



## Message from the General Chairs

On behalf of the organizing committee, we are delighted to welcome you to Suwon, Korea, for the 2025 IEEE World Haptics Conference (WHC), celebrating its 20th anniversary. Since its inception in 2005, WHC has grown into the premier biennial international event dedicated to all aspects of the science, engineering, and application related to haptics. It continues to serve as a vital platform for haptics, and for the 2025 edition, we have meticulously prepared a program that presents cutting-edge research while fostering interdisciplinary collaboration and showcasing emerging technologies, all across diverse areas in haptics.

This year's program features four distinguished plenary speakers, each offering visionary insights into key areas related to haptics. Dr. Sangok Seok will share his perspective on bridging the physical and digital worlds in future urban environments, where haptics can play a critical role for physical interfaces. Dr. Anatole Lécuyer will explore simulating alternative haptic perceptions and developing disruptive technologies under a "haptic illusion factory." Prof. Mark Billingham will discuss how haptics can enrich empathic experiences through tactile interaction. Lastly, Prof. Aude Billard will present challenges associated with designing robot hands with human-like dexterity.

For research contributions, WHC 2025 introduces two paper categories: long papers and regular papers. The long paper track, newly established this year, accommodates more comprehensive and in-depth contributions (8–12 pages, excluding references). Long papers are presented in oral sessions, while regular papers (4–6 pages, excluding references) are either orally or as posters, depending on author preference and review outcomes. More details about research papers are available in the following *Message from the Conference Editorial Board*.

We also pursue a stronger partnership with our companion journal, *IEEE Transactions on Haptics (ToH)*. Previously, the collaboration was sought through two distinct tracks: the ToH Short Paper Track, which offered expedited publication at ToH while offering oral presentation slots at WHC, and a poster session of WHC presenting invited ToH papers. These have been unified in WHC 2025, allowing all eligible ToH papers from the past year to be integrated into the regular paper sessions. Furthermore, selected WHC 2025 papers have been invited to submit extended versions to ToH, which will be published as a special issue dedicated to the conference. We believe this strategic alliance between WHC and ToH will further advance the dissemination of impactful research in haptics.

To celebrate the 20th anniversary of WHC, we are hosting a special session titled "*Twenty Years of World Haptics: Retrospective and Future Directions*." Curated by three pioneers in the field, this session honors WHC's legacy while offering a forward-looking vision for the future of haptics research and the global community it supports.



We are deeply grateful to all contributors for the record number of submissions across all categories. The conference opens with 9 workshops and 2 tutorials on the first day, offering attendees a wide range of learning opportunities. The main program includes 112 research papers: 75 WHC papers and 37 ToH papers.

Among them, 82 will be presented in oral sessions (including 19 long talks), and 30 as posters. These papers are complemented by 114 Work-in-Progress (WIP) papers, which will be presented in dedicated poster sessions and 70 hands-on demonstrations, which will provide rich opportunities to experience the latest in haptic technologies. Participants can also explore industry exhibits highlighting the latest commercial and pre-commercial developments in haptics. Finally, Student Innovation Challenge (SIC) will feature 13 finalist teams presenting their creative concepts and prototypes under two themes, mixed reality (sponsored by bHaptics) and Future Mobility (sponsored by Hyundai Motor Company).

To accommodate the breadth of this year's program while maintaining engagement, WHC 2025 will feature a dual-track format, with two parallel oral sessions. The oral session rooms, demonstration areas, and poster/exhibit spaces are located in close proximity to ensure easy access and facilitate participation across sessions. Sessions are thematically organized to enhance coherence and allow attendees to follow their interests efficiently. All WIPs and demos, including SIC entries, will be showcased during two vibrant late-afternoon sessions designed to foster lively interaction and discussion.

The success of WHC 2025 is the result of countless hours of dedication by many individuals over the past two years. We extend our heartfelt thanks to the Organizing Committee for curating a rich and dynamic program; to the Conference Editorial Board for managing the rigorous review process; and to the ToH Editorial Board for their unwavering collaboration. We are grateful to the reviewers for their thoughtful evaluations, and to the Awards Committee for recognizing outstanding contributions.

Special thanks go to Edward Colgate, Lynette Jones, and Hong Tan for organizing the anniversary session and for their decades-long service to the haptics community. We would also like to acknowledge Eunyoung Choi and her team for their remarkable logistical support, and the student volunteers for their tireless efforts throughout the event. We are equally grateful to our sponsors for their generous support.

Finally, we thank all authors for submitting their outstanding work, and every attendee for being part of this vibrant and inspiring gathering. We hope WHC 2025 provides you with an enriching and memorable experience.

Warm regards,  
**Seungmoon Choi and Ki-Uk Kyung**  
*General Co-Chairs, 2025 IEEE World Haptics Conference*