Stanford



Jeseung Lee

Postdoctoral Scholar, Mechanical Engineering

Bio

BIO

Jeseung Lee is a postdoctoral scholar at Stanford University, United States. His research aims to embed physical intelligence into mechanical systems through programmable robotic materials. He earned his B.S. (summa cum laude) and Ph.D. (valedictorian) in mechanical engineering from Seoul National University, South Korea.

HONORS AND AWARDS

- Distinguished Dissertation Award, Korean Society of Mechanical Engineers (2024)
- Outstanding Doctoral Thesis Award, Department of Mechanical Engineering, Seoul National University (2024)
- Gold Prize, 27th Samsung Humantech Paper Award, Samsung Electronics (2021)
- Global Ph.D. Fellowship, National Research Foundation of Korea (2019)
- Presidential Science Scholarship, South Korea (2014)

PROFESSIONAL EDUCATION

- Ph.D., Seoul National University , Mechanical Engineering (2024)
- B.S., Seoul National University , Mechanical Engineering (2018)

STANFORD ADVISORS

- Renee Zhao, Postdoctoral Faculty Sponsor

LINKS

- LinkedIn: https://www.linkedin.com/in/jeseung-lee-1991ba254/
- Google Scholar: https://scholar.google.com/citations?user=miw-0j4AAAAJ&hl=en

Publications

PUBLICATIONS

- **Porous liquid crystal elastomers for thermal-driven tunable acoustic properties** *MATERIALS TODAY*
  Lee, J., Sim, J., Yang, X., Wu, S., Averitt, S., Zhao, R.
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- **Elastic rod origami (RodOri) for programming static and dynamic mechanical properties.** *Science advances*
  Leanza, S., Lee, J., Lu, L., Zhao, R. R.
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- **Cross-modal Willis metasurfaces for perfect control of elastic wave refraction in solids** *PHYSICAL REVIEW APPLIED*
  Park, C., Lee, J., Kim, Y.
  2025; 24 (5)
- **Anisotropic elastic metamaterials for novel wave manipulation: a review** *EUROPEAN JOURNAL OF MECHANICS A-SOLIDS*
  Lee, J., Kim, Y.
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- **Perfect circular polarization of elastic waves in solid media** *NATURE COMMUNICATIONS*
  Lee, J., Kweun, M., Lee, W., Seung, H., Kim, Y.
  2024; 15 (1): 992
- **Polarization-independent full mode-converting elastic metasurfaces** *INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES*
  Lee, W., Lee, J., Park, C., Kim, Y.
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- **Ultrasonic inspection of sludge accumulated in plastic pipes using meta-slab mode-converting wedge transducers** *NDT & E INTERNATIONAL*
  Piao, C., Lee, J., Kim, S., Kim, Y.
  2024; 142
- **Elastic metamaterials for guided waves: from fundamentals to applications** *SMART MATERIALS AND STRUCTURES*
  Lee, J., Kim, Y.
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- **Uni-modal retroreflection in multi-modal elastic wave fields** *INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES*
  Lee, J., Park, J., Park, C., Cho, S., Kim, Y.
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- **Perfect transmission of elastic waves obliquely incident at solid-solid interfaces** *EXTREME MECHANICS LETTERS*
  Lee, J., Kweun, M., Lee, W., Park, C., Kim, Y.
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