Approved by the Regents
May 15, 2014

PROMOTION RECOMMENDATION
University of Michigan-Dearborn
College of Engineering and Computer Science

Habib M. Ammari, associate professor of computer and information science, without tenure, College of Engineering and Computer Science, is recommended for the granting of tenure to be held with his title of associate professor of computer and information science, College of Engineering and Computer Science.

Academic Degrees:

Ph.D. 2008	The University of Texas at Arlington, Arlington, Texas
Ph.D. 1996	Faculty of Sciences of Tunis, Tunis, Tunisia
SDSS 1988	Faculty of Sciences of Tunis, Tunis, Tunisia

Professional Record:

2011 – present	Associate Professor of Computer and Information Science, Department of Computer and Information Science, University of Michigan-Dearborn
2008 – 2011	Assistant Professor, Hofstra University, Hempstead, New York
1997 – 2005	Assistant Professor, Superior School of Communications, Tunis, Tunisia

Teaching: Professor Ammari is rated significantly capable in teaching. Professor Ammari taught one undergraduate course and one graduate course after joining UM-Dearborn. For the first course, in addition to the scheduled lectures, Professor Ammari also held additional help sessions each term to discuss with his students all the materials presented in class related to homework and projects. The second course was a new Ph.D.-level course developed by Professor Ammari at UM-Dearborn. This research-oriented course provided graduate students with an overview of wireless sensor networks and the challenging issues related to their design and implementation. Professor Ammari supervised one undergraduate research assistant, served on one M.Sc. thesis committee, served as an external examiner for two Ph.D. Dissertations, involved several students in his research projects, and co-authored one journal paper with students after joining UM-Dearborn.

The average rating for instructor in Professor Ammari's teaching evaluations by students at UM-Dearborn was slightly above the departmental average every term except Winter 2013. The average rating for courses in the evaluations by students was aligned with the departmental average every term except Winter 2013. The students' ratings and comments in Professor Ammari's teaching evaluations indicate that Professor Ammari is an enthusiastic and effective teacher. Particularly, in the comments, students praised Professor Ammari in the areas of lecture preparation and planning, knowledge of the subject, student interaction/help, and teaching effectiveness.

Research: Professor Ammari is rated excellent in his research. Professor Ammari's primary research interests lie in the areas of wireless sensor and mobile ad-hoc networking, multihop mobile wireless Internet architectures and protocols, and cyber-physical systems. Specifically, his research focuses on the design, analysis, and implementation of fault-tolerant, energy-

efficient data dissemination and topology control protocols for large-scale wireless sensor networks, and the interconnection between wireless sensor networks, mobile ad hoc networks, and the global IP Internet. Professor Ammari has made significant contributions to these areas.

Professor Ammari has an excellent track record of publication including 20 refereed journal papers (six of them with an affiliation of UM-Dearborn), three books (two of them, edited collections, were produced after joining UM-Dearborn), 11 book chapters (seven of them with an affiliation of UM-Dearborn), and 20 refereed conference/symposium/workshop papers (two of them were produced after joining UM-Dearborn). The publication venues include top-tier journals such as *ACM Transactions on Sensor Networks*, *IEEE Transactions on Parallel and Distributed Systems*, and *IEEE Transactions on Computers* in the field. Professor Ammari has both solo-authored and co-authored (with colleagues and students) journal papers after joining UM-Dearborn. The number (6) of journal publications that that shows his affiliation with UM-Dearborn is very impressive. Professor Ammari received a prestigious NSF CAREER award ($450,000, 6/2011 - 5/2016) and a highly competitive NSF research grant ($400,000, 8/2009 - 9/2013). According to NSF, "The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations." Professor Ammari submitted two NSF research proposals (as PI), one NSF research workshop proposal (as PI) and one HED/USAID education proposal (as co-PI), requesting a total of $1.6M external funding after joining UM-Dearborn.

Recent and Significant Publications:

H.M. Ammari, 'On the Energy-Delay Trade-Off in Geographic Forwarding in Always-On Wireless Sensor Networks: A Multi-Objective Optimization Problem,' *Computer Networks*, Volume 57 (2013), pp. 1913-1935.

H.M. Ammari and S.J. Das, 'CSI: An Energy-Aware Cover-Sense-Inform Framework for k-Covered Wireless Sensor Networks,' *IEEE Transactions on Parallel and Distributed Systems*, Volume 23, Number 4 (April 2012), pp. 651-658.

H.M. Ammari and S.K. Das, 'Centralized and Clustered *k*-Coverage Protocols for Wireless Sensor Networks,' *IEEE Transactions on Computers*, Volume 61, Number 1 (2012), pp. 118-133.

H.M. Ammari, 'On the Problem of k-Coverage in Mission-Oriented Mobile Wireless Sensor Networks,' *Computer Networks*, Volume 56 (2012), pp. 1935-1950.

Service: Professor Ammari is rated excellent in his service. For internal service, Professor Ammari has made an excellent service contribution to the department and college by founding and coordinating three series of successful research seminars, i.e., the CIS-ECE-IMSE Distinguished Lecture Series, the CIS-ECE-IMSE Research Colloquium Series, and the WiSeMAN Research Seminar Series. He has successfully invited renowned leading researchers in their respective fields, including two winners for the very prestigious Turing Award in computing, from top universities such as the Massachusetts Institute of Technology, Cornell University, Carnegie Mellon University, and the University of Southern California as distinguished speakers for these series. These seminars have helped improve the students' and faculty members' awareness of the state-of-art techniques in various fields as well as the

visibility of our department, college and campus. For external service, Professor Ammari has been extremely active. In particular, he has served as an associate editor for 11 journals, including the top journals such as the *IEEE Transactions on Computers* and the *ACM Transactions on Sensor Networks*, served as a general/program/workshop/symposium/track chair for 31 conferences/symposia/workshops, served as a panelist for two NSF panels, and served as a program committee member for 106 conferences/symposia/workshops, among many other.

External Reviewers:

Reviewer A: "Habib is the recipient of the NSF CAREER Award and several other regular NSF grants. This is an amazing achievement for a professor at any university. … He is an internationally recognized scholar in wireless networking and cyber-physical systems. He has made outstanding achievements in a number of areas of wireless sensor networks. Many of his publications appeared in the leading journals and conference proceedings, and have been widely cited."

Reviewer B: "The above are just a few examples of the important and timely contributions of Dr. Ammari to the field of sensor networks. His journal publications are in top notch journals, representing a major part of the body of research in the sensor networks field. … Indeed, because of his strong publication portfolio, Dr. Ammari has emerged as one of the top contributors to the sensor networking community."

Reviewer C: "One aspect of Dr. Ammari's work that immediately caught my attention was the fact that his solutions to the problem of coverage attempt to relax these unreasonable assumptions and look at situations that are more realistic, ... His quite recent (to appear, in fact) article in the ACM Transactions on Sensor Networks reports on some of this work; this journal is a major archival publication in sensor networks, with significant impact."

Reviewer D: "More than a dozen of his papers have receive [sic] double-digit citations, according to Google Scholar, indicating that his work has had a robust degree of impact on the field."

Reviewer E: "Through a series of publications on this subject, he has made considerable contributions and established himself as an authority on the topic of sensing coverage."

Reviewer F: "One important characteristic of his scholarly work is the consistency and frequency (almost predictability) with which Dr. Amman [sic] is publishing significant new results that, invariable, impact the envelope of corporate knowledge in the area of wireless sensor network research and its myriad applications."

Reviewer G: "The number of conference publications and presentations indicate his active participation and also serve as a testimony to his solid research contribution and leadership in his area of research."

Reviewer H: "He has made significant contributions to these areas, especially in the field about the energy-aware design of mobile wireless sensor networks. ...the methods proposed by

Dr. Ammari achieved significant performance gains of existing schemes, and laid the theoretical grounds for future works."

Summary of Recommendation: We are very pleased to recommend, with strong support of the College of Engineering and Computer Science Executive Committee, Habib M. Ammari for the granting of tenure to associate professor of computer and information science, with tenure, Department of Information Science, College of Engineering and Computer Science.

Anthony England, Interim Dean
College of Engineering and Computer Science

Daniel Little, Chancellor
University of Michigan-Dearborn

May 2014