

## CURRICULUM VITAE

Beste Ozcan

PhD in design and innovation

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## CURRENT POSITION

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From January 2019 post-doctoral research fellow at the Institute of Cognitive Sciences and Technologies, National Research Council of Italy (ISTC-CNR) Rome, Italy (<https://www.istc.cnr.it/en/people/beste-ozcan>).

## OVERVIEW

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As an interdisciplinary post-doc design researcher, I'm specialized in developing interactive, smart wearable devices in terms of helping humans, especially for the children with Autism Spectrum Disorder, to have better social-emotional communication skills.

I have developed the world's first "Transitional Wearable Companion", "PlusMe" and "IM-TWIN system" concepts, brands and related prototypes.

## QUALIFICATIONS

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- Selected for the "50 Women in Robotics in 2021" list from "Robohub".
- 2021, October – 2022, March: "European Innovation Council, EIC – Women Leadership Program" selected mentee.
- Turkish Government Research Scholarship.
- PhD scholarship from Region of Campania, Italy.

## FUNDED RESEARCH PROJECTS

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- 2020, November – 2022, October: "IM-TWIN: from Intrinsic Motivations to Transitional Wearable Intelligent Companions for Autism Spectrum Disorder", ID: 952095, EU-Horizon2020, <https://im-twin.eu>.

- 2020, September – 2022, February: “PlusMe: Transitional Wearable Companions for the therapy of children with Autism Spectrum Disorders”, ID: 945887, EU-Horizon2020, [www.plusme-h2020.eu](http://www.plusme-h2020.eu).
- 2018, July – 2020 October: “PlusMe: Motivating Children with Autism Spectrum Disorders to Communicate and Socially Interact through Interactive Soft Wearable Devices”, Region of Lazio, [www.istc.cnr.it/en/content/me](http://www.istc.cnr.it/en/content/me).

## EDUCATION

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- 2011 – 16.01.2014: International PhD in design and innovation, Second Univ. of Naples, Italy, dissertation: “H+ design: time, space, human, machine” (excellent grade).
- 2006 – 2009: Master of Arts in interior architecture, Hacettepe Univ., Ankara, Turkey; dissertation: “Sustainable city squares and the examination of Piazza del Popolo” (grade 3,88/4,00).
- 2001 – 2005: Bachelor of Science in interior architecture, Hacettepe Univ., Ankara, Turkey. (grade 3,69/4,00).

## RESEARCH ACTIVITIES

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- 2019, Jan. – present: post-doc research fellow at the ISTC-CNR, Rome, Italy.
- 2014, Mar. - 2019, Jan.: collaboration with dr. Gianluca Baldassarre at ISTC-CNR; design and development of PlusMe device.
- 2016, Jan. – Jul.: research fellow at the Robotic Laboratory, Univ. of La Salle-Ramon Llull, Barcelona, Spain, project “CASPER: cognitive assistive social pet robots for hospitalized children”, supervisor: Prof. Jordi Albo Canals.
- 2015, 6 months: co-tutoring at the Dept. of Planning, Design and Technology of Architecture, Univ. of Sapienza, Rome, Italy, [www.beste-ozcan.com/upbra-co-tutoring/](http://www.beste-ozcan.com/upbra-co-tutoring/); development of website [www.materialdesignlab.it/](http://www.materialdesignlab.it/); assistantship for the History of Art Critics lesson.
- 2013, 6 months: visiting researcher in Escuela Politecnica Superior, Universidad de Málaga, Spain.
- 2013, 6 months: visiting researcher in CIAUD, Faculdade de Arquitectura, Universidade de Lisboa, Portugal.
- 2009 – 2010: International Exchange Program at the Dep. of Architecture, Faculty of Architecture, Valle Giulia, Univ. of Sapienza, Rome, Italy.

## TEACHING EXPERIENCES

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- 2019: lecture “Design through research” (4 hours) at the “School of Artificial Intelligence”, [www.as-ai.org](http://www.as-ai.org), [as-ai.org/faculty/](http://as-ai.org/faculty/) ISTC-CNR, Rome, Italy.
- 2019: Robotics classes (24 hours), hands-on activities at the Lipan Institute, Rome, Italy, in collaboration with cultural association “science2mind” [www.science2mind.org](http://www.science2mind.org).
- 2018: “INNO school project” funded by European Union (60 hours): hands-on social robot design activities with 60 children aged between 8-13 years at the School Giovanni Falcone, Rome, Italy.

## SELECTED AWARDS

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- “PlusMe”: “honorable mention” award of “Design Intelligence, DIA”, 2021.
- “Lokahi”: one of the 5 winners of festival “HER: art & data”, Rome, 2018.
- “PlusMe”: best creative design in “New Technology” category, “Lazio Creativo”, 2018.
- “PlusMe”: selected as one of the best projects in the study program “TornoSubito”, 2015.
- “PlusMe”: Runner-Up winner in “Global Elevate Awards”, 2016.
- “PlusMe”: “Best Social Innovation Project”, “StartCup Lazio”, 2015.

## OTHER

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- Skills: electronic prototyping with Arduino boards (basic); Fritzing application (basic); Processing Language (basic); Photoshop, Illustrator and Indesign (high); Wordpress (high); AutoCad, 3dsMax (medium).
- Languages: Turkish (native), English and Italian (professional proficiency), Spanish (basic).
- Patent: “PlusMe” brand patent (deposit no: 302015000072334, registered on 13.11.2015).
- Patent: “X-8” design patent.
- Patent: “System and method to support early treatment of autism spectrum disorder”.
- Membership of “International Association of Astronomical Artists (IAAA)”.

## SELECTED INVITATIONS, SEMINARS AND ORGANIZATIONS

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- 2022: a lecture to the third year of Bachelor Degree design students of the University of “La Sapienza”.
- 2022-2023: (1) organizer of 40 hours workshop with the 2. and 3. Bachelor degree design students during “Xplore design Week, Univ. of Antwerp, Belgium” about “Transcending Time and Space through Wearable Design” and (2) M.A. students.

- 2021: guest lecturer at the “CETI Summer School”, Technical Univ. of Dresden, Germany, giving a presentation about “Supporting a Huggable World”.
- 2020: invited speaker at the Faculty of Art and Design, Univ. of Kadir Has, Istanbul; Turkey, giving presentation about “Transcending time and space through design”.
- 2019: invited speaker at the “World Innovation Summit (WISE)”, Paris, France, giving presentation about “PlusMe” project during “Learning by opening up design and science” workshop.
- 2017: invited speaker at the “Care and Rehabilitation Expo China: The Belt and Road High-level International Forum on Assistive Technology – 7<sup>th</sup> International Forum on Assistive Technology Innovation and Adaptation Services”, Beijing, China, giving a presentation about “PlusMe” project.
- 2017: guest lecturer at the “11<sup>th</sup> International Week”, IADE Creative Univ., Lisbon, Portugal, giving presentations about “Research journey: designing socially assistive robots”.
- 2016: co-organizer of “SAR design workshop: designing socially assistive robots that bring educational and therapeutic benefits to children” during “New Friends: international conference on social robots in therapy and education”, Barcelona, Spain, [www.bestezcan.com/nf16/](http://www.bestezcan.com/nf16/)

#### JOURNAL ARTICLES AND BOOK CHAPTERS

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- Sperati V, Ozcan B, Romano L, Moretta T, Scaffaro S, Faedda N, Turturo G, Fioriello F, Pelosi S, Giovannone F, Sogos C, Guidetti V and Baldassarre G (2020), “Acceptability of the Transitional Wearable Companion “+me” in Children With Autism Spectrum Disorder: A Comparative Pilot Study.” *Front. Psychol.* 11:951. doi: 10.3389/fpsyg.2020.00951
- Fosch-Villaronga, E. and Ozcan, B. (2019) “The progressive intertwinement between design, human needs and the regulation of care technology: the case of lower-limb exoskeletons”, *Int. Journal of Social Robotics*, DOI :10.1007/s12369-019-00537-8
- Sperati, V., Ozcan, B. et al. (2019), “Acceptability of Transitional Wearable Companion +me in typical children: a pilot study”, *Frontiers in Psychology*, vol.10, doi: 10.3389/fpsyg.2019.00125
- Ayanoglu, H., Saraiva, M., Ozcan, B. (2019) “Emotional Design and Human-Robot Interaction”, Chapter 8 in “Emotional Design in Human-Robot Interaction: Theory, Methods and Applications”, Springer International Publishing, ISBN 978-3-319-96722-6
- Fosch-Villaronga, E. and Ozcan, B. (2017) “Exoskeleton Design and Regulation: the Intertwining Evolution between Humans and Robots” (in Italian), *Nuova Corrente Rivista di Letteratura e Filosofia*, vol. 159, issue 59, pp. 89-116
- Ozcan, B., Caligiore, D. et al. (2016), “Transitional wearable companions: a novel concept of soft interactive social robots to improve social skills in children with autism spectrum

disorder”, pp.471-481, Int. Journal of Social Robotics, vol. 8, issue 4, DOI: 10.1007/s12369-016-0373-8

## BOOKS

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- Ozcan B., “H+ design: time, space, human, machine” (2019) PhD thesis manuscript, Common Ground Research Networks, Design Principles and Practices series, DOI:10.18848/978-1-86335-138-6/CGP

## CONFERENCE PAPERS

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- Ozcan B., Sperati V., Giocondo F., Tyska Carvalho J., Baldassarre G. (2023), “Co-designing play activities and monitoring tools with smart interactive toys to support early intervention in Autism Spectrum Disorder and comparable neurodevelopmental conditions”, Proceedings of the 22nd Annual ACM Interaction Design and Children Conference, IDC '23 (Chicago), <https://doi.org/10.1145/3585088.3589927>.
- Giocondo F., Faedda N., Cavalli G., Schembri M., Montedori F., Giovannone F., Sogos C., Guidetti V., Sperati V., Ozcan B., Baldassarre G. (2023), “Supporting turn-taking activities: a pilot study using a smart toy with children with a diagnosis of neurodevelopmental disorders”, IDC '23: Proceedings of the 22nd Annual ACM Interaction Design and Children Conference June 2023 Pages 464–469 <https://doi.org/10.1145/3585088.3593863>.
- Ozcan B., Sperati V., Giocondo F., Schembri M., Baldassarre G., “Multi-sensory Wearable Bio-feedback Pillow to Enhance Genuine Feeling of Intimate Connection”, TEI '23: Proceedings of the Seventeenth International Conference on Tangible, Embedded, and Embodied Interaction February 2023 Article No.: 44 Pages 1–6 <https://doi.org/10.1145/3569009.3573114>.
- Ozcan B., Sperati V., Giocondo F., Schembri M., Baldassarre G. (2022) "Interactive soft toys to support social engagement through sensory-motor plays in early intervention of kids with special needs", Proceedings of the conference ACM Interaction Design and Children, IDC '22 (Braga, Portugal, June 27-30 2022), section "Demo & Art Track", pages 625-628, DOI: 10.1145/3501712.3535274, Publisher: Association for Computing Machinery, New York, NY, USA.
- Montedori F., Mattei F.R., Ozcan B., Schembri M., Sperati V., Baldassarre G. (2022) "A Novel System Based on a Smart Toy Responding to Child's Facial Expressions: Potential Use in Early Treatment of Autism Spectrum Disorders" to appear in the proceedings of the conference HCI International 2022, HCI '22 (Virtual, June 26-July 1 2022), Late Breaking Work, Poster Extended Abstract.
- Giocondo F., Sperati V., Ozcan B., et.all (2022) “Leveraging curiosity to encourage social interactions in children with Autism Spectrum Disorder: preliminary results using the interactive toy PlusMe”, CHI 2022 Conference, In: Springer (awaiting publication).

- Ozcan B., Sperati V., Giocondo F., Baldassarre G. (2021) "X-8": An Experimental Interactive Toy to Support Turn-Taking Games in Children with Autism Spectrum Disorders." In: Stephanidis C., Antona M., Ntoa S. (eds) HCI International 2021 - Posters. HCII 2021. Communications in Computer and Information Science, vol 1419. Springer, Cham. [https://doi.org/10.1007/978-3-030-78635-9\\_32](https://doi.org/10.1007/978-3-030-78635-9_32)
- Ozcan B., Sperati V. (2020) Lokahi: The Wearable Body Pillow to Foster an Intimate Interaction Between Two Users Through Their Heartbeat Awareness. In: Stephanidis C., Antona M., Ntoa S. (eds) HCI International 2020 – Late Breaking Posters. HCII 2020. Communications in Computer and Information Science, vol 1294. Springer, Cham. [https://doi.org/10.1007/978-3-030-60703-6\\_54](https://doi.org/10.1007/978-3-030-60703-6_54)
- Fosch-Villaronga, E., Barco, A., Ozcan, B., Shukla, J. (2016) "An interdisciplinary approach to improving cognitive human-robot interaction: a novel emotion-based model", Int. Research Conf. Robo philosophy, proceedings "What Social Robots Can and Should Do", vol. 20, pp. 195-205, doi: 10.3233/978-1-61499-708-5-195.
- Curley, D., Barco, A., Pico, S., Gallego, P., Zervas, D., Angulo, C., Ozcan, B., Delvaux, J., Lhoir, M., Albo-Canals, J. (2016) "CASPER Project: Social pet robots facilitating tasks in therapies with children with ASD", 2nd Int. Conf. on Social Robots in Therapy & Education, New Friends, pp.33-34, Barcelona, Spain.
- Ayanoglu H., De Crescenzo A., Ozcan B. (2011) "Interactive System for Customization: Proposal for An Evolution of Creative Platforms", abstract published for VI Congresso Internacional de Pesquisa em Design – Pag.264, publication of CIAUD Centro de Investigação em Arquitectura, Urbanismo e Design. Lisbon, Portugal.
- Ozcan B., Moretta T., Aliberti M., Baldassarre G., Transitional wearables Based on Bio-Signals to Improve Communication and Interaction of Children with Autism, Conference of "New Friends, First International Conference on Social Robots in Therapy and Education", 2015, Almera, Netherlands.
- Ozcan, B., Almendra, R., "Are Designers Ready for the Future? Across-Cultural Probe Test", International Conference of Education, Research and Innovation, Valencia, Spain, 2015.
- Ozcan B., Sperati V., Caligiore D., Baldassarre G., Motivating Children with Autism to Communicate and Interact Socially Through the "+me" Wearable Device. In: Nea Science - Giornale Italiano di Neuroscienze, Psicologia e Riabilitazione, vol. 5 pp. 59 - 65. Neapolitanit, 2014.
- Ozcan, B., DIID Design Journal, Vol.November,2014, "H+design: time, space, human, machine", Italy.
- Ozcan, B., Garrido,S., Diseno Journal, Vol.April, 2014, "What If...: A Design Manifesto", Spain.
- Ozcan, B., Euro Mediterranean Countries Common Cultural Identity, Conference of Sustainable Development Symposium, Bratislava, Slovakia, 2014.

- Ozcan, B., H+Design: Thinking About a Post-Humanitarian Design Approach Through Social Interaction, Giornate Scientifiche di Ateneo, Seconda Università degli Studi di Napoli, Italy, 2013.