UTC INSTITUTE FOR ADVANCED SYSTEMS ENGINEERING

Seminar Series

Monday November 6th, 2017
1:00 – 2:00PM
UConn, Storrs Campus – ITEB 336
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Model Based Design from MathWorks: A Quiet Revolution in Systems Design

When you look around, you see computation everywhere these days. Computation is in your hand as advanced image processing and communication algorithms on your phone. Computation is in your car, as the logic behind anti-lock braking systems, fuel efficient power trains. Computation is in the avionic systems in the aircraft flying overhead. Computation is in your body as part of implantable medical devices like pacemakers and diabetes monitors.

Designing these systems with an explosion of computational needs requires a radically new approach to systems development. MathWorks is leading a quiet revolution in the Model-Based Design area which represents the next leap in the abstraction in the systems development. MathWorks is doing cutting edge work on modeling methodologies, simulation technologies, analysis, transformation, optimization from high-level textual and graphical languages of MATLAB, Simulink and Stateflow. Graphical programming requires a new way of thinking about the design, debugging, testing and verification of systems. This talk will introduce the various aspects of model based design and highlight a few of the emerging technical areas ripe for applied research.

Vijay Raghavan

Vijay Raghavan is a Director of Engineering at MathWorks. He manages various product areas in the fields of simulation, code generation, verification and validation at MathWorks including Stateflow, HDL and GPU Coders and Simulink Test. He received his PhD from University of Connecticut in Sequential Fault Diagnosis Algorithms for which he received various best paper awards including Andrew P. Sage Best Paper of the year award for 1999. His technical interests span model based design, graphical programming languages, compiler technologies, code generators, simulators, interpreters, and automatic test vector generation. He has over 15 publications with 8 journal papers and holds over 44 US and international patents. He loves dogs, especially his 6 year old fawn pug Winston.

Key Words:

Model Based Design, MATLAB, Simulink, Stateflow, Compilers, Graphical Programming Languages, Verification and Validation, Automatic Code Generation

Upcoming Distinguished Lectures

11/13/17 – Prodromos Daoutidis – Energy Efficiency & Sustainability: New Vistas for Systems and Control Research

Upcoming Seminars

12/4/17 – Lyle Ungar
Deep Learning and its Impact on Engineering

Website:
www.utc-iase.uconn.edu
Email:
utc-iase@engr.uconn.edu
Phone:
860.486.3355

United Technologies Corporation
Institute for Advanced Systems Engineering
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