

Bachelor of Engineering [Telecommunication and Networking]

SEMESTER WISE UNITS FOR B.E IN TELECOMMUNICATION AND NETWORKING

| Year 1 (Common to all Engineering Discipline) | | | | | | | |
|---|---|------|-----------|-----------------|--|------|-----------|
| SEMESTER 1 | | | | SEMESTER 2 | | | |
| Unit Code | Unit Name | Exam | CP | Unit Code | Unit Name | Exam | CP |
| LNG501 | English for Academic Studies | Y | 12 | BEN506 | Introduction to Electrical and Electronics Engineering | Y | 12 |
| BEN502 | Engineering Computation 1 | Y | 12 | BEN507 | Introduction to Computer Programming | Y | 12 |
| BEN503 | Engineering Physics | Y | 12 | BEN508 | Engineering Mechanics | Y | 12 |
| BEN504 | Engineering Graphics | Y | 12 | BEN509 | Workshop Practice | N | 12 |
| BEN505 | Material Science | Y | 12 | BEN601 | Engineering Computation 2 | Y | 12 |
| Total CP | | | 60 | Total CP | | | 60 |
| Year 2(only common to SEEE Bachelor program) | | | | | | | |
| SEMESTER 1 | | | | SEMESTER 2 | | | |
| Unit Code | Unit Name | Exam | CP | Unit Code | Unit Name | Exam | CP |
| EEE601 | Engineering Planning | Y | 12 | EEE600 | Design Project | N | 12 |
| EEE627 | Logic Design | Y | 12 | EEE610 | Electrical Engineering Modeling | Y | 12 |
| EEE662 | Engineering Software | Y | 12 | EEE618 | Mechatronics | Y | 12 |
| EEE681 | Electro Technology | Y | 12 | EEE661 | Introduction to C++ Programming | Y | 12 |
| EEE694 | Engineering Mathematics 3 | Y | 12 | EEE695 | Engineering Mathematics 4 | Y | 12 |
| Total CP | | | 60 | Total CP | | | 60 |
| Year 3 | | | | | | | |
| SEMESTER 1 | | | | SEMESTER 2 | | | |
| Unit Code | Unit Name | Exam | CP | Unit Code | Unit Name | Exam | CP |
| EEE701 | Fields & Waves | Y | 12 | EEE706 | Engineering & Society | Y | 9 |
| EEE743 | Control Systems Engineering | Y | 12 | EEE707 | Project or Internship in the industry | N | 42 |
| EEE747 | Radio Frequency(RF) Principle | Y | 12 | EEE745 | Introduction to Computer Networking | Y | 9 |
| EEE748 | Telecommunication System | Y | 12 | | | | |
| EEE750 | Digital Communication | Y | 12 | | | | |
| Total CP | | | 60 | Total CP | | | 60 |
| Year 4 | | | | | | | |
| SEMESTER 1 | | | | SEMESTER 2 | | | |
| Unit Code | Unit Name | Exam | CP | Unit Code | Unit Name | Exam | CP |
| EEE785 | Project 1 | N | 24 | EEE786 | Project 2 | N | 24 |
| EEE787 | Fundamentals of Digital Signal Processing | Y | 12 | EEE790 | Innovation Management and New Product Development | N | 18 |
| EEE792 | Antennas & Propagation | Y | 12 | EEE794 | Mobile and Personal Communication System | Y | 18 |
| EEE793 | Communication Theory | Y | 12 | | | | |
| Total CP | | | 60 | Total CP | | | 60 |

3.1 UNIT DETAILS AND PRE-REQUISITE

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| Unit No. | Unit Code | Name of the unit | Level | Pre-requisite (Pass in the following units is required) | Class Room Contact Hours | Self-directed Learning Hours | Credits |
|----------|-----------|--|-------|---|--------------------------|------------------------------|---------|
| 1 | LNG501 | English for Academic Studies | 5 | Form 7 | 84 | 96 | 12 |
| 2 | BEN502 | Engineering Computation 1 | 5 | Form 7 | 84 | 96 | 12 |
| 3 | BEN503 | Engineering Physics | 5 | Form 7 | 84 | 96 | 12 |
| 4 | BEN504 | Engineering Graphics | 5 | Form 7 | 84 | 96 | 12 |
| 5 | BEN505 | Materials Science | 5 | Form 7 | 84 | 96 | 12 |
| 6 | BEN506 | Introduction to Electrical and Electronics Engineering | 5 | BEN503 | 84 | 96 | 12 |
| 7 | BEN507 | Introduction to Computer Programming | 5 | BEN502 | 84 | 96 | 12 |
| 8 | BEN508 | Engineering Mechanics | 5 | BEN503 | 84 | 96 | 12 |
| 9 | BEN509 | Workshop Practice | 5 | BEN505 | 84 | 96 | 12 |
| 10 | BEN601 | Engineering Computation2 | 6 | BEN502 | 84 | 96 | 12 |
| 11 | EEE601 | Engineering Planning | 6 | BEN601 | 84 | 96 | 12 |
| 12 | EEE627 | Logic Design | 6 | BEN506 | 84 | 96 | 12 |
| 13 | EEE662 | Engineering Software | 6 | BEN507 | 84 | 96 | 12 |
| 14 | EEE681 | Electro-Technology | 6 | BEN506 | 84 | 96 | 12 |
| 15 | EEE694 | Engineering Mathematics 3 | 6 | BEN601 | 84 | 96 | 12 |
| 16 | EEE600 | Design Project | 6 | BEN509 | 84 | 96 | 12 |
| 17 | EEE610 | Electrical Engineering Modeling | 6 | EEE681, BEN601 | 84 | 96 | 12 |
| 18 | EEE618 | Mechatronics | 6 | BEN508, EEE681 | 84 | 96 | 12 |
| 19 | EEE661 | Introduction to C++ Programming | 6 | BEN507 | 84 | 96 | 12 |
| 20 | EEE695 | Engineering Mathematics 4 | 6 | EEE694 | 84 | 96 | 12 |
| 21 | EEE701 | Fields & Waves | 7 | BEN506, EEE681 | 84 | 96 | 12 |
| 22 | EEE743 | Control Systems Engineering | 7 | EEE694, EEE610 | 84 | 96 | 12 |
| 23 | EEE747 | Radio Frequency (RF) Principles | 7 | BEN506, EEE610 | 84 | 96 | 12 |
| 24 | EEE748 | Telecommunication System | 7 | BEN506, EEE695 | 84 | 96 | 12 |
| 25 | EEE750 | Digital Communication | 7 | BEN506, EEE627 | 84 | 96 | 12 |
| 26 | EEE706 | Engineering and Society | 7 | EEE601 | 56 | 79 | 9 |
| 27 | EEE707 | Project or Internship in Industry | 7 | BEN509, EEE600 | 84 | 546 | 42 |
| 28 | EEE745 | Introduction to Computer Networking | 7 | EEE661, EEE662 | 56 | 79 | 9 |
| 29 | EEE785 | Project 1 | 7 | EEE707 | 84 | 276 | 24 |
| 30 | EEE787 | Fundamentals of Digital Signal Processing | 7 | EEE701, EEE747 | 84 | 96 | 12 |
| 31 | EEE792 | Antennas and Propagation | 7 | EEE701, EEE695 | 84 | 96 | 12 |
| 32 | EEE793 | Communication Theory | 7 | EEE748, EEE750 | 84 | 96 | 12 |
| 33 | EEE786 | Project 2 | 7 | EEE785 | 84 | 276 | 24 |
| 34 | EEE790 | Innovation Management and New Product Development | 7 | EEE707 | 84 | 180 | 18 |
| 35 | EEE794 | Mobile and Personal Communication System | 7 | EEE748, EEE793 | 84 | 180 | 18 |

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3.2 DELIVERY MODES

3.2.1 Normal Full Time Attendance

For full time students, the normal pattern of attendance allows the programme to be completed over eight semesters. Students may obtain extra work experience between the semesters.

The normal unit allocation for each semester and the order of delivery will be as follows:-

YEAR-1

SEMESTER 1

| UNIT CODE | UNIT NAME | CREDIT POINT |
|-----------|------------------------------|-------------------|
| LNG501 | ENGLISH FOR ACADEMIC STUDIES | 12 credits |
| BEN502 | ENGINEERING COMPUTATION 1 | 12 credits |
| BEN503 | ENGINEERING PHYSICS | 12 credits |
| BEN504 | ENGINEERING GRAPHICS | 12 credits |
| BEN505 | MATERIAL SCIENCE | 12 credits |
| | | 60 Credits |

SEMESTER 2

| UNIT CODE | UNIT NAME | CREDIT POINT |
|-----------|--|-------------------|
| BEN506 | INTRODUCTION TO ELECTRICAL AND ELECTRONICS ENGINEERING | 12 credits |
| BEN507 | INTRODUCTION TO COMPUTER PROGRAMMING | 12 credits |
| BEN508 | ENGINEERING MECHANICS | 12 credits |
| BEN509 | WORKSHOP PRACTICE | 12 credits |
| BEN601 | ENGINEERING COMPUTATION 2 | 12 credits |
| | | 60 Credits |

YEAR 2

SEMESTER 1

| UNIT CODE | UNIT NAME | CREDIT POINT |
|-----------|--------------------------|-------------------|
| EEE601 | ENGINEERING PLANNING | 12 credits |
| EEE627 | LOGIC DESIGN | 12 credits |
| EEE662 | ENGINEERING SOFTWARE | 12 credits |
| EEE681 | ELECTRO-TECHNOLOGY | 12 credits |
| EEE694 | ENGINEERING MATHEMATIC 3 | 12 credits |
| | | 60 Credits |

SEMESTER 2

| UNIT CODE | UNIT NAME | CREDIT POINT |
|-----------|-----------|--------------|
|-----------|-----------|--------------|

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| | | |
|--------|---------------------------------|-------------------|
| EEE600 | DESIGN PROJECT | 12 credits |
| EEE610 | ELECTRICAL ENGINEERING MODELING | 12 credits |
| EEE618 | MECHATRONICS | 12 credits |
| EEE661 | INTRODUCTION To C++ PROGRAMMING | 12 credits |
| EEE695 | ENGINEERING MATHEMATIC 4 | 12 credits |
| | | 60 Credits |

YEAR 3

SEMESTER 1

| UNIT CODE | UNIT NAME | CREDIT POINT |
|-----------|---------------------------------|-------------------|
| EEE701 | FIELD AND WAVES | 12 credits |
| EEE743 | CONTROL SYSTEMS ENGINEERING | 12 credits |
| EEE747 | RADIO FREQUENCY (RF) PRINCIPLES | 12 credits |
| EEE748 | TELECOMMUNICATION SYSTEM | 12 credits |
| EEE750 | DIGITAL COMMUNICATION | 12 credits |
| | | 60 Credits |

SEMESTER 2

| UNIT CODE | UNIT NAME | CREDIT POINT |
|-----------|---|-------------------|
| EEE706 | ENIGINEERING & SOCIETY | 9 credits |
| EEE707 | PROJECT (or) INTERNSHIPIN THE INDUSTRY | 42 credits |
| EEE745 | INTRODUCTION TO COMPUTER NETWORKING | 9 credits |
| | | 60 Credits |

YEAR 4

SEMESTER 1

| UNIT CODE | UNIT NAME | CREDIT POINT |
|-----------|---|-------------------|
| EEE785 | PROJECT 1 | 24 credits |
| EEE787 | FUNDAMENTALS OF DIGITAL SIGNAL PROCESSING | 12 credits |
| EEE792 | ANTENNAS AND PROPAGATION | 12 credits |
| EEE793 | COMMUNICATION THEORY | 12 credits |
| | | 60 Credits |

SEMESTER 2

| UNIT CODE | UNIT NAME | CREDIT POINT |
|-----------|---|-------------------|
| EEE786 | PROJECT 2 | 24 credits |
| EEE790 | INNOVATION MANAGEMENT AND NEW PRODUCT DEVELOPMENT | 18 credits |
| EEE794 | MOBILE AND PERSONAL COMMUNICATION SYSTEM | 18 credits |
| | | 60 Credits |