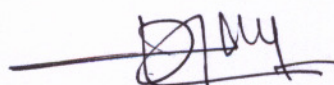
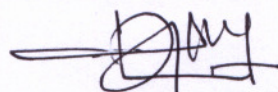


**Content of Courses for B.Sc with Electronics as Major Subject and any other subject as Minor**

**Model IIA**

| Sem.  | Course Number  | Title of the Paper (Theory/ Practical)                                | Lecture / Practical hours per week | Duration of Exam | IA Marks | Max. Marks | Total | Credits |
|---|----------------|---|------------------------------------|------------------|----------|------------|-------|---------|
| I   | ELE-CT1        | Electronic Devices and Circuits                                       | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-CP1        | Electronic Devices and Circuits Lab                                   | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | ELE-OE1.1      | Domestic Equipment Maintenance  | 03                                 | 03               | 30       | 70         | 100   | 3       |
|   | ELE-OE1.2      | Renewable Energy and Energy Harvesting                                | 03                                 | 03               | 30       | 70         | 100   |         |
|   | ELE-OE1.3      | Basics of Electronics, Computers and PCB Design                       | 03                                 | 03               | 30       | 70         | 100   |         |
| II  | ELE-CT2        | Analog and Digital Electronics  | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-CP2        | Analog and Digital Electronics Lab                                    | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | ELE-OE2.1      | Consumer Electronics  | 03                                 | 03               | 30       | 70         | 100   | 3       |
|   | ELE-OE2.2      | Electronics For Everyone  | 03                                 | 03               | 30       | 70         | 100   |         |
|   | ELE-OE2.3      | Mobile Communication  | 03                                 | 03               | 30       | 70         | 100   |         |
|   | ELE-OE2.4      | Mobile Application Programming  | 03                                 | 03               | 30       | 70         | 100   |         |
| <b>Exit Option with Certificate</b>   |                |   |                                    |                  |          |            |       |         |
| III   | ELE-DSCT3      | Digital Design using Verilog and programming in C                     | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCP3      | Digital Design using Verilog and programming in C Lab                 | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | ELE-OE 3.1     | Fundamentals of Electronics   | 03                                 | 03               | 30       | 70         | 100   | 3       |
| IV  | ELE-DSCT4      | Electronic Communication-I  | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCP4      | Electronic Communication-I Lab  | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | ELE-OE4.1      | Advances in Electronics   | 03                                 | 03               | 30       | 70         | 100   | 3       |
| <b>Exit Option with Diploma</b>   |                |   |                                    |                  |          |            |       |         |
| V   | ELE-DSCT5      | Microcontroller 8051 and PIC  | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCT6      | Communication-II  | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCP5      | Microcontroller 8051 and PIC Lab                                      | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | ELE-DSCP6      | Communication-II Lab  | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | Vocational-1.1 | Computer Organization   | 03                                 | 03               | 30       | 70         | 100   | 3       |
|   | Vocational-1.2 | RFID Technology   | 03                                 | 03               | 30       | 70         | 100   |         |
|   | Vocational-1.3 | Photonics   | 03                                 | 03               | 30       | 70         | 100   |         |
| VI  | ELE-DSCT7      | Power Electronics, Sensors, PLCs, Transducers and Instrumentation     | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCT8      | IoT and 5G Communication  | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCP7      | Power Electronics, Sensors, PLCs, Transducers and Instrumentation Lab | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | ELE-DSCP8      | IoT and 5G Communication Lab  | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | Vocational-2.1 | Cryptography  | 04                                 | 03               | 30       | 70         | 100   | 3       |
|   | Vocational-2.2 | Control Systems   | 04                                 | 03               | 30       | 70         | 100   |         |
|   | Internship     | Applications of Electronics   | 04                                 | 03               | 15       | 35         | 50    |         |
| <b>Exit Option with Bachelor of Science (B.Sc) Degree</b>                     |                |   |                                    |                  |          |            |       |         |
| VII   | ELE-DSCT9      | Signals and Systems   | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCT10     | Embedded Systems  | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCT11     | Microwave Communication   | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCP9      | Signals and Systems Lab   | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | ELE-DSCP10     | Embedded Systems Lab  | 04                                 | 03               | 15       | 35         | 50    | 2       |
|   | ELE-DSE01      | Wireless Communication  | 03                                 | 03               | 30       | 70         | 100   | 3       |
|   | ELE-DSE02      | Phyton Programming  | 03                                 | 03               | 30       | 70         | 100   | 3       |
|   | ELE-DSCP11     | Research Methodology  | 03                                 | 03               | 30       | 70         | 100   | 3       |
| VIII  | ELE-DSCT12     | Digital Signal Processing   | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCT13     | VLSI Designing  | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSCT14     | Image Processing  | 04                                 | 03               | 30       | 70         | 100   | 4       |
|   | ELE-DSET03     | ARM Processor   | 03                                 | 03               | 30       | 70         | 100   | 3       |
|   | ELE-DSET04     | Computer Network  | 03                                 | 03               | 30       | 70         | 100   | 3       |
|   | Project        | Electronic Project  | 06                                 | 03               | 50       | 100        | 150   | 6       |
| <b>Award of Bachelor of Science Honours (B.Sc Hons) Degree in Electronics</b> |                |   |                                    |                  |          |            |       |         |

  
**DEAN**  
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**Professor & Chairman**  
**Dept. of Applied Electronics**  
**Gulbarga University**  
**KALABURAGI-585 106**