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Area of Specialization

Modular Haptic Devices	Wearable Haptics	Contactless Haptics	Soft Robotics
Haptic Modeling	Haptic Rendering	User Studies	Haptic Perception
Psychophysics			

Education

- 2016 – 2024  **M.S.-Ph.D. in Computer Engineering**
Kyung Hee Univeristy, South Korea
Thesis title: *Modular and Adaptable Tactile Actuating Units for Concurrent Multimodal Feedback*
- 2011 – 2015  **B.Sc. Computer Engineering**
University of Engineering and technology, Taxila, Pakistan

Employment History

- 2024/09 – Present  **PostDoc, Computer Engineereing**
Kyung Hee Univeristy, South Korea
- 2018 – 2024  **PH.D. Research Assistant, Computer Engineereing**
Kyung Hee Univeristy, South Korea
- 2016 – 2018  **M.S. Research Assistant, Computer Engineereing**
Kyung Hee Univeristy, South Korea

Research Publications

Journal Articles

- 1 M. I. Awan, **A. Raza**, W. Hassan, K.-U. Kyung, and S. Jeon, “Quantifying haptic affection of car door through data-driven analysis of force profile,” *arXiv preprint arXiv:2411.11382*, 2024.
- 2 **A. Raza**, W. Hassan, and S. Jeon, “Pneumatically controlled wearable tactile actuator for multi-modal haptic feedback,” *IEEE Access*, 2024.
- 3 W. Hassan, **A. Raza**, M. Abdullah, M. S. Hashem, and S. Jeon, “Hapwheel: Bringing in-car controls to driver’s fingertips by embedding ubiquitous haptic displays into a steering wheel,” *IEEE transactions on intelligent transportation systems*, vol. 23, no. 10, pp. 18 526–18 534, 2022.
- 4 J. B. Joolee, **A. Raza**, M. Abdullah, and S. Jeon, “Tracking of flexible brush tip on real canvas: Silhouette-based and deep ensemble network-based approaches,” *IEEE access*, vol. 8, pp. 115 778–115 788, 2020.
- 5 **A. Raza**, W. Hassan, T. Ogay, I. Hwang, and S. Jeon, “Perceptually correct haptic rendering in mid-air using ultrasound phased array,” *IEEE Transactions on Industrial Electronics*, vol. 67, no. 1, pp. 736–745, 2019.

Conference Proceedings

- 1 M. S. Hashem, **A. Raza**, S. E. Shan, and S. Jeon, "Pneumatic multi-mode silicone actuator with pressure, vibration, and cold thermal feedback," in *arXiv preprint arXiv:2503.22247*, 2025.
- 2 M. S. Hashem, **A. Raza**, and S. Jeon, "Silicone-made tactile actuator integrated with hot thermo-fiber finger sleeve," in *arXiv preprint arXiv:2411.05129*, 2024.
- 3 M. I. Awan*, **A. Raza***, and S. Jeon, "Dronehaptics: Encountered-type haptic interface using dome-shaped drone for 3-dof force feedback," in *2023 20th International Conference on Ubiquitous Robots (UR)*, IEEE, 2023, pp. 195–200.
- 4 M. S. Hashem, **A. Raza**, M. I. Awan, and S. Jeon, "Pulsating feedback: Render human wrist pulse via soft pneumatic actuator," in *Journal of the Korean Information Science Society*, 2023, pp. 1439–1441.
- 5 **A. Raza** and S. Jeon, "Active vibration control for haptic augmented reality: An initial study," in *Journal of the Korean Information Science Society*, 2023, pp. 1433–1435.
- 6 M. Abdullah, **A. Raza**, Y. Kuroda, and S. Jeon, "Drone based kinesthetic haptic interface for virtual reality applications," in *Haptic Interaction: Perception, Devices and Algorithms 3*, Springer, 2019, pp. 210–212.
- 7 **A. Raza**, M. Abdullah, W. Hassan, A. Abdulali, A. Talhan, and S. Jeon, "Painting skill transfer through haptic channel," in *Haptic Interaction: Perception, Devices and Algorithms 3*, Springer, 2019, pp. 66–68.
- 8 A. Talhan, H. Kim, S. Kumar, **A. Raza**, and S. Jeon, "Pneumatic actuated haptic glove to interact with the virtual human," in *Haptic Interaction: Perception, Devices and Algorithms 3*, Springer, 2019, pp. 213–215.
- 9 M. Abdullah, W. Hassan, **A. Raza**, and S. Jeon, "Haptic logos: Insight into the feasibility of digital haptic branding," in *Haptics: Science, Technology, and Applications: 11th International Conference, EuroHaptics 2018, Pisa, Italy, June 13–16, 2018, Proceedings, Part II 11*, Springer, 2018, pp. 696–708.
- 10 **A. Raza**, H. Inwook, J. Seo, and S. Jeon, "An analysis of haptic based image classification," in *Journal of the Korean Information Science Society*, 2017, pp. 1346–1348.

References

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