Approved by the Regents
May 14, 2009

PROMOTION RECOMMENDATION
The University of Michigan-Dearborn
College of Engineering and Computer Science
Department of Industrial and Manufacturing Systems Engineering

Xiangyang Li, assistant professor of industrial and manufacturing systems engineering, Department of Industrial and Manufacturing Systems Engineering, College of Engineering and Computer Science, is recommended for promotion to associate professor of industrial and manufacturing systems engineering, with tenure, Department of Industrial and Manufacturing Systems Engineering, College of Engineering and Computer Science.

Academic Degrees

Ph.D. 2001	Arizona State University, Tempe, AZ
M. S. 1996	Chinese Academy of Aerospace Administration, Beijing, China
B. S. 1993	Northeastern University, Shenyang, China

Professional Record

2003 - present	Assistant Professor, University of Michigan-Dearborn
2002 - 2003	Post Doctoral Researcher, Rensselaer Polytechnic Institute, Troy, NY and University of Nevada, Reno, NV
2002	Post Doctoral Researcher, Arizona State University, Tempe, AZ
1999 - 2001	Research Assistant, Arizona State University, Tempe, AZ
1994 - 1999	Research Assistant/Research Engineer, Chinese Academy of Aerospace Administration, Beijing, China

Summary of Evaluation:

Teaching: Professor Li's teaching is rated as significantly capable. He has been a major contributor to the graduate program in Information Systems and Technology and has the responsibility of teaching several required core courses for the program. Professor Li also teaches one course each year for the Computer and Information Sciences department in computer and network security. He is always willing to assist his students outside the classroom. Professor Li has put significant effort into improving his teaching over the past two years through mentoring from senior faculty and by attending courses offered by CRLT at the Ann Arbor campus. These efforts are bearing fruit now. During 2006-2007, his composite student evaluation rating was 2.84 (out of 4.0). Professor Li has shown significant improvement in teaching during 2007-2008, where his rating has gone up to 3.24 placing him in the upper third of the faculty in the department.

Research: Professor Li's research is rated excellent. His focus is on information system security and quality; complex enterprise modeling and analysis; and intelligent decision support systems. Over the past five years, he has published 12 papers in top to medium tier journals, has three chapters in edited books published by prestigious scientific publishers, and received one U.S. patent that has been licensed out to a company. He has been a grant panelist for the NSF Cyber Trust program and a research proposal reviewer for the Army Research Office. This is an excellent record for a junior faculty member. As PI and co-PI, he has received over $150,000 in

several grants including the Rackham Faculty Grant, the OVPR Research Grant, and the CEEP Research Grant. He also received instructional and equipment grants in the form of computer software from OPNET.

Recent and Significant Publications:

X. Li, "Integrated user affective state assessment in enhancing, HCI," *The Open Cybernetics and Systemics Journal*. (In press, accepted 3/2008)
X. Li, C. Chandra, and J.-Y. Shiau, "Developing security taxonomy and model for security centric supply chain management," *International Journal of Manufacturing Technology and Management*. (In press, accepted 10/2007)
X. Li, "Inference degradation of active information fusion within Bayesian network models," *International Journal of Intelligent Information Technologies*, Vol. 4, No. 4, pp. 2-17, 2008.
X. Li and C. Chandra, "Toward a secure supply chain: A system's perspective," *Human Systems Management,* Vol.27, No. 1, pp. 73-86, 2008.
D. Butcher, X. Li, and J. Guo, "Security challenge and defense in VoIP infrastructures," *IEEE Transactions on Systems, Man, and Cybernetics-Part C*, Vol. 37, No. 6, pp. 1152-1162, 2007.

Service: Professor Li's service is rated excellent. He has served commendably on various committees, including the University Senate Assembly, Faculty Mentoring and Development Committee, Ad Hoc Study Committee for the Bachelor of Science in Digital Forensics curriculum, Task Force to Examine Research in CECS, Department of Industrial and Manufacturing Systems Engineering Chair Evaluation Committee, and faculty secretary for the department. He has also served as reviewer, session chair, and track coordinator for various conferences sponsored by professional organizations.

External Reviewers:

Reviewer A: "I find his work on enterprise risk modeling in communications and supply chain security quite impressive. I particularly found his Bayesian network treatment of risk in enterprises and supply chains novel … In comparison with his peers, he seems to be very productive with his publication record, both in terms of quality and quantity. I find several of his publications outstanding … I believe that based upon his impressive record to date, that he will continue to provide a significant contribution to our understanding in many new and rapidly developing areas important to the fields of industrial and manufacturing systems engineering, in particular, enterprise risk and supply chain security modeling and management."

Reviewer B: "Professor Li's work in data mining and information fusion has been well recognized. His publication record compares very favorably with those recently promoted to Associate Professors with tenure at [my institution]. The quality of his publications is top notch, and the journals in which he chose to publish, such as IEEE Transactions on systems, Man and Cybernetics, are all well recognized."

Reviewer C: "Regarding Dr. Li's research scholarship, I think that he is an excellent researcher with remarkable quality and quantity, due to the following observations. First, Dr. Li's publication record is outstanding in comparison with his peer group. … [his] record is impressive

and not commonly held by people in his peer group. Second, four of his journal papers are published on the premier journal in this discipline, namely IEEE Transactions on Systems, Man, and Cybernetics. These papers carry important research contributions to the discipline, and I view them as outstanding publications……His research methodology is deeply rooted in scientifically rigor system modeling and analysis techniques and algorithms. Dr. Li's papers show deep understanding (and 'non-naïve adaptation') of the underneath system/data modeling and analysis techniques. This indicates that his works have very good technical depth."

Reviewer D: "In reviewing Dr. Li's publications and academic contributions, I can dully attest to the fact that his work has, and will continue to, impact considerably on the communities of systems scientists, industrial engineering and Is/IT educators and research … I also see that among all of Dr. Li's publications, he was the primary author for 12 out of 19 peer-reviewed journal papers, which is significant for an assistant professor."

Reviewer E: "[His] work in intrusion detection and information infrastructure protection is at the core of ISI research. He has a number of high-quality publications in this area and they are starting to make an impact in the community … I have been impressed by [his] innovative data mining research and his theory-guided application-driven work in intrusion detection … I find [his] research program very innovative and solid. [He] is clearly a productive researcher based on the total number of journal publications he has in the past 7 years."

Reviewer F: "Dr. Li has achieved the national stature in terms of his research contributions in the areas of data mining, information fusion, enterprise and cyber infrastructures, systems modeling and simulation, and information systems. He has made significant contributions in these areas … Dr. Li has published on the average over two journal papers and three other publications a year-this is a phenomenal productivity for a researcher [of his generation]. They are of the first class quality."

Summary of Recommendation:

Professor Li has demonstrated excellence in the areas of research and service and significant capability in teaching. He is the only person in the department working in the highly important field of information security and shows great promise to continue to be a productive member of the department for the future. We are very pleased to recommend, with support of the College of Engineering and Computer Science Executive Committee, Xiangyang Li for promotion to associate professor of industrial and manufacturing systems engineering, with tenure, Department of Industrial and Manufacturing Systems Engineering, College of Engineering and Computer Science.

Daniel Little
Chancellor
University of Michigan-Dearborn

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