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Publications (h-index = 26)

Refereed Journal Articles

1. Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., Tapus, A. (2016) " Joint Attention in Human-Robot Interaction: Impact of Sensory Preferences of Individuals with Autism", *International Journal on Social Robotics (IJSR)* (under review)
2. Aly, A., and **Tapus, A.** (2016) "Multimodal Adapted Robot's Behavior Synthesis within a Narrative Human-Robot Interaction", *IEEE Transactions on Robotics* (under review)
3. Rossi, S., Ferland, F., Tapus, A. (2017) "User Profiling and Behavioral Adaptation for HRI: a Survey", *Pattern Recognition Letters* (under review)
4. Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., **Tapus, A.** (2016), "Exploratory Study for Customized Human-Machine Interaction for People Suffering of ASD", In *Autonomous Robots, Special Issue on Assistive and Rehabilitation Robotics*, May 2016 (impact factor: 2.07)
5. Aly, A., and **Tapus, A.** (2015) "An Integrated Model for Generating a Combined Verbal and Non-Verbal Behavior Adapted to Personality Dimensions in Human-Robot Interaction", *Autonomous Robots*, July 2015 (impact factor: 2.07)
6. Mozos, O., M., Galindo, C., and **Tapus, A.** (2015) "Computer-Based Intelligent Technologies for Improving the Quality of Life", Guest Editorial, *IEEE Journal of Biomedical and Health Informatics*, 2015 (impact factor: 1.98)
7. Dang, T-H. H., and **Tapus, A.** (2015) "Stress Game - The Role of Motivational Robotic Assistance in Reducing User's Task Stress", *International Journal of Social Robotics*, 2015 (impact factor: 1.207)
8. Ramaswamy A., Monsuez, B., and **Tapus, A.** (2014) "Solution Space Modeling for Robotic Systems", *JOSER*, 5(1), pp. 89-96, ISSN: 2035-3928.
9. **Tapus, A.** (2013) " Can We Trust Closed-Skull Socially Assistive Robots?", *IEEE Transactions on Autonomous Mental Development*. Commentary on John Weng: "Modeling AMD and Its Application to Assistive Robotics: Closed Skull or Not?", May 2013.

10. **Tapus, A.**, Peca, A., Aly, A., Pop, C., Jisa, L., Pinteau, S., Rusu, A., and David, D. "Exploratory Study: Children's with Autism Awareness of Being Imitated by Nao Robot", *Interaction Studies*, 13(3), 2012
11. **Tapus, A.** (2012) "Is Developmental Robotics a Solution for Socially Assistive Robotics?", *IEEE Transactions on Autonomous Mental Development*. Commentary on Rohlfing, K. J. & Wrede, B.: "What Novel Scientific and Technological Questions Developmental Robotics Bring to HRI? Are we Ready for a Loop?", May 2012.
12. Ramisa, A., **Tapus, A.**, Lopez de Mantaras R., and Toledo R. (2009) "Robust Mobile Robot Localization using Panoramic Vision and Combinations of Local Feature Region Detectors", *Autonomous Robots, Special Issue: Characterizing Mobile Robot Localization and Mapping*, 27(4), pp 373-385, November 2009.
13. **Tapus, A.**, Tapus, C. and Matarić, M., J. (2008) "User-Robot Personality Matching and Robot Behavior Adaptation for Post-Stroke Rehabilitation Therapy", *Intelligent Service Robotics, Special Issue on Multidisciplinary Collaboration for Socially Assistive Robotics*, 1(2):169-183, April, 2008.
14. **Tapus, A.**, Matarić, M., J., and Scassellati, B. (2007) "The Grand Challenges in Socially Assistive Robotics", *IEEE Robotics and Automation Magazine (RAM), Special Issue on Grand Challenges in Robotics*, Vol. 14, No. 1, March, 2007.
15. **Tapus, A.** and Matarić, M., J. (2006) "Towards Socially Assistive Robotics", *International Journal of the Robotics Society of Japan (JRSJ)*, 24(5), pp. 576-578, July, 2006.

Refereed Books

16. **Tapus, A.**, Andre, E., Martin, J.-C., Ferland, F., Ammi, M. (Eds.) (2015) "Social Robotics", 7th International Conference, ICSR 2015, Paris, France, October 26-30, 2015, Proceedings Series: Lecture Notes in Computer Science, Vol. 9388, Subseries: Lecture Notes in Artificial Intelligence

Refereed Book Chapters

17. Ferland, F., Agrigoroaie, R., and Tapus, A. (2017) "Assistive humanoid robots for the elderly with MCI", In Handbook for Robotics, Editors Ute Leonards (under review).
18. Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., Tapus, A. (2016) "Proprioceptive and Kinematic Profiles for Customized Human-Robot Interaction for People Suffering from Autism", In Autism - Paradigms and Clinical Application, Intech, ISBN 978-953-51-5013-8.
19. Ramaswamy A., Monsuez, B., and **Tapus, A.** (2016) "Formal Specification of Robotic Architectures for Experimental Robotics", In Springer Cosmos Series Book on Metrics of sensory motor integration in robots and animals.

20. Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., **Tapus, A.** (2015) "Individuals with Autism: Analysis of the First Interaction with Nao Robot Based on Their Proprioceptive and Kinematic Profiles", In *Advances in Robot Design and Intelligent Control* Volume 371 of the series *Advances in Intelligent Systems and Computing*, pp 225-233, 2015
21. Aly, A. and **Tapus, A.** (2015) "An Online Fuzzy-Based Approach for Human Emotions Detection: An Overview on the Human Cognitive Model for Multimodal Actions Understanding-Generation", In *Intelligent Assistive Robots*, Volume 106 of the series *Springer Tracts in Advanced Robotics* pp 185-212
22. Matarić, M. J., **Tapus, A.**, Winstein, C., and Eriksson, J. (2012) "Socially Assistive Robotics for Stroke and Mild TBI Rehabilitation", In *Brain Injury and Stroke: Spectrum Effects and Implications*, James Giordano and Patrick Waters (Eds.), 2012, Potomac Institute Press.
23. Aly, A. and **Tapus, A.** (2012) "Speech to Head Gesture Mapping in Multimodal Human-Robot Interaction", In *Service Orientation in Holonic and Multi-Agent Manufacturing Control*, Series: *Springer Tracts in Studies in Computational Intelligence*, Theodor Borangiu; Andre Thomas; Damien Trentesaux (Eds.), Vol. 402, 2012, pp.183-197.
24. **Tapus, A.** , Tapus, C. and Matarić, M., J. (2010) "Long Term Learning and Online Robot Behavior Adaptation for Individuals with Physical and Cognitive Impairments", In *Field and Service Robotics, Results of the 7th International Conference*, Series: *Springer Tracts in Advanced Robotics*, Kelly, Alonzo; Iagnemma, Karl; Howard, Andrew (Eds.), Vol. 62, pp. 389-401, 2010.
25. Matarić, M. J., **Tapus, A.**, Winstein, C., and Eriksson, J. (2009) "Socially Assistive Robotics for Stroke and Mild TBI Rehabilitation", In *Advanced Technologies in Rehabilitation*, A. Gaggioli, E. Keshner, P. Weiss, and G. Riva, (Eds.), Vol. 145, 2009, IOS Press, pp. 249-262.
26. **Tapus, A.** and Siegwart, R. (2008) "Topological SLAM using Fingerprints of Places", In Pierre Bessière, Roland Siegwart and Christian Laugier, editors, *Bayesian sensory-motor models and programs*, Springer-Verlag, 2008.
27. **Tapus, A.** and Matarić, M., J. (2006) "User Personality Matching with Hands-Off Robot for Post-Stroke Rehabilitation Therapy", In *Experimental Robotics*, Vol. 39, Springer-Verlag, 2008, pp. 165-175.
28. Bellot, D., Siegwart, R., Bessière, P., **Tapus, A.**, Coué, C. and Diard, J. (2003) "Bayesian Reasoning for Real World Robotics: Basics, Scaling and Example." In Fumiya Iida and Rolf Pfeifer and Luc Steels and Yasuo Kuniyoshi, editors, *Embodied Artificial Intelligence*, Lecture Notes in Computer Science Series, volume 3139, pages 186-201, Springer-Verlag, 2003.

Refereed Conferences Proceedings

29. Ramaswamy A., Monsuez, B., and Tapus, A. (2017) "Using Knowledge-based Engineering Methods in Robotics Software Development", In Proceedings of the The First IEEE International Conference on Robotic Computing, Taichung, Taiwan, April 2017
30. Chevalier, P., Martin, J.-C., Isableu, B., Bazile, C., **Tapus, A.** (2017) " Impact of Sensory Preferences of Children with ASD on Imitation with a Robot ", In Proceedings of HRI 2017 (24% acceptance rate), Vienna, Austria, March 2017
31. Bostan, A., Tapus, N., **Tapus, A.** (2017) "IntelliCane: A Cane System for Individuals with Lower-Limb Mobility and Functional Impairments", In Proceedings of the International Conference on Rehabilitation Robotic (ICRR 2017), Boston, USA, April 2017.
32. Orefice, P.H., Hafez., M., Ammi, M., and **Tapus, A.** (2016) " Let's Handshake and I'll Know who You Are: Gender and Personality Discrimination in Human-Human and Human-Robot Handshaking Interaction", In Proceedings of the Humanoids International Conference, Cancun, Mexico, November 2016
33. Cruz, A., and **Tapus, A.** (2016) " Teaching Nutrition and Healthy Eating by using Multimedia with a Kompai Robot: Effects of Stress and User's Personality", In Proceedings of the Humanoids International Conference, Cancun, Mexico, November 2016
34. Cruz, A., and **Tapus, A.** (2016) "Influence of user's personality on task execution when reminded by a robot", In Proceedings of International Conference on Social Robotics (ICSR 2016), Kansas City, USA, November 2016
35. Agrigoroaie, R., Ferland, F., and **Tapus, A.,** (2016) " The ENRICHME Project: Lessons Learnt from a First Interaction with the Elderly", In Proceedings of International Conference on Social Robotics (ICSR 2016), Kansas City, USA, November 2016
36. Ferland, F. and **Tapus, A.,** (2016) " Functional and Non-Functional Expressive Dimensions: Classification of the Expressiveness of Humanoid Robots", In Proceedings of International Conference on Social Robotics (ICSR) 2016, Kansas City, USA, November 2016
37. Amorim, M., Martin., J.-A., Monacelli, E., **Tapus, A.** (2016) " What can we learn from the neuroplasticity driven by assistive technologies for motor rehabilitation?", In Proceedings of the Neuromechanics 2016 Symposium, Heidelberg, Germany, October 2016.
38. Chevalier, P., Martin, J.-C., Isableu, B., Bazile, C., Iacob, D., O., **Tapus, A.** (2016) " Joint Attention with a Robot: Impact of Sensory Preferences of Children with Autism ", In Proceedings of RO-MAN 2016, New York, USA, August 2016
39. Salatino, C., Gower, V., Ghrissi, M., **Tapus, A.,** Wieczorowska-Tobis, K., Suwalska, A., Barattini, P., Rosso, R., Munaro, G., Bellotto, N., van den Heuvel,

- H. (2016) "The EnrichMe project: a robotic solution for independence and active aging of elderly people with MCI", In Proceedings of the 15th International Conference on Computers Helping People with Special Needs, Austria, July 2016
40. Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., **Tapus, A.** (2015) "Profilage Visuel et Proprioceptif pour l'Elaboration des Interactions Homme-Robot Adaptées", In Journée "Sciences du Mouvement" (FEDEV 2015), Paris, France, December 2015, **Awarded Best Student Paper Award.**
 41. Sorostinean, M., Ferland, F., and **Tapus, A.** (2015) "Reliable Stress Measurement using Face Temperature Variation with a Thermal Camera in Human-Robot Interaction", In Proceedings of 2015 IEEE-RAS International Conference on Humanoid Robots (Humanoids 2015), Seoul, South-Korea, November 2015
 42. Cruz, A., Ferland, F., and **Tapus, A.** (2015) "Social Facilitation in a Game-Like Human-Robot Interaction using Synthesized Emotions and Episodic Memory", In Proceedings of International Conference on Social Robotics (ICSR 2015), Paris, France, October 2015
 43. Cylkowska-Nowak, M., Tobis, S., Salatino, C., **Tapus, A.**, Suwalska, A. (2015) "The robot in elderly care. In: Psychology and psychiatry, sociology and health care", In Proceedings of SGEM 2015, pp 1007-1014.
 44. Ferland, F., and **Tapus, A.** (2015) "Functional and Non-Functional Expressive Dimensions: Classification of the expressiveness of the face of humanoid robots", In Proceedings of IROS 2015 Workshop on "Towards Standardized Experiments in HRI", Hamburg, Germany, September-October 2015
 45. Aly, A., and **Tapus, A.** (2015) "Multimodal Adapted Robot's Behavior Synthesis within a Narrative Human-Robot Interaction", In Proceedings of IROS 2015, Hamburg, Germany, September-October 2015. Finalist JTCF Novel Technology Paper Award.
 46. Tsalamlal, M.Y., Amorim, M-A., Martin, J. C., **Tapus, A.**, Ammi, M. (2015) "Combining Facial Expression and Haptic Feedback to Perceive Emotion during Human-Robot Interaction", In Proceedings of the 6th International Conference on Affective Computing and Intelligent Interaction (ACII2015), Xi'an, China, September 2015
 47. Ramaswamy A., Monsuez, B., and **Tapus, A.** (2015) "Architecture Modeling for Experimental Robotics", In Proceedings of the IEEE European Conference on Social Robotics (ECMR 2015), Lincoln, UK, September 2015.
 48. Chevalier, P., Martin, J.-C., Isableu, B., **Tapus, A.** (2015) "Impact of Personality on the Recognition of Emotion Expressed via Human, Virtual and Robotic Embodiments", In Proceedings of RO-MAN 2015, Japan, August 2015
 49. Ferland, F., Cruz, A., **Tapus, A.**, (2015) "Adapting an hybrid behavior-based architecture with episodic memory to different humanoid robots", In Proceedings of RO-MAN 2015, Japan, August 2015

50. Chevalier, P., Martin, J.-C., Bazile, C., Isableu, B., **Tapus, A.** (2015) "Exploratory Study for Customized Human-Machine Interaction for People Suffering of ASD", In Proceedings of RAAD 2015, Bucharest, Romania, May 2015, Awarded Best Paper Award.
51. **Tapus, A.**, Vieru, A.M., Niculescu, R., and Tudose, C. (2015) (2015) "Nao Robot Cognitive Stimulation for the Elderly", In Proceedings of the World Psychiatric Association (WPA), Bucharest, Romania, May 2015
52. Chevalier, P., **Tapus, A.**, Martin, J.-C., Bazile, C., Isableu, B., (2015) "Social Personalized Human-Machine Interaction for People with Autism: A close look at Proprioceptive and Visual Orientation Integration", International Meeting for Autism Research, Salt Lake City, USA, May 2015
53. Chevalier, P., **Tapus, A.**, Martin, J.-C., Bazile, C., Isableu, B. (2015) "Social Personalized Human-Machine Interaction for People with Autism: Defining User Profiles and First Contact with a Robot", In Proceedings of IEEE Human-Robot Interaction Conference (HRI) Late Break Report, Oregon, USA, March 2015
54. Andrist S., Mutlu, B., and **Tapus, A.** (2015) "Look Like Me: Matching Robot Personality via Gaze to Increase Motivation", CHI 2015, South Korea (23% acceptance rate). Awarded Best Honourable Mention.
55. Ammi, M., Demulier, V., Caillou, S., Gaffary, Y., Ballik, Y., Martin, J.-C., and **Tapus, A.** (2015) "Haptic Human-Robot Affective Interaction in a Handshaking Social Protocol", In Proceedings of IEEE Human-Robot Interaction Conference (HRI), Oregon, USA, March 2015 (25% acceptance rate).
56. Ramaswamy A., Monsuez, B., and **Tapus, A.** (2014) "Architecture Modeling and Analysis Language for Designing Robotic Architectures", In Proceedings of the 13th International Conference on Control, Automation, Robotics and Vision (ICARCV), Singapore, December 2014.
57. Ramaswamy A., Monsuez, B., and **Tapus., A.** (2014) "Physiological Signals in Driving Scenario - How Heart Rate and Skin Conductance Reveal Different Aspects of Driver's Cognitive Load", In Proceedings of *AAAI Spring Symposium on Formal Verification and Modeling in Human-Machine Systems*, Palo Alto, USA, March 2014.
58. Dang, T.-H. H., and **Tapus, A.** (2014) "User model in adjustable control system", In *Proceedings of the OASIS Special Session at International Conference on Physiological Computing Systems (PhyCS2014)*, Lisbon, Portugal, January 2014.
59. Aly, A., and **Tapus, A.** (2013) "Prosody-Based Adaptive Metaphoric Head and Arm Gestures Synthesis in Human Robot Interaction", In *Proceedings of The 16th International Conference on Advanced Robotics (ICAR)*, Montevideo, Uruguay, Nov 2013.

60. Ramaswamy A., Monsuez, B., and **Tapus., A.** (2013) "Formal Models for Cognitive Systems", In *Proceedings of The 16th International Conference on Advanced Robotics (ICAR)*, Montevideo, Uruguay, Nov 2013.
61. Dang, T.-H. H., and **Tapus, A.** (2013) "Coping with stress by using social robots as emotion-oriented tools: Potential factors discovered from Stress Game experiment", In *Proceedings of the International Conference on Social Robotics (IJSR)*, Bristol, UK, Oct 2013.
62. Dang, T.-H. H., and **Tapus, A.** (2013) "Personality Matching to Generate Empathy in Human-Robot Teamwork", In *Proceedings of The 3rd Joint IEEE International Conference on Development and Learning And Epigenetic Robots (ICDL-EPIROB)*, Osaka, Japan, Aug 2013.
63. **Tapus, A.** and Vieru, A. (2013) "Robot Cognitive Stimulation for the Elderly", IWINAC 2013, Mallorca, Spain, June 2013
64. Dang, T.-H. H., and **Tapus, A.** (2013) "User model in adjustable control system", In *Proceedings of the IEEE International Conference on Collaboration Technologies and Systems (CTS)*, San Diego, USA, May 2013.
65. Ramaswamy A., Monsuez, B., and **Tapus., A.** (2013) "Reconfigurable Component Architecture for Decision Making in Autonomous Vehicles", In *Proceedings of the IEEE International Conference on Collaboration Technologies and Systems (CTS)*, San Diego, USA, May 2013.
66. Aly, A., and **Tapus, A.** (2013) "A Model for Synthesizing a Combined Verbal and NonVerbal Behavior Based on Personality Traits in Human-Robot Interaction", In *Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI 2013)*, Tokyo, Japan, March 2013.
67. Aly, A., and **Tapus, A.** (2012) "Towards an Online Real Time Fuzzy Modeling for Human Internal States Detection", In *Proc. IEEE International Conference on Robotics and Automation (ICARCV)*, Guangzhou, China, December 2012.
68. Peca, A., **Tapus, A.**, Aly, A., Pop, C., Jisa, L., Pinte, S., Rusu, A., and David, D. (2012) "Exploratory Study: Children's with Autism Awareness of Being Imitated by Nao Robot", In *Proceedings of the 1st International Conference on Innovative Technologies for Autism Spectrum Disorders. ASD: Tools, Trends and Testimonials (ITASD)*, Valencia, Spain, July 2012.
69. Aly, A., and **Tapus, A.** (2012) "An Integrated Model of Speech to Arm Gestures Mapping in Human-Robot Interaction", In *Proceedings of the 14th IFAC Symposium on Information Control Problems in Manufacturing (INCOM)*, Bucharest, Romania, May 2012 (Best Paper Award).
70. Filliat, D., Battesti, E., Bazeille, S., Duceux, G., Gepperth, A., Harrath, L., Jebari, I., Pereira, R., **Tapus, A.**, Meyer, C., Ieng, S., Benosman, R., Cizeron, E., Mamanna, J.-C., & Pothier, B. (2012) "RGBD object recognition and visual texture classification for indoor semantic mapping", In *Proceedings of the 4th IEEE International Conference on Technologies for Practical Robot Applications (TePRA)*, Boston, MA, USA, April 2012

71. Aly, A., and **Tapus, A.** (2011) "Speech to Head Gesture Mapping in Multimodal Human-Robot Interaction", In *Proceedings of the European Conference on Mobile Robotics*, Orebro, Sweden, September 2011.
72. **Tapus, A.** and Aly, A. (2011) "User Adaptable Robot Behavior", In *Proceedings of the IEEE International Conference on Collaboration Technologies and Systems (CTS)*, Philadelphia, USA, May 2011.
73. Jebrari, I., Bazeille, S., **Tapus, A.**, Filliat, D., Benosman, R., Ieng, S.H., Meyer, C., Pothier, B., Mamanna, J.C., and Cizeron, E. (2011) "Multi-sensor semantic mapping and exploration of indoor environments", In *Proceedings of the 3rd IEEE International Conference on Technologies for Practical Robot Applications (TePRA)*, Boston, MA, USA, April 2011.
74. Zong, C., Chetouani, M. and **Tapus, A.** (2010) "Automatic detection of changes in walking speed with a mobility assistance system", In *Proceedings of the 11th International Conference on Control, Automation, Robotics and Vision (ICARCV)*, Singapore, Dec 2010.
75. Granata, C., Chetouani, M., **Tapus, A.**, Bidaud, P., and Dupourque, V. (2010) "Voice and graphical -based interfaces for interaction with a robot dedicated to elderly and people with cognitive disorders", In *Proceedings of the 19th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*, Viareggio, Italy, Sept-Oct 2010.
76. **Tapus, A.**, Tapus, C. and Matarić, M., J. (2009) "The Role of Physical Embodiment of a Therapist Robot for Individuals with Cognitive Impairments", *Proceedings of the 18th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*, Toyama, Japan, Sept-Oct 2009.
77. **Tapus, A.** (2009) "Long Term Learning and Online Robot Behavior Adaptation for Individuals with Physical and Cognitive Impairments", *Proceedings of the International Conference on Advanced Technologies for Enhanced Quality of Life (AT-EQUAL)*, Iasi, Romania, July 2009.
78. **Tapus, A.**, Tapus, C. and Matarić, M., J. (2009) "Long Term Learning and Online Robot Behavior Adaptation for Individuals with Physical and Cognitive Impairments", *Proceedings of the International Conference on Field and Service Robotics (FSR)*, Boston, USA, 14-16 July 2009.
79. **Tapus, A.**, Tapus, C. and Matarić, M., J. (2009) "The Use of Socially Assistive Robots in the Design of Intelligent Cognitive Therapies for People with Dementia", *Proceedings of the International Conference on Rehabilitation Robotics (ICORR)*, Kyoto, Japan, June 2009.
80. **Tapus, A.** (2009) "Assistive Robotics for Healthcare and Rehabilitation", *Proceedings of the 17th International Conference on Control Systems and Computer Science (CSCS)*, Bucharest, Romania, May 2009.

81. Ramisa, A., **Tapus, A.**, Lopez de Mantaras R., and Toledo R. (2008) "Mobile Robot Localization using Panoramic Vision and Combinations of Local Feature Region Detectors", In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, Pasadena, CA, USA, April 2008.
82. **Tapus, A.**, Tapus C. and Matarić, M., J. (2007) "Hands-Off Therapist Robot Behavior Adaptation to User Personality for Post-Stroke Rehabilitation Therapy", In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, Roma, Italy, April 2007.
83. **Tapus, A.** and Matarić, M., J. (2006) "User Personality Matching with Hands-Off Robot for Post-Stroke Rehabilitation Therapy", In *Proceedings of the International Symposium on Experimental Robotics (ISER)*, Springer Tracts in Advanced Robotics, Rio de Janeiro, Brazil, July 2006.
84. **Tapus, A.** and Siegwart, R. (2006) "A Cognitive Modeling of Space using Fingerprints of Places for Mobile Robot Navigation", In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, Orlando, Florida, U.S.A., pp. 1188- 1193, May 2006.
85. **Tapus, A.**, Battaglia, F., and Siegwart, R. (2006), "The Hippocampal Place Cells and Fingerprints of Places: Spatial Representation Animals, Animats and Robots." In *Proceedings of IAS-9*, March 2006, Tokyo, Japan.
86. Ramel, G., **Tapus, A.**, Aspert, F. and Siegwart, R. (2006), "Simple Form Recognition using Bayesian Programming." In *Proceedings of IAS-9*, March 2006, Tokyo, Japan.
87. **Tapus, A.** and Siegwart, R. (2005), "Incremental Robot Mapping with Fingerprints of Places" In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Edmonton, Canada, August 2005.
88. **Tapus, A.**, Vasudevan, S. and Siegwart, R. (2005), "Toward a Multilevel Cognitive Probabilistic Representation of Space." In *Proceedings of the International Conference on Human Vision and Electronic Imaging X (HVEI)*, part of the IS&T/SPIE Symposium on Electronic Imaging 2005, 16-20 January 2005, CA, USA.
89. **Tapus, A.**, Ramel, G., Dobler, L. and Siegwart, R. (2004), "Topology Learning and Place Recognition using Bayesian Programming for Mobile Robot Navigation." In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Sendai, Japan, September 2004.
90. **Tapus, A.**, Tomatis, N. and Siegwart, R. (2004), "Topological Global Localization and Mapping with Fingerprint and Uncertainty." In *Proceedings of the 9th International Symposium on Experimental Robotics (ISER)*, Springer Tracts in Advanced Robotics, Singapore, pp. 99-111, June 2004.

91. **Tapus, A.**, Heinzer, S. and Siegwart, R. (2004), “Bayesian Programming for Topological Global Localization with Fingerprints.” In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, New Orleans, U.S.A., April 2004.
92. Martinelli, A., **Tapus, A.**, Arras, K.O. and Siegwart, R. (2003), “Multi-resolution SLAM for Real World Navigation.” In *Proceedings of the 11th International Symposium of Robotics Research (ISRR)*, Siena, Italy, October 2003.
93. Martinelli, A., Tomatis, N., **Tapus, A.** and Siegwart, R. (2003) “Simultaneous Localization and Odometry Calibration for Mobile Robot.” In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Las Vegas, U.S.A., October 2003, vol.2, pp. 1499 - 1504.
94. **Tapus, A.** and Aycard, O. (2003) “Searching a Target with a Mobile Robot.” In *Proceedings of the 14th International Conference on Control Systems and Computer Science (CSCS)*, Bucharest, Romania, July 2003.
95. Lamon, P., **Tapus, A.**, Glauser, E., Tomatis, N. and Siegwart, R. (2003) “Environmental Modeling with Fingerprint Sequences for Topological Global Localization.” In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Las Vegas, U.S.A., October 2003, vol.3, pp. 3781 – 3786

Refereed Conference Posters

96. Agrigoroaie, R., and Tapus, A. (2017) "Detecting Deception in a Human-Robot Interaction Scenario", In Proceedings of the HRI 2017, Late Break Report, Vienna, Austria, March 2017 (Conf'ere{nce A+})
97. Agrigoroaie, R. and **Tapus, A.** (2016) “Developing a Healthcare Robot with Personalized Behaviors and Social Skills for the Elderly”, In proceedings of the HRI 2016, part of the Pioneer Workshop.
98. Ramaswamy A., Monsuez, B., and Tapus., A. (2014) “Model Driven Software Development for Human-Machine Interaction Systems”, In Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI) - Late Break Paper, Bielefeld, Germany, March 2014.
99. Aly, A., and **Tapus, A.** (2012), “Speech Integrated Model for Generating a Combined Verbal and Nonverbal Behavior Based on Psychological Traits in HRI”, In ROBOTDOC, Lausanne, Switzerland, September, 2012.
100. **Tapus, A.**, Peca, A., Aly, A., Pop, C., Jisa, L., Pintea, S., Rusu, A., and David, D. (2012) " Children with Autism Social Engagement in Interaction with Nao, an Imitative Robot-A Series of Single Case Experiments", In *Proceedings of the International Conference on Innovative Research In Autism 2012 (IRIA 2012)*, Tours, France, May 2012.

101. Aly, A. and **Tapus, A.** (2012) “Prosody-Driven Robot Arm Gestures Generation in Human-Robot Interaction”, In Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI) - Late Break Paper, Boston, MA, USA, March 2012.
102. Aly, A. and **Tapus, A.** (2011) “Towards an Online Voice-Based Gender and Internal State Detection Model”, In Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI) - Late Break Paper, Lausanne, Switzerland, March 2011.
103. Birlo, M. and **Tapus, A.** (2011) “The Crucial Role of Robot Self-Awareness in HRI”, In Proceedings of the ACM/IEEE Human-Robot Interaction Conference (HRI)- Late Break Paper, Lausanne, Switzerland, March 2011.
104. **Tapus, A.** (2009) “The Role of the Physical Embodiment of a Music Therapist Robot for Individuals with Cognitive Impairments: Longitudinal Study”, Proceedings of the International Conference on Virtual Rehabilitation (VR), Haifa, Israel, July, 2009.
105. **Tapus, A.**, Tapus C. and Matarić, M., J. (2009) “Music Therapist Robot: A Solution for Helping People with Cognitive Impairments”, Proceedings of the IJCAI 2009 Workshop on Intelligent Systems for Assisted Cognition, Pasadena, California, 12 July 2009.
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108. **Tapus, A.**, Wade, E., and Matarić, M., J. (2008) “Using a Socially Assistive Robot in Gait Recovery and Training for Individuals with Cognitive Impairments”, In Proceedings of AAAI Fall Symposium AI in Eldercare: New Solutions to Old Problem, Washington, DC, USA, November 7-9, 2008.
109. **Tapus, A.** and Matarić, M., J. (2007) “Towards Active Learning for Socially Assistive Robots”, In Proceedings of the Neural Information Processing Systems (NIPS) 2007 Workshop: Robotics Challenges for Machine Learning, Vancouver, Canada, December 2007.
110. Bur, A., **Tapus, A.**, Ouerhani, N., and Hugli, H. (2006) “Robot Navigation by Panoramic Vision and attention Guided Features”, In Proceedings of the 18th International Conference on Pattern Recognition (ICPR), Hong Kong, China, August 2006.

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113. Aly, A., and **Tapus, A.** (2012), “How to Infer the Intention of Human while Interacting with a Robot?”, In 5th Workshop for Young Researchers on Human-Friendly Robotics, Brussels, Belgium, November, 2012.
114. Dang, T. H. H., and **Tapus, A.** (2012), “Stress Game - In perspectives of Motivational Robotic Assistance”, In Proceedings of IROS 2012 Workshop on Motivational Aspects of Robotics in Physical Therapy, Algarve, Portugal, October, 2012.
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119. **Tapus, A.** and Chetouani, M. (2010) “ROBADOM: The Impact of a Domestic Robot on the Psychological and Cognitive State of the Elderly with Mild Cognitive Impairment”, In *Proceedings of the Second International Symposium on Quality of Life Technology Intelligent Systems for Better Living*, Las Vegas, USA, June, 2010.
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123. **Tapus, A.** and Matarić, M., J. (2008) “Socially Assistive Robotic Music Therapist for Maintaining Attention of Older Adults with Cognitive Impairments”, In *Proceedings of AAAI Fall Symposium AI in Eldercare: New Solutions to Old Problem*, Washington, DC, USA, November 7-9, 2008.
124. **Tapus, A.** and Matarić, M., J. (2008) “Active Learning for Socially Assistive Robotics for Stroke Rehabilitation and Dementia Care”, *Robotics: Science and Systems (RSS) Workshop on Interactive Robot Learning*, Zurich, Switzerland, June, 2008.
125. **Tapus, A.**, Fasola, J., and Matarić, M., J. (2008) “Cognitive Assistance and Physical Therapy for Dementia Patients Using Socially Assistive Robots”, *ICRA Workshop on Social Interaction with Intelligent Indoor Robots*, Pasadena, USA, May, 2008.
126. **Tapus, A.**, Fasola, J., and Matarić, M., J. (2008) “Socially Assistive Robots for individuals suffering from dementia”, *HRI Workshop on Robotic Helpers: User Interaction, Interfaces and Companions in Assistive and Therapy Robotics*, Amsterdam, The Netherlands, March, 2008.
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130. **Tapus, A.** and Matarić, M., J. (2006) “Therapist Robot Behavior Adaptation for Post-Stroke Rehabilitation Therapy”, In *Machine Learning: Theory, Applications, Experiences Workshop for Women in Machine Learning*, San Diego, U.S.A., October 2006.
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133. **Tapus, A.** (2007) “Socially Assistive Robotics: Active Learning for User Task Performance Improvement”, In *Assistive Technologies: Rehabilitation and Assistive Robotics Workshop, Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, San Diego, CA, USA, October, 2007.
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135. **Tapus, A.** and Matarić, M., J. (2006) “User-Robot Personality Matching for Post-Stroke Rehabilitation Therapy”, In *Socially Assistive Robotics Workshop, Proceedings of the Robotics: Science and Systems Conference (RSS)*, Philadelphia, Pennsylvania, U.S.A., August 2006.
136. **Tapus, A.** (2006) “From Human-like Robot Navigation to Human-Robot Interaction”, In *Cognitive Robots and Systems Workshop, Proceedings of the IEEE International Conference on Robotics and Automation (ICRA)*, Orlando, Florida, U.S.A., May 2006.

Dissertation/ Thesis

137. **Tapus, A.** (2011) “Towards Personalized Human-Robot Interaction” *HDR Dissertation (Habilitation a Diriger des Recherches)*, Computer Science Department, Pierre and Marie Curie University (UPMC), Paris, France, July 2011.
138. **Tapus, A.** (2005) “Topological SLAM - Simultaneous Localization and Mapping with Fingerprints of Places” *PhD Dissertation*, Computer Science and Systems Engineering Department, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland, October 2005.
139. **Tapus, A.** (2002) “Markov Decision Processes Use for Mobile Robot Actions Planning and Execution.” *Masters Degree Report in Computer Science*, Joseph Fourier University, Grenoble, France.

Grants and Contracts

- CHIST-ERA grant "Orchestration of adaptive mobile machines learning from complex environments (LEARNet)", Spain, ENSTA ParisTech (France), Poland, Austria, and Romania, submitted 17/01/2016 (under review 2017)
- FUI grant "Projet Intelligence Robotique pour le Monitoring et l'Informatisation des Soins (IRMIS)", PI: Extia, Co-PI: Robosoft, Medysys, Centre Hospitalier de Troye, A. Tapus (ENSTA- ParisTech) (under review 2017)
- Project " Physiological state, deception and trust detection in HRI by using a mixture of Thermal and RGB-D cameras" (2016), PI: Prof. Adriana Tapus (ENSTA), student thesis: David Octavian IACOB, total € 109 000
- Digiteo Project "Haptic Emotional Robot Experiments with Sensitive Body" (HEROES) (2015), PI: Prof. Adriana Tapus (ENSTA), Prof. Mehdi Ammi (LIMSI, Paris XI) and Dr. Moustapha Hafez (CEA), total € 109 000
- Digiteo Project Conférence "International Conference on Social Robotics" (2015), PI: Prof. Adriana Tapus (ENSTA) and Prof. Jean-Claude Martin (LIMSI, Paris XI), total € 5000
- DGA Fellowship "Conception de Briques Génériques Logicielles et Patrons d'Architectures pour les Applications Critiques intégrant des processus d'Autonomie Décisionnelle", PI : Prof. Bruno Monsuez (ENSTA) and Prof. Adriana Tapus (ENSTA), total € 109 000
- EU Horizon2020 "ENRICHME: Enabling Robot and assisted living environment for Independent Care and Health Monitoring of the Elderly", PI: Roberto Rosso (TESAN), PI: A. Tapus (ENSTA-ParisTech), PI: N. Bellotto (UoL), PI: P. Baratinni (KONTOR), PI: V. Dupourque (Robosoft), PI: A. van Berlo (STICHTING SMART HOMES), PI: V. Gower (FONDAZIONE DON CARLO GNOCCHI ONLUS), PI: K. Wieczorowska-Tobis (PUMS), PI. D. Wieczorek (OPS), PI: P. Hobson (Lace Housing), PI: C. Prouskas (Aktios), total € 3 991 940. Jan 2015 – Jan 2018. PSPC for "ROMEO 2", PI: D. Filliat (ENSTA-ParisTech), co-PI: A. Tapus, total € 509 309. Sept 2012 – Sept 2015.
- Region IdF Project HANDICAP " Proprioceptive, Kinematic, Socially and Individualized Human-Machine Interaction" (HEROES) PI: Prof. Adriana Tapus (ENSTA), Prof. Brice Isableu (LIMSI, Paris XI) and Prof. Jean-Claude martin (LIMSI, Paris XI) total € 109 000
- PSPC for "ROMEO 2", PI: D. Filliat (ENSTA-ParisTech), co-PI: **A. Tapus**, total € 237 309. Sept 2012 – Sept 2015.
- ANR-Chaires d'Excellence (Excellent Researchers) for "HRIAA - Human-Robot Interaction for Assistive Applications", PI: **A. Tapus** (ENSTA-ParisTech), total € 484 200 €. Dec 2009 – Dec 2013.

- ANR-Carotte grant for “PACOM: Panoramic and Active Cameras for Semantic Object Mapping”, PI: D. Filliat (ENSTA-ParisTech), co-PIs: **A. Tapus** (ENSTA-ParisTech), R. Benosman (UPMC), J.-C. Mammana (Gostai), total € 349 709. Sept 2009 – Sept 2012.
 - UPMC grant for “Intelligent Systems for Multi-perceptual Stimulation for Children with Developmental Disorders – MULTI-STIM”, PI: M. Chetouani (UPMC), co-PIs: **A. Tapus** (ENSTA-ParisTech), D. Cohen (UPMC), J. Xavier (GH Pitié-Salpêtrière), M. Plaza (GH Pitié-Salpêtrière), L. Chaby (Pierre Descartes University), total € 150,000. Mar 2010 – Mar 2011.
 - ANR-TecSan (Program for Technology for Health and Autonomy) grant for “ROBADOM: Impact of a robot “butler” at home on psychological and cognitive state of the elderly with mid cognitive impairment”, PI: Anne-Sophie RIGAUD (BROCA Hospital), co-PIs: **A. Tapus** (ENSTA-ParisTech), M. Chatouani (UPMC), D. Duhaut (Université de Bretagne Sud), V. Dupourque (Robosoft), total € 736,316. Sept 2009 – Sept 2011.
 - NSF Workshop Travel grant for “HRI Pioneers Workshop 2008”, PI: J. Burke, co-PI: **A. Tapus**, total \$30,448, Jan 2008 – Jan 2009.
 - Netherlands Organisation for Scientific Research (NWO) Travel grant for “HRI Pioneers Workshop 2008”, PI: **A. Tapus**, co-PI: M. Neerinx, total €5,000, Jan 2008.
 - Institutional Review Board (IRB) Proposal for “Assessing Socially Assistive Robotics as Social and Cognitive Aides for the Elderly”, PI: M. J. Matarić, co-PI: **A. Tapus** and M. Gatz, Oct 2007 – Oct 2010
 - NIH Aging and Disability Resource Center grant for “Assessing Socially Assistive Robotics as Social and Cognitive Aides for the Elderly”, PI: M. J. Matarić, key personnel: **A. Tapus**, total \$80,000, Jun 2007- Jun 2008.
 - NSF Human-Robot Interaction Program grant for “Personalized Assistive Human-Robot Interaction: Validation in Socially-Assisted Post Stroke Rehabilitation”, PI: M. J. Matarić, co-PI: C. Winstein, key personnel: **A. Tapus**, total \$450,000, Sept 2007- Aug 2010.
 - Institutional Review Board (IRB) Proposal for “Hands-Off Robot Therapist for Post-Stroke Rehabilitation” (HS-06-00628), PI: C. Winstein, co-PI: **A. Tapus** and M. J. Matarić, Jun 2007 – Jun 2010.
 - EU grant for “Bayesian Inspired Brain and Artefacts (BIBA)” (IST-2001-32115), PI: Pierre Bessiere, co-PI EPFL: Roland Siegwart, key personnel EPFL: **A. Tapus** and G. Ramel, total €1,640,000, Nov 2001 – Nov 2005.
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