

# St. Peter's University

Chennai – 600 054.

## M.E. (APPLIED ELECTRONICS) PROGRAMME

### **Regulations and Syllabi**

(Effective from 2008 – 2009)

- 1. Eligibility:** Candidates who passed B.E / B.Tech. (EEE / ECE / Electronics / EIE / ICE / Instrumentation / Biomedical / Biomedical Instrumentation) of the University or any other equivalent examination thereto are eligible for admission to Two Year M.E. (Applied Electronics) Programme.
- 2. Duration:** Two Years Comprising 4 Semesters. Each semester has a minimum 90 working days with a minimum of 5 hours a day.
- 3. Medium:** English is the medium of instruction and examination.
- 4. Weightage for Continuous and End Assessment:** The weightage for Continuous Assessment (CA) and End Assessment (EA) be 25:75 unless the ratio is specifically mentioned in the scheme of Examinations.
- 5. Credit System:** Credit system be followed with 18 credits for each semester and each credit is equivalent to 25-30 hours of effective study provided in the Time Table.

## 6. Scheme of Examinations (for I to IV Semesters)

### I Semester

| COURSE CODE      | COURSE TITLE                                   | CREDIT    | MARKS      |            |            |
|------------------|--|-----------|------------|------------|------------|
|                  |  |           | CA         | EA         | TOTAL      |
| <b>THEORY</b>    |  |           |            |            |            |
| 108AEPT01        | Applied Mathematics                            | 2         | 25         | 75         | 100        |
| 108AEPT02        | Computer architecture and Parallel Processing  | 3         | 25         | 75         | 100        |
| 108AEPT03        | Advanced Digital Signal Processing             | 3         | 25         | 75         | 100        |
| 108AEPT04        | VLSI Design                                    | 2         | 25         | 75         | 100        |
| 108AEPT05        | Computer Communication and Networking          | 3         | 25         | 75         | 100        |
| 108AEPT06        | Advanced Micro Processors and Microcontrollers | 3         | 25         | 75         | 100        |
| <b>PRACTICAL</b> |  |           |            |            |            |
| 108AEPP07        | Applied Electronics Lab - I                    | 2         | 25         | 75         | 100        |
| <b>TOTAL</b>     |  | <b>18</b> | <b>175</b> | <b>525</b> | <b>700</b> |

### II Semester

| COURSE CODE      | COURSE TITLE                                      | CREDIT    | MARKS      |            |            |
|------------------|---|-----------|------------|------------|------------|
|                  |   |           | CA         | EA         | TOTAL      |
| <b>THEORY</b>    |   |           |            |            |            |
| 208AEPT01        | Analysis and Design of Analog Integrated Circuits | 3         | 25         | 75         | 100        |
| 208AEPT02        | Advanced Digital System Design                    | 3         | 25         | 75         | 100        |
| 208AEPT03        | Digital Control Engineering                       | 2         | 25         | 75         | 100        |
| 208AEPT04        | Embedded Systems                                  | 2         | 25         | 75         | 100        |
| 208AEPT05        | High Performance Communication Networks           | 3         | 25         | 75         | 100        |
| 208AEPT06        | Digital Image Processing                          | 3         | 25         | 75         | 100        |
| <b>PRACTICAL</b> |   |           |            |            |            |
| 208AEPP07        | Electronic Design Lab II                          | 2         | 25         | 75         | 100        |
| <b>TOTAL</b>     |   | <b>18</b> | <b>175</b> | <b>525</b> | <b>700</b> |

### III Semester

| COURSE CODE   | COURSE TITLE  | CREDIT    | MARKS      |            |            |
|---------------|---|-----------|------------|------------|------------|
|               |   |           | CA         | EA         | TOTAL      |
| <b>THEORY</b> |   |           |            |            |            |
| 308AEPT01     | Electromagnetic Interference and Compatibility in System Design | 2         | 25         | 75         | 100        |
| 308AEPT02     | Wireless Networks   | 2         | 25         | 75         | 100        |
| 308AEPT03     | Neutral Networks and its Applications                           | 2         | 25         | 75         | 100        |
| 308AEPP01     | Project Work - Phase - I  | 12        | 50         | 150        | 200        |
| <b>TOTAL</b>  |   | <b>18</b> | <b>125</b> | <b>375</b> | <b>500</b> |

### IV Semester

| COURSE CODE    | COURSE TITLE              | CREDIT    | MARKS      |            |              |
|----------------|---------------------------|-----------|------------|------------|--------------|
| <b>PROJECT</b> |                           |           | <b>CA</b>  | <b>EA</b>  | <b>TOTAL</b> |
| 408AEPP01      | Project Work (Phase – II) | 18        | 100        | 300        | 400          |
| <b>TOTAL</b>   |                           | <b>18</b> | <b>100</b> | <b>300</b> | <b>400</b>   |

**7. Passing Requirements:** The minimum pass mark (raw score) be 50% in End Assessment (EA) and 50% in Continuous Assessment (CA) and End Assessment (EA) put together. No minimum mark (raw score) in Continuous Assessment (CA) be prescribed unless it specifically mentioned in the scheme of Examination.

**8. Grading System:** Grading System on a 10 Point Scale be followed with 1 mark = 0.1 Grade point to successful candidates as given below.

$$(a) \quad \text{Overall weighted Average Marks} = \frac{\text{Sum of Weighted Marks}}{\text{Total Credits}}$$

$$= \frac{\sum (CA+EA)C}{\sum C}$$

Where Weighted Marks in each course = Total Marks (CA and EA) multiplied by number of Credit

$$= (CA+EA)C$$

$$(b) \quad \text{Overall Grade Point Average (OGPA)} = \frac{\text{Sum of Weighted Grade Points}}{\text{Total Credits}}$$

$$= \frac{\sum (CA+EA)C}{\sum C}$$

Where Weighted Grade Points in each course = Grade Points (CA and EA) multiplied by Credits

$$= (CA+EA)C$$

**The Overall Grade:** The Overall Grade and Classification of all successful candidates be arrived at from the Overall Grade Point Average as stipulated in the following conversion Table.

(1 mark = 0.1 Grade Point on a 10 Point Scale)

| <b>Grade</b> | <b>Over all Grade Point Average(OGPA)</b> | <b>Over all weighted Average marks</b> | <b>Classification</b> |
|--------------|---|--|-----------------------|
| 0            | 9.00 to 10.00                             | 90.00 to 100                           | First Class           |
| A            | 8.00 to 8.99                              | 80.00 to 89.99                         | First Class           |
| B            | 7.00 to 7.99                              | 70.00 to 79.99                         | First Class           |
| C            | 6.00 to 6.99                              | 60.00 to 69.99                         | First Class           |
| D            | 5.00 to 5.99                              | 50.00 to 59.99                         | Second Class          |
| <b>F</b>     | 0.00 to 4.99                              | 0.00 to 49.99                          | <b>Fail</b>           |

The Grade Sheets of successful candidates provide particulars such as (1) Overall weighted Average Marks, (2) Overall Grade Point Average, (3) Overall Grade and (4) Overall classification.

**9. Pattern of the Question Paper:** The question paper for End Assessment will be set for three hours and for the maximum of 100 marks with following divisions and details.

**Part A:** 10 questions (with equal distribution to all units in the syllabus). Each question carries 2 marks.

**Part B:** 5 question with either or type (with equal distribution to all units in the syllabus). Each question carries 16 marks.

The total marks scored by the candidates will be reduced to the maximum prescribed in the Regulations.

## **10. Syllabus**

**Registrar**