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## **EDUCATION**

Ph.D., Electrical Engineering, Georgia Institute of Technology, Atlanta, GA, 1995 (GPA: 4.0).  
M.S., Electrical Engineering, Georgia Institute of Technology, Atlanta, GA, 1992 (GPA: 4.0).  
B. E., Computer and Communications Engineering, American University of Beirut, Beirut, Lebanon, 1989 (1<sup>st</sup> in class).

## **ACADEMIC EXPERIENCE**

Professor (May 2010 – Present), School of Electrical, Computer and Energy Engineering, Arizona State University, Tempe, AZ.

Associate Professor (August 2001 – May 2010), School of Electrical, Computer, and Energy Engineering (formerly known as Department of Electrical Engineering), Arizona State University, Tempe, AZ.

Visiting Associate Professor (August 2005 – December 2005), Department of Electrical and Computer Engineering, The University of Texas at Austin, Austin, TX.

Assistant Professor (August 1995 – August 2001), Department of Electrical Engineering, Arizona State University, Tempe, AZ.

Research Assistant (September 1992 – June 1995), School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA.

Research Assistant (June 1991 – September 1992), Graphics, Visualization, and Usability (GVU) Center, Georgia Institute of Technology, Atlanta, GA.

Research Assistant (February 1990 - June 1991), Scientific Visualization Group, Georgia Institute of Technology, Atlanta, GA.

Visiting Intern (1988), Computing Department, Imperial College, London, UK.

## **INDUSTRIAL EXPERIENCE**

President and Founder (2009 – Present), MUSCALE, LLC, Scottsdale, AZ.

President and Founder (2007 – Present), PICARIS, LLC, Scottsdale, AZ.

Visiting Intern (1994), AT&T Bell Laboratories, Murray Hill, NJ.

Visiting Intern (1992), Schlumberger, Austin, TX.

R&D collaborations on computer vision, image/video processing, image/video compression and transmission projects with industries including Intel, Google, NTT, Qualcomm, Microsoft Motorola/Freescale, General Dynamics, and NASA.

## **AWARDS AND SPECIAL RECOGNITION**

- IEEE Fellow
- IEEE Signal Processing Society's Best Paper Award (IEEE Transactions Journal Paper)
- IEEE Signal Processing Society's Board of Governors.
- QoMEX 2012 Best Paper Award, July 2012
- Intel Outstanding Researcher Award in High Volume Manufacturing, March 2012
- Outstanding Faculty Award, IEEE Phoenix Section, February 2012
- American University of Beirut Distinguished Alumnus Award, 2011
- Certificate of Merit, IEEE Signal Processing Society, 2009
- NASA Technical Innovation Award, 2006
- Outstanding Technical Contributions Award, Digital Signal Processing, IEEE Phoenix Section, Jan. 2005.
- Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), January 2003.
- Associate Editor Service Recognition awarded by the Editor-in-Chief of the IEEE Transactions on Image Processing, March 2002.
- Professional Leadership & Service Recognition from the IEEE Signal Processing and the IEEE Communications societies (1999)
- U.S. National Science Foundation CAREER Award (1998)
- Society of Women Engineers Outstanding Graduate Student Award at Georgia Tech (1994)

## **PROFESSIONAL AND SCIENTIFIC SERVICE**

### **Editorship**

- Chief Editor for the Proceedings of the IEEE, Special Issue on Perceptual-Based Media Processing (2011-2013)
- Senior Editorial Board of the IEEE Signal Processing Magazine (2014-present).
- Editorial Board of the IEEE Journal on Selected Topics in Signal Processing (2014-present).
- Editorial Board, Foundation and Trends in Signal Processing.
- Guest Editor for EURASIP Journal on Video Quality Metrics (2012-present).
- Guest Editor for the IEEE Signal Processing Magazine, Special Issue on Multimedia Quality Assessment (2010-2011).
- Guest Editor for the EURASIP Journal on Image and Video Processing, Special Issue on Quality of Multimedia Experience (2009-2011).
- Lead Editor for the IEEE Journal on Selected Topics in Signal Processing, Special Issue on Visual Quality Assessment (2007-2009)
- Editor for the IEEE Transactions on Image Processing (2006-2010)
- Member of the Editorial Board of the Foundations and Trends in Signal Processing Journal (2006-present)
- Editor for the IEEE Signal Processing Letters (2004-2006)
- Editor for the IEEE Transactions on Image Processing (1999-2003)

### **Conference Activities**

- General Chair of the 23<sup>rd</sup> IEEE International Conference on Image Processing (ICIP), to be held in Phoenix, AZ, September 2016.
- Co-founder of the World's First Visual Innovation Award to be presented for the first time at IEEE ICIP 2016.
- Member of the organizing committee of the QoMEX 2016 workshop (Lisbon, Portugal).
- Technical Area Chair, 2015 International Conference on Image Processing (2014-present)
- Area Chair, 2015 IEEE International Conference on Image Processing (ICIP) and 2015 IEEE International Conference on Circuits and Systems (IEEE CAS).
- General Chair (together with Jorge Caviedes) of the 2012 International Workshop on Video Processing and Quality Metrics for Consumer Electronics (VPQM), January 2012.

- General Chair (together with Ron Schafer) of the 14<sup>th</sup> IEEE Digital Signal Processing Workshop and 6<sup>th</sup> IEEE Signal Processing Education Workshop, Sedona, AZ, January 2011.
- Technical Program Chair (together with Thrasos Pappas) of the 2009 IEEE International Conference on Image Processing.
- Co-Founder (together with Touradj Ebrahimi, *EPFL*, Kahled El-Maleh and Gokce Dane, *Qualcomm*), of the International Workshop on Quality of Multimedia Experience (QoMEX). <http://www.qomex.org>
- Co-Founder (together with Jorge Caviedes, *Intel*, and Sanjit Mitra, *UCSB and USC*) of the International Workshop on Video Quality for Consumer Electronics (VPQM). <http://www.vpqm.org>
- Technical Program Chair (together with Gokce Dane) of the First International Workshop on Quality of Multimedia Experience (QoMEX 2009).
- Technical Program Chair of the First International Workshop on Video Quality for Consumer Electronics (VPQM 2005).
- Served on the Organizing Committee and on the Technical Committee of several international conferences.

### **Scientific and Professional Society Memberships**

- IEEE Fellow (2013-present).
- Elected Member of the IEEE Signal Processing Society's Image, Video and Multidimensional Signal Processing (IVMSP) Technical Committee (2014-present).
- Member of the IEEE Publication Services and Products Board Strategic Planning Committee (2014-present).
- Elected Member of the IEEE Signal Processing Society's Multimedia Technical Committee (2011-2014).
- Elected Member and Vice Chair of the IEEE Signal Processing Society's Education Technical Committee (2010-present).
- Member of the IEEE Signal Processing Society's Appointments and Nominations Committee (2011-present).
- Member of the IEEE Signal Processing Society's Technical Directions Board (2008-2009), and Chair of its Diversity Committee (2009).

- Elected Member of the IEEE Signal Processing Society's Image, Video, and Multidimensional Signal Processing (IVMSP) Technical Committee, formerly known as the IMDSP Technical Committee (2005-2011).
- Elected Member of the IEEE Circuits and Systems (CAS) Society's DSP Technical Committee (1996-present).
- Member of the IEEE Signal Processing Conference Board (2003-2005).
- Member of the IEEE Signal Processing Society, IEEE Circuits and Systems Society, and IEEE Communications Society.
- Member of the Institute of Electrical and Electronics Engineers (IEEE).
- Senior Member of the IEEE (since 2003).

### **Journal/Panelist / Proposal / Patent Reviewer**

- Served as a reviewer for several journals.
- Served on many NSF (USA) panels
- Reviewed NSF (USA) grant proposals
- Reviewed NSERC (Canada) grant proposals
- Reviewed grant proposals for national and international universities
- Reviewed DoD (USA) proposals
- Reviewer and consultant on patent validation

### **ASU COMMITTEE SERVICE**

#### **University**

- Member, University Promotion and Tenure Committee (2014-present)
- Member, AME Audio Faculty Search Committee (2005)
- Member, Consortium for Embedded and Inter-Networking Technologies (CEINT) Curriculum Committee (2004-2007)
- General Studies Council (1998-2001)
- Numeracy Subcommittee of the General Studies Council (1998-2001)

#### **College**

- Dean's Faculty Advisory Committee (2011-2013)
- Member, ECEE/CSE Computer Engineering Steering Committee (ECEE and CSE) (2012-present)
- Participation in FSE Engineering Open House for Middle and High School Students

- Participation in the FSE Summer Research Program for High-School Students
- Member, BME Imaging Faculty Search Committee (2013)
- Faculty Recruiting Committees
  - CSE Computer Architecture subcommittee (1998-1999)
  - Biomedical Imaging subcommittee (2007)
- Dean's Diversity Committee (1999-2003)
- Member of several Ph.D. and M.S. Thesis Committees

### **Department**

- Director of the Image, Video, and Usability (IVU) Lab (1996-present)
- Undergraduate Committee (1998)
- Director of the Real-time Embedded Signal Processing (RESP) Lab (2002-present)
- Signals and Systems Course (EEE303) Review and Planning Committee (2003-2004)
- Coordinator of the Freshman Introduction to Engineering Lab (2005-present)
- Chair of the Computer Engineering Undergraduate Curriculum Committee (2005)
- Member of the ECE 201/EEE 302/EEE 303 Course Redesign Committee (2005-2007)
- Several faculty search committees
- Systems Area Committee (1995-present)
- MSE Exam Committee (1996-present)
- Member of several Ph.D. and M.S. Thesis Committees

### **INVITED PRESENTATIONS AND SHORT COURSES**

1. *Invited Tutorial Lecture*, Lina Karam, "Introduction to Image and Video Compression," Visual Signal Analysis and Processing (VSAP) Workshop, Khalifa University, Abu Dhabi, United Arab Emirates, November 2015.
2. *Plenary Distinguished Lecture*, Lina Karam, "Attentive Visual Processing – Towards User-Centric Visual Technologies," International Conference on Computing, Networking and Communications (ICNC), February 2014.
3. *Intel Webinar*, Lina Karam, "Automated Defect Detection and Identification for Semiconductor Units Undergoing Assembly and Test," Intel Corporation, November 2011.

4. *Plenary Talk*, Lina Karam, "Efficient Perceptual-Based Image and Video Processing," Tenth FEA Student Conference, American University of Beirut, Beirut, Lebanon, May 2011.
5. *Expert Panel Talk*, Lina Karam, "Trends in 3D Video Processing," IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), May 2011.
6. Lina J. Karam, "Foundations and Trends of Visual Quality Assessment," American University of Beirut, Beirut, Lebanon, July 2010.
7. *Plenary Talk*. Lina J. Karam, "Foundations and Trends of Visual Quality Assessment," 2<sup>nd</sup> International Workshop on Visual Information Processing (EUVIP), Paris, France, July 2010.
8. Lina J. Karam. "Adaptive Rate-Distortion Based Wyner-Ziv Video Coding," Multimedia, Mathematics and Machine Learning II, BIRS, Banff Centre, Banff, Canada, July 2009.
9. Lina J. Karam, "Wyner-Ziv Based Low-Complexity Distributed Video Encoding," New Mexico State University, Las Cruces, NM, Nov. 2008.
10. Lina J. Karam, "Real-World Applications for Freshman Engineering Education," NI Week, Austin, TX, Aug. 2008.
11. Lina J. Karam, "From Conventional to Distributed Video Coding," IEEE Lebanon Section and American University in Beirut, Beirut, Lebanon, July 2008.
12. Lina J. Karam, "BLAST-DVC: BitpLAne SelecTive Distributed Video Coding," Center for Research in Mathematics (CIMAT), Guanajuato, Mexico, May 2008.
13. *Short Course*, Lina J. Karam, "Image Compression: Foundations," Qualcomm, San Diego, CA, May 2008. Invited One-Day Short Course.
14. *Short Course*, Lina J. Karam, "Basics of Image and Video Compression," Qualcomm, San Diego, CA, 2007. Invited Two-Day Short Course.
15. Lina J. Karam, "Functional MRI," National Instruments, Austin, TX, 2007.
16. Lina J. Karam, "Selective Error Detection for Error-Resilient Image Coding and Transmission using Similarity Check Functions," Ss Cyril and Methodius University, Skopje, Macedonia, 2006.
17. Lina J. Karam, "Freshman Introduction to Engineering," National Instruments, Austin, TX, 2005.

18. Lina J. Karam, "Wavelet-Based Adaptive Image Denoising with Edge Preservation," General Dynamics, Scottsdale, AZ, 2004.
19. Lina J. Karam, "Teaching Image Processing to High School Students," IEEE Digital Signal Processing Workshop, Hunt, TX, 2000.
20. Lina J. Karam, "Error-Resilient Video Coding with Channel-Optimized Trellis-Coded Quantization," IEEE Wireless Communications and Networking Conference, Chicago, IL, 2000.
21. Lina J. Karam, "Channel-Optimized Source Coding for the Transmission of Digital Imagery over Noisy Channels," The American University of Beirut, Beirut, Lebanon, July 2000.
22. Lina J. Karam, "Robust Image Coding Using Perceptually-Tuned Channel-Optimized Trellis-Coded Quantization," Midwest Symposium on Circuits and Systems, Las Cruces, NM, 1999.
23. Lina J. Karam, "Image Coding based on Perceptual Criteria," Motorola, Scottsdale, AZ, 1996.
24. Lina J. Karam, "Color Video Coding at Very Low Bit Rates," IEEE Signal Processing & Communications Chapter, Phoenix, AZ, 1995.

## BOOKS

Note: Student authors are shown in boldface.

1. Lina J. Karam and **Naji Mounsef**, *Introduction to Engineering: A Starter's Guide With Hands-On Digital Multimedia Explorations and Robotics*, Morgan-Claypool, 2008.
2. Lina J. Karam and **Naji Mounsef**, *Introduction to Engineering: A Starter's Guide With Hands-On Analog Multimedia Explorations*, Morgan-Claypool, 2008.
3. Lina J. Karam, *Design of Complex Digital FIR Filters in the Chebyshev Sense*, Ph.D. Thesis, Georgia Institute of Technology, March 1995.

## BOOK CHAPTERS

1. **Vicente Moliere**, Lina J. Karam, and Zoe Lacroix, "CLAST: Clustering Biological Sequences," in *Emerging Trends in Computational Biology, Bioinformatics, and Systems Biology* (Q. Nam and H. Arabnia Eds.), Chapter 10, pp. 203-220, Aug. 2015, Elsevier. ISBN: 978-0-12-802508-6. <http://www.sciencedirect.com/science/book/9780128025086>



2. **Nabil G. Sadaka** and Lina J. Karam, "Perceptually Driven Super-Resolution Techniques," in *Perceptual Digital Imaging: Methods and Applications*, Rastislav Lukac Editor, CRC Press/Taylor & Francis, 2012.
3. Lina J. Karam, "Lossless Image Compression," in *The Essential Guide to Image Processing*, Al Bovik Editor, Chapter 16, pages 385-417, Elsevier Academic Press, 2009.
4. Lina J. Karam, "Lossless Coding", in *the Handbook of Image and Video Processing*, 2<sup>nd</sup> Edition, Al Bovik Editor, Chapter 5.1, pages 643-660, Elsevier Academic Press, 2005.
5. Umesh Rajashekar, Alan C. Bovik, Daniel Sage, Michael Unser, Lina J. Karam, and Reginald Lagendijk, "Image Processing Education," in *the Handbook of Image and Video Processing*, 2<sup>nd</sup> Edition, Al Bovik Editor, Chapter 2.4, pages 73-95, Elsevier Academic Press, 2005.
6. Lina J. Karam, "Lossless Image Coding," in *the Handbook of Image & Video Processing* Al Bovik, Editor, Chapter 5.1, pages 461-474, Academic Press, 2000.
7. Lina J. Karam, James H. McClellan, Ivan Selesnick, and C. Sidney Burrus, "Digital Filtering," in *the Digital Signal Processing Handbook* (V. K. Madisetti and D. B. Williams, Editors), Chapter 11, pages 11-1 to 11-86, CRC Press, 1998.

## PATENTS

Note: Student authors are shown in boldface.

1. Tinku Acharya, Lina J. Karam, and **Francescomaria Marino**, "The Compression of Color Images Based on a 2-Dimensional Discrete Wavelet Transform Yielding a Perceptually Lossless Image," US Patent 6,154,493. Filed 1998 by Intel. Issued 2000.
2. Tinku Acharya, Lina J. Karam, and **Francescomaria Marino**, "Real-time Algorithms and Architectures for Coding Images Compressed by DWT-Based Techniques," US Patent 6,124,811. Filed 1998 by Intel. Issued 2000.
3. Glen P. Abousleman, **Tuyet-Trang Lam**, and Lina J. Karam, "Communication System and Method for Multi-Rate, Channel-Optimized Trellis-Coded Quantization," US Patent 6,717,990. Filed 2000 by Motorola. Issued 2004.
4. **Katherine S. Tyldesley**, Glen P. Abousleman, and Lina J. Karam, "System and Method for Transmission of Video Signals using Multiple Channels," US Patent. Filed 2003 by General Dynamics.

5. Glen P. Abousleman, **Wei-Jung Chien** and Lina J. Karam, "Method and Apparatus for Network-Adaptive Video Coding," US Patent. Provisional filed 2007 by ASU. Full patent filed 2008 by ASU.
6. Lina J. Karam and **Asaad F. Said**, "Automatic Cell Migration and Proliferation Analysis," United States Patent 9,082,164. **Issued July 14, 2015.**
7. Lina J. Karam and **Samuel Dodge**, "Systems, Methods, and Media for Recognizing Gestures, Objects, and Activities," Full Patent filed 2013 by ASU/AzTE.
8. Lina J. Karam and **Samuel Dodge**, "SYSTEMS, METHODS, AND MEDIA FOR OPTICAL RECOGNITION," US Patent Application Number 20140016859. Full Patent Filed July 2013.
9. Lina J. Karam and **Jinjin Li**, "Stereo Vision Based Automated Solder Ball Height Detection," United States Patent Application 14/662,074. Full Patent Filed March 18, 2015. **Technology Licensed by Intel through AzTE.**

#### **REFEREED JOURNAL PAPERS (PUBLISHED OR ACCEPTED):**

Note: Student authors are shown in boldface.

1. **S. Alirezah Golestaneh** and Lina J. Karam, "Reduced-Reference Quality Assessment Based on the Entropy of DWT Coefficients of Locally Weighted Gradient Magnitudes," accepted and to appear in the *IEEE Transactions on Image Processing*, 11 pages, 2016.
2. **Bashar M. Haddad**, **Sen Yang**, Lina J. Karam, Jieping Ye, Nital Patel, and Martin Braun, "Multi-Feature, Sparse-Based Approach for Defects Detection and Classification in Semiconductor Units," accepted and to appear in the *IEEE Transactions on Automation Science and Engineering*, 14 pages, 2016.
3. **Milind Gide** and Lina J. Karam, "A Locally Weighted Fixation Density-Based Metric for Assessing the Quality of Visual Saliency Predictions," *IEEE Transactions on Image Processing*, vol. 25, no. 8, pp. 3852-3861, Aug. 2016, doi 10.1109/TIP.2016.2577498. Publication date on IEEE Xplore: June 2016.
4. **Mahesh Subedar** and Lina J. Karam, "3D Blur Discrimination," *ACM Transactions on Applied Perception*, vol. 13, issue 3, article no. 12, 13 pages, May 2016, doi 10.1145/2896453.
5. **Milind S. Gide**, **Samuel F. Dodge**, and Lina J. Karam, "The Effect of Distortions on the Prediction of Visual Attention," arXiv:1604.03882, April 2016. Available Online at: <http://arxiv.org/abs/1604.03882>
6. **Jinjin Li**, Bonnie L. Bennett, Lina J. Karam, and Jeffrey S. Pettinato, "Stereo Vision Based Automated Solder Ball Height and Substrate Coplanarity Inspection," *IEEE*

*Transactions on Automation Science and Engineering*, vol. 13, no. 2, pp. 757-771, April 2016, doi: 10.1109/TASE.2015.2403836

7. **Srenivas Varadarajan** and Lina J. Karam, "A No-Reference Texture Regularity Metric Based On Visual Saliency," *IEEE Transactions on Image Processing*, vol. 24, no. 9, pp. 2784-2796, Sep. 2015.
8. **Jinjin Li**, Bonnie Bennett, Lina Karam, and Jeffrey Pettinato, "Stereo Vision Based Automated Solder Ball Height and Substrate Coplanarity Inspection," *IEEE Transactions on Automation Science and Engineering*, 15 pages, March 2015 (online publication date).
9. **Qian Xu, Srenivas Varadarajan**, Chaitali Chakrabarti, and Lina J. Karam, "A Distributed Canny Edge Detector: Algorithm and FPGA Implementation," *IEEE Transactions on Image Processing*, pp. 2944-2960, vol. 23, no. 7, Jul. 2014.
10. **Tong Zhu** and Lina J. Karam, "A No-Reference Objective Image Quality Metric based on Perceptually Weighted Local Noise," *EURASIP Journal on Image and Video Processing*, 2014 (8 pages). Available online: <http://jivp.eurasipjournals.com/content/2014/1/5>.
11. **Berkay Kanberoglu**, Nina Z. Moore, David Frakes, Lina J. Karam, Josef P. Debbins, Mark C. Preul, "Neuronavigation using Three-Dimensional Proton Magnetic Resonance Spectroscopy Data," *Stereotactic and Functional Neurosurgery*, pp. 306-314, 92(5), 2014.
12. **Sin Lin Wu**, Jorge Caviedes, Lina Karam, and Ingrid Heynderickx, "The Effect of Applying 2D Enhancement Algorithms on 3D Video Content," *Hindawi Journal of Electrical and Computer Engineering*, 11 pages, 2014. Online at: <http://dx.doi.org/10.1155/2014/601392>.
13. **Akshay Pulipaka**, Patrick Seeling, Martin Reisslein, and Lina J. Karam, "Traffic and Statistical Multiplexing Characterization of 3-D Video Representation Formats," *IEEE Transactions on Broadcasting*, 59(2), pp. 382-389, June 2013.
14. Lina J. Karam; W. Bastiaan Kleijn; Karon MacLean, "Perception-based Media Processing," *Proceedings of the IEEE*, 101(9), pp. 1900-1904, Sept. 2013.
15. **Asaad Said**, Bonnie Bennett, Lina Karam, Alvin Siah, Kyle Goodman, and Jeffrey Pettinato, "Automated Void Detection in Solder Balls in the Presence of Vias and Other Artifacts," *IEEE Transactions on Electronics Packaging Manufacturing*, vol. 2, no. 11, pp. 1890-1901, November 2012.
16. **Rohan Gupta, Akshay Pulipaka**, Patrick Seeling, Lina J. Karam, and Martin Reisslein, "H.264 Coarse Grain Scalable (CGS) and Medium Grain Scalable (MGS) Encoded Video: A Trace Based Traffic and Quality Evaluation," *IEEE Transactions on Broadcasting*, vol. 58, no. 3, pp. 428 to 439, September 2012.

17. Gaurav Sharma, Lina Karam, and Patrick Wolfe, "Select Trends in Image, Video, and Multidimensional Signal Processing," *IEEE Signal Processing Magazine*, pp. 5-8, Jan. 2012.
18. Lina J. Karam, **Nabil G. Sadaka, Rony Ferzli and Zoran A. Ivanovski**, "An Efficient Selective Perceptual-Based Super-Resolution Estimator," *IEEE Transactions on Image Processing*, vol. 20, no. 12, pp. 3470-3482, Dec. 2011.
19. Touradj Ebrahimi, Lina Karam, Fernando Pereira, Khaled El-Maleh, and Ian Burnett, "The Quality of Multimedia: Challenges and Trends," *IEEE Signal Processing Magazine*, pp. 17 & 148, Nov. 2011.
20. **Shyamprasad Chikkerur, Vijay Sundaram**, Martin Reisslein, and Lina J. Karam, "Objective Video Quality Assessment Methods: A Classification, Review, and Performance Comparison," *IEEE Transactions on Broadcasting*, vol. 57, no. 2, pp. 165-182, June 2011.
21. **Niranjan D. Narvekar** and Lina J. Karam, "A No-Reference Image Blur Metric Based on the Cumulative Probability of Blur Detection (CPBD)," *IEEE Transactions on Image Processing*, vol. 20, no. 9, pp. 2678-2682, Sep. 2011.
22. **Asaad F. Said**, Bonnie L. Bennett, Lina J. Karam, and Jeff Pettinato, "Automated Detection and Classification of Non-Wet Solder Joints," *IEEE Transactions on Automation Science and Engineering*, vol. 8, no. 1, pp. 67-80, Jan. 2011.
23. **Asaad F. Said**, Bonnie L. Bennett, Lina J. Karam, and Jeff Pettinato, "Robust Automated Void Detection in Solder Balls and Joints," *OnBoard Technology Magazine*, Issue of the Decade on Quality, pp. 36-41, Sep. 2010.
24. **Wei-Jung Chien** and Lina J. Karam, "Transform-Domain Distributed Video Coding with Rate-Distortion Based Adaptive Quantization," *IET Image Processing Journal, Special Issue on Distributed Video Coding*, pages 340-354, vol. 3, no. 6, December 2009.
25. Lina J. Karam, **Ismail AlKamal**, Alan Gatherer, Gene Frantz, David Anderson, and Brian Evans, "Trends in Multi-Core DSP Platforms," *IEEE Signal Processing Magazine, Special Issue on Signal Processing on Platforms with Multiple Cores*, pages 38-49, November 2009.
26. **Wei-Jung Chien** and Lina J. Karam, "BLAST-DVC: BitpLane Selective Distributed Video Coding," *Springer Multimedia Tools and Applications Journal, Special Issue on Distributed Video Coding*, 20 pages, July 2009, DOI 10.1007/s11042-009-0314-8; pp. 437-456, 2010.
27. Lina J. Karam, Touradj Ebrahimi, Sheila Hemami, Thrassos Pappas, Robert Safranek, Zhou Wang, and Andrew B. Watson, "Introduction to the Special Issue on Visual Media Quality

Assessment,” *IEEE Journal on Special Topics in Signal Processing, Special Issue on Visual Media Quality Assessment*, vol. 3, no. 2, pp. 189-192, April 2009.

28. **Rony Ferzli** and Lina J. Karam, “A No-Reference Objective Image Sharpness Metric Based on the Notion of Just Noticeable Blur (JNB),” *IEEE Transactions on Image Processing*, vol. 18, no. 4, pp. 717-728, April 2009.
29. **Brian Lenoski**, Leslie C. Baxter, Lina J. Karam, José Maisog, and Josef Debbins, “On the Performance of Autocorrelation Estimation Algorithms for fMRI Analysis,” *IEEE Journal on Special Topics in Signal Processing, Special Issue on Functional Magnetic Resonance Imaging*, vol. 2, no. 6, pp. 828-838, Dec. 2008.
30. **Geert Van der Auwera**, **Prasanth T. David**, Martin Reisslein, and Lina J. Karam, "Traffic and Quality Characterization of the H.264/AVC Scalable Video Coding Extension," *Advances in Multimedia*, vol. 2008, Article ID 164027, 27 pages, 2008. doi:10.1155/2008/164027.
31. Andrew B. Watson, **Zhen Liu**, and Lina J. Karam, “JPEG2000 Encoding with Perceptual Distortion Control,” *NASA Tech Brief*, pp. 37-38, Sep. 2008.
32. **Geert Van der Auwera**, Martin Reisslein, and Lina J. Karam, “Corrections to “Video Texture and Motion Based Modeling of Rate Variability-Distortion (VD) Curves,” *IEEE Transactions on Broadcasting*, vol. 54, no. 1, pp. 166 – 166, Mar. 2008.
33. Lina J. Karam and **Tuyet-Trang Lam**, “Selective Error Detection for Error-Resilient Wavelet-Based Image Coding,” *IEEE Transactions on Image Processing*, vol. 16, no. 12, pp. 2936-2942, Dec. 2007.
34. **Geert Van der Auwera**, Martin Reisslein, and Lina J. Karam, “Corrections to “Video Texture and Motion Based Modeling of Rate Variability-Distortion (VD) Curves,” *IEEE Transactions on Broadcasting*, vol. 53, issue 4, pp. 811 – 811, Dec. 2007.
35. **Geert Van der Auwera**, Martin Reisslein, and Lina J. Karam, “Video Texture and Motion Based Modeling of Rate Variability-Distortion (VD) Curves,” *IEEE Transactions on Broadcasting*, vol. 53, no. 3, pp. 637-648, Sept. 2007.
36. **Zhen Liu**, Lina J. Karam, and Andrew B. Watson, “JPEG2000 Encoding with Perceptual Distortion Control,” *IEEE Transactions on Image Processing*, vol. 15, no. 7, pp. 1763-1778, Jul. 2006.
37. **Zhen Liu** and Lina J. Karam, “Mutual Information-Based Analysis of JPEG2000 Contexts,” *IEEE Transactions on Image Processing*, vol. 14, no. 4, pp. 411-422, April 2005.

38. Glen P. Abousleman, **Tuyet-Trang Lam**, and Lina J. Karam, "Robust Hyperspectral Image Coding with Channel-Optimized Trellis-Coded Quantization," *IEEE Transactions on Geoscience and Remote Sensing*, vol 40, no. 4, pp. 820-830, April 2002.
39. **Ingo Höntsch** and Lina J. Karam, "Adaptive Image Coding with Perceptual Distortion Control," *IEEE Transactions on Image Processing*, vol. 11, no. 3, pp. 213-222, March 2002.
40. **M. Yassin Hasan**, Lina J. Karam, Matt Falkinburg, Art Helwig, and Matt Ronning, "Canonic Signed Digit Digital Filter Design," *IEEE Signal Processing Letters*, vol. 8, pp. 167-169, June 2001.
41. **M. Yassin Hasan** and Lina J. Karam, "Morphological Text Extraction from Images," *IEEE Transactions on Image Processing*, vol. 9, pp. 1978-1983, Nov. 2000.
42. **Ingo Höntsch** and Lina J. Karam, "Locally Adaptive Perceptual Image Coding," *IEEE Transactions on Image Processing*, vol. 9, pages 1472-1483, Sept. 2000.
43. **Tuyet-Trang Lam**, Glen P. Abousleman, and Lina J. Karam, "Image Coding with Robust Channel-Optimized Trellis-Coded Quantization," *IEEE Journal on Selected Areas in Communications, Special Issue on Error-Resilient Image and Video Transmission*, vol. 18, pp. 940-951, June 2000.
44. **Francescomaria Marino**, Tinku Acharya, and Lina J. Karam, "A DWT-Based Perceptually Lossless Compression Scheme and VLSI Architecture for R-G-B Digital Images," *Journal of Integrated Computer-Aided Engineering*, vol. 7, pp. 117-134, 2000.
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