**SSN COLLEGE OF ENGINEERING, KALAVAKKAM – 603 110**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**VI SEMESTER (A Section)**

**IT6601 MOBILE COMPUTING**

|  |  |
| --- | --- |
| **ACADEMIC YEAR: 2016-2017 (Even)** | **BATCH: 2014-2018** |

**Course Objectives**

**This Course makes the student to:**

* Understand the basic concepts of mobile computing
* Be familiar with the network protocol stack
* Learn the basics of mobile telecommunication system
* Be exposed to Ad-Hoc networks
* Gain knowledge about different mobile platforms and application development

**Blooms Taxonomy**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Remember** | **Understand** | **Apply** | **Analyze** | **Evaluate** | **Create** |
| **K1** | **K2** | **K3** | **K4** | **K5** | **K6** |

**Course Outcomes**

**At the end of the course, the student should be able to:**

* Understand the concepts of mobile computing. (K2)
* Identify and discuss the functionalities of different layers. (K2)
* Understand the functions of mobile telecommunication systems. (K2)
* Identify the protocols to be used for ad-hoc networks (K2)
* Choose appropriate mobile platform to develop applications (K2)

**Course Assessment Matrix**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assessment Tool** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
| Test - 1 | ✓ | ✓ |  |  |  |
| Test - 2 |  |  | ✓ |  |  |
| Test - 3 |  |  |  | ✓ | ✓ |

|  |  |  |
| --- | --- | --- |
| **CO** | **Knowledge Level** | **Reasoning** |
| CO1 | K2 | To understand the difference between Mobile Computing and Wireless Networking, basic structure and MAC protocols of Mobile Computing. |
| CO2 | K2 | To identify and discuss the functionalities of network and transport layer protocols in Mobile Computing. |
| CO3 | K2 | To understand the functions of various telecommunication systems such as GSM, GPRS, UMTS. |
| CO4 | K2 | To understand the working mechanism of Ad-hoc networks, its routing protocols and VANETs. |
| CO5 | K2 | To describe various mobile OS development kit and issues associated with M-Commerce. |

**Program Outcomes (PO)**

1. Engineering knowledge: Our graduates will have the knowledge of mathematics, logic, probability and statistics, computer science and engineering, and the skill to apply them in the fields of computer software and hardware. **(K3)**
2. Problem analysis: Our graduates will have the knowledge and skill to identify, formulate, and solve hardware and software problems using sound computer science principles. **(K4)**
3. Experimentation: Our graduates will have the skill to design and conduct experiments, organize, analyze, and interpret data. **(K5)**
4. Design and development: Our graduates will have the skill to design and construct hardware and software systems, components, or processes as per needs and specifications**. (K4)**
5. Team work: Our graduates will have the interpersonal and communication skills to function as team players on multidisciplinary teams.
6. Modern tools usage: Our graduates will be able to use the techniques, skills, and modern hardware and software tools necessary for computer engineering practice. **(K3)**
7. Social and environmental responsibility: Our graduates will demonstrate knowledge related to social, ethical, legal, economical, health and safety, sustainability and environmental dimensions.
8. Communication skills: Our graduates will be able to effectively communicate technical information in speech, presentation, and in writing.
9. Contemporariness: Our graduates will have knowledge of contemporary issues in the practice of their profession.
10. Self-learning: Our graduates will develop confidence for self learning and ability for life-long learning.
11. Competitive exam preparedness: Our graduates will participate and succeed in competitive examinations such as GATE, IES, GRE.
12. Leadership: Our graduates are trained to enhance their managerial skills, leadership quality and entrepreneurial spirit.

**Relationships of Course Outcomes to Program Outcomes**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Outcomes** | **Program Outcomes** | | | | | | | | | | | |
| **PO1**  **(K3)** | **PO2**  **(K4)** | **PO3**  **(K5)** | **PO4**  **(K4)** | **PO5** | **PO6**  **(K3)** | **PO7** | **PO8** | **PO9** | **PO10** | **P11** | **P12** |
| CO1 (K2) | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CO2 (K2) | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CO3 (K2) | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CO4 (K2) | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| CO5 (K2) | 2 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 |

Strong - 3 Moderate - 2 Reasonable - 1

**Prepared By Approved By**

**(Ms.Madheswari.K) (HOD / CSE)**