

## Curriculum Vitae

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### Contact details

Florida Atlantic University (FAU)  
College of Engineering & Computer Science  
Department of Computer & Electrical Engineering and Computer Science (CEECS)

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### Education

- Ph.D. in Computer Engineering, Florida Atlantic University, Boca Raton, FL (USA), Aug. 2001. Dissertation: "Content-Based Image Retrieval Using Relevance Feedback". Advisor: Prof. Borko Furht.
- Master's in Electronic Engineering, Philips International Institute / Eindhoven University of Technology, Eindhoven (the Netherlands), May 1989.
- B.Sc. in Electrical Engineering, *Centro Federal de Educação Tecnológica do Paraná* (CEFET-PR) (now *Universidade Tecnológica Federal do Paraná* - UTFPR) Curitiba-PR (Brazil), Feb. 1987.

### Current and past positions (selected)

- Professor, College of Engineering & Computer Science, FAU (2014 – Present)
- Professor (by courtesy), College of Business, FAU (2015 – Present)
- Associate Director, NSF Industry/University Cooperative Research Center (I/U CRC) for Advanced Knowledge Enablement (CAKE), FAU (2016 – Present)
- Associate Professor, CEECS Department, FAU (2007 – 2014)
- Assistant Professor, Department of Computer Science and Engineering, FAU (2001 – 2007)
- Instructor, Department of Computer Science and Engineering, FAU (1999 – 2001)
- Associate Professor, Dept. of Electrical Engineering, CEFET-PR, Curitiba (Brazil) (1993 – 1997)
- Assistant Professor, Dept. of Electrical Engineering, CEFET-PR, Curitiba (Brazil) (1989 – 1993)

- Lecturer and Chair, Dept. of Computer Science, FESP, Curitiba (Brazil) (1992 – 1997)
- Assistant Professor, Dept. of Computer Science and Engineering, PUC-PR, Curitiba (Brazil) (1991 – 1994)
- Research Assistant, Computer Vision & Graphics Group, Philips Research Laboratories, Eindhoven (Netherlands) (1988 – 1989)
- High-school Teacher, Department of Electronics, CEFET-PR, Curitiba (Brazil) (1983 – 1989)

### Professional Recognition, Honors, and Awards (selected)

- ACM Distinguished Speaker (2014 - present).
- Member of the Eindhoven University of Technology Alumni Association (2010 - present).
- Member of Tau Beta Pi, inducted as *Eminent Engineer* (2009 - present).
- *Senior Member* of the IEEE (Institute of Electrical and Electronics Engineers) (2009 - present).
- *Senior Member* of the ACM (Association for Computing Machinery) (2009 - present).
- Member of Sigma Xi, the honor society of research scientists and engineers. (2009 - present).
- Member of Upsilon Pi Epsilon (2004 - present).
- Member of the Honor Society of Phi Kappa Phi (1999 - present).
- *Outstanding Mid-Career Teaching Award*, American Society for Engineering Education - Southeastern Section (ASEE-SE) (2011).
- Excellence and Innovation in Undergraduate Teaching Award, Florida Atlantic University (2011).
- *Highly Commended Award* at the *Literati Network Awards for Excellence 2008*, for the paper “Design of a multimedia traffic classifier for Snort”, published in the *Information Management & Computer Security* journal (2008).
- *Hot Course Award* (for the *Cutting-edge Web Technologies* course), Department of Computer Science and Engineering, Florida Atlantic University (2008).
- College of Engineering and Computer Science *Dean’s Faculty Award* (2004-05).
- Excellence in Undergraduate Teaching Award, Florida Atlantic University (2004).
- *Excellence in Teaching and Superb Student Evaluation Award* – Department of Computer Science and Engineering, Florida Atlantic University (2002).
- *Honorable Mention (Top 10 worldwide)* in the IEEE CSIDC 2002 competition, as the mentor of the FAU “CodeBlue” Team, Washington, D.C., June 2002.
- *Graduate Scholarship*, FAU Chapter of Phi Kappa Phi (1999).
- Dr. Daniel B. Newell and Aurel B. Newell Doctoral Fellowship, Florida Atlantic University (1999-2000).

## Membership in Professional Associations and Societies

- Senior Member, Association for Computing Machinery (ACM)
- Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
- Member, American Society for Engineering Education (ASEE)

## Research

- Since 1998, I have published 9 books, 10+ invited book chapters/sections, 20+ refereed international journal publications, 70+ refereed papers in scientific conferences, and several invited papers and other publications. A list of these appears on pages 16–25.
- My current research interests lie under the umbrella of “intelligent processing of visual information” and include:
  - Medical image analysis using deep learning
  - Using human computation – particularly crowdsourcing and games – to solve image processing and computer vision problems
  - Visual information retrieval systems, algorithms and techniques
- Ongoing projects, whose demos are available online, and whose underlying research aspects have provided the basis for BS and MS theses, PhD dissertations, international collaborations, and publications, include:
  - **Guess That Face** [<http://tinyurl.com/guessthatface>]: a *game with a purpose* (GWAP) in which players must guess the name of a celebrity whose face appears blurred. The game combines a successful casual game paradigm with meaningful applications in both human- and computer-vision science.
  - **Click’n’Cut** [<http://tinyurl.com/clickncut>] (developed jointly with ENSEEIHT-*Université de Toulouse*, France and *Universitat Politècnica de Catalunya* (UPC), Barcelona): an interactive segmentation tool that combines clicks generated by users to obtain accurate object segmentations.
- I currently (co-) supervise 3 PhD Dissertations (two at FAU) and 1 Master’s Thesis (at FAU).
- I have previously (co-) supervised to completion 6 PhD students and 14 Master’s students, listed below.

## Supervised PhD Dissertations (6)

- Mario Taschwer, “Concept-Based and Multimodal Methods for Medical Case Retrieval,” *Alpen-Adria Universität Klagenfurt*, Klagenfurt, Austria, 2017. (co-advisor with Prof. Laszlo Böszörményi)
- Aleksandar Colic, “Design and Implementation of Driver Drowsiness Detection System”, Florida Atlantic University, 2014. (*advisor*)

- Joel Gibson, "Sparse and Low Rank Constraints on Optical Flow and Trajectories", Florida Atlantic University, 2014. (*advisor*)
- Gustavo B. Borba, "Automatic Extraction of Regions of Interest from Images Based on Visual Attention Models", *Universidade Tecnológica Federal do Paraná* (UTFPR) (Curitiba-PR, Brazil), 2010. (co-advisor with Dr. Humberto R. Gamba)
  - Gustavo B. Borba is currently Assistant Professor at UTFPR (Curitiba-PR, Brazil)
- Liam M. Mayron, "Image retrieval using visual attention", Florida Atlantic University, 2008. (*advisor*)
- Dubravko Culibrk, "Neural Network Approach to Bayesian Background Modeling for Video Object Segmentation", Florida Atlantic University, 2006. (co-advisor with Dr. Borko Furht)
  - Dubravko Culibrk is currently Associate Professor at the University of Novi Sad (Novi Sad, Serbia)

## Supervised Master's Theses (14)

- Maryam Eneim, "An intelligent method for violence detection in live video feeds", Florida Atlantic University, 2016. (*advisor*)
- Jhanon James, "Face processing using mobile devices", Florida Atlantic University, 2016. (*advisor*)
- Rafael Giusti Urbina, "A systematic evaluation of object detection and recognition approaches with context capabilities", Florida Atlantic University, 2011. (*advisor*)
- Christoph Kofler, "User Intent Classification for Digital Photo Retrieval", *Alpen-Adria Universität Klagenfurt*, Klagenfurt, Austria, 2010. (co-advisor with Prof. Laszlo Böszörményi)
- Joel Gibson, "FuzzyCUDA: Interactive Matte Extraction on a GPU", Florida Atlantic University, 2008. (*advisor*)
- Carlos Pertuz, "Methods and Algorithms for Human Detection in Video Sequences", Florida Atlantic University, 2007. (*advisor*)
- Alvaro Fonseca, "A Study on Implementing Autonomous Video Surveillance Systems Based on Optical Flow Concept", Florida Atlantic University, 2007. (co-advisor with Dr. Hanqi Zhuang)
- Pierre Baillargeon, "A Method for Adding Multimedia Knowledge For Improving Intrusion Detection Systems", Florida Atlantic University, 2005. (*advisor*)
- Xundong Ding, "Web-Based Academic Advising System", Florida Atlantic University, 2002. (co-advisor with Dr. Sam Hsu)
- Fabio Costa, "Using Color Image Processing Techniques to Improve the Performance of Content-Based Image Retrieval Systems", Florida Atlantic University, 2001. (co-advisor with Dr. Borko Furht)
- Alex Holztratner, "Automatic Routing of Facsimile Messages", CEFET-PR (Curitiba-PR, Brazil), 1993. (co-advisor with Dr. Walter Godoy Junior)
- Marcos Alberto Lopes, "Development of an Optical Character Recognition (OCR) System with Learning Capabilities", CEFET-PR (Curitiba-PR, Brazil), 1992. (*advisor*)

- Carlos Alberto Jayme, “Image Compression Method for Signatures”, CEFET-PR (Curitiba-PR, Brazil), 1992. (co-advisor with Dr. Walter Godoy Junior)
- Cion Cassiano Basso, “Computerized Numerical Control (CNC) for Printed Circuit Board (PCB) Drilling Machines”, CEFET-PR (Curitiba-PR, Brazil), 1992. (co-advisor with Dr. Altamiro Amadeu Suzim)


## Research funding

Recently funded research grants are listed below.

Date	Project Title	Sponsor	Role	Total amount
2017-2018	<i>Cross Disciplinary/Inter-Generational "Technology Translation Teams (T3's)"</i>	Farris Foundation	Co-PI	US\$ 100,000.00
2017-2018	<i>Multi-channel real-time video enhancement</i>	NSF Industry/University Cooperative Research Center for Advanced Knowledge Enablement (CAKE)	Co-PI	US\$ 30,000.00
2016-2017	<i>Medical image analysis using deep learning techniques</i>	NSF Industry/University Cooperative Research Center for Advanced Knowledge Enablement (CAKE)	Principal Investigator (PI)	US\$ 59,734.00
2016-2017	<i>Amazon AWS Cloud Credits for Research: Melanoma detection using deep learning</i>	Amazon Web Services	PI	US\$ 2,000.00 (in computing time)
2015-2020	<i>NSF Industry/University Cooperative Research Center for Advanced Knowledge Enablement (CAKE) – Phase II</i>	NSF	Co-PI	US\$ 225,000.00
2015-2016	<i>Fast Violence Detection in Surveillance Scenes</i>	NSF CAKE	Co-PI	US\$ 86,840.00
2015-2016	<i>Multimedia – Image Analysis and Processing</i>	NSF CAKE	Co-PI	US\$ 25,000.00
2013	<i>Algorithms for Identifying Abnormal Behavior of Drivers</i>	NSF CAKE	PI	US\$ 12,627.22

Date	Project Title	Sponsor	Role	Total amount
2010-2011	<i>Target identification and image analysis techniques for detecting large sea animals from aerial surveys</i>	FAU's Southeast National Marine Renewable Energy Center (SNMREC)	Senior Researcher	US\$ 158,676.94
2006-2007	<i>Coastline Security Technologies</i>	U.S. Office of Naval Research (ONR)	Co-PI	US\$ 232,552.00
2005-2006	<i>Coastline Security Technologies</i>	U.S. Office of Naval Research (ONR)	Co-PI	US\$ 276,022.00
2005-2006	<i>Intrusion Detection Systems and Secure Multimedia Communications</i>	U.S. Department of Defense (DoD)	Co-PI	US\$ 60,414.00




## Instructional Experience (selected courses at FAU, 1999-present)

New courses, developed by Dr. Marques, are marked with an (\*). Courses indicated with  are also available *fully online*.

### Graduate-Level Courses (9)

- Cutting-Edge Web Technologies (\*)
- Digital Image Processing (\*)
- Foundations of Vision (\*)
- Information Security Management 
- iOS Programming (\*) (co-developed with Jeremy Jacob)
- Machine Learning for Computer Vision (\*)
- Mobile Apps for Business (\*)
- Video Processing
- Visual Information Retrieval (\*)

### Undergraduate-Level Courses (17)

- Cutting-Edge Web Technologies (\*)
- Data Structures & Algorithms
- Digital Image Processing (\*)
- Foundations of Computer Science
- Introduction to Artificial Intelligence 

- Introduction to Data Communications
- Introduction to Internet Computing 📖 [Quality Matters (QM) Certified]
- Introduction to Microprocessor-Based Systems
- Introduction to Programming in 'C'
- Introduction to the Internet (\*)
- iOS Programming (\*) (co-developed with Jeremy Jacob)
- Leadership Development Workshop (\*) (co-developed with Edgar An)
- Logic Design
- Mobile Apps for Business (\*)
- Principles of Software Engineering
- Senior Seminar
- Web Services (\*) 📖

### Academic visits (selected)

- *Alpen-Adria Universität Klagenfurt*, Klagenfurt, Austria, May 2017, Host: Prof. Dr. Laszlo Böszörményi
  - Invited guest graduate-level course: “Medical Image Analysis Using Deep Learning”
  - Colloquium: “Advances and Challenges in Vision Science”
- *Technische Universität Wien*, Vienna, Austria, April-May 2017, Host: Prof. Dr. Christian Breiteneder
  - Invited guest graduate-level course: “Advances and Challenges in Vision Science”
  - Public lecture: “Can you trust what you see? The magic of visual perception”
- *Alpen-Adria Universität Klagenfurt*, Klagenfurt, Austria, May 2016, Host: Prof. Dr. Laszlo Böszörményi
  - Colloquium: “Can you trust what you see? The magic of visual perception”
- *Alpen-Adria Universität Klagenfurt*, Klagenfurt, Austria, May 2013, Host: Prof. Dr. Laszlo Böszörményi
  - Invited guest graduate-level course: “Machine Learning for Computer Vision”
  - Colloquium: “Using games to improve computer vision solutions”
- UTFPR, Curitiba-PR, Brazil, May/June 2012, Host: Prof. Dr. Humberto R. Gamba
  - Invited guest graduate-level course: “Machine Learning for Computer Vision”
  - Invited talk: “Image retrieval: challenges and opportunities”

- *Universitat Politècnica de Catalunya (UPC)*, Barcelona, Spain, March 2012, Host: Prof. Dr. Ferran Marqués
  - Invited talk: “Mobile Visual Search”
- ENSEEIHT Engineering School, University of Toulouse, France, February/March 2012, Host: Prof. Dr. Vincent Charvillat
- *Alpen-Adria Universität Klagenfurt*, Klagenfurt, Austria, January 2012, Host: Prof. Dr. Laszlo Böszörményi
  - Invited guest graduate-level course: “Digital Image Processing Using MATLAB”
  - Colloquium: “Mobile Visual Search”
- *Alpen-Adria Universität Klagenfurt*, Klagenfurt, Austria, June 2010, Host: Prof. Dr. Laszlo Böszörményi
  - Invited guest graduate-level course: “Digital Image Processing Using MATLAB”
  - Colloquium: “Recent Advances in Visual Information Retrieval”
- ENSEEIHT Engineering School, University of Toulouse, France, May 2010, Host: Prof. Dr. Vincent Charvillat
- *Universidade Federal de Goiás (UFG)*, Goiania, Brazil, March 2010, Host: Prof. Dr. Leandro Luis Galdino de Oliveira
  - Invited guest graduate-level course: “Digital Image Processing Using Java and ImageJ”
  - Invited talk: “Promising avenues for interdisciplinary research in vision”
- *Alpen-Adria Universität Klagenfurt*, Klagenfurt, Austria, June 2009, Host: Prof. Dr. Laszlo Böszörményi
  - Invited guest graduate-level course: “Visual Information Retrieval”
  - Colloquium: “Promising avenues for interdisciplinary research in vision”
- UTFPR, Curitiba-PR, Brazil, July 2008, Host: Prof. Dr. Humberto R. Gamba
  - Invited guest graduate-level course: “Visual Information Retrieval”
  - Invited talk: “Visual Information Retrieval”
- *Alpen-Adria Universität Klagenfurt*, Klagenfurt, Austria, May/June 2008, Host: Prof. Dr. Laszlo Böszörményi
  - Invited guest graduate-level course: “Visual Information Retrieval”
  - Colloquium: “Image retrieval using computational models of visual attention”

## Keynotes / Plenary Talks

- Plenary talk: "Inspiring Actions for Successful Engineering Education", Fourth IEEE International Conference on MOOCs, Innovation and Technology in Education (MITE 2016), Madurai, India, December 2016.



- Overview talk: “Using Games to Solve Challenging Multimedia Problems”, ACM Multimedia Systems 2016 Conference – Klagenfurt am Wörthersee, Austria, May 2016.
- Keynote speech: “Visual Information Retrieval: Advances, Challenges and Opportunities”, 4<sup>th</sup> International Conference on Advances in Computing, Communications and Informatics (ICACCI) – Kochi, India, Aug 2015.
- Keynote speech: “Advances and Challenges in Visual Information Search and Retrieval”, 8<sup>th</sup> Brazilian Computer Vision Workshop (WVC 2012) – Goiania-GO, Brazil, May 2012.
- Keynote speaker, III Enditec Technological Workshop, UTFPR, Medianeira-PR, Brazil, November 2006.

### Tutorials and short courses (selected)

- Tutorial: “Medical image analysis using deep learning”, *IEEE 7th International Conference on Image Processing Theory, Tools and Applications (IPTA 2017)*, Montreal, Canada, Nov 28 – Dec 1, 2017. (*upcoming*)
- Tutorial: “Medical image analysis using deep learning”, *IASTED International Conference on Biomedical Engineering*, Innsbruck, Austria, February 2017.
- Workshop: “Image processing using MATLAB”, Thiagarajar College of Engineering (TCE), Madurai, India, December 2016.
- 4-lecture series: “Innovative Technologies for Everyday Life”, Lifelong Learning Society (LLS), Florida Atlantic University, Jan-Feb 2016.
- 4-lecture series: “Social Media and Smartphones”, Lifelong Learning Society (LLS), Florida Atlantic University, October 2014.
- Mini-course: “Image Processing and Computer Vision in iPhone and iPad”, 7<sup>th</sup> Brazilian Computer Vision Workshop (WVC 2011), Curitiba-PR, Brazil, May 2011.
- Tutorial: “Advances in Image Search and Retrieval”, *IASTED International Conference on Internet and Multimedia Systems and Applications (IMSA) 2011*, Washington, DC, May 2011.
- Tutorial: “Visual Information Retrieval”, *IASTED International Conference on Internet and Multimedia Systems and Applications (EuroIMSA) 2008*, March 2008, Innsbruck, Austria.
- Short course: “Visual Information Retrieval”, CEFET-PR, Curitiba-PR, Brazil, July 2003.
- Tutorial: “Video Databases: design and applications”, *IASTED International Conference on Databases and Applications*, Innsbruck, Austria, February 2003.

### Other Invited Lectures and Presentations (selected)

- Lecture: “Visual intelligence: learning how to sharpen our perception of the world”, Lifelong Learning Society (LLS), Florida Atlantic University, December 2017. (*upcoming*)
- Lecture: “Face recognition by humans and computers”, St. Andrews Estates, Boca Raton, September 2017. (*upcoming*)

- Invited talk: "Using games to solve challenging multimedia problems," U.S. Army Corps of Engineers Engineering Research and Development Center (ERDC), Vicksburg, MS, June 2017.
- Invited talk: "Machine Learning and Applications", Indian Institute of Information Technology and Management, Kerala (IIITM-K), Trivandrum, India, December 2016.
- Lecture: "Face recognition by humans and computers", Lifelong Learning Society (LLS), Florida Atlantic University, November 2016.
- Lecture: "Visual intelligence: learning how to sharpen our perception of the world", St. Andrews Estates, Boca Raton, October 2016.
- Lecture: "Can you trust what you see? The magic of visual perception", St. Andrews Estates, Boca Raton, August 2016.
- Invited talk: "Intelligence Processing of Visual Information: Research Overview", University of North Carolina, Charlotte-NC, August 2016.
- Lecture: "Can you trust what you see? The magic of visual perception", Edgewater Pointe Estates, Boca Raton, July 2016.
- Lecture: "Can you trust what you see? The magic of visual perception", West Boca Medical Center Annual Staff Meeting, Boca Raton, May 2016.
- Lecture: "Can you believe your eyes? What visual illusions can teach us about our brains", Lifelong Learning Society (LLS), Florida Atlantic University, March 2016.
- Lecture: "Can you trust what you see? The magic of visual perception", Lifelong Learning Society (LLS), Florida Atlantic University, December 2015.
- Invited talk: "Promoting Digital Fluency on Campus", *Teaching with Technology Showcase*, Florida Atlantic University, Jupiter-FL, April 2015.
- Invited talk: "Image Processing and Computer Vision in iOS", iOS Day, *Universidade Federal do Triângulo Mineiro (UFMG)*, Uberaba, Brazil, December 2013.
- Dinner speech: "Adventures in Visual Perception", MMM 2012, Klagenfurt, Austria, January 2012.
- Invited talk: "Image search and retrieval: where are we now?", Delft University of Technology, Delft, the Netherlands, October 2010.
- Invited talk: "20 years of adventure in image processing: it all started here!", PEIAA "Sharing Experiences" @ 50+ Years of PII Conference, Eindhoven University of Technology, Eindhoven, the Netherlands, September 2010.
- Invited talk: "Promising avenues for interdisciplinary research in vision", *Universidade Estadual de Campinas (UNICAMP)*, Campinas, Brazil, March 2010.
- Invited talk: "Image organization, annotation, and retrieval from a human-centered perspective", MIMOS, Kuala Lumpur, Malaysia, July 2008.
- Invited talk: "The role of semantics in multimedia information retrieval", MIMOS, Kuala Lumpur, Malaysia, July 2008.
- Invited talk: "Visual Information Retrieval: challenges and opportunities", MIMOS, Kuala Lumpur, Malaysia, July 2008.

- Invited talk: “Image organization, annotation, and retrieval from a human-centered perspective”, TU Graz, Graz, Austria, May 2008.
- Guest Lecturer: “Content-Based Multimedia Search and Retrieval”, *IEEE Computer Society*, Boca Raton-FL, November 2001.

### Professional Service (selected)

- Reviewer for science and technology funding agencies, including:
  - Austrian Science Fund (FWF)
  - Hong Kong’s Innovation and Technology Commission
  - Netherlands Organisation for Scientific Research (NWO)
- Reviewer for scientific journals, including:
  - *ACM Transactions on Multimedia Computing Communications and Applications*
  - *EURASIP Journal on Image and Video Processing*
  - *IEEE Transactions on Circuits and Systems for Video Technology*
  - *IEEE Transactions on Image Processing*
  - *IEEE Transactions on Multimedia*
  - *IEEE Transactions on Systems, Man and Cybernetics*
  - *Journal of Sensors and Sensor Systems*
  - *Multimedia Tools and Applications*
  - *Pattern Recognition*

### Conference / Workshop Organization (selected)

- Technical Program Committee Member and Reviewer, *IEEE 7th International Conference on Image Processing Theory, Tools and Applications (IPTA 2017)*, Montreal, Canada, Nov 28 – Dec 1, 2017.
- Reviewer, 6<sup>th</sup> International Conference on Advances in Computing, Communications and Informatics (ICACCI), Manipal University, Karnataka, India, September 13-16, 2017.
- General Chair, Fourth International Symposium on Computer Vision and the Internet (VisionNet’17), Manipal University, Karnataka, India, September 13-16, 2017.
- Reviewer, Medical Image Computing and Computer Assisted Intervention (MICCAI) 2017, Sep 10-14, 2017, Quebec, Canada.
- International Program Committee Member, First IEEE International Conference on Advanced Computational and Communication Paradigms (ICACCP), Majitar, India, September 8-10, 2017.
- Technical Program Committee Member and Reviewer, *ACM Multimedia Systems (MMSys) 2017*, Taipei, Taiwan, June 20-23, 2017.

- Reviewer, Program Committee Member, and Liaison for the Americas, International Workshop on Content-Based Multimedia Indexing (CBMI 2017), Firenze, Italy, June 19-21, 2017.
- Reviewer and Program Committee Member, ACM International Conference on Multimedia Retrieval (ICMR 2017), Bucharest, Romania, June 6-9, 2017.
- Program Chair, Third International Symposium on Computer Vision and the Internet (VisionNet'16), Jaipur, India, September 2016.
- Steering Committee Member, International Conference on Applied Soft Computing and Communication Networks (ACN), Jaipur, India, September 2016.
- Steering Committee Member, 5<sup>th</sup> International Conference on Advances in Computing, Communications and Informatics (ICACCI), Jaipur, India, September 2016.
- Reviewer and Program Committee Member, 14<sup>th</sup> International Workshop on Content-Based Multimedia Indexing (CBMI 2016), Bucharest, Romania, June 2016.
- Reviewer, *IEEE SoutheastCon* 2016, Norfolk, VA, March-April 2016.
- Technical Program Committee Member, 8<sup>th</sup> International Conferences on Advances in Multimedia (MMEDIA 2016), Lisbon, Portugal, February 21 - 25, 2016
- Advisory Committee Member, 2<sup>nd</sup> International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS'15), Trivandrum, India, December 2015.
- Reviewer and Program Committee Member, 13<sup>th</sup> International Workshop on Content-Based Multimedia Indexing, Prague, Czech Republic, June 2015.
- Reviewer, *IEEE SoutheastCon* 2015, Fort Lauderdale, FL, April 2015.
- Co-chair for the Doctoral Symposium, ACM International Conference on Multimedia 2014 (Orlando, FL, November 2014).
- Reviewer and Program Committee Member, 10<sup>th</sup> Brazilian Computer Vision Workshop (WVC 2014), Uberlandia, Brazil, October 2014.
- Reviewer and Program Committee Member, 12<sup>th</sup> International Workshop on Content-Based Multimedia Indexing, Klagenfurt, Austria, June 2014.
- Reviewer and Program Committee Member, 2<sup>nd</sup> International Workshop on Interactive Content Consumption (WSICC), co-located with TVX 2014 (ACM International Conference on Interactive Experiences for TV and Online Video), Newcastle upon Tyne, UK, June 2014.
- US Liaison and Technical Program Committee Member, 18<sup>th</sup> International Conference on MultiMedia Modeling (MMM 2012), Klagenfurt, Austria, January 4-6, 2012.
- Technical Program Committee Member, 1<sup>st</sup> Workshop on Multimedia on the Web (MMWeb 2011), in conjunction with i-Know and i-Semantics 2011, 8<sup>th</sup> Sept.2011, Graz, Austria.
- Technical Program Committee Member, 12<sup>th</sup> International Workshop of the Multimedia Metadata Community on Semantic Multimedia Database Technologies (SMDT2010), co-located with the *5<sup>th</sup> International Conference on Semantic and Digital Media Technologies (SAMT 2010)* (Saarbrücken, Germany, December 2010).
- Technical Program Committee Member, 4<sup>th</sup> International Conference on Multimedia and Ubiquitous Engineering (MUE 2010) (Redwood City, San Francisco Bay, CA, USA, June 2010).

- Program Committee Member, special track on "Self-organizing multimedia architectures", 2<sup>nd</sup> International Conference on Advances in Multimedia (MMEDIA 2010) (Athens, Greece, June 13-19, 2010).
- Technical Program Committee Member, Workshop on Interoperable Social Media Applications (WISMA 2010), 11<sup>th</sup> International Workshop of the Multimedia Metadata Community, Barcelona (Spain), May 19-21, 2010.
- Member of the International Advisory Board, 4<sup>th</sup> International Technology, Education and Development Conference (INTED2010), Valencia (Spain), March 8-10, 2010.
- Technical Program Committee Member, SeMuDaTe2009 (Workshop on Semantic Multimedia Database Technologies), 10<sup>th</sup> Workshop of the Multimedia Metadata Community, co-located with the 4<sup>th</sup> International Conference on Semantic and Digital Media Technologies (Graz, Austria, December 2009).
- Program Committee Member, 9<sup>th</sup> Workshop of the Multimedia Metadata Community (with a special focus on context-aware mobile multimedia services), co-located with CORESA'09 (Toulouse, France, March 2009).
- Program Committee Member, workshop on "Integrating Taxonomies and Folksonomies for Enhanced Knowledge Navigation (ITFEKN 2008)", co-located with the 7<sup>th</sup> International Conference on Practical Aspects of Knowledge Management (PAKM) 2008 (Yokohama, Japan, November 2008).
- Program Committee Member, workshop on "Knowledge Discovery and Data Mining From Multimedia Data and Multimedia Applications", held in conjunction with IEEE International Conference on Data Mining (ICDM) 2007 (Omaha, NE, October 2007).
- Program Committee Member, IEEE International Conference on Tools with Artificial Intelligence (ICTAI) 2007 (Patras, Greece, October 2007).
- Program Committee Member, 3<sup>rd</sup> Brazilian Symposium on Information Systems (SBSI 2006) (Curitiba-PR, Brazil, November 2006).
- Program Committee Member, 44<sup>th</sup> ACM Southeast Conference (ACMSE 2006). (Melbourne, FL, March 2006).
- Co-chair, Workshop on Wireless Multimedia, part of the IEEE Sixth International Symposium on Multimedia Software Engineering (Miami, FL, December 2004).
- Program Committee Member, 1<sup>st</sup> ACM Workshop on Next Generation Residential Broadband Challenges (NRBC 2004), part of ACM Multimedia 2004 (New York, NY, October 2004).
- Organizer and co-chair of a special track on *Image and Video Databases* for the ACM SAC 2003 (Melbourne, FL, March 2003).
- Program Committee Member, IASTED Third International Conference on Internet and Multimedia Systems and Applications (IMSA), Nassau, Bahamas, October 1999.
- Program Committee Member, IEEE International Conference on Multimedia Computing and Systems, Florence (Italy), 1999.

## PhD committees

- PhD committee member for Mr. Robert Fennell, "*Biological imaging, detection and processing*", Advisor: Dr. Waseem Ashgar, Department of Computer & Electrical Engineering and Computer Science, FAU (*in progress*).
- PhD committee member for Ms. Deepti Pappusetty, "*Human visual perception and video processing*", Advisor: Dr. Hari Kalva, Department of Computer & Electrical Engineering and Computer Science, FAU (*in progress*).
- External reviewer for the PhD thesis of Mr. Khurram Zeeshan Haider, "*Intelligent Gender Identification Using Diverse Facial Features in Different Conditions*", Advisor: Dr. Tabassam Nawaz, University of Engineering and Technology Taxila, Pakistan (2017).
- External reviewer for the PhD thesis of Mr. Zahid Mehmood, "*An Intelligent Sparse Visual Feature Descriptors for Content Based Image Retrieval*", Advisor: Syed Muhammad Anwar, University of Engineering and Technology Taxila, Pakistan (2016).
- External reviewer for the PhD thesis of Mr. Toqeer Mehmood, "*Forgery Detection in Digital Images Using Computational Intelligence*", Advisor: Dr. Tabassam Nawaz, University of Engineering and Technology Taxila, Pakistan (2016).
- External reviewer and PhD committee member for Mr. Derrick Schlangen, "*The role of peripheral vision in building scene representations*", Advisor: Dr. Elan Barenholtz, Department of Psychology, FAU (2016).
- External reviewer for the PhD thesis of Mr. Nouman Ali, "*Image Retrieval Using Visual Image Features and Automatic Image Annotation*", Advisor: Dr. Khalid Bashir Bajwa, University of Engineering and Technology Taxila, Pakistan (2016).
- External reviewer and PhD committee member for Mr. Nicolas Bertrand, "*Content Delivery Network for Digital Cinema*", Advisor: Dr. Jean-Denis Durou, ENSEEIHT Engineering School, University of Toulouse, France (2015).
- PhD committee member for Mr. Diego Pava, "*Transmitter-receiver system for time average Fourier telescopy*", Advisor: Dr. William T. Rhodes, Department of Computer & Electrical Engineering and Computer Science, FAU (2014).
- President of the jury and external reviewer for Mr. Axel Carlier, "*Combining content analysis with usage analysis to better understand visual contents*", Advisor: Dr. Vincent Charvillat, ENSEEIHT Engineering School, University of Toulouse, France (2014).
- PhD committee member for Mr. Branko Petljanski, "*Image Improvement Using Dynamic Optical Low-Pass Filter*", Advisors: Dr. Borko Furht and Dr. William T. Rhodes, Department of Computer & Electrical Engineering and Computer Science, FAU (2010).
- External reviewer and PhD committee member for Mr. Klaus Schöffmann, "*Immediate Video Exploration: Enabling Explorative Search in Videos for Instantaneous Use by Fast Content Analysis and Integration of Users' Expertise*", Advisor: Dr. Laszlo Böszörményi, ITEC, Klagenfurt University, Klagenfurt, Austria (2009).
- External reviewer and PhD committee member for Ms. Milica Milosavljevic, "*The effects of preattention in an online advertising context: a neuroscience perspective*", Advisor: Dr. Eric H. Shaw, Department of Marketing, FAU (2007).

- External reviewer and PhD committee member for Mr. David Nichols, "*Interaction between surface-based and edge-based motion mechanisms in the perception of apparent motion*", Advisor: Dr. Howard Hock, Department of Psychology, FAU (2006).
- PhD committee member for Mr. Daniel Socek, "*Permutation-Based Transformations for Digital Multimedia Encryption and Steganography*", Advisor: Dr. Boriko Furht, Department of Computer Science and Engineering, FAU (2006).
- PhD committee member for Mr. Praveen Sanigepalli, "*Innovative Video Error Resilient Techniques for MBMS Systems*", Advisor: Dr. Hari Kalva, Department of Computer Science and Engineering, FAU (2005).

## Service to the Institution (since 1999)

### Department

- Executive Committee (2003-2005 and 2009-present)
- Undergraduate CS Program Committee (2008-2009, 2013-present (*Chair*))
- Library Liaison (2007-2011 and 2012-present)
- Instructor Search Committee (2017)
- Personnel Committee (2009-2010 and 2013-2016)
- Undergraduate CE Program Committee (2001-2002 and 2013-2015)
- Associate Chair (2009-2014)
- ABET Coordinator for Computer Engineering (2012-2014)
- Class Scheduling Committee (2009-2014)
- TA/GA Committee (2002-2008 and 2009-2011 and 2012-2013)
- Research Committee (2009-2011)
- Student Affairs Committee (2009-2010)
- Coordinator of the CSE PhD Qualifying Exam (2006-2009)
- Academic advisor for CSE graduate students with minor in Business (2006-2009)
- Graduate Programs Committee (2002-2009)
- Internet Technology MS Committee (2001-2002)

### College

- CP&D Committee (2015-present)
- Undergraduate Program Committee (2012-2013, 2014-2015, and 2016-present)
- Petitions Committee (2012-2015)
- Innovation Leadership Program Committee (2012-2014)
- Research Committee (2008-2011)

- Faculty co-advisor for the FAU Beta Chapter of the *Upsilon Pi Epsilon* (UPE) (2004 – 2011)
- Personnel Committee (2009-2010)
- Faculty advisor for the FAU Chapter of the *Society of Hispanic Professional Engineers* (SHPE) (2001-2008)

## University

- Mindfulness Working Group (under the *Peace, Justice, and Human Rights* initiative – Office of the Provost) (2017-present)
- Hispanic-serving Institutions (HSI) Research Interest Group (under the *Division of Research*) (2017-present)
- Canvas Governance Committee (under the *Office of Information Technology*) (2016–present)
- University Faculty Senate (UFS) Library Advisory Committee (2012-present)
- Center for eLearning (CeL) Advisory Board Committee (2011-present)
- OIT (Office of Information Technology) (formerly, IRM – Information Resource Management) Advisory Committee (2009-2011 and 2015-present)
- Academic Committee of the *Judaica Sound Archives* at Florida Atlantic University Libraries (JSA) (2004 – 2011)
- President's Office eLearning Committee and Taskforce (2010)
- OIT (Office of Information Technology) (formerly, IRM – Information Resource Management), Instructional Designer Search Committee (2010)
- College of Arts & Letters, School of Communication and Multimedia Studies, Faculty Search Committee (2008-2009 and 2009-2010)
- University Faculty Senate (UFS) Distance Education Committee (2009-2010)
- University Faculty Senate: Senator (*elected*) (2006-2008)
- Coordinator of the International Cooperation Agreement between FAU and UTFPR (Brazil) (1999 – 2008)

## Editorial Activities

- Editor-in-Chief (with Borko Furht), *Encyclopedia of Multimedia*, 3<sup>rd</sup> ed. Springer, 2017.
- Editorial Board member of the journal *Multimedia Tools and Applications*, Springer.
- Associate Editor, *SET International Journal of Broadcast Engineering*, Brazilian Society of Television Engineering.
- Guest Co-Editor, Special issue on Wireless Multimedia, *Multimedia Tools and Applications*, Springer, Volume 28, Number 1, February 2006.



## Publications (selected, 1998 - present)

**Summary: one patent, 9 books, 20+ refereed international journal publications, 70+ refereed papers in scientific conferences**, and several book chapters, invited papers, and other publications.

Publications reflect collaborations with different teams of authors/editors and have led to **1927 citations**, an **h-index of 22**, and a **i10-index of 37** (source: *Google Scholar*, last update: July 31, 2017).

### Patent (issued)

- **O. Marques**, L.M. Mayron, and G.B. Borba, "System and Methods of Image Retrieval", Apr. 26 2011. US Patent 7,933,452.

### Books (12)

1. **O. Marques** and H. Vieira Neto, "Processamento Digital de Imagens" ("Digital Image Processing") (*in Portuguese*), *Editora Brasport*, Rio de Janeiro, Brazil, 1999.
2. **O. Marques** and B. Furht, "Content-Based Image and Video Retrieval", *Kluwer Academic Publishers*, Norwell, MA, 2002.
3. B. Furht and **O. Marques** (editors), "Handbook of Video Databases", *CRC Press*, Boca Raton, FL, 2004.
4. **O. Marques**, "Practical Image and Video Processing Using MATLAB®", *Wiley-IEEE Press*, New York, NY, 2011.
5. M. Lux and **O. Marques**, "Visual Information Retrieval Using Java and LIRE", *Morgan & Claypool*, 2013.
6. **O. Marques**, "Practical Image and Video Processing Using MATLAB" (*in Chinese*), *Tsinghua University Press / John Wiley & Sons*, 2013.
7. A. Colic, **O. Marques**, and B. Furht, "Driver Drowsiness Detection Systems and Solutions", Springer, 2014.
8. J. Gibson and **O. Marques**, "Optical Flow and Trajectory Estimation Methods", Springer, 2016.
9. **O. Marques**, "Innovative Technologies in Everyday Life", Springer, 2016.
10. **O. Marques**, "Image Processing and Computer Vision for iOS", Springer, 2017 (*to appear*).
11. B. Furht and **O. Marques** (editors), "Encyclopedia of Multimedia", 3<sup>rd</sup> edition, Springer, 2018 (*to appear*).
12. **O. Marques**, "Computer Vision and Image Processing Recipes Using MATLAB®" (*in preparation*).

### Refereed Journal Papers (26)

1. S. Hsu, **O. Marques**, M.K. Hamza, and B. Alhalabi, "How to Design a Virtual Classroom: 10 Easy Steps to Follow!", *Technological Horizons in Education (T.H.E.) Journal*, Vol. 27, No. 2, pp. 96-109, September 1999.

2. **O. Marques** and B. Furht, "MUSE: A Content-Based Image Search and Retrieval System Using Relevance Feedback," *Multimedia Tools and Applications*, Kluwer Academic Publishers, Vol. 17, No. 1, pp. 21-50, May 2002.
3. B. Satterwhite and **O. Marques**, "Automatic Detection of Television Commercials", *IEEE Potentials*, Vol. 23, No. 2, pp. 9-12, April/May 2004.
4. **O. Marques** and L.M. Mayron, "How Can the Semantic Web Improve the Acquisition and Sharing of Knowledge?", *International Journal of Technology, Knowledge and Society*, Vol. 2, Issue 3, pp. 129-142, 2006.
5. **O. Marques**, L.M. Mayron, G.B. Borba, and H.R. Gamba, "An attention-driven model for grouping similar images with image retrieval applications", *EURASIP Journal on Advances in Signal Processing*, Special Issue on Image Perception, Vol. 2007, Article ID 43450, 17 pages, 2007.
6. **O. Marques** and P. Baillargeon, "Design of a multimedia traffic classifier for Snort", *Information Management & Computer Security*, Vol. 15, issue 3, pp. 241-256, 2007.
7. D. Socek, H. Kalva, S.S. Magliveras, **O. Marques**, D. Culibrk, and B. Furht, "New Approaches to Encryption and Steganography for Digital Videos", *Springer ACM Multimedia Systems Journal*, Vol. 13, No. 3, pp. 191-204, 2007.
8. D. Culibrk, **O. Marques**, D. Socek, H. Kalva, and B. Furht, "Neural Network Approach to Background Modeling for Video Object Segmentation", *IEEE Transactions on Neural Networks*, Vol. 18, No. 6, pp. 1614-1627, November 2007.
9. D. Socek, S.S. Magliveras, D. Culibrk, **O. Marques**, H. Kalva and B. Furht, "Digital Video Encryption Algorithms Based on Correlation-Preserving Permutations", *EURASIP Journal on Information Security*, Volume 2007, Article ID 52965, 15 pages, DOI:10.1155/2007/52965.
10. M. Lux, **O. Marques**, K. Schöffmann, L. Böszörményi, G. Lajtai, "A Novel Tool for Summarization of Arthroscopic Videos", *Multimedia Tools and Applications*, 2009, DOI: 10.1007/s11042-009-0353-1.
11. K. Schöffmann, F. Hopfgartner, **O. Marques**, L. Böszörményi, and J.M. Jose, "A Review on Video Browsing Interfaces and Applications", *SPIE Reviews* 1, 018004 (2010), DOI: 10.1117/6.0000005.
12. M. Lux, A. Pitman, and **O. Marques**, "Can Global Visual Features Improve Tag Recommendation for Image Annotation?", *Future Internet Journal* 2010, 2(3), 341-362; DOI:10.3390/fi2030341
13. L. Böszörményi, M. del Fabro, M. Kogler, M. Lux, **O. Marques**, and A. Sobe, "Innovative directions in self-organized distributed multimedia systems", *Multimedia Tools and Applications*, 2010, DOI: 10.1007/s11042-010-0622-z.
14. **O. Marques**, E. Barenholtz, and V. Charvillat, "Context modeling in computer vision: techniques, implications, and applications", *Multimedia Tools and Applications*, 2010, DOI: 10.1007/s11042-010-0631-y.
15. A. Marcus and **O. Marques**, "An Eye on Visual Sensor Networks", *IEEE Potentials*, April 2012, 31(2), 38-43, DOI: 10.1109/MPOT.2011.2178279.
16. S. Chatzichristofis, C. Iakovidou, Y. Boutalis, and **O. Marques**, "Co.Vi.Wo.: Color Visual Words Based on Nonpredefined Size Codebooks", *IEEE Transactions on Systems, Man, and Cybernetics. Part B, Cybernetics*, July 2012, DOI: 10.1109/TSMCB.2012.2203300

17. S. Chatzichristofis, L. Bampis, **O. Marques**, M. Lux, and Y. Boutalis. "Image Encryption using the Recursive Attributes of the eXclusive-OR Filter", *Journal of Cellular Automata*, Volume 9, Issue 2-3, 2014, pp 125–137.
18. A. Carlier, A. Salvador, X. Giro-i-Nieto, V. Charvillat, and **O. Marques**, "Assessment of Crowdsourcing and Gamification Loss in User-Assisted Object Segmentation". *Multimedia Tools and Applications*, September 2015, DOI: 10.1007/s11042-015-2897-6.
19. J. Gibson and **O. Marques**, "Sparsity in Optical Flow and Trajectories", *Signal, Image and Video Processing*, March 2016, Volume 10, Issue 3, pp 487-494.
20. B. Stojanović, A. Nešković and **O. Marques**, "A novel neural network based approach to latent overlapped fingerprints separation". *Multimedia Tools and Applications*, June 2016, DOI: 10.1007/s11042-016-3696-4
21. B. Stojanović, **O. Marques** and A. Nešković, "Latent overlapped fingerprint separation: a review". *Multimedia Tools and Applications* (2016). DOI:10.1007/s11042-016-3908-y
22. M. Taschwer and **O. Marques**, "Automatic Separation of Compound Figures in Scientific Articles". *Multimedia Tools and Applications* (2016). DOI: 10.1007/s11042-016-4237-x
23. C. Lagger, M. Lux, and **O. Marques**. "What Makes People Watch Online Videos: An Exploratory Study". *ACM Comput. Entertain.* 15, 2, Article 6 (April 2017), 31 pages. DOI: <https://doi.org/10.1145/3034706>.
24. S. S. Barpanda, P.K. Sa, **O. Marques**, B. Majhi, and S. Bakshi, "Iris Recognition with Tunable Filter Bank Based Feature", *Multimedia Tools and Applications* (2017). DOI: 10.1007/s11042-017-4668-z
25. B. Stojanović, **O. Marques**, and A. Nešković, "A novel deep learning based approach to latent overlapped fingerprints mask segmentation" (*under review*)
26. J. Burdick, **O. Marques**, J. Weinthal, A. Lovett, and B. Furht, "Rethinking Skin Lesion Segmentation in a Convolutional Classifier" (*under review*)

### Refereed Conference Proceedings (74)

1. **O. Marques**, J. Woodbury, S. Hsu, and S. Charitos, "Design and Development of a Hybrid Instruction Model for a New Teaching Paradigm", Proc. of the 1998 ASEE/IEEE Frontiers in Education Conference (FIE '98), November 4-7, 1998, Tempe, Arizona.
2. **O. Marques**, S. Hsu, and N. Sharda, "Virtual Office Hours Using Microsoft® NetMeeting™", Proc. of the World Multiconference on Systems, Cybernetics and Informatics (SCI'99 / ISAS'99), July 17-21, 1999, Orlando, Florida.
3. **O. Marques** and S. Hsu, "Assessing the Feasibility of Using Microsoft® NetMeeting™ in Distance Education", Proc. of the International Conference on Engineering and Computer Education (ICECE'99), August 11-14, 1999, Rio de Janeiro, Brazil.
4. **O. Marques** and B. Furht, "Issues in Designing Contemporary Video Database Systems", Proc. of the Third IASTED Conference on Internet and Multimedia Systems and Applications (IMSA), October 18-21, 1999, Nassau, Bahamas.
5. **O. Marques**, F.M. Costa, and B. Furht, "Content-Based Image Search and Retrieval Using Relevance Feedback: the MUSE Project", Proc. of the Fourth IASTED Conference on Internet and Multimedia Systems and Applications (IMSA), November 19-23, 2000, Las Vegas, Nevada.

6. **O. Marques**, S. Hsu, and X. Ding, "Design and Development of a Web-based System for Academic Advising", Proc. of the 2001 ASEE/IEEE Frontiers in Education Conference (FIE '2001), October 10-13, 2001, Reno, Nevada.
7. **O. Marques** and B. Furht, "Combining Clustering and Relevance Feedback Techniques in Content-Based Image Retrieval", Proc. of the IASTED International Conference on Internet and Multimedia Systems and Applications (IMSA 2002), August 12-14, 2002, Kauai, Hawaii.
8. F.M. Costa, **O. Marques**, and B. Furht, "Improving the Performance of Content-Based Image Retrieval Systems with Color Image Processing Tools", Proc. of the IASTED International Conference on Signal and Image Processing (SIP 2002), August 12-14, 2002, Kauai, Hawaii.
9. S. Hsu, **O. Marques**, M. Ilyas, and X. Ding, "Web-Based Undergraduate Academic Advising System", Proc. of the International Conference on Engineering Education 2002, August 18 - 22, 2002, Manchester, UK.
10. B. Furht, K. Gustafson, H. Huang, and **O. Marques**, "An Adaptive Three-Dimensional DCT Compression Based on Motion Analysis", ACM SAC 2003, March 9-12, 2003, Melbourne, FL.
11. V. Nedovic, C. Nelson, S. Bowser, and **O. Marques**, "Delivery of near real-time soccer match highlights to wireless PDA devices", IASTED International Conference on Visualization, Imaging, and Image Processing, September 8-10, 2003, Benalmádena, Spain.
12. **O. Marques** and N. Barman, "Semi-automatic semantic annotation of images using machine learning techniques", International Semantic Web Conference (ISWC) 2003, October 20-23, 2003, Sanibel Island, FL.
13. **O. Marques**, P. Chilamakuri, S. Bowser, and J. Woodworth, "Wireless Multimedia Technologies for Assisted Living", Second LACCEI International Latin American and Caribbean Conference for Engineering and Technology (LACCEI'2004), June 2-4, 2004, Miami, FL.
14. V. Nedovic and **O. Marques**, "A collaborative, long-term learning approach to using relevance feedback in content-based image retrieval systems", 47th International Symposium ELMAR-2005, 8-10 June 2005, Zadar, Croatia.
15. **O. Marques** and P. Baillargeon, "A Multimedia Traffic Classification Scheme for Intrusion Detection Systems", IEEE International Conference on Information Technology and Applications (ICITA'2005), 4-7 July, 2005, Sydney, Australia.
16. B. Petljanski and **O. Marques**, "A Novel Approach for Video Quantization Using the Spatiotemporal Frequency Characteristics of the Human Visual System", British Machine Vision Conference (BMVC'2005), 5-8 September 2005, Oxford, UK.
17. D. Socek, D. Culibrk, **O. Marques**, H. Kalva, and B. Furht, "A Hybrid Color-Based Foreground Object Detection Method for Automated Marine Surveillance", Acivs 2005 (Advanced Concepts for Intelligent Vision Systems) Conference, 20-23 Sept, 2005, Antwerp, Belgium.
18. D. Culibrk, **O. Marques**, D. Socek, H. Kalva, and B. Furht, "A Neural Network Approach to Bayesian Background Modeling for Video Object Segmentation", Visapp 2006 (International Conference on Computer Vision Theory and Applications), 25-28 Feb, 2006, Setubal, Portugal.
19. **O. Marques**, L.M. Mayron, H.R. Gamba, and G.B. Borba, "Using visual attention to extract regions of interest in the context of image retrieval", 44th ACM Southeast Conference (ACMSE2006), Melbourne, FL, USA, March 10-12, 2006.

20. L. Christodoulou, L.M. Mayron, H. Kalva, **O. Marques**, and B. Furht, "Design and Evaluation of 3D Video System Based on H.264 View Coding", International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV 2006), Newport, Rhode Island, May 22–23, 2006.
21. D. Socek, D. Culibrk, H. Kalva, **O. Marques**, and B. Furht, "Permutation-Based Low-Complexity Alternate Coding in Multi-View H.264/AVC", IEEE International Conference on Multimedia & Expo (ICME) 2006, July 9-12, 2006, Toronto, Canada.
22. **O. Marques**, L. Mayron, G. Borba, and H. Gamba, "On the potential of incorporating knowledge of human visual attention into CBIR systems", Special Session on Perceptual Visual Processing, IEEE International Conference on Multimedia & Expo (ICME) 2006, July 9-12, 2006, Toronto, Canada.
23. H. Kalva, L. Christodoulou, L. Mayron, **O. Marques**, and B. Furht, "Challenges and opportunities in video coding for 3D TV ", Special Session on "3-D TV: Primed for Success?", IEEE International Conference on Multimedia & Expo (ICME) 2006, July 9-12, 2006, Toronto, Canada.
24. D. Socek, H. Kalva, S. S. Magliveras, **O. Marques**, D. Culibrk, and B. Furht, "A permutation-based correlation-preserving encryption method for digital videos ", ICIAR 2006 – International Conference on Image Analysis and Recognition, September 18-20, 2006, Póvoa de Varzim, Portugal.
25. D. Socek, M. Sramka, **O. Marques** and D. Culibrk, "An Improvement to a Biometric-Based Multimedia Content Protection Scheme", 8th ACM Multimedia and Security Workshop, September 26-27, 2006, Geneva, Switzerland.
26. L. Christodoulou, L.M. Mayron, H. Kalva, **O. Marques**, and B. Furht, "3D TV Using MPEG-2 and H.264 View Coding and Autostereoscopic Displays", The 2006 ACM Multimedia Conference, October 22-27, 2006, Santa Barbara, CA.
27. G.B. Borba, H.R. Gamba, **O. Marques**, and L.M. Mayron, "An unsupervised method for clustering images based on their salient regions of interest", The 2006 ACM Multimedia Conference, October 22-27, 2006, Santa Barbara, CA.
28. **O. Marques**, P. Auger, and L.M. Mayron, "Assessing contemporary issues in secure video communication systems", International Symposium on System and Information Security (SSI) 2006, November 8-10, 2006, Sao Jose dos Campos, Sao Paulo, Brazil.
29. **O. Marques**, P. Auger, and L.M. Mayron, "SimViKi: a tool for the simulation of secure video communication systems", IASTED International Conference on Communications, Internet, and Information Technology (CIIT) 2006, November 29 - December 1, 2006, St Thomas, US Virgin Islands.
30. L.M. Mayron, G.B. Borba, V. Nedovic, **O. Marques** and H.R. Gamba, "A forward-looking user interface for CBIR and CFIR systems", IEEE International Symposium on Multimedia (ISM2006), December 11-13, 2006, San Diego, CA.
31. L.M. Mayron and **O. Marques**, "Design of a web-based interface for image retrieval", International Conference on Web Information Systems and Technologies (WEBIST), March 3-6, 2007, Barcelona, Spain.
32. D. Culibrk, D. Socek, **O. Marques**, and B. Furht, "Automatic Kernel Width Selection for Neural Network Based Video Object Segmentation", International Conference on Computer Vision Theory and Applications (VISAPP), March 8-11, 2007, Barcelona, Spain.

33. G.B. Borba, H.R. Gamba, L.M. Mayron and **O. Marques** "Integrated global and object-based image retrieval using a multiple examples query schema", International Conference on Computer Vision Theory and Applications (VISAPP), March 8-11, 2007, Barcelona, Spain.
34. **O. Marques**, L.M. Mayron, D. Socek, G.B. Borba and H.R. Gamba, "An attention-based method for extracting salient regions of interest from stereo images", International Conference on Computer Vision Theory and Applications (VISAPP), March 8-11, 2007, Barcelona, Spain.
35. **O. Marques**, A. Fonseca and L.M. Mayron, "An Intelligent Multimedia Traffic Classifier with Security Applications", IEEE SoutheastCon 2007, March 22-25, 2007, Richmond, VA.
36. A. Fonseca, L. Mayron, D. Socek, and **O. Marques**, "Design and implementation of an optical flow-based autonomous video surveillance system", The IASTED International Conference on Internet and Multimedia Systems and Applications (EuroIMSA) 2008, March 17-19, 2008, Innsbruck, Austria.
37. C. Pertuz, L. Mayron, D. Socek, and **O. Marques**, "A model for detecting and tracking humans using appearance, shape, and motion", The IASTED International Conference on Internet and Multimedia Systems and Applications (EuroIMSA) 2008, March 17-19, 2008, Innsbruck, Austria.
38. J. Gibson and **O. Marques**, "Stereo Depth with a Unified Architecture GPU", Workshop on "Computer Vision on GPUs", co-located with IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR) 2008, June 24-26, 2008, Anchorage, Alaska.
39. M. Lux, **O. Marques**, and A. Pitman, "Using Visual Features to Improve Tag Suggestions in Image Sharing Sites", International Workshop on Knowledge Acquisition from the Social Web (KASW'08), co-located with Triple-I 2008, September 3, 2008, Graz, Austria.
40. L. Mayron and **O. Marques**, "Using a game to evaluate image retrieval, organization, and annotation", First ICIP Workshop on "Multimedia Information Retrieval: New Trends and Challenges", co-located with IEEE International Conference on Image Processing (ICIP) 2008, San Diego, California, October 12-15, 2008.
41. **O. Marques** and M. Lux, "An Exploratory Study on Joint Analysis of Visual Classification in Narrow Domains and the Discriminative Power of Tags", Workshop on the Many Faces of Multimedia Semantics, co-located with ACM Multimedia, Vancouver, Canada, 2008.
42. G.B. Borba, H.R. Gamba, L.M. Mayron and **O. Marques**, "Extraction of Salient Regions of Interest Using Visual Attention Models", SPIE Electronic Imaging, San Jose, California, January 2009.
43. M. Lux, K. Schöffmann, **O. Marques**, and L. Böszörményi, "A Novel Tool for Quick Video Summarization using Keyframe Extraction Techniques", 9th Workshop of the Multimedia Metadata Community, co-located with CORESA'09, Toulouse, France, March 2009.
44. **O. Marques**, "A comparative review of contemporary e-learning solutions", International Conference on Education and New Learning Technologies (EDULEARN), Barcelona, Spain, July 2009.
45. **O. Marques**, "Teaching image and video processing with MATLAB", International Conference on Education and New Learning Technologies (EDULEARN), Barcelona, Spain, July 2009.
46. B. Chaudhury, **O. Marques**, G.B. Borba, and H.R. Gamba, "Unsupervised regions of interest extraction based on visual attention and SIFT", The IASTED International Conference on Signal Processing, Pattern Recognition and Applications (SPPRA) 2010, February 17-19, 2010, Innsbruck, Austria.

47. G.B. Borba, H.R. Gamba, **O. Marques**, A. Colic, and V. Adzic, "Comparing figures of merit and image datasets for evaluation of salient region detection algorithms", The IASTED International Conference on Signal Processing, Pattern Recognition and Applications (SPPRA) 2010, February 17-19, 2010, Innsbruck, Austria.
48. M. Lux, C. Kofler, and **O. Marques**, "A Classification Scheme for User Intentions in Image Search", ACM Conference on Human Factors in Computing Systems CHI 2010, April 10-15, 2010, Atlanta, GA.
49. M. Lux, A. Pitman, and **O. Marques**, "Callisto: Tag Recommendations by Image Content", Workshop on Interoperable Social Media Applications (WISMA 2010), 11th International Workshop of the Multimedia Metadata Community, Barcelona (Spain), May 19-21, 2010.
50. R. Castellanos, H. Kalva, **O. Marques**, and B. Furht, "Event Detection in Video using Motion Analysis", ACM Multimedia 2010 Workshop - 1st ACM ARTEMIS2010 International Workshop on Analysis and Retrieval of Tracked Events and Motion in Imagery Streams, Florence (Italy), October 25-29, 2010.
51. A. Rahman and **O. Marques**, "A web-based video library and annotation framework for marine biology survey", IASTED International Conference on Internet and Multimedia Systems and Applications (IMSA 2011), May 16-18, 2011, Washington DC.
52. L. Christodoulou, T. Kasparis, and **O. Marques**, "Advanced statistical and adaptive threshold techniques for moving object detection and segmentation", 17th International Conference on Digital Signal Processing (DSP2011), July 6-8, 2011, Corfu, Greece.
53. H. Kalva, **O. Marques**, S. Aghera, W. Reza, R. Giusti, and A. Rahman "Design and Development of a System for Aerial Video Survey of Large Marine Animals", LACCEI 2011, August 3-5, 2011, Medellín, Colombia.
54. C. Lagger, M. Lux, and **O. Marques**, "Which video do you want to watch now?", Workshop on Multimedia on the Web 2011 (MMWeb 2011), Graz, Austria, September 8, 2011.
55. M. Kogler, M. Lux, and **O. Marques**, "Adaptive Visual Information Retrieval by changing visual vocabulary sizes in context of user intentions", Workshop on Multimedia on the Web 2011 (MMWeb 2011), Graz, Austria, September 8, 2011.
56. S. Chatzichristofis, **O. Marques**, M. Lux, and Y. Boutalis. "Image Encryption using the Recursive Attributes of the eXclusive-OR Filter on Cellular Automata", ACRI 2012, Santorini, Greece, 24-27 September 2012.
57. A. Carlier, **O. Marques**, and V. Charvillat. "Ask'nSeek: A New Game for Object Detection and Labeling", Workshop on Web-Scale Vision and Social Media, co-located with ECCV 2012, Florence, Italy, October 2012.
58. M. Lux, M. Taschwer, and **O. Marques**, "Classification of Photos based on Good Feelings", Multimedia Grand Challenge Solution paper, ACM Multimedia Conference, Nara (Japan), October 2012.
59. M. Lux, M. Taschwer, and **O. Marques**, "A Closer Look at Photographers' Intentions: a Test Dataset", International ACM Workshop on Crowdsourcing for Multimedia (CrowdMM 2012), co-located with the ACM Multimedia Conference, Nara (Japan), October 2012.
60. **O. Marques**, J. Snyder, and M. Lux, "How Well Do You Know Tom Hanks? Using a Game to Learn About Face Recognition" CHI 2013, April 27 – May 2, 2013, Paris.

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