
Electrical & Computer Engineering
S E M I N A R
Louisiana State University

**An Overview of Fractional Calculus With
Applications in Signal/System Modeling**

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Abstract—Dynamical modeling signal and systems is often based on the traditional integer order derivative/integrator-operators. Studies show that for some systems fractional order equivalents give a more efficient description. The presentation starts with a brief introduction to fractional calculus and some of its applications in physics and engineering. Further discussions will include properties of impulse responses from models based on generalized derivative operators. Results show that both frequency and envelope changes are functions of the derivative order and can thus be useful in function approximations. A sub-optimal parameter estimator for such a model is also presented.

Date: Tuesday, 20 April 1999, 13:30 - 14:30

Place: 117 EE Building

Info: <http://www.ee.lsu.edu/seminar>

Food: *Refreshments will be served.*