** SUKKUR IBA UNIVERSITY**

**DEPARTMENT OF ELECTRICAL ENGINEERING**

**FINAL YEAR PROJECT PROPOSAL**

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| **Supervisor** | **Project Title** | **Area of Field** |
| **Dr. Fida Hussain** | **Real Time and Online Monitoring System for Microphysiological Sensor Integrated System** | **Medical** |
| **Co-Supervisor** | **Group Leader** |
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| **Project Synopsis (200 Words Max)** | | |
| The main objectives of micro physiological systems (MPS) are mimic of organ functions of a human body which are very crucial for drug discovery, disease modeling as well as personalized medicine. The goal of this work is to develop a real-time, online monitoring system for MPS combined with biosensors that are mainly for measuring glucose plus. If microfluidic biosensors are inserted into MPS, this would allow us to continuously monitor cellular activities and environmental conditions without anything being invasive while giving us urgent and comprehensive data. With the help of this technique, we can immediately analyze cells or tissues much better than before, and be in a position to make decisions quickly because there is no need for laboratory analysis or animal models. | | |
| **Possible Deliverables of the Project** | | |
| * **A prototype of a glucose monitoring using biosensor-integrated MPS.** * **Demonstrating systems for real-time monitoring.** * **Data analysis showing real-time monitoring capabilities.** | | |
| **FYP Committee Comments** | | |
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