



CSULB Systems Council Chapter presents

A complimentary MATLAB seminar on

MATLAB for Real-Time Audio DSP Design, Implementation and Testing

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Date: Wednesday, May 7, 2014

Time: 11 a.m. to 1 p.m.

Location: VEC 325

Abstract:

In this seminar we will show you how to use MathWorks tools for audio signal processing, along with a framework for development and testing of audio processing algorithms with MATLAB and Simulink. We will show how you can use DSP system toolbox in MATLAB and Simulink to develop and simulate streaming, frame based, and multi-channel audio signal processing algorithms, create test benches, and test the algorithms with real-time audio signals.

Using example models, you will learn how to:

- Utilize I/O for multimedia files and devices, including ASIO drivers and multichannel audio
- Create streaming test bench with real-time audio signals
- Visualize and measure real-time audio signals using time scope and spectrum analyzer
- Develop audio signal processing algorithms using DSP System Toolbox components
- Incorporate your custom audio algorithms in the real-time test bench
- Use UI or MIDI surface control to tune your audio algorithm parameters at run-time.
- Improve performance of your simulation or deploy your design on desktop or ARM Cortex-M processor using code generation technology

For more information, please contact IEEE chapter's secretary, Dr. Shadnaz Asgari at Shadnaz.Asgari@csulb.edu.