

Dr Fayçal Bensaali

Associate Professor, AMHEA,
SMIEEE



Department of Electrical Engineering
College of Engineering
Qatar University
P. O. Box 2713, Doha
Qatar



(+974) 4403 4234



(+974) 4403 4201



f.bensaali@qu.edu.qa

f.bensaali.ga@ieee.org

Professional Profile

Education

- May 2005** **Ph.D. in Electronic and Computer Engineering**
School of Electronics, Electrical Engineering and Computer Science
Queen's University, Belfast, United Kingdom
Dissertation- Accelerating Matrix Product on Reconfigurable Hardware for Image Processing Applications
- July 1999** **Dipl-Ing (MEng) in Electronics**
University of Constantine
Algeria

Professional Experience

- July 2015 - Present** **Associate Professor**
Department of Electrical Engineering
Qatar University, Qatar
- Feb 2013 - June 2015** **Assistant Professor**
Department of Electrical Engineering
Qatar University, Qatar
- May 2010 - Aug 2013** **Senior Lecturer**
School of Engineering and Technology
University of Hertfordshire, UK
- Mar 2008 – Apr 2010** **Lecturer**
School of of Electronic, Communication and Electrical Engineering
University of Hertfordshire, UK
- May 2006 – Feb 2008** **Post-Doctoral Research Fellow**
School of Electronics, Communication and Electrical Engineering
University of Hertfordshire, UK
- Mar 2005 – July 2005** **Part Time Research Assistant**
EPSRC funded project
School of Electronics, Electrical Engineering and Computer Science
Queen's University, Belfast, UK
- Sep 1999 – July 2001** **Teaching Assistant**
School of Computer Science
University of Jijel, Algeria

Awards & Recognition

2002	Ph.D Scholarship: Queen's University, Belfast, United Kingdom
2010 & 2012	Vice-Chancellor's Award Nominee: Tutor of the year category, University of Hertfordshire, United Kingdom
2013	Research Excellence Award (3 rd prize) at Qatar Foundation Annual Research Conference
2013	MSc/PhD Forum Best Paper Award (3 rd prize) at the International Conference on Electronics, Circuits and Systems (ICECS)
2014	Best PhD paper award at the ACS International Conference on Computer Systems and Applications (AICCSA)- PhD Symposium
2016	1st place , Senior Design Project Contest 2016, College of Engineering, Qatar University 2nd place , Senior Design Project Contest 2016, College of Engineering, Qatar University
2017	Best Oral Presentation at the ELSO-SWAC conference Best Poster Presentation at the ELSO-SWAC conference 1st place , Senior Design Project Contest 2017, College of Engineering, Qatar University 1st Place for Best Project in Qatar University Honors Program Project Fair 2017

Area of Expertise

- Hardware Architectures for Digital Image and Signal Processing
- Custom Computing using Field Programmable Gate Array
- Hardware/Software Co-design
- Embedded Systems

Professional Activities

Professional Memberships

2009-Present	Member of the Electronics KTN (Knowledge Transfer Network)
2009-Present	Associate Member of the Higher Education Academy
2003-2006, 2014-2015	IEEE Member
2015-present	IEEE Senior Member

Training and Workshops Attended (Selected)

- One-day Workshop on Intellectual Property & Technology Transfer (IPTT) and Data Management, Qatar National Research Fund, 20 Sep 2017, Qatar Science and Technology Park, Doha, Qatar.
- Three-day workshop on "Empowering Connected Health in Qatar through Intelligent Medical Devices and IoT", Qatar University, Doha, 19-21 April 2016.
- The IEEE Xplore Digital Library Training, 13 Oct 2014, Qatar University, Qatar.
- ScienceDirect, Scopus and Mendeley Training, 23 Sep 2014, Qatar University, Qatar.
- Three-day Workshop on "ABET Advanced Assessment". 8-10 Sep 2014, Qatar University.
- One day Training on "FPGA development with Altium Designer", 3 Apr 2012, Premier EDA Solutions Ltd., Stanstead Abbots, UK.
- Two-day training course on "Using Altera Tools and Boards for Embedded System Design", 7-8 July 2011, Rutherford Appleton Laboratory, Didcot, UK.

- The Continuing Professional Academic Development Programme in Learning and Teaching in Higher Education (CPAD):
 - CPAD 1: Foundations for Learning, Teaching and Assessment, 9-11 Sept 2008, University of Hertfordshire, UK.
 - CPAD2: Developing Learning, Teaching and Assessment, 8 Oct – 3 Dec 2008, University of Hertfordshire, UK.
 - CPAD3: Enhancing the Student Learning Experience, 7 Oct – 2 Dec 2009, University of Hertfordshire, UK.
- One-day research degree supervisor training, 14 Oct 2008, University of Hertfordshire, UK.
- One-day Short Course on “C-Based Design for FPGA”, 5 Feb 2008, Rutherford Appleton Laboratory, Didcot, UK.
- One-day KTP (Knowledge Transfer Partnership) supervisor Workshop, 19 Sep 2007, Prospero House, London, UK.
- 4-day Training on “Handel-C using DK”, Nov 2002, Celoxica Ltd, Oxford, UK.

**Editorial
Boards/
Conference
TPC
(Selected)**

- Guest Editor: IEEE Internet of Things Journal, Special Issue on Real-time Data Processing for Internet of Things (RTDPIoT).
- Guest Editor: Journal of Sensor and Actuator Networks, Special Issue on Empowering eHealth with Smart Internet of Things (IoT) Medical Devices.
- Member of technical program committee: The 4th International Symposium on Signal Processing Intelligent Recognition Systems (SIRS'17), India, 19-22 Sept 2018.
- General Chair: 4th International Symposium on Real-time Data Processing for Cloud Computing In conjunction with the 20th IEEE International Conference on High Performance Computing and Communications (HPCC 2018), Exeter, UK, 28-30 June, 2018.
- Judge: The Undergraduate Awards, 2017.
- Member of technical program committee: 2018 International Conference on Computer Intelligent Systems & Networking, Tunisia, 3-4 January, 2018.
- Member of International Advisory and Technical Committee, International Conference on Big Data and Internet of Things, London, UK, 20-22 December 2017.
- Member of technical program committee: IEEE International Symposium on Signal Processing and Information Technology, Bilbao, Spain, December 18-20, 2017.
- General Chair: 3rd International Symposium on Real-time Data Processing for Cloud Computing in conjunction with the 10th IEEE/ACM International Conference on Utility and Cloud Computing, Austin, Texas, USA, December 5-8, 2017.
- Member of technical program committee: Euromicro Conference on Digital System Design, Special Session on Advanced Systems for Health, Wellness and Personal Assistance, Vienna, Austria, 30 Aug – 1 Sept 2017.
- General Chair: 2nd International Symposium on Real-time Data Processing for Cloud Computing in conjunction with the 10th IEEE International Conference on Cyber, Physical, and Social Computing, Exeter, UK, 21-23 June 2017.
- Member of technical program committee: International Workshop on Security and Forensics of IoT to be held in conjunction with the 10th IEEE International Conference on Internet of Things, Exeter, UK, 21-23 June 2017.
- Member of the program committee: The 7th-13th IEEE Workshop on Embedded Computer Vision Held in conjunction with IEEE CVPR, 2011-2018.
- Member of technical program committee: The 3rd International Symposium on Signal Processing Intelligent Recognition Systems, India, 13-16 Sept 2017.
- General Chair: International Symposium on Real-time Data Processing for Cloud Computing In conjunction with the 9th IEEE/ACM International Conference on Utility and Cloud Computing, Shanghai, China, 6-9 December 2016.
- Member of technical program committee: The 16th IEEE International Symposium on Signal Processing and Information Technology, Limassol, Cyprus, 12-14 Dec 2016.
- Member of Organizing Committee and Session Chair: Workshop on “Empowering Connected Health in Qatar through Intelligent Medical Devices and IoT”, Qatar University, Doha, 19-21 April 2016, QU.

- Member of technical program committee: The International Conference on Signal Processing & Data Mining, Rome, Italy, 5-7 November 2015.
- Tutorials Co-Chair: 26th International Conference on Microelectronics (ICM 2014), December 2014, Qatar.
- Chair for two poster sessions and one regular session (Digital Signal and Data Processing): 26th International Conference on Microelectronics (ICM 2014), 14-17 December 2014, Qatar.
- Member of technical program committee: International Symposium on Computer Vision and the Internet, 2014.
- Editorial board member: International Journal Emerging Trends in Electrical, Electronics & Instrumentation Engineering (Since May 2014).
- Member of technical program committee: International Workshop in Computing, Communication & informatics, 2014.
- Session Chair (Electronics and Instrumentation): 7th IEEE GCC Conference and Exhibition, 17-20 November, 2013.
- Associate Editor: GSTF Journal on Telecom and Digital Media (2013-2016).
- Editorial board member: Journal of Electrical and Electronic Engineering (2012-2016).
- Member of technical program committee: 11th International Conference on Information Science, Signal Processing and their Applications, 2012.

Referee

Regular reviewer for a number of international journals and conferences (e.g. IEEE Transactions on Circuits and Systems for Video Technology, IEEE Sensors Journal, Journal of Real-Time Image Processing- Springer, EURASIP Journal on Image and Video Processing, IET Circuits, Devices & Systems, The Journal of Electronic Imaging, IEEE International Symposium on Circuits and Systems, IEEE Workshop on Embedded Computer Vision, IEEE GCC conference, ACS/IEEE International Conference on Computer Systems and Applications, International Conference on Information Science, Signal Processing and their Applications, IEEE International Conference on Electronics Circuits and Systems).

Research & Commercial

Research Grants

1. Title:	consumer Engagement towards Energy saving behaviour by means of Exploiting Micro Moments and Mobile recommendation systems (EM) ³
Source:	Qatar National Research Fund (QNRF)
Investigators:	Faycal Bensaali, Abbes Amira and George Dimitrakopoulos
Funding:	599,928.00 USD
2. Title:	Embedded multi-core systems for multi-critical applications in the Internet of Things Era (EMBIoT)
Source:	Qatar National Research Fund (QNRF)
Investigators:	Abbes Amira, Faycal Bensaali, George Dimitrakopoulos, Guillaume Alinier and Amine Bermak
Funding:	692,760.00 USD
3. Title:	Revolutionizing ECMO Simulation with Affordable yet High-Fidelity Technology
Source:	Qatar University
Investigators:	Faycal Bensaali, Abbes Amira and Guillaume Alinier
Funding:	41,000.00 USD
4. Title:	Human Circulatory System Simulation for Extracorporeal Membrane Oxygenation Therapy
Source:	Qatar National Research Fund (QNRF)
Investigators:	Faycal Bensaali, Abbes Amira and Guillaume Alinier
Funding:	18,888.00 USD

5. Title:	Extracorporeal Membrane Oxygenation Simulator for Patient Management Training at HMC
Source:	Qatar National Research Fund (QNRF)
Investigators:	Faycal Bensaali, Abbas Amira and Guillaume Alinier
Funding:	15,315.00 USD
6. Title:	Development of Instrumentation for High-Precision Angular Position and Speed Measurement
Source:	Qatar National Research Fund (QNRF)
Investigators:	Mohieddine Benammar and Faycal Bensaali
Funding:	20,000.00 USD
7. Title:	HD ANPR on Heterogeneous SoC Platform
Source:	Qatar National Research Fund (QNRF)
Investigators:	Faycal Bensaali and Abbas Amira
Funding:	39,400.00 USD
8. Title:	Reconfigurable Smart Wireless Gas Sensor Network
Source:	Qatar University
Investigators:	Faycal Bensaali and Abbas Amira
Funding:	33,000.00 USD
9. Title:	A Reconfigurable Connected Health Platform
Source:	Qatar University
Investigators:	Abbas Amira and Faycal Bensaali
Funding:	33,000.00 USD
10 Title:	Acceleration of DSP algorithms on Zync SoC platform
Source:	Qatar University
Investigators:	Faycal Bensaali
Funding:	14,000.00 USD
11 Title:	Human Circulatory System for Extracorporeal Membrane Oxygenation Simulation
Source:	Qatar University
Investigators:	Faycal Bensaali
Funding:	2,300.00 USD
12 Title:	IoT based Fall and ECG Monitoring System
Source:	Qatar University
Investigators:	Faycal Bensaali
Funding:	2,200.00 USD
13 Title:	Vital Signs Monitoring System using IoT Devices
Source:	Qatar University
Investigators:	Faycal Bensaali
Funding:	2,200.00 USD
14 Title:	IoT-based Class Attendance Management System using Fingerprint
Source:	Qatar University
Investigators:	Faycal Bensaali
Funding:	2,000.00 USD
15 Title:	3D Face Recognition for Border Control
Source:	Qatar University
Investigators:	Soodamani Ramalingam and Faycal Bensaali
Funding:	7,500.00 USD

Publications

Refereed Journals

1. A. Alsalemi, C. Sardinis, F. Bensaali, I. Varlamis, A. Amira and G. Dimitrakopoulos, "The Role of Micro-Moments: A Survey of Habitual Behavior Change and Recommender Systems for Energy Saving", IEEE Systems Journal, in press.
2. X. Zhai, A. Amira, F. Bensaali, A. Al-Shibani, A. Al-Nassr, A. El-Sayed, M. Eslami, S. Dakua and J. Abi-Nahed, "Zynq SoC based Acceleration of the Lattice Boltzmann Method", Concurrency and Computation: Practice and Experience, Wiley, in press.
3. M. Al Disi, A. Alsalemi, Y. Alhomsy, F. Bensaali, A. Amira and G. Alinier, "Extracorporeal membrane oxygenation simulation-based training: methods, drawbacks and a novel solution, Perfusion, SAGE Journals, in press.

4. M. Al Disi, A. Alsalemi, Y. Alhomsy, F. Bensaali, A. Amira and G. Alinier, "Using Thermochromism to Simulate Blood Oxygenation in Extracorporeal Membrane Oxygenation", *Perfusion*, SAGE Journals, vol. 34, Issue 2, pp. 106-115, March 2019.
5. H. Djelouat, X. Zhai, A. Amira and F. Bensaali, "System-on-Chip Solution for Patients Biometric: A Compressive Sensing-Based Approach", *IEEE Sensors Journal*, vol. 18, Issue 23, pp. 9629-9639, December 2018.
6. M. Al Disi, H. Djelouat, C. Kotronis, E. Politis, A. Amira, F. Bensaali G. Dimitrakopoulos and G. Alinier, "ECG Signal Reconstruction on the IoT-Gateway and Efficacy of Compressive Sensing under Real-time Constraints", *IEEE Access*, Special Section on Wearable and Implantable Devices and Systems, vol. 6, Issue 1, pp. 69130-69140, December 2018.
7. U. Khurshid, A. Mahmoud, A. Abducarim, S. Mahmud, O. Abdallah, E. Mohamed, F. Bensaali, A. Amira, A. Alsalemi, A. Ait Hssain, G. Alinier, I. Hassan, "Towards the design and implementation of a human circulatory system for Extracorporeal Membrane Oxygenation simulation," *The Egyptian Journal of Critical Care Medicine*, Elsevier, vol. 6, Issue 3, pp. 87-89, December 2018.
8. H. Djelouat, A. Amira and F. Bensaali, "Compressive Sensing-Based IoT Applications: A Review", *Journal of Sensor and Actuator Networks*, Special Issue on Empowering eHealth with Smart Internet of Things (IoT) Medical Devices, vol. 7, Issue 4, October 2018.
9. A. Alsalemi, M. Al Disi, Y. Alhomsy, F. Bensaali, A. Amira and G. Alinier, "Enhancing Clinical Learning Through an Innovative Instructor Application for ECMO Patient Simulators", *Simulation and Gaming*, SAGE Journals, vol. 49, Issue 5, pp. 497-514, October 2018.
10. A. Farhat, O. Hommos, A. Al-Zawqari, A. Al-Qahtani, F. Bensaali, X. Zhai and A. Amira, "Optical Character Recognition on Heterogeneous SoC for HD Automatic Number Plate Recognition System", *EURASIP Journal on Image and Video Processing*, Springer, vol. 58, pp. 1-17, December 2018.
11. G. Alinier, H. Ibrahim, A. Alsalemi, M. Al Disi, A. Ait Hssain, A. Labib, Y. Alhomsy, F. Bensaali, A. Amira and I. Ibrahim, "Addressing the challenges of ECMO simulation", *Perfusion*, SAGE, vol. 33, pp. 568-576, October 2018.
12. M. Al Disi, A. Alsalemi, Y. Alhomsy, F. Bensaali, A. Amira and G. Alinier, "Revolutionizing ECMO Simulation with Affordable yet High-Fidelity Technology", *The American Journal of Emergency Medicine*, Elsevier, vol. 36, pp. 1310-1312, July 2018.
13. H. Djelouat, A. Ait Si Ali, A. Amira and F. Bensaali, "An interactive software tool for gas identification", *Journal of Natural Gas Science and Engineering*, Elsevier, vol. 55, pp. 612-624, July 2018.
14. A. Al-Zawqari, O. Hommos, A. Al-Qahtani, A. Farhat, F. Bensaali, X. Zhai and A. Amira, "HD number plate localization and character segmentation on the Zynq heterogeneous SoC", *Journal of Real-Time Image Processing*, 2018. <https://doi.org/10.1007/s11554-017-0747-7>.
15. X. Zhai, M. Eslami, E. Husseinb, M. Filali, S. Shalaby, A. Amira, F. Bensaali, S. Dakua, J. Abi-Nahed, A. Al-Ansari and A. Z. Ahmed, "Real-Time Automated Segmentation Technique for Cerebral Aneurysm on Reconfigurable System on Chip", *Journal of Computational Science*, Elsevier, vol. 27, pp. 35-45, July 2018.
16. A. Ait Si Ali, A. Farhat, M. Saqib, A. Amira, F. Bensaali, M. Benammar and A. Bermak, "Embedded Platform for Gas Applications Using Hardware/Software Co-Design and RFID", *IEEE Sensors Journal*, vol. 18, No. 11, pp. 4633-4642, June 2018.
17. H. Baali, H. Djelouat, A. Amira and F. Bensaali, "Empowering Technology Enabled Care Using IoT and Smart Devices: A Review", *IEEE Sensors Journal*, vol. 18, Issue 5, pp. 5169-5179, March 2018.
18. H. Baali, X. Zhai, H. Djelouat, A. Amira and F. Bensaali, "Inequality Indexes as Sparsity Measures Applied to Ventricular Ectopic Beats Detection and its Efficient Hardware Implementation", *IEEE Access*, vol. 6, pp. 9464-9472, March 2018.
19. H. Djelouat, H. Baali, A. Amira and F. Bensaali, "An Adaptive Joint Sparsity Recovery for Compressive Sensing Based EEG System", *Wireless Communications and Mobile Computing*, Wiley/Hindawi, vol. 2017, Article ID 9823684, 10 pages, 2017. doi:10.1155/2017/9823684.

20. A. Ait Si Ali, H. Djelouat, A. Amira, F. Bensaali, M. Benammar and A. Bermak, "Electronic nose system on the Zynq SoC platform", *Microprocessors and Microsystems*, Elsevier, vol. 53, pp. 145-156, August 2017.
21. M. Benammar, A. Khattab, S. Saleh, F. Bensaali and F. Touati, "A Sinusoidal Encoder-to-Digital Converter Based on an Improved Tangent Method", *IEEE Sensors Journal*, vol. 17, Issue 16, pp. 5169-5179, August 2017.
22. X. Zhai, A. Ait Si Ali, A. Amira and F. Bensaali, "ECG Encryption and Identification based Security Solution on the Zynq SoC for Connected Health Systems", *Journal of Parallel and Distributed Computing*, Elsevier, vol. 106, pp. 143-152, August 2017.
23. A. Haider, F. Bensaali and F. Jaber, "Novel Approach to Non-Invasive Blood Glucose Monitoring based on Transmittance and Refraction of Visible Laser Light", *IEEE Access*, vol. 5, pp. 9163-9174, May 2017.
24. H. Djelouat, A. Ait Si Ali, A. Amira and F. Bensaali, "Compressive sensing based electronic nose platform", *Journal Digital Signal Processing*, Elsevier, vol. 60, pp. 350-359, January 2017.
25. A. Alsalemi, M. Al Disi, Y. Alhomsy, I. Ahmed, F. Bensaali, G. Alinier and A. Amira, "Using thermochromic ink for medical simulations", *Qatar Medical Journal: 4th Annual ELSO-SWAC Conference Proceedings*, vol. 2017, 63, pp. 1-2. DOI: <https://doi.org/10.5339/qmj.2017.swacelso.63>
26. M. Al Disi, A. Alsalemi, Y. Alhomsy, I. Ahmed, F. Bensaali, G. Alinier and A. Amira, "Design and Implementation of a Modular ECMO Simulator", *Qatar Medical Journal: 4th Annual ELSO-SWAC Conference Proceedings*, vol. 2017, 62, pp. 1-2. DOI: <http://dx.doi.org/10.5339/qmj.2017.swacelso.62>
27. X. Zhai, A. Ait Si Ali, A. Amira and F. Bensaali, "MLP Neural Network Based Gas Classification System on Zynq SoC", *IEEE Access, Special Session on Cooperative and Intelligent Sensing*, vol. 4. Issue 1, pp. 8138-8146, December 2016.
28. M. A. Akbar, A. Ait Si Ali, A. Amira, F. Bensaali, M. Benammar, M. Hassan, and A. Bermak, "An Empirical Study for PCA and LDA Based Feature Reduction for Gas Identification", *IEEE Sensors Journal*, vol. 16, Issue 14, pp. 5734 - 5746, July 2016.
29. S. Alshorman, F. Bensaali, F. Jaber, "A wireless oxygen saturation and heart rate monitoring and alarming system based on the Qatar Early Warning Scoring system", *Journal of Emergency Medicine, Trauma & Acute Care*, October 2016. <http://dx.doi.org/10.5339/jemtac.2016.icepq.155>
30. M. A. Akbar, M. Zgaren, A. Ait Si Ali, A. Amira, M. Benammar, F. Bensaali, M. Sawan and A. Bermak, "Gas Identification Using Passive UHF RFID Sensor Platform", *Sensors and Transducers Journal*, vol. 194. Issue 11, pp. 42-53, November 2015.
31. A. Ait Si Ali, A. Amira, F. Bensaali, M. Benammar and M. A. Akbar, "Design and Implementation of a Gas Identification on the Zynq SoC Platform," *The ARPN Journal of Engineering and Applied Sciences*, vol. 10, No. 20, pp. 9758-9764, November 2015.
32. X. Zhai, F. Jaber, F. Bensaali and A. Mishra, "Hardware Acceleration of a Dielectrophoresis System for Achieving a Single-Neuron-Per-Electrode Arrangement in Microelectrode Arrays", *The International Journal of Simulation, Systems, Science and Technology*, vol. 16. Issue 3, pp. 4.1-4.7, June 2015.
33. M. A. Akbar, A. Ait Si Ali, A. Amira, F. Bensaali, M. Benammar, M. Hassan and A. Bermak, "Impact of feature reduction and operating temperature on gas identification," *ARPN Journal of Engineering and Applied Sciences*, vol. 10, No. 19, pp. 8783-8790, October 2015.
34. X. Zhai and F. Bensaali, "Improved Number Plate Character Segmentation Algorithm and Its Efficient FPGA Implementation", *Journal of Real-time Image Processing*, Springer, vol.10, issue 1, pp. 91-103, Mar 2015.
35. X. Zhai, F. Bensaali and R. Sotudeh, "Real-Time Optical Character Recognition on Field Programmable Gate Array for Automatic Number Plate Recognition System", *IET Circuits, Devices & Systems*, vol.7, Issue 6, pp. 337-344, Nov, 2013.
36. X. Zhai, F. Bensaali and S. Ramalingam, "Improved Number Plate Localisation Algorithm and its Efficient Field Programmable Gate Arrays Implementation", *IET Circuits, Devices & Systems*, vol. 7, issue 2, pp. 93-103, Mar, 2013.
37. X. Zhai, F. Bensaali and R. Sotudeh, "FPGA-based Number Plate Binarisation and Adjustment for ANPR Systems", *SPIE Journal of Electronic Imaging*, vol. 22, issue 1, pp. 1-11, Jan, 2013.

38. Z. Musoromy, S. Ramalingam, F. Bensaali and G. Pissanidis, "Real-time DSP-based Edge Detection Techniques for License Plate Detection: A Comparative Study", *Journal of Information Assurance and Security*, pp. 294-301, ISSN 1554-1010, vol. 6, 2011.
39. F. Bensaali, A. Amira and R. Sotudeh, "A General Framework for efficient FPGA Implementation of Matrix Product", *The Mediterranean Journal of Computers and Networks*, pp 124-131, vol. 3, No. 3, July 2007.
40. R. Sotudeh, Z. Ahmad and F. Bensaali, "Intelligent Co-operative Processor-In-Memory Architectures", *The Mediterranean Journal of Electronics and Communications*, vol. 3, No. 2, pp 52-65, April 2007.
41. F. Bensaali and A. Amira, "Field Programmable Gate Array Based Parallel Matrix Multiplier for 3D Affine Transformations", *the IEE Proceedings on Vision, Image and Signal Processing - Special Issue on Rapid Prototyping of Signal Processing Algorithms*, vol. 153, Issue 6, pp 739-746, December 2006.
42. F. Bensaali and A. Amira, "Accelerating Color Space Conversion on Reconfigurable Hardware", *Image and Vision Computing*, Elsevier, vol. 23, Issue 11, pp 935-942, October 2005.
43. F. Bensaali, A. Amira and A. Bouridane, "Accelerating Matrix Product on Reconfigurable Hardware for Image Processing Applications", *IEE Proceedings on Circuits, Devices and Systems*, vol. 152, Issue 3, pp 236-246, June 2005.
44. F. Bensaali and A. Amira, "Design and Implementation of Efficient Architectures for Color Space Conversion", *The International Journal on Graphics, Vision and Image Processing*, vol. 5, Issue 1, pp 37-47, December 2004.

Book Chapters

1. S. Dakua, J. Abinahed, A. Al-Ansari, P. Bermejo, A. Zakaria, A. Amira and F. Bensaali, "A Method Towards Cerebral Aneurysm Detection in Clinical Settings," *Processing and Analysis of Biomedical Information*, Springer LNCS 11379, Chapter 1, page 1-8, 2019.
2. H. Djelouat, M. Al Disi, X. Zhai, A. Amira and F. Bensaali, "Compressive Sensing based ECG Biometric System", *Intelligent Systems and Applications. IntelliSys 2018. Advances in Intelligent Systems and Computing*, vol. 869, pp. 126-137, Springer, Cham, January 2019.
3. M. Al Disi, H. Baali, H. Djelouat, A. Amira, F. Bensaali, G. Dimitrakopoulos and G. Alinier, "An Efficient Compressive Sensing Method for Connected Health Applications", *Intelligent Systems and Applications. IntelliSys 2018. Advances in Intelligent Systems and Computing*, vol. 869, pp. 365-373, Springer, Cham, January 2019.
4. D. Abunahia, H. Abou Al Ola, T. Ismail, A. Amira, A. Ait Si Ali, F. Bensaali, "Generalised and Versatile Connected Health Solution on the Zynq SoC", *Intelligent Systems and Applications. IntelliSys 2016. Studies in Computational Intelligence*, vol. 751, pp 454-474, Springer, Cham, January 2018.
5. M. A. Akbar, H. Djelouat, A. Ait Si Ali, A. Amira, F. Bensaali, M. Benammar, A. Bermak, "Design and Performance Evaluation of a Committee Machine for Gas Identification," *Proceedings of the SAI Intelligent Systems Conference (IntelliSys)*, *Lecture Notes in Networks and Systems*, vol. 16, pp. 936-945, Springer, August 2017.
6. D. G. Abunahia, H. R. Abou Al Ola, T. A. Ismail, A. Amira, A. Ait Si Ali, F. Bensaali, "A Reconfigurable Connected Health Platform Using ZYNQ System on Chip," *Proceedings of the SAI Intelligent Systems Conference (IntelliSys)*, *Lecture Notes in Networks and Systems*, vol. 16, pp. 857-867, Springer, August 2017.
7. A. Ait Si Ali, X. Zhai, A. Amira, F. Bensaali and N. Ramzan, "Enhanced Biometric Security and Privacy using ECG on the Zynq SoC", *Biometric Security and Privacy – Opportunities & Challenges in The Big Data Era*, Springer, pp 179-202, 2017.
8. A. Ait Si Ali, A. Amira, F. Bensaali, M. Benammar, M. Hassan and A. Bermak, "Versatile Gas Monitoring System on the Heterogeneous Zynq SoC Platform", *Proceedings of the 4th International Gas Processing Symposium*, Elsevier, ISBN: 9780444634610, June 2015.
9. F. Bensaali and A. Amira, "Design and Efficient FPGA Implementation of an RGB to YCrCb Color Space Converter Using Distributed Arithmetic", *Proceedings of the International Conference on Field Programmable Logic*

(FPL), Lecture Notes in Computer Science, vol. 3203, pp 991-995, Springer Verlag, August 2004.

10. A. Amira, A. Bouridane, P. Milligan and F. Bensaali, "Custom Coprocessor based Matrix Algorithms for Image and Signal Processing", Proceedings of the International Conference on Field Programmable Logic (FPL), Lecture Notes in Computer Science, pp. 730-739, Springer Verlag, September 2002.

Refereed Conference Papers

1. A. Alsalemi, F. Bensaali, A. Amira, N. Fetais, C. Sardinos, I. Varlamis "Smart Energy Usage and Visualization Based on Micro-Moments", Intelligent Systems Conference (IntelliSys 2019), London, UK, September 2019.
2. C. Sardinos, I. Varlamis G. Dimitrakopoulos, A. Alsalemi, F. Bensaali, A. Amira, "I want to change' Micro-moment based Recommendations Can Change Users' Energy Habits", 8th International Conference on Smart Cities and Green ICT Systems (SMARTGREENS 2019), Crete, Greece, May 2019.
3. A. Alsalemi, C. Sardinos, F. Bensaali, I. Varlamis A. Amira, G. Dimitrakopoulos, "Towards Domestic Energy Efficiency: Using Micro-Moments for Personalized Behavior Change Recommendations", 8th Global Conference on Global Warming, Doha, Qatar, April 2019.
4. M. Al Disi, H. Djelouat, A. Amira, F. Bensaali, "The Accuracy and Efficacy of Real-time Compressed ECG Signal Reconstruction on a Heterogeneous Multicore Edge-Device", 21st EUROMICRO Conference on Digital System Design, Prague, Czech Republic, pp. 458-463, August 2018.
5. Y. Alhomsy, A. Alsalemi, M. Al Disi, F. Bensaali, A. Amira and G. Alinier, "CouchDB Based Real-Time Wireless Communication System for Clinical Simulation", 4th International Symposium on Real-time Data Processing for Cloud Computing In conjunction with the 20th IEEE International Conference on High Performance Computing and Communications (HPCC 2018), pp. 1094-1098, UK, June 2017.
6. C. Kotronis, M. Nikolaidou, G. Dimitrakopoulos, D. Anagnostopoulos, A. Amira and F. Bensaali, "A Model-based Approach for Managing Criticality Requirements in e-Health IoT Systems", The IEEE 13th System of Systems Engineering Conference, pp. 60-67, Paris, France, June 2018.
7. H Djelouat, M Al Disi, A Amira and F Bensaali, "Compressive Sensing Based Remote Monitoring Systems for IoT applications", Qatar Foundation Annual Research Conference Proceedings 2018, 3, ICTPP1046, Qatar, March 2018.
8. M. Eslami, X. Zhai, A. El-Sayed, A. Al-Shibani, A. Al-Nassr, A. Amira F. Bensaali, S. Dakua, J. Abi Nahed and P. Coveney, "Evaluation of Hardware Accelerators for Lattice Boltzmann based Aneurysm Blood Flow Measurement", Qatar Foundation Annual Research Conference Proceedings 2018, 3, ICTPD1049, Qatar, March 2018.
9. H. Djelouat, H. Baali, A. Amira, F. Bensaali; "CS-Based Fall Detection Platform for Connected Health Applications", 4th International Conference on Advances in Biomedical Engineering, Lebanon, October 2017.
10. H. Baali, X. Zhai, H. Djelouat, A. Amira and F. Bensaali, "Design and Acceleration of Scarifying Matrices for Compressed Sensing of EEG Signal", 2nd International Computational Science and Engineering Conference, Doha, Qatar, October 2017.
11. A. Alsalemi, M. Al Disi, I. Ahmed, Y. Alhomsy, F. Bensaali, A. Amira and G. Alinier, "Developing Cost-Effective Simulators for Patient Management: A Modular Approach", 4th International Conference on Advances in Biomedical Engineering, Lebanon, October 2017.
12. A. El-Sayed, A. Al-Shibani, A. Al-Nassr, N. Al-Maadeed, S. Balakrishnan, G. Anderson, R. Richardson, D. Groen, P. Coveney, A. Zakaria, P. Bermejo, A. Al-Ansari, J. Abinahed, S. Dakua, F. Bensaali and A. Amira, "Data Processing on Zynq System on Chip for Blood Flow Simulation", 2nd International Computational Science and Engineering Conference, Doha, Qatar, October 2017.
13. E. Hussein, M. Filali, S. Shalaby, S. Balakrishnan, G. Anderson, R. Richardson, D. Groen, P. Coveney, A. Zakaria, P. Bermejo, A. Al-Ansari, J. Abinahed, S. Dakua, F. Bensaali and A. Amira, "Aneurysm Treatment Planning on Reconfigurable System on Chip", 2nd International Computational Science and Engineering Conference, Doha, Qatar, October 2017.

14. H. Djelouat, H. Baali, A. Amira, F. Bensaali; "Joint Sparsity Recovery for Compressive Sensing Based EEG", 17th IEEE International Conference on Ubiquitous Wireless Broadband, Spain, September 2017.
15. H. Baali, X. Zhai, H. Djelouat, A. Amira and F. Bensaali, "Efficient Hardware Implementation of the ℓ_1 -Regularized Least Squares for IoT Edge Computing", 17th IEEE International Conference on Ubiquitous Wireless Broadband, Spain, September 2017.
16. C. Kotronis, G. Minou, G. Dimitrakopoulos, M. Nikolaidou, D. Anagnostopoulos, A. Amira, F. Bensaali, H. Djelouat and H. Baali, "Managing Criticalities of e-Health IoT Systems", 17th IEEE International Conference on Ubiquitous Wireless Broadband, Spain, September 2017.
17. H. Djelouat, H. Baali, A. Amira, F. Bensaali, "IoT Based Compressive Sensing for ECG Monitoring", 2nd International Symposium on Real-time Data Processing for Cloud Computing. In conjunction with the 10th IEEE International Conference on Cyber, Physical, and Social Computing, pp. 183-189, Exeter, UK, June 2017.
18. H. Baali, H. Djelouat, A. Amira, F. Bensaali, "QRS Complexes Classification using Dictionary Learning and Pietra Index," 2nd International Symposium on Real-time Data Processing for Cloud Computing. In conjunction with the 10th IEEE International Conference on Cyber, Physical, and Social Computing, pp. 203-207, Exeter, UK, June 2017.
19. A. Alsalemi, Y. Alhomsy, M. Al Disi, I. Ahmed, F. Bensaali, A. Amira and G. Alinier, "Real-Time Communication Network using Firebase Cloud IoT Platform for ECMO Simulation", 2nd International Symposium on Real-time Data Processing for Cloud Computing. In conjunction with the 10th IEEE International Conference on Cyber, Physical, and Social Computing, pp. 178-182. Exeter, UK, June 2017.
20. A. Farhat, A. Al-Zawqari, A. Al-Qahtani, O. Hommos, F. Bensaali, A. Amira and X. Zhai, "OCR-based Hardware Implementation for Qatari Number Plate on the Zynq SoC," 9th IEEE GCC Conference and Exhibition, Bahrain, May 2017.
21. A. Haider, F. Bensaali, A. Amira and F. Jaber, "Sea Water Salinity Detection Using Circular Fringes Formation Based on Diffraction of Laser Light," 9th IEEE GCC Conference and Exhibition, Bahrain, May 2017.
22. A. Al-Zawqari, O. Hommos, A. Al-Qahtani, A. Farhat, F. Bensaali, A. Amira and X. Zhai, "HD Number Plate Localization on the Zynq Heterogeneous SoC," The IEEE International Conference on Imaging Systems and Techniques, Greece, October 2016.
23. A. Khattab, M. Benammar and F. Bensaali, "A Novel Method for Online Correction of Amplitude and Phase Imbalances in Sinusoidal Encoders Signals," 17th IEEE International Conference on Power Electronics and Motion Control, pp. 784-789, Bulgaria, September 2016.
24. A. Ait Si Ali, A. Amira, F. Bensaali, M. Benammar and A. Bermak, "HW/SW Co-Design Based Implementation of Gas Discrimination," The 27th Annual IEEE International Conference on Application-specific Systems, Architectures and Processors, pp. 237-238, London, UK, July 2016.
25. A. Khattab, S. Saleh, M. Benammar and F. Bensaali, "A Precise Converter for Resolvers and Sinusoidal Encoders Based on a Novel Ratiometric Technique," IEEE Sensors Applications Symposium, pp. 1-6, Italy, April 2016.
26. A. Ait Si Ali, X. Zhai, A. Amira, F. Bensaali, N. Ramzan, "Heterogeneous Implementation of ECG Encryption and Identification on the Zynq SoC," The 24th IEEE International Symposium on Field-Programmable Custom Computing Machines (FCCM), pp. 139-139, Washington DC, USA, May 2016.
27. A. Ait Si Ali, A. Amira, F. Bensaali, M. Benammar, M. Hassan and A. Bermak, "High Level Synthesis Based E-Nose System for Gas Applications," The 24th IEEE International Symposium on Field-Programmable Custom Computing Machines (FCCM), pp. 202-203, Washington DC, USA, May 2016.
28. A. Ait Si Ali, A. Amira, F. Bensaali and N. Ramzan, "Custom IP Cores for Robust Data Analysis and Pattern Recognition," 12th UWS Annual Research Conference, Scotland, UK, April 2016.
29. O. Hommos, A. Al-Qahtani, A. Farhat, A. Al-Zawqari, F. Bensaali, A. Amira and X. Zhai, "HD Qatari ANPR system," The IEEE conference on industrial informatics and Computer Systems, UAE, March 2016.
30. A. Farhat, A. Al-Zawqari, A. Al-Qahtani, O. Hommos, F. Bensaali, A. Amira and X. Zhai, "OCR Based Feature Extraction and Template Matching Algorithms for Qatari Number Plate," The IEEE conference on industrial informatics and Computer Systems, UAE, March 2016.

31. A. Ait Si Ali, M. A. Akbar, A. Amira, F. Bensaali, M. Benammar, M. Hassan and A. Bermak, "Fast Prototyping of KNN Based Gas Discrimination System on the Zynq SoC," Qatar Foundation Annual Research Conference (QF-ARC), Doha, Qatar, vol. 2016, ICTOP1832, March 2016.
32. S. Alshorman, F. Jaber and F. Bensaali, "A Remote Oxygen Saturation and Heart Rate Monitoring System," The International Conference in Emergency Medicine and Public Health, Qatar, January 2016.
33. S. Alshorman, F. Jaber and F. Bensaali, "A Wireless Oxygen Saturation and Heart Rate Monitoring and Alarming System Based on the Qatar Early Warning Scoring System," The International Conference on Computational Science and Computational Intelligence, pp. 787-790, USA, December 2015.
34. F. Bensaali, A. Amira, X. Zhai and T. Huang, "A Stand-Alone Application for Automatic Bulk Returning of Students' Reports," The 4th International Conference on E-Learning and E-Technologies in Education, pp. 9-15, Indonesia, September 2015.
35. X. Zhai, A. Amira and F. Bensaali, "ECG Security Identification System on the Zynq SoC Platform", the 14th IEEE International Conference on Ubiquitous Computing and Communications, pp. 1164-1169, UK, October 2015.
36. M. A. Akbar, A. Ait Si Ali, A. Amira, F. Bensaali, M. Benammar, S. Mohamad and A. Bermak, "Receiver Design of Passive UHF RFID Sensor Platform for Gas Applications," The 6th International Conference on Sensor Device Technologies and Applications, pp. 164-169, Italy, 23-28 August, 2015.
37. X. Zhai, F. Jaber, F. Bensaali and A. Mishra, "Hardware Acceleration of an Image Processing System for Dielectrophoretic Loading of Single Neurons Inside Micro-Wells of Microelectrode Arrays," IEEE UKSim-AMSS 17th International Conference on Modelling and Simulation, pp. 571-576, Cambridge University, UK, March 2015.
38. M. A. Akbar, A. Ait Si Ali, A. Amira, M. Benammar, F. Bensaali, S. Mohamad, F. Tang, A. Bermak, M. Zgaren and M. Sawan, "A Multi-Sensing Reconfigurable Platform for Gas Applications," 26th International Conference on Microelectronics, Qatar, pp. 148-151, December 2014.
39. A. Ait Si Ali, M. Siupik, A. Amira, F. Bensaali and P. Casaseca, "HLS Based Hardware Acceleration on the Zynq SoC: a Case Study for Fall Detection System," The 11th ACS/IEEE International Conference on Computer Systems and Applications, Qatar, pp. 685-690, November 2014.
40. A. Ait Si Ali, A. Amira, F. Bensaali, M. Benammar, M. Hassan, A. Bermak, "Software-Hardware Co-Design Approach for gas Identification," Qatar Foundation Annual Research Conference, vol. 2014, ITPP1115, Qatar, November 2014.
41. A. Ait Si Ali, A. Amira and F. Bensaali, "Custom IP Cores for Robust Data Analysis and Pattern Recognition Algorithms Used in Gas Applications", ACS International Conference on Computer Systems and Applications (AICCSA)-PhD Symposium, pp 68-69, Qatar, November 2014. **Best PhD paper award winner.**
42. M. A. Akbar, A. Ait Si Ali, A. Amira, M. Benammar, F. Bensaali, S. Mohamad, F. Tang, A. Bermak, M. Zgaren, M. Sawan, "A Low Power Reconfigurable Multi-Sensing Platform for Gas Application," Qatar Foundation Annual Research Conference, Qatar, November 2014.
43. A. Ait Si Ali, A. Amira, F. Bensaali and M. Benammar, "PCA IP-Core for Gas Applications on the Heterogenous Zynq Platform", 25th International Conference on Microelectronics, pp. 1-4, Beirut, Lebanon, December 2013.
44. X. Zhai, F. Bensaali and K. McDonald-Maier, "Automatic Number Plate Recognition on FPGA", IEEE International Conference on Electronics, Circuits, and Systems, pp. 325-328, Abu Dhabi, UAE, December 2013.
45. A. Ait Si Ali, A. Amira and F. Bensaali and M. Benammar, "Hardware PCA for Gas Identification Systems Using High Level Synthesis on the Zynq SoC", IEEE International Conference on Electronics, Circuits, and Systems, pp. 707-710, Abu Dhabi, UAE, December 2013.
46. A. Ait Si Ali, A. Amira and F. Bensaali, "Custom IP Cores for Robust Data Analysis and Pattern Recognition Algorithms Used in Gas Applications", IEEE International Conference on Electronics, Circuits, and Systems (PhD Forum), pp. 68-69, Abu Dhabi, UAE, December 2013. **Best MSc/PhD Forum Paper Winner.**
47. A. Ait Si Ali, A. Amira, F. Bensaali and M. Benammar, "Hardware Implementation of Principal Component Analysis for Gas Identification Systems on the Zynq SoC Platform", Qatar Foundation Annual Research Conference, vol. 2013, ICTP017, Doha, Qatar, November 2013. **Research Excellence Award Winner.**

48. X. Zhai and F. Bensaali, "Standard Definition ANPR System on FPGA and an Approach to Extend it to HD", The 7th IEEE GCC Conference and Exhibition, pp. 214-219, Doha, Qatar, November 2013.
49. Z. Jeffrey, X. Zhai, F. Bensaali, R. Sotudeh and A. Ariyaeinia, "Automatic Number Plate Recognition System on an ARM-DSP and FPGA Heterogeneous SoC Platforms", Hot Chips: A Symposium on High Performance Chips, California, USA, August 2013.
50. X. Zhai, F. Bensaali and R. Sotudeh, "OCR-Based Neural Network for ANPR", in the proceedings of the 2012 IEEE international Conference on Imaging Systems and Techniques, pp. 393-397, Manchester, UK, July 2012.
51. X. Zhai, F. Bensaali and S. Ramalingam, "Real-Time License Plate Localisation on FPGA", The 7th IEEE Workshop on Embedded Computer Vision, pp. 14-19, Colorado Springs, CO, USA, June 2011.
52. X. Zhai, F. Bensaali and S. Ramalingam, "License Plate Localisation based on Morphological Operations", The 11th International Conference on Control, Automation, Robotics and Vision, pp 1128-1132, Singapore, December 2010.
53. Z. Musoromy, F. Bensaali, S. Ramalingam and G. Pissanidis, "Comparison of real-time DSP-Based Edge Detection Techniques for License Plate Detection", Sixth international Conference on Information Assurance and Security (IAS), pp 323-328, Atlanta, USA, August 2010.
54. M. Milosavljevic, F. Bensaali, and P. Kourtessis, "xDSL Network Upgrade Employing FPGAs", The IEEE International Symposium on Electronic, Test and Applications (DELTA 2008), pp 158-162, Hong Kong, January 2008.
55. X. Wen, F. Bensaali, and R. Sotudeh, "Dynamic Co-operative Intelligent Memory", The IEEE International Symposium on Electronic, Test and Applications (DELTA 2008), pp 184-189, Hong Kong, January 2008.
56. A. Amira, F. Bensaali and S. Chandrasekaran, "A General Framework for Efficient FPGA Implementation and Power Modelling of Image Processing Cores", The 4th Visual Information Engineering Conference, London, UK, July 2007.
57. F. Bensaali, A. Amira and R. Sotudeh, "Floating-Point Matrix Product on FPGA", The ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2007), pp 466-473, Amman, Jordan, May 2007.
58. F. Bensaali, A. Amira and S. Chandrasekaran, "Power Modeling and Efficient FPGA Implementation of Color Space Conversion", The 13th IEEE International Conference on Electronics, Circuits and Systems (ICECS 2006), pp 164-167, Nice, France, December 2006.
59. A. Amira, F. Bensaali, I. S. Uzun and A. Ahmedsaid, "Matrix Algorithm Cores Generator on Reconfigurable Hardware for Image Processing", The Military and Aerospace Applications of Programmable Logic Devices and Technologies International Conference, USA, September 2006.
60. S. Chandrasekaran, A. Amira and F. Bensaali, "FPGA Implementation of Reduced Bit Plane Motion Estimation", The Military and Aerospace Applications of Programmable Logic Devices and Technologies International Conference (MAPLD 2005), Washington, D.C. USA, September 2005.
61. F. Bensaali and A. Amira, "An FPGA Based Color Space Converter Using Distributed Arithmetic" Proceedings of the Irish Signals and Systems Conference, Queen's University Belfast, 30 June-2 July 2004.
62. F. Bensaali, A. Amira and A. Bouridane, "An Efficient Architecture for Color Space Conversion Using Distributed Arithmetic", IEEE International Symposium on Circuits and Systems (ISCAS 2004), vol. 2, pp. 265-268, Vancouver, Canada, May 2004.
63. F. Bensaali and A. Amira, "Design and Hardware Implementation of an Efficient Architecture for Color Space Conversion" Proceedings of the EPSRC PREP04 Conference, pp 64-65, 5 -7, UK April 2004.
64. F. Bensaali, A. Amira, I. S. Uzun and A. Ahmedsaid, "An FPGA Implementation of 3D Affine Transformation", The 10th IEEE International Conference on Electronics, Circuits and Systems (ICECS 2003), vol. 2, p. 715-718, Sharjah, United Arab Emirates, December 2003.
65. I.S. Uzun, A. Amira and F. Bensaali, "A Reconfigurable Coprocessor for High-Resolution Image Filtering in Real Time" Proceedings of The 10th IEEE International Conference on Electronics, Circuits and Systems (ICECS 2003), pp 192-195, Sharjah, United Arab Emirates, December 2003.
66. F. Bensaali, A. Amira and A. Bouridane, "An FPGA Based Coprocessor for Large Matrix Product Implementation", IEEE International Conference on Field-Programmable Technology, pp 292-295, Tokyo, December 2003.

67. F. Bensaali, A. Amira and A. Bouridane, "An FPGA Based Coprocessor for 3D Affine Transformations" Proceedings of the IEEE International Conference on Field-Programmable Technology, pp 288-291, Japan, December 2003.
68. I. S. Uzun, A. Amira, F. Bensaali and A. Ahmedsaid, "An FPGA Based Parametrisable System for Processing Large 2-D FFTs", The Irish Machine Vision & Image Processing Conference, Coleraine, Northern Ireland, September 2003.
69. F. Bensaali, A. Amira, A. Ahmedsaid and I. S. Uzun, "Efficient Implementation of Large Parallel Matrix Product for DOTs", The International Conference on Computer, Communication and Control Technologies (CCCT 2003), Orlando, Florida, USA, July 2003.
70. I. S. Uzun, A. Amira and F. Bensaali, "An FPGA Based Parametrisable System for Parallel 2-D FFT Implementation", The International Conference on Computer, Communication and Control Technologies (CCCT 2003), Orlando, Florida, USA, July 2003.
71. A. Amira, I. S. Uzun and F. Bensaali, "An FPGA Implementation of Discrete Hartley Transforms for Signal Processing", The International Conference on Computer, Communication and Control Technologies (CCCT 2003), Orlando, Florida, USA, July 2003.
72. I. S. Uzun, A. Amira, A. Ahmedsaid and F. Bensaali, "Towards A General Framework for an FPGA-based FFT Coprocessor", The Seventh IEEE International Symposium on Signal Processing and its Application (ISSPA 2003), Paris, France, July 2003.
73. A. Amira and F. Bensaali, "An FPGA based Parametrisable System for Matrix Product Implementation", The 2002 IEEE Workshop on Signal Processing Systems, VLSI Signal Processing Architectures, San Diego, California, USA, October 2002.
74. A. Amira and F. Bensaali, "An FPGA based Coprocessor for Matrix Algorithms Implementation", SPIE's Opto-Ireland 2002, Galway, Ireland, September 2002.

News-Letters

1. M. Al Disi, H. Djelouat, A. Amira, F. Bensaali, G. Dimitrakopoulos, A. Dimosthenis, M. Nikolaidou, G. Alinier and A. Bermak, "Embedded Multicore Systems for Mixed-Critical Internet of Things based Applications", e-Health Technical Committee NewsLetter, IEEE Communications Society, pp. 1-5, 2018.

Technical Reports

1. F. Bensaali, J. Siau and G. Pissanidis, "Automatic Number Plate Recognition Using DaVinci Chipset", Consultancy report for CitySync Ltd., February 2010.

Supervision

PhD/MPhil

Main Supervisor

1. Wen Xiayong (MPhil) (2007-2009)
University of Hertfordshire
Project title: "Advanced Co-operative Intelligent Memory"
Source of funding: Self-funded
2. Xiaojun Zhai (PhD) (2009-2013)
University of Hertfordshire
Project title: "Automatic Number Plate Recognition on FPGA"
Source of funding: Self-funded

Co-supervisor

1. Amine Ait Si Ali (PhD) (2013-2017)
University of West Scotland
Project title: "Custom IP Cores for Robust Data Analysis and Pattern Recognition Algorithms Used in Gas Applications."
Source of funding: Self-funded
2. Robert Gurney (EngD) (2011-2013)
University of Hertfordshire
Project title: "Towards Effective ANPR Performance in Real-World Applications Through Data Acquisition Enhancement"
Source of funding: Hertfordshire Constabulary and Home Office.

3. Mike Rhead (EngD) (2011-2013)
University of Hertfordshire
Project title: "Towards Effective ANPR performance in Real-World Applications: Investigations into the Effects of Physical-Based Distortions"
Source of funding: Hertfordshire Constabulary and Home Office.
4. Ashok Sharma (PhD-PT) (2008-2013)
University of Hertfordshire
Project title: "Design and Implementation of DDS based Reconfigurable Arbitrary Function Generators"
Source of funding: Self-funded
5. Zuwena Musoromy (PhD) (2008-2013)
University of Hertfordshire
Project title: "High Definition Automatic Number Plate Recognition"
Source of funding: iCASE award
Project partner: CitySync Ltd.

KTP Associates

Main Supervisor

1. Ashok Sharma (2008-2010)
Partner: Thurlby Thunder Instrument Ltd.

Co-supervisor

1. Shiv Mahadevappa (2008-2010)
Partner: Thurlby Thunder Instrument Ltd.

Teaching

Courses Taught

Code	Title	Level	Class size	Semester
ELEC261	Digital Systems Design	UG	25-40	Fall 2013-2017
ELEC262	Digital Systems Design Lab	UG	20	Fall 2013
ELEC366	Embedded Systems	UG	25-45	Spring 2013-2018
ELEC367	Embedded Systems Lab	UG	20	Spring 2013, 2014
4ELE0050	Digital Electronics and Computer Organisation	UG	45-50	A(11/12, 12/13)
7ENT1003	Advanced Reconfigurable Systems and Applications	PG	45-50	A(11/12, 12/13)
6ELE0068	Microelectronics & VLSI	UG	65-80	A (2008-2013)
6ELE0084	Computer Architecture	UG	5-10	B (2007-2011)
5ELE0060	Real-Time Systems & Programming	UG	45-50	B (2007-2013)
5ELE0060	Digital Design & Embedded Systems	UG	45-50	A 2007-2013)
5ELE0065	Mini-Project (Digital Systems)	UG	5-10	B (2008-2011)
5ELE0072	Mini-Project (CTN)	UG	18-20	B (2008-2012)
3AAD0003	Engineering Initial Year Project	UG	55-60	B (2009-2012)

Undergraduate Final-Year/ MSc Project Supervision

	Number of supervised MSc students and Undergraduate groups of students
BEng/BSc	38
MSc	18

University Service

- 2018-present** Graduate Program Coordinator (Qatar University)
- 2018-present** Chair of Graduate Study and Research committee (Qatar University)
- 2018-present** Member of CEng Graduate Committee (Qatar University)
- 2017-2018** Member of the Electrical Engineering Department Student Experience and Industry Engagement Committee (Qatar University)
- 2015-2018** Senior Design Project Coordinator (Qatar University)
- 2015-2018** Chair of the Student Projects Committee (Qatar University)
- 2016-2017** Chair of the Electrical Engineering Department Strategic Planning Committee (Qatar University)
- 2017-2018** Member of the Electrical Engineering Department Student Support Workgroup (Qatar University)
- 2014-2018** Member of the Electrical Engineering Department Recruitment Committee (Qatar University)
- 2013-present** Member of the College Strategic Planning Committee (Qatar University)
- 2013-2018** Member of the Electrical Engineering Department Curriculum Committee (Qatar University)
- 2011-2013** MSc Project Tutor (University of Hertfordshire)
- 2009-2013** MSc Deputy Programme Tutor (University of Hertfordshire)
- 2009-present** MSc/PhD/MPhil examinations
- 2008-2013** Visiting tutor for students in industrial placement (University of Hertfordshire)
- 2010-2013** Visiting Lecturer – Changzhou Institute of Technology, China (University of Hertfordshire)
- 2009-2013** Member of the Programme Management Group (University of Hertfordshire)