**Ministry Of Higher Education and Scientific Research**



**Mustansiriya University/College of Science/Department of Computer Science)**

***Course Plan***

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| **Course No.:** | **Instructor**  Assist. Prof. Dr. Karim Q. Hussein |
| **Course Name:** **Mobile Cloud Computing** | **Time Division:**  **2hr Theoretical** |
| **Course level : Ph.D.** | **Semester & Year Second 2019-2020** |

**Course Description**

This course presents a concentrated view about Mobile Cloud Computing (MCC) . Basically presents a scientific view bout Mobile Computing and Android environment , Mobile IP , Global System Mobility (GSM) concepts as well as a cloud computing . After these multiple approaches , MCC , Architectures , Algorithms and Application are covered in this course. MCC platforms and Models are presented with related algorithms and multiple case studies . Professional Issues of MCC are considered particularly MCC Security and Privacy. Finally some selected applications have been presented.

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| **Course Intended Outcomes:**  At the end of the course, students are expected to learn: |
| * Understand the basics of Mobile Computing (Framework , Operating System and Networking ) * Understand the basics of Cloud Computing. * Understand the basics of Mobile IP address , Global System Mobility (GSM) . * Understand the fundamentals of Mobile Cloud Computing. * Understand the , Architectures , Algorithms , Models of MCC and Application of MCC * Understand selected professional issues of MCC , Security and Privacy. |

# Course Outline:

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| **Week** | **Description depends on the Timing table(Theoretical)** | **Related practical Activities and Seminars** |
| **1** | Mobile Computing Principles/ Introduction to Mobile Computing and Android environment | Application Components :Android Application (XML + JAVA)  Toast , Edit Text , Image View |
| **2** | Added Dimensions of Mobile Computing  - Condition of the Mobile User  - Architecture of Mobile Software Applications | ImageButton  ImageButton Attributes  CheckBox  CheckBox Attributes |
| **3** | Mobile IP and Global System Mobility (GSM) |  |
| **4** | Cloud Computing Fundamentals |  |
| **5** | Mobile Cloud Computing ( Architecture , Algorithms and Application ) |  |
| **6** | Architecture of MCC |  |
| **7** | Platforms of MCC |  |
| **8** | Models of MCC |  |
| **9** | Selected Issues of MCC , Security |  |
| **10** | MCC Privacy |  |
| **11** | Application of MCC |  |
| **12** | Selected Case studies of MCC |  |
| **13** | Exams & Seminars |  |
| **14** | Discussions of projects and Seminars | Final exam |

**Textbooks:**

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| 1. MOBILE CLOUD COMPUTING , Architectures, Algorithms and Applications , Debashis De , West Bengal University of Technology Kolkata, India , CRC Press is an imprint of the ,Taylor & Francis Group, an informa business , A CHAPMAN & HALL BOOK , 2016 |

**Suggested references:**

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| 1. Mobile computing principles , Reza B'Far / Sixth Edition ,CAMBRIDGE UNIVERSITY PRESS 2. LECTURE NOTES ON CLOUD COMPUTING , Ch.Srividya Assistant professor, CSE A.Jayanthi Assistant professor, CSE S.Swarajya Laxmi Assistant professor, CSE B. Tejaswi Assistant professor, CSE 3. Handbook of Cloud Computing , Borko Furht · Armando Escalante Editors , Springer 2010 |

**Marking:**

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| **First Semester** | **Final Exam** |
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**Assignments and/or Projects:**

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| **Assignment/Project** | **Description** | **Due Date** | **Marking** |
| Android Cloud Application | Professional Android Application Includes more than two Activities within cloud environment. | 20th April 2020 | 10 |

**Instructor information:**

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| Instructor's Name: Assist. Prof. Dr. Karim Q. Hussein | Office No.: **4** | |
| E-Mail: karimzzm@yahoo.com | |  |

**Lecturer Signature Chairman Signature**