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Concordia Institute for Information Systems Engineering

THE CONCORDIA INSTITUTE FOR INFORMATION SYSTEMS ENGINEERING
IS PLEASED TO PRESENT THE FOLLOWING GUEST LECTURE IN OUR CIISE DISTINGUISHED SEMINAR SERIES

Dr. Chen Li

RIM, Waterloo, ON

Designing-in Quality to Engineered Products through Model-based "Design For Six Sigma (DFSS)"

"Six Sigma" is a significant engineering metric referring to the level of quality that engineers strive to achieve in their products and/or services. While *Lean Six Sigma* (LSS) is well known for the ability to process optimization and continuous improvement, *Design For Six Sigma* (DFSS) deals with new product introduction for business growth focused on Product Design and Development (PDD). To this end, the topic of this seminar is about the DFSS based on engineering models. It will start with the discussion of *quality* with respect to "defects", and thereafter introduce basic concepts of the DFSS. Accordingly, a model-based DFSS approach for PDD will be presented in an effort to enable defect-free design to achieve designing-in quality in engineered products. The PDP lifecycle will be reviewed and streamlined in the form of a triplet of *tasks*, *tools* and *deliverables*. And, in particular, a package of the 20 compelling DFSS tools selected will be highlighted and described along with constructive and insightful comments.

Biography: Dr. Li Chen has been a practitioner, researcher and educator in the field of engineering design and manufacturing for over 16 years. In industry, he has worked in multiple roles for various industrial organizations at Research In Motion (Canada), United Technologies (USA), Rockwell Automation (USA), Shanghai Applied Technology (China), and Beijing National R&D Institute of Machine Tools (China). In academia, he served as a faculty member directing and responsible for the "Design and Manufacturing Integration" research program at the University of Toronto, where he successfully raised over $1M research funds whereby to support and finish supervising 20 graduate students (3 Ph.D., 9 M.A.Sc., 10 M.Eng., 1 Postdoctoral). Also he has published over 70 refereed R&D articles in the World prestigious refereed journals and conference proceedings (e.g. ASME, IEEE, AIAA, etc.). Dr. Chen earned his doctorate in Mechanical Engineering from Purdue University (USA) in 1997. And he accomplished three-times formal, full-scale Black Belt trainings in DFSS (twice) and LSS (once), respectively, from the United Technologies (UTC) and Rockwell Automation in USA.

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11:00 – 12:00

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