

List of publications on october 18th 2022

Journal Articles

- [1] P. Scales, V. Aubergé, and O. Aycard. From vocal prosody to movement prosody, from hri to understanding humans. *Interaction studies journal*, 2022. To appear.
- [2] P. Zheng, P-B. Wieber, J. Baber, and O. Aycard. Human arm motion prediction for collision avoidance in a shared workspace. *Sensors journal, special issue on "Deep Learning-Based Human Intention and Trajectory Prediction Systems Using Sensors"*, 2022.
- [3] R.O. Chavez-Garcia and O. Aycard. Multiple sensor fusion and classification for moving object detection and tracking. *IEEE Transactions on Intelligent Transportation Systems*, 17(2):525–534, 2015.
- [4] TD. Vu, J. Bulet, and O. Aycard. Grid-based localization and local mapping with moving objects detection and tracking. *Information Fusion, Elsevier*, 12(1):58–69, Janvier 2011.
- [5] S. Pietzsch, TD. Vu, J. Bulet, O. Aycard, T. Hackbarth, N. Appenrodt, J. Dickmann, and B. Radig. Results of a precrash application based on laser scanner and short range radars. *IEEE Transactions on Intelligent Transport Systems*, 10(4):584–593, 2009.
- [6] J. Bulet, T. Fraichard, and O. Aycard. Robust navigation using markov models. *International Journal of Advanced Robotic Systems*, 2008.
- [7] D. Vasquez, T. Fraichard, O. Aycard, and C. Laugier. Intentional motion on-line learning and prediction. *Machine Vision and Applications*, 2008.
- [8] C. Laugier, D. Vasquez, M. Yguel, T. Fraichard, and O. Aycard. Geometric and bayesian model for safe navigation in dynamic environments. *Intelligent Service Robots*, 2007.
- [9] M. Yguel, O. Aycard, and C. Laugier. Efficient gpu-based construction of occupancy grids using several laser range finders. *International Journal of Autonomous Vehicles*, 2007.
- [10] O. Aycard, JF. Mari, and R. Washington. Learning to automatically detect features for mobile robots using second-order hidden markov models. *International Journal of Advanced Robotic Systems*, 2004.

Conference Articles

- [11] P. Scales, V. Aubergé, and O. Aycard. Socio-expressive robot navigation: How motion profiles can convey frailty and confidence. In *Workshop on "Affective Robotics For Wellbeing" in 10th International Conference on Affective Computing and Intelligent Interaction*, 2022. To appear.
- [12] P. Scales, V. Aubergé, and O. Aycard. From vocal prosody to movement prosody, from hri to understanding humans. In *VIHAR Vocal Interactivity in-and-between Humans, Animals and Robots*, 2021.
- [13] P. Scales, Rimel M., and O. Aycard. Visual-based global localization from ceiling images using convolutional neural networks. In *International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISAPP)*, 2021.
- [14] O. Aycard and C. Brouard. A new tool to initialize global localization for a mobile robot. In *IEEE International Conference on Tools with Artificial Intelligence (ICTAI)*, 2020.
- [15] P. Scales, O. Aycard, and V. Aubergé. Studying navigation as a form of interaction: a design approach for social robot navigation methods. In *IEEE International Conference on Robotics and Automation (ICRA)*, 2020.
- [16] P. Zheng, P-B. Wieber, and O. Aycard. Online optimal motion generation with guaranteed safety in shared workspace. In *IEEE International Conference on Robotics and Automation (ICRA)*, 2020.
- [17] Q. Labourey, O. Aycard, D. Pellerin, M. Rombaut, and C. Garbay. An evidential filter for indoor navigation of a mobile robot in dynamic environment. In *International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU)*, 2016.

- [18] Q. Labourey, D. Pellerin, M. Rombaut, O. Aycard, and C. Garbay. Sound classification in indoor environment thanks to belief functions. In *European Signal Processing Conference (EUSIPCO)*, 2015.
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- [21] TD. Vu, O. Aycard, and Tango F. Object perception for intelligent vehicle applications: A multi-sensor fusion approach. In *IEEE International Conference on Intelligent Vehicles (IV)*, 2014.
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- [25] Q. Baig and O. Aycard. Improving moving objects tracking using road model for laser data. In *IEEE International Conference on Intelligent Vehicles (IV)*, 2012.
- [26] A. Azim and O. Aycard. Detection, classification and tracking of moving objects in a 3d environment. In *IEEE International Conference on Intelligent Vehicles (IV)*, 2012.
- [27] O. Aycard, TD. Vu, Q. Baig, and T. Fraichard. A generic architecture for dynamic outdoor environment. In *IEEE International Conference on Tools with Artificial Intelligence (ICTAI)*, 2011.
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Book Chapters

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