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| Semester | Course Code, Course Name  (L-T-P)Credits | | | | | | | | | | | | GP | **Community Service** | **Contact Hours** | Credits |
| 1 | PYL150  Engg. Phy. (3-0-2)4 | | | | MAL151  Engg. Maths I (3-0-2)4 | CSL106  FOCP-I  (1-0-2)2 | ECL110 BEEE  (3-0-2)4 | | | MEL150  BM.E.  (2-0-2)3 | CLL101 Eff Comm. I(1-0-2)2 |  | ECR107  GP1  1 Credit |  | 380 | 19+1=20 |
| 2 | CHL150  Engg. Chem.  (2-0-2)3 | | | | MAL152 Engg.Maths-II  (3-0-2)4 | CSL108  FOCP-II  (1-0-2)2 | MEP110  Engg Graphics & Drg  (1-0-3) 3 | | | CLL120  HVPE  (2-0-0)2 | CLL102 Eff Comm. II  (1-0-2)2 | CSL110  Problem Solving and design thinking  (2-0-2)3 | ECR108  GP2  1 Credit |  | 380 | 19+1=20 |
| 3 | CSL251  Programming I (2-0-5) 4.5 | | | | ECL261  Linux & Scripting  (2-0-8) 6 | ECL251  Analog Electronics & Integrated circuits (2-0-2)3 | ECL253  Fields, waves and Antennas  (2-0-2) 3 | | | ECL255  Digital Electronics and Computer Architecture  (2-0-3) 3.5 |  |  | ECR207  GP3  1 Credit |  | 400 | 20 +1 = 21 |
| 4 | ECL252  Microcontrollers and Sensors  (2-0-4) 4 | | | | ECL262  Digital CMOS VLSI Design & Layout  (2-0-5) 4.5 | ECL256  Embedded System Design  (2-0-4) 4 | ECL254  Analog and Digital Communications  (2-0-2) 3 | | | ECL258  Signal processing  (2-0-2) 3 |  |  | EC208  GP4  1 Credit |  | 370 | 18.5 + 1= 19.5 |
| Summers | ECT201 Practical Training | | | | | | | | | | | |  |  |  | 02 |
| 5 | ECL361  Data Structures & OOPs (C++) (2-0-2) 3 | | | | ECL264  RTL Design & Synthesis  (2-0-5) 4.5 | CSL237  Introduction to AI, ML and DL  (2-0-8) 6 | ECL266  Control Systems  (2-0-1) 2.5 | | ECL365  Analog CMOS VLSI Design & Layouts  (2-0-4) 4 | |  |  | ECR307  GP5  1 Credit | ECS 301  CS3 #1  (35-Hrs)  S/NS Course | 400 | 20 +1= 21 |
| 6 | ECL362  Real Time Operating Systems  (2-0-3) 3.5 | | | | ECL364  Verification Methodologies & Bus Architectures (2-0-6) 5 | ECL366  VLSI Physical Design  (2-0-4) 4 | CLP300  Campus to Corporate   * + 1. 1.5 | | CHL100  Environmental Studies  (3-0-0) 3 | | Management Course  (2-0-0) 2 |  | ECR308  GP6  1 Credit | ECS 302  CS3 #2  (35-Hrs)  1 Credit | 380 | 19 + 2= 21 |
| Summers | ECT301 Industrial Internship including7 days community service | | | | | | | | | | | |  |  |  | 03 |  |  |  |  |  |
| 7 | ECD401  Project # 1  (0-0-20) 10 | | | Foreign Language  (2-0-0) 2 | | SML300  Entrepreneurship  (2-0-0) 2 | | ECL461  Embedded Systems and VLSI Industry: Employment & Higher Studies Trends (2-0-3) 3.5 | Open Elective (MOOC)  (2-0-2) 3 | |  |  | ECR407  GP7  1 Credit | ECS 401  CS4 #1  (70-Hrs)  S/NS Course | 410 | 20.5 +1 =21.5 |
| 8 | ECD402  Project # 2 / Internship  (0-0-34) 17 | | | SEG 400  Self-Study Course GATE Audit | | ECL436  Tech. and Ethics (Online) (S/NS) Audit | |  |  | |  |  | ECR408  GP8  1 Credit | ECS 402  CS4 #1 (70-Hrs)  2 Credits | 340 | 17 + 3= 20 |
|  |  | | Total Credits **158+8(GP)+3(CS)** | | | | | | | | | | | | | **169** |
|  | | \* In semester 8th, 2 MOOC courses can be conducted and there will be a provision to do industrial internship in place of Major project (2). | | | | | | | | | | | | | | |

**Bachelor of Technology in Electronics and Communication Engineering with Specialization in Embedded Systems & VLSI Design (2018-19)**