

Curriculum Vitae

(Last updated: 2012, January 10th)



1. Personal Data

Given Names: Bogdan Mihai
Surname: Raducanu
Date of Birth: 30/09/1971
Place of Birth: Constanta (Romania)
Citizenship: Romanian
Passport Number: 1515.2191 (valid until 2019, August 17th)
Residence Permit: X2068006-F (permanent)
Marital Status: Single

Current Address: Vila Universitaria – Campus UAB
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2. Current Affiliation

Computer Vision Center (CVC)
Edifici “O” – Campus UAB
08193 Bellaterra (Barcelona)
SPAIN

Position: R&D Project Manager

3. Education

- B.S. degree in Computer Science from the University “Politehnica” of Bucharest (Romania)
Thesis: “Implementation of Some Algorithms for Feature Extraction from Images”
Date of Graduation: July 1995
- Ph. D. degree (*‘cum laude’*) in Computer Science from the University of The Basque Country (Spain)
Thesis: “Morphological Techniques for Face Localization”
Thesis supervisor: Prof. Manuel Graña, University of The Basque Country
Date of Graduation: July 10th, 2001

- 2002- 2004 Post-doc at User-Centred Engineering Group, Technical University of Eindhoven, The Netherlands
- 2004 - 2009 Ramon y Cajal Research Fellow, Computer Vision Center, Spain
- 2009 - ... Senior Researcher, Computer Vision Center, Spain

Research interests: Computer Vision, Pattern Recognition, Machine Learning, Artificial Intelligence, Ambient Intelligence, Social Robotics, Social Computing

Languages:

- English - Fluently spoken and written
- Spanish - Fluently spoken and written
- French - Regular spoken and written
- Dutch - Basic spoken and written
- Romanian - Mother language

4. Professional Experience

4.1. Current projects

- **Title:** CONSOLIDER Ingenio-2010: Multimodal Interaction in Pattern Recognition and Computer Vision (CSD2007-00018)
Funded by: Ministry of Education and Science, Spain
Duration: 1/10/2007 (estimated start date) - 30/09/2011
Principal Researcher: prof. Enrique Vidal
- **Title:** Learning Techniques for Large-Scale Computer Vision Systems: Applications to Object Recognition
Funded by: The Ministry of Education and Science, Spain (TIN2009-14404-C02)
Duration: 1/01/2010 – 31/12/2012
Principal Researcher: prof. Jordi Vitrià
- **Title: RoboCom:** Robot Companions for Citizens (Coordinated Actions – FET Flagship Pilot)
Funded by: EU
Duration: 1/05/2011 – 30/04/2012
Principal Researcher (CVC): dr. Bogdan Raducanu
Principal Researcher (Spanish Coordinator): prof. Paul Verschure
Principal Researcher (General Coordinator): prof. Paolo Dario
- **Title:** Inferring Trends in People’s Life from Everyday Experiences
Funded by: The Ministry of Education and Science, Spain (TIN2010-09703-E)
Duration: 1/07/2010 – 30/06/2011
Principal Researcher: dr. Bogdan Raducanu

4.2. Past projects

- **Title:** Predoctoral grant for the formation of researchers from The University of The Basque Country
Funded by: University of The Basque Country, Spain
Duration: 1/11/1996 - 30/10/2000
Director: prof. Manuel Graña
- **Title:** A Study for Techniques of Facial Information Processing: Face Localization, Modelling and Recognition
Funded by: The Ministry of Education and Science, Spain
Duration: 1/10/1998 - 30/09/1999
Principal Researcher: prof. Manuel Graña
- **Title:** A Study of Methods for Face Localization in Arbitrary Scenes
Funded by: The Basque Government, Spain
Duration: 1/01/1999 - 31/12/2001
Principal Researcher: prof. Manuel Graña

- **Title:** Computer Vision Technologies for Context-Aware Environments
Funded by: Technical University of Eindhoven, The Netherlands
Duration: 15/04/2002 – 15/04/2004
Principal Researcher: dr. Panos Markopoulos
- **Title:** Human Presence Detection for Aware Environments
Funded by: Ministry of Science and Technology, Spain (RYC-2003-002196)
Duration: 20/04/2004 – 19/04/2009
Principal Researcher: dr. Bogdan Raducanu
- **Title:** Visual Interfaces for Medical Environments
Funded by: Ministry of Science and Technology, Spain (TIC2003-00654)
Duration: 1/01/2004 - 31/12/2006
Principal Researcher: prof. Jordi Vitrià
- **Title:** MAMVIC: Multitask Learning Models for Computer Vision
Funded by: Ministry of Education and Science, Spain (TIN2006-15308-C02)
Duration: 1/01/2007 – 31/12/2009
Principal Researcher: prof. Jordi Vitrià
- **Title:** Multimodal Interaction in Pattern Recognition and Computer Vision
Funded by: Ministry of Education and Science, Spain (CSD2007-00018)
Duration: 1/10/2007 – 30/09/2012
Principal Researcher: prof. Enrique Vidal
- **Title:** Augmented Multi-party Interaction with Distance Access (AMIDA) – Traineeship Program
Funded by: EU Project IST-033812, FP6
Duration: 1/02/2008 – 31/10/2008
Principal Researcher: dr. Daniel Gatica-Perez
- **Title:** Learning Techniques for Large-Scale Computer Vision Systems: Application to Object Recognition
Funded by: Ministry of Education and Science, Spain (TIN2009-14404-C01)
Duration: 1/01/2010 – 31/12/2012
Principal Researcher: prof. Jordi Vitrià
- **Title:** Inferring Trends in People's Life from Everyday Experiences
Funded by: Ministry of Education and Science, Spain (TIN2010-09703-E)
Duration: 1/07/2010 – 30/06/2011
Principal Researcher: dr. Bogdan Raducanu

4.3. Teaching Activities

- Computational Intelligence – Undergraduate course (Fall 2005/2006 and 2006/2007)
- Social Robotics (Master Course) (Spring 2006)

4.4. Supervision Activities

- Co-supervision of a Master student (2006)
- Co-supervision of a final year student (2006)
- Co-Supervision of a Master student (2011) (together with dr. Fadi Dornaika, from Ikerbasque Science Foundation and the University of the Basque Country:
Title of the Master Thesis: **Face Recognition on Riemannian Manifolds**
- Co-supervision of a Ph.D. student (together with dr. Joaquin Salas, from CICATA-IPN, Instituto Politécnico Nacional, Mexico)
Title of the Ph.D. Thesis: **Automated Visual Diagnosis of Traffic Health on a Urban Network of Cameras**
Expected to be finished in 2012.

5. Relevant Publications (peer-reviewed)

5.1. Journals and Book Chapters

34. **B. Raducanu** and F. Dornaika. "Texture-independent recognition of facial expressions in image snapshots and videos". *Submitted to Machine Vision and Applications*, 2011
33. F. Dornaika and **B. Raducanu**. "Analysis and Recognition of Facial Expressions in Videos using Facial Shape Deformation". *Submitted to Engineering and Applications of Artificial Intelligence*, 2011
32. **B. Raducanu** and F. Dornaika. "A Supervised Non-linear Dimensionality Reduction Approach for Manifold Learning". *To appear in Pattern Recognition*, 2011 (doi:10.1016/j.patcog.2011.12.00)
31. S. Escalera, X. Baró, J. Vitrià, P. Radeva, **B. Raducanu**. "Social Network Extraction and Analysis Based on Multimodal Dyadic Interaction". *Submitted to Sensors*, 2011
30. **B. Raducanu** and F. Dornaika. "A Discriminative Non-Linear Manifold Learning Technique for Face Recognition". *Communications in Computer and Information Science (CCIS 254, Part IV)*, A. Abd Manaf et al. (Eds.), pp. 339-353, Springer-Verlag, Berlin-Heidelberg, 2011
30. F. Dornaika and **B. Raducanu**. "Subtle Facial Expression Recognition in Still Images and Videos". *Advances in Face Image Analysis: Techniques and Technologies*, Zhang Yu-Jin (ed.), pp. 259-277, IGI Global, 2011.
29. C. Isaza, J. Salas, **B. Raducanu**. "Toward the Detection of Urban Infrastructure Edge Shadow". LNCS6474: *Advanced Concepts for Intelligent Vision systems*, J. Blanc-Talon et al. (eds.), Vol. I, pp. 30-37, Springer-Verlag, 2010
28. **B. Raducanu**, J. Vitrià, A. Leonardis (Guest Editors). Special Issue of *Image and Vision Computing Journal* on "Online Pattern Recognition and Machine Learning Techniques for Computer Vision: Theory and Applications". Vol. 28(7), July 2010
27. **B. Raducanu**, D. Gatica-Perez. "Inferring Role Patterns Through Nonverbal Analysis in Competitive Meetings". *Multimedia Tools and Applications*, 2010. Available online as of June 8th, 2010. DOI 10.1007/s11042-010-0545-8
26. **B. Raducanu**, F. Dornaika. "Natural Facial Expression Recognition Using Dynamic and Static Schemes". LNCS5875: *Advances in Visual Computing*, G. Bebis et al. (eds.), Vol. I, pp. 730-739, Springer-Verlag, 2009
25. F. Dornaika, **B. Raducanu**. "3D Face Pose Detection and Tracking using Monocular Videos: Tool and Application". *IEEE Transactions on Systems, Man and Cybernetics (part B)*, Vol. 39(4), pp. 935-944, 2009
24. **B. Raducanu** and F. Dornaika "Texture-Independent Recognition of Facial Expressions in Image Snapshots and Videos". *Submitted to Pattern Analysis and Applications*, 2009
23. **B. Raducanu** and F. Dornaika. "Dynamic vs. static recognition of facial expressions". LNCS5355: *Ambient Intelligence*, E. Aarts et al. (eds.), pp. 13-25, Springer-Verlag, 2008
22. **B. Raducanu**, J. Vitrià. "Face Recognition: A Cognitive Perspective". Special Issue of *Int'l Journal on Pattern Recognition and Artificial Intelligence on Brain, Vision and Artificial Intelligence*, Vol. 22(5), pp.899-913, 2008
21. **B. Raducanu**, J. Vitrià. "Online Nonparametric Discriminant Analysis for Incremental Subspace Learning and Recognition". *Pattern Analysis and Applications*, Vol.11(3-4), pp.259-268, 2008
20. **B. Raducanu**, J. Vitrià. "Learning to Learn: from Smart Machines to Intelligent Machines". *Pattern Recognition Letters*, Vol.29(8), pp.1024-1032, 2008
19. F. Dornaika, **B. Raducanu**. "Facial Expression Recognition for Human Computer Interaction Applications". *Accepted for publication in Encyclopedia of Artificial Intelligence*, Rabuñal et al. (eds.), Vol. II, pp. 625-631, IGI Global, London, 2008
18. F. Dornaika, **B. Raducanu**. "Inferring Facial Expressions from Videos: Tool and Application". *Signal Processing: Image Communication*, Vol. 27, pp.769-784, 2007

17. **B. Raducanu**, J. Vitrià. "Incremental Subspace Learning for Cognitive Visual Processes". LNCS4729: Advances in Brain, Vision and Artificial Intelligence, Mele et al. (eds.), Springer-Verlag, pp.214-223, 2007
16. F. Dornaika, **B. Raducanu**. "Efficient Facial Expression Recognition for Human Robot Interaction". LNCS4507: Computational and Ambient Intelligence, Sandoval et al. (eds.), pp. 700-708, Springer-Verlag, 2007
15. **B. Raducanu**, J. Vitrià. "A Robust Particle Filter-Based Face Tracker Using Combination of Color and Geometric Information. LNCS4141: Image Analysis and Recognition, A. Campilho et al. (eds.), Springer-Verlag, Vol. I, pp. 922-933, 2006
14. **B. Raducanu**, J. Vitrià. "Aprendiendo a aprender: De máquinas listas a máquinas inteligentes". Una Perspectiva de la Inteligencia Artificial en su 50 Aniversario, A. Fernandez-Caballero et al. (eds.), Univ. Castilla-La Mancha Press, Vol. I, pp.34-45, 2006 (*spanish only*)
13. **B. Raducanu**, J. Vitrià. "Real-Time Face Tracking for Context-Aware Environments". Recent Advances in Artificial Intelligence Research and Development, J. Vitrià et al. (eds.), IOS Press, Amsterdam, Vol. 113, pp.91-98, 2005
12. **B. Raducanu**, M. Graña, F. X. Albizuri, A. D'Anjou. "A Probabilistic Hit-or-Miss Procedure Based on Morphological Multiscale Fingerprints", Pattern Analysis and Applications, Vol. 7, pp.128-143, 2004
11. F. X. Albizuri, M. Graña, **B. Raducanu**. "Statistical Transmission Delay Guarantee for Nonreal-Time Traffic Multiplexed with Real-Time Traffic". Computer Communications, 26(12):1365-1375, 2003
10. **B. Raducanu**, M. Graña, F. X. Albizuri. "Morphological Scale Spaces and Associative Morphological Memories: Results on Robustness and Practical Application". Journal of Mathematical Imaging and Vision, 19(2):113-131, 2003
9. **B. Raducanu**, P. Markopoulos. Applications of Vision-Based Attention-Guided Perceptive Devices to Aware Environments. LNCS2875: Ambient Intelligence, E. Aarts et al. (eds.), pp. 410-418, Springer-Verlag, 2003
8. **B. Raducanu**, P. Sussner, M. Graña. "Steps towards one-shot vision-based self-localization". Biologically Inspired Robot Behavior Engineering, M. Graña et al. (eds.), pp. 365-393, Springer-Verlag, 2002
7. M. Graña, **B. Raducanu**. "Increasing the Robustness of Heteroassociative Morphological Memories for Practical Applications". Mathematical Morphology, H. Talbot et al. (eds.), CSIRO Publishing, Sydney, Australia, pp. 379-388, 2002
6. M. Graña, **B. Raducanu**, P. Sussner, G. X. Ritter. On Endmember Detection in Hyperspectral Images with Morphological Associative Memories. LNCS2527: Advances in Artificial Intelligence, F.J. Garijo et al. (eds.), Springer-Verlag, pp. 526-535, 2002
5. **B. Raducanu**, M. Graña. "Morphological Techniques for Human Face Localization". In Image Processing III: Mathematical Methods, Algorithms and Applications, J. M. Blackledge et al. (eds.), Horwood Publishing Center, pp. 179-200, 2001
4. **B. Raducanu**, M. Graña, F. X. Albizuri, A. D'Anjou. "Face Localization Based on the Morphological Multiscale Fingerprints". Pattern Recognition Letters, 22(3-4):359-371, 2001
3. **B. Raducanu**, M. Graña. "On the Application of Heteroassociative Morphological Memories to Face Localization". LNCS2085: Bio-inspired Applications of Connectionism, J. Mira et al. (eds.), Springer-Verlag, pp. 563-570, 2001
2. **B. Raducanu**, M. Graña, P. Sussner. "Advances in Mobile Robots Self-Localization using Morphological Neural Networks". Mobile Robot Technology, pp. N/A, J. Sasiadek (eds.), Pergamon Press (Elsevier), pp. N/A, 2001
1. **B. Raducanu**, M. Graña. "Testing Some Morphological Approaches to Face Localization". Mathematical Morphology and Its Applications to Image and Signal Processing, J. Goutsias et al. (eds.), Kluwer Academic Publishers, Dordrecht (The Netherlands), pp. 415-424, 2000

5.2. Conference Proceedings

31. F. Dornaika, A. Bosaghzadeh and B. Raducanu. "LSDA Solution Schemes for Modelless 3D Head Pose Estimation". *To appear in Proc. of Workshop and Applications of Computer Vision (WACV)*, Breckenridge (CO), USA, January 2012
30. **B. Raducanu** and F. Dornaika. "Appearance-based Face Recognition Using A Supervised Manifold Learning Framework". *To appear in Proc. of Workshop and Applications of Computer Vision (WACV)*, Breckenridge (CO), USA, January 2012
29. R. Aylett, G. Castellano, **B. Raducanu**, A. Paiva and M. Hanheide. "Long-term socially perceptive and interactive robot companions: challenges and future perspectives". *To appear in Proc. of Int'l. Conf. on Multimodal Interaction (ICMI-MLMI)*, pp. N/A, Alicante, Spain, November 2011
28. S. Escalera, X. Baró, J. Vitrià, P. Radeva, **B. Raducanu**. "Modelling and Analyzing Multimodal Dyadic Interactions Using Social Networks". *Proc. of Int'l. Conf. on Multimodal Interaction (ICMI-MLMI)*, pp. 1-8, Beijing, PR China, November 2010
27. F. Dornaika, **B. Raducanu**. "Person-specific shape estimation under varying head pose from single snapshots". *Proc. of IEEE Int'l. Conf. on Pattern Recognition*, pp. 3496-3499, Istanbul, Turkey, August 2010
26. F. Dornaika, **B. Raducanu**. "Single Snapshot 3D Head Pose Initialization for Tracking in Human Robot Interaction Scenario". *To appear in Proc. of IEEE Conf. on Computer Vision and Pattern Recognition (Workshop on Computer Vision for Human Robot Interaction)*, pp. 1-8, San Fransisco, CA, USA, June 2010
25. **B. Raducanu**, F. Dornaika. "Dynamic Facial Expression Recognition Using Laplacian Eigenmaps-Based Manifold Learning". *Proc. of IEEE Int'l. Conf. on Robotics and Automation*, pp. 156-161, Anchorage, AK, USA, May 2010
24. F. Dornaika, **B. Raducanu**. "Simultaneous 3D Face Pose and Person-Specific Shape Estimation from a Single Image Using a Holistic Approach". *Proc. of IEEE Int'l Workshop on Applications of Computer Vision*, pp. 1-6, Snowbird, Utah, USA, December 2009
23. D. Jayagopi, **B. Raducanu**, D. Gatica-Perez. Characterizing Conversational Group Dynamics using Nonverbal Behaviour. *Proc. of IEEE Conf. on Multimedia and Expo*, pp. 370-373, New York, NY, USA, June-July 2009
22. **B. Raducanu**, J.Vitrià, D. Gatica-Perez. "You are Fired! Nonverbal Role Analysis in Competitive Meetings". *Proc. of IEEE Int'l Conference on Audio, Speech and Signal Processing*, pp. 1949-1952, Taipei, Taiwan, April 2009
21. F. Dornaika, **B. Raducanu**. "Constructing Panoramic Views Through Facial Gaze Tracking". *Proc. of Int'l. Conference on Multimedia and Expo*, pp.969-972, Hannover, Germany, June, 2008
20. F. Dornaika, **B. Raducanu**. "Detecting and Tracking of 3D Face Pose for Human-Robot Interaction". *Proc. of IEEE Int'l. Conference on Robotics and Automation*, pp. 1716-1721, Pasadena, CA, USA, May 2008
19. **B. Raducanu**, J.Vitrià. "Online Learning for Human-Robot Interaction". *Proc. of IEEE Conference on Computer Vision and Pattern Recognition, (Workshop on "Online Learning for Classification")*, pp.1-7, Minneapolis, MN, USA, 18-23 June 2007
18. E. Motard, **B. Raducanu**, V. Cadenat, Jordi Vitria. "Incremental On-Line Topological Map Learning for A Visual Homing Application", *Proc. of IEEE Int'l Conf. On Robotics and Automation*, pp. 2049 – 2054, Rome, Italy, 10-14 April 2007
17. F. Dornaika, **B. Raducanu**. "Recognizing Facial Expressions in Videos Using a Facial Action Analysis-Synthesis Scheme". *Proc. of IEEE Int'l. Conf. on Advanced Video and Signal Based Surveillance*, pp. 1-8, Sydney, Australia, 22-24 November 2006
16. I. Rañó, **B. Raducanu**, S. Subramanian. "Human Presence Detection and Tracking for A Concierge Robot". *Proc. of 5th IFAC Symposium on Intelligent Autonomous Vehicles*, pp. N/A, Lisbon, Portugal, 5-7 July 2004
15. **B. Raducanu**, S. Subramanian, P. Markopoulos. "Human Presence Detection by Smart Devices". *Proc. of Engineering of Intelligent Systems*, pp. N/A, Funchal, Island of Madeira, Portugal, 29 Feb-2 March 2004

14. **B. Raducanu**, M. Graña. "On the Application of Morphological Heteroassociative Neural Networks". Proc. of Int'l Conference on Image Processing, pp. 501-504, Thessaloniki, Greece, 7-10 October 2001
13. **B. Raducanu**, M. Graña. "An Approach to Visual Self-Localization for Mobile Robots. Proc. of Middle-East Conference on Simulation and Modelling, pp. 65-69, Amman, Jordan, 3-5 September 2001
12. M. Graña, **B. Raducanu**. "Some Applications of Morphological Neural Networks". Proc. of Int'l Joint Conference on Neural Networks, pp. 2518-2523, Washington D.C., USA, 15-19 July 2001
11. **B. Raducanu**, M. Graña, P. Sussner. "Morphological Neural Networks for Vision Based Self-Localization". **Proc. of Int'l Conference on Robotics and Automation**, pp. 2059-2064, Seoul, South Korea, 21-26 May 2001
10. **B. Raducanu**, M. Graña. "Visual Self-Localization with Morphological Neural Networks". Proc. of European Symposium on Artificial Neural Networks, pp. 25-30, Bruges, Belgium, 25-27 April 2001
9. M. Graña, **B. Raducanu**. "Adaptive Kernels for Morphological Heteroassociative Neural Networks". IS&T/SPIE Proc. of Electronic Imaging, pp. 130-137, San Jose, CA, USA, January 2001
8. **B. Raducanu**, M. Graña. "A Grayscale Hit-or-Miss Transform Based on LevelSets". Proc. of Int'l Conf. on Image Processing, pp. 931-933, Vancouver, Canada, 10-13 September 2000
7. **B. Raducanu**, M. Graña. "Face Localization Based on the Morphological Multiscale Fingerprints". Proc. of Int'l Conf. on Pattern Recognition, pp. 929-932, Barcelona, Spain, 3-8 September 2000
6. **B. Raducanu**, M. Graña. "Morphological Neural Networks for Robust Visual Processing in Mobile Robotics". Proc. of Int'l Joint Conference on Neural Networks, pp. 140-143, Como, Italy, 24-27 July 2000
5. M. Pantic, **B. Raducanu**, L. J. M. Rothkrantz, M. Graña. "Automatic Eyebrow Tracking Using Boundary Chain Code". Proc. of Advanced School for Computing and Imaging, pp.137-143, Heijen, The Netherlands, 15-17 June 1999
4. M. Graña, A. I. Gonzalez, **B. Raducanu**, I. Echave. "Fast Face Localization for Mobile Robots: Signature Analysis and Color Processing". IS&T/SPIE Proc. of Int'l Workshop on Intelligent Robots and Computer Vision, pp. 387-398, Boston, USA, November 1998
3. **B. Raducanu**, M. Graña, A. D'Anjou, F. X. Albizuri. "Artificial Neural Networks for Facial Information Processing: A Review of Recent Approaches". Proc. of European Symposium on Artificial Neural Networks, pp. 369-375, Bruges, Belgium, 22-24 April 1998
2. **B. Raducanu**, M. Graña. "Robust and Fast Face Localization in Image Sequences". Proc. of EUROMEDIA98, pp. 81-85, Leicester, UK, 5-7 January 1998
1. **B. Raducanu**, M. Graña. "An Approach to Face Localization Based on Signature Analysis". Proc. of Int'l Workshop on Audio-Visual Speech Recognition, pp. 109-112, Rhodes, Greece, 26-27 September 1997

6. Other activities

6.1. Visits at Foreign Universities and Research Centers:

- Between 1/11/1998-30/04/1999, I was a visiting researcher at the KBS (Knowledge Based Systems) department of TU Delft (The Netherlands). I worked in the project ISFER (Integrated System for Facial Expression Recognition), under the supervision of professor L. J. M. Rothkrantz
- Visit to CICATA-IPN (Research Center for Applied Science and Advanced Technology – National Polytechnic Institute of Mexico), Queretaro, Mexico, January 2007
- Between 1/02/2008-31/10/2008, I was a visiting researcher at IDIAP Research Institute, Martigny, Switzerland. My visit was part of the AMIDA Traineeship Program (Multimodal Interaction), under the supervision of dr. Daniel-Gatica Perez
- Visit to the VICOS (Visual Cognitive System) Lab – University of Ljubljana, Slovenia, February 2010

6.2. Participation in European Projects/Networks and International Organization

- Augmented Multi-party Interaction with Distance Access (**AMIDA**) – Traineeship Program (EU Project IST-033812, FP6)
- Member of **EuCogII** - 2nd European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotics
- Collaborator for the project: Humanoids Robots with Auditory and Visual Abilities in Populated Spaces (**HUMAVIPS**) - EU Project (FP7)
- Served as an expert for the EC in **FP7 – ICT Call 7 – Cognitive Systems and Robotics**
- Voting member in the **IEEE MMTC (Multimedia Technical Committee)** – as of October 2010

6.2. Participation in International Committees:

I serve as a member of IPC for several major conferences, among them: ICIAR, ICIP, ICRA, CVPR Workshops, AVSS, ICMI-MLMI, ACCV – plus many smaller ones.

I also serve as a reviewer for the following journals: *Pattern Recognition Letters*, *Patterns Analysis and Applications*, *IEEE Transactions on Systems, Man and Cybernetics (Part B)*, *International Journal of Pattern Recognition and Artificial Intelligence*, *International Journal of Tomography and Statistics*, *Transactions on Neural Networks*, *Neural Processing Letters*, *International Journal of Humanoid Robotics*, *Transactions on Multimedia*, *Machine Vision and Applications*

I served as a reviewer for several Master and Ph.D. thesis.

6.3. Events organizer

- Special session on *Image Processing*, as part of the *Third Middle-East Symposium on Simulation and Modelling*, held in Amman, Jordan, September 2001
- Special session on *Self-Localization and Navigation for Mobile Robots*, as part of conference *Systemics, Cybernetics and Informatics*, held in Orlando (Florida), USA, July 2002
- Special session on *Applications of Computer Vision Techniques for Human-Computer Interaction Systems*, as part of the conference *Systemics, Cybernetics and Informatics*, held in Orlando (Florida), USA, July 2003
- Special session on *Human Presence Detection for Context-aware Systems*, as part of the *International Conference on Computer Vision Theory and Applications*, held in Barcelona, Spain, March 2007
- Workshop *Online Pattern Recognition and Machine Learning Techniques for Computer Vision Applications*, as part of the *International Conference on Computer Vision Theory and Applications*, held in Funchal (Island of Madeira), Portugal, January 2008
- Special issue of Image and Vision Computing Journal on *Online Pattern Recognition and Machine Learning Techniques for Computer Vision Applications* (July 2010)
- Special Session on *Long-term socially perceptive and interactive robot companions: Challenges and future perspectives*, as part of the ICMI-MLMI2011, Alicante, Spain, November 2011

6.4. Invited talks:

- *“Face Detection and Tracking: First Steps Towards Human-Centered Technology”*, Pattern Recognition and Machine Intelligence Association from Singapore, April 2006
- *“Incremental Subspace Learning for Cognitive Visual Processes”*, Institute of Artificial Intelligence (IIIA-CSIC), Barcelona, Spain, May 2007
- *“You are Fired! Nonverbal Role Analysis in Competitive Meetings”*, IDIAP Research Institute, Switzerland, October 2008
- *“Online Learning: First Steps Towards Cognitive Development”*, University of Ljubljana, Slovenia, February 2010
- *“Human Mental Models for Cognitive Development”*, Microsoft Research Asia (MSRA), Beijing, November 2010
- *“Online Face Recognition based on a Cognitive Learning Paradigm”*, University of the Balearic Island's (UIB), Palma de Mallorca, November 2011

6.5. Participation in exhibitions and industrial fairs

- “Closer to Science”, Palau Robert, Barcelona, Spain (November 2006 – August 2007)
- “Innovation Forum”, Barcelona, November 2006

6.6. Awards

- **Extraordinary Prize** of The University of The Basque Country for the realization and defense of the Ph. D. thesis “Morphological Techniques for Face Localization”, supervised by Prof. Manuel Graña (2003)
- **“I3 – Research Quality Certificate”**, awarded by the Spanish Ministry of Education and Science for the whole scientific career (1995-2007), June 2008
- **“Research Quality Certificate”**, awarded by the Catalan Agency for Research and Universities, October 2008

7. Professional skills

- Scientific knowledge: computer vision, image processing, neural networks, mathematical morphology, statistical pattern recognition, machine learning techniques, artificial intelligence, robotics
- Technical knowledge: relational databases, computer networks, TCP/IP and AppleTalk communication protocols, real-time programming
- Programming languages: HTML, Pascal, C/C++, IDL, Matlab, CLIPS, SQL
- Development environments: Varsity (a C++ library package for image processing from Silicon Graphics), Microsoft Visual C++, OpenCV, AIBO Remote Framework, X-Windows programming, AutoCAD, Adobe Photoshop
- Operating systems: Windows (9.x, Me, NT, 2000), MacOS (MacOS 9, MacOS X), Unix (Linux, Solaris, Irix)
- Platforms: PC, Macintosh, Silicon Graphics, Sun Workstation, AIBO Robot

8. Hobbies

- Reading, classical music, foreign cultures, languages, travel