

CURRICULUM VITA (Executive Summary) of Carl K. Chang – October 30, 2009

Research and Grants: Chang is Professor and Chair of Computer Science at Iowa State University. His current research interests include software architecture, requirements engineering, services computing and successful aging. He has published extensively in these areas, including journal and refereed conference papers, and various column articles and editor's messages. In the past 20 years, he has attracted numerous external grants to support his research. To date, ten visiting scholars from foreign countries have been hosted for joint research in Chang's labs. He considers himself an experimentalist who not only conducts research but also builds proof-of-concept prototypes.

Undergraduate Program: He spearheaded the joint task force on Computing Curricula 2001 (CC2001) (www.computer.org/education/cc2001) for education renovation in a global setting, an effort of the IEEE Computer Society (IEEE-CS) and the Association for Computing Machinery (ACM). CC2001 has had a major impact on undergraduate computing education worldwide. He is highly experienced with accreditation, articulation, and certification matters in higher education and the computing profession. Recently he co-developed with Dr. L.J Zhang of IBM Watson Research the first model curriculum in services computing, published with IEEE. Since he joined Iowa State, Chang has led the department in developing a joint software engineering degree program with computer engineering faculty.

Graduate Program: Chang is a popular academic advisor and has attracted many graduate students to work in his research group to study the latest software technologies and engage in hands-on projects. To date he has produced 21 Ph.D. dissertations, 19 M.S. theses, and more than 200 M.S. projects since he began his academic career at the University of Illinois, Chicago in 1984. While being at Auburn University (2001-02), albeit in a short duration, he contributed his experience to improve the graduate research program through many of his research initiatives. At ISU, he led the effort to have transformed the department into a Ph.D.-centric program with 100 Ph.D. students.

Contributions to the Computing Workforce: His graduates are highly welcomed in major computer and telecommunication industry companies, including IBM, Microsoft, Lucent Technologies, Cisco, Northrop Grumman, Motorola, etc. He also serves on the Software Engineering Body of Knowledge (SWEBOK) task force (<http://www.swebok.org>). SWEBOK is a major IEEE-CS initiative to guide the world to "Do Software Right."

Professional Services: Chang has been an active volunteer leader in the IEEE Computer Society, the largest and oldest computer association in the world, for over two decades and was President of the society in 2004. Before that, he served as the First Vice President (2001) to lead the Educational Activities Board. He served as Editor-in-Chief (EIC) of *IEEE Software* for two terms (1991-94) and in that capacity established a legendary Industrial Advisory Board. He organized the 1997 President's Roundtable to develop technology roadmap for IEEE-CS. As a well recognized scholar in software engineering, he co-founded the IEEE International Conference on Requirements Engineering (ICRE), and the Symposium on Applications and the Internet (SAINT) co-sponsored by the IEEE-CS and IPSJ (the largest computer association in Japan). At present, he is chairing the standing committee of IEEE International Computer Software and Applications Conference (COMPSAC), the IEEE signature conference on software technology for the software research and professional community. In January 2007 he was appointed Editor-in-Chief of *IEEE Computer*, the flagship publication for the IEEE Computer Society. Most recently as a Society-wide initiative he successfully invited founding members of the IEEE-CS Industrial Advisory Board, which is a premier industrial forum with global coverage.

Awards, Medals, and Honors: As an IEEE Fellow, he received the Computer Society's Outstanding Contribution Award, Meritorious Service Award, and the Golden Core Award, in addition to the IEEE Third Millennium Medal. He finished a 3-year term (2000-02) as a Distinguished Visitor for IEEE-CS. In 2004 he was elected Fellow of American Association for the Advancement of Science (AAAS). Several of his peer-reviewed conference papers were selected as best papers in recent years. In 2006, he received the prestigious Marin Drinov Medal from the Bulgarian Academy of Sciences. Through a globally competitive selection program, he received prestigious IBM Faculty Awards in 2006, 2007, and 2009.

Education and Experience: Chang received a B.S. in mathematics (1974) from National Central University, Taiwan, an M.S. in computer science (1978) from Northern Illinois University, and a Ph.D. in computer science (1982) from Northwestern University. After starting his career with the industry at GTE Automatic Electric and Bell Laboratories, Chang joined the University of Illinois at Chicago in 1984 to begin his academic career. He became the founding director of a brand new research institute at Auburn University for a year (2001-02) before joining Iowa State University as Department Chair of Computer Science in 2002.