

## Curriculum Vitae

**Ali, El-Zaart**

### Personal Information

- Address:  
**Professor of Computer Science**  
**Department of Mathematics and Computer Science,**  
**Faculty of Sciences,**  
**Beirut Arab University,**  
**P.O.Box 11 - 50 - 20 Riad El Solh 11072809 - Beirut, Lebanon**  
**Telephone: +961 7 985858, ext. 3314 and Fax: +961 7 985060**  
E-mail: [elzaart@bau.edu.lb](mailto:elzaart@bau.edu.lb) or [dr\\_elzaart@yahoo.com](mailto:dr_elzaart@yahoo.com)
- Nationality: Canadian and Lebanese.
- Language: English, French, and Arabic

### Education

1996-2000 **University of Sherbrooke**, Sherbrooke, Quebec, Canada.  
Faculty of Science, Department of Computer Science.  
**Ph.D.** in computer Science (Digital Image Processing)

1994-1996 **University of Sherbrooke**, Sherbrooke, Quebec, Canada.  
Faculty of Science, Department of Computer Science  
Master (**M.Sc.**) in computer science (Digital Image Processing)

1986-1990 **Lebanese University**, Beirut, Lebanon.  
Faculty of Science, Department of Computer Science  
Bachelor (**B.Sc.**) in Computer Science

### Computer Background

**Languages:** C++, C, PASCAL, COBOL, DBASE, FORTRAN, SMALLTALK,  
JAVA, others

**Operating Systems:** Unix, Linux, DOS, and Windows NT.

**Software:**

- Neuronal Network: SNN.
- Image Processing: MatLab, PCI, Khoros, CVIPtools, Adobe Photoshop, DBS AdOculos.
- Mathematics: Maple.
- others

## **Industrial Experience: CANADA**

2000- 2001 **SEMICONDUCTOR INSIGHTS INC. COMPANY, OTTAWA, ONTARIO, CANADA.**

**Senior** software developer.

Department of research and development in images processing.

- Subject: Pattern Recognition for Integrated Circuit Images. (Image acquisition, Preprocessing, Segmentation, Features extraction, Interpretation).
- Conception and analysis of the project.
- Implementation and validation of the proposed algorithms using Unix ( C ), Window NT (C++) with Graphic User Interface (GUI).
- Documentation of the project.

1999-2000 **INDUSTRIAL PROJECT, ESSO COMPANY, TORONTO, ONTARIO, CANADA. (Project of Ph.D.)**

- Subject: Oil Spill Detection using RADARSAT SAR Images.
- Conception and analysis of the project.
- Implementation and validation of the proposed algorithms (C/C++).
- Documentation of the project.

1996-1999 **INDUSTRIAL PROJECT, SATLANTIC COMPANY, HALIFAX, CANADA AND CANADIAN SPACE AGENCY. (Project of Ph.D.)**

- Subject: Segmentation of RADARSAT SAR Images.
- Conception and analysis of the project.
- Implementation and validation of the proposed algorithms (C/C++).
- Documentation of the project.
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## **Academic Experience: CANADA**

1994-2000 **UNIVERSITY OF SHERBROOKE, CANADA**

Department of Computer Science.

Research assistant in images processing and analysis.

- Processing and analysis of optical and RADAR images.
- Segmentation of images using information theory (MML).
- Apprenticeship process using neuronal network.
- Statistical modeling of RADAR images.
- Holding research seminars.
- Editing of technical reports.
- Supervisor of undergraduate students.

Winter 2000 **UNIVERSITY OF SHERBROOKE, CANADA**

Department of Computer Science.

Teaching assistant :

- Image Analysis
- Analysis and Programming Using C++".
- Data Processing (COBOL) "
- Data Structure using C".

1992-1993 **LEBANON**

High school teacher in Algebra, Analysis and Geometry.

### **Research and Professional Experience: CANADA**

- 1- Member of Canadian Image Processing and Pattern Recognition Society (CIPPR) 2001-2002.
- 2- Attestation of academic training, University of Sherbrooke. 1999
- 3- Member of Canadian-French Association for the Advance of Sciences (ACFAS), 2001-2002
- 4- Member of Canadian Image Processing and Pattern Recognition Society (CIPPR), 1999-2000.
- 5- Member of the Association of Ph.D. and M. Sc. Students at the University of Sherbrooke, 1994-1999.
- 6- Member of the Researcher Students in Science at the University of Sherbrooke, 1994-1999.

### **Teaching courses: Saudi Arabia and Lebanon**

#### **1- Undergraduate courses:**

1) Introduction to programming, 2) Advanced programming, 3) Object-Oriented Programming, 4) Data structures, 5) Introduction to Programming with Business application, 6) Software Engineering, 7) Software Design and Quality, 8) Computer Organization and Assembly, 9) Multimedia Systems, 10) Signal Processing, 11) Introduction to Image processing, 12) Artificial intelligence, 13) Calculus, 14) Introduction Data Mining, 15) Information System Software project Management, 16) E- Business for Software development.

#### **2- Graduate courses:**

1) Data mining, 2) Advanced Image processing, 3) Research Seminar, 4) Information Technology and Management, 5) Quantitative Analysis of Medical Image

## Academic Experience at Beirut Arab University, Lebanon

### **From September 2011-present**

Full Professor of computer science since 2016  
Department of Mathematics and Computer Science  
Faculty of Science.

*The undergraduate computer science program that awards the degree Bachelor of Science (B.S.) is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>*

### **Scientific talk at Beirut Arab University, December 17, 2012**

Subject: *Mammograms Images Segmentation for Breast Cancer Detection.*

## Academic Experience at King Saud University, Saudi Arabia (2001-2011)

Assistant Professor of computer science: September 2001 – April 2010  
Associate professor of computer science: April 2010-August 2011

### From September 2001 until August 2004

King Saud University, Riyadh, Saudi Arabia  
College of Applied Medical Sciences  
Department of Biomedical Technology

### From September 2004 until August 2011

College of Computer and Information Sciences.  
Department of Computer Science

*The undergraduate computer science program that awards the degree Bachelor of Science (B.S.) is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>*

## Research and Professional Experience

### **Patents**

- 1- **A patent published at United States Patent and trademark office, 2018.**
- 2- **Gold Medal for the invention of “Braille copy machine using Image Processing Techniques”, King Saud university, 2010**
- 3- **Gold Medal for the invention of Braille copy machine using Image Processing Techniques, Malaysia February 2011.**
- 4- **Silver Medal for the invention of Braille copy machine using Image Processing Techniques, Geneva, April 2011.**

## Awards

- 1- **Award of the Dean for high quality scientific research papers, 2010 (14500 SR).**
- 2- **Award for scientific research papers published in high impact factor journals. 2010 (Journals Indexed by ISI). (12000 SR).**
- 3- **Member of Distinguished Scientist Fellowship program at King Saud University.**
- 4- **Member of Top Academia Researcher at King Saud University. 2010**

## Grants (from January 2006-to-Present)

- 1- Co- Investigator and Principal Investigator substitute of research project supported by National Plan for Science, Technology and Innovation, Saudi Arabia: ***Computer-Aided Detection and Classification of Prostatic Cancerous Tissues using Near and Mid Infrared Multispectral Imagery.*** Budget \$US 340000. From 2013-2016.
- 2- Co- Investigator and Principal Investigator substitute of research project supported by National Plan for Science, Technology and Innovation, Saudi Arabia: ***Breast Cancer Detection Using Mammography Images.*** Budget \$US 400000. From 2010-2013. 08-INF325-02
- 3- Co- Investigator and Principal Investigator substitute of research project supported by National Plan for Science, Technology and Innovation: ***Developing an integrated system to enable visually impaired people dealing with computers.*** From October 2009 – October 2011. Budget \$US 250,000.
- 4- Co- Investigator and Principal Investigator substitute of research project supported by King Abdul-Aziz City for Sciences and Technology (KACST): ***Braille copy Machine.*** Period: April, 2008 – April 2010. Budget \$US 130000.
- 5- Co-Researcher and Principal Researcher substitute for a project supported by Research Center of College of Computer and Information Sciences. ***Medical Images Enhancement.*** 15 months 2009-2010. Budget \$US15000.
- 6- Principal Researcher for the Project ***Edge Detection in Images.*** 15 months 2007-2008.
- 7- Principal Researcher for the Project ***Images Segmentation Using Statistical Distributions.*** 15 months 2006-2007
- 8- Consultant of a research project. ***Arabic Optical Braille Recognition System.*** One year. 2007. Support by King Abdul-Aziz City for Sciences and Technology (KACST).

## Others:

- Attending one day workshop on quality assurance 24-11-2017.
- Organizing of workshop on “Smart cities”, Dec, 7th, 2017.
- Member of municipality council of Barja,
- Invited speaker at the PCS 2<sup>nd</sup> Gynecological Oncology Symposium, July 8-9, 2017. Rome, Italy. “Mammogram images segmentation For Breast Cancer detection”.
- Attending a meeting of ISO PC288 and ISO PC288/WG1, 3-7 July 2017.Beirut, Lebanon.

- Review Panel on Engineering and Environment as an external expert, American University of Beirut, 2017.

**Editorial Board Member:**

- 1- Allied Journal of Medical Research.
- 2- International Journal of Signal and Image Processing.
- 3- International Journal of grid Computing and Applications.
- 4- International Journal of Computer Engineering Science (IJCES).
- 5- American Journal of Data Mining and Knowledge Discovery (Science publishing group publisher).

**Reviewer of the following submitted research proposal projects**

- 1- One research proposal submitted to Natural Sciences and Engineering Research Council of Canada. Period: five years. Budget: \$CAN 175000. Date 2009.
- 2- Two research proposals submitted to Sciences Technology Program, Emirates Foundation of philanthropy. Period of each project: two years. Budget UEA 200000. Date 2010.
- 3- Seven research proposals submitted to King Abdul Aziz City for Science and Technology, Saudi Arabia. Period of each project: two years. Date: 2009 and 2010.
- 4- Research proposal submitted to the Imam University, Saudi Arabia, 2011.
- 5- Reviewer of the first research report granted by King Abdul Aziz City for Science and Technology, Saudi Arabia, December 2013.

**External examiner of Master and PhD Thesis:**

1. Master thesis, “Automatic recognition system for selected freshwater algae using pattern recognition techniques” 2012.  
University of Malaya, Malaysia
- 3- Two masters and one PhD.

**Committee Member and Reviewer of the following International conferences**

1. Program Committee Member, ICA2IT19: *International Conference on Artificial Intelligence and Information Technology*. Ouargla, Algeria, March 4-6, 2019.
2. Program Committee Member, 10th International Conference on Graphics and Image Processing (ICGIP 2018), Chengdu, China during December 12-14, 2018.
3. Program Committee Member, ICA2IT19: *2019 Asia Pacific Information Technology Conference (APIT 2019)*, 25-27 January, 2019 in Jeju Island, South Korea.
4. Technical Program Committee *The International Conference on Computer and Applications* ICCA'18, July 25th-26th, 2018, Beirut, Lebanon.

5. Technical Program Committee *6th International Conference on Information Technology in Education (ICITE 2018)*, May 26~27, 2018, Dubai, UAE
6. Program Committee Member , 2018 *10th International Conference on Graphics and Image Processing (ICGIP 2018 – [www.icgip.org](http://www.icgip.org))*, December 12-14, 2018 in Chengdu, China.
7. Program Committee Member at the 6th International Conference on Signal, Image Processing and Pattern Recognition (SPPR 2017), September 23-24, Denmark.
8. Organizing Committee member, *The seventh Annual meeting of the "Lebanese Society for the Mathematical Sciences"* LSMS-2017, University of Balamand, Lebanon, on April 20-21, 2017.
9. Program Committee Member, *Fifth International Conference on Information Technology in Education (ICITE 2017)*, 24-25 June, Sydney, Australia.
10. Technical Program Committee, IEEE-ICM2017 (2017 *29th International Conference on Microelectronics (ICM)*), Lebanon.
11. Program committee member of *International Conference on Soft computing and Its Engineering Applications*, December 1-2, 2017. Charusat, India.
12. Program Committee Member, *SENSET2017 is the first International Conference on Sensors, Networks, Smart and Emerging Technologies*, 12-14 September, 2017, Beirut, Lebanon
13. Program Committee Member *The 21st Multi-conference on Systemics, Cybernetics and Informatics: WMSCI 2017*. July 8 - 11, 2017 – Orlando, Florida, USA
14. Technical Program Committee, *International Conference on Computer and Applications (ICCA'17)*, September 06-07, 2017 Dubai, United Arab Emirates
15. Program Committee Member, *Sixth International Conference on Signal & Image Processing (SIP 2017)*, February 25 - 26, 2017 , Sydney, Australia.
16. Program Committee Member, *Second International Conference on Data Mining and Applications (DMA 2016)*, Geneva, Switzerland.
17. Program Committee Members, *Fourth International Conference on Data Mining & Knowledge Management Process (DKMP 2016)*, Dubai, UAE.
18. Program Committee Member, *Third International Conference on Data Mining and Database (DMDB 2016)*, Austria.
19. Program Committee Member, *Second International Conference on Signal Processing (SP 2016)*, October 2016, India.
20. Program Committee Member at the *Second International Conference on Data Mining and Database Management Systems (DMDBS-2016)*, India.
21. Program Committee Members at the *Second International Conference on Data Mining (DTMN 2016)*, India.
22. Program Committee Members at the *Fifth International Conference on Data Mining & Knowledge Management Process (CDKP 2016)*.Dubai, UAE
23. Scientific Committee Member at the *8th International Conference on Graphic and Image Processing (ICGIP 2016)* will be held in Tokyo, Japan during October 29-31, 2016.
24. Technical Program Committee, *International Conference on Computer and Applications*, September 14-15, 2016. Dubai, United Arab Emirates
25. Reviewer of the *International Conference on Artificial Intelligence and Information Technology*, 2014.

26. Reviewer and chair of session at the *IEEE International conference on Advances In computational Tools for engineering applications (ACTEA2012)*. Notre Dame University, Lebanon. December 12-15, 2012.
27. Scientific Committee Member of the *International Conference on Signal and Image Processing, (ICSIP'03)*, Morocco, June 2003.
28. Scientific Committee Member of the *First National Conference on Information Technology*, Riyadh, Saudi Arabia 2006.
29. Scientific Committee Member of the 3rd *International Conference on Information Technology*. May 9-11, Amman, Jordan, 2007.
30. Technical program committee member, *International Conference on Multimedia Computing and Information Technology*. Sharjah, UAE. March 2-4, 2010.
31. Program Committee Members, The *First International Conference on Robot, Vision and Signal Processing*, Taiwan, 2011.

### **Reviewer papers**

1. Pattern recognition international journal
2. IEEE transaction in Image processing international journal
3. International Journal of Imaging Systems and Technology.
4. International Journal of Signal and Imaging Systems Engineering.
5. International Conference on Information Technology.
6. International Journal of Advances in Breast Cancer Research ABCR.
7. Others.

**Reviewer:** Two books in image processing.

### **Academic Committee Member**

1. Member of the “Universite Numerique” project between France and six Lebanese universities (BAU, AUB, USEK, USJ, Balamand, LU).
2. Member of Quality Assurance center at Beirut Arab University.
3. Member of Agricultural Committee at Beirut Arab University.
4. Academic coordinator of Faculty of science, Beirut Arab University
5. Member of Association of Arab Universities colleges of computing and information Society.
6. Council coordinator of the computer science Department 2004-2011 (KSU)
7. Member of PhD. Entrance exam committee (2008- 2009).
8. Convener of research assistant recruitment committee (2009).
9. Convener of interview committee for candidate teaching assistants (2009-2010)
10. Convener of interview committee for candidate PhD students (2008- 2009).
11. Member of the department graduate committee 2006-2008.
12. Member of the committee for Master and Ph.D. entrance exam.
13. Member of the department annual report committee .2004-Sept. 2008.
14. Member of the college computer committee (2002-2004).
15. Member of the department final exam committee (2003-2004).
16. Member of the department graduation project committee (one semester).
17. The Academic Supervisor of the department students (2002-2004).
18. Others.



## Supervision of PhD Students

- 1- Student :**Rashad Nouredine (Fall2018-)** **main advisor**  
in Collaboration with Department of Computer Science and Artificial Intelligence,  
University of the Basque Country UPV/EHU, Spain.
- 2- Student :**Zeina Mida (Spring2017-)** **main advisor**  
in Collaboration with the Lebanese University (Prof. Ahmed Chaine).
- 3- Student :**Jad Othman (Spring 2017 - )** *main advisor*  
**Subject: Transportation problem Using Genetic Algorithm**  
in Collaboration with the Lebanese University (Dr. Ihab Thbayti ).
- 4- Student :**Nancy Zerika (Fall2016-present)** *main advisor*  
**Subject: Images Segmentation Using Minimum Cross Entropy**
- 5- Student :**Student Soha Rawas (Spring2015-present)** *main advisor*  
**Subject: An Energy-Efficient Service Model for Green Cloud Computing**
- 6- Student: **Sukaina Al Nasrawi (Spring2015 –Fall2017 )** *main advisor*  
in Collaboration with the *University of Portsmouth, United Kingdom.*  
Subject: **A Conceptual Framework for the Transformation towards Smart Sustainable Cities**
- 7- Student: **Maison Ibrahim (Spring2015 –Fall2017 )** *main advisor*  
in Collaboration with the University of Portsmouth, **United Kingdom.**  
Subject :**A Conceptual Framework for the Transformation towards Smart Sustainable Cities**
- 8- Student: **Salah Shami (Spring 2014 – Fall2017)** *main advisor*  
Subject: **Classification of Closed-set Patterns using Data Mining Techniques**  
in Collaboration with Hariri University.
- 9- Student: **Ziad Abdullah (Fall 2012 –Spring2018 )** *main advisor*  
Subject:**Multilabel Images Classification**  
in Collaboration with the *Lebanese University* (Prof. Mohamed Ouaidat)
- 10- Student: **Duaaal Saeed (2010--2015)**  
in Collaboration with the University of Northumbria ,**United Kingdom.**  
Subject: **Image Segmentation Using Statistical Approaches**

## Supervision of Master Students

- 1- Student: **Ali Ghosn (Fall2014-Spring2018)** *main advisor*

- Subject: **Edge Detection Operators Based on Finite Difference Methods**
- 2- Student: **Manal Zaheddine (Spring 2013-Spring2015)** *main advisor*  
Subject: **Automated Self-Assessment System for Academic Programs Accreditation**
  - 3- Student: **Roa Abou Khouseh** *co-advisor*  
Subject: **Mining Online Social Networks for Homophily Based Links**
  - 4- Student: **Rola Al-Alayly (Spring 2011-Spring 2012)** *main advisor*  
Subject: **Images Thresholding Based on Cross-Entropy Techniques**
  - 5- Student: **Moumena Al Hadithi (Spring 2011-Fall2012)** *main advisor*  
Subject: **Different Techniques of Images Thresholding Based on Between Class Variance**
  - 6- Student: **Wafaa Al Jibory (Spring 2011-Spring2013)** *main advisor*  
Subject: **Improvement of Edge detection technique for objects in Images**
  - 7- Student: **Yasser Ali (2009-2011)** *main advisor*  
Subject: **Split and Merge method for Image Thresholding**
  - 8- Student: **Abdo Jomai (2009-2011)** *main advisor*  
Subject: **Iris recognition using image processing techniques.**
  - 9- Student: **Bandar Al-Maslokh (2009-2010)** *main advisor*  
Subject: **Edge detection In Medical Images.**
  - 10- Student: **Rhama Al-Zahrani (2008-2009)** *main advisor*  
Subject: **Sgementation of Images Using Edge Information.**
  - 11- Student: **Khaled AlSaud ( 2008-2009)** *main advisor*  
Subject: **Edge Detection In Images**
  - 12- Student: **Eidah Assidan(2008-2009)** *main advisor*  
Subject: **Optimal Thresholding Based on Between-Class Variance Using Gamma Distribution.**
  - 13- Student: **Youssef Al-Sahbani (2008-2009)** *main advisor*  
Subject: Braille copy Machine.
  - 14- Student: **Ghada Al-Osaimi (2007-2008)** *main advisor*  
Subject: **Minimum Cross Entropy for Images Thresholding**
  - 15- Student: **Amany Al-Saleh (2006-2007)** *main advisor*

Subject: **Automatic Dot Detection of Optical Braille Images.**

16- Student: **Reem Al-Attas (2006-2007)** *main advisor*

Subject: **Multi-Level Minimum Cross Entropy Thresholding.**

17- Student: **Moussa Al-Kahtani (2006-2007)** - *main advisor*

Subject: **Breast Cancer Detection in Mammogram Images.**

18- Student: **Duaa Al-Said (2002)** - *main advisor*

Subject: **MWF-Multi Window Filter : A Non-Linear Filter Method in Spatial Domain**

## Publications

United States Published Patent:

***BRILLE COPY MACHINE USING IMAGE PROCESSING TECHNIQUES***

Inventors:

1. AL-SALMAN, AbdulMalik S.
2. **EL-ZAART, Ali Y.**
3. AL-HOKAIL, Khalid A.
4. AL-SUHAIBANI, Yousef A.
5. ALQABBANY, AbdulAziz O.z

Patent number: 20120008151

US Classes: 358/1.2, 358/3.29

International Classes: G06K 15/00 and G06K 15/02

Submitted: July 8, 2010

**Grant:** January 23, 2018

## Journals

- 1- Maysoun Ibrahim **Ali El-Zaart** and Carl Adams, ***Smart Sustainable Cities Roadmap: Readiness for Transformation towards Urban Sustainability.*** Journal of Sustainable Cities and Society, Elsevier, March, Vol.11, pages 530-540, 2018.
- 2- Ziad Abdallah, Mohamad Oueidat, **Ali El-Zaart**, ***An Improvement of Multi-Label Image Classification Method Based on Histogram of Oriented Gradient.*** International Journal of Computer, Electrical, Automation, Control and Information Engineering. Volume 11, No.2, pp. 150-153, 2017.
- 3- Al-Shami S., **El-Zaart A.**, Zekri A., Almustafa K. and Zantout R. 2017. ***Number Recognition in the Saudi License Plates using Classification and Clustering Methods.*** Applied Mathematics and Information Sciences (AMIS). 11, No. 1, 1-12 (2017).
- 4- Duaa Al-Saeed, Ahmed Bouridane, **Ali El-Zaart**, ***Novel Fast Otsu Digital Image Segmentation Method.*** The International Arab Journal of Information Technology, Vol. 13, No. 4, July 2016

- 5- Ziad Abdallah, **Ali El-Zaart** and Mohamad Oueidat, *An Improvement of Label Power Set Method Based on Priority Label Transformation*, International Journal of Applied Engineering Research ISSN 0973-4562 Volume 11, Number 16 (2016) pp 9079-9087
- 6- **Ali El-Zaart**, *Skin Cancer Images Thresholding Based on Gamma Distribution* International Journal of Image Processing Techniques, Vol. 2, 55 – 58, 2015
- 7- **Ali El-Zaart**, *Synthetic Aperture Radar Images Segmentation Using Minum Cross-Entropy with Gamma Distribution*. International Journal of Signal and Image Processing, 2015;6(4)19-31 DOI 10.5121/sipij.2015.6402
- 8- **Ali El-Zaart**, and Toufic El-Arwadi, *A New Edge Detection Method for CT-Scan Lung Images*, International Journal of Biomedical Engineering and Medical Imaging. Vol, 2, 2015
- 9- Toufic El-Arwadi, and **Ali El-Zaart**, *A Novel 5x5 Edge Detection Operator For Blood Vessel Images*. British Journal of Applied Science & Technology, Volume 11, 2015.
- 10- Sukaina Al-Nasrawi, Carl Adams and **Ali El-Zaart**, A CONCEPTUAL MULTIDIMENSIONAL MODEL FOR ASSESSING SMART SUSTAINABLE CITIES, JISTEM - Journal of Information Systems and Technology Management Revista de Gestão da Tecnologia e Sistemas de Informação Vol. 12, No. 3, Sept/Dec., 2015 pp. 541-558 ISSN online: 1807-1775 DOI: 10.4301/S1807-17752015000300003
- 11- Maysoun Ibrahim, Carl Adams and **Ali El-Zaart**, *PAVING THE WAY TO SMART SUSTAINABLE CITIES: TRANSFORMATION MODELS AND CHALLENGES*. JISTEM - Journal of Information Systems and Technology Management Revista de Gestão da Tecnologia e Sistemas de Informação Vol. 12, No. 3, Sept/Dec., 2015 pp. 559-576 ISSN online: 1807-1775 DOI: 10.4301/S1807-17752015000300004.
- 12- Abdul Malik S. Al-Salman, **Ali El-Zaart**, Yousef Al-Suhaibani, Khaled Al-Hokail, Abdu Gumaei, “*Designing Braille Copier-Based on Image Processing Techniques*”, International Journal of Soft Computing and Engineering (IJSCE) ISSN: 2231-2307, Volume-4 Issue-5, November 2014.
- 13- WafaaKamel Al-Jibory and **Ali El-Zaart** “*A New Edge Detector in CT Scan Images Using Gradient of Weibull Distribution*”, World of Computer Science and Information Technology Journal (WCSIT), 4 (1), 13 -17, 2014.
- 14- Ihsan Ullah, Muhammad Hussain, Hatim a. Aboalsmah, Mohamed Berbar, and **Ali El-Zaart**, “*Novel Technique For Mammogram Image Segmentation Using Moment Preserving*” International Journal of Information, Vol. 16, No.5,pp.3155-3164. 2013
- 15- Moumena Al-Bayati and **Ali El-Zaart**, Journal of Advanced Research in Breast Cancer, “*Mammogram Images Thresholding For Breast Cancer Detection Using Different Thresholding Methods*”, 2013, 2, 72-77.
- 16- Moumena Al-Bayati and **Ali El-Zaart**, *AUTOMATIC THRESHOLDING TECHNIQUES FOR OPTICAL IMAGES*. International Journal of Signal and Image Processing, Signal & Image Processing, (SIPIJ) Vol.4, No.3, 15 pages, June 2013

- 17- Rami M. jomaa, **Ali El-Zaart**, Hassan Mathkour "*Improvements on Moment-Preserving Method for Image Thresholding*" Journal of Communications and Computer Engineering, pp. 19-22, 2012.
- 18- Amany Al-Saleh, **Ali El-Zaart**, AbdulMalekAlSalman, "*Dot Detection of Braille Images Using a Mixture of Beta Distributions*". Journal of Computer Science. Science publications(SRJ:0.3). , USA. 7(11), Pages: 1749-1759. 2011.
- 19- **Ali El-Zaart**, "*Expectation-Maximization Technique for Fibro-Glandular Discs Detection in Mammography Images*", International Journal of Computers in Biology and Medicine. Vol. 40, Issue 4, Pages:392–401, 2010. Elsevier. (Indexed by ISI)
- 20- **Ali El-Zaart**, "*Images Thresholding Using ISODATA Technique With Gamma Distribution*", International Journal of Pattern Recognition and Image Analysis, Vol. 20, No.1, pages: 29-41. 2010. Springer.
- 21- **Ali El-Zaart**, "*A Novel Method of Edge Detection Using 2 Dimensional Gamma Distribution*". Journal of Computer science (SJR:0.3), Science publications, USA. 6(2), Pages: 199-204. 2010.
- 22- **Ali El-Zaart**, "*Skin Images Segmentation*". Journal of Computer Science (SJR:0.3), Science publications, USA. 6(2). Pages: 217-223. 2010.
- 23- Yaser A. Reyad, **Ali El-Zaart**, Hassan Mathkour, Mansour Al-Zuair, "*Image Thresholding Using Split and Merge Techniques with Log-Normal Distribution*". Canadian Journal on Image Processing and Computer Vision, Pages-36-45. July 2010.
- 24- **Ali El-Zaart**, ""Contrast enhancement of bimodal SAR images using a new desired histogram method with Gamma distribution". International Journal of Internet Technology and Secured Transactions. Vol. 1, pp. 215-227. 2009.
- 25- DjemelZiou; NizarBouguila; Mohand Saïd Allili and **Ali El-Zaart** "*Finite Gamma mixture modelling using minimum message length inference: application to SAR image analysis*". International Journal of Remote Sensing, Volume 30, Issue 3 2009 , pages 771 – 792. (Indexed by ISI).
- 26- **Ali El-Zaart** and DjemelZiou, "*Statistical Modeling of SAR Images*". International Journal of Remote Sensing, Volume 28, Issue 10, May 2007 , pages 2277 - 2294. (Indexed by ISI).
- 27- **Ali El-Zaart**, DjemelZiou, Shangrui Wang and Qingshan Jiang, "*Segmentation of SAR images*". Pattern Recognition Journal, Elsevier. Vol. 35, No. 3, pp. 713-724, March 2002. (Indexed by ISI).
- 28- **Ali El-Zaart**, Djemel Ziou and François Dubeau, "*Local Phase and Regularization Model for Disparity Estimation Using a Spatial Domain Approach*", Journal of Pattern Recognition and Image Analysis, Vol. 9, No. 3, pp. 471-483, 1999.

## Conferences

- 1- W. El Hajj Chehade, R. Abdel Kader, **Ali El-Zaart**, *Segmentation of MRI Images for Brain Cancer Detection*. International Conference on Information and Communications Technology (ICOIACT), Yogyakarta, Indonesia, March 2018. IEEE.
- 2- Walaa Ali H. Jumiawi and **Ali El-Zaart**, *Image Spectrum Segmentation for Lowpass and Highpass Filters*, Accepted at the 4th International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT - 2018), India, 2018. IEEE.
- 3- W. El Hajj Chehade, R. Abdel Kader, **Ali El-Zaart**, *Image Segmentation For Fingerprint Recognition*, Accepted at the ASPCON 2018: IEEE Applied Signal Processing Conference, India, 2018.
- 4- Rawas, S., , W., Zekri, A., and **Ali El-Zaart**, *Power and Cost-aware Virtual Machine Placement in Geo-distributed Data Centers*. International Conference on Cloud Computing and Services Science. 19-21 March 2018, Portugal.
- 5- Sukaina Al-Nasrawi, Carl Adams , **Ali El-Zaart** and, *A Citizen Centric Smart Sustainable City Validated Model* . International Conference on Information Society and Smart Cities (SC 2018), Jun 27-28, 2018. Cambridge University, UK.
- 6- Maysoun Ibrahim, Carl Adams , **Ali El-Zaart** and, *A Validated Novel Roadmap for the Transformation towards Smart Sustainable Cities*, International Conference on Information Society and Smart Cities (SC 2018), Jun 27-28, 2018. Cambridge University, UK.
- 7- Salah Al-Shami, Ahmed Zekri, **Ali El-Zaart**, and Rached Zantout, *On the Parallelization of Closed-set Patterns Classification for an Automatic License Plate Recognition System*. International Conference on Sensors, Networks, Smart and Emerging Technologies (SENSET2017), 12-14 September 2017, Beirut, Lebanon.
- 8- Sukaina Al-Nasrawi, **Ali El-Zaart** and Carl Adams, *Assessing Smartness of Smart Sustainable Cities: a Comparative Analysis*. International Conference on Sensors, Networks, Smart and Emerging Technologies (SENSET2017), 12-14 September 2017, Beirut, Lebanon.
- 9- Maysoun Ibrahim, **Ali El-Zaart** and Carl Adams, *Theory of Change for the Transformation towards Smart Sustainable Cities*. International Conference on Sensors, Networks, Smart and Emerging Technologies (SENSET2017), 12-14 September 2017, Beirut, Lebanon.
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