

Candidate Information Template

CANDIDATE NAME

Nadia Figueroa

CANDIDATE EMAIL ADDRESS

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CANDIDATE AFFILIATION AND ADDRESS

University of Pennsylvania
220 S. 33rd Street, Office Towne 270,
Philadelphia, PA 19104-6315

IEEE MEMBER NUMBER

94952314

COUNTRY OF RESIDENCE

United States

HOW WOULD YOU CATEGORIZE YOUR CURRENT ORGANIZATION?

☐ Government

☒ Academia

☐ Industry

☐ Retired

☐ Other

POSITION SOUGHT

RAS AdCom Member

BIOGRAPHY

Nadia Figueroa is the Shalini and Rajeev Misra Presidential Assistant Professor of Mechanical Engineering and Applied Mechanics at the University of Pennsylvania, with secondary appointments in Computer and Information Science, Electrical and Systems Engineering, and a core faculty appointment in the GRASP Lab. Before joining Penn, she was a Postdoctoral Associate at MIT CSAIL. She earned her Ph.D. in Robotics, Control, and Intelligent Systems from EPFL, and previously conducted research at the German Aerospace Center (DLR) and NYU Abu Dhabi. She holds a B.Sc. in Mechatronics Engineering from Tecnológico de Monterrey and an M.Sc. in Automation and Robotics from TU Dortmund. Her work bridges control theory, machine learning, perception, and biomechanics through the lens of physical human-robot interaction. Her honors include a 2025 NSF CAREER Award, finalist for the Georges Giralt Ph.D. and KUKA Innovation Awards, and multiple best paper honors at leading robotics venues.

IEEE ACTIVITIES**Society Leadership Roles**

- **Co-Chair** of IEEE RAS Women in Engineering (WIE) Committee, **Dates:** Jan 2023-June 2026

- **Chair** of IEEE RAS Women in Engineering (WIE) Committee, **Dates:** June 2026 - current
- **Member** of the Science and Technology Watch Board (STB), **Dates:** Feb 2025 - current
- **Assistant to the VP** of Conferences Activities Board (CAB), **Dates:** January 2026 - current
- **Co-Chair** of the IEEE RAS Technical Committee on Collaborative Automation for Flexible Manufacturing, **Dates:** August 2021 - June 2026

Conference Organization Roles

- **Industry Chair** for the IEEE/SICE International Symposium on System Integration (SII), **Dates:** March 2025 - January 2026
- **Workshop Chair** for the IEEE-RAS International Conference on Humanoid Robots (HUMANOIDS 2025), **Dates:** January - September 2025
- **Chair of Equity, Diversity, and Inclusion** for the 2024 IEEE-RAS International Conference on Humanoid Robots (Humanoids), **Dates:** March - November 2024
- **Chair of Equity, Diversity, and Inclusion** for the 2024 IEEE-RAS International Conference on Humanoid Robots (Humanoids), **Dates:** March - December 2023

Editorial

- **Associate Editor** for IEEE Robotics and Automation Letters (RA-L), **Dates:** July 2021 - July 2026
- **Guest Associate Editor** for IEEE Transactions Automation Science and Engineering (T-ASE), **Dates:** January 2026 - current
- **Associate Editor** for 2026 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), **Dates:** February - June 2026
- **Associate Editor** for 2025 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), **Dates:** February - May 2025
- **Associate Editor** for 2026 IEEE International Conference on Robotics & Automation (ICRA), **Dates:** September 2025 - January 2026
- **Associate Editor** for 2025 IEEE International Conference on Robotics & Automation (ICRA), **Dates:** September 2024 - January 2025

QUALIFICATIONS

I am an ideal candidate for the IEEE RAS Administrative Committee because my service spans the core functions AdCom members oversee, including society leadership, conferences, technical committees, editorial service, and community initiatives.

Across these roles, I have helped (i) build and implement concrete programs that expand travel support to underrepresented members, (ii) launch recognition initiatives for women in robotics and automation, (iii) support technical committees and community development, and (iv) advance data-driven conference planning and governance. I also bring the perspective of an active researcher whose work has been recognized with best paper honors and major distinctions at leading robotics venues, including IEEE RAS venues. These experiences reflect my commitment to rigorous scholarship, fair evaluation and responsible growth.

I would bring to AdCom technical judgment, transparency, effective service, and a strong sense of responsibility for the social and ethical implications of the technologies our community develops.

MAJOR ACCOMPLISHMENTS

- **As co-chair of WIE**, I helped run and spin out the IDEA awards for 1.5 years until we passed it on to the DEI committee, who runs it now and has been very successful <https://www.ieee-ras.org/membership/dei-committee/idea-travel-support/>
- **As co-chair of WIE**, and interim chair during all 2025, I spearheaded the Outstanding Women in Robotics and Automation (WiRA) paper awards initiative. The WiRA awards recognize outstanding female student papers and early career researcher contributions at ICRA, CASE, IROS. Currently running this award as chair of WIE. Following a RA-M article describing this initiative <https://ieeexplore.ieee.org/document/11297907>
- **As a member of the STB**, I was part of the sub-group that performed the following study 1-year study of the LfD sub-field: <https://ieeexplore.ieee.org/document/11563978> <https://www.ieee-ras.org/surviving-the-paper-deluge-a-one-year-study-in-learning-from-demonstration/>
- **As Assistant to the VP of CAB** in the last 6 months I have spearheaded the initiative of creating a RAS Conference Analytics Dashboard which will be used to track key data and metrics about RAS sponsored conferences over the years with the goal of providing data-driven support for planning and budgeting for both (i) CAB to make decisions on new/existing conferences and (ii) Provide conference organizers expectations and goals.
- For the past 2 years I ran the **Kanako Miura Travel award** for the Humanoids 2024 and 2025 conferences. In these 2 years, we managed to raise substantial funding and give a record number of awards (>20 overall).

POSITION STATEMENT

The fields of robotics and automation are expanding rapidly, with increasing numbers of publications, conferences, workshops, technical communities, and new members joining the community. This growth is exciting, but it also creates risks of (i) diluting technical quality, (ii) increasing pressure on conference organization, reviewing, publications, and finances, and (iii) widening disparities in access to recognition and resources. If elected to the IEEE RAS Administrative Committee, my priority will be to help guide the Society's growth without compromising the technical rigor, integrity, and professional standards that define RAS. In particular, I will advocate for (i) data-driven governance of conferences, publications, and technical activities; (ii) broader access to funding, awards, and leadership pathways; and (iii) sustainable, safe, and ethically responsible decision-making in conference planning, global engagement, and resource allocation.

Growth should strengthen RAS, not weaken its standards or amplify existing inequalities. My goal is to help RAS advance the theory and practice of robotics and automation while serving its global community with excellence, transparency, and integrity.

COMMITMENT TO SERVICE

I, **Nadia Figueroa**, hereby certify that if elected, I will serve in the position to which I am elected for the term of the office.