

Résumé

Ahmed Abdulraouf Abdulrahman Issa

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CURRENT POSITION:

- **Assistant Professor, Faculty of Engineering and Information Technology, Al Azhar University – Gaza.**

EDUCATION:

- **2002-2007: PhD Degree in Mechanical and Manufacturing Engineering.** Dublin City University, Research topic “Computational Control of Laser Systems for Micro-machining”.
- **1997-2001: Bachelor Degree in Mechatronics Engineering (Honours).** The International Islamic University Malaysia.
- **1996: General Secondary Education Examination.** Palestine based on the Egyptian Curriculum.
- **1995: Completed the FCE course (Cambridge University First Certificate in English) at the British Council – Gaza, Palestine.**

PROFESSIONAL MEMBERSHIPS:

- **CLAD:** Certified LabVIEW Associate Developer.
- **MAEG:** Member of the Association of Engineers – Gaza.
- **MIEI:** Member of the Institute of Engineers – Ireland.
- **MIMechE:** Affiliate Member of the Institution of Mechanical Engineers.

E-PROFILES:

- **Research Gate:** <https://goo.gl/6UBfsq>.
- **Google Scholar:** <https://goo.gl/fdT8k8>.
- **LinkedIn:** <https://goo.gl/39P2Ly>.
- **Publons:** <https://goo.gl/PqtG1A>.
- **ORCID:** <https://goo.gl/3eKFkU>.

AWARDS:

- **Winner (First Prize):** *Laser system automation using LabVIEW and a PCI E-Series Board for 3D internal micromachining*, NIDays 2007 Paper Contest, World Wide Virtual Instrumentation Conference, IET, Savoy Place, London, 25th October 2007.
- **Winner (First Prize):** *Inline Water Quality Monitoring System*, 1st Exhibition of Excellence in Engineering and Information Technology Competition, Al Azhar University – Gaza, Palestine, 1st – 3rd October 2012.
- **Winner (First Prize):** *Inline Water Quality Monitoring System*, Made In Palestine Exhibition and Competition 2012, Organised by Al Nayzak Organization for Supportive Education and Scientific Innovation, Gaza and West Bank, Palestine, 6th – 9th December 2012.
- **Winner (First Prize):** *Development of a Vending Machine*, Exhibition and Competition at 1st International Conference on Applied Sciences, University College of Applied Sciences – Gaza, 24th – 25th September 2013.
- **Winner (Third Prize):** *Automatic Guidance Stick for the Blind*, Exhibition and Competition at 1st International Conference on Applied Sciences, University College of Applied Sciences – Gaza, 24th – 25th September 2013.

PROJECTS and FUNDS:

- **Oct-2017-Oct-2020:** Team-leader and project director, Erasmus+ Capacity Building in Higher Education EAC/A03/2016, Project No. 586403-EPP-1-2017-1-PS-EPPKA2-CBHE-JP, Increasing the Conformance of Academia towards Rehabilitation Engineering “i-CARE”.
- **Jun-Aug-2018:** Zamalah 2017 fellowship fund (Taawon and Bank of Palestine), Dublin City University – Ireland, Research Project; *Development of Engineering Laboratory Experiments for Shared and Remote Learning between Ireland and Palestine*.
- **Jan-2016–Jun-2017:** Co-Principal Investigator, *Fabrication and Characterization of Dye Sensitized Solar Cells using Nanostructured Materials and Designed Homemade Instrument*, Qatar Charity – IBHATH Fund, Palestine.
- **Jan-2016–Jun-2017:** Co-Principal Investigator, *Design and Development of a Solar Sterling Engine for Electricity Generation*, Qatar Charity – IBHATH Fund, Palestine.
- **Jan-2016–Jun-2017:** Co-Principal Investigator, *A Communication Device for Disabled and War-Wounded People through Speech and Hand Gestures*, Qatar Charity – IBHATH Fund, Palestine.

WORK EXPERIENCE:

- **Nov-2009–Present:** Lecturer at the Engineering Department, Faculty of Engineering and Information Technology, Al Azhar University – Gaza.
- **Aug-2017–Present:** Member of the technical committee of Equivalence of Non-Palestinian Certificates (Applied Sciences and Engineering) at the ministry of Education and Higher Education – Palestine.
- **Jun-2017–Present:** Technical program committed member and reviewer of the 1st International Conference on Promising Electronic Technologies (ICPET 2017).
- **Jan-2017–Present:** Reviewer “On-Demand” of Islamic University Gaza Journal of Natural Studies (IUGNES).
- **Nov-2015–Present:** Consultant member “On-Demand” of the technical judge committee of the Palestinian Incubator for Energy – PIE.

- **Feb-2015–Present:** Consultant member “*On-Demand*” of the technical judge committee of the Higher Council for Innovation and Excellence – Palestine – HCIE.
- **Nov-2014–Present:** Consultant of Mechatronics and Automation Engineering at Aknan Tech – Palestine.
- **Feb-2012–Present:** External Affiliate Member of the Advanced Processing Technology Research Centre (APT) – Ireland.
- **Apr-2016–Jun-2016:** Member of the technical committee of Improvement of the Engineering Education at the ministry of Education and Higher Education – Palestine.
- **Feb-2015–Jul-2016:** Associate Editor Board Member of Journal of Al Azhar University – Gaza (Natural Sciences).
- **Jan-2015–May-2016:** Member of the technical committee of Equivalence of Non-Palestinian Certificates (Applied Sciences and Engineering) at the ministry of Education and Higher Education – Palestine.
- **Sep-2011–Jun-2012:** Part-time lecturer at the Mechanical Engineering Department and the Industrial Engineering Department, Islamic University Gaza.
- **Apr-2008–Sep-2009:** Automated Manufacturing Test Systems Design Engineer (ATE), Benetel Ltd., Taylor’s Lane, Dublin 8, Ireland.
- **Sep-2006–Apr-2008:** Part-Time lecturer at the Mechanical and Manufacturing Engineering School, Dublin City University.

ADMINISTRATIVE AND MANAGERIAL EXPERIENCE:

- **Jan-2017–Present:** Proposal writing team-leader and project director, Erasmus+ Capacity Building in Higher Education EAC/A03/2016, Project No. 586403-EPP-1-2017-1-PS-EPPKA2-CBHE-JP, Increasing the Conformance of Academia towards Rehabilitation Engineering “i-CARE”.
- **Jun-2011–Present:** Engineering labs technical committee member, worked extensively on developing the undergraduate engineering laboratories at Faculty of Engineering and Information Technology, Al Azhar University – Gaza. Duties involved; lab management, equipment selection, project tenders, purchasing orders and technical testing.
- **Aug-2015–Aug-2017:** Head of the Engineering Department, Faculty of Engineering and Information Technology, Al Azhar University – Gaza.
- **Feb-2013–June-2014:** Director of the Continuing Education and Society Serving Centre – Al Azhar University – Gaza.
- **Oct-2012–Oct-2013:** Representative of Al Azhar University – Gaza as a member of the Mechatronics program accreditation committee – series of workshops and meetings with the Association of Engineers Gaza.
- **22-Dec-2012:** Representative of Al Azhar University – Gaza at a workshop on 5 Years Strategy Plan for the Palestinian Information and Communication Technology Association – PICTA.
- **8-Nov-2012:** Representative of Al Azhar University – Gaza at a workshop on E-Government and cooperation with Academic Institutes, organised by the Ministry of Telecommunication and Information Technology.
- **Apr-2012–Oct-2012:** Head of organising committee of the 1st Exhibition of Excellence in Engineering and Information Technology at Faculty of Engineering and Information Technology, Al Azhar University – Gaza.

- **Sep-2011–Sep-2012:** Coordinator of final year projects at the Faculty of Engineering and Information Technology, Al Azhar University – Gaza.
- **May-2011:** Jury Member at the 5th Technological Summit at the Islamic University Gaza.

LECTURING EXPERIENCE:

- **Nov-2009–Present:** Teaching Mechatronics Engineering modules at Al Azhar University Gaza,
 - Research Methods and Tools (Masters Level Students)
 - Introduction to Engineering (1st year module).
 - Mechatronics Components (3rd year module).
 - Mechatronics Instruments (3rd year module).
 - Automatic Control Systems (1) (3rd year module).
 - Automatic Control Systems (2) (4th year module).
 - Data Acquisition and Signal Processing (4th year module).
 - Mechatronics Design (1) (5th year module).
 - Mechatronics Design (2) (5th year module).
 - Robotics and Automation (5th year module).
 - Industrial Systems Design and Integration (5th year module).
 - Modern Multivariable Control (5th year module).
 - Digital Control Systems (5th year module).
 - Advanced Microtechnologies (5th year module).
 - Reverse Engineering and RP Technologies (5th year module).
- **Sep-2011–Jun-2012:** Part-time lecturer at the Mechanical Engineering Department and the Industrial Engineering Department at the Islamic University Gaza.
 - Engineering Drawing with CAD (2nd year module).
 - Mechanical Work Shop Practice (2nd year module).
 - Design of Experiments (4th year module).
- **Aug-2013:** Delivered a 24 hours course in LabVIEW programming at the Continuing Education and Society Serving Centre, Al Azhar University – Gaza.
- **Feb-2012:** Delivered a short course in LabVIEW programming to the academics of the Mechanical Engineering Department at the Islamic University Gaza.
- **Sep-2011:** Delivered a 30-hours course in LabVIEW programming at the Engineering Center for Research and Development – Gaza.
- **Sep-2007–Apr-2008:** Teaching “Engineering Mathematics I” at the mechanical and manufacturing engineering school, Dublin City University (1st year module).
- **Sep-2006–Sep-2007:** Teaching two courses at the mechanical and manufacturing engineering school, Dublin City University,
 - 1- Fundamentals of control systems (3rd year module).
 - 2- Instrumentation and measurements (3rd and 4th year module).
- **Jun-Aug–2007:** Design, automation and LabVIEW programming of e-learning resources for the undergraduate mechanical engineering laboratory experiments, Dublin City University.
- **Feb and Sep–2006:** Assisted in delivering two LabVIEW programming courses to the academic staff members at Carlow Institute of Technology, Carlow-Ireland.
- **Sep-2004–Sep-2005:** Worked on automating the laboratory experiments of the mechanics course at the mechanical and manufacturing engineering school, Dublin City University.

- **Sep-Feb-2002:** Lab assistant of manufacturing technology course at the mechanical and manufacturing engineering school, Dublin City University.

COURSES AND TRAINING:

- **Dec-2008:** Passed the LabVIEW Certified Associate Developer (CLAD) exam.
- **2002-2007:** Attended most of the National Instruments courses and trainings held in Dublin, which were aimed for LabVIEW programming, interfacing and automation hardware.
- **Jul-2003:** Completed a course on the basics of vacuum technology, delivered by SF Indus Training Ltd in conjunction with Dublin City University.
- **Sep-2002:** Attended a series of training seminars on the plasma technology at Enterprise-Ireland.
- **Jul-2001:** Undergraduate industrial training at Autotest Engineering Sdn Bhd:
 - 1- Analysed and studied engine test bed systems at the R&D laboratory in PROTON-Malaysia car industry.
 - 2- Developed an engine test bed system, utilising LabVIEW as the controlling software.
 - 3- Developed a fuel management system for educational and research purposes.

ENGINEERING AND COMPUTER SKILLS:

- **Control systems:** experienced with systems control, automation and monitoring using *LabVIEW*.
- **Test systems:** experienced with manufacturing test systems (MTS) development and control using *TestStand*.
- **Computer aided design:** *MICROSTATION* and *AutoCAD*.
- **Systems simulation and analysis:** *MATLAB*, *SIMULINK* for simulation and analysis of control systems. *Ansys WorkBench* for simulation and analysis of dynamic and thermal systems.
- **Manufacturing processes:** Capable of performing the principal manufacturing processes (mould casting, milling, drilling, centre lathe, welding, etc.). Knowledgeable with CNC machines.
- **Robotics:** Able to task-program the *DENSO* six-axis robot manipulator and the *FANUC* welding robot.
- **Experimental design:** Knowledgeable with statistical design and analysis of experiments using *Stat-Ease Design-Expert*.
- **Programming languages:** *ANSI C*, *FORTRAN*, *Pascal*, *Visual Basic*.
- **Database programming:** *MySQL*, *Microsoft Access*.
- **Web and graphical design:** *Macromedia Flash*, *Dreamweaver*, *Fireworks*, *Adobe Photoshop*, *ImageStyler*, *PageMill*.
- **Presentation software:** *MS Power Point*, *Macromedia Infochannel Designer*.
- **Other application software:** *MS Office*, *MS Visio*, *MS Works*.

CONFERENCES AND PUBLICATIONS:

JOURNAL PAPERS:

- Samy Shaat, Hamdiya Zayed, Hussam Musleh, Nabil Shurrab, **Ahmed Issa**, Jihad Asad, Naji Al Dahoudi, ***Inexpensive organic dyes-sensitized zinc oxide nanoparticles photoanode for solar cells devices***, Journal of Photonics for Energy, Vol. 7(2), Apr-Jun 2017, pp 025504-1-15.

- Naji M. AlDahoudi, Samy A. Shaat, Nabil K. Shurrab, **Ahmed A. Issa**, Husam A. Musleh, Jehad A. Asaad, Hamdia A. Zayed, ***Influence of Metal Ion Doping of Zinc Oxide Photoanode on the Efficiency of Dye Sensitized Solar Cell***, IUG Journal of Natural Studies (IUGNES), Special Issue, March, 2017, pp 155-159, ISSN 2409-4587.
- S.M. Karazi, **A. Issa** and D. Brabazon, ***Comparison of ANN and DoE for the prediction of laser machined micro-channel dimensions***, Optics and Lasers in Engineering, Vol. 47(9), 2009, pp. 956 – 964, ISSN 0143-8166.
- S.A. Mazlan, **A. Issa**, H.A. Chowdhury and A.G. Olabi, ***Magnetic Circuit Design for the Squeeze Mode Experiments on Magnetorheological Fluids***, *Materials and Design*, Vol. 30, 2009, pp. 1985-1993.
- S.A. Mazlan, **A. Issa**, H.A. Chowdhury and A.G. Olabi, ***Tensile Stress-Strain Relationships of Magnetorheological Fluids under Various Factors***, Solid State Phenomena, Vol. 154, 2009, pp. 127-132.
- **Issa, A.**, Brabazon, D., and Hashmi, S., ***3D transient thermal modelling of laser microchannel fabrication in lime-soda glass***, Journal of Materials Processing Technology, Vol. 207, Issues 1-3, 16 October 2008, pp. 307-314.
- S.A. Mazlan, **A. Issa** and A.G. Olabi, ***Magnetorheological Fluids Behaviour in Tension Loading Mode***, Advanced Materials Research, Vols. 47-50, 2008, pp. 242-245.

BOOK CHAPTERS:

- Hamed Sohrabpoor, **Ahmed Issa**, Ahmed Al Hamaoy, Inam Ul Ahad, Evans Chikarakara, Komal Bagga, Dermot Brabazon, ***CH24: Experimental Design, Advances in Laser Materials Processing: Technology, Research and Applications***, 2nd Edition, 20th September 2017, Edited by Jonathan Lawrence, Woodhead Publishing, ISBN 9780081012529.

CONFERENCE PAPERS:

- **Ahmed Issa**, Mohammad O. A. Aqel, Mahmoud M. Albelbeisi, Majd O. Elaila, and Malek A. Mortaja, ***Palletizing manipulator design and control using Arduino and MATLAB***, International Conference on Promising Electronic Technologies (ICPET 2017), 16-17-OCT-2017, *Accepted*, Deir El-Balah, Palestine.
- **Ahmed Issa**, Mohammad O. A. Aqel, Ali Tubail, Yaser Alkayyali, Abdelkareem Alay and Mosab Ferwana, ***Vision assisted SCARA manipulator design and control using Arduino and LabVIEW***, International Conference on Promising Electronic Technologies (ICPET 2017), 16-17-OCT-2017, *Accepted*, Deir El-Balah, Palestine.
- Mohammad O. A. Aqel, **Ahmed Issa**, Mohammed Khair, Majde ElHabbash, Mohammed AbuBaker and Mohammed Massoud, ***Development of Intelligent Maze Solving Robot Based on Image Processing***, International Conference on Promising Electronic Technologies (ICPET 2017), 16-17-OCT-2017, *Accepted*, Deir El-Balah, Palestine.
- K. Abuowda, **A. A. Issa**, A. Hamid Soliman and H. H. Aly, ***Inline Water Quality Monitoring System (IWQMS)***, First World Congress on Condition Monitoring-WCCM 2017, 13-16 June 2017, ILEC Conference Centre, London, UK.
- **Ahmed Issa**, Karem Abu Ouda, Bakir El Wawi and Anis Abu Hamad, ***Inline Water Quality Monitoring System***, *Arabic Paper*, 15th Student Innovative Summit, organised by the Arab Council for Training Students of Arab Universities, Imam Mohammad Bin Saud Islamic University, Riyadh, KSA, 17th – 21st November 2012.

- **Ahmed Issa** and Patrick O'Halloran, ***Building an Automated Audio Amplifier Manufacturing Test System Using NI LabVIEW and NI TestStand***, NIDays09 World Wide Graphical System Design Conference, Case Studies Booklet, pp. 68 – 69, www.ni.com/uk/casestudies.
- S.A. Mazlan, **A. Issa**, H.A. Chowdhury and A.G. Olabi, ***Tensile Stress-Strain Relationships of Magnetorheological Fluids under Various Factors***, Presented in the European Materials Research Society (E-MRS) Fall Meeting, Warsaw University of Technology, Poland, September 15-19, 2008.
- Brabazon, D., **Issa, A.** and Hashmi, S., ***Fabrication of micro-fluidic channels with Nd:YVO₄ and CO₂ laser system***, Photon 2008, 26th – 29th August 2008, Edinburgh Conference Centre, Heriot-Watt Campus.
- S.A. Mazlan, **A. Issa** and A.G. Olabi, ***Magnetorheological Fluids Behaviour in Tension Loading Mode***, in proceedings of the International Conference on Multi-Functional Materials and Structures, Hong Kong, China, Edited by A.K.T. Lau, J. Lu, V.K. Varadan, F.K. Chang, J.P. Tu and P.M. Lam, ISBN 978-0-87849-378-4, Part 1, July 28-31, 2008, pp. 242-245.
- **Issa, A.**, Brabazon, D., and Hashmi, S., ***Laser system automation using LabVIEW and a PCI E-Series Board for 3D internal micromachining***, NI Days 2007-Virtual Instrumentation in Practice (VIP)/Learning with LabVIEW Paper Contest, IET, Savoy Place, London, 25th October 2007, pp. 22 – 23.
- Greene, R., **Issa, A.**, Smyth, P., Brabazon, D., and McLoughlin, E., ***Development of interactive and remote learning instruments for engineering education***, International Symposium for Engineering Education, ISEE 2007, 17th - 19th September 2007, Dublin City University, pp. 149 - 155.
- **Issa, A.**, Brabazon, D., and Hashmi, S., ***Experimental study of glass surface ablation by a pulsed CO₂ laser beam***, Surface Engineering Symposium, 7th September 2007, pp. 27 – 33.
- Brabazon, D., **Issa, A.**, and Hashmi, S., ***Laser induced plasmas for enhanced biomedical applications***, Plasma processes for biomedical applications workshop, NCPST, Dublin City University, 24th May 2007, pp. 8.
- **Issa, A.**, Brabazon, D., and Hashmi, S., ***3D transient thermal modelling of laser micro-channel fabrication in lime soda glass***, International Conference on Advances in Materials Processing and Characterization, 28th - 30th August 2006, Anna University, Chennai, India, Eds. L. Karunamoorthy, D. Viswanathan, K. Padmanabhan, pp. 824 - 832, ISBN: 81-88237-75-2.
- **Issa, A.**, Brabazon, D., and Hashmi, S., ***Process modelling of micro channel production using CO₂ laser in silica glass using RSM***, International Conference on Advances in Materials Processing and Technologies, 30th July - 3rd August 2006, Ohio University, Las Vegas, NII6, 103, pp. 1 - 5.
- **Issa, A.**, Brabazon, D., and Hashmi, S., ***Improvement of lime soda glass laser microfabrication processing parameters using design of experiments***, 7th National Conference on Rapid Design, Prototyping, and Manufacture, 16th June 2006, Edited by D.M. Jacobson, A.E. Rennie, C.E. Bocking, MJA Print, pp. 9 - 20, ISBN 0-948314-494.
- **Issa, A.**, Brabazon, D., and Hashmi, S., ***Laser-induced plasma effects on the process of microchannel fabrication in glass using CO₂ laser***, 17th Annual Conference of the Irish Plasma and beam processing group in conjunction with the

15th Symposium on Fusion research in Ireland, NCPST, Dublin City University, Glasnevin, Dublin 9, 13th and 14th June 2006.

- **Issa, A.**, Brabazon, D., and Hashmi, M.S., **Computer control of Nd:YVO₄ laser system for 3 dimensional microfabrication in polymers**, 6th National Conference on Rapid Design, Prototyping, and Manufacture, 10th June 2005, Edited by D.M. Jacobson, A.E. Rennie, C.E. Bocking, X-CD Technologies, pp. 35 - 44, ISBN 0-9737783-1-8.
- **Issa, A.**, Brabazon, D., and Hashmi, M.S., **Three Dimensional microfabrication in polycarbonate using nano-second laser pulses**, 8th Annual Sir Bernard Crossland Symposium, Queens University Belfast, 6th and 7th April 2005, pp. 11-28, ISBN 1898012733.

EXHIBITIONS, SEMINARS AND POSTERS:

- **Ahmed Issa**, Mahmoud M. Albelbeisi, Majd O. Elaila, and Malek A. Mortaja, **Design and Development of Palletizing Robot**, Exhibition of Innovations, The Second National Forum for Palestinian Scientists, 22-23-July-2017, Organised by HCIE, Al-Bireh, Palestine.
- **Ahmed Issa**, Ali Tubail, Yaser Alkayyali, Abdelkareem Alay and Mosab Ferwana, **Design and Development of SCARA Robot**, Exhibition of Innovations, The Second National Forum for Palestinian Scientists, 22-23-July-2017, Organised by HCIE, Al-Bireh, Palestine.
- **Ahmed Issa**, Ahmed Hamouda, Amjad Sirdah, Ezzat El Sbakhi, Mohammad El Nono, **Design and Development of a Two-Wheeled Self-Balancing Robot**, Corner, EXPOTECH Technology Week 2016, Organised by Palestinian Information Technology Association of Companies – PITA, Gaza, 27th-NOV – 1st-DEC 2016.
- **Ahmed, Issa**, Ahmed Abu Naser, Amjad Morjan, Ahmed El Ghoula and Moath El Ostath, **Design and Development of a Core-XY 3D FDM Printer and Filament Extruder**, Corner, EXPOTECH Technology Week 2016, Organised by Palestinian Information Technology Association of Companies – PITA, Gaza, 27th-NOV – 1st-DEC 2016.
- **Ahmed Issa**, Ahmed Hamouda, Amjad Sirdah, Ezzat El Sbakhi, Mohammad El Nono, **Two-Wheeled Self-Balancing Robot**, Corner, Graduates and Freelancing Week, Organised by Association of Engineers – Gaza, 13th-18th-AUG-2016.
- **Ahmed Issa**, Motaz Ayiad, Ahmad Abed and Hazem Zaqout, **Design and Development of a Delta Robot**, Corner, EXPOTECH Technology Week 2015, Organised by Palestinian Information Technology Association of Companies – PITA, Gaza, 6th-8th-OCT 2015.
- **Ahmed Issa**, Hana Jebril, Heba El Raie and Rozan Dahman, **Design and Development of a Wireless Wearable Camera Tracking Gadget**, Corner, EXPOTECH Technology Week 2015, Organised by Palestinian Information Technology Association of Companies – PITA, Gaza, 6th-8th-OCT 2015.
- **Ahmed Issa**, Khaled Skaik, Ibrahim Bari, Nader Zakout and Abdalah Anan, **Design and Development of a Smart Rotary Parking System**, Corner, EXPOTECH Technology Week 2015, Organised by Palestinian Information Technology Association of Companies – PITA, Gaza, 6th-8th-OCT 2015.
- **Ahmed Issa**, Heba Tarazi, Alaa Doghmosh, Rawand Herzalla, Samah Al Akkad and Muna Harb, **Design and Development of an Automatic Keys Storage and Retrieval**

- Device**, Corner, EXPOTECH Technology Week 2015, Organised by Palestinian Information Technology Association of Companies – PITA, Gaza, 6th-8th-OCT 2015.
- **Ahmed Issa**, Ahmed Zraid, Hassan Abu Haweela, Karam Ayyad and Abedulwahab Abu Elata, **Development of a Vending Machine**, Corner, Exhibition and Competition at 1st International Conference on Applied Sciences, University College of Applied Sciences – Gaza, 24th – 25th September 2013.
 - **Ahmed Issa**, Heba Awaja, Dalia Fojo and Dina Salah, **Automatic Guidance Stick for the Blind**, Corner, Exhibition and Competition at 1st International Conference on Applied Sciences, University College of Applied Sciences – Gaza, 24th – 25th September 2013.
 - **Ahmed Issa**, Maya Obaid, Haneen Al Baghdadi, Jomana Al Agha and Manar Hammad, **E-Learning Android Application**, Corner, Exhibition and Competition at 1st International Conference on Applied Sciences, University College of Applied Sciences – Gaza, 24th – 25th September 2013.
 - **Ahmed Issa**, Walaa Wahba and Mohammad Wahba, **Multimedia Encryption/Decryption System**, Corner, Exhibition and Competition at 1st International Conference on Applied Sciences, University College of Applied Sciences – Gaza, 24th – 25th September 2013.
 - **Ahmed Issa**, Laila Abu Dahi, Amal Al Krunz and Areej Abu Rizq, **Voice Operated Wheelchair for the Physically Impaired**, Corner, Exhibition and Competition at 1st International Conference on Applied Sciences, University College of Applied Sciences – Gaza, 24th – 25th September 2013.
 - **Ahmed Issa**, Karem Abu Ouda, Bakir El Wawi and Anis Abu Hamad, **Inline Water Quality Monitoring System, Arabic Paper**, Made In Palestine Exhibition and Competition 2012, Organised by Al Nayzak Organization for Supportive Education and Scientific Innovation, Gaza and West Bank, Palestine, 6th – 9th December 2012.
 - **Ahmed Issa**, Mahmoud Al Bobo, Akram Moqbil and Mohammad Msabih, **3D Laser Beam Scanning System, Arabic Paper**, Made In Palestine Exhibition and Competition 2012, Organised by Al Nayzak Organization for Supportive Education and Scientific Innovation, Gaza and West Bank, Palestine, 6th – 9th December 2012.
 - **Ahmed Issa**, Alaa Mohsin, Yasmin Mahdi, Najwa Awad, Mona El Nakhala and Islam Badwan, **Online Distance Learning System for Engineering Labs, Arabic Paper**, Made In Palestine Exhibition and Competition 2012, Organised by Al Nayzak Organization for Supportive Education and Scientific Innovation, Gaza and West Bank, Palestine, 6th – 9th December 2012.
 - **Ahmed Issa**, Karem Abu Ouda, Bakir El Wawi and Anis Abu Hamad, **Inline Water Quality Monitoring System**, Corner, EXPOTECH Technology Week 2012, Organised by Palestinian Information Technology Association of Companies – PITA, Gaza, 7th – 11th October 2012.
 - **Ahmed Issa**, Mahmoud Al Bobo, Akram Moqbil and Mohammad Msabih, **3D Laser Beam Scanning System**, Corner, EXPOTECH Technology Week 2012, Organised by Palestinian Information Technology Association of Companies – PITA, Gaza, 7th – 11th October 2012.
 - **Ahmed Issa**, Alaa Mohsin, Yasmin Mahdi, Najwa Awad, Mona El Nakhala and Islam Badwan, **Online Distance Learning System for Engineering Labs**, Corner, EXPOTECH Technology Week 2012, Organised by Palestinian Information Technology Association of Companies – PITA, Gaza, 7th – 11th October 2012.

- **Ahmed Issa**, Karem Abu Ouda, Bakir El Wawi and Anis Abu Hamad, ***Inline Water Quality Monitoring System***, Poster and Corner, 1st Exhibition of Excellence in Engineering and Information Technology, Organised by the Faculty of Engineering and Information Technology, Al Azhar University – Gaza, Palestine, 1st – 3rd October 2012.
- **Ahmed Issa**, Mahmoud Al Bobo, Akram Moqbil and Mohammad Msabih, ***3D Laser Beam Scanning System***, Poster and Corner, 1st Exhibition of Excellence in Engineering and Information Technology, Organised by the Faculty of Engineering and Information Technology, Al Azhar University – Gaza, Palestine, 1st – 3rd October 2012.
- **Ahmed Issa**, Alaa Mohsin, Yasmin Mahdi, Najwa Awad, Mona El Nakhala and Islam Badwan, ***Online Distance Learning System for Engineering Labs***, Poster and Corner, 1st Exhibition of Excellence in Engineering and Information Technology, Organised by the Faculty of Engineering and Information Technology, Al Azhar University – Gaza, Palestine, 1st – 3rd October 2012.
- **Ahmed Issa**, Omar Afana, Motasim Al Qudwa and Sharif Shaat, ***3D Powder Printer System***, Poster and Corner, 1st Exhibition of Excellence in Engineering and Information Technology, Organised by the Faculty of Engineering and Information Technology, Al Azhar University – Gaza, Palestine, 1st – 3rd October 2012.
- **Issa, A.**, Brabazon, D., and Hashmi, S., ***Laser System Automation using LabVIEW and a PCI E-Series Board for 3D Internal Micromachining***, Case study presentation, NI LabVIEW in the Curriculum Academic Summit, 29th Nov. 2007, DCU.
- **Issa, A.**, Brabazon, D., and Hashmi, S., ***Laser micromachining of transparent materials: Theory and Applications***, Poster presentation, Photonics Ireland 2007, 24th – 26th September 2007, Galway Bay Hotel, Salthill, Galway.
- **Issa, A.**, Brabazon, D., and Hashmi, M.S., ***Laser Microfabrication in Transparent Materials***, Plasma Processes for Biomedical Applications one-day workshop, Poster presentation, National Centre for Plasma Science and Technology, DCU – Ireland, 24th May, 2007.
- **Issa, A.**, Brabazon, D., and Hashmi, M.S., ***Exploration of principles and applications of internal microfabrication in dielectrics***, Plasma Processes for Biomedical Applications one-day workshop, Poster presentation, National Centre for Plasma Science and Technology, DCU – Ireland, 24th May, 2007.
- **Issa, A.**, Brabazon, D., and Hashmi, M.S., ***Microfabrication in polycarbonate with a Nd:YVO₄ laser system***, Poster presentation, Plasma Processes for Biomedical Applications one-day workshop, National Centre for Plasma Science and Technology, DCU – Ireland, 24th May, 2007.
- **Issa, A.**, Brabazon, D., and Hashmi, M.S., ***Direct writing of microchannels in glass with a CO₂ laser system***, Poster presentation, Plasma Processes for Biomedical Applications one-day workshop, National Centre for Plasma Science and Technology, DCU – Ireland, 24th May, 2007.
- **Issa, A.**, Brabazon, D., ***Overview of Laser 3D Microfabrication in Polymers***, Rapid Manufacturing Technologies Seminar, Mechanical and manufacturing engineering school, DCU – Ireland, 3rd April 2007.
- **Issa, A.**, Brabazon, D., and Hashmi, M.S., ***Laser Microfabrication in Soda-Lime Glass: Theory and Experimental Results***, Seminar at the National Centre for Plasma Science and Technology, DCU – Ireland, 28th July 2006.

- **Issa, A.**, Brabazon, D., and Hashmi, M.S., **3 Dimensional Microfabrication in Polycarbonate Using Nanosecond Laser Pulses**, Science and Technology Society, Seminar Series, DCU – Ireland, 25th February 2005.
- **Issa, A.**, Brabazon, D., and Hashmi, M.S., **3 Dimensional Micromachining of Polymer Materials**, IMechE Speak out for Engineering Competition, University College Dublin, UCD – Ireland, 4th February 2005.

FIELDS OF INTEREST:

- Laser micromachining and processing of materials.
- Rapid prototyping technologies.
- Development of computer based engineering learning-teaching tools.
- Design and automation of engineering laboratory experiments.
- Sensor design and technology.
- Modern control and monitoring of systems and manufacturing processes.
- Automated manufacturing test systems.

GRADUATION PROJECTS SUPERVISED:

2011–2012		
1	Design and Development of an Inline Water Quality Monitoring Device	B.Eng in Mechatronics
2	Design and Development of a 3D Laser Beam Scanning System	B.Eng in Mechatronics
3	Design and Development of a 3D Powder Printer Machine	B.Eng in Mechatronics
4	Design and Development of an Automated Storage Retrieval Machine	B.Eng in Mechatronics
5	Design and Development of an Online Distance Learning System for Engineering Labs	B.Eng in Computer and Communications
2012–2013		
1	Design and Development of an Inline Water Quality Monitoring SCADA System	B.Eng in Computer and Communication
2	Design and Development of a Multimedia Encryption/Decryption Software	B.Eng in Computer and Communication
3	Design and Development of a Voice Operated Wheelchair for the Physically Impaired	B.Eng in Computer and Communication
4	Design and Development of an E-Learning Application using Android	B.Eng in Computer and Communication
5	Design and Development of a Vending Machine	B.Eng in Mechatronics
6	Design and Development of a Radar Speed Gun Gadget	B.Eng in Computer and Communication
7	Design and Fabrication of an Automatic Guidance Stick for the Blind	B.Eng in Computer and Communication
8	Design and Development of an Automated Solar Cell Tracking System	B.Eng in Computer and Communication
2014–2015		
1	Design and Development of a Delta Robot	B.Eng in Mechatronics
2	Design and Development of a Wireless Wearable Camera Tracking Gadget	B.Eng in Computer and Communication

3	Design and Development of a Smart Rotary Parking System	B.Eng in Mechatronics
4	Design and Development of a Three-Wheeled Mobile Robot	B.Eng in Mechatronics
5	Design, Development and Analysis of a Parabolic Mirror for Solar Light Collection	B.Eng in Mechatronics
6	Design and Development of an Automatic Keys Storage and Retrieval Device	B.Eng in Computer and Communication
7	Design and Development of an Automatic Pill Dispenser Device	B.Eng in Mechatronics
2015–2016		
1	Design and Development of a Two-Wheeled Self-Balancing Robot	B.Eng in Mechatronics
2	Design and Development of a Core-XY 3D FDM Printer and Filament Extruder	B.Eng in Mechatronics
2016–2017		
1	Design and Development of SCARA Robot	B.Eng in Mechatronics
2	Design and Development of Palletising Robot	B.Eng in Mechatronics
3	Design and Development of Smart Phone 3D Scanner	B.Eng in Computer and Communication
4	Design and Development of a Laser Engraving CNC	B.Eng in Mechatronics

LANGUAGE SKILLS:

- Arabic (Native) English (Fluent) Bahasa Malay (Good)

EXTRA-CURRICULAR ACTIVITIES:

- **Feb-Jun–2011:** Completed an extensive and specialised course on Jerusalem and the Holy Places delivered by AlQuds International Institution – Gaza.
- Member of the organising committee of the International conference on vehicle alternative fuel systems & environmental protection, Dublin City University, Ireland. VAFSEP 2006 (**Aug 22-25, 2006**) and VAFSEP 2004 (**Jul 6-9, 2004**).
- **2003-2007:** Treasurer of the Science and Technology Society – DCU.
- **2000:** Organizer of the Palestinian cultural exhibition at the International Islamic University Malaysia.