

**Bachelor of Engineering [Electrical Engineering]**

## SEMESTER WISE UNITS FOR B.E IN ELECTRICAL ENGINEERING

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 & 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
<b>Total CP</b>			<b>60</b>	<b>Total CP</b>			<b>60</b>
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
<b>Total CP</b>			<b>60</b>	<b>Total CP</b>			<b>60</b>
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 and Society	Y	9
EEE742	Electrical Machines	Y	12	EEE707	Project ( or Internship in the industry)	N	42
EEE743	Control Systems Engineering	Y	12	EEE766	Microcontroller Based System Design	Y	9
EEE744	Power Generation	Y	12				
EEE761	Programmable Logic Controller (PLC) & SCADA Systems	Y	12				
<b>Total CP</b>			<b>60</b>	<b>Total CP</b>			<b>60</b>
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
EEE788	Power Transmission and Distribution	Y	12	EEE791	Renewable Energy and New Technologies	Y	18
EEE789	Power Utilization and Services	Y	12				
<b>Total CP</b>			<b>60</b>	<b>Total CP</b>			<b>60</b>

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**3.1 UNIT DETAILS AND PRE-REQUISITE**

Unit No.	Unit Code	Name of the unit	Level	Pre-requisite (Pass is required in the units mentioned below)	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	BEN601, EEE681	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	EEE761	Programmable Logic Controller (PLC) and SCADA Systems	7	EEE667, EEE681	84	96	12
24	EEE742	Electrical Machines	7	EEE681	84	96	12
25	EEE744	Power Generation	7	BEN506, EEE681	84	96	12
26	EEE706	Engineering and Society	7	EEE601	84	56	9
27	EEE707	Project or Internship in Industry	7	BEN509, EEE600	84	546	42
28	EEE766	Microcontroller Based System Design	7	EEE627, EEE667	84	56	9
29	EEE785	Project 1	7	EEE707	84	276	24
30	EEE787	Fundamentals of Digital Signal Processing	7	EEE701	84	96	12
31	EEE788	Power Transmission and Distribution	7	EEE744	84	96	12
32	EEE789	Power Utilization and Services	7	EEE707, EEE744	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	EEE791	Renewable Energy and New Technologies	7	EEE744	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 (8) 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
		<b>60 Credits</b>

#### **SEMESTER 2**

UNIT CODE	UNIT NAME	CREDIT POINT
BEN506	INTRODUCTION TO. ELECTRICAL & ELECTRONIC 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
		<b>60 Credits</b>

**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
		<b>60 Credits</b>

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**SEMESTER 2**

UNIT CODE	UNIT NAME	CREDIT POINT
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
		<b>60 Credits</b>

**YEAR 3**

**SEMESTER 1**

UNIT CODE	UNIT NAME	CREDIT POINT
EEE701	FIELD AND WAVES	12 credits
EEE742	ELECTRICAL MACHINES	12 credits
EEE743	CONTROL SYSTEMS ENGINEERING	12 credits
EEE744	POWER GENERATION	12 credits
EEE761	PROGRAMMABLE LOGIC CONTROLLER (PLC) AND SCADA SYSTEMS	12 credits
		<b>60 Credits</b>

**SEMESTER 2**

UNIT CODE	UNIT NAME	CREDIT POINT
EEE706	ENIGINEERING AND SOCIETY	9 credits
EEE707	PROJECT (or ) INTERNSHIP IN THE INDUSTRY	42 credits
EEE766	MICROCONTROLLER BASED SYSTEM DESIGN	9 credits
		<b>60 Credits</b>

**YEAR 4**

**SEMESTER 1**

UNIT CODE	UNIT NAME	CREDIT POINT
EEE785	PROJECT 1	24 credits
EEE787	FUNDAMENTALS OF DIGITAL SIGNAL PROCESSING	12 credits
EEE788	POWER TRASMISSION AND DISTRIBUTION	12 credits
EEE789	POWER UTILISATION AND SERVICES	12 credits
		<b>60 Credits</b>

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**SEMESTER 2**

UNIT CODE	UNIT NAME	CREDIT POINT
EEE786	PROJECT 2	24 credits
EEE790	INNOVATION MANAGEMENT AND NEW PRODUCT DEVELOPMENT	18 credits
EEE791	RENEWABLE ENERGY AND NEW TECHNOLOGIES	18 credits
		<b>60 Credits</b>