

Ramsey F. Hamade, PhD

I. Personal Information

Title: Professor
Institution: Department of Mechanical Engineering
American University of Beirut
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University Appointments

	Appointment	Department	Institution	Date
1	Professor	Mechanical Engineering Department	American University of Beirut, Beirut, Lebanon	October 1, 2012 -present
2	Visiting Researcher	Mechanical Engineering Department	University of Kentucky, Lexington, Kentucky	June 2011-September 2011
3	Visiting Associate Professor	Mechanical Engineering Department	University of Kentucky, Lexington, Kentucky	August 2007-May 2008
4	Associate Professor	Mechanical Engineering Department	American University of Beirut, Beirut, Lebanon	Oct 1, 2006 - Oct 1, 2012
5	Visiting Researcher	Mechanical Engineering Department	University of Kentucky, Lexington, Kentucky	August 2006- September 2006
6	Visiting Assistant Professor	Department of Mechanical Engineering	University of Waterloo, Waterloo, Ontario, Canada.	Summer 2004
7	Visiting Assistant Professor	Department of Mechanical Engineering	University of Waterloo, Waterloo, Ontario, Canada.	Summer 2003
8	Assistant Professor	Mechanical Engineering Department	American University of Beirut, Beirut, Lebanon	Oct 1, 2001 - Oct 1, 2006
9	Visiting Researcher	Department of Mechanical Engineering	University of Waterloo, Waterloo, Ontario, Canada.	Summer 2001
10	Visiting Assistant Professor	Mechanical Engineering Department	American University of Beirut, Beirut, Lebanon	Oct 1, 2000 - Oct 1, 2001
11	Lecturer	Mechanical Engineering Department	American University of Beirut, Beirut, Lebanon	Oct 1, 1999 - Oct 1, 2000

II. RESEARCH

Recently Published Refereed Journal Articles and Book Chapters

1. Ali H. Ammouri and R. F. Hamade, 2012, BUEVA: a bi-directional ultrasonic elliptical vibration actuator for micromachining, *The International Journal of Advanced Manufacturing Technology*, 58(9), 991-1001.
2. R. F. Hamade, F. Pusavec, S.P. Manthri, O. W. Dillon, and I. S. Jawahir, 2012, A methodology for the optimization of compact core drilling in basalt rock using PCD inserts, *The International Journal of Advanced Manufacturing Technology*, 61(1), 369-377.
3. R. F. Hamade, A. H. Ammouri, H. A. Artail, 2012, Toward Predicting The Performance of Novice CAD Users based on their Profiled Technical Attributes, *Engineering Applications of Artificial Intelligence*, 25(3) pp. 628-639.
4. Tony Bazi, Ali H. Ammouri, R.F. Hamade, 2012, On the relevance of uniaxial tensile testing of urogynecologic prosthesis: the effect of displacement rate. *International Urogynecology Journal*. DOI: 10.1007/s00192-012-1815-y.
5. R. F. Hamade, A. Tarhini, S. Salhab, and M. Al-Ghoul, 2012, Modeling Cathodic Weakening of Rubber/Steel Adhesive Bonds as Liquid-Solid Reactions, Special issue on rubber adhesion, *Journal of Adhesion Science and Technology (JAST)*, 26 (6), 745–765.
6. A. Tarhini and R. F. Hamade, 2012, Numerical Simulations of Cathodic Delamination of Adhesive Bonded Rubber / Steel Joints, *International Journal of Adhesion and Adhesives*, 35, 108-113.
7. R. F. Hamade, M. Y. Jaber, H. A. Artail, 2011, A study of the impact of CAD trainees' willingness-to-learn on their competence development, *Computers & Industrial Engineering*, 61(3), 709-720.
8. H. Ammouri, and R. F. Hamade, 2011, Indirect Tool-wear Maps for Tool Condition Monitoring in Dry Metal Drilling Operations, In: *Advances in Sustainable Manufacturing*, Eds. Günther Seliger et al., Springer-Verlag Berlin Heidelberg, pp. 115-119.
9. Ali H. Ammouri, I. Srour, R. F. Hamade, 2011, Carbon Footprint Calculator for Construction Projects (CFCCP), In: *Advances in Sustainable Manufacturing*, Eds. Günther Seliger et al., Springer-Verlag Berlin Heidelberg, pp. 327-331.
10. R. F. Hamade, 2011, Learning curves for CAD competence building of novice trainees". In: *Learning Curves: Theory, Models, and Applications*, Ed. M. Y. Jaber. Taylor and Francis.

11. R.F. Hamade, N. Ghaddar, 2011, The Impact of Team Functions in an Introductory Design Course on Student Performance in Later Design Courses: A Longitudinal Study, *International Journal of Engineering Education*, 27(1), 101-113.
12. R. F. Hamade, S. P. Manthri, F. Pusavec, K. A. Zacny, O. W. Dillon, K. Rouch, and I. S. Jawahir, 2010, Compact core drilling in basalt rock using rectangular PCD tool inserts: wear characteristics and cutting forces, *Journal of Materials Processing Technology*, 210, (10), 1326-1339.
13. R. F. Hamade and H.A. Artail, 2010, A study of the influence of learning styles of beginner CAD users on their performance, *Journal of Engineering Design*, 21 (5), 561–577.
14. Hamade, R. F., V.C. Moulianitis, D. D’Addonna, and Beydoun, G., 2010, A dimensional tolerancing knowledge management system using Nested Ripple Down Rules (NRDR), *Engineering Applications of Artificial Intelligence*, 23(7)1140-1148.
15. Beydoun, G., Hoffmann, A., Hamade R.F., 2010, Automating dimensional tolerancing using Ripple down Rules (RDR), *Expert Systems with Applications*, 37:5101–5109

Recent Articles in Refereed Conference proceedings

1. I. S. Hage, R. F. Hamade, 2012, Structural micro processing of Haversian systems of a cortical bovine femur using optical stereomicroscope and MATLAB, IMECE2012-87423, Proceedings of the ASME 2012 International Mechanical Engineering Congress & Exposition, IMECE2012, November 9-15, 2012, Houston, Texas, USA
2. A.H. Kheireddine, A. H. Ammouri, R. F. Hamade, G. T. Kridli, 2012, FEM ANALYSIS OF THE EFFECTS OF COOLING TECHNIQUES ON THE MICROSTRUCTURE OF ALUMINUM 7075 FRICTION STIR WELDED JOINTS, IMECE2012-88943, Proceedings of the ASME 2012 International Mechanical Engineering Congress & Exposition, IMECE2012, November 9-15, 2012, Houston, Texas, USA
3. A. H. Ammouri 1, A. H. Kheireddine 1, G. Kridli 2012, R. F. Hamade, Model-Based Optimization of Process Parameters in the Friction Stir Processing of Magnesium Alloy AZ31b with Active Cooling, The 10th Global Conference on Sustainable Manufacturing (IGCSM), Istanbul, Turkey, October 31, November 2, 2012.
4. Ali Kheireddine; Ali Ammouri; Tao Lu; Ramsey Hamade; Ibrahim Jawahir, 2012 Experimental and FEM Analyses of the Effect of Liquid Nitrogen Cryogenic Cooling and other Processing parameters on the surface Hardness of Drilled Holes in AZ31b Magnesium, The 10th Global Conference on Sustainable Manufacturing (IGCSM), Istanbul, Turkey, October 31, November 2, 2012.
5. T. M. Bazi, A. H. Ammouri, R. F. Hamade, 2012, effect of the stretch rate during uniaxial testing on the mechanical properties of Prolene®, IMECE2012-86022, Proceedings of the ASME 2012 International Mechanical Engineering Congress & Exposition, IMECE2012, November 9-15, 2012, Houston, Texas, USA.
6. P. El Khoury, Y. Saadeh, C. Azzi, S. Bu Jawdeh, R.F. Hamade, 2012, EcoBrella- The Umbrella Redesigned for Renewable Energy Harvesting, The 10th Global Conference on Sustainable Manufacturing (IGCSM), Istanbul, Turkey, October 31, November 2, 2012.
7. Nicolas Harmouche, Ali Ammouri, Issam Srour, Ghassan Chehab, and Ramsey Hamade, 2012, Developing a Carbon Footprint Calculator for Construction Buildings, Construction Research Conference CRC 2012, U. Purdue, Indiana, 2012. Accepted Submission (Number 259).
8. Harmouche, N., Srour, I., Chehab, G., and Hamade, R. (2012). “A comparison of CO2 calculators for building construction.” 2012 CIB W078 Conference. The 29th International conference of applications of IT in the AEC industry, Oct. 17-19
9. R. F. Hamade and A. H. Ammouri, 2011, Current Rise Index (CRI) Maps of Machine Tool Motors for Tool-wear Prognostics, IMECE2011-64706, ASME International Mechanical Engineering Congress & Exposition 2011, IMECE2011, Colorado, US, November 11-17, 2011.
10. Ali Tarhini and R. F. Hamade, 2011, Cathodic Disbondment of Rubber/steel Adhesive Bonds Modeled as Liquid-solid Reactions, IMECE2011-63307, ASME International Mechanical Engineering Congress & Exposition 2011, IMECE2011, Colorado, US, November 11-17, 2011.

11. A. H. Ammouri, I. Srour, and R. F. Hamade, 2011, Carbon Footprint Calculator for Construction Projects, IMECE2011-63366, ASME International Mechanical Engineering Congress & Exposition 2011, IMECE2011, Colorado, US, November 11-17, 2011.
12. R. Hamade, A. H. Ammouri, and H. Artail, 2011, Artificial Neural Networks for Predicting the Performance of Novice CAD Users Based on Their Profiled Attributes, IMECE2011-63409, ASME International Mechanical Engineering Congress & Exposition 2011, IMECE2011, November 11-17, 2011, Colorado, US.
13. R. F. Hamade and N. Ghaddar, 2011, A study of the impact of team functions in a first year design course on student performance in later design courses, IMECE2011-64658 International Mechanical Engineering Congress & Exposition, IMECE2011, November 11-17, 2011, Colorado, US.
14. A. Ghandour, K. Fawaz, H. Artail, and R. Hamade, "Extending the DSRC's Control Channel using Cognitive Networking Concepts and Fuzzy Logic", IEEE PIMRC 2011, Sep. 2011, Toronto, Canada.
15. R. F. Hamade, I. S. Jawahir, 2010, A case for Sustainable Drilling Processes in Metals using Peripheral Drills, The 8th Global Conference on Sustainable Manufacturing (IGCSM), Abu Dhabi, UAE, November 22 – 24, 2010.
16. Ali H. Ammouri, R. F. Hamade, 2010, Indirect Tool-wear Maps for the Tool Condition Monitoring in Dry Metal Drilling Operations, The 8th Global Conference on Sustainable Manufacturing (IGCSM), November, 22–24, 2010, Abu Dhabi, UAE.
17. A. H. Ammouri, I. Srour, R. F. Hamade 2010, Carbon Footprint Calculator for Construction Projects (CFCCP), The 8th Global Conference on Sustainable Manufacturing (IGCSM), November 22 – 24, 2010, Abu Dhabi, UAE.
18. R. F. Hamade, A. H. Ammouri, 2010, Sensor fusion for real-time condition monitoring of tool-wear in machining operations, IMECE2010-38895, Proceedings of the 2010 ASME International Mechanical Engineering Congress & Exposition, IMECE2010, November 12-18, 2010, Vancouver, British Columbia, Canada.
19. R. F. Hamade and A. Ammouri 2010, Sensor Fusion for Automatic Condition Monitoring of Tool Wear in Drilling Operations, 7th CIRP International Conference on INTELLIGENT COMPUTATION IN MANUFACTURING ENGINEERING, Innovative and Cognitive Production Technology and Systems, June 22-25, 2010, Capri, Italy.
20. R. F. Hamade, A. H. Ammouri, 2010, COMPOSE-IT: A computer-based tool for the design and optimization of composite laminates, IMECE2010-38761, Proceedings of the 2010 ASME International Mechanical Engineering Congress & Exposition, IMECE2010, November 12-18, 2010, Vancouver, British Columbia, Canada.
21. R. F. Hamade, A. H. Ammouri, G. Beydoun, 2010, Nested ripple down rules (NRDR) as a design assistant in mechanical dimensional tolerancing, IMECE2010-39773, Proceedings of the 2010 ASME International Mechanical Engineering Congress & Exposition, IMECE2010, November 12-18, 2010, Vancouver, British Columbia, Canada.
22. R. F. Hamade, A. H. Ammouri, H. A. Artail, 2010, For the Sustainable Development of CAD Expertise: Prediction of Novice Users' Performance based on their Profiled Attributes, The 8th Global Conference on Sustainable Manufacturing (IGCSM), November 22 – 24, 2010, Abu Dhabi, UAE.
23. A. H. Ammouri and R. F. Hamade, 2010, A bi-directional ultrasonic elliptical vibration actuator (bueva) for micro machining. Recognized for the 2nd prize for innovation. Lebanese Industrial Research Achievements (LIRA) Conference & Exhibit, Beirut, Lebanon, December 2010.
24. R. F. Hamade, D. D'Addonna, V.C. Moulianitis, G. Beydoun, 2010, Using Nested Ripple Down Rules (NRDR) to Aid in Mechanical Dimensional Tolerancing, CIRP ICME '10 - 7th CIRP International Conference on INTELLIGENT COMPUTATION IN MANUFACTURING ENGINEERING, Innovative and Cognitive Production Technology and Systems, June 22-25, 2010, Capri, Italy.