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

Brahim Medjahed, assistant professor of computer and information science, Department of Computer and Information Science, College of Engineering and Computer Science, is recommended for promotion to associate professor of computer and information science, with tenure, Department of Information and Computer Science, College of Engineering and Computer Science.

Academic Degrees:

Ph.D.	2004	Virginia Tech, Computer Science, Blacksburg, Virginia
M.Sc.	1995	Algiers University of Science and Technology, Algiers, Algeria
B.Sc.	1991	Algiers University of Science and Technology, Algiers, Algeria
Baccalaureat	1986	National High School Graduation Exam, Algeria

Professional Record:

2004 – Present	Assistant Professor, Department of Computer and Information Science, College of Engineering and Computer Science, University of Michigan-Dearborn, Dearborn, Michigan
1999 – 2004	Research Assistant, Department of Computer Science, Virginia Tech, Blacksburg, Virginia
1995 – 1999	Lecturer, Algiers University of Science and Technology, Algiers, Algeria

Summary of Evaluation:

Teaching: Professor Medjahed's teaching is rated excellent. He is an excellent instructor, arguably the best in our department. He always makes sure to help students understand fundamental concepts before they leave the classroom, such as giving in-class exercises after delivering important concepts; he usually devotes 30 minutes of a two hour lecture to solving these exercises. He always designs two to three projects in his courses through which students apply the concepts and techniques taught in the classroom to solve real-world problems. Another approach he has started adopting is industrial interaction in the classroom. This provides students with first-hand experience in industrial working environments and direct interaction with practitioners. The students may also develop co-op and internship opportunities in the collaborating companies.

Research: Professor Medjahed's research is rated excellent. The main focus of his research activities is on service composition and integration, self-healing support for service-oriented architectures, services in wireless environments, and databases and data integration. The overall theme of his research is to advance the state-of-the-art in enabling cross-organizational integration in dynamic, heterogeneous, autonomous, and large scale service-oriented architectures (SOAs). His work aims at advancing foundational research in SOAs while drawing motivation from practical application domains such as digital government (e.g., social services), the environment (e.g., agriculture), crisis management (e.g., natural disasters), and automotive (e.g., in-vehicle wireless services and data management). His papers have been highly cited.

One of his papers has also received the 2008 Best Paper (Wilkes) Award from the *Computer Journal*. He has received external grants from the Ford Innovation Alliance Program and TRW Automotive, both as PI's, as well as a major grant from NSF as a co-PI.

<u>Recent and Significant Publications:</u>
B. Medjahed, S. Hadi, and W. Grosky, "A Semantic Service-Oriented Framework for Controlling Invasive Species in Agriculture," *International Journal of Metadata, Semantics, and Ontologies*, 4(1/2), January/February 2009, pp. 34-41.

Q. Zhu, B. Medjahed, A. Sharma, and H. Huang, "The Collective Index: A Technique for Efficient Processing of Progressive Queries," *The Computer Journal*, 51(6), November 2008, pp. 662-676.

B. Medjahed, "Dissemination Protocols for Event-based Service-Oriented Architectures," *IEEE Transactions on Services Computing*, 1(3), September 2008, pp. 155-168.

R. Hamadi, B. Benatallah, and B. Medjahed, "Self-Adapting Recovery Nets for Policy-Driven Exception Handling in Business Processes," *Distributed and Parallel Databases (DAPD)*, 22(1), February 2008, pp. 1-44.

<u>Service:</u>   Professor Medjahed's service is rated excellent. His service to the department, the college, the university, and the field is exemplary for one at this stage in his academic career. He has participated as a program committee member in 58 conferences and workshops related to his research areas since joining the University of Michigan-Dearborn. Professor Medjahed also has participated in several conferences, organizations and editorial activities in the last few years. Locally, he has also participated in several committees at the department and college level. His curriculum development efforts are exemplary. Lastly, he has conducted several excellent outreach efforts.

<u>External Reviewers:</u>
Reviewer A: "Brahim is one of the first researchers to examine the problem of automatic composition of web services. ... This work has been published in a highly selective conference ... where the acceptance rates are extremely low. This speaks of the novelty and significance of this work. ... Overall, the quality of Brahim's publications is excellent. ... In summary, Brahim has clearly established himself as a leading researcher in the area of web services."

Reviewer B: "His work has pioneered many novel ideas in the area of service computing and because of his work he is recognized as a leader in the service computing research area. ... Clearly, I consider Dr. Medjahed an outstanding researcher."

Reviewer C: "My first knowledge of Dr. Medjahed was in relation to his paper entitled *Composing Web Services on the Semantic Web* published in *VLDB* 2003. This article was one of perhaps 4 or 5 articles that might be considered seminal to the area of web service composition. ... To have the number of citations to date in this area that Dr. Medjahed has is quite exceptional."

Reviewer D: "Overall, my impression is that Dr. Medjahed is an excellent researcher. ... Regarding his research track record it can be noted that it is excellent. ... He has an internationally proven excellent research reputation and has contributed to his research area."

Reviewer E: "Dr. Medjahed's research record is exemplary...An important marker for continued success is the ability to work beyond the efforts of the doctoral years to address new problem areas with the same level of rigor and determination."

Reviewer F: "The importance of his research thus cannot be overstated, because it has the potential to affect the way in which all large scale systems are implemented and deployed. Dr. Medjahed has been adapting these autonomic computing techniques to large-scale systems based on service-oriented architectures. This is very innovative."
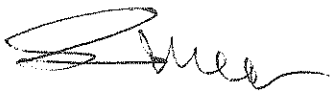
Reviewer G: "I particularly like to comment that his 2003 VDLB paper ... is one of the few foundational papers in the area of semantic web services. In summary, all the above research accomplishments and professional services demonstrate that [he] is already an outstanding academic researcher and will continue to become a leader in the field."

Reviewer H: "Generally, Dr. Medjahed's research contributions are very creative and novel.... He exhibits excellent understanding of the topics and explains them very well in his research description and in his publications."

Reviewer I: "Dr. Medjahed has been publishing in the top journals and conferences. He has increasingly been taking a leadership role in his field."

Summary of Recommendation
Professor Medjahed is an excellent researcher, an excellent teacher, and a valued colleague. He has published many well-cited papers in journals and conferences, has been successful in acquiring very competitive NSF and industrial funding, and has served on numerous journal and conference committees. His teaching is excellent in all of his courses, whether undergraduate or graduate. His service to the field, the campus, the college, and the department has also been excellent. We are very pleased to recommend, with the strong support of the College of Engineering and Computer Science Executive Committee, Brahim Medjahed for promotion to associate professor of computer and information science, with tenure, Department of Information and Computer Science, College of Engineering and Computer Science.

Subrata Sengupta
Dean
College of Engineering and Computer Science

Daniel Little
Chancellor
University of Michigan-Dearborn

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