THE CENTER FOR ADVANCED COMPUTER STUDIES

at

the University of Louisiana at Lafayette

Lafayette, Louisiana

Proudly announces a presentation

Dr. Yucheng Liu

Mechanical Engineering
University of Louisiana at Lafayette

will give a presentation entitled

Computer Modeling and Simulation in Engineering Design and Analysis

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Abstract

Computational techniques have been growingly implemented and extensively used in engineering design and analysis. This presentation will introduce the application of computational techniques in three recent projects: investigating impact mechanisms of thin-walled beams and performing crashworthiness design using simplified computer modeling method; development of a comprehensive software suite for vehicle design, analysis, and assessment using C# and object-oriented programming skills; evaluating capacity of a hydropower electricity barge through computational fluid dynamics (CFD) modeling and simulation. From these projects it can be seen that the computational techniques provide engineers with physics-based modeling and simulation capabilities so that expensive, time consuming, and sometimes risky experimental tests can be avoided or at least minimized.

DATE: FRIDAY, NOVEMBER 11, 2011
TIME: 11:00 A.M. - 12:00 NOON
LOCATION: OLIVER, ROOM 112

Biography

Dr. Yucheng Liu is an Assistant Professor of Mechanical Engineering at the University of Louisiana at Lafayette. His research interests focus on computational analysis and methods, computer modeling and simulation, structural mechanics, and crashworthiness analysis. To date, he has authored and co-authored over 80 publications in his areas and has been the PI or Co-PI of numerous research projects with total funds over 2 million dollars. Dr. Liu serves as the editorial board member of an international journal and has reviewed proposals and papers for US Department of Energy, over 20 peer reviewed journals, and 5 international conferences. Dr. Liu is a registered Professional Engineer and holds active membership in ASME, ASEE, and SAE.

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November 7, 2011