

Curriculum Vitae

Brahim Medjahed

Professor
Department of Computer
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Short Biography

Dr. Brahim Medjahed is Associate Dean of Academic Programs and Initiatives for UM-Dearborn at the Rackham Graduate School, University of Michigan, Ann Arbor. He is also as Acting Associate Dean for Undergraduate Education at the University of Michigan – Dearborn’s College of Engineering and Computer Science (CECS) and Professor of Computer and Information Science at the University of Michigan – Dearborn. He received his PhD in Computer Science from Virginia Tech, USA in 2004. Dr. Medjahed was awarded the prestigious 2019 Michigan Distinguished Professor of the Year award by the Michigan Association of State Universities (MASU). This award recognizes the outstanding contributions and dedication exhibited by the faculty from the State of Michigan’s 15 public universities. Dr. Medjahed also received several other reputable awards including three (3) best research paper awards, the University of Michigan – Dearborn Distinguished Teaching award, the CECS Excellence in Teaching award, and the Outstanding Graduate Research award at Virginia Tech. His research focuses on advancing the state of the art in developing and maintaining service-oriented software. In particular, he is interested in exploring solutions for service integration in emerging environments such as cloud computing, the Internet of Things, big data, social computing, and crowdsourcing. Dr. Medjahed is regularly invited to give presentations about his research at several universities and companies around the world. He has more than 100 publications in premier journals and highly competitive conferences as well as two (2) books published by Springer. His research is funded through multiple grants from federal agencies and industry.

Education

Ph.D. - Computer Science

VIRGINIA TECH, Blacksburg, Virginia, USA

May 2004

M.S. - Computer Science

USTHB UNIVERSITY OF SCIENCE AND TECHNOLOGY, Algiers, Algeria

September 1995

Ingéniorat - Computer Science (5-year undergraduate program)

USTHB UNIVERSITY OF SCIENCE AND TECHNOLOGY, Algiers, Algeria

June 1991

Appointments

Associate Dean for Academic Programs and Initiatives for UM-Dearborn Rackham Graduate School UNIVERSITY OF MICHIGAN, Ann Arbor, Michigan	01/2019 - Present
Acting Associate Dean of Undergraduate Education College of Engineering and Computer Science UNIVERSITY OF MICHIGAN - DEARBORN, Dearborn, Michigan	09/2020 - Present
Professor Department of Computer and Information Science UNIVERSITY OF MICHIGAN - DEARBORN, Dearborn, Michigan Associate Professor: 09/2010 – 08/2018 Assistant Professor: 09/2004 – 08/2010	09/2018 - Present
Research Assistant Department of Computer Science VIRGINIA TECH, Blacksburg, Virginia	08/1999 - 12/2003
Lecturer (full-time) Department of Computer Science USTHB UNIVERSITY OF SCIENCE AND TECHNOLOGY, Algiers, Algeria	09/1995 – 03/1999

Research Interests

My research focuses on advancing the state of the art in developing and maintaining service-oriented software systems. In particular, I am interested in exploring solutions for service integration in emerging environments such as cloud computing, Internet of Things (IoT), big data, social computing, and crowdsourcing. A crucial question that runs through all my research is how to come-up with novel techniques to assist developers in integrating applications into service-oriented systems despite the sheer complexity of the environments they operate in. My main research interests are summarized below:

- Service Computing, Cloud Services, Data Integration, Privacy and Trust, Crowdsourcing, Ontology.

Honors and Awards

1. Michigan Distinguished Professor of the Year, Michigan Association of State Universities (MASU), 2019.
 - The Michigan Distinguished Professor of the Year award recognizes the outstanding contributions and dedication exhibited by the faculty from Michigan's 15 public universities to the education of undergraduate students. Each university was invited to nominate a faculty member who has had a significant impact on undergraduate student learning

- through various activities, particularly classroom instruction, applied research, experiential learning, innovation and mentoring.
2. Promoted to Professor with Tenure at UM – Dearborn, September 2018.
 3. Distinguished Teaching Award, University of Michigan – Dearborn, 2018.
 4. Excellence in Teaching Award, College of Engineering and Computer Science, 2018.
 5. Elevated to IEEE Senior Member grade, 2017.
 6. Best Paper Awards
 - a. Trevor O. Jones Outstanding Paper Award, SAE 2019 World Congress (WCX19), 2019.
 - b. Best Student Paper Award, International Conference on Web Services, ICWS 2015 (peer-reviewed with 17% acceptance rate).
 - c. Best Paper Award, The Computer Journal (one of the longest-established journals in computing), 2008.
 7. Number of Citations: 3858 - Source: Google Scholar (as of 8/4/2020).
 8. Author of 4 papers with more than 200 citations and 8 papers with more than 100 citations.
 9. Author of 2 of the most cited articles in the premier VLDB Journal (top journal in data management). The articles are ranked 9th and 15th most cited from a total of 915 papers, since 1987 (source Harzing's Publish or Perish tool as of 9/27/17).
 10. Selected as one of the faculty in the first established Ford Faculty Summer Internship program, Summer 2017 (<https://umdearborn.edu/news/articles/ford-um-dearborn-create-new-summer-internship-program>).
 11. Student Competition Awards
 - a. Award 1: Three (3) of my undergraduate advisees (WeStudy project) received a runner-up award in the Fall 2011 U-M Mobile Apps Challenge (<https://umdearborn.edu/news/articles/study-app-wins-honors-mobile-app-challenge>).
 - b. Award 2: Four (4) of my undergraduate advisees (CourseFeeds project) received an award for best project in the education category in the Fall 2012 U-M Mobile Apps Challenge (<http://mobileapps.umich.edu/content/winners-fall-2012-u-m-mobile-apps-challenge>).
 12. My research was showcased in different media outlets at the college level, campus level, as well as local and national media. Below are examples of news coverage with links:
 - a. UM-Dearborn's Business Engagement Center: <https://umdearborn.edu/news/articles/news-business-engagement-center-tech-takeover-cybersecurity-and-more>
 - b. The University Record: http://ur.umich.edu/0910/Jan18_10/652-um-dearborn-students-professors-working-on-ford-sync-apps
 - c. Dearborn Engineer: <http://www-personal.umd.umich.edu/~brahim/TRW-BIA.pdf>
 - d. UM-Dearborn News: <https://umdearborn.edu/news/articles/event-showcases-information-technology-projects>
 - e. CBS News: <https://www.cbsnews.com/news/ford-has-a-better-idea-yours/>
 - f. Engadget: <https://www.engadget.com/2009/12/18/ford-to-give-sync-some-app-store-flavor-opening-api-to-devs-in/>
 - g. ZDNet: <http://www.zdnet.com/article/with-ford-sync-michigan-students-bring-downloadable-apps-to-cars/>
 - h. PR Newswire: <http://www.prnewswire.com/news-releases/six-students-three-months-100000-apps-ford-embraces-mobile-app-innovation-for-sync-79549672.html>
 - i. WIRED: <https://www.wired.com/2009/10/ford-michigan/>
 - j. Geek.com: <https://www.geek.com/mobile/ford-announces-app-store-for-sync-applications-1363885/>
 - k. PC Magazine: <https://www.pcmag.com/article2/0,2817,2357565,00.asp>

13. Promoted to Associate Professor with Tenure at UM – Dearborn, September 2010.
14. Nominated by Virginia Tech’s Department of Computer Science for the ACM Doctoral Dissertation Award, 2004.
15. “Outstanding Graduate Research Award”, Department of Computer Science, Virginia Tech, 2004.
16. “Outstanding Reviewer” by IEEE Internet Computing, 2002.
17. BS in Computer Science, *summa cum Laude*.

Teaching

New courses introduced at U of M - Dearborn

1. CIS 5570 - Introduction to Big Data (3 cr. hrs.): *Co-Developed in 2014*
This course provides an overview of what big data is and explores its characteristics. It introduces the fundamental technologies, platforms, and methods that enable big data analysis, and covers how to acquire, store, and analyze very large amounts of information to complete Big Data analysis tasks. Students will gain hands-on experience in real-world applications of Big Data such as in cyber-physical systems and health informatics. Most of the work in this course will be team-based and task-oriented.
2. CIS 534 - Semantic Web (3 cr. hrs.): *Developed and taught the course since 2011*
The aim of this course is to investigate the fundamental concepts, techniques, and technologies for enabling the envisioned semantic Web. The topics to be covered include ontologies, domain modeling, logic, reasoning and inference techniques, semantic Web services, and ontology interoperation/mappings. We will review major semantic web research projects, as well as current technologies for enabling the semantic web.
3. CIS 425 - Information Systems (4 cr. hrs.): *Developed and taught the course since 2011*
The course introduces the major concepts and techniques for designing and implementing information systems and their role in modern organizations. Topics includes systems development life cycle (SDLC), project management, ethical issues in information systems, Web-based information systems, data integration, XML, Web services, business process management, and business intelligence.
4. CIS 571 - Web Services (3 cr. hrs.): *Developed and taught the course since 2005*
In this course, we study the major concepts and techniques for enabling Web service based interactions on the Web. The objective is to familiarize the students with the recent trends in industry and academia to address Web service research issues. The course will address various aspects of Web services including the SOAP Services, WSDL, REST services, Web service composition, service mashup, cloud services, security and privacy in Web services, Web Service Coordination.
5. PDED 518 - IT in STEM (3 cr. hrs.): *Co-developed and co-taught the course in Summer 2007*
This course focuses on information technology (IT) applications in the context of Science, Technology, Engineering, and Mathematics (STEM). The science component will concentrate on three different but related applications of IT in the sciences; measurement, modeling, and mapping. The technology component will focus on technological tools and languages for designing and developing Web applications such as Web-based games and chat-rooms. The engineering component will emphasize the basics of robotics and its applications as related to IT. The mathematics component will focus on statistical science taking examples and assignments from public health/environmental science and manufacturing reliability.

Courses taught at U of M – Dearborn

- Average Student Evaluation Score: 4.9/5.0:
 - CIS 150 and CIS 150L (4 credits): Computer Science 1 (Lecture and Lab)
 - CIS 294 (3 credits): Introduction to Visual Basic
 - CIS 4261 (4 credits): Information Systems Design and Analysis 1
 - CIS 4262 (4 credits): Information Systems Design and Analysis 2
 - CIS 425 (4 credits): Information Systems
 - CIS 476/566 (3 credits): Software Architecture and Design Patterns
 - CIS 571 (3 credits): Web Services
 - CIS 634/534 (3 credits): Semantic Web
 - PDED 518 (3 credits): IT in STEM

Undergraduate Student Competition Awards

- Two (2) of the undergraduate student teams I supervised received competitive awards in the Fall 2011 and 2012 U-M Mobile Apps Challenge. The awarded projects were considered as “examples of innovation at the University of Michigan” (<http://mobileapps.umich.edu/mobile-challenge/>).
- The first team of 3 undergraduate students (weStudy project) was runner-up (2nd place award) for best project in the 2011 competition.
- The second team of 4 undergraduate students (CourseFeeds project) was selected as the best project in the educational application category (also runner-up, in the overall ranking)
- I received funding through IAVS (Institute of Advanced Vehicle Systems) in CECS and UM-Dearborn alumnus Jim Brailean (2011 UM-Dearborn Distinguished Alumnus) and his company PacketVideo to sponsor the awarded teams.
- Articles about the awards received by the student teams were published in the UM-Dearborn News:
 - weStudy News Coverage: <https://umdearborn.edu/news/articles/study-app-wins-honors-mobile-app-challenge>
 - CourseFeeds News Coverage: <https://umdearborn.edu/news/articles/new-app-connect-students-academic-resources>

Undergraduate Student Research

- I advised a total of 9 undergraduate students through various sponsored research projects as listed below:
 - Fostering Interest in Information Technology Project (2 undergraduate students) – Research project funded by the National Science Foundation (NSF).
 - Workflow System for Brake Instability Analysis Project (1 undergraduate student) – Research project funded by TRW Automotive.
 - Ford Sync Project, 2010 (6 undergraduate students) – Research project funded by Ford.
 - A demo of the project was attended by 30+ reporters at Ford facilities (see news coverage below)
- My research with undergraduates was showcased in different media outlets at the college level, campus level, as well as local and national media. Below are examples of news coverage highlighting undergraduate student participation:
 - Ford Sync Project News Coverage:

- The University Record: http://ur.umich.edu/0910/Jan18_10/652-um-dearborn-students-professors-working-on-ford-sync-apps
- CBS News: <https://www.cbsnews.com/news/ford-has-a-better-idea-yours/>
- Engadget: <https://www.engadget.com/2009/12/18/ford-to-give-sync-some-app-store-flavor-opening-api-to-devs-in/>
- ZDNet: <http://www.zdnet.com/article/with-ford-sync-michigan-students-bring-downloadable-apps-to-cars/>
- Geek.com: <https://www.geek.com/mobile/ford-announces-app-store-for-sync-applications-1363885/>
- PC Magazine: <https://www.pcmag.com/article2/0,2817,2357565,00.asp>
- TRW Project News Coverage:
 - Dearborn Engineer: <http://www-personal.umd.umich.edu/~brahim/TRW-BIA.pdf>
- NSF Project News Project:
 - UM-Dearborn News: <https://umdearborn.edu/news/articles/event-showcases-information-technology-projects>

Teaching-related Outreach

- Organized a 2-week summer coding camp for girls in partnership with Westland Schools. The G3 (Girls, Golf, and Gadgets) aims at combining sports with coding (designing mobile apps) to motivate young girls to pursue majors in engineering and computer science. Below are links to news coverage about G3:
 - a. UM-Dearborn News: <https://umdearborn.edu/news/articles/summer-youth-golf-program-targeting-kink-stem-education-pipeline>
 - b. G3 Web Page and Video: <https://umdearborn.edu/cecs/extended-learning-outreach/k-12-outreach-initiatives/programs-and-events/educational-outreach-partnerships/girls-golf-and-gadgets>
- Organized seminars at Robichaud High School (Dearborn Heights) to introduce mobile app development to high school students. The 15 participating students (Fall 2014) were able to successfully develop 3 different apps, although they did not have any prior programming experience.
- Co-developed and co-taught (with Drs. Mesut, Hoft, Zitzewitz, Orady) a short course on STEM (PDED 518: IT in STEM) to 20 high school teachers from Detroit Public Schools (Summer 2008).
- Co-organized a 2-week summer-camp for 10 high-school students from Detroit Public Schools (Summer 2009). The camp included a 1-day visit to a game development company (Reactor Zero) in Ann Arbor.
- Co-organized (with Drs. Mesut, Hoft, Zitzewitz, Orady) a half-day campus visit to the University of Michigan - Dearborn for 150 high-school students and 10 high-school teachers from Detroit Public Schools (June 2008).
- Co-organized several workshops (a total of 6) familiarizing 40 high-school students from Detroit Public Schools with computer programming (2008-2010).

Scholarly Contribution in Education

- STEM Education Research Grant. I was co-PI in a major NSF grant (\$900K for 3 years) to investigate a novel critical framework for fostering interest in information technology. The aim

was to study how the use of IT tools could improve K12 students' perception and motivation to pursue STEM related major. The project was multi-disciplinary and involved faculty from CEHHS, CASL, and CECS,

- STEM Education Research Publications. I have three publications in STEM education research: 1 book (Springer), 1 journal article, and 1 conference paper. Below are the three publications:
 - M. Duran, M. Hoft, B. Medjahed, D. Lawson, E. Orady (editors). "STEM Learning – IT Integration and Collaborative Strategies". *Springer*, ISBN: 978-3-319-26179-9, 183 pages, January 2016.
 - M. Duran, M. Hoft, D. Lawson, B. Medjahed, E. Orady. "Urban High School Students' IT/STEM Learning: Findings from a Collaborative Inquiry and Design-Based Afterschool Program". *Journal of Science Education and Technology*, Springer, 23(1), pp. 116 – 137, February 2014
 - M. Duran, B. Medjahed. "Fostering Interest in Information Technology (FI3T): Critical Framework". *20th International SITE Conference*, Charleston, South Carolina, March 2009.

Lab Development

1. I established the "Service and Cloud Computing (SC2) Research Laboratory" (CIS building, Room 214). More than 70 graduate students (MS and PhD) and 16 undergraduate students conducted research in the SC2 lab.

Ph.D. committee Chaired/Co-Chaired

Note: The Ph.D. Program in CIS at UM-Dearborn started in Fall 2017. Before the creation of individual department's Ph.D. Programs, the only two Ph.D. Programs available in the College of Engineering and Computer Science (CECS) were interdisciplinary in Information Systems Engineering and in Automotive Systems Engineering.

1. Faisal Binzagr, 2022, PhD in Computer and Information Science, UM-Dearborn, "Computational Intelligence Support for Cloud Services", Chair.
2. Hamza Labbaci, 2020, PhD in Computer Science, University of Algiers, Algeria, "Machine Learning Approach for Web Service Interactions", Co-Chair.
3. Salah-Edine Tbahriti, 2013, PhD in Computer Science, University of Lyon, France, "Service-oriented Approach for Privacy Preserving Service Compositions", Co-Advisor.
4. Amal Alhosban, 2013, PhD in Computer Science, Wayne State University, "Fault Management in Service-Oriented Systems", Co-Advisor.

Member in PhD Committees

1. Ahmad Nasser, 2019, "A Systematic Approach to Security in Safety Critical Automotive Systems", PhD in Information Systems Engineering, University of Michigan – Dearborn.
2. Ziyad Hailat, 2018, "Deep Learning Methods for Visual Object Recognition", PhD in Computer Science, Wayne State University.
3. Hanzhang Wang, 2018, "Prediction, Detection, and Correction of Web Services Design Defects: A Search-based Framework", PhD in Information Systems Engineering, University of Michigan – Dearborn.
4. Wiem Mkaouer, 2016, "Balancing Competing Needs of Machine and Human in Software Refactoring", PhD in Information Systems Engineering, University of Michigan – Dearborn.
5. Khayyam I. Hashmi, 2016, "Automated Negotiation Among Web Services", PhD in Computer Science, Wayne State University.
6. Fayez Saleem Khazalah, 2015, "Semantic Web-based Relational Database Access with Conflict Resolution", PhD in Computer Science, Wayne State University.

7. Scott Bourne, 2015, "Formal Verification of Transactional and Configurable Service-Oriented Processes", PhD in Computer Science, The University of Adelaide, Australia.
8. Chao Zhu, 2014, "Optimization of Progressive Queries via Materialized Views for Large Databases", PhD in Information Systems Engineering, University of Michigan – Dearborn.

M.S. students advised/co-advised

Advisor for MS Thesis:

1. Faisal Binzagr, 2017, MS Thesis Title: "Privacy-Preserving Mining of Service Conversations", Chair.
2. Venkata Prasanna, 2016, MS Thesis Title: "LinkWiper: A System for Data Quality in Linked Open Data", Chair.
3. Luke Duncan, 2012, MS Thesis Title: "Growing Measurement-Calibrated Graphs From Scrapped Data Sources", Chair.
4. Olu Obembe, 2009, MS Thesis Title: "Duplicate Class Resolution by Proximity", Chair.
5. Shamil Hadi, 2008, MS Thesis Title: "Change Detection in Service-Oriented Architectures", Chair.

Member in MS Thesis Committees:

1. Manvi Kamboj, 2019, MST Thesis Title: "Deception Detection in Political Statements", Committee Member.
2. Huaxin Li, 2018, MS Thesis Title: "Developing Advanced Privacy Protection Mechanisms for Connected Automotive User Experiences", Committee Member.
3. Shashank Shivarudrappa, 2018, MS Thesis Title: "Real-time Physiological Identification using Incremental Learning and Semi-Supervised Learning", Committee Member.
4. Alex Melville, 2017, MS Thesis Title: "An Automatic System for Characterization and Detection of Ocular Noise", Committee Member.
5. Yarong Gu, 2017, MS Thesis Title: "Genome Sequencing Error Correction via Disk Based Indexing and Box Querying", Committee Member.
6. Rafi Almhana, 2016, MS Thesis Title: "Recommending Relevant Classes for Bug Reports using Multi-objective Search", Committee Member.
7. Fun Jirigesi, 2016, MS Thesis Title: "Personalized Web Service Interface Design using Interactive Computational Search", Committee Member.
8. Xianying Liu, 2015, MS Thesis Title: "A New Virtual Approximate Store Approach To Supporting Repetitive Big Data in Genome Sequence Analyses", Committee Member.
9. Sania Halawi, 2012, MS Thesis Title: "Step Query Recommendation for Progressive Queries in Database Management Systems", Committee Member.
10. Nan Wang, 2012, MS Thesis Title: "Thermal Management for Periodic Real Tasks in 3D Multicore Systems", Committee Member.
11. Viktor Aboyan, 2010, MS Thesis Title: "Universal Protocol for Interoperability between Course Management Systems using Web Services", Committee Member.
12. Lilit Yenokyan, 2009, MS Thesis Title: "Learning Model for Construction of the Best Decision Sequence using Prior Knowledge", Committee Member.
13. Rafayel Bezirganyan, 2009, MS Thesis Title: "Cellular Automata for Fluid Dynamics: Modeling and Implementation", Committee Member.
14. Hyun Jeong Seok, 2009, MS Thesis Title: "Bulk Loading and Deletion Techniques for Index Trees in Non-Ordered Discrete Data Spaces", Committee Member.
15. Anshuman Sharma, 2006, MS Thesis Title: "In-Vehicle Database Management Techniques for

- Efficient Vehicular Applications”, Committee Member.
16. Yuri Siradeghyan, 2006, MS Thesis Title: “Association Rule Mining for Manufacturing and Warranty Data”, Committee Member.
 17. Goke Ojewole, 2005, MS Thesis Title: “Approximate Sliding Window Joins over Data Streams Utilizing Importance Semantics”, Committee Member.

Advisor in MS Capstone Projects:

1. Venkat Anvesh Reddy Chinnareddygar, 2020, Advisor.
2. John Reese, 2019, Advisor.
3. Akash Pavate, 2018, Advisor.
4. Natpinij Sowapart, 2018, Advisor.
5. Jackie Cobb, 2018, Advisor.
6. Kulthom Aboali, 2018, Advisor.
7. Yinan Li, 2017, Advisor.
8. Chankya Volam, 2017, Advisor.
9. Rehab Alatawi, 2016, Advisor.
10. Nanditha Kothakota, 2016, Advisor.
11. Suhasini Nandanor, 2016, Advisor.
12. Sai Ishwarya Reddy Patlola, Advisor.
13. Satya Bhagyasree Chebrolu, Advisor.
14. Srinivasa Duvvuri, 2016, Advisor.
15. Lakshmi Malati Kambhampati, 2016, Advisor.
16. Krishna Konda, 2016, Advisor.
17. Venkata Sai Durga Makkapati, 2016, Advisor.
18. James Solberg, 2015, Advisor.
19. Anas Fattahi, 2015, Advisor.
20. Priti Shinde, 2015, Advisor.
21. Saad Elias, 2015, Advisor.
22. Yashawi A. Jiwatode, 2015, Advisor.
23. Ramya M. Kothapalli, 2015, Advisor.
24. Carlos P. Devoto, 2014, Advisor.
25. Thomas D. Green, 2014, Advisor.
26. Kesavan Ravichandran, 2014, Advisor.
27. Ratheesh Kamoor, 2014, Advisor.
28. Marinus Nassian, 2014, Advisor.
29. Bernardo Pacheco-Marin, 2014, Advisor.
30. Pritesh Patel, 2014, Advisor.
31. Lisa Snyder, 2014, Advisor.
32. Benjamin Wegner, 2014, Advisor.
33. Abdulkader Alriyashi, 2014, Advisor.
34. Vinita Jain, 2014, Advisor.
35. Krysztof Matyszewski, 2013, Advisor.
36. Craig Foucher, 2013, Advisor.
37. Michael Edwards, 2013, Advisor.
38. Mark J. Jochum, 2013, Advisor.
39. Brandtt C. Pruel, 2012, Advisor.
40. Jonathan M. Pollock, 2012, Advisor.

41. Shashi Shekhar, 2012, Advisor.
42. Ahmad H. Almobarak, 2011, Advisor.
43. Krishna Marur, 2011, Advisor.
44. Neha D. Rahangdale, 2011, Advisor.
45. David A. Werden, 2011, Advisor.
46. Daren J. Iott, 2010, Advisor.
47. David J. Terpstra, 2010, Advisor.
48. Ali I. Cheaito, 2010, Advisor.
49. Dominik Lazarski, 2010, Advisor.
50. Samip Desai, 2009, Advisor.
51. Lyndon King, 2009, Advisor.
52. Gregory R. Kastelan, 2009, Advisor.
53. Shruti Saraswat, 2009, Advisor.
54. Mundher A. Al-Bakkal, 2008, Advisor.
55. Vyacheslav Inger, 2008, Advisor.
56. Kevin S. McClure, 2008, Advisor.
57. Muniza Movania, 2008, Advisor.
58. Mitulkumar Patel, 2008, Advisor.
59. Hassan Abdel Sater, 2008, Advisor.
60. Pradeep Vadde, 2007, Advisor.
61. Daniel Miller, 2007, Advisor.
62. Hassan Nasrollahzadeh, 2007, Advisor.
63. Tariq Alshugran, 2007, Advisor.
64. Arpan Shah, 2007, Advisor.
65. Pankaja Balaji, 2006, Advisor.
66. Srikant Vaishampayan, 2006, Advisor.
67. Iyappan Ramasamy, 2006, Advisor.
68. Vasumathi Raman, 2006, Advisor.
69. Dheeman Basu, 2006, Advisor.
70. Roshini Bhala, 2006, Advisor.
71. David Carver, 2005, Advisor.
72. Ramesh Akkineni, 2005, Advisor.
73. Jennifer Durkee, 2005, Advisor.

Research

Grant and contracts

1. Community Foundation for Southeast Michigan, co-PI.
“G3 (Golf, Girls, and Gadgets)”.
Amount: \$15K. 07/2019 - 08/2019. M. Girard (PI), M. Duran (co-PI), B. Medjahed (co-PI)
2. Ford Motor Company, PI
“Developing Advanced Privacy Protection Algorithms for Connected Automotive User Experience”, Amount: \$191,154. 04/2016 – 05/2018. B. Medjahed and D. Ma.
3. Ford Motor Company, PI
Faculty Summer Internship Award, Ford Alliance Program, Summer 2017.

4. Institute of Advanced Vehicle Systems (IAVS), UM – Dearborn, co-PI
“A High-dimensional Multi-level Framework to Improve Software Quality”, \$20,000, 12/2013 – 09/2014. M. Kessentini (PI), B. Medjahed, K. Deb.
5. Ford Motor Company, PI
“SYNCLet: Mobile Phone Extensions for Vehicle Appropriate Use”, Amount: \$25,000. 01/2010 – 12/2010. B. Medjahed (PI) and P. Watta.
6. National Science Foundation (NSF), co-PI
“Fostering Interest in Information Technology”, Amount: \$900,000. 09/2007 - 09/2011. M. Duran (PI), M. Hoft, B. Medjahed, E. Orady, and P. Zitsewitz,
7. TRW Automotive, PI
“A Workflow System for Brake Instability Analysis”, Amount \$3,000. 02/2008 – 06/2008. B. Medjahed.
8. US Department of State, Senior Personnel
“The Professional Mentoring and Networking Program for Women in Engineering”, Amount: \$349,305. 09/2008 - 08/2009. J. Cristiano (PI), B. Medjahed (senior personnel with 6 other faculty from UM-Dearborn).
9. University of Michigan, Ann Arbor, Office of the Vice President for Research (OVPR), PI.
“Chamaeleo: Self-Managing Changes in Dynamic Service-Oriented Applications”. Amount \$17,000, 05/2007 – 05/2008. B. Medjahed.
10. UM - Dearborn, Center for Engineering Education and Practice (CEEP), PI
“A Self-Healing Approach for End-To-End Change Management in Service-Oriented Architectures”, Amount \$45,402. 09/2008 - 08/2010. B. Medjahed.
11. UM - Dearborn, Center for Engineering Education and Practice (CEEP), co-PI
“Developing In-Vehicle Database Management Techniques for Efficient Vehicular Applications”, Amount \$56,000. 07/2005 - 06/2007, Q. Zhu (PI) and B. Medjahed.

Journal Publications

1. A. Alhosban, Z. Malik, K. Hashmi, B. Medjahed, H. Al-Ababneh. “A Two Phases Self-healing Framework for Service-oriented Systems”. *ACM Transactions on the Web*, 15(2), Article 7, April 2021.
2. H. Labbaci, B. Medjahed, Y. Aklouf. “A Social Network Approach for Recommending Interoperable Web Services”. *Distributed And Parallel Databases (DAPD)*, 38(4), 927-961, December 2020.
3. A. Rezgui, N. Davis, Z. Malik, B. Medjahed, H. Soliman. “CloudFinder: A System for Processing Big Data Workloads on Volunteered Federated Clouds”. *IEEE Transactions on Big Data*. Accepted (12 pages). 6(2): 347-358, June 2020.
4. H. Li, D. Ma, B. Medjahed, Y. S. Kim, P. Mitra. “Data Privacy in Emerging Connected Mobility Services: Architecture, Use Cases, Privacy Risks, and Countermeasures”. *SAE International Journal of Transportation Cybersecurity and Privacy*, 2(1), July 2019.
5. H. Li, D. Ma, B. Medjahed, Y. S. Kim, and P. Mitra. “Analyzing and Preventing Data Privacy Leakage in Connected Vehicle Services,” *SAE Int. J. Adv. & Curr. Prac. in Mobility* 1(3):1035-1045, Apr. 2019.
6. A. Cherouane, L. Mahdaoui, L. Bellatreche, B. Medjahed. “A Semantic Approach for Generating Government Processes”. *International Journal of Web and Grid Services*, 15(1), pp. 59-92, January 2019.

7. M.N. And Rahman, B. Medjahed, E. Orady, M.R. Muhammad, R. Abdullah, A.S.M. Jaya. "Cloud Manufacturing: Issues and Opportunities". *Journal of Advanced Manufacturing Technology* (13 pages), 12(1), 2018.
8. A. Bouguettaya, M. Singh, M. Huhns, Q. Z. Sheng, H. Dong, Q. Yu, A.G. Neiat, S. Mistry, B. Benatallah, B. Medjahed, M. Ouzzani, F. Casati, X. Liu, H. Wang, D. Georgakopoulos, L. Chen, S. Nepal, Z. Malik, A. Erradi, Y. Wang, B. Blake, S. Dustdar, F. Leymann, M. Papazoglou. "A Service Computing Manifesto: The Next Ten Years". *Communications of the ACM*, 60(4), pp. 64-72, April 2017.
9. K. Hashmi, A. Alhosban, Z. Malik, and B. Medjahed. "A Web Service Negotiation Management and QoS Dependency Modeling Framework". *ACM Transactions on Management Information Systems*, 7(2), Article 5, 33 pages, May 2016.
10. Z. Malik, B. Medjahed, A. Rezgui. "sCARE: Reputation Estimation on Uncertain Web Services". *ACM Transactions on Internet Technology*, 16(1): Article 7, 20 pages, February 2016.
11. I. Benamor, S. Benbernou, M. Ouziri, Z. Malik, B. Medjahed. "Discovering Best Teams for Data Leak aware Crowdsourcing in Social Networks". *ACM Transactions on the Web*, 10(1): Article 2, 27 pages, February 2016.
12. A. Alhosban, K. Hashmi, Z. Malik, B. Medjahed, S. Benbernou. "Bottom-up Fault Management in Service-based Systems". *ACM Transactions on Internet Technology*, 15(2), Article 7, 40 pages, June 2015.
13. S.-E. Tbahriti, C. Ghedira, B. Medjahed, M. Mrissa. "Privacy-Enhanced Web Service Composition". *IEEE Transactions on Services Computing*. 7(2), pp. 210 – 222, June 2014.
14. M. Duran, M. Hoft, D. Lawson, B. Medjahed, E. Orady. "Urban High School Students' IT/STEM Learning: Findings from a Collaborative Inquiry and Design-Based Afterschool Program". *Journal of Science Education and Technology*, Springer, 23(1), pp. 116 – 137, February 2014
15. S.E. Tbahriti, C. Ghedira, B. Medjahed, M. Mrissa, D. Benslimane. "How to Enhance Privacy within DaaS service Composition". *International IEEE Systems Journal*, 7(3), pp. 442 – 454, September 2013.
16. A. Alhosban, K. Hashmi, Z. Malik, B. Medjahed. "MASC: Matching Alternative Services in the Cloud". *International Journal of Electronic Business Management*, 11(3), pp. 157-167, September 2013.
17. S.E. Tbahriti, B. Medjahed, C. Ghedira. "Modeling and Respecting Privacy Specification when Composing DaaS Services". *International Journal of Web Service Research*, 9(4), pp. 24 – 44, December 2012.
18. A. Alhosban, K. Hashmi, Z. Malik, B. Medjahed. "S2R: A Semantic Web service Similarity and Ranking Approach". *International Journal of Next-Generation Computing*, 3(2), pp. 173-193, July 2012.
19. M. Barhamgi, C. Ghedira, D. Benslimane, B. Medjahed. "An SOA-based Architecture to Share Medical Data with Privacy Preservation". *International Journal of Organizational and Collective Intelligence*, 2(3), pp. 11-26, August 2011.
20. Z. Malik, A. Rezgui, B. Medjahed, M. Ouzzani, K. Sinha. "Semantics-Enabled Integration in Geosciences". *International Journal of Semantic Computing*, 4(3), pp. 301-330, December 2010.
21. M. Barhamgi, D. Benslimane, B. Medjahed. "A Query Rewriting Approach for Web Service Composition". *IEEE Transactions on Services Computing*, 3(3), pp. 206-222, September 2010.
22. Q. Yu, M. Rege, A. Bouguettaya, B. Medjahed, M. Ouzzani. "A Two-phase Framework for Quality-aware Web service Selection". *Service Oriented Computing and Applications*, 4(2), pp. 63-79, June 2010.

23. B. Medjahed, S. Hadi, W. Grosky. "A Semantic Service-Oriented Framework for Controlling Invasive Species in Agriculture". *International Journal of Metadata, Semantics, and Ontologies*, 4(1/2), pp. 34-41, January/February 2009.
24. B. Medjahed. "Dissemination Protocols for Event-based Service-Oriented Architectures". *IEEE Transactions on Services Computing*, 1(3), pp. 155-168, September 2008.
25. Q. Zhu, B. Medjahed, A. Sharma, H. Huang. "The Collective Index: A Technique for Efficient Processing of Progressive Queries". *The Computer Journal*, 51(6), pp. 662-676, November 2008.
 - Best Paper Award, *The Computer Journal*, 2008. One of the longest-established journals in computing.
26. Q. Yu, X. Liu, A. Bouguettaya, B. Medjahed. "Deploying and Managing Web Services: Issues, Solutions, and Directions". *The VLDB (Very Large Data Bases) Journal*, 17(3), pp. 537-572, May 2008.
 - 15th most cited articles in the premier VLDB Journal (top journal in data management from a total of 915 papers, since 1987 (source Harzing's Publish or Perish tool as of 9/27/17)).
27. R. Hamadi, B. Benatallah, B. Medjahed. "Self-Adapting Recovery Nets for Policy-Driven Exception Handling in Business Processes". *Distributed and Parallel Databases (DAPD)*, 22(1), pp. 1-44, February 2008.
28. B. Medjahed, Y. Atif. "Context-Based Matching for Web Service Composition". *Distributed and Parallel Databases (DAPD)*, 21(1), pp. 5-37, February 2007.
29. B. Medjahed, A. Bouguettaya. "Customized Delivery of E-Government Web Services". *IEEE Intelligent Systems*, 20(6), pp. 77-84, December 2005.
30. B. Medjahed, A. Bouguettaya. "A Multilevel Composability Model for Semantic Web Services". *IEEE Transactions on Knowledge and Data Engineering (IEEE TKDE)*, 17(7), pp. 954-968, July 2005.
31. B. Medjahed, A. Bouguettaya. "A Dynamic Foundational Architecture for Semantic Web Services". *Distributed and Parallel Databases (DAPD)*, 17(2), pp. 179-206, March 2005.
32. B. Medjahed, B. Benatallah, A. Bouguettaya, A. Elmagarmid. "WebBIS: An Infrastructure for Agile Integration of Web Services". *International Journal of Cooperative Information Systems*, 13(2), pp. 121-158, June 2004.
33. B. Medjahed, A. Bouguettaya, and A. Elmagarmid. "Composing Web Services on the Semantic Web". *The VLDB (Very Large Data Bases) Journal*, 12(4), pp. 333-351, November 2003.
 - 9th most cited articles in the premier VLDB Journal (top journal in data management from a total of 915 papers, since 1987 (source Harzing's Publish or Perish tool as of 9/27/17)).
34. X. Yang, A. Bouguettaya, B. Medjahed, H. Long, W. He. "Organizing and Accessing Web Services on Air". *IEEE Transactions on Systems, Man, and Cybernetics - Part A*, 33(6), pp. 742-757, November 2003.
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36. B. Medjahed, A. Rezgoui, A. Bouguettaya, M. Ouzzani. "Infrastructure for E-Government Web Services". *IEEE Internet Computing*, 7(1), pp. 58-65, January/February 2003.
37. A. Bouguettaya, M. Ouzzani, B. Medjahed, J. Cameron. "Managing Government Databases". *IEEE Computer*, 34(2), pp. 56-64, February 2001.

Shorter communications, letters, notes, or briefs in Journals

1. B. Medjahed, A. Bouguettaya, B. Benatallah. "Introduction to Special Issue on Semantic Web Services". *ACM Transactions on Internet Technology*, 8(1), Article 1, 2 pages, November 2007.

Books

1. M. Duran, M. Hoft, B. Medjahed, D. Lawson, E. Orady (editors). "STEM Learning – IT Integration and Collaborative Strategies". Springer, ISBN: 978-3-319-26179-9, 183 pages, January 2016.
2. B. Medjahed, A. Bouguettaya. "Service Composition for the Semantic Web". Springer, ISBN: 978-1-4419-8464-7, 191 pages, February 2011.

Refereed conference or symposium proceedings papers

1. M. Duran, B. Medjahed, J. Girard. "Girls, Golf, and Gadgets (G3): Project Evaluation". *32nd International SITE (Society for Information Technology and Teacher Education) Conference*, New Orleans, Louisiana, April 2020.
2. F. Binzagr, H. Labbaci, B. Medjahed. "FAME: An Influencer Model for Service-Oriented Environments". *17th International Conference on Service-Oriented Computing (ICSOC)*, Toulouse, France, October 2019. Invited Research Paper. Acceptance Rate: 15%.
3. H. Labbaci, N. Cheniki, Y. Sam, N. Messai, B. Medjahed, Y. Aklouf. "A Linked Open Data Approach for Web Service Evolution". *27th International Conference on Cooperative Information Systems (CooPIS)*, Rhode, Greece, October 2019. Acceptance Rate: 23%.
4. H. Li, D. Ma, B. Medjahed, Y.-S. Kim, P. Mitra. "Analyzing and Preventing Data Privacy Leakage in Connected Vehicle Services". *WCX19: SAE World Congress Experience*. Detroit, Michigan, April 2019.
 - Trevor O. Jones Outstanding Paper Award.
5. F. Binzagr, B. Medjahed. "CrowdMashup: Recommending Crowdsourcing Teams for Mashup Development". *The 16th International Conference on Service-Oriented Computing, ICSOC 2017*, Hangzhou, China, November 2018. Acceptance Rate: 15%.
6. H. Labbaci, B. Medjahed, Y. Aklouf. "A Deep Learning Approach for Quality-Aware Long-Term Service Composition". *The 15th International Conference on Service-Oriented Computing, ICSOC 2017*, Malaga, Spain, pp. 287 – 294, November 2017. Acceptance Rate: 15%.
7. H. Labbaci, B. Medjahed, F. Binzagr, Y. Aklouf. "A Deep Learning Approach for Web Service Interactions". *The 2017 IEEE/WIC/ACM International Conference on Web Intelligence, WI 2017*, Leipzig, Germany, pp. 848 – 854, August 2017. Acceptance Rate: 38.8%
8. H. Labbaci, B. Medjahed, Y. Aklouf. "Learning Interactions from Web Service Logs". *The 28th International Conference on Database and Expert Systems Applications, DEXA 2017*, Lyon, France, pp. 275 – 289, August 2017. Acceptance Rate: 22%
9. H. Li, D. Ma, B. Medjahed, Q. Wang, Y.-S. Kim, P. Mitra. "Secure and Privacy-Preserving Data Collection Mechanisms for Connected Vehicles". *WCX17: SAE World Congress Experience*. Detroit, Michigan, April 2017.
10. H. Labbaci, B. Medjahed, Y. Aklouf, Z. Malik. "Follow the Leader: A Social Network Approach for Service Communities". *The 14th International Conference on Service-Oriented Computing, ICSOC 2016*, Alberta, Canada, pp. 705 – 712, October 2016. Acceptance Rate: 20%
11. N. Ammar, Z. Malik, B. Medjahed, M. Alodib. "K-Anonymity-based Approach for Privacy Preserving Web Service Selection". *IEEE International conference on Web Services, ICWS'15*, New York, pp. 281 – 288, June 2015. Acceptance Rate: 17%.
 - Best Student Paper Award.
12. A. Alhosban, Z. Malik, K. Hashmi, B. Medjahed. "Integrating Fault Tolerance Method into Service-Oriented Computing". *IEEE International Symposium on Service-Oriented System Engineering, IEEE SOSE 2015*, San Francisco, pp. 161–168, April 2015. Acceptance Rate: 29.5%

13. K. Hashmi, E. Najmi, Z. Malik, B. Medjahed, A. Alhosban. "Sentiment Analysis for Intelligent Ratings Management". *The 11th ACS/IEEE International Conference on Compute Systems and Applications, AICCSA 2014*, Doha, Qatar, pp. 389–396, November 2014.
14. K. Hashmi, E. Najmi, Z. Malik, A. Alhosban, B. Medjahed, A. Rezgui. "Automated Negotiation Using Semantic Rules". *IEEE International Conference on Services Computing, SCC'14*, Alaska, pp. 536–543, June 2014. *Acceptance Rate: 35%*
15. S. –E. Tbahriti, B. Medjahed, C. Ghedira, D. Benslimane, M. Mrissa. "Respecting Privacy in Web Service Composition". *IEEE International conference on Web Services, ICWS'13*, Santa Clara, pp. 139–146, June 2013. *Acceptance Rate: 19%*.
16. A. Alhosban, K. Hashmi, Z. Malik, B. Medjahed. "Self-healing Framework for Cloud-based Services", *The 10th ACS/IEEE International Conference on Compute Systems and Applications, AICCSA 2013*, Fes/Ifrane, Morocco, pp. 1-7, May 2013.
17. F. Khazalah, Z. Malik, B. Medjahed. "Automatic Conflict Resolution in a CDSS", *The 24th International Conference on Scientific and Statistical Database Management (SSDBM)*, Chania, Crete, Greece, pp. 406-415, June 2012.
18. S.-E. Tbahriti, B. Medjahed, Z. Malik, C. Ghedira, M. Mrissa. "How to Preserve Privacy in Services Interaction". *The 8th Intern. Symposium on Frontiers of Information Systems and Network Applications Workshops*, Japan, pp. 66-71, March 2012.
19. S.-E. Tbahriti, M. Mrissa, B. Medjahed, C. Ghedira, M. Berhamgi, J. Fayn. "Privacy-aware DaaS Services Composition". *The 22nd International Conference on Database and Expert Systems Applications, DEXA 2011*, Toulouse, France, pp. 202-216, August 2011. *Acceptance Rate: 25%*
20. S.-E. Tbahriti, B. Medjahed, Z. Malik, C. Ghedira, M. Mrissa. "Meerkat–A Dynamic Privacy Framework for Web Services". *2011 IEEE/WIC/ACM International Conference on Web Intelligence, WI 2011*, Lyon, France, pp. 418-421, August 2011.
21. A. Alhosban, K. Hashmi, Z. Malik, B. Medjahed. "Assessing Fault Occurrence Likelihood for Service-Oriented Systems". *IEEE International Conference on Web Engineering (ICWE 2011)*, Paphos, Cyprus, pp. 59-73, June 2011. *Acceptance Rate: 25%*.
22. K. Hashmi, A. Alhosban, Z. Malik, B. Medjahed. "WebNeg: A Genetic Algorithm based Approach for Service Negotiation". *IEEE International conference on Web Services, ICWS'11*, Washington D.C., pp. 105-112, July 2011. *Acceptance Rate: 13.7%*.
23. B. Medjahed, Z. Malik. "Bottom-up Fault Management in Composite Web Service". *The 23rd International Conference on Advanced Information System Engineering, CAiSE'11*, London, England, pp. 597 – 611, June 2011. *Acceptance Rate: 13%*.
24. Z. Malik, B. Medjahed. "Trust Assessment for Web Services under Uncertainty". *10th International Conference on Service-Oriented Computing, ICSOC'10*, San Francisco, pp. 471-485, December 2010. *Acceptance Rate: 15%*.
25. Z. Malik, B. Medjahed. "Maintaining Trustworthiness of Service Compositions". *International Conference on Frontiers of Information Technology, FIT*, Pakistan, pp. 23, December 2010.
26. M. Duran, B. Medjahed. "Fostering Interest in Information Technology (FI3T): Critical Framework". *20th International SITE (Society for Information Technology and Teacher Education) Conference*, Charleston, South Carolina, pp. 3534 – 3537, March 2009.
27. B. Medjahed, W. Grosky. "Sentinel: Intelligent Information Sharing for Controlling the Emerald Ash Borer Threat". *2nd International Conference on Metadata and Semantics Research, MTSR'07*, Corfu, Greece, pp. 455-461, October 2007.
28. B. Medjahed, D. Carver. "An Enterprise Messaging Middleware for Mobile Services". *27th International Conference on Distributed Computing Systems Workshops, ICDCS 2007 Workshops*, Toronto, Canada, pp. 74- 77, June 2007.

29. A. Bouguettaya, B. Medjahed, A. Rezgui, M. Ouzzani, X. Liu, Q. Yu. "WebDG: A Platform for E-Government Web Services". *International Conference on Conceptual Modeling (ER) Workshops*, Shanghai, China, pp. 553-565, November 2004.
30. M. S. Akram, B. Medjahed, A. Bouguettaya. "Supporting Dynamic Changes in Web Service Environments". *1st International Conference on Service Oriented Computing, ICSOC'03*, Trento, Italy, pp. 319-334, December 2003. *Acceptance Rate: 20%*.
31. B. Medjahed, A. Bouguettaya, M. Ouzzani. "Semantic Web Enabled E-Government Services". *The International Conference for Digital Government Research*, Boston, USA, May 2003.
32. M. Ouzzani, A. Bouguettaya, B. Medjahed. "Optimized Querying of E-Government Services". *The International Conference for Digital Government Research*, Boston, USA, May 2003.
33. A. Rezgui, M. Ouzzani, A. Bouguettaya, B. Medjahed. "Preserving Privacy in Web Services". *The 4th International ACM Workshop on Web Information and Data Management, WIDM 2002*, Virginia, USA, pp. 56-62, November 2002.
34. B. Medjahed, M. Ouzzani, A. Bouguettaya. "Using Web Services in E-Government Applications". *The International Conference for Digital Government Research*, Los Angeles, USA, May 2002.
35. A. Bouguettaya, B. Medjahed, A. Rezgui, M. Ouzzani, Z. Wen. "Privacy Preserving Composition of Government Web Services". *The International Conference for Digital Government Research*, Los Angeles, USA, May 2002.
36. A. Bouguettaya, A. Elmagarmid, B. Medjahed, M. Ouzzani. "Ontology-based Support for Digital Government". *The 27th Conference on Very Large Databases, VLDB 2001*, Roma, Italy, pp. 633-636, September 2001.
37. Bouguettaya, A. Elmagarmid, B. Medjahed, M. Ouzzani. "A Web-based Architecture for Government Databases and Services". *The International Conference for Digital Government Research*, Los Angeles, USA, May 2001.
38. B. Benatallah, B. Medjahed, A. Bouguettaya, A. Elmagarmid, J. Beard. "Composing and Maintaining Web-based Virtual Enterprises". *1st VLDB Workshop on Technologies for E-Services, TES 2000*, Cairo, Egypt, pp. 155-174, September 2000.
39. H. Seba, B. Medjahed, M. Atroun. "Compound Conflict Serializability: A Criterion for Strong Correctness in Multidatabases". *Bases de Donnees Avancees (French Database Conference), BDA'98*, Hamamet, Tunisia, October 1998.
40. H. Seba, B. Medjahed, M. Atroun. "Preservation of Strong Correctness in Multidatabases". *2nd National conference on Computer Science*, Biskra, Algeria, November 1997.
41. B. Medjahed. "Serialization Graph Construction in Object Oriented Database Systems". *3rd International Symposium on Programming and Systems, ISPS'97*, Algiers, Algeria, April 1997.
42. B. Medjahed, N. Belkhouja. "On the Serializability for Nested Transactions". *3rd IASTED International Conference on Computer Applications in Industry*, Cairo, Egypt, December, 1994.
43. B. Medjahed, N. Belkhouja. "A Serializability Approach for Nested Transactions". *6th French Conf. on Parallel and Distributed Systems, RenPar'6*, Lyon, France, June 1994.
44. B. Medjahed, N. Belkhouja, M. Atroun. "Multilevel and Nested Transactions". *7th International Conference on Computer Systems, JISI'7*, Tunis, Tunisia, May 1994.

Book Chapters

1. B. Medjahed, Z. Malik and S. Benbernou. "On the Composability of Semantic Web Services". In "Web Services Foundations" (A. Bouguettaya, Q. Z. Sheng, F. Daniel), Handbook on Web Services, Springer, ISBN: 978-1-4614-7517-0, pp. 137 – 160, 2014.

2. K. Hashmi, A. Alhosban, S. Benbernou, B. Medjahed, and Z. Malik. "Automated Negotiation among Web services". In "Web Services Foundations" (A. Bouguettaya, Q. Z. Sheng, F. Daniel), Handbook on Web Services, Springer, ISBN: 978-1-4614-7517-0, pp. 137 – 160, 2014.
3. M. Barhamgi, C. Ghedira, S.-E. Tbahriti, M. Mrissa, D. Benslimane, B. Medjahed. "Privacy-Conscious Data Mashup: Concepts, Challenges and Directions". Handbook of Research on E-Business Standards and Protocols: Documents, Data and Advanced Web Technologies, February 2012.
4. B. Medjahed, M. Ouzzani, A. Elmagarmid. "Generalization of ACID Properties". In "Encyclopedia of Database Systems" (L. Liu and T. Oszu, editors), ISBN 978-0-387-35544-3, Springer-Verlag, pp. 1221-1222, October 2009.
5. M. Ouzzani, B. Medjahed, A. Elmagarmid. "Correctness Criteria Beyond Serializability". In "Encyclopedia of Database Systems" (L. Liu and T. Oszu, editors), ISBN 978-0-387-35544-3, Springer-Verlag, pp. 501-506, October 2009.
6. B. Medjahed, W. Grosky. "A Notification Infrastructure for Semantic Agricultural Web Services". In "Metadata and Semantics" (M. A. Sicilia and M. D. Lytras, editors), ISBN 978-0-387-77744-3, Springer-Verlag, October 2008.
7. A. Bouguettaya, A. Rezgui, B. Medjahed, M. Ouzzani. "Internet Computing Support for Digital Government". In "The Practical Handbook of Internet Computing" (M. P. Singh, editor), ISBN 1-58488-381-2, CRC Press, June 2004.
8. A. Bouguettaya, B. Benatallah, B. Medjahed, M. Ouzzani, L. Hendra. "Adaptive Web-based Database Communities". In "Information Modeling for Internet Application", (P. Van Bommel, editor), ISBN 1-59140-050-3, Idea Group Publishing, October 2002.
9. A. Bouguettaya, B. Medjahed, M. Ouzzani, Y. Meng. "Ubiquitous Access to Web Databases". In "Web Powered Databases" (D. Taniar and W. Rahayo, editors), ISBN 1-59140-035-X, Idea Group Publishing, August 2002.
10. A. Bouguettaya, M. Ouzzani, B. Medjahed, A. Elmagarmid. "Supporting Data and Services Access in Digital Government Environments". In "Advances in Digital Government Technology, Human Factors, and Policy" (W. J. McIver and A. K. Elmagarmid, editors), ISBN 0-306-47374-7, Kluwer Academic Publishers, May 2002.

Abstracts in non-refereed conference proceedings

1. A. Alhosban, K. Hashmi, Z. Malik, B. Medjahed. *Predicting Faults for Web Services*. The Michigan Celebration of Women in Computing Conference, Oakland, Michigan, April 2011.
2. Q. Zhu, B. Medjahed. *Developing In-Vehicle Database Management Techniques for Efficient Vehicular Applications*. Tech Day, Center for Engineering Education and Practice, College of Engineering and Computer Science, University of Michigan - Dearborn, June 2007.
3. Q. Zhu, B. Medjahed. *Developing In-Vehicle Database Management Techniques for Efficient Vehicular Applications*. Tech Day, Center for Engineering Education and Practice, College of Engineering and Computer Science, University of Michigan - Dearborn, June 2006.

Invited presentations (examples)

1. B. Medjahed. FAME: Influencer Model for Service-Oriented Environments. ICSOC Conference, Invited Talk, Toulouse, France, 2019.
2. B. Medjahed. Crowdsourcing: Opportunities and Challenges for Service Computing. University of Tours, France, February 2019.

3. B. Medjahed. Building Service-Oriented Systems: A Practical Introduction. University of Tours, France, February 2019.
4. D. Ma, B. Medjahed, P. Mitra. Security and Privacy in the Next Generation of Mobility (Panel). Automation Alley, Troy, August 2017.
5. B. Medjahed. Preserving Privacy on the Cloud: A Service-Oriented Perspective. Ford Motor Company, July 2016.
6. B. Medjahed. *Autonomic Cloud Services: Challenges and Opportunities*, RMIT University, Melbourne, Australia, August 2014.
7. B. Medjahed. *Autonomic Cloud Services: Challenges and Opportunities*, University of Adelaide, Adelaide, Australia, August 2014.
8. B. Medjahed. *Autonomic Service Computing: Challenges and Opportunities*, RIIMA Days, Algiers University of Sciences and Technology, Algiers, Algeria, April 2014.
9. B. Medjahed. *Self-Healing Service-based Systems*, HP Labs, Pontiac, Michigan, October 2009.
10. B. Medjahed. Chamaeleo: *Toward Self-Managing Service-Oriented Applications*, Seminar, Purdue University, Department of Computer Science, West Lafayette, Indiana, August 2007.
11. B. Medjahed. *Policy-based Matching for Service-Oriented Applications*, Wayne State University, Department of Computer Science, Seminar, Detroit, Michigan, October 2006.
12. B. Medjahed. *A Web Service Middleware for Digital Government*, Seminar, MitreTek (now Noblis), Fairfax, Virginia, June 2002.

Service

Major committee assignments in the Department, College, and/or University

Department

1. CIS (Computer and Information Science) Coordinating Graduate Committee, 09/2017 – Present, Chair.
2. MS Data Science Committee, 01/2018 – 08/2019, Chair.
3. MS CIS Committee, 09/2010 – 12/2017, Chair.
4. PhD CIS Committee, 05/2016 – 08/2019, Chair.
5. Casebook Committee for Dr. John Baugh's Lecturer Review, 2019, Chair.
6. MS IS&T (Information Systems & Technology) Committee, 12/2012 – Present, Co-Chair.
7. MS SE (Software Engineering) Committee, 09/2010 – 08/2013, Co-Chair.
8. Faculty Search Committee, 2018-2019, Chair.
9. Faculty Search Committee, 2019-2020, 2017-2018, 2015-2016, 2014-2015, 2013-2014, 2010-2011, Member.
10. CIS Department Visioning Committee, 02/2018 – 05/2018, Member.
11. Search Committee for CIS Student Administrative Assistant, Fall 2018, Member.
12. Course coordinator for the following courses: CIS 150, CIS 1501, CIS 422, CIS 425, CIS 571, CIS 534.
13. Search Committee for CIS Academic Assistant, Fall 2015, Winter 2013, Member.
14. MS CIS Committee, 09/2006 – 08/2010, Member.
15. CIS Chair Evaluation Committee, 2009, Member.
16. CIS Chair Evaluation Committee, 2007, Member.
17. CIS Undergraduate Committee, 09/2006 – 08/2010, Member.

College

1. College-Wide Core Theme Visioning Committee, 02/2018 – 12/2018, Member.
2. CIS Department Chair Search Committee, 2016-2017, Chair.
3. Casebook Committee for Dr. Luis Ortiz's tenure and promotion, 2017-2018, Chair.
4. PhD Information Systems Engineering (multidisciplinary program) Committee, 09/2017 – 08/2019, Chair.
5. CECS PhD Committee, 2017 – 04/2019, Member.
6. CECS Cybersecurity Center Steering Committee, 2017 – present, Member.
7. CECS Graduate Education Committee, April 2015 – April 2016, Member.
8. CECS Digital Education Taskforce, December 2016 – April 2017, Member.
9. CECS Promotion and Tenure Criteria Committee, 2015-2016, Member.
10. Participated in College Graduate Open Houses (Fall and Winter semesters), 2010 – present.
11. Review Committee for the MS IST (Information Systems and Technology) program, 2016-2017, Member.
12. Review Committee for Dr Alan Fisk (IMSE Lecturer), Fall 2015, Member.
13. Search Committee for the CECS STEAM Manager, Fall 2014, Member.
14. Casebook Committee for Dr. Di Ma's tenure and promotion, 2014, Member.
15. CECS Executive Committee, September 2010 – August 2013, Member.
16. PhD Qualifying Exam Committee, Member:
 - PhD in Computer and Information Science, Winter 2019.
 - PhD in Electrical and Computer Engineering, Fall 2017, Winter 2018.
 - PhD in Information and Systems Engineering, Winter 2017, Winter 2011, Fall 2010.
17. CECS Center for Engineering Education and Practice (CEEP) Faculty Advisory Board, 2007, Member.

University

1. Council of Graduate Enrollment Management (C-GEM), University of Michigan – Dearborn, 02/2019 – Present.
2. Graduate Student Success Subcommittee, Campus-wide Strategic Planning, Chair, 07/2019 – 12/2019.
3. Chancellor Grasso Inauguration Committee, 07/2018 – 04/2019, Member.
4. Poverty Grants, University of Michigan, Fall 2018, Reviewer.
5. Vision 2020 Steering Committee, Provost Office, 10/2016 – 2018, Member.
6. Advisory Board, Hub for Teaching and Learning, University of Michigan – Dearborn, 09/2015 – 08/2018, Member.
7. Assessment Coordinator for MS CIS Program (09/2015 – 12/2017; and 2019), PhD CIS Program (09/2017 – Present), PhD ISE Program (09/2017 – Present), MS Data Science (01/2018 – Present).
8. UCDC (University Curriculum and Degree Committee) – Graduate Sub-Committee, University of Michigan - Dearborn, 01/2015 – 05/2017, Member.
9. Digital Education Award Committee, University of Michigan – Dearborn, 2018, Member.
10. Digital Education Award Committee, University of Michigan – Dearborn, 2017, Member.
11. University of Michigan – Dearborn's Graduate Scholarship Committee, 2017, Member.
12. University of Michigan – Dearborn's Graduate Scholarship Committee, 2016, Member.
13. University of Michigan – Dearborn's 3-minute Thesis Presentation committee, 2017, Member.
14. University of Michigan – Dearborn's 3-minute Thesis Presentation committee, 2016, Member.
15. Faculty participant, University of Michigan – Dearborn's Admitted Student Reception, March 2016.

16. Faculty participant, UM-Dearborn Graduate Open Houses, 2010 – present.
17. Panelist, Degree Program Review Panel (organized by the Provost Office), University of Michigan – Dearborn, September 2015.
18. Panelist, Promotion and Tenure Faculty Panel organized by the Hub for Teaching and Learning Resources, University of Michigan – Dearborn, May 2015.
19. Faculty Participant, Commencement Ceremonies for Winter 2015, Winter 2005, and Winter 2006.

Service to government or professional organizations, and service on review board/study panels

Program Committees for Conferences and Workshops

1. Intern. Conference on Service-Oriented Computing (ICSOC): 2020, 2019, 2018, 2017, 2016, 2015, 2008, 2007, 2006, 2005.
2. Intern. Conference Database and Expert Systems Applications (DEXA): 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2009.
3. IEEE/WIC/ACM International Conference on Web intelligence (WI): 2017, 2016, 2015, 2014, 2012, 2011.
4. IEEE International conference on Cloud Computing (CLOUD) 2018, 2016, 2015, 2014, 2013, 2012, 2011.
5. European Conference on Advances in Databases and Information Systems (ADBIS): 2018.
6. Service-Oriented Computing and Applications (SOCA): 2015, 2014, 2013, 2012, 2011, 2009.
7. Intern. Symposium on Programming and Systems (ISPS): 2018, 2015, 2013, 2011, 2009, 2007, 2005.
8. Intern. Workshop on Ontologies meet Advanced Info. Systems (OAIS): 2015, 2013.
9. IKSO'Maghreb 2015, 2014, 2013.
10. International Conference on Management of Computational and Collective Intelligence in Digital Ecosystems (MEDES): 2015, 2014
11. IEEE International Conference on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS 2014).
12. Intern. Workshop on Ontologies meet Advanced Info. Systems (OAIS): 2014, 2012.
13. Intern. Conf. on Mobile Web Information Systems (MobiWIS): 2014, 2013.
14. Intern. Workshop on Cloud and Service Engineering (CSE 2014).
15. IEEE Inter. Conf. on Computers, Systems, and Applications (AICCSA): 2014, 2013, 2010.
16. First International Workshop on Internet Of Things, (OT 2013).
17. 7th IEEE GCC Conference, 2013
18. Intern. Conference on Web Information Systems Engineering (WISE): 2013, 2012, 2011, 2009, 2008.
19. International Workshop on Cloud and Service Engineering (CSE 2013).
20. International Conference on Data Management Technologies and Applications (DATA 2013).
21. IEEE International conference on Big Data (BigData 2013)
22. International Conference on Model Engineering and Data Engineering (MEDI): 2012, 2011.
23. IEEE Conference on E-Business Engineering (ICEBE): 2012, 2007, 2006, 2005.
24. IEEE Asia-Pacific Services Computing Conference (APSCC 2012).
25. The 3rd FTRA International Conference on. Mobile, Ubiquitous, and Intelligent Computing (MUSIC 2012).
26. The Australasian Database Conference (ADC): 2012, 2010, 2009.
27. International Workshop on Engineering Semantic Agent Systems (ESAS): 2011, 2008, 2007, 2006.

28. Journées francophone sur les ontologies (JFO) – French Conference on Ontology : 2011, 2009, 2008, 2007.
29. Workshop sur les Services Web dans les Systèmes d’Information (WWS 2010), in French.
30. IEEE Intern. Conference on Information Reuse and Integration (IRI): 2009, 2008, 2007.
31. IEEE Asia-Pacific Services Computing Conference (APSCC 2009).
32. Intern. Conference on Metadata and Semantics Research (MTSR 2009).
33. Workshop on Web Services Composition and Adaptation (WSCA 2009).
34. Intern. Conference on Network-based Information Systems (NBIS 2009).
35. IEEE Intern. Conference on Advanced Information Networking and Applications (AINA 2009).
36. The First Intern. Workshop on Data and Process Provenance (WDPP 2009)
37. Workshop sur les Services Web dans les Systèmes d’Information (WWS 2009), in French.
38. Intern. Symposium on Parallel Architectures, Algorithms, and Networks (ISPAAN 2008).
39. The International Workshop on Context Enabled Source and Service Selection, Integration, and Adaptation (CSSSIA 2008, in conjunction with WWW 2008).
40. IEEE Asia-Pacific Services Computing Conference (APSCC 2008).
41. Intern. VLDB Workshop on Database Interoperability (InterDB 2007).
42. Workshop on Advances for Semantics in Web Services (Semantics4WS): 2007, 2006.
43. Intern. Workshop on Data Engineering in E-Commerce and Services (DEECS): 2007, 2006.
44. Joint IEE Conference on E-Commerce Technology (CEC) and IEEE Conference on Enterprise Computing, E-Commerce and E-Services (EEE): 2007, 2006, 2005
45. Intern. Conference on Distributed Multimedia Systems (DMS 2007).
46. Intern. Workshop on Business Process Management for Outsourcing (WBPMO 2007).
47. Intern. Workshop on Context Modeling and Management for Smart Environments (IWCMM'2007).
48. IEEE Intern. Conference on Tools with Artificial Intelligence (ICTAI): 2006, 2005, 2004.
49. Intern. Conference on Cooperative Information Systems (CoopIS 2006).
50. IEEE Workshop on Dependability in large-scale service-oriented systems (DILSOS 2006).
51. Mobile and Wireless Learning Workshop, 2006.
52. Intern. Workshop for Context for Web Services (CWS'05).
53. Intern. Conference on Web Information Systems and Technology (WEBIST 2005).
54. Intern. Workshop on Electronic Contracting (WEC'04).
55. Intern. Workshop on Ubiquitous Computing (IWUC 2004).

Conferences Organized and/or Chaired

1. Special Sessions co-chair, 18th International Conference on Service-Oriented Computing, Dubai, UAE, December 2020.
2. Track Chair (Advances in Web Technologies: Semantics and Future Internet), 14th ACS/IEEE Inter. Conf. on Computers, Systems, and Applications (AICCSA 2017).
3. Track Chair (Advances in Web Technologies: Semantics and Future Internet), 13th ACS/IEEE Inter. Conf. on Computers, Systems, and Applications (AICCSA 2016).
4. Track Chair (BPM, Web Services, SOA), 12th ACS/IEEE Inter. Conf. on Computers, Systems, and Applications (AICCSA 2015).
5. Track Chair (Databases and Data Mining), 8th International Conference on Innovations in Information Technology (IIT 2012).
6. Program Vice-Chair, International Conference on Mobile Web Information Systems (MobiWIS-2011).
7. Tutorial co-Chair: IEEE Asia-Pacific Services Computing Conference (APSCC 2009).

8. Publicity co-Chair: International Conference on Service-Oriented Computing (ICSOC 2008).

Journal Editorship

1. Editorial Board Member, Services Transactions on Internet of Things (STIOT): 2016 – Present.
2. Editorial Board Member, International Journal of Web Science. 2012 – 2014.
3. Guest Editor of a special issue on “Semantic Web Services” for the ACM Transactions on Internet Technology (ACM TOIT), 2007.

Reviewer for Journals

1. ACM Transaction on the Web.
2. ACM Transactions on Information Systems.
3. ACM Transactions on Internet Technology.
4. ACM Transactions in Autonomous Adaptive systems journal.
5. ACM Computing Survey.
6. IEEE Transactions on Software Engineering.
7. IEEE Transactions on Knowledge and Data Engineering.
8. IEEE Transactions on Services Computing.
9. IEEE Transactions on Computers.
10. IEEE Computer.
11. IEEE Internet Computing.
12. IEEE Transactions on Systems, Man, and Cybernetics.
13. The VLDB Journal.
14. Distributed and Parallel Databases.
15. Information Systems.
16. Data and Knowledge Engineering.
17. International Journal of Communication Systems.
18. World Wide Web Journal.
19. International Journal of Information Technology and Web Engineering.
20. International Journal on Cooperative Information Systems.
21. Journal of Ubiquitous Computing and Intelligence.
22. International Journal on Web Services Research.
23. International Journal of Science and Technology.
24. Knowledge and Information Systems.
25. International Journal of Information Technology.

Participation in Grant Review Panels

1. Algerian Center of Advanced Technologies (CDTA), Algeria, 2015.
2. Quebec Research Fund (Canada), 2013.
3. National Science Foundation (NSF), the Geosciences Directorate (GEO) and the Office of Cyberinfrastructure (OCI), 2013.
4. National Science Foundation (NSF), Information and Intelligent Systems (IIS) Division, 2005 and 2010.
5. Qatar National Research Fund (Qatar), Undergraduate Research Experience Program, 2007, 2008, 2009, 2010.
6. Qatar National Research Fund (Qatar), Arab Expatriate Scientists-Fast Track Launch Projects, 2009, 2010.

7. Qatar National Research Fund (Qatar), National Priorities Research Program, 2007, 2008, 2009, 2010, 2011.

Mentoring activities involving junior faculty members

1. Panelist, Promotion and Tenure Faculty Panel organized by the Hub for Teaching and Learning Resources, University of Michigan – Dearborn, May 2015.
2. Actively involved in mentoring several junior faculty member in the Department of Computer and Information Science.

Other

1. External reviewer for midterm contract renewal of an Assistant Professor (tenure-track) at two major US Universities (University names undisclosed for anonymity), Fall 2017.
2. Panelist, Program Review Panel (organized by the Provost Office), University of Michigan – Dearborn, September 2015.