Filippo Vella

Consiglio Nazionale delle Ricerche
Istituto di Calcolo e Reti ad Alte Prestazioni
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Esperienza Professionale

Consiglio Nazionale delle Ricerche - Istituto di Calcolo e Reti ad Alte Prestazioni (ICAR)- *Ricercatore* - dal 2008

Consiglio Nazionale delle Ricerche - *Contratto di Ricerca* - 2007

Università degli Studi di Palermo - *Contratto di Ricerca* - 2007

STMicroelectronics, *System Engineer* 2000 - 2004.

Istruzione e Formazione

Laurea in Ingegneria Elettronica - indirizzo Calcolatori Elettronici - *Summa cum laude* - 2000

Ph.D. in Ingegneria Informatica Università degli Studi di Palermo (Italy) 2004 - 2007

visiting scholar presso Center for Signal and Image Processing (CSIP) del Georgia Institute of Technology (Atlanta - USA)

visiting researcher presso Computed Science (CSIP) di Boston University (Boston - USA) june 2011

Attività in Progetti Finanziati

- Coordinamento dell'unità dell'ICAR per il progetto PON SIGMA
  PON REC 2007-2013
  PON01_00683
  Protocollo MIUR 837/Ric

  Data Inizio:1/5/2013; Data Fine: 30/10/2015

- Partecipazione al progetto Cloud4City Progetto n. 082630290292 Decreto di concessione n.3555 del 7/11/2012 PO Fesr Sicilia 2014/2020 Azione 1.1.5 "Sostegno all'avanzamento tecnologico delle imprese attraverso il finanziamento di linee pilota e azioni di validazione precoce dei prodotti e di dimostrazione su larga scala"

  Data Inizio 1/7/2020

– Partecipazione al progetto Artes4.0 (Advanced Robotics and enabling digital Technology and Systems) - Bando MISE di cui al Decreto Ministeriale n.214 del 12/09/2017
Tipologia/finanziamento MiSE - 86 Bando per la costituzione dei centri di competenza ad alta specializzazione
Data Inizio 19/12/2019

Partecipazione al progetto Smart Health: Cluster OSDH - SmartFSE - StayWell (PON04a2_C/19)
Tipologia/finanziamento - MIUR PON - Avviso "Smart Cities and Communities and Social Innovation" D.D. n.84/Ric del 02/03/2012
Data inizio: 08/02/2013; Data fine: 31/12/2015

– Partecipazione al progetto INSYEME INtegrated SYstem for EMErgency
Ente/Istituzione finanziatrice: MIUR grandi Progetti Strategici Tema 8
Data inizio: 01/12/201, Data fine: 31/03/2013

– Partecipazione al Progetto: CLOUD4CITY;
Anno: 2020;
Tipologia: Progetto POR Sicilia 2014-2020 Azione 1.1.5;
Committente/Finanziatore: Regione Siciliana - Dip. Att.tà Produttive;
Data inizio: 23/12/2019; Data fine: 22/06/2022;

– Partecipazione al Progetto: Programma INTERREG V-A Italia-Malta 2014/2020 - Progetto I-Access;
Anno: 2019;
Tipologia: INTERREG V-A ITALIA-MALTA 2014-2020;
Committente/Finanziatore: Regione Siciliana;
Data inizio: 11/06/2018; Data fine: 10/06/2021;

– Partecipazione al Progetto: AMICO Assistenza Medicale In COntextual awareness;
Anno: 2018;
Tipologia: Progetti di ricerca industriale e sviluppo sperimentale nelle 12 aree di specializzazione individuate dal PNR 2015-2020;
Committente/Finanziatore: M.I.U.R. - F.I.R.S.T. Investimenti Ricerca Scientifica e Tecnologica;
Data inizio: 01/04/2018; Data fine: 30/09/2020;

– Partecipazione al Progetto: Corso di Formazione post laurea per Ricercatori Progettisti e Sviluppatori di Applicazioni ICT per SMART-CITIES (II edizione);
Anno: 2017;
Tipologia: Progetto POR Sicilia 2014-2020;
Committente/Finanziatore: Regione Siciliana - Dip. Lavoro e Formazione;
Data inizio: 29/11/2017; Data fine: 31/08/2019;

– Partecipazione al Progetto: Corso di Formazione post laurea per Ricercatori Progettisti e Sviluppatori di Applicazioni ICT per SMART-CITIES (I edizione);
Anno: 2014;
Tipologia: Progetto POR Sicilia 2007-2013;
Committente/Finanziatore: Regione Siciliana - Dip. Lavoro e Formazione;
Data inizio: 01/11/2014; Data fine: 31/10/2015;

- Partecipazione al Progetto: MIRCO - MicroRna in Clinica Oncologica - POR Sicilia 2007/2013;
  Anno: 2014;
  Tipologia: Progetto POR Sicilia 2007-2013 Linea 4.1.1.1;
  Committente/Finanziatore: Regione Siciliana - Dip. Att.tà Produttive;
  Data inizio: 01/04/2014; Data fine: 30/11/2015;
- Partecipazione al Progetto di ricerca D.M. 593 8/8/2000 - Art. 9 - Progetto: FRASI: FRamework for Agent-based Semantic-aware Interoperability;
  Anno: 2012;
  Tipologia: Altri Progetti;
  Committente/Finanziatore: MIUR;
  Data inizio: 01/04/2007; Data fine: 31/03/2011;
- Partecipazione al Progetto: INDUSTRIA 2015 - Progetto SEQUENZIAMENTO Piattaforme intelligenti di sequenziamento per analisi oncogenomica e diagnostica personalizzata del cancro e malattie genetiche;
  Anno: 2011; //Data inizio: 01/09/2011, Data fine: 31/10/2015
- Partecipazione al Progetto: POR 2007/2013 - IDS - Innovative Document Sharing;
  Anno: 2011;
  Tipologia: Progetto POR;
  Committente/Finanziatore: Regione Siciliana - Dip. Att.tà Produttive;
  Data inizio: 03/10/2011; Data fine: 31/12/2014
- Partecipazione al Progetto: INDUSTRIA 2015 - IMPULSO;
  Anno: 2010;
  Tipologia: Industria 2015;
  Committente/Finanziatore: MISE; Data inizio: 01/10/2010;Data fine: 30/09/2012
- Partecipazione al Progetto: PON01_01687 - SINTESYS;
  Anno: 2010;
  Tipologia: Progetto PON;
  Committente/Finanziatore: MIUR;
  Data inizio: 01/07/2011; Data fine: 28/02/2014;

Insegnamenti

Università degli Studi di Palermo, Corso di Laurea in Ingegneria Elettronica

A.A. 2020 - 21 Calcolatori Elettronici (modulo Fondamenti di Informatica)

A.A. 2019 - 20 Calcolatori Elettronici (modulo Fondamenti di Informatica)

A.A. 2018 - 19 Calcolatori Elettronici (modulo Fondamenti di Informatica)

A.A. 2017 - 18 Calcolatori Elettronici (modulo Fondamenti di Informatica)

A.A. 2016 - 17 Calcolatori Elettronici (modulo Fondamenti di Informatica)

A.A. 2015 - 16 Calcolatori Elettronici (modulo Fondamenti di Informatica)

A.A. 2014 - 15 Calcolatori Elettronici (modulo Fondamenti di Informatica)

A.A. 2013 - 14 Calcolatori Elettronici

A.A. 2012 - 13 Calcolatori Elettronici

A.A. 2008 - 09 Calcolatori Elettronici

Università degli Studi di Palermo, Corso di Laurea in Ingegneria Cibernetica

A.A. 2017 - 18 Calcolatori Elettronici (modulo Reti Logiche)

A.A. 2016 - 17 Calcolatori Elettronici (modulo Reti Logiche)

A.A. 2015 - 16 Calcolatori Elettronici

Università degli Studi di Palermo, Corso di Laurea in Ingegneria Informatica

A.A. 2010-11 Programmazione II

A.A. 2009-10 Programmazione II

Università degli Studi di Palermo, Corso di Laurea in Ingegneria Civile

A.A. 2007-08 Informatica Applicata

A.A. 2006-07 Informatica Applicata

Awards & Fellowships

IEEE Senior Member

Cultore della materia Dipartimento di Ingegneria Informatica dell'Università di Palermo dal 17/09/2010

The paper "Bayer pattern compression by prediction errors" has been selected for the Best Papers List of International Conference on e-business and Telecommunication Networks(ICETE).

Member of CVPL - Associazione Italiana per la ricerca in Computer Vision, Pattern recognition e machine Learning

The paper "Talking with Sentiment: Adaptive Expression Generation Behavior for Social Robots" was awarded as ***Best Paper*** of *19th International Workshop of Physical Agents*.

The paper "Bayer pattern compression by prediction errors" è is among the ***Best Papers*** of the *International Conference on e-business and Telecommunication Networks(ICETE) 2004*.

Member of Ordine degli Ingegneri della Provincia di Trapani

Pubblicazioni

Journal

[1] Agnese Augello, Ignazio Infantino, Giovanni Pilato, and Filippo Vella. Sensing the web for induction of association rules and their composition through ensemble techniques. *Procedia Computer Science*, 169:851–859, 2020.

[2] Adriana Bono, Agnese Augello, Ignazio Infantino, Giovanni Pilato, Filippo Vella, and Salvatore Gaglio. An act-r based humanoid social robot to manage storytelling activities. *Robotics*, 9(25), 2020.

[3] Agnese Augello, Emanuele Cipolla, Ignazio Infantino, Adriano Manfrè, Giovanni Pilato, and Filippo Vella. Social signs processing in a cognitive architecture for an humanoid robot. *Procedia computer science*, 123:63–68, 2018.

[4] Agnese Augello, Frank Dignum, Manuel Gentile, Ignazio Infantino, Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. A social practice oriented signs detection for human-humanoid interaction. *Biologically inspired cognitive architectures*, 25:8–16, 2018.

[5] Agnese Augello, Ignazio Infantino, Umberto Maniscalco, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. Robotic intelligence and computational creativity. *Encyclopedia with Semantic Computing and Robotic Intelligence*, 2(01):1850011, 2018.

[6] Agnese Augello, Ignazio Infantino, Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. Robot inner perception capability through a soft somatosensory system. *International Journal of Semantic Computing*, 12(01):59–87, 2018.

[7] Emanuele Cipolla, Umberto Maniscalco, Riccardo Rizzo, Dario Stabile, and Filippo Vella. Analysis and visualization of meteorological emergencies. *Journal of Ambient Intelligence and Humanized Computing*, 8(1):57–68, 2017.

[8] Filippo Vella, Ignazio Infantino, and Giuseppe Scardino. Person identification through entropy oriented mean shift clustering of human gaze patterns. *Multimedia Tools and Applications*, 76(2):2289–2313, 2017.

[9] A Augello, I Infantino, A Manfrè, G Pilato, and F Vella. Analyzing and discussing primary creative traits of a robotic artist. *Biologically Inspired Cognitive Architectures*, 17:22–31, 2016.

[10] Agnese Augello, Ignazio Infantino, Antonio Lieto, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. Artwork creation by a cognitive architecture integrating computational creativity and dual process approaches. *Biologically inspired cognitive architectures*, 15:74–86, 2016.

[11] Agnese Augello, Ignazio Infantino, Adriano Manfrè, Giovanni Pilato, Filippo Vella, and Antonio Chella. Creation and cognition for humanoid live dancing. *Robotics and Autonomous Systems*, 86:128–137, 2016.

[12] Adriano Manfrè, Agnese Augello, Giovanni Pilato, Filippo Vella, and Ignazio Infantino. Exploiting interactive genetic algorithms for creative humanoid dancing. *Biologically Inspired Cognitive Architectures*, 17:12–21, 2016.

[13] Adriano Manfrè, Ignazio Infantino, Filippo Vella, and Salvatore Gaglio. An automatic system for humanoid dance creation. *Biologically Inspired Cognitive Architectures*, 15:1–9, 2016.

[14] Agnese Augello, Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. Creativity evaluation in a cognitive architecture. *Biologically Inspired Cognitive Architectures*, 11:29–37, 2015.

[15] Agnese Augello, Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. Binding representational spaces of colors and emotions for creativity. *Biologically Inspired Cognitive Architectures*, 5:64–71, 2013.

[16] Agnese Augello, Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. Introducing a creative process on a cognitive architecture. *Biologically Inspired Cognitive Architectures*, 6:131–139, 2013.

[17] Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. Humanoid introspection: A practical approach. *International Journal of Advanced Robotic Systems*, 10(5):246, 2013.

[18] La Cascia M.; Morana M.; Vella F. Automatic image representation and clustering on mobile devices. *Journal of Mobile Multimedia (JMM) - Special Issue on Recent Advances in Mobile and Multimedia Applications*, 6(2):158–169, 2010.

[19] Infantino I., Spoto G., Vella F., and Gaglio S. bi-SIFT: Towards a semantically relevant local descriptor. *Journal of Multimedia Processing and Technologies*, 1(1):63–73, 2010.

[20] Ardizzone Edoardo, La Cascia Marco, Morana Marco, and Vella Filippo. Clustering techniques for personal photo album management. *Journal of Electronic Imaging*, 18(4), 2009.

[21] Spampinato Giuseppe, Guarnera Mirko, Vella Filippo, and Buemi Antonio. Efficient error handling for video and still picture standards. *IEEE Transactions on Consumer Electronics*, 49, 2003.

[22] Vella Filippo, Castorina Alfio, Mancuso Massimo, and Messina Giuseppe. Digital image stabilization by adaptive block motion vectors filtering. *IEEE Transactions on Consumer Electronics*, 48, 2002.

Capitoli di Libro

[23] Agnese Augello, Giovanni Pilato, Gaia Trecarichi, Giorgio Vassallo, and Filippo Vella. A robotic humanoid for information exploration on cultural heritage domain. In *Rediscovering Heritage Through Technology, Studies in Computational Intelligence*, pages 47–65. Springer, 2020.

[24] Agnese Augello, Giuseppe Città, Manuel Gentile, Ignazio Infantino, Dario La Guardia, Adriano Manfrè, Umberto Maniscalco, Simona Ottaviano, Giovanni Pilato, Filippo Vella, et al. Improving spatial reasoning by interacting with a humanoid robot. In *De Pietro G., Gallo L., Howlett R., Jain L. (eds) Intelligent Interactive Multimedia Systems and Services 2017. KES-IIMSS-18 2018. Smart Innovation, Systems and Technologies*, pages 151–160. 2018.

[25] Agnese Augello, Ignazio Infantino, Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. Introducing narrob, a robotic storyteller. In *Gentile M., Allegra M., Söbke H. (eds) Games and Learning Alliance. GALA 2018. Lecture Notes in Computer Science*, pages 387–396. 2018.

[26] Agnese Augello, Ignazio Infantino, Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. Narrob: A humanoid social storyteller with emotional expression capabilities. In *Samsonovich A. (eds) Biologically Inspired Cognitive Architectures 2018. BICA 2018.*, Advances in Intelligent Systems and Computing, pages 9–15. 2018.

[27] Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. Detection of indoor actions through probabilistic induction model. In *De Pietro G., Gallo L., Howlett R., Jain L. (eds) Intelligent Interactive Multimedia Systems and Services 2017. KES-IIMSS-18 2018. Smart Innovation, Systems and Technologies*, pages 129–138. 2018.

[28] Manuele Palmeri, Filippo Vella, Ignazio Infantino, and Salvatore Gaglio. Sign languages recognition based on neural network architecture. In *De Pietro G., Gallo L., Howlett R., Jain L. (eds) Intelligent Interactive Multimedia Systems and Services 2017. KES-IIMSS-18 2018. Smart Innovation, Systems and Technologies*, pages 109–118. 2018.

[29] Agnese Augello, Ignazio Infantino, Adriano Manfrè, Giovanni Pilato, Filippo Vella, Manuel Gentile, Giuseppe Città, Giulia Crifaci, Rossella Raso, and Mario Allegra. A personal intelligent coach for smart embodied learning environments. In *Pietro G., Gallo L., Howlett R., Jain L. (eds) Intelligent Interactive Multimedia Systems and Services 2016. Smart Innovation, Systems and Technologies*, pages 629–636. Springer International Publishing, 2016.

[30] Agnese Augello, Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. Disaster prevention virtual advisors through soft sensor paradigm. In *Pietro G., Gallo L., Howlett R., Jain L. (eds) Intelligent Interactive Multimedia Systems and Services 2016. Smart Innovation, Systems and Technologies*, pages 619–627. Springer, Cham, 2016.

[31] Emanuele Cipolla, Riccardo Rizzo, Dario Stabile, and Filippo Vella. A tool for visualization of meteorological data studied for integration in a multi risk management system. In *Pietro G., Gallo L., Howlett R., Jain L. (eds) Intelligent Interactive Multimedia Systems and Services 2016. Smart Innovation, Systems and Technologies*, pages 275–285. Springer International Publishing, 2016.

[32] Emanuele Cipolla and Filippo Vella. Data dictionary extraction for robust emergency detection. In *Pietro G., Gallo L., Howlett R., Jain L. (eds) Intelligent Interactive Multimedia Systems and Services 2016. Smart Innovation, Systems and Technologies*, pages 25–37. Springer International Publishing, 2016.

[33] Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. Soft sensor network for environmental monitoring. In *Pietro G., Gallo L., Howlett R., Jain L. (eds) Intelligent Interactive Multimedia Systems and Services 2016. Smart Innovation, Systems and Technologies*, pages 705–714. Springer International Publishing, 2016.

[34] Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. I feel blue: Robots and humans sharing color representation for emotional cognitive interaction. In *Biologically inspired cognitive architectures 2012*, Advances in Intelligent Systems and Computing, pages 161–166. Springer, Berlin, Heidelberg, 2013.

[35] Giuseppe Scardino, Ignazio Infantino, and Filippo Vella. Recognition of human identity by detection of user activity. In Louis Marinos and Ioannis Askoxylakis, editors, *Human Aspects of Information Security, Privacy, and Trust*, volume 8030 of *Lecture Notes in Computer Science*, pages 49–58. Springer Berlin Heidelberg, 2013.

[36] Salvatore Gaglio, Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. Vision and emotional flow in a cognitive architecture for human-machine interaction. In *Ebook: Biologically Inspired Cognitive Architectures 2011*, Frontiers in Artificial Intelligence and Applications. 2011.

[37] Edoardo Ardizzone, Marco La Cascia, Marco Morana, and Filippo Vella. Three-domain image representation for personal photo album management. In *Multimedia Content Access: Algorithms and Systems IV, Proceedings of Society of Photographic Instrumentation Engineers (SPIE)*, volume 6540B. 2010.

[38] Edoardo Ardizzone, Marco La Cascia, and Filippo Vella. Unsupervised clustering in personal photo collections. In Marcin Detyniecki, Ulrich Leiner, and Andreas Nürnberger, editors, *Adaptive Multimedia Retrieval. Identifying, Summarizing, and Recommending Image and Music*, volume 5811 of *Lecture Notes in Computer Science*. Springer Berlin Heidelberg, 2010.

[39] Edoardo Ardizzone, Marco La Cascia, and Filippo Vella. Automatic image representation for content-based access to personal photo album. In *Advances in Visual Computing*, volume 4842 of *Lecture Notes in Computer Science*, pages 265–274. Springer, 2007.

[40] Antonio Buemi, Arcangelo Bruna, Filippo Vella, and Alessandro Capra. Bayer pattern compression by prediction errors vector quantization. In *Ascenso J., Vasiu L., Belo C., Saramago M. (eds) e-Business and Telecommunication Networks*, pages 292–297. Springer, Dordrecht, 2006.

[41] Filippo Vella, Giovanni Pilato, Ignazio Motisi, and Salvatore Gaglio. Automatic dictionary creation by sub-symbolic encoding of words. In Marinaro M. and Tagliaferri R., editors, *Neural Nets*, volume 3931 of *Lecture Notes in Computer Science*, pages 113–119. Springer-Verlag, 2005.

[42] Filippo Vella, Giovanni Pilato, Giorgio Vassallo, and Salvatore Gaglio. A geometric approach to automatic description of iconic scenes. In Esposito F. Ali M., editor, *Innovation in Applied Artificial Intelligence*, volume 3533 of *Lecture Notes in Computer Science*, pages 315–317. Springer-Verlag, 2005.

[43] Filippo Vella, Giovanni Pilato, Giorgio Vassallo, and Salvatore Gaglio. Latent semantic description of iconic scenes. In De Gregorio M. Di Maio V. Frucci M. Musio C., editor, *Brain, Vision and Artificial intelligence*, volume 3704 of *Lecture Notes in Computer Science*, pages 537–544. Springer-Verlag, 2005.

Proceedings

[44] Emanuele Cipolla, Riccardo Rizzo, and Filippo Vella. Deep Neural Networks for Emergency Detection. In Lintas, A and Rovetta, S and Verschure, PFMJ and Villa, AEP, editor, *ARTIFICIAL NEURAL NETWORKS AND MACHINE LEARNING - ICANN 2017, PT I*, volume 10613 of *Lecture Notes in Computer Science*, pages 460–461, 2017.

[45] Agnese Augello, Emanuele Cipolla, Ignazio Infantino, Giovanni Pilato, Adriano Manfrè, and Filippo Vella. Creative robot dance with variational encoder. In *International Conference on Computational Creativity*.

[46] Marco La Cascia, Ignazio Infantino, and Filippo Vella. Recognition of human actions through deep neural networks for multimedia systems interaction. In *MMEDIA 2019: The Eleventh International Conference on Advances in Multimedia*, pages 71–76. IARIA, 2019.

[47] Ignazio Infantino, Agnese Augello, Umberto Maniscalto, Giovanni Pilato, and Filippo Vella. A cognitive architecture for social robots. In *2018 IEEE 4th International Forum on Research and Technology for Society and Industry (RTSI)*, pages 1–5. IEEE, 2018.

[48] Marco La Cascia, Giorgio Vassallo, Luigi Gallo, Giovanni Pilato, and Filippo Vella. Automatic image annotation using random projection in a conceptual space induced from data. In *2018 14th International Conference on Signal-Image Technology & Internet-Based Systems (SITIS)*, pages 464–471. IEEE, 2018.

[49] Igor Rodriguez, Adriano Manfrè, Filippo Vella, Ignazio Infantino, and Elena Lazkano. Talking with sentiment: Adaptive expression generation behavior for social robots. In *Fuentetaja Pizán R., García Olaya Á., Sesmero Lorente M., Iglesias Martínez J., Ledezma Espino A. (eds) Advances in Physical Agents. WAF 2018*, Advances in Intelligent Systems and Computing, pages 209–223. Springer, Cham, 2018.

[50] Agnese Augello, Ignazio Infantino, Antonio Lieto, Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. Towards a dual process approach to computational explanation in human-robot social interaction. In *Proceedings of the 1st CAID workshop at IJCAI*, 2017.

[51] Agnese Augello, Ignazio Infantino, Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. The effects of soft somatosensory system on the execution of robotic tasks. In *Robotic Computing (IRC), IEEE International Conference on*, pages 14–21. IEEE, 2017.

[52] Emanuele Cipolla, Ignazio Infantino, Umberto Maniscalco, Giovanni Pilato, and Filippo Vella. Indoor actions classification through long short term memory neural networks. In *Battiato S., Gallo G., Schettini R., Stanco F. (eds) Image Analysis and Processing - ICIAP 2017.*, Lecture Notes in Computer Science, pages 435–444. Springer, Cham, 2017.

[53] Adriano Manfrè, Ignazio Infantino, Agnese Augello, Giovanni Pilato, and Filippo Vella. Learning by demonstration for a dancing robot within a computational creativity framework. In *Robotic Computing (IRC), IEEE International Conference on*, pages 434–439. IEEE, 2017.

[54] Vella Filippo, Augello Agnese, Maniscalco Umberto, Bentivenga Vincenzo, and Gaglio Salvatore. Classification of indoor actions through deep neural networks. In *2016 International Conference on Signal-Image Technology & Internet-Based Systems (SITIS)*. IEEE, 2016.

[55] I Infantino, A Augello, A Manfrè, G Pilato, and F Vella. Robodanza: Live performances of a creative dancing humanoid. In *Proceedings of the Seventh International Conference on Computational Creativity (ICCC 2016). François Pachet, Amilcar Cardoso, Vincent Corruble, Fiammetta Ghedini (Editors).*, pages 388–395. Sony CSL Paris, France, 2016.

[56] Emanuele Cipolla and Filippo Vella. Boosting of association rules for robust emergency detection. In *2015 11th International Conference on Signal-Image Technology & Internet-Based Systems (SITIS)*, pages 185–191. IEEE, 2015.

[57] Agnese Augello, Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. Combining representational domains for computational creativity. In *Proceedings of Fifth International Conference on Computational Creativity, ICCC*, pages 272–275, 2014.

[58] Agnese Augello, Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. Robotic creativity driven by motivation and semantic analysis. In *2014 IEEE International Conference on Semantic Computing*, pages 285–289. IEEE, 2014.

[59] Emanuele Cipolla and Filippo Vella. Identification of spatio-temporal outliers through minimum spanning tree. In *2014 Tenth International Conference on Signal-Image Technology and Internet-Based Systems*, pages 248–255. IEEE, 2014.

[60] Ignazio Infantino, Umberto Maniscalco, Dario Stabile, and Filippo Vella. A fully visual based business document classification system. In *Science and Information Conference (SAI), 2014*, pages 339–344, 2014.

[61] Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. A practical approach to humanoid introspection. In *The 2018 Conference on Artificial Life: A Hybrid of the European Conference on Artificial Life (ECAL) and the International Conference on the Synthesis and Simulation of Living Systems (ALIFE)*, pages 1005–1006, 2013.

[62] Ignazio Infantino, Giuseppe Scardino, and Filippo Vella. Identity recognition through human gaze tracking. In *2013 International Conference on Signal-Image Technology & Internet-Based Systems*, pages 173–178. IEEE, 2013.

[63] Ignazio Infantino, Filippo Vella, G Martino, and Salvatore Gaglio. Fast volumetric reconstruction of human body through superquadrics. In *2013 IEEE International Conference on Systems, Man, and Cybernetics*, pages 3721–3726. IEEE, 2013.

[64] Giovanni Pilato, Riccardo Rizzo, Filippo Vella, and Ignazio Infantino. Human-robot interaction based on introspective capability. In *Complex, Intelligent and Software Intensive Systems (CISIS), 2012 Sixth International Conference on*, pages 461–468. IEEE, 2012.

[65] Filippo Vella, Ignazio Infantino, Salvatore Gaglio, and Gaspare Vetrano. Image segmentation through a hierarchy of minimum spanning trees. In *2012 Eighth International Conference on Signal Image Technology and Internet Based Systems*, pages 381–388. IEEE, 2012.

[66] Ignazio Infantino, Giovanni Pilato, Riccardo Rizzo, and Filippo Vella. A cyc-based web system for semantic organization, search and browsing of knowledge items. In *2011 International Conference on Complex, Intelligent, and Software Intensive Systems*, pages 571–576. IEEE, 2011.

[67] Ignazio Infantino, Giovanni Spoto, Filippo Vella, and Salvatore Gaglio. Composition of sift features for robust image representation. In *Imaging and Printing in a Web 2.0 World; and Multimedia Content Access: Algorithms and Systems IV*, volume 7540, page 754016. 2010.

[68] Ignazio Infantino, Giovanni Spoto, Filippo Vella, and Salvatore Gaglio. Composition of SIFT features for robusts image representation. In *Multimedia Content Access: Algorithms and Systems IV, Proceedings of Society of Photographic Instrumentation Engineers (SPIE)*, volume 6540B. 2010.

[69] Giovanni Pilato, Marco La Cascia, Giorgio Vassallo, and Filippo Vella. A conceptual probabilistic model for the induction of image semantics. In *Proc. Of ICSC 2010 - Fourth IEEE International Conference on Semantic Computing*, 2010.

[70] Giovanni Pilato, Filippo Vella, Giorgio Vassallo, and Marco La Cascia. A conceptual probabilistic model for the induction of image semantics. In *2010 IEEE Fourth International Conference on Semantic Computing*, pages 91–96. IEEE, 2010.

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