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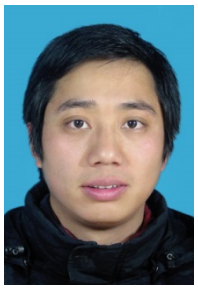
MESA (Mechatronics, Embedded Systems and Automation) Lab
Presents
A Research Seminar at The
Applied Fractional Calculus (AFC) Workshop Series

Date/Time/Place: 05/19/2014, 4-6PM, MESA Lab (Room 820), 4225 N. Hospital Rd., Atwater, CA 95301. T: 209-2284398
Title: Fractional Calculus Application in Psychological Signal Analysis
Abstract:

Many studies have shown physiological series are more likely to be “fractal”, or more accurately long range dependent (LRD), and fractal statistics. In this presentation, a fractional calculus method is presented. This method uses the Hurst series to analyze psychological signals, including ECG data, RR series and galvanic skin response. At last simulations results and discussion are given.

Speaker Name / Contact: Taizhi Lyu lvtaizhi@163.com



Speaker’s short biography (with photo): Taizhi Lyu, was born in 1979. He received his bachelor degree in computer science from Nanjing University, China in 2002, and MSc in computer software and theory from Nanjing University of Science and Technology, China in 2006. He is currently a PH.D. candidate of Nanjing University of Science and Technology and a lecturer in Jiangsu Maritime Institute. He now is a visiting scholar in MESA (Mechatronics, Embedded Systems and Automation) Lab, UC Merced.

Key reference(s) (if any):

[1] West, Bruce J. Where medicine went wrong: Rediscovering the path to complexity. New Jersey:: World Scientific, 2006.
[2] A.L. Goldberger, et al. Physiobank, physiotoolkit, and physionet components of a new research resource for complex physiologic signals. Circulation , vol. 101, no. 23, pp. e215-e220, 2000.
[3] M.A. Garca-Gonzlez,, et al. An application of fractional dierintegration to heart rate variability time series.