Niyati Rawal

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Employment History

2021 – · · · · **Early Stage Researcher (MSCA PERSEO).** University of Modena and Reggio Emilia, Modena, ITALY.
Working on Vision and Language Navigation and Embodied Dialogue
- Visiting PGR student at University of Manchester, UNITED KINGDOM

2020 – 2021 **Assistant Researcher.** Technical University of Darmstadt, Darsmstadt, GERMANY.
Worked on facial expressions in Human-Robot Interaction

2019 – 2019 **Intern.** Inria, Nancy, FRANCE.
Compared Markovian models for human activity recognition and prediction

2017 – 2018 **Trainee.** NICT, Osaka, JAPAN.
Implemented RNN for explaining the development of visual attention to faces in infancy

Education

2021 – 2024 **Ph.D., Information and Communications Technology,** University of Modena and Reggio Emilia, Modena, ITALY

2018 – 2019 **Master's degree in Computational Engineering and Mathematics,** University of Rovira I Virgili, Tarragona, SPAIN
Thesis title: *Top-down approach to compare the moral theories of Deontology and Utilitarianism in Pac-Man game setting.*

2014 – 2018 **B.E. Mechanical Engineering,** Osaka University, Osaka, JAPAN
Thesis title: *The role of featural and configural processing in the development of visual attention.*

2009 – 2012 **High School,** Convent of Jesus and Mary, New Delhi, INDIA

Research Publications

Journal Articles

1. N. Rawal, D. Koert, C. Turan, K. Kersting, J. Peters, and R. Stock-Homburg, "ExGenNet: Learning to Generate Robotic Facial Expression Using Facial Expression Recognition," *Frontiers in Robotics and AI*, vol. 8, p. 730 317, 2022. URL: https://www.frontiersin.org/articles/10.3389/frobt.2021.730317/full.

2. N. Rawal and R. M. Stock-Homburg, "Facial emotion expressions in human–robot interaction: a survey," *International Journal of Social Robotics*, vol. 14, no. 7, pp. 1583–1604, 2022. URL: https://link.springer.com/article/10.1007/s12369-022-00867-0.

Conference Proceedings

1. S. Poppi, R. Bigazzi, N. Rawal, *et al.*, "Towards Explainable Navigation and Recounting," in *Proceedings of the 22nd International Conference on Image Analysis and Processing*, **Honorable Mention ICIAP Best Paper Award**, 2023. URL: https://link.springer.com/chapter/10.1007/978-3-031-43148-7_15.

Skills

Languages Hindi, English, Japanese, Italian

Skills (continued)

Coding	Python, C/C++, Java, Matlab
Misc.	Academic research, Computer Vision, Natural Language Processing, Robotics

Miscellaneous Experience

Awards and Achievements

- 2021 Marie Skolodowska-Curie Actions Fellowship - PERSEO Project: Received a three year fellowship to pursue my doctoral degree in Europe
- 2017 RoboCup Japan Open: A robot soccer league where the robots operate autonomously, our team JoiTech won the first prize
- 2013 Monbukagakusho (MEXT) Scholarship: Received a five year scholarship by the Japanese Government to pursue my bachelor degree in Japan
- 2010 CJM PTA Scholarship for consistent effort
- 2009 CJM PTA Scholarship for consistent effort

Certification

- 2014 **Certificate in Japanese Language**. Awarded by Tokyo University of Foreign Studies.