"DSP enabled Glucose Sensing Technology"

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Diabetes affect more than 425 Million patients worldwide responsible for over 5 Million annual death. Diabetes patients must monitor their glucose levels in order to have proper medical treatment including insulin injection and others.

Unlike the commonly known Type 2 diabetes, there is a Type 1 diabetes whose pancreas doesn’t function properly. This affects more than 50 Million patients world wide, and they must monitor their glucose levels more often, at least every hour.

As a result, conventional pricking method to monitor the glucose levels can be cumbersome and painful for the Type 1 diabetic patients.

In order to enhance the quality of life for Type 1 diabetic patients, an alternative way to the pricking method has emerged: the Continuous Glucose Monitoring (CGM) systems. The CGM in the market today uses an enzyme based sensors that need to be replace every week resulting in very high cost for the patients while causing skin rash problems.

In this talk, we present a DSP enabled fully electromagnetically sensing CGM technology that excludes any enzyme based electro-chemical based sensors.