**KGiSL Institute of Technology**

**Department of Information Technology**

**Lesson plan (Micro level)**

Faculty Name : S.Rajasekaran Designation : Assistant Professor

Subject Name : Mobile Computing Subject Code :IT6601

Academic Year : 2018-2019 Sem/Year : VI/III

**COURSE OUTCOMES**

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

CO1: Understand the basic concepts of mobile computing.

CO2: Be familiar with the network protocol stack.

CO3: Learn the basics of mobile telecommunication system.

CO4: Be exposed to Ad-Hoc networks.

CO5: Gain knowledge about different mobile platforms and application development .

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| **UNIT I INTRODUCTION** | | | |
| **S.No** | **Topic** | **Hours Required** | **Course Outcome** |
| 1 | Introduction to Mobile Computing | 1 | CO1 |
| 2 | Mobile Computing Vs wireless Networking | 1 | CO1 |
| 3 | Mobile Computing Applications | 1 | CO1 |
| 4 | Characteristics of Mobile computing | 1 | CO1 |
| 5 | Structure of Mobile Computing Application | 1 | CO1 |
| 6 | MAC Protocols, Wireless MAC Issues | 1 | CO1 |
| 7 | Fixed Assignment Schemes | 1 | CO1 |
| 8 | Random Assignment Schemes | 1 | CO1 |
| 9 | Reservation Based Schemes | 1 | CO1 |

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| **UNIT II MOBILE INTERNET PROTOCOL AND TRANSPORT LAYER** | | | |
| **S.No** | **Topic** | **Hours Required** | **Course Outcome** |
| 1 | Overview of Mobile IP | 1 | CO2 |
| 2 | Features of Mobile IP | 1 | CO2 |
| 3 | Key Mechanism in Mobile IP | 1 | CO2 |
| 4 | Route Optimization | 1 | CO2 |
| 5 | Overview of TCP/IP | 1 | CO2 |
| 6 | Architecture of TCP/IP | 1 | CO2 |
| 7 | Adaptation of tCP Window | 1 | CO2 |
| 8 | Improvement in TCP Performance | 2 | CO2 |

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| **UNIT III MOBILE TELECOMMUNICATION SYSTEM** | | | |
| **S.No** | **Topic** | **Hours Required** | **Course Outcome** |
| 1 | Global System for Mobile Communication (GSM) | 3 | CO3 |
| 2 | General Packet Radio Service (GPRS) | 3 | CO3 |
| 3 | Universal Mobile Telecommunication System (UMTS). | 3 | CO3 |
| 4 | 4G Telecommunication Systems (CBS) | 1 | CO3 |
| 5 | Introduction to 5G (CBS) | 1 | CO3 |

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| **UNIT IV MOBILE AD-HOC NETWORKS** | | | |
| **S.No** | **Topic** | **Hours Required** | **Course Outcome** |
| 1 | Ad-Hoc Basic Concepts | 1 | CO4 |
| 2 | Characteristics | 1 | CO4 |
| 3 | Applications | 1 | CO4 |
| 4 | Design Issues | 1 | CO4 |
| 5 | Routing | 1 | CO4 |
| 6 | Essential of Traditional Routing Protocols | 1 | CO4 |
| 7 | Popular Routing Protocols | 1 | CO4 |
| 8 | VANET | 1 | CO4 |
| 9 | MANET Vs VANET and Security. | 1 | CO4 |

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| **UNIT V MOBILE PLATFORMS AND APPLICATIONS** | | | |
| **S.No** | **Topic** | **Hours Required** | **Course Outcome** |
| 1 | Mobile Device Operating Systems | 1 | CO5 |
| 2 | Special Constrains & Requirements | 1 | CO5 |
| 3 | Commercial Mobile Operating Systems | 1 | CO5 |
| 4 | SDK : iOS, Android, BlackBerry, Windows Phone | 1 | CO5 |
| 5 | M-Commerce Structure | 1 | CO5 |
| 6 | Pros & Cons | 1 | CO5 |
| 7 | Mobile Payment System | 1 | CO5 |
| 8 | Security Issues | 1 | CO5 |

Prepared by Approved by

**Signature of faculty Head of the Department**