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3	PhD Thesis Title	“Synthesis and Characterization of Sensor for Biological Real Time Applications using Conducting Polymers and Nanocomposites”	
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6	Date of Award of PhD degree	06-04-2015	
7	<p><u>Brief synopsis</u></p> <p>Research activity and applications of biosensors for measurement of analytes has been of clinical interest over the last decade. Nanotechnology has been applied to improve performance of biosensors using electrochemical, optical, mechanical & physical modes of transduction and to allow arrays of biosensors to be constructed for parallel sensing. Biosensor measurements have been proposed for biomarkers for detection of cancer, cardiac issues, infectious diseases; DNA analysis etc. Novel applications of biosensors include measurements in alternate sample types such as urea and saliva. Biosensors based on immobilized whole cells have found new applications, for example to monitor the response of cancer cells to chemotherapeutic agents. This will drive to decrease the cost of health care, to shift some of the analytical tests from centralized facilities to “frontline” physicians and nurses, and to obtain more precise information more quickly about the health status of a patient.</p> <p>Many investigators have worked in the area of glucose biosensors to miniaturize the sensor design which requires only 10 micro liters of blood sample. However no attempt has been made to determine leukocyte counts for leukemia. Hence there is a need to investigate biosensors for biological real time applications. The present work is focused on the design, synthesis, and characterization and testing of sensor for biological real time applications.</p>		