |
| :--- | :--- | :--- | :--- |
| Information Technology |  | 27 |



Seshadri Rao Knowledge Village
Gudlavalleru-521 356, Krishna District. A.P.

| I Semester |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | $\begin{gathered} \text { No.of Periods } \\ \text { per week } \\ \hline \end{gathered}$ |  |  | $\begin{gathered} \text { No.of } \\ \text { Credits } \end{gathered}$ |
|  |  |  | $\begin{gathered} \hline \mathbf{L} \\ 3 \end{gathered}$ |  | $\mathbf{P}$ |  |
| 1 | CE3901 | Advanced Structural Analysis ** |  |  |  | 3 |
| 2 | CE3902 | Theory of Elasticity | 3 | - | - | 3 |
| 3 |  | Professional Elective - I | 3 | - | - | 3 |
| 4 |  | Professional Elective - II | 3 | - | - | 3 |
| 5 | BA3901 | Research Methodology \& IPR | 3 | - | - | 3 |
| 6 | CE3908 | Advanced Structural Engineering Lab | - | - | 4 | 2 |
| 7 | CE3909 | Advanced Concrete Technology Lab | - | - | 4 | 2 |
|  |  | Total | 15 | - | 8 | 19 |
| 8 | BA3902 | Constitution of India (Audit Course) | 2 | - | - |  |


| II Semester |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SI. <br> No. | $\begin{aligned} & \text { Course } \\ & \text { Code } \end{aligned}$ | Name of the Course / Laboratory | $\begin{gathered} \text { No.of Periods } \\ \text { per week } \\ \hline \end{gathered}$ |  |  | No.of <br> Credits |
|  |  |  | L3 | $\mathrm{T}$ | P |  |
| 1 | CE3910 | Finite Element Methods in Structural Engineering ** |  |  |  | 3 |
| 2 | CE3911 | Structural Dynamics | 3 | - | - | 3 |
| 3 |  | Professional Elective - III | 3 | - | - | 3 |
| 4 |  | Professional Elective - IV | 3 | - | - | 3 |
| 5 | CE3918 | Computer Applications in Structural Engineering Lab | - | - | 4 | 2 |
| 6 | CE3919 | Structural Design Lab | - | - | 4 | 2 |
| 7 | CE3920 | Mini Project with Seminar | - | - | 6 | 3 |
|  |  | Total | 12 | - | 14 | 19 |
| 8 | EG390 | English for Research Paper Writing (Audit Course) | 2 | - | - | - |


| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L3 | T | $\mathrm{P}$ |  |
| 1 |  | Professional Elective - V |  |  |  | 3 |
| 2 |  | Open Elective | 3 | - | - | 3 |
| 3 |  | Dissertation Phase - I | - | - | 20 | 10 |
|  |  | Total | 6 | - | 20 | 16 |

* Project Based Course
L: Lecture T:Tutorial P: Practical
M.Tech - Structural Engineering (CE) - R20


IV Semester

| SI. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of <br> Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. |  |  | L | T | P |  |
| 1 |  | Dissertation Phase - II | - | - | 32 | 16 |
|  |  | Total | - | - | 32 | 16 |

## Professional Electives:

Professional Elective - I

| MA3901 | Computational Methods in Structural Engineering |
| :--- | :--- |
| CE3903 | Advanced R.C. Design |
| CE3904 | Experimental Stress Analysis |

Professional Elective - II
CE3905 Theory of Plates and Shells
CE3906 Advancements in Concrete Technology
CE3907 Design of Pre-stressed Concrete Structures
Professional Elective - III
CE3912 Advanced Design of Steel Structures
CE3913 Stability of Structures
CE3914 Design of High-rise Structures
Professional Elective - IV
CE3915 Design of Bridge Structures
CE3916 Repairs and Retrofitting of Structures
CE3917 Ground Improvement Methods
Professional Elective - V
CE3921 Earthquake Resistant Design of Structures
CE3922 Design of Sub-structures
CE3923 MOOCs
Open Electives:
CE3924 Sustainable Development
EE3924 Energy Audit, Conservation \& Management
ME3924 Rapid Prototyping
EC4924 Automotive Electronics (Otther than VLSID\&ES)
CS3924 Soft Computing Techniques
M.Tech - Structural Engineering (CE) - R20


I Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | $\begin{gathered} \text { No.of Periods } \\ \text { per week } \\ \hline \end{gathered}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EE3901 | Electrical Machine Modeling and Analysis | 3 |  |  | 3 |
| 2 | EE3902 | Analysis of Power Electronic Converters** | 3 | - | - | 3 |
| 3 |  | Professional Elective - I | 3 | - | - | 3 |
| 4 |  | Professional Elective - II | 3 | - | - | 3 |
| 5 |  | Research Methodology \& IPR | 3 | - | - | 3 |
| 6 | EE3909 | Power Electronics Simulation Laboratory | - | - | 4 | 2 |
| 7 | EE3910 | Power Converters Laboratory | - | - | 4 | 2 |
|  |  | Total | 15 | - | 8 | 19 |
| 8 | BA3902 | Constitution of India (Audit Course) | 2 | - | - |  |

## II Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | $\mathrm{T}$ | $\mathbf{P}$ |  |
| 1 | EE3911 | Switched Mode Power Conversion |  |  |  | 3 |
| 2 | EE3912 | Power Electronic Control of Electrical Drives ** | 3 | - | - | 3 |
| 3 |  | Professional Elective - III | 3 | - | - | 3 |
| 4 |  | Professional Elective - IV | 3 | - | - | 3 |
| 5 | EE3919 | Electric Drives Simulation Laboratory | - | - | 4 | 2 |
| 6 | EE3920 | Electric Drives Laboratory | - | - | 4 | 2 |
| 7 | EE3921 | Mini Project with Seminar | - | - | 6 | 3 |
| Total |  |  | 12 | - | 14 | 19 |
| 8 | EG3901 | English for Research Paper Writing (Audit Course) | 2 | - | - | - |

III Semester

| SI. <br> No. | Course <br> Code | Name of the Course / Laboratory | $\begin{gathered} \hline \text { No.of Periods } \\ \text { per week } \\ \hline \end{gathered}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \hline \mathbf{L} \\ 3 \end{gathered}$ |  | $\mathbf{P}$ |  |
| 1 |  | Professional Elective - V |  |  |  | 3 |
| 2 |  | Open Elective | 3 | - | - | 3 |
| 3 |  | Dissertation Phase - I | - | - | 20 | 10 |
|  |  | Total | 6 | - | 20 | 16 |

** Project Based Course
L: Lecture T:Tutorial P: Practical
M.Tech - Power Electronics and Electric Drives (EEE) - R20


IV Semester

| SI. | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. |  |  | L | $\mathrm{T}$ | $\begin{gathered} \mathbf{P} \\ 32 \end{gathered}$ |  |
| 1 |  | Dissertation Phase - II |  |  |  | 16 |
|  |  | Total | - | - | 32 | 16 |

## Professional Electives:

## Professional Elective - I

EE3903 Modern Control Theory

EE3904 Power Quality and Custom Power Devices EE3905
Programmable Logic Controllers and Applications
Professional Elective - II
EE3906 Artificial Intelligence Techniques
EE3907 Renewable Energy Technologies
EE3908 Flexible AC Transmission Systems
Professional Elective - III
EE3913 Control and Integration of Renewable Energy Systems
EE3914 Hybrid Electric Vehicles
EE3915 Advanced Digital Control Systems
Professional Elective - IV
EE3916 Advanced Digital Signal Processing
EE3917 Applications of Power Converters
EE3918 Microcontrollers
Professional Elective - V
EE3922 Digital Signal Processing Controlled Drives
EE3923 Smat Grid Technologies
EE39.... MOOCs

## Open Electives:

CE3924 Sustainable Development
EE3924 Energy Audit, Conservation \& Management
ME3924 Rapid Prototyping
EC4924 Automotive Electronics (Otther than VLSID\&ES)
CS3924 Soft Computing Techniques
M.Tech - Power Electronics and Electric Drives (EEE) - R20


Gudlavalleru Erig,itering College
Seshadri Rao Knowledge Village
Gudlavalleru - 521356 , Krishna District. A.P.

I Semester

| $\begin{gathered} \text { Sl. } \\ \text { No. } \end{gathered}$ | Course <br> Code | Name of the Course / Laboratory | $\begin{array}{\|c} \begin{array}{c} \text { No.of Periods } \\ \text { per week } \end{array} \\ \hline \end{array}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{array}{r} \hline \mathbf{L} \\ 3 \\ \hline \end{array}$ | $T$ | $\overline{\mathbf{P}}$ |  |
| 1 | ME390 | Mechanical Vibrations and Acoustics ** |  |  |  | 3 |
| 2 | ME3902 | Advanced mechancis of Solids | 3 | - | - | 3 |
| 3 |  | Professional Elective - I | 3 | - | - | 3 |
| 4 |  | Professional Elective - II | 3 | - | - | 3 |
| 5 | BA3901 | Research Methodology \& IPR | 3 | - | - | 3 |
| 6 | ME3909 | Machine Dynamics Lab | - | - | 4 | 2 |
| 7 | ME3910 | Advanced Material Testing Lab | - | - | 4 | 2 |
|  |  | Total | 15 | - | 8 | 19 |
| 8 | BA3902 | Constitution of India (Audit Course) | 2 | - | - |  |

## II Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course <br> Code | Name of the Course / Laboratory | $\begin{array}{\|c} \hline \begin{array}{c} \text { No.of Periods } \\ \text { per week } \end{array} \\ \hline \end{array}$ |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L3 | $\mathrm{T}$ | $\bar{P}$ |  |
| 1 | MA3902 | Computational Methods in Engineering |  |  |  | 3 |
| 2 | ME3911 | Advanced Finite Element Methods ** | 3 | - | - | 3 |
| 3 |  | Professional Elective - III | 3 | - | - | 3 |
| 4 |  | Professional Elective - IV | 3 | - | - | 3 |
| 5 | ME3918 | Modeling and Simulation Lab | - | - | 4 | 2 |
| 6 | ME3919 | Computational Methods Lab | - | - | 4 | 2 |
| 7 | ME3920 | Mini Project with Seminar | - | - | 6 | 3 |
|  |  | Total | 12 | - | 14 | 19 |
| 8 | EG3901 | English for Research Paper Writing (Audit Cours | 2 | - | - | - |


| $\mathrm{Sl} .$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \hline \mathbf{L} \\ 3 \\ \hline \end{gathered}$ | $T$ | $\mathbf{P}$ |  |
| 1 |  | Professional Elective - V |  |  |  | 3 |
| 2 |  | Open Elective | 3 | - | - | 3 |
| 3 | ME3926 | Dissertation Phase - I | - | - | 20 | 10 |
|  |  | Total | 6 | - | 20 | 16 |

** Project Based Course
L: Lecture T:Tutorial P: Practical
M.Tech - Machine Design (ME) - R20

IV Semester

| $\begin{gathered} \text { SI. } \\ \text { No. } \end{gathered}$ | Course <br> Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | $\begin{gathered} \hline \mathbf{P} \\ 32 \end{gathered}$ |  |
| 1 | ME3927 | Dissertation Phase - II |  |  |  | 16 |
|  |  | Total | - | - | 32 | 16 |

## Professional Electives:

Professional Elective - I
ME3903 Analysis and Synthesis of Mechanisms
ME3904 Advanced Materials
ME3905 Industrial Robotics
Professional Elective - II
ME3906 Gear Engineering
ME3907 Advanced Optimization Techniques
ME3908 Rotor Dynamics

## Professional Elective - III

ME3912 Design for Manufacturing and Assembly
ME3913 Mechatronics
ME3914 Vehicle Dynamics
Professional Elective - IV
ME3915 Signal Analysis and Condition Monitoring
ME3916 Fracture Mechanics
ME3917 Experimental Stress Analysis
Professional Elective - V
ME3921 Tribology
ME3922 Composite Materials
ME3923 MOOCs
Open Electives:
CE3924 Sustainable Development
EE3924 Energy Audit, Conservation \& Management
ME3924 Rapid Prototyping
EC4924 Automotive Electronics (Otther than VLSID\&ES)
CS3924 Soft Computing Techniques
M.Tech - Machine Design (ME) - R20


Gudlavalleru Engineering College

## I Semester

| $\begin{aligned} & \text { Sl. } \\ & \text { No. } \end{aligned}$ | Course Code | Name of the Course / Laboratory | No.of Periodsper week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \hline \mathrm{L} \\ & 3 \end{aligned}$ | $T$ | $\overline{\mathbf{P}}$ |  |
| 1 | EC4901 | CMOS VLSI Design |  |  |  | 3 |
| 2 | EC4902 | Advanced Microcontrollers * | 3 | - | - | 3 |
| 3 |  | Professional Elective - I | 3 | - | - | 3 |
| 4 |  | Professional Elective - II | 3 | - | - | 3 |
| 5 | BA3901 | Research Methodology \& IPR | 3 | - | - | 3 |
| 6 | EC4909 | CMOS VLSI Design Lab | - | - | 4 | 2 |
| 7 | EC4910 | Advanced Microcontrollers Lab | - | - | 4 | 2 |
|  |  | Total | 15 | - | 8 | 19 |
| 8 | BA3902 | Constitution of India (Audit Course) | 2 | - | - |  |

II Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | CourseCode | Name of the Course / Laboratory | No.of Periodsper week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | EC4911 | VLSI System Design * | 3 | - | - | 3 |
| 2 | EC4912 | Embedded System Based IoT | 3 | - | - | 3 |
| 3 |  | Professional Elective - III | 3 | - | - | 3 |
| 4 |  | Professional Elective - IV | 3 | - | - | 3 |
| 5 | EC4919 | VLSI System Design Lab | - | - | 4 | 2 |
| 6 | EC4920 | Embedded System and IoT Lab | - | - | 4 | 2 |
| 7 | EC4921 | Mini Project with Seminar | - | - | 6 | 3 |
|  |  | Total | 12 | - | 14 | 19 |
| 8 | EG3901 | English for Research Paper Writing (Audit Course) | 2 | - | - | - |

III Semester

| $\begin{array}{\|c} \hline \text { Sl. } \\ \text { No. } \end{array}$ | Course Code | Name of the Course / Laboratory | No.of Periodsper week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L3 | T | $\mathbf{P}$ |  |
| 1 |  | Professional Elective - V |  |  |  | 3 |
| 2 |  | Open Elective | 3 | - | - | 3 |
| 3 | EC4925 | Dissertation Phase - 1 | - | - | 20 | 10 |
|  |  | Total | 6 | - | 20 | 16 |

* Project Based Theory Course

L: Lecture T:Tutorial P: Practical
M.Tech - VLSI Design and Embedded System (ECE) - R20


Gudlavalleru Engineering College Seshadri Rao Knowledge Village
Gudlavalleru - 521 356, Krishna District. A.P.

IV Semester

| $\begin{array}{\|l\|l} \mathrm{SI} . \\ \text { No. } \end{array}$ | Course Code | Name of the Course / Laboratory | No.of Periods pler week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\mathrm{L}$ | T- | $\begin{gathered} \hline \mathbf{P} \\ 32 \end{gathered}$ |  |
| 1 | EC4925 | Dissertation Phase - II |  |  |  | 16 |
|  |  | Total | - | - | 32 | 16 |

## Professional Electives:

Professional Elective - I

| EC4903 | Testing and Testability of VLSI Circuits |
| :--- | :--- |
| EC4904 | Advanced Digital Design |
| EC4905 | Digital Signal and Image Processing |

Professional Elective - II EC4906 VLSI Signal Proessing
EC4907 System Design with Embedded Linux
EC4908 Parallel Processing
Professional Elective - III
EC4913 Advances in VLSI Design
EC4914 Embedded Computer Architecture
EC4915 System on Chip Design
Professional Elective - IV
EC4916 VLSI Interconnects
EC4917 Communication Buses and Interfaces
EC4918 Advanced Digital Signal Processing
Professional Elective - V
EC4922 Lower Power VLSI Design
EC4923 Network Security and Crypthography
ME49... MOOCs

## Open Electives:

CE3924 Sustainable Development
EE3924 Energy Audit, Conservation \& Management
ME3924 Rapid Prototyping
EC4924 Automotive Electronics (Otther than VLSID\&ES)
CS3924 Soft Computing Techniques
M.Tech - VLSI Design and Embedded System (ECE) - R20


# SESHADRI RAO GUDLAVALLERU ENGINEERING COLLEGE 

SeshadriRao Knowledge Village, Gudlavalleru
Department of Computer Science and Engineering

> R20 PG - M.Tech CSE (AI\&ML)

Course Structure
I Semester

| $\begin{aligned} & \text { Sl. } \\ & \text { No. } \end{aligned}$ | Course Code | Name of the Course / Laboratory |  | No. of hours per week |  |  | Total Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 |  | Research Methodologies and IPR | HSS | 3 | - | - | 3 |
| 2 | CS3901 | Advanced Data Structures and Algorithm Analysis | PC | 3 | - | - | 3 |
| 3 | CS3902 | Data Science | ES | 3 | - | - | 3 |
| 4 | $\begin{aligned} & \text { CS3903 } \\ & \text { CS3904 } \\ & \text { CS3905 } \end{aligned}$ | Professional Elective - I <br> 1. Digital Image Processing <br> 2. Ad hoc and Sensor Networks <br> 3. Intelligent Systems | PE | 3 | - | - | 3 |
| 5 | $\begin{aligned} & \text { CS3906 } \\ & \text { CS3907 } \\ & \text { CS3908 } \end{aligned}$ | Professional Elective - II <br> 1. Internet of Things <br> 2. Principles of Computer Security <br> 3. Distributed Systems | PE | 3 | - | - | 3 |
| 6 | CS3909 | Advanced Data Structures and Algorithm Analysis Lab | PC | - | - | 4 | 2 |
| 7 | CS3910 | Data Science Lab | ES | - | - | 4 | 2 |
| 8 |  | Constitution of India | AC | 2 | - | - | - |
|  |  |  | Total : | 17 | - | 8 | 19 |

II Semester

| SI. |
| :---: | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| No. |


| Course |
| :---: |
| code |



III Semester

| SI. | Course Code | Name of the Course / Laboratory |  | $\begin{array}{\|c} \text { No.of hours } \\ \text { per week } \end{array}$ |  |  | No. of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 | $\begin{array}{\|l\|l} \text { CS3922 } \\ \text { CS3923 } \end{array}$ | Professional Elective - V <br> 1. Deep Learning <br> 2. Recommender Systems <br> 3. MOOCs-1 (NPTEL/SWAYAM) 12 Week Program related to the program which is not listed in the course structure | PE | 3 | - | - | 3 |
| 2 |  | Open Elective- I <br> 1. Courses Offered by Other Departments <br> 2. MOOCs-2 (NPTEL/SWAYAM)-Any 12 <br> Week Course on Engineering/ Management/ Mathematics offered by other than parent department | OE | 3 | - | - | 3 |
| 3 | CS3925 | Dissertation (Initiated in third Semester) | PROJ | - | - | 20 | 10 |
|  |  | Total : |  | 6 | - | 20 | 16 |

IV Semester

| SI. | Course Code | Name of the Course / Laboratory |  | No.of hours per week |  |  | No. of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 | CS3926 | Dissertation (Carried out in third \& fourth Semesters) | PROJ | - | - | 32 | 16 |
|  |  | Total : |  | - | - | 32 | 16 |


| Open Elective-I | CS3924 | Soft Computing Techniques |
| :--- | :--- | :--- |



## COURSE STRUCTURE

I Semester

| SI. <br> No. | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | BA3902 | Perspectives of Management | 4 | - | - | 4 |
| 2 | BA3903 | Managerial Economics | 4 | - | - | 4 |
| 3 | BA3904 | Accounting for Managers | 3 | - | 1 | 4 |
| 4 | BA3905 | Business Communication \& Skill Development | 4 | - | - | 4 |
| 5 | BA3906 | Business Environment and Legislation | 4 | - | - | 4 |
| 6 | BA3907 | Quantitative Analysis for Business Decisions | 3 | - | 1 | 4 |
| 7 | ВАЗ908 | Business Law | 4 | - | - | 4 |
| 8 | BA3909 | Information Technology Lab for Business Management | - | - | 4 | 2 |
|  |  | Total | 26 | - | 6 | 30 |

II Semester

| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course Code | Name of the Course / Laboratory | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | L | T | P |  |
| 1 | BA3910 | Financial Management | 3 | - | 1 | 4 |
| 2 | BA3911 | Marketing Management | 4 | - | - | 4 |
| 3 | BA3912 | Human Resource Management | 4 | - | - | 4 |
| 4 | BA3913 | Production \& Operations Management | 4 | - | - | 4 |
| 5 | BA3914 | Business Research Methods | 3 | - | 1 | 4 |
| 6 | BA3915 | International Business | 4 | - | - | 4 |
| 7 | BA3916 | Organizational Behaviour | 4 | - | - | 4 |
|  |  | Total | 26 | - | - | 28 |



| III Semester |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { SI. } \\ & \text { No. } \end{aligned}$ | Course Code | Name of the Course / Laboratory |  | No.of Periods per week |  |  | No.of Credits |
|  |  |  |  | L | T | P |  |
| 1 | BA3917 | Business Policy \& Strategic Management |  | 4 | - | - | 4 |
| 2 | BA3918 | Logistics \& Supply Chain Management |  | 4 | - | - | 3 |
| 3 | BA3919 | Retail Management |  | 4 | - | - | 3 |
| 4 | BA3920 | Business Ethics \& Corporate Governance |  | 4 | - | - | 3 |
| 5 |  | Specialisation - I | Marketing subjects common to all | 4 | - | - | 3 |
| 6 |  | Specialisation - II |  | 4 | - | - | 3 |
| 7 |  | Specialisation - III | Finance (or) HR | 4 | - | - | 3 |
| 8 |  | Specialisation - IV |  | 4 | - | - | 3 |
|  |  |  | Total | 32 | - | - | 25 |

IV Semester

| $\begin{array}{\|l} \hline \text { SI. } \\ \text { No. } \end{array}$ | Course Code | Name of the Course / Laboratory |  | No.of Periods per week |  |  | No.of Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | L | T | P |  |
| 1 | BA3927 | Entrepreneurship \& Project Management |  | 4 | - | - | 4 |
| 2 | BA3928 | Management of Retail Operations |  | 4 | - | - | 3 |
| 3 |  | Specialisation - V | Marketing subjects common to all | 4 | - | - | 3 |
| 4 |  | Specialisation - VI |  | 4 | - | - | 3 |
| 5 |  | Specialisation - VII | Finance (or) HR | 4 | - | - | 3 |
| 6 |  | Specialisation - VIII |  | 4 | - | - | 3 |
| 7 |  | Project Report |  | - | - | - | 5 |
| 8 |  | Comprehensive Viva-Voce |  | - | - | - | 1 |
|  |  | Total |  | 20 | 0 | 0 | 25 |

Specialisations:

| III Semester | IV Semester |
| :--- | :--- |
| Marketing | Marketing |
| BA3921 Advertising \& Brand Management | BA3929 Marketing of Services |
| BA3922 Consumer Behaviour | BA3930 Sales \& Distribution Management |
| Finance | Finance |
| BA3923 Security Analysis \& Portfolio Mgt. | BA3931 Financial Derivatives |
| BA3924 International Financial Management | BA3932 Financial Institutions and Services |
| HR | HR |
| BA3925 Human Resources Analytics | BA3933 Compensation Management |
| BA3926 Industrial Relations and | BA3934 Management of Change and |
| Labour Laws | Development |

Master of Business Administration - R20


