

**Doctor of Philosophy**  
in  
**Electronics and Communication Engineering**

**Regulations, Curriculum and Syllabus**  
(with effect from the academic year 2014 - 15)



**DEPARTMENT OF ELECTRONICS ENGINEERING**  
**SCHOOL OF ENGINEERING AND TECHNOLOGY**  
**PONDICHERY UNIVERSITY (A Central University)**  
PUDUCHERRY - 605 014, INDIA  
[www.pondiuni.edu.in/department/departement-electronics-engineering](http://www.pondiuni.edu.in/department/departement-electronics-engineering)

## Ph.D Programme in Electronics and Communication Engineering

The Department of Electronics Engineering under the School of Engineering and Technology, Pondicherry University, Pondicherry has acquired permission to conduct research activity in the academic year 2011-2012 for offering Doctor of Philosophy (Ph.D) programme in Electronics Engineering.

### Regulations of the Programme

Besides the regulations specified by Pondicherry University in respect of doctoral level degree admission, evaluation and awarding the degree, the following norms are applicable:

- Nature of Programme** : Full time and Part Time (Internal/External)
- Eligibility Criteria** : In addition to University regulations in respect of passing marks at postgraduate level and other criteria, candidates holding any one of the following degrees alone shall be considered for this Ph.D Programme; M.E/M.Tech in Electronics Engineering / Applied Electronics/ECE/Telecommunication Engg. / VLSI Design /Microwaves/ Embedded Systems / Wireless communication or equivalent.
- Admission Criteria** : The candidate will be selected for this programme as per the admission norms of Pondicherry University.
- Intake** : will be intimated in the University prospectus every year.
- Teaching and Learning Methods** : The student has to undergo course work, public synopsis, thesis submission and Ph.D viva voce examination.
- Assessment Methods** : Course work assessment will be done as per Choice Based Credit System (CBCS) through sessions (Class tests, assignments) or by continuous assessment (by concern supervisor/ concern course teacher) and end semester examinations. The end semester question paper will be set by concerned supervisor / course teacher. Minimum number of credits to be acquired for completion of the course work is 10 credits. The confirmation of the provisional registration of the candidate will be ensured only after the successful completion of the course work and the comprehensive performance of the candidate in the associated DC meeting. Once in six months DC meeting will be conducted to review the progress of the research work by the candidate. The public synopsis presentation will be convened after confirming the satisfied performance of the candidate with respect to his/her research objective. Subsequently, thesis will be submitted to the University for evaluation by the list of examiners. Based on the report obtained from the examiners and the successful completion of defence by the candidate in the public viva-voce examination, the degree will be recommended to award by the panel.

## Curriculum for Ph.D Electronics and Communication Engineering

Course work : I year

S. No.	Course Code	Course Title	H/S	L-T-P	Credits
1.	EENG 710	Research Methodology and Computational Tools	H	3-1-0	4
2.	EENG 711	Research Paper – I*	S	3-0-0	3
3.	EENG 712	Research Paper – II*	S	3-0-0	3
<b>Minimum number of credits to be acquired for the completion of course work</b>					<b>10</b>

\* These papers will be approved by the Doctoral Committee members for the syllabi framed pertaining to the candidate's research area.

Course Code	Name of the Course	Periods			Credits	Total Hours
			T	P		
EENG 710	Research Methodology and Computational Tools		1	0	4	60
		3				

**Unit I: Research Methodology**

**12 Hours**

Meaning of research, Objective of Research, Motivation of Research, Types of Research, Research Approaches, Significance of Research, Research Methods versus Methodology, Research Process, Criteria of Good Research; Defining Research Problem, Necessity of defining the Problem, Technique involved in defining a problem.

**Unit II: Research Design and Report Writing**

**12 Hours**

Meaning of Research Design, Need for research Design, Different Research Designs; Meaning of Interpretation, Precaution in interpretation; Significance of Report Writing, Different steps in Writing Report, Layout of the Research Report, Precautions for Writing a Research Report.

**Unit III, Unit IV and Unit V** will be designed based on the approval by the Doctoral Committee members related to the candidate's research area.

**Reference Books:**

1. Donald H. McBurney, "Research Methods", Thomson Asia Pvt. Ltd. Singapore, 2002.
2. Kothari C.K., "Research Methodology – Methods and Techniques", New Age International, 2<sup>nd</sup> ed., New Delhi, 2004.