



SARALA
BIRLA
UNIVERSITY

Established under the Sarala Birla University Act 2017 Govt. of Jharkhand as per Section 2(f) of UGC Act, 1956

CURRICULUM

FOR

Diploma

in

Electronics & Communication Engineering

(Based on UGC & AICTE- CBCS)

Effective from 2019-20

Definition of Credit

| | |
|------------------------------|------------|
| 1 Hr. Lecture (L) Per Week | 1 Credit |
| 1 Hr. Tutorial (T) Per Week | 1 Credit |
| 1 Hr. Practical (P) Per Week | 0.5 Credit |
| 2 Hr. Practical (P) Per Week | 1 Credit |

Course Code Definitions

| Course Code | Definitions |
|------------------|--|
| BSC-D | Basic Science Course |
| ESC-D | Engineering Science Course |
| HSMC-D | Humanities and Social Sciences including Management Course |
| ECCA-D | Extra Co-Curricular Activities Courses |
| MC-D | Mandatory Course |
| PCC-ECE-D | Professional Core Course |
| PEC-ECE-D | Professional Electives Course |
| OEC-D | Open Electives Course |
| ECE-DP1 | Project Stage-I |
| ECE-DP2 | Project Stage-II |

**Structure of Electronics & Communication
Engineering(Diploma)
(Breakup of Credits)**

| Sl. No. | Category | Breakup of Credits (Total 147) |
|-----------------------|--|--------------------------------|
| 1 | Humanities and Social Sciences including Management courses | 13 |
| 2 | Basic Science courses | 29 |
| 3 | Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc | 16 |
| 4 | Professional core courses | 55 |
| 5 | Professional Elective courses relevant to chosen specialization/branch | 16 |
| 6 | Open subjects – Electives from other technical and /or emerging subjects | 4 |
| 7 | Project work, seminar and internship in industry or elsewhere | 8 |
| 8 | Extra Co-Curricular Activities Courses | 2 |
| 9 | Mandatory Courses [Environmental Sciences, Induction Program, Indian Constitution, Essence of Indian Traditional Knowledge] | 4 |
| Total Credits: | | 147 |
| | | |

BASIC SCIENCE COURSES

| Sl. No. | Course Code | Course Title | Hours Per Week | | | Credits | Preferred Semester |
|-----------------------|-------------|-------------------------|----------------|---|---|-----------|--------------------|
| | | | L | T | P | | |
| 1 | BSC-D099 | Applied Science | 4 | 0 | 0 | 4 | II |
| 2 | BSC-D100 | Applied Science Lab | 0 | 0 | 2 | 1 | II |
| 3 | BSC-D101 | Basic Chemistry | 3 | 1 | 0 | 4 | I |
| 4 | BSC-D102 | Basic Chemistry Lab | 0 | 0 | 2 | 1 | I |
| 5 | BSC-D103 | Basic Physics | 3 | 1 | 0 | 4 | II |
| 6 | BSC-D104 | Basic Physics Lab | 0 | 0 | 2 | 1 | II |
| 7 | BSC-D105 | Basic Mathematics | 3 | 1 | 0 | 4 | I |
| 8 | BSC-D106 | Engineering Mathematics | 4 | 1 | 0 | 5 | II |
| 9 | BSC-D107 | Applied Mathematics | 4 | 1 | 0 | 5 | III |
| Total Credits: | | | | | | 29 | |

**HUMANITIES & SOCIAL SCIENCES INCLUDING
MANAGEMENT COURSE**

| Sl. No. | Course Code | Course Title | Hours per week | | | Credits | Preferred Semester |
|-----------------------|-------------|--|----------------|---|---|-----------|--------------------|
| | | | L | T | P | | |
| 1 | HSMC-D101 | Technical English | 3 | 0 | 0 | 3 | I |
| 2 | HSMC-D102 | Communication Skills | 2 | 0 | 0 | 2 | II |
| 3 | HSMC-D103 | Life Skills & Professional Practices-I | 0 | 0 | 2 | 1 | II |
| 4 | HSMC-D104 | Life Skills & Professional Practices-II | 0 | 0 | 2 | 1 | III |
| 5 | HSMC-D105 | French Through Communicative Approach-I | 2 | 0 | 0 | 2 | III |
| 6 | HSMC-D106 | French Through Communicative Approach-II | 2 | 0 | 0 | 2 | IV |
| 7 | HSMC-D107 | Organizational Behaviour | 2 | 0 | 0 | 2 | VI |
| Total Credits: | | | | | | 13 | |

Mandatory Courses

| Sl. No. | Course Code | Course Title | Hours per week | | | Credits | Preferred Semester |
|-----------------------|-------------|-----------------------|----------------|---|---|----------|--------------------|
| | | | L | T | P | | |
| 1 | MC-D101 | Induction Program | 0 | 0 | 0 | 0 | I |
| 2 | MC-D102 | Environmental Science | 2 | 0 | 0 | 2 | III |
| 3 | MC-D103 | Values & Ethics | 2 | 0 | 0 | 2 | III |
| Total Credits: | | | | | | 4 | |

Extra Co-Curricular Activities Courses

| Sl. No. | Course Code | Course Title | Hours per week | | | Credits | Preferred Semester |
|-----------------------|-------------|-----------------------------|----------------|---|---|----------|--------------------|
| | | | L | T | P | | |
| 1 | ECCA-D101 | PT and Games/NSS/NCC/CA Lab | 0 | 0 | 2 | 1 | I |
| 2 | ECCA-D102 | PT and Games/NSS/NCC/CA Lab | 0 | 0 | 2 | 1 | II |
| Total Credits: | | | | | | 2 | |

ENGINEERING SCIENCE COURSES

| Sl. No. | Course Code | Course Title | Hours per week | | | Credits | Preferred Semester |
|-----------------------|-------------|--|----------------|---|---|-----------|--------------------|
| | | | L | T | P | | |
| 1 | ESC-D101 | Fundamentals of Computer | 3 | 0 | 0 | 3 | I |
| 2 | ESC-D102 | Fundamentals of Computer Lab | 0 | 0 | 2 | 1 | I |
| 3 | ESC-D103-P1 | Workshop Practice-I | 0 | 0 | 2 | 1 | I |
| 4 | ESC-D103-P2 | Workshop Practice-II | 0 | 0 | 2 | 1 | II |
| 5 | ESC-D104 | Fundamentals of Electrical and Electronics | 3 | 1 | 0 | 4 | II |
| 6 | ESC-D105 | Fundamentals of Electrical and Electronics Lab | 0 | 0 | 2 | 1 | II |
| 7 | ESC-D106-P1 | Engineering Graphics-I | 1 | 0 | 2 | 2 | I |
| 8 | ESC-D106-P2 | Engineering Graphics-II | 1 | 0 | 2 | 2 | II |
| Total Credits: | | | | | | 15 | |

Professional Core Courses(Sem III & IV)

Branch: Electronics & Communication Engineering (Diploma)

| Sl. No. | Course Code | Course Title | Hrs. /Week L: T: P | Credits | Preferred Semester |
|---------|--------------|------------------------------------|-----------------------|---------|--------------------|
| 1 | PCC-ECE-D201 | Basic Electronics | 03:01:00 | 4 | III/IV |
| 2 | PCC-ECE-D202 | Basic Electronics Lab | 00:00:02 | 1 | III/IV |
| 3 | PCC-ECE-D203 | Network Theory | 03:01:00 | 4 | III/IV |
| 4 | PCC-ECE-D204 | Network Theory Lab | 00:00:02 | 1 | III/IV |
| 5 | PCC-ECE-D205 | Signal & System | 03:01:00 | 4 | III/IV |
| 6 | PCC-ECE-D206 | Digital Electronics | 03:01:00 | 4 | III/IV |
| 7 | PCC-ECE-D207 | Digital Electronics Lab | 00:00:02 | 1 | III/IV |
| 8 | PCC-ECE-D208 | Analog Electronics | 03:01:00 | 4 | III/IV |
| 9 | PCC-ECE-D209 | Analog Electronics lab | 00:00:02 | 1 | III/IV |
| 10 | PCC-ECE-D210 | Analog & Digital Communication | 03:01:00 | 4 | III/IV |
| 11 | PCC-ECE-D211 | Analog & Digital Communication Lab | 00:00:02 | 1 | III/IV |
| 12 | PCC-ECE-D212 | Control System | 03:01:00 | 4 | III/IV |
| 13 | PCC-ECE-D213 | Electromagnetic Wave | 03:01:00 | 4 | III/IV |

Total Credits: 37

Professional Core Courses(Sem V & VI)

Branch: Electronics & Communication Engineering

| Sl. No. | Course Code | Course Title | Hrs. /Week L: T: P | Credits | Preferred Semester |
|---------|--------------|---|-----------------------|---------|--------------------|
| 1 | PCC-ECE-D301 | Microprocessors and Microcontroller | 03:01:00 | 4 | V/VI |
| 2 | PCC-ECE-D302 | Microprocessors and Microcontroller Lab | 00:00:02 | 1 | V/VI |
| 3 | PCC-ECE-D303 | Digital System Design | 03:01:00 | 4 | V/VI |
| 4 | PCC-ECE-D304 | Digital System Design Lab | 00:00:02 | 1 | V/VI |
| 5 | PCC-ECE-D305 | Antenna & Propagation | 03:01:00 | 4 | V/VI |
| 6 | PCC-ECE-D306 | Embedded systems | 03:01:00 | 4 | V/VI |

Total Credits: 18

Professional Elective Courses

Branch: Electronics & Communication Engineering (Diploma)

| Sl. No. | Course Code | Course Title | Hrs./ Week L: T: P | Credits | Preferred Semester |
|---------|--------------|-----------------------------------|-----------------------|---------|--------------------|
| 1 | PEC-ECE-D301 | Microwave Theory and Techniques | 03:01:00 | 4 | V/VI |
| 2 | PEC-ECE-D302 | Fiber Optic Communications | 03:01:00 | 4 | V/VI |
| 3 | PEC-ECE-D303 | Mobile Communication and Networks | 03:01:00 | 4 | V/VI |
| 4 | PEC-ECE-D304 | Wireless Sensor Networks | 03:01:00 | 4 | V/VI |
| 5 | PEC-ECE-D305 | Satellite Communication | 03:01:00 | 4 | V/VI |
| 6 | PEC-ECE-D306 | High Speed Electronics | 03:01:00 | 4 | V/VI |
| 7 | PEC-ECE-D307 | Error Correcting Codes | 03:01:00 | 4 | V/VI |
| 8 | PEC-ECE-D308 | Digital Signal Processing | 03:01:00 | 4 | V/VI |
| | | | | | |

Open Elective Course

Branch: Electronics & Communication Engineering(Diploma)

| Sl. No. | Course Code | Course Title | Hrs./ Week L: T: P | Credits |
|---------|--------------|---|-----------------------|---------|
| 1 | OEC-EEE-D401 | Line Commutated and Active Rectifiers | 03:01:00 | 4 |
| 2 | OEC-EEE-D402 | Electrical Drives | 03:01:00 | 4 |
| 3 | OEC-EEE-D403 | Electrical Machine Design | 03:01:00 | 4 |
| 4 | OEC-EEE-D404 | High Voltage Engineering | 03:01:00 | 4 |
| 5 | OEC-EEE-D405 | Electrical Energy Conservation and Auditing | 03:01:00 | 4 |
| 6 | OEC-EEE-D406 | Industrial Electrical Systems | 03:01:00 | 4 |
| 7 | OEC-EEE-D407 | Digital Control Systems | 03:01:00 | 4 |
| 8 | OEC-EEE-D408 | Computational Electromagnetics | 03:01:00 | 4 |
| 9 | OEC-EEE-D409 | Control Systems Design | 03:01:00 | 4 |
| 10 | OEC-EEE-D410 | Wind and Solar Energy Systems | 03:01:00 | 4 |
| 11 | OEC-EEE-D411 | Electrical and Hybrid Vehicles | 03:01:00 | 4 |
| 12 | OEC-EEE-D412 | Power System Protection | 03:01:00 | 4 |
| 13 | OEC-EEE-D413 | HVDC Transmission Systems | 03:01:00 | 4 |
| 14 | OEC-EEE-D414 | Power Quality and FACTS | 03:01:00 | 4 |
| 15 | OEC-EEE-D415 | Power System Dynamics and Control | 03:01:00 | 4 |
| 16 | OEC-EEE-D416 | Advanced Electric Drives | 03:01:00 | 4 |
| 17 | OEC-CSE-D301 | Artificial Intelligence | 03:00:00 | 3 |
| 18 | OEC-CSE-D302 | Internet-of-Things | 03:00:00 | 3 |
| 19 | OEC-CSE-D303 | Cloud Computing | 03:00:00 | 3 |
| 20 | OEC-CSE-D304 | Soft Computing | 03:00:00 | 3 |
| 21 | OEC-CSE-D305 | Cyber Law and Ethics | 03:00:00 | 3 |
| 22 | OEC-CSE-D306 | Data Mining Concepts and Techniques | 03:00:00 | 3 |
| 23 | OEC-CSE-D307 | Data Analytics | 03:00:00 | 3 |
| 24 | OEC-CSE-D308 | Introduction to Multimedia | 03:00:00 | 3 |
| 25 | OEC-CSE-D309 | Introduction to Multimedia Lab | 00:00:02 | 1 |
| 26 | OEC-CSE-D310 | Web App Development | 03:00:00 | 3 |
| 27 | OEC-CSE-D311 | Web App Development Lab | 00:00:02 | 1 |
| 28 | OEC-CSE-D312 | Mobile Computing | 03:00:00 | 3 |
| 29 | OEC-CSE-D313 | Mobile Computing Lab | 00:00:02 | 1 |
| 30 | OEC-CSE-D314 | Cryptography & Network Security | 03:00:00 | 3 |
| 31 | OEC-CSE-D315 | Cryptography & Network Security Lab | 00:00:02 | 1 |
| 32 | OEC-CSE-D316 | Image Processing | 03:00:00 | 3 |
| 33 | OEC-CSE-D317 | Image Processing Lab | 00:00:02 | 1 |

Project

Branch: Electronics & Communication Engineering (Diploma)

| Sl. No. | Course Code | Course Title | Hrs. /Week L: T: P | Credits | Preferred Semester |
|-----------------------|-------------|------------------|-----------------------|----------|--------------------|
| 1 | ECE-DP1 | Project Stage-I | 00:00:04 | 2 | V |
| 2 | ECE-DP2 | Project Stage-II | 00:00:12 | 6 | VI |
| Total Credits: | | | | 8 | |

COURSE STRUCTURE

SEMESTER I (FIRST YEAR)

Branch: Electronics & Communication Engineering (Diploma)

| Sl. No. | Category | Course Code | Course Title | Hours | | | Credit | Marks | | |
|---------------------------------|---|-------------|------------------------------|-------|---|---|-----------|------------|------------|------------|
| | | | | L | T | P | | IA | ESE | Total |
| Theory | | | | | | | | | | |
| 1 | Basic Science Course | BSC-D103 | Basic Physics | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 2 | Basic Science Course | BSC-D101 | Basic Chemistry | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 3 | Basic Science Course | BSC-D105 | Basic Mathematics | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 4 | Humanities and Social Sciences including Management Courses | HSMC-D101 | Technical English | 3 | 0 | 0 | 3 | 30 | 70 | 100 |
| 5 | Engineering Science Course | ESC-D101 | Fundamentals of Computer | 3 | 0 | 0 | 3 | 30 | 70 | 100 |
| Total(A) | | | | | | | 18 | 150 | 350 | 500 |
| Practical/Drawing/Design | | | | | | | | | | |
| 1 | Engineering Science Course | ESC-D106-P1 | Engineering Graphics-I | 1 | 0 | 2 | 2 | 30 | 20 | 50 |
| 2 | Basic Science Course | BSC-D102 | Basic Chemistry Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 3 | Basic Science Course | BSC-D104 | Basic Physics Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 4 | Engineering Science Course | ESC-D102 | Fundamentals of Computer Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 5 | Engineering Science Course | ESC-D103-P1 | Workshop Practice-I | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 6 | Extra Co-Curricular Activities Courses | ECCA-D101 | PT and Games/NSS/NCC/CA | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| Total(B) | | | | | | | 7 | 180 | 120 | 300 |
| Grand Total (A+B) | | | | | | | 25 | 330 | 470 | 800 |

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER II (FIRST YEAR)

Branch: Electronics & Communication Engineering (Diploma)

| Sl. No. | Category | Course Code | Course Title | Hours | | | Credit | Marks | | |
|--|---|-------------|--|-------|---|---|-----------|------------|------------|------------|
| | | | | L | T | P | | IA | ESE | Total |
| Theory | | | | | | | | | | |
| 1 | Humanities and Social Sciences including Management Courses | HSMC-D102 | Communication Skills | 2 | 0 | 0 | 2 | 30 | 70 | 100 |
| 2 | Basic Science Course | BSC-D099 | Applied Science | 4 | 0 | 0 | 4 | 30 | 70 | 100 |
| 3 | Basic Science Course | BSC-D106 | Engineering Mathematics | 4 | 1 | 0 | 5 | 30 | 70 | 100 |
| 4 | Engineering Science Course | ESC-D104 | Fundamentals of Electrical and Electronics | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| Total(A) | | | | | | | 15 | 120 | 280 | 400 |
| Practical/Drawing/Design | | | | | | | | | | |
| 1 | Basic Science Course | BSC-D100 | Applied Science Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 2 | Engineering Science Course | ESC-D105 | Fundamentals of Electrical and Electronics Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 3 | Engineering Science Course | ESC-D103-P2 | Workshop Practice-II | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 4 | Engineering Science Course | ESC-D106-P2 | Engineering Graphics-II | 1 | 0 | 2 | 2 | 30 | 20 | 50 |
| 5 | Humanities and Social Sciences including Management Courses | HSMC-D103 | Life Skills & Professional Practices-I | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 6 | Extra Co-Curricular Activities Courses | ECCA-D102 | PT and Games/NSS/NCC/CA | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| Total(B) | | | | | | | 7 | 180 | 120 | 300 |
| Grand Total (A+B) | | | | | | | 22 | 300 | 400 | 700 |
| <p>L-Lecture, T-Tutorial, P-Practical IA- Internal Assessment, ESE-End Semester Examination</p> | | | | | | | | | | |

COURSE STRUCTURE

SEMESTER III (2nd YEAR)

Branch: Electronics & Communication Engineering (Diploma)

| Sl. No. | Category | Course Code | Course Title | Hours | | | Credit | Marks | | |
|---------------------------------|---|--------------|---------------------------------------|-------|---|---|-----------|------------|------------|------------|
| | | | | L | T | P | | IA | ESE | Total |
| Theory | | | | | | | | | | |
| 1 | Basic Science Course | BSC-D107 | Applied Mathematics | 4 | 1 | 0 | 5 | 30 | 70 | 100 |
| 2 | Professional Core Courses | PCC-ECE-D201 | Basic Electronics | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 3 | Professional Core Courses | PCC-ECE-D203 | Network Theory | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 4 | Professional Core Courses | PCC-ECE-D205 | Signal & System | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 5 | Mandatory Courses | MC-D102 | Environmental Science | 2 | 0 | 0 | 2 | 30 | 70 | 100 |
| 6 | Mandatory Courses | MC-D103 | Values & Ethics | 2 | 0 | 0 | 2 | 30 | 70 | 100 |
| 7 | Humanities and Social Sciences including Management Courses | | Foreign Languages-I | 2 | 0 | 0 | 2 | 30 | 70 | 100 |
| Total(A) | | | | | | | 23 | 210 | 490 | 700 |
| Practical/Drawing/Design | | | | | | | | | | |
| 1 | Professional Core Courses | PCC-ECE-D204 | Network Theory Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 2 | Professional Core Courses | PCC-ECE-D202 | Basic Electronics Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 3 | Humanities and Social Sciences including Management Courses | HSMC-D104 | Life skill & Professional Practice-II | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| Total(B) | | | | | | | 3 | 90 | 60 | 150 |
| Grand Total (A+B) | | | | | | | 26 | 300 | 550 | 850 |

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER IV (2nd YEAR)

Branch: Electronics & Communication Engineering (Diploma)

| Sl. No. | Category | Course Code | Course Title | Hours | | | Credit | Marks | | |
|---------------------------------|---|--------------|------------------------------------|-------|---|---|-----------|------------|------------|------------|
| | | | | L | T | P | | IA | ESE | Total |
| Theory | | | | | | | | | | |
| 1 | Professional Core Courses | PCC-ECE-D206 | Digital Electronics | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 2 | Professional Core Courses | PCC-ECE-D208 | Analog Electronics | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 3 | Professional Core Courses | PCC-ECE-D210 | Analog & Digital Communication | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 4 | Professional Core Courses | PCC-ECE-D212 | Control System | 4 | 0 | 0 | 4 | 30 | 70 | 100 |
| 5 | Professional Core Courses | PCC-ECE-D213 | Electromagnetic Wave | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 6 | Humanities and Social Sciences including Management Courses | | Foreign Languages-II | 2 | 0 | 0 | 2 | 30 | 70 | 100 |
| Total(A) | | | | | | | 22 | 180 | 420 | 600 |
| Practical/Drawing/Design | | | | | | | | | | |
| 1 | Professional Core Courses | PCC-ECE-D207 | Digital Electronics | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 2 | Professional Core Courses | PCC-ECE-D209 | Analog Electronics Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 3 | Professional Core Courses | PCC-ECE-D211 | Analog & Digital Communication Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| Total(B) | | | | | | | 3 | 90 | 60 | 150 |
| Grand Total (A+B) | | | | | | | 25 | 270 | 480 | 750 |

L-Lecture, T-Tutorial, P-Practical

IA- Internal Assessment, ESE-End Semester Examination

COURSE STRUCTURE

SEMESTER V (3rd YEAR)

Branch: Electronics & Communication Engineering (Diploma)

| Sl. No. | Category | Course Code | Course Title | Hours | | | Credit | Marks | | |
|--|------------------------------|--------------|--|-------|---|---|-----------|------------|------------|------------|
| | | | | L | T | P | | IA | ESE | Total |
| Theory | | | | | | | | | | |
| 1 | Professional Elective Course | | Professional Elective Course-I | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 2 | Professional Core Courses | PCC-ECE-D303 | Digital System Design | 4 | 0 | 0 | 4 | 30 | 70 | 100 |
| 3 | Professional Elective Course | | Professional Elective Course-II | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 4 | Professional Core Courses | PCC-ECE-D301 | Microprocessors and Microcontroller | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| 5 | Professional Elective Course | | Professional Elective Course-III | 3 | 1 | 0 | 4 | 30 | 70 | 100 |
| Total(A) | | | | | | | 20 | 150 | 350 | 500 |
| Practical/Drawing/Design | | | | | | | | | | |
| 1 | Professional Elective Course | PCC-ECE-D302 | Microprocessors and Microcontroller Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 2 | Professional Core Courses | PCC-ECE-D304 | Digital System Design Lab | 0 | 0 | 2 | 1 | 30 | 20 | 50 |
| 3 | Project Stage-I | ECE-DP1 | Mini Project/ Electronic Design Workshop | 0 | 0 | 4 | 2 | 75 | 25 | 100 |
| Total(B) | | | | | | | 4 | 135 | 65 | 200 |
| Grand Total (A+B) | | | | | | | 24 | 285 | 415 | 700 |
| <p>L-Lecture, T-Tutorial, P-Practical</p> <p>IA- Internal Assessment, ESE-End Semester Examination</p> | | | | | | | | | | |

COURSE STRUCTURE

SEMESTER VI (3rd YEAR)

Branch: Electronics & Communication Engineering (Diploma)

| Sl. No. | Category | Course Code | Course Title | Hours | | | Credit | Marks | | |
|--|---|--------------|---------------------------------|-------|---|----|-----------|------------|------------|------------|
| | | | | L | T | P | | IA | ESE | Total |
| Theory | | | | | | | | | | |
| 1 | Professional Elective Course | | Professional Elective Course-IV | 4 | 0 | 0 | 4 | 30 | 70 | 100 |
| 2 | Professional Core Courses | PCC-ECE-D306 | Embedded systems | 4 | 0 | 0 | 4 | 30 | 70 | 100 |
| 3 | Professional Core Courses | PCC-ECE-D305 | Antenna & Propagation | 4 | 0 | 0 | 4 | 30 | 70 | 100 |
| 4 | Open Elective Course | | Open Elective Course-I | 4 | 0 | 0 | 4 | 30 | 70 | 100 |
| 5 | Humanities and Social Sciences including Management Courses | HSMC-D107 | Organisational Behaviour | 2 | 0 | 0 | 2 | 30 | 70 | 100 |
| Total(A) | | | | | | | 18 | 150 | 350 | 500 |
| Practical/Drawing/Design | | | | | | | | | | |
| 1 | Project Stage-II | ECE-DP2 | Project Work & Dissertation | 0 | 0 | 12 | 6 | 150 | 50 | 200 |
| Total(B) | | | | | | | 6 | 150 | 50 | 200 |
| Grand Total (A+B) | | | | | | | 24 | 300 | 400 | 700 |
| <p>L-Lecture, T-Tutorial, P-Practical IA- Internal Assessment, ESE-End Semester Examination</p> | | | | | | | | | | |