

Kyung Hoon Lee

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EDUCATION

University of Southern California	Ph.D., Civil Engineering Department of Civil and Environmental Engineering	Aug. 2024
	M.S., Civil Engineering (Structural Engineering) Department of Civil and Environmental Engineering	Dec. 2022
Korea Polytechnic University <i>renamed to Tech University of Korea</i>	B.S., Mechanical Engineering Department of Mechanical Engineering	Feb. 2018

TEACHING EXPERIENCES

Brevard College	Assistant Professor Engineering Science Across Discipline (EGR 190)	Fall 2026
	Engineering Representation and Visualization (EGR 290)	Fall 2026
University of Southern California	Graduate Teaching Assistant Mechanics of Deformable Bodies (CE 225)	Spring 2024
	Statics and Dynamics (CE 215)	Fall 2022
	Mechanics of Deformable Bodies (CE 225)	Spring 2022
Korea Polytechnic University	Undergraduate Teaching Assistant Introduction to Modern Physical Science (AME1E001)	Fall 2017
	Introduction to Modern Physical Science (AME1E001)	Fall 2016
	Undergraduate Tutor Mechanics of Materials 2 (AME22003)	Fall 2016

WORK EXPERIENCES

Brevard College <i>Engineering Science</i> <i>(Science & Mathematics Division)</i>	Program Coordinator - Program development	Apr. 2026 – Present
University of Southern California <i>Bioinspired Manufacturing and Mechanics Laboratory</i> <i>(Department of Civil and Environmental Engineering)</i>	Postdoctoral Research Associate - Microorganism cultivation and research - 3D Structural design of specimens - FDM and SLA 3D printing fabrication of specimens	Apr. 2025 – Mar. 2026
University of Southern California <i>Structures and Materials Research Laboratory</i> <i>(Department of Civil and Environmental Engineering)</i>	Postdoctoral Research Associate - Industrial and research testing - Specimens preparation and instrumentation - Precision equipment calibration for accreditation - Communication with the research and industry team - ASTM industrial standards compliance - Technical report preparation - Documentation of reports	Jul. 2024 – Mar. 2025

- Industry projects
 - Reinforced 3D-printed Concrete Wall
 - Pin-Fuse Special Moment Frame Connection
 - Fiber Reinforced Polymer on Concrete Columns
 - Material Properties of Fiber Reinforced Polymer

SERVICE and OUTREACH ACTIVITIES

University of Southern California	Co-Secretary Chair 2022 Astani Research Symposium	Sep. 2022
	Ph.D. Student Mentor The Viterbi Graduate and Professional Programs (Outstanding Mentor Award in 2022)	Fall 2019 – Fall 2021
Korea Hana Foundation	Educational Outreach Volunteer (tutor) Academic assistance for a refugee student (192 hours)	Apr. 2016 – Jul. 2017

RESEARCH EXPERIENCES

University of Southern California <i>Department of Civil and Environmental Engineering</i>	Graduate Research Assistant	Fall 2018 – Summer 2025
Korea Polytechnic University <i>Department of Mechanical Engineering</i>	Undergraduate Research Assistant	Fall 2015 – Fall 2017

PUBLICATIONS

- 1 Deng, H., Du, H., **Lee, K.H.**, Leng, X., Bai, J. and Wang, Q., 2026. [Theoretical modeling of electrochemical carbon mineralization](#). The Journal of Chemical Physics, 164(16).
- 2 Deng, H., Du, H., Li, K., Zhang, Y., **Lee, K.H.**, Zheng, B. and Wang, Q., 2025. [Towards negative carbon footprint: carbon sequestration enabled manufacturing of coral-inspired tough structural composites](#). npj Advanced Manufacturing, 2(1), p.1.
- 3 Al Ba'ba'a, H.B., **Lee, K.H.** and Wang, Q., 2023. [Designing topological acoustic lattices via electroacoustic analogies](#). Journal of Vibration and Acoustics, 145(5), p.051001.
- 4 Yu, K., Feng, Z., Du, H., **Lee, K.H.**, Li, K., Zhang, Y., Masri, S.F. and Wang, Q., 2022. [Constructive adaptation of 3D-printable polymers in response to typically destructive aquatic environments](#). PNAS nexus, 1(3), p.pgac139.
- 5 **Lee, K.H.**, Al Ba'ba'a, H., Yu, K., Li, K., Zhang, Y., Du, H., Masri, S.F. and Wang, Q., 2022. [Magnetoactive acoustic topological transistors](#). Advanced Science, 9(18), p.2201204.
- 6 Zhang, Y., Yu, K., **Lee, K.H.**, Li, K., Du, H. and Wang, Q., 2022. [Mechanics of stretchy elastomer lattices](#). Journal of the Mechanics and Physics of Solids, 159, p.104782.
- 7 Xin, A., Su, Y., Feng, S., Yan, M., Yu, K., Feng, Z., **Lee, K.H.**, Sun, L. and Wang, Q., 2021. [Growing living composites with ordered microstructures and exceptional mechanical properties](#). Advanced Materials, 33(13), p.2006946.
- 8 Yu, K., Feng, Z., Du, H., Xin, A., **Lee, K.H.**, Li, K., Su, Y., Wang, Q., Fang, N.X. and Daraio, C., 2021. [Photosynthesis-assisted remodeling of three-dimensional printed structures](#). Proceedings of the National Academy of Sciences, 118(3), p.e2016524118.
- 9 Yu, K., Du, H., Xin, A., **Lee, K.H.**, Feng, Z., Masri, S.F., Chen, Y., Huang, G. and Wang, Q., 2020. [Healable, memorizable, and transformable lattice structures made of stiff polymers](#). NPG Asia Materials, 12(1), p.26.

- 10 Xin, A., Yu, K., Zhang, R., Ruan, B., McGaughey, A.L., Feng, Z., **Lee, K.H.**, Chen, Y., Childress, A.E. and Wang, Q., 2020. [Bone-inspired healing of 3D-printed porous ceramics](#). Materials Horizons, 7(8), pp.2130-2140.
- 11 Yu, K., Xin, A., Feng, Z., **Lee, K.H.** and Wang, Q., 2020. [Mechanics of self-healing thermoplastic elastomers](#). Journal of the Mechanics and Physics of Solids, 137, p.103831.
- 12 **Lee, K.H.**, Yu, K., Al Ba'ba'a, H., Xin, A., Feng, Z. and Wang, Q., 2020. [Sharkskin-inspired magnetoactive reconfigurable acoustic metamaterials](#). Research.

AWARDS and SCHOLARSHIPS

University of Southern California	Outstanding Mentor Award	2022
	Annenberg Graduate Fellowship	2018
Korea Polytechnic University	Academic Achievement Scholarship B (\$1828*)	2017
	Best Essay Competition, 2 nd place for level 3	2017
	Academic Achievement Scholarship A (\$2000*)	2016
	President's Scholarship (\$3824*)	2016
	President's Scholarship (\$3162*)	2015
	English Proficiency Scholarship (\$848*)	2015
Industrial Bank of Korea	Academic Scholarship (\$424*)	2015
The United Nations Office of Sports for Development and Peace & Gwangju 2015 Summer Universiade Organizing Committee	3 rd Prize (Presentation Competition); Certificate of Completion (EPICS FORUM 2015)	2015

**may vary depending on the currency exchange rate.*

SOFTWARE SKILLS

SolidWorks; MATLAB; AutoCAD; LabView; COMSOL; Python; MS Office

CERTIFICATION

American Concrete Institute	ACI Concrete Strength Testing Technician Expiration: October 28, 2029 (Certification ID: 02310518)	Oct. 2024
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TRAINING

CITI Program	Clinical Research Coordinator (CRC) Expiration: Nov. 2028 (Certification ID: 73445820)	Nov. 2025
	Responsible Conduct of Research (RCR) Expiration: N/A (Certification ID: 32688071)	Aug. 2019