

# 3<sup>rd</sup> International Conference and Exhibition on **Biosensors & Bioelectronics**

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## Amperometric biosensor for the measurement of RBC and MCHC in the blood

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Analysis of blood substances such as hemoglobin, glucose, protein, cholesterol, etc. are important parameters for health condition monitoring. Traditionally, blood sample is taken and analyzed under a microscope. Some chemical process such as enzyme reaction is required before the final value for concentration is read. Reagents involved in such processes are expensive for both the hospital and patient. For many decades scientists have recognized the power of incorporating biological principles and molecules into the design of artificial devices. Biosensors, an amalgamation of signal transducers and bio components play a prominent role in medicine. The RBC count and Mean Corpuscular Hemoglobin Concentration (MCHC) in human blood is measured and analyzed using biosensor very effectively. This investigation helps in ruling out the diseases like anemia, hereditary spherocytosis and Sickle Cell Anemia (SCA). The portable smart biosensor measurement system, with Advanced RISC (Reduced Instruction Set Computing) Machine processor has been designed to determine the RBC count and MCHC concentration in the blood. The Graphical User Interface (GUI) developed in VB.net is to store the data for future analysis.

### Biography

Raid Saleem Al-Baradie Received the Bachelors degree in Clinical Laboratory Sciences from King Saud University, Riyadh, Kingdom of Saudi Arabia in 1993 and High Diploma in Molecular experimental Techniques from Duke University Medical school, USA in 1999 and completed his PhD Degree from Manchester University Faculty of Medicine, U.K in 2008 and post doctoral fellowship also from Manchester University, UK in 2010. Currently he is working as Vice Dean (Research), College of Applied Medical Sciences, Majmaah University, Kingdom of Saudi Arabia. His fields of interest are oncology, angiogenesis and Stroke.

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