

Amjad Alsakarneh *BSc MSc PhD*

Email: *Amjad_Sakarneh@yahoo.com*

Current Address	14 Albert College Park Santry, Dublin 9 Dublin, Ireland. Tel: +353 85 2477412.
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Home Address	P.O. Box: 140103 Baiader Wadi Alseer Amman 11814, Jordan. Tel: +962 77 6301250.
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Biographical Information

Place of Birth	Amman, Jordan.
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Date of Birth	Dec 1, 1980.
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Gender	Male.
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Citizenship	Jordanian.
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Marital Status	Single.
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Professional Experience

Jun 2013 – Present (Anticipated Sep 2013)	Visiting Scholar – full time. Dublin City University Dublin, Ireland.
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Sep 2012 - Present	Assistant Professor – full time. Al-Zaytoonah University of Jordan Amman, Jordan.
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Sep 2012 – Jan 2013	Assistant Professor – part time. Middle East University Amman, Jordan.
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Apr 2012 – Jul 2012	Visiting Scholar – full time. The University of Aberdeen Aberdeen, UK.
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May 2008 – Sep 2011 PhD Researcher – full time.
Cork Institute of Technology
Cork, Ireland.

Oct 2004 - Apr 2008 Technical Service Engineer– full time.
National Electric Power Company
Amman, Jordan.

Oct 2003 - Sep 2004 Technical Service Engineer– full time.
Jordan Aircraft Maintenance Company
Amman, Jordan.

Education

Ph.D., Cork Institute of Technology, Ireland, Oct 2011.

Department Mechanical Engineering, 'Excellent' rating.

PhD dissertation Title: "*Protection of Embedded Systems for Applications Involving High Loading Rate Mechanical Forces*".

Themes:

1. Modelling and simulation (30%).
2. Nonlinear finite element analysis (30%).
3. Computer aided design (30%).
4. Embedded systems design (10%).

Full details are available upon your request.

M.Sc., Jordan University of Science and Technology, Jordan, Dec 2006.

Department Mechanical Engineering, GPA 86.4%.

MSc thesis Title: "*Design and simulation of an integrated electromagnetic micropump for particle-laden applications*".

Theme:

1. Design of mechatronics systems (50%).
2. Modelling and simulation (25%).
3. Finite element analysis (25%).

Full details are available upon your request.

B.Sc., Jordan University of Science and Technology, Jordan, Jul 2003.

Department Mechanical Engineering, GPA 75.0%.

Title: "*Automated Materials Handling System*".

Project title Theme:
1. Mechanical Design (50%).
2. Programmable logic controllers (50%).

Full details are available upon your request.

Research Interests

- Fuzzy and intelligent control systems.
- Design of mechatronics systems.
- Nonlinear and multi-body dynamics.
- Computer aided design and engineering (CAD/CAE).
- Linear and nonlinear FEA.

Teaching Interests

Engineering mechanics and dynamics, mechanical design, solid mechanics, control theory, modern control systems, electro-pneumatic and hydraulic systems, intelligent and fuzzy control systems, systems dynamics, mechanic of robotics, design of mechatronics systems, programming tools (C and C++), mechanical vibration, computer aided design, finite element analysis, mathematics (elementary and advanced), numerical analysis, automobile engineering, research methods, and design of experiment.

Software skills

Matlab 6.5 (& Simulink), C++, ANSYS 12.0 (Classic & Workbench), LS-DYNA, AutoCAD (2D & 3D), SolidWorks 2010, Minitab 16.0 (& DoE), MS-Word, Excel, Outlook and Power Point.

Languages

Arabic (Mother tongue) and English (Fluent).

Awards

DCU scholarship for summer research-visit, Dublin City University, Ireland, 2013.

Best presentation award, Cork Institute of Technology, Ireland, 2011.

Institute of Technology Council of Directors scholarship for three years, Cork Institute of Technology, Ireland, 2008.

IAESTA scholarship, Aleppo University, Syria, 2002.

Publications

Refereed Publications

Amjad Alsakarneh, Brian Quinn, Ger Kelly, John Barrett, "*Modelling and simulation of the coefficient of restitution of the sliotar in hurling*", Sports Biomechanics, Taylor & Francis, 2012, DOI: 10.1080/14763141.2011.653690.

Amjad Alsakarneh, Keith Brain, Matt Cotterell and John Barrett, "*The use of high speed camera in identifying mechanical forces and deformation in the hurling game*", Sports Engineering, Springer, 2012, DOI: 10.1007/s12283-012-0098-3.

Amjad Alsakarneh, "*Optimum fuzzy model for single input-single output data system*", Control and Intelligent Systems, 39 (1), 2011, DOI: 10.2316/Journal.201.2011.1.201-2210.

Amjad Alsakarneh, Liam Moore and John Barrett, "*Evaluation of the use of a rubber buffer layer to protect embedded SIP devices from high mechanical forces*", 61st Electronic Components and Technology Conference (ECTC), pp. 1883–1888, Lake Buena Vista, FL, May 31-June 3 2011.

Amjad Alsakarneh, Liam Moore and John Barrett, "*Numerical modelling and optimization of an electronic system embedded in multi-layered viscoelastic materials under shock loads*", Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems (EuroSimE), 12th International Conference on, Linz, Austria, Apr 18-20, 2011.

Amjad Alsakarneh, Ger Kelly and John Barrett, "*Finite Element Analysis of the Sliotar-Hurley Impact in the Hurling Game*", 37th Solid Mechanics Conference, Warsaw, Poland, Sep 6–10, 2010.

Amjad Alsakarneh, Ahmet Yigit, Matt Cotterell and John Barrett "*Nonlinear Impact System Identification Using High Speed Camera*", IEEE/IACSIT International Conference on Mechanical Engineering, Robotics and Aerospace, pp. 200-205, Bucharest, Romania, Dec 2-4, 2010.

Under Review

Amjad Alsakarneh, Ger Kelly and John Barrett, "*A transient finite element modelling and simulation of a nonlinear bat-ball impact*", under review.

Amjad Alsakarneh and Tagreed AlJarrah, "*Design and control of a dual axes sun tracking system using fuzzy controller and solar sensors*", under review.

Amjad Alsakarneh, "*An approach of intelligent control system of MIMO dynamic systems*", in preparation.

Professional Affiliations

Member, **The American Society of Mechanical Engineers (ASME).**

Member, **The Society of Automotive Engineers (SAE).**

Member, **The Jordan Engineers Association.**