

# CURRICULUM VITAE OF FULVIO MASTROGIOVANNI

**Associate Professor.** Department of Informatics, Bioengineering, Robotics and Systems Engineering, University of Genoa, Italy.

## PERSONAL INFORMATION

Birth: June 6th, 1977

Nationality: Italian

Residence: Via G. Mameli 4/6, 16122, Genoa, Italy

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## EDUCATION

2008. **PhD** in Bioengineering, Materials Science and Robotics from the University of Genoa, Italy.

2003. **Laurea Degree** in Computer Engineering from the University of Genoa, Italy (final grade: 108/100).

## ACADEMIC POSITIONS

2018 – present. **Associate Professor** at the University of Genoa, Italy (National Scientific Habilitation to the functions of Full Professor in sector 09/H1 obtained on 09/09/2019 and valid until 09/09/2025).

2020. **Visiting Professor** at the Pontificia Universidad Catolica del Peru, Lima, Peru.

2014 – 2020. **Affiliate Associate Professor** at the Center for Intelligent Robotics, Japan Advanced Institute of Science and Technology, Nomi, Japan.

2014. **Visiting Professor** at the Japan Advanced Institute of Science and Technology, Nomi, Japan.

2014. **Visiting Professor** at Keio University, Tokyo, Japan.

2013. **Visiting Scholar** at the Karlsruhe Institute of Technology, Karlsruhe, Germany.

2012. **Visiting Professor** at Shanghai Jiao Tong University, Shanghai, China.

2011 – 2018. **Assistant Professor** at the University of Genoa, Italy.

2011. **Visiting Professor** at the Asian Institute of Technology, Bangkok, Thailand.

2009 – 2011. **Post-doc Research Associate** at the University of Genoa, Italy.

2004 – 2005. **Research Associate** at the University of Genoa, Italy.

## ACADEMIC SERVICE

2023 – present. **Principal Investigator**, Joint Lab on Construction Robotics between the University of Genoa and WeBuild SpA.

2022 – present. **Member**, Board of the National PhD School in Robotics.

2019 – present. **Contact Person**, Heritage Network Association, EU-India.

2016 – present. **Member**, Board of the PhD School in Bioengineering and Robotics, University of Genoa, Italy.

2014 – present. **Principal Investigator**, TheEngineRoom, University of Genoa, Italy.

2020 – 2023. **Deputy Chancellor for International Affairs** of the University of Genoa, Italy.

2019 – 2022. **Program Coordinator** of the international MSc in Robotics Engineering at the University of Genoa, associated with the Erasmus Mundus European Master on Advanced Robotics Plus and the Erasmus+ Japan-Europe Master on Advanced Robotics consortia.

2018 – 2020. **Member**, Admission and Review Board, Digital Tree Startup Incubator, Genoa, Italy.

2017 – 2020. **Member**, Board for International Relationships of the University of Genoa, Italy.

2017 – 2020. **Member**, Scientific Board of the Italian School on Advanced Science in Kyoto, Japan.

2017 – 2019. **Member**, Board of Directors of Italian Association for Artificial Intelligence, Italy.

2014 – 2019. **Principal Investigator**, Joint Lab between the University of Genoa, Italy, and the Japan Advanced Institute of Science and Technology, Japan.

## ORGANIZATION OF SCIENTIFIC EVENTS AND INITIATIVES

2020. **Awards co-Chair** for IEEE RO-MAN 2020.

2019. **Workshops and Tutorials co-Chair** for IEEE RO-MAN 2019.

2018. **Program co-Chair** for IEEE RO-MAN 2018.

2017. **Workshops and Tutorials co-Chair** for IEEE RO-MAN 2017.

2017. **Industry and Exhibitions co-Chair** for ERF 2017.

2016. **Exhibitions Chair** for IEEE-RSJ IROS 2016.  
2016. **Workshops and Tutorials Chair** for IEEE RO-MAN 2016.  
2015. **EU Program Chair** for IEEE RO-MAN 2015.  
2014. **EU Program Chair** for DARS 2014.  
2013. **Program co-Chair** for URAI 2013.  
2013. **EU Program Chair** for IEEE RO-MAN 2013.  
2012. **Information & Automation co-Chair** for IEEE CASE 2012.  
Served as **Senior** or **Associate Editor** for 4 Q1 journals, and **co-Organizer** of 5 Special Issues in Q1 journals.  
Co-Organizer of 6 international workshops co-located with major Robotics events, and 1 international PhD school.  
Routinely served as **Associate Editor** for AAAI, ICRA, IROS, IJCAI, RO-MAN, RSS, and **Member of the Program Committee** of major international conferences in Artificial Intelligence and Robotics.

#### **PARTICIPATION TO FUNDED RESEARCH PROJECTS IN EDUCATION**

2022 – present. IRAS-HUB. **Local Coordinator**. Erasmus+, 1.1 M€.  
2020 – present. Ulysses. **Local Coordinator**. Erasmus European Universities, 4.9 M€.  
2019 – present. JEMARO. **Local Coordinator**. Erasmus+, 1.7 M€.  
2015 – 2020. EMARO. **Key Person**, later **Local Coordinator**. Erasmus Mundus, 1.8 M€.

#### **TEACHING ACTIVITIES**

2020 – present. “**Artificial Intelligence for Robotics II**” (3 out of 5 ECTS credits), MSc in Rob. Eng.  
2020 – present. “**Ambient Intelligence**” (2 out of 4 credits), MSc in Rob. Eng.  
2019 – present. “**Informatica per l’Ingegneria Industriale**” (3 out of 6 credits), BSc in Mech. Eng..  
2014 – present. “**Software Architectures for Robotics**” (2 credits), Ecole Centrale de Nantes, France.  
2009 – present. “**Software Architectures for Robotics**” (5 credits), MSc in Rob. Eng.  
2015 – 2021. “**Fondamenti di Informatica**” (5 out of 9 credits), BSc in Comp. Eng., University of Genoa, Italy.  
2017 – 2020. “**Social Robotics**” (2 out of 4 credits), MSc in Rob. Eng.  
2012 – 2015. “**Fondamenti di Informatica**” (12 credits), BSc in Comp. Eng., University of Genoa, Italy.  
Supervised or co-supervised 12 PhD students, as well as 61 MSc students.

#### **RESEARCH STATEMENT**

My research activity lies at the intersection of Artificial Intelligence and Robotics, and is focused on scenarios related to human-robot interaction or collaboration. To this aim, I explore the use of different sensing modalities, semantic-oriented data processing techniques, knowledge representation and reasoning approaches, as well as action strategies to design cognitive architectures aimed at increasing robots’ autonomy and intelligence, which leverage innovative models of cognition and computation. All these aspects are integrated in the design of state-of-the art computational solutions, which I deem fundamental to design the robots of the future.

#### **PARTICIPATION TO FUNDED RESEARCH PROJECTS IN RESEARCH**

2022 – present. Dheal-com. **Principal Investigator**. MIUR, PNRR - Complementare, 78 M€.  
2022 – present. Fit4MedRob. **Principal Investigator**. MIUR, PNRR - Complementare 128 M€.  
2022 – present. RAISE. **Principal Investigator**. MIUR, PNRR – Ecosistemi dell’Innovazione, 112 M€.  
2022 – present. DynaVolc. **Principal Investigator**. MIUR, PRIN, 0.9 M€.  
2020 – 2021. MYWAI4ROBOTICS. **Principal Investigator**. EC, H2020, DIH, 0.3 M€.  
2019 – 2022. InDex. **Principal Investigator**. EC, H2020, CHIST-ERA, 1.1 M€.  
2018 – 2021. ASH^2. **Key Person**. MAECI, Bilateral Italy-Israel International Cooperation, 0.2 M€.  
2017 – 2020. CARESSES. **Key Person**. EC, H2020, 2.0 M€.  
2013 – 2015. CloPeMa. **Key Person**. EC, FP7, 1.7 M€.  
2011 – 2014. SHELL, **Principal Investigator**. MISE, Made in Italy – Industria 2015, 1.0 M€.  
2009 – 2012. ROBOSKIN. **Management Coordinator**. EC, FP7, 3.1 M€.  
Established research collaboration with many **universities and research centers worldwide**.

#### **TECHNOLOGY TRANSFER**

2020 – present. **Founder**, Chief Technical Officer, Intra-Operative Surgical Research srl.  
2015 – present. **Founder**, Chief Technical Officer, and later Chief Research Officer, Teseo srl.  
2018 – 2022. **Artificial Intelligence Advisor**, HIRO srl.  
Established formal cooperation agreement schemes with many **international companies and startups**.

## HONORS, AWARDS, INVITATIONS

2020. **Best Paper Award Finalist** at HFR 2020.

2012. The **2012 IFSA Award** for Young Scientist at FedCSIS 2012.

2010. **Best Paper Award** at IEEE RO-MAN 2010.

2008. **Invited paper** at ISUC 2008.

2008. **Best Paper Award** at DARS 2008.

Many additional awards for the work done jointly **with the startup companies** Teseo srl and HIRO srl.

Routinely given **invited talks** at PhD schools, workshops, universities and research centers, and scientific events.

## SUMMARY OF PUBLICATIONS

Outcomes (on May 18th, 2023): **219** publications, out of which **1** edited book, **5** as editorials, **56** in international journals, **22** in book chapters, **130** in international conferences, symposia, and workshops, and **4** patents.

- Co-author of **24** Q1 journal papers according to Scimago Journal Rank (year 2022) in the subject area “Computer Science”, **18** out of which in the period 2016 - 2023.
- Co-author of **42** papers in conference proceedings in such top or very good venues as CDC, FUZZ-IEEE, ICRA, IJCAI, IROS, ISER, ISRR, LPNMR, RO-MAN.

Impact: **2504** citations and h-index **29** (on Google Scholar), **1549** citations and h-index **23** (Scopus).

## PUBLICATIONS LIST (2003-2023)

### *Edited Books*

- B1. F. Mastrogiovanni and N. Y. Chong (Eds.). Handbook of research on Ambient Intelligence and smart environments: Trends and Perspectives. IGI Global, Hershey, PA. August 2011.

### *Editorials*

- E5. P. Beckerle, G. Salvietti, R. Unal, F. Mastrogiovanni. Human-oriented approaches for assistive and rehabilitation robotics – engineering methods, technical implementation, and treatment. Robotics and Autonomous Systems, volume 96, pages 238-241, October 2017.
- E4. W. Sheng, Y. Matsuoka, Y. Ou, M. Liu, F. Mastrogiovanni. Special section on home automation: a human-centered perspective. IEEE Transactions on Automation Science and Engineering, volume 12, number 4, pages 1155-1156, October 2015.
- E3. F. Mastrogiovanni, L. Natale, G. Cannata, G. Metta. Special issue on advances in tactile sensing and tactile-based human-robot interaction. Robotics and Autonomous Systems, volume 63, pages 227-229, January 2015.
- E2. F. Mastrogiovanni and N.Y. Chong. The need for a research agenda in intelligent Robotics. Intelligent Service Robotics, volume 6, number 1, pages 1-3, April 2013.
- E1. F. Mastrogiovanni and N.Y. Chong. Old problems are still there: robot intelligence as the interplay between many components of complex architectures. Intelligent Service Robotics, volume 5, number 4, pages 211-212, December 2012.

### *Journals*

- J56. L. Seminara, S. Dosen, F. Mastrogiovanni, M. Bianchi, S. Watt, P. Beckerle, T. Nanayakkara, K. Drawing, A. Moscatelli, R.L. Klatzky, G.E. Loeb. A hierarchical sensorimotor control framework for human-in-the-loop robotic hands. Science Robotics, volume 8, number 78, May 2023.
- J55. E. Merlo, E. Lamon, F. Fusaro, M. Lorenzini, A. Carfi, F. Mastrogiovanni, A. Ajoudani. Journal of Manufacturing Systems, volume 67, May 2023.

- J54. A. Carfi, F. Mastrogiovanni. Gesture-based human-machine interaction: taxonomy, problem definition, and analysis. *IEEE Transactions on Cybernetics*, volume 53, number 1, January 2023.
- J53. F. Balzarini, P. Traverso, A. Carfi, S. Macciò, V. Giasotto, A. Caviglia, F. Chierigo, G. Guano, M. Borghesi, F. Mastrogiovanni, C. Terrone. A new method to calculate renal tumor contact surface area with better predictive power of warm ischemia time in nephron sparing surgery. *European Urology Open Science*, volume 44, October 2022.
- J52. A. Thomas, F. Mastrogiovanni, M. Baglietto. Safe motion planning with environment uncertainty. *Robotics and Autonomous Systems*, volume 156, 104203, October 2022.
- J51. L. Buoncompagni, K.Y. Syed, F. Mastrogiovanni. Human activity recognition models in ontology networks. *IEEE Transactions on Cybernetics*, volume 52, number 6, June 2022.
- J50. S. Wang, A. Albini, P. Maiolino, F. Mastrogiovanni, G. Cannata. Fabric classification using a finger-shaped tactile sensor via robotic sliding. *Frontiers in Neurorobotics*, volume 16, 808222, February 2022.
- J49. L. Buoncompagni, K.Y. Syed, F. Mastrogiovanni. OWLOOP: a modular API to describe OWL axioms in OOP object hierarchies. *SoftwareX*, volume 17, January 2022.
- J48. A. Thomas, F. Mastrogiovanni, M. Baglietto. Exact and bounded collision probability for motion planning under Gaussian uncertainty. *IEEE Robotics and Automation Letters*, volume 7, number 1, January 2022.
- J47. A. Carfi, T. Patten, Y. Kuang, A. Hammoud, M. Alameh, E. Maiettini, A.I. Weinberg, D. Faria, F. Mastrogiovanni, G. Alenya, L. Natale, V. Perdereau, M. Vincze, A. Billard. Hand-object interaction: from human demonstration to robot manipulation. *Frontiers in Robotics and AI*, volume 8, 714023, October 2021.
- J46. A. Thomas, F. Mastrogiovanni, M. Baglietto. MPTP: Motion-planning-aware task planning for navigation in belief space. *Robotics and Autonomous Systems*, volume 141, 103786, July 2021.
- J45. R. Bertolucci, A. Capitanelli, C. Dodaro, N. Leone, M. Maratea, F. Mastrogiovanni, M. Vallati. Manipulation of articulated objects using dual-arm robots via Answer Set Programming. *Theory and Practice of Logic Programming*, volume 21, number 3, pages 372-401, May 2021.
- J44. K. Darvish, E. Simetti, F. Mastrogiovanni, G. Casalino. A hierarchical architecture for human-robot cooperation processes. *IEEE Transactions on Robotics*, volume 37, number 2, pages 567-586, April 2021.
- J43. A. Thomas, F. Mastrogiovanni, M. Baglietto. An integrated localization, motion planning, and obstacle avoidance algorithm in belief space. *Intelligent Service Robotics*, volume 14, pages 235-250, March 2021.
- J42. E. Coronado, D. Deuff, P. Carreno-Medrano, L. Tian, D. Kulic, S. Sumartojo, F. Mastrogiovanni, G. Venture. Towards a modular and distributed end-user development framework for human-robot interaction. *IEEE Access*, volume 9, pages 12675-12692, January 2021.
- J41. M. Ruzzon, A. Carfi, T. Ishikawa, F. Mastrogiovanni, T. Murakami. A multi-sensory dataset for the activity of daily living. *Data in Brief*, volume 30, 106122, October 2020.
- J40. P.K. Murali, K. Darvish, F. Mastrogiovanni. Deployment and evaluation of a flexible human-robot collaboration model based on AND/OR graphs in a manufacturing environment. *Intelligent Service Robotics*, volume 13, pages 439-457, September 2020.
- J39. I.S. Mohamed, A. Capitanelli, F. Mastrogiovanni, S. Rovetta, R. Zaccaria. Detection, localisation and tracking of pallets using machine learning techniques and 2D range data. *Neural Computing and Applications*, volume 32, pages 8811-8828, July 2020.
- J38. E.L. Coronado, F. Mastrogiovanni, B. Indurkha, G. Venture. Visual programming environments for end-user development of intelligent and social robots: a systematic review. *Journal of Computer Languages*, volume 58, 100970, June 2020.
- J37. A. Carfi, J. Villalobos, E. Coronado, B. Bruno, F. Mastrogiovanni. Can human-inspired learning behaviour facilitate human-robot interaction? *International Journal of Social Robotics*, volume 12, issue 1, pages 173-186, January 2020.

- J36. L. Seminara, P. Gastaldo, S.J. Wyatt, K.F. Valyear, F. Zuher, F. Mastrogiovanni. Active haptic perception in robots: a review. *Frontiers in Neurorobotics*, volume 13, pages 53-73, August 2019.
- J35. B. Bruno, C.T. Recchiuto, I. Papadopoulos, A. Saffiotti, C. Kouloughlioti, R. Menicatti, F. Mastrogiovanni, R. Zaccaria, A. Sgorbissa. Knowledge representation for culturally competent personal robots. *International Journal of Social Robotics*, volume 11, issue 3, pages 515-538, June 2019.
- J34. I.S. Mohamed, A. Capitanelli, F. Mastrogiovanni, S. Rovetta, R. Zaccaria. A 2D laser rangefinder scans dataset of standard EUR pallets. *Data in Brief*, volume 24, pages 1-9, February 2019.
- J33. A. Carfi, F. Foglino, B. Bruno, F. Mastrogiovanni. A multi-sensor dataset for human-human handover. *Data in Brief*, volume 22, pages 109-117, February 2019.
- J32. W. Wasko, A. Albini, P. Maiolino, F. Mastrogiovanni, G. Cannata. Contact modelling and tactile data processing for robot skin. *Sensors*, volume 19, issue 4, page 814, February 2019.
- J31. F. Mastrogiovanni, X. Guo. The robot skin placement problem: a new technique to place triangular modules inside polygons. *Intelligent Service Robotics*, volume 12, issue 1, pages 27-43, January 2019.
- J30. A. Capitanelli, M. Maratea, F. Mastrogiovanni, M. Vallati. On the manipulation of articulated objects in human-robot cooperation scenarios. *Robotics and Autonomous Systems*, volume 109, pages 139-155, November 2018.
- J29. L. Buoncompagni, A. Capitanelli, A. Carfi, F. Mastrogiovanni. From collaborative robots to work mates: a new perspective on human-robot cooperation. *ERCIM News*, volume 114, August 2018.
- J28. K. Darvish, F. Wanderlingh, B. Bruno, E. Simetti, F. Mastrogiovanni, G. Casalino. Flexible human-robot cooperation models for assisted shop-floor tasks. *Mechatronics*, volume 51, pages 97-114, May 2018.
- J27. D. Shah, E. Denicia, T. Pimentel, B. Bruno, F. Mastrogiovanni. Detection of bimanual gestures everywhere: why it matters, what we need and what is missing. *Robotics and Autonomous Systems*, volume 99, pages 30-49, January 2018.
- J26. G. Casalino, E. Simetti, F. Wanderlingh, K. Darwish, B. Bruno, F. Mastrogiovanni. On autonomous robotic cooperation capabilities within factory and logistic scenarios. *Procedia Manufacturing*, volume 11, pages 147-163, June 2017.
- J25. P. Beckerle, G. Salvietti, R. Unal, D. Praticizzo, S. Rossi, C. Castellini, S. Hirche, S. Endo, H. Ben Amor, M. Ciocarlie, F. Mastrogiovanni, B. Argall, M. Bianchi. A human-robot interaction perspective on assistive and rehabilitation robotics. *Frontiers in Neurorobotics*, volume 11, page 24, May 2017.
- J24. F. Pratama, F. Mastrogiovanni, S. G. Lee, N. Y. Chong. Long-term knowledge acquisition using contextual information in a memory-inspired robot architecture. *Journal of Experimental & Theoretical Artificial Intelligence*, volume 29, number 2, pages 313-334, January 2017.
- J23. T. H. L. Lee, P. Maiolino, F. Mastrogiovanni, G. Cannata. Skinning a robot: design methodologies for large-scale robot skin. *IEEE Robotics and Automation Magazine*, volume 23, number 4, pages 150-159, December 2016.
- J22. S. Youssefi, S. Denei, F. Mastrogiovanni, G. Cannata. Skinware 2.0: a real-time middleware for robot skin. *SoftwareX*, volume 3-4, pages 6-12, December 2015.
- J21. B. Bruno, F. Mastrogiovanni, A. Sgorbissa. Wearable inertial sensors: applications, challenges and test benches. *IEEE Robotics and Automation Magazine*, volume 22, number 3, pages 116-124, October 2015.
- J20. S. Youssefi, S. Denei, F. Mastrogiovanni, G. Cannata. A real-time data acquisition and processing framework for large-scale robot skin. *Robotics and Autonomous Systems*, volume 68, pages 86-103, April 2015.
- J19. P. Maiolino, F. Galantini, F. Mastrogiovanni, G. Gallone, G. Cannata, F. Carpi. Soft dielectrics for capacitive sensing in robot skins: performance of different elastomer types. *Sensors and Actuators A: Physical*, volume 226, pages 37-47, February 2015.

- J18. S. Denei, F. Mastrogiovanni, G. Cannata. Towards the creation of tactile maps for robots and their use in robot contact motion control. *Robotics and Autonomous Systems*, volume 63, pages 293-308, January 2015.
- J17. D. Anghinolfi, G. Cannata, F. Mastrogiovanni, C. Nattero, M. Paolucci. Application and experimental validation of pheromone design in ant colony optimization: the problem of robot skin wiring. *Applied Artificial Intelligence*, volume 28, number 3, pages 292-321, January 2014.
- J16. A. Loi, P. Cosseddu, L. Basiricò, S. Lai, P. Maiolino, E. Baglini, S. Denei, F. Mastrogiovanni, G. Cannata, A. Bonfiglio. Organic bendable and stretchable field effect devices for sensing applications. *IEEE Sensors Journal*, volume 13, number 12, pages 4764-4772, December 2013.
- J15. L. Iocchi, E. Menegatti, A. Bonarini, M. Matteucci, E. Pagello, L. Carlucci Aiello, D. Nardi, F. Mastrogiovanni, A. Sgorbissa, R. Zaccaria, R. Sorbello, A. Chella, M. Giardina, P. Zingaretti, E. Frontoni, A. Mancini, G. Cicirelli, A. Farinelli, D. Sorrenti. Development of intelligent service robots. *Intelligenza Artificiale*, volume 7, number 2, pages 139-152, November 2013.
- J14. D. Anghinolfi, G. Cannata, F. Mastrogiovanni, C. Nattero, M. Paolucci. On the problem of the automated design of large-scale robot skin. *IEEE Transactions on Automation Science and Engineering*, volume 10, number 4, pages 1087-1100, October 2013.
- J13. F. Mastrogiovanni, A. Paikan, A. Sgorbissa. Semantic-aware real-time scheduling in Robotics. *IEEE Transactions on Robotics*, volume 29, number 1, pages 118-135, February 2013.
- J12. F. Mastrogiovanni, A. Sgorbissa. A behaviour sequencing and composition architecture based on ontologies for entertainment humanoid robots. *Robotics and Autonomous Systems*, volume 62, number 2, pages 170-183, December 2012.
- J11. F. Mastrogiovanni, A. Sgorbissa. A biologically plausible, neural-inspired planning approach which does not solve 'the gourd, the monkey and the rice' puzzle. *Journal of Bio-Inspired Cognitive Architectures*, volume 2, pages 77-87, October 2012.
- J10. F. Mastrogiovanni, A. Sgorbissa and R. Zaccaria. How the location of the range sensor affects EKF-based localization. *Journal of Intelligent and Robotic Systems: Theory and Applications*, volume 68, number 2, pages 121-145, November 2012.
- J9. D. Anghinolfi, G. Cannata, F. Mastrogiovanni, C. Nattero, M. Paolucci. Heuristic approaches for the optimal wiring in large scale robotic skin design. *Computers and Operations Research*, volume 39, number 11, pages 2715-2724, November 2012.
- J8. A. Loi, L. Basiricò, P. Cosseddu, S. Lai, P. Maiolino, E. Baglini, S. Denei, F. Mastrogiovanni, G. Cannata, C. Palomba, M. Barbaro, A. Bonfiglio. Matrices of inkjet printed OFETs for the realisation of artificial robot skin. *MRS Proceedings 1401*, July 2012.
- J7. F. Mastrogiovanni, A. Scalmato, A. Sgorbissa and R. Zaccaria. Robots and Intelligent Environments: Knowledge representation and distributed context assessment. *Automatika*, volume 52, number 3, September 2011.
- J6. F. Mastrogiovanni, A. Scalmato, A. Sgorbissa and R. Zaccaria. Problem awareness for skilled humanoid robots. *The International Journal of Machine Consciousness*, volume 3, number 1, page 91-114, June 2011.
- J5. F. Mastrogiovanni, A. Scalmato, A. Sgorbissa and R. Zaccaria. A cognitive model for recognizing human behaviours in smart homes. *Annals of Telecommunications*, volume 65, number 9, pages 523-538, October 2010.
- J4. F. Mastrogiovanni, A. Sgorbissa and R. Zaccaria. Activity recognition in smart homes: from specification to representation. *International Journal of Intelligent and Fuzzy Systems*, volume 21, number 1-2, pages 33-48, February 2010.
- J3. F. Capezio, F. Mastrogiovanni, A. Sgorbissa and R. Zaccaria. Robot-assisted surveillance in large environments. *Journal of Computing and Information Technologies*, volume 18, number 1, March 2009.

- J2. F. Mastrogiovanni, A. Sgorbissa and R. Zaccaria. Robust navigation in an unknown environment with minimal sensing and representation. *IEEE Transactions on System, Man and Cybernetics – Part B: Cybernetics*, volume 39, number 1, pages 212-229, February 2009.
- J1. F. Mastrogiovanni, A. Sgorbissa and R. Zaccaria. On the problem of describing activities in context-aware environments. *International Journal of Assistive Robotics and Mechatronics*, volume 9, number 4, December 2008.

### *Book Chapters*

- BC22. F. Benedetti, A. Capitanelli, F. Mastrogiovanni, G.V. Vercelli. Long-term area coverage and radio relay positioning using swarms of UAVs. In C. Gao, C. Zhao (Eds), *Cooperative Localization and Navigation: Theory, Research, and Practice*, CRC Press, August 2019.
- BC21. G. Cerruti, W. Z. Guo, F. Mastrogiovanni. A motion planning architecture for conveyance tasks with a quadruped robot. In W. Chen, K. Hosoda, Y. Fu, H. Wang, E. Menegatti, X. Wu (Eds), *Intelligent Autonomous Systems 14, Advances in Intelligent Systems and Computing series*, vol. 531, Springer International Publishing AG, New York, February 2017.
- BC20. C. Nattero, F. Mastrogiovanni. Partition strategies for multi-robot area coverage with no communication. In W. Chen, K. Hosoda, Y. Fu, H. Wang, E. Menegatti, X. Wu (Eds), *Intelligent Autonomous Systems 14, Advances in Intelligent Systems and Computing series*, vol. 531, Springer International Publishing AG, New York, February 2017.
- BC19. M. Bono, P. Maiolino, A. Lefebvre, F. Mastrogiovanni, H. Ishiguro. Challenges for robots acting on a stage: creating sequential structures for interaction and the interaction process with the audience. In R. Nakatsu, M. Rautenberg, P. Ciancarini (Eds.), *Handbook of Digital Games and Entertainment Technologies*, Springer, Singapore, February 2016.
- BC18. R. Marino, F. Mastrogiovanni, A. Sgorbissa, R. Zaccaria. A minimalistic quadrotor navigation strategy for indoor multi-floor scenarios. In E. Menagatti, N. Michael, K. Berns, H. Yamaguchi (Eds), *Intelligent Autonomous Systems 13, Advances in Intelligent Systems and Computing series*, vol. 302, Springer International Publishing, Lausanne, Switzerland, 2016.
- BC17. B. Bruno. F. Mastrogiovanni, A. Saffiotti, A. Sgorbissa. Using fuzzy logic to enhance classification of human motion primitives. In A. Laurent, O. Strauss, B. Bouchon-Meunier, R. R. Yager (Eds), *Information Processing and Management of Uncertainty in Knowledge-Based Systems, Communications in Computer and Information Science*, vol. 443, Springer International Publishing, Lausanne, Switzerland, 2014.
- BC16. D. Anghinolfi, G. Cannata, F. Mastrogiovanni, C. Nattero, M. Paolucci. Experimental evaluation of pheromone structures for ant colony optimization: application to the robot skin wiring problem. In S. Fidanova (Ed.), *Recent Advances in Computational Optimization, Studies in Computational Intelligence series*, vol. 470, Springer, June 2013.
- BC15. F. Mastrogiovanni, A. Sgorbissa, R. Zaccaria. Distributed sensing and human-Aware robot reasoning mechanisms. In N.Y. Chong (Ed.), *Networking Humans, Robots and Environments*, Bentham Books Publishers, Lausanne, Switzerland, May 2013.
- BC14. F. Mastrogiovanni, A. Scalmato, A. Sgorbissa and R. Zaccaria. On the representation and reasoning about temporal patterns of activities in smart environments. In S.M. Hazarika (Ed.), *Qualitative Spatio-Temporal Representation and Reasoning: Trends and Future Directions*. IGI Global, Hershey, PA, May 2012.
- BC13. F. Mastrogiovanni, A. Scalmato, A. Sgorbissa and R. Zaccaria. Smart environments and activity recognition: a logic-based approach. In L. Chen, C. Nugent, J. Biswas and J. Hoey (Eds.), *Activity Recognition in Pervasive Intelligent Environments, Ambient and Pervasive Intelligence series*, volume 4, Atlantis Press, 2011.
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