School of Engineering

Embedded Electrical and Computer Engineering

MASTER ORAL DEFENSE

TITLE: Waveform Generating Unit with Touch Interface using Altera De2-115 tPad

PRESENTER: **Rajath Narasimha**

TIME & DATE: **2:00PM, April 5th, 2013** **LOCATION:** **SCI 110**

COMMITTEE CHAIR: **Dr. Hamid Mahmoodi**
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ABSTRACT

Waveform Generating units are very useful in IC testing; however the ones which are presently available in the market are really expensive, non-portable, often do not have touch interface for user interaction and they are not capable to recapitulate stored waveforms. This implementation uses the Altera De2-115 tPad which is equipped with its own analog-to-digital converter (ADC), a Digital to Analog Converter (external daughter card) and a set of custom developed software and hardware drivers for waveform generation, storage and recapitulation. Engineers can produce arbitrary waveforms easily via a simple front-panel interface, using selectable fixed options such Sine, Square and Triangular waveforms, can generate and recall stored arbitrary waveforms. The major advantages of the device are that it provides a cost effective solution for a portable waveform generating device with touch interface and introduces excellent test capability.