CURRICULUM VITAE

JEONG HO (JAY) KIM, PhD
Environmental and Occupational Health
Texas A&M University

Updated on July 1, 2025

A. EDUCATION

Ph.D. in Industrial and Systems Engineering, University of Washington – Seattle	2012
M.S. in Industrial and Systems Engineering, University of Wisconsin – Madison	2007
B.S. in Industrial and Systems Engineering, Dankook University, South Korea	2003

B. ACADEMIC APPOINTMENTS AND PROFESSIONAL POSITIONS

Associate Professor, Environmental and Occupational Health, Texas A&M University	2024 – present
Associate Professor (courtesy), Industrial and Systems Engineering, Texas A&M University	2025 – present
Associate Professor (courtesy), Environmental and Occupational Health, Oregon State University (OSU)	2024 – present
Associate Professor, Environmental and Occupational Health, OSU	2021 – 2024
Invited Visiting Professor, System Management Engineering, Sungkyunkwan University	2021 – 2022
Courtesy Associate Professor, Industrial Engineering, OSU	2016 – 2024
Graduate Faculty, Bioengineering, College of Engineering, OSU	2016 – 2024
Assistant Professor, Environmental and Occupational Health, OSU	2015 – 2021
Assistant Professor, Industrial & Systems Engineering, Northern Illinois University	2013 – 2015
Research Scientist, Environmental & Occupational Health Sciences, U of Washington	2012 – 2013
Research Assistant, Environmental & Occupational Health Sciences, U of Washington	2009 – 2012
Teaching Assistant, Industrial and Systems Engineering, U of Washington	2008 – 2009

C. SCHOLARSHIP

*** Student, postdoc, or mentee.**

C.1. Peer Reviewed Journal Articles

42. Seong S, Park J, **Kim JH** (2025) A new measurement for workload assessment in agricultural tasks: EDA-based real-time model. *International Journal of Industrial Ergonomics* 108, 103771
41. Alam UK, Ryu JC, **Kim JH** (2025) IMU-based estimation of body posture: Laboratory validation in simulated commercial fishing. *International Journal of Industrial Ergonomics* 106, 103712
40. Salehi M*, Choi S*, Kia K*, Chan A*, Kincl L, **Kim JH** (2025) Effects of different sorting table heights on low back and shoulders biomechanical loads during dungeness crab sorting. *Applied Ergonomics* 128, 104537
39. Akinwande F, Kim S, Muslim K, Iridiastadi H, Luxbacher K, Nasarwanji M, **Kim JH**, Nussbaum MA (2025) Perspectives of Mining Personnel on Adopting Occupational Exoskeletons: Comparisons between a Developed and a Developing Country. *Mining, Metallurgy, and Exploration* 42, 523-536
38. Kia K*, Salehi M*, Chan A*, Kincl L, **Kim JH** (2025) Effects of Different Block Designs on Low Back and Shoulders Biomechanical Loads and Postural Stability during Crab Pot Handling. *Applied Ergonomics* 124, 104423

37. Kia K*, Park JH, Chan A*, Srinivasan D, **Kim JH** (2024) Vertical-Dominant and Multi-Axial Whole-Body Vibration associated with Heavy Vehicle Operation: Effects on Dynamic Postural Control. *Applied Ergonomics*, 122, 104402
36. Kia K*, Hwang, **Kim JH** (2024) The effects of target sizes on biomechanical and cognitive load and task performance of virtual reality interactions. *Ergonomics,* 1–15
35. Choi B, Park J, **Kim JH** (2024) Assessment of an Arm-Support Exoskeleton on Physical Demands, Task Performance, and Usability during Simulated Agricultural Tasks. *International Journal of Industrial Ergonomics*, 101, 103569
34. Shim HH, Choi KH, Keum H, Son S, **Kim JH**, Seo MT, Kim SY, Park D, Kong YK (2023) Evaluation of the effects of passive lower-limb exoskeletons on muscle activities according to working heights. *Applied Science*, 12(21)
33. **Kim JH**, Chung WD (2023) Forestry professionals' perspectives on exoskeletons (wearable assistive technology) to improve worker safety and health. *International Journal of Forest Engineering,* DOI: 10.1080/14942119.2023.2256104
32. Kia K*, Kincl L, Chan A*, **Kim JH** (2023) A fishermen-developed intervention reduced musculoskeletal load associated with commercial Dungeness crab harvesting. *Applied Ergonomics,* vol. 110, 104016
31. Kong YK, **Kim JH**, Shim HH, Shim JW, Park SS, Choi KH (2023) Efficacy of passive upper-limb exoskeletons in reducing musculoskeletal load associated with overhead tasks. *Applied Ergonomics,* vol. 109, 103965
30. Kong YK, Park SS, Shim JW, Choi KH, Shim HH, Kia K*, **Kim JH** (2023) A passive upper-limb exoskeleton reduced muscular loading during augmented reality interactions. *Applied Ergonomics,* vol. 109, 103982
29. Kia K*, Hwang J, **Kim JH** (2021) Effects of error rates and target sizes on neck and shoulder biomechanical loads during augmented reality interactions, *Applied Ergonomics,* vol. 113, 104107
28. Pan-Zagorski W, Johnson PW, Pereny MA, **Kim JH** (2022) Automotive Seat Comfort and Vibration Performance Evaluation in Dynamic Settings, Applied Sciences, vol. 12(8). 4033
27. **Kim JH**, Vaughan A, Kincl L (2022) Characterization of musculoskeletal injury risk in Dungeness crab fishing, *Journal of Agromedicine, 28(2) 309-320*
26. Kia K*, Bae H, Johnson PW, Dennerlein JT, **Kim JH** (2022) Evaluation of Vertical and Multi-axial Suspension Seats for Reducing Vertical-dominant and Multi-axial Whole Body Vibration and Associated Neck and Low Back Joint Torque and Muscle Activity. *Ergonomics,* 65(12) 1696-1710
25. Dennerlein JT, Cavallari JM, **Kim JH**, Green NH (2022) The effects of a new seat suspension system on whole body vibration exposure and driver low back pain and disability: results from a randomized controlled trial in truck drivers, *Applied Ergonomics*, vol. 98, 103588
24. Kia K*, Hwang J, Kim IS, Ishak H*, **Kim JH** (2021) The Effects of Target Size and Error Rate on the cognitive Demand and Stress during Augmented Reality Interactions, *Applied Ergonomics,* vol. 97, 103502
23. Kia K*, Johnson PW, **Kim JH** (2021) The effects of different seat suspension types on occupants' physiologic responses and task performance: implications for autonomous and conventional vehicles, Applied Ergonomics, vol. 93, 103380
22. Hwang J, Yerriboina V, Ari H, **Kim JH** (2021) Effects of passive back-support exoskeletons on physical demands and usability during patient transfer tasks, *Applied Ergonomics*, vol. 93. 103370
21. Park JH, Kia K*, Srinivasan D, **Kim JH** (2021) Postural balance effects from exposure to multi-axial whole-body vibration in mining vehicle operation, *Applied Ergonomics*, vol. 91. 103307
20. **Kim JH**, Ari H, Madasu C, Hwang J (2020) Evaluation of Biomechanical Stress in Neck and Shoulder during Augmented Reality Interactions, *Applied Ergonomics*, vol. 88, 103175

19. Hwang J, Ari H, Matoo M, Chen J, **Kim JH** (2020) Air-assisted Devices Reduce Biomechanical Loading in the Low back and Upper Extremities during Patient Turning Tasks, *Applied Ergonomics*, vol. 87, 103121
18. Kia K*, Fitch, SM*, Newsom, SA, **Kim, JH** (2020) Effect of whole-body vibration exposures on physiological stresses: Mining heavy equipment applications, *Applied Ergonomics*, vol. 85, 103065
17. Akhil S, Kuppam VA, **Kim JH**, Hwang J (2020) The effects of target location on musculoskeletal load, task performance, and subjective discomfort during virtual reality interactions. Applied Ergonomics, 84: 103010. ***Featured in U.S. News, E&T (Institute of Engineering and Technology), and many other international and local media***
16. Thansuwan O, Galvin K, Tchong-French M, **Kim JH**, Johnson PW. (2019) A feasibility study comparing objective and subjective field-based physical exposure measurements during apple harvesting with ladders and mobile platforms. *Journal of Agromedicine. 24(3). 268-278*
15. Konda RR, Ryu JC, **Kim JH** (2019) Three-Dimensional Global Acceleration Estimation in the Presence of Rotation Using an Inertial Measurement Unit for Whole Body Vibration Research. *International Journal of Occupational Safety and Ergonomics.* 1-22
14. Hwang J, Kuppam VA, Raju Chodraju SS, Chen J, **Kim JH**. (2019) Commercially-Available Friction-Reducing Patient Transfer Devices Reduced Biomechanical Stresses on Caregivers' Upper Extremities and Low Back. *Human Factors.* 1-16.
13. Kia K*, Sisley J*, Johnson PW, **Kim JH**. (2019) Differences in typing force, muscle activity, wrist posture, typing performance, and self-reported comfort among conventional and ultra-low travel keyboards. *Applied Ergonomics*. 74. 10-16.
12. Syamala KR, Ailneni RC, **Kim JH**, Hwang, J (2018) Armrest and Back Support Reduced Biomechanical Loading in the Neck and Upper Extremities during Mobile Phone Use. *Applied Ergonomics*. 73. 48-54.
11. **Kim JH**, Marine L, Dennerlein JT (2018) Evaluation of different engineering control to reduce whole body vibration exposures among mining heavy equipment operators. *Applied Ergonomics*. 71. 78-86.
10. **Kim JH**, Zigman M, Dennerlein JT, Johnson PW. (2018) A randomized controlled trial of a truck seat intervention: Part 2 – Associations between whole body vibration exposures and health outcomes. *Annals of Work Exposures and Health.* 62(8) 1000-1011. *Featured as* ***Editor's Choice.***
9. Johnson PW, Zigman M, Dennerlein JT, **Kim JH** (2018) A randomized controlled trial of a truck seat intervention: Part 1 – Assessment of whole body vibration exposures. *Annals of Work Exposures and Health.* 62(8) 990-999.
8. **Kim JH,** Dennerlein JT, Johnson PW (2018) The effect of a multi-axis suspension on whole body vibration exposures and physical stress in the neck and low back in agricultural tractor applications. *Applied Ergonomics*. 68. 80-89.
7. **Kim JH**, Zigman M, Aulck L, Ibbotson J, Dennerlein JT, Johnson PW (*2016*) Whole body vibration exposures and health status among professional truck drivers: a cross-sectional analysis. *Annals of Occupational Hygiene*. 60(8) 936-948
6. **Kim JH**, Aulck L, Trippany D, Johnson PW (*2015*) The effect of work surface hardness on mechanical stress, muscle activity, and wrist postures. *Work 52(2):* 231-244.
5. **Kim JH**, Aulck L, Thamsuwan O, Bartha M, Johnson PW (2014) The Effects of Key Sizes of Touch Screen Virtual Keyboard on Productivity, Usability, Wrist Posture and Typing forces. *Human Factors 56(7):*1235-48. ***Mentioned in the Wall Street Journal on March 26th, 2014***
4. **Kim JH**, Aulck L, Bartha M, Harper CA, Johnson PW (*2014*) Differences in Typing Forces, Muscle Activity, Discomfort, and Typing Performance between a Virtual, Notebook, and Desktop Keyboard. *Applied Ergonomics 45(6)* 1406-1413. ***Featured in the Wall Street Journal, ABC, Fox news, and many other international media on October 13th, 2014***
3. **Kim JH**, Johnson PW (*2014*) Fatigue development in the figure flexor muscle differs between keyboard and mouse use. *European Journal of Applied Physiology 114(12):*2469-82.

2. **Kim, JH**, Johnson PW (2012) Viability of Using Digital Signals from the keyboard to Capture Typing Force Exposures. *Ergonomics 55(11):* 1395-1403.
1. **Kim JH**, Johnson PW (2012) Can Digital Signals from the Keyboard Capture Force Exposures during Typing? *Work 4(2012):* 2588-2590.

C.2. Peer Reviewed Papers under review

2. Choi SB*, Kia K*, Chan A*, Salehi M*, Chung WD, **Kim JH** (under review) Effects of back-support passive exoskeletons on biomechanical load and postural stability during manual timber felling.
1. Salehi M*, Park JH, Srinivasan D, **Kim JH** (revision) Simulation-based biomechanical assessment of a passive back support exoskeleton: comparison of various support levels during a sustained forward bending task. *Applied Ergonomics*

C.3. Peer Reviewed Papers in Preparation

6. Taheri Dolatabadi A, Salehi M*, **Kim JH** (In Preparation) Improving the accuracy of AI-driven wearable sensor-based fall detection.
5. Zheng L, Pan C, Kia K*, Chan A*, Salehi M*, **Kim JH** (In Preparation) Effects of Shoulder-Assist Exoskeltons on Muscle Activity and Balance during a Wire Pulling Task on a simulated scissor lift.
4. Salehi M*, Taheri Dolatabadi A, **Kim JH** (In Preparation) A smartphone-based markerless motion capture system for joint kinematic measurement during symmetric and asymmetric lifting.
3. Salehi M*, Taheri Dolatabadi A, **Kim JH** (In Preparation) Reducing Occlusion-induced Errors in Human Post Estimation through Object Detection Algorithms in Manual Lifting Tasks.
2. Salehi M*, Taheri Dolatabadi A, **Kim JH** (In Preparation) An anatomical marker set augmentation deep-learning network to enhance the kinematics accuracy of markerless motion capture during manual lifting
1. Salehi M*, Taheri Dolatabadi A, **Kim JH** (In Preparation) Estimation of Spinal Loading During Manual Lifting Tasks: A Comparison Between Marker-based and Markerless Driven Musculoskeletal Models

C.3. Peer Reviewed Conference Proceedings/Presentations

83. Salehi M*, Park JH, **Kim JH** (2025) Effects of different supporting torque levels of a passive back-support exoskeleton on low back load and contact stress. The 12th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders. Tübingen, Germany
82. Salehi M*, Taheri Dolatabadi A, **Kim JH** (2025) A pose correction approach to enhance the kinematics accuracy of markerless motion capture during manual lifting tasks. 2025 International Annual Meeting of the Human Factors & Ergonomics Society. Chicago, IL
81. Choi SB*, Kia K*, Salehi M*, Chan A*, Chung WD, **Kim JH** (2025) Effects of Back-Support Exoskeletons on Low Back Muscle Activity and Trunk Posture Associated with Simulated Manual Timber Felling. 2025 International Annual Meeting of the Human Factors & Ergonomics Society. Chicago, IL
80. Salehi M*, Park JH, Srinivasan D, **Kim JH** (2025) Model-based biomechanical evaluation of a passive back-support exoskeleton with adjustable actuator strength during simulated crab sorting tasks. 2025 International Annual Meeting of the Human Factors & Ergonomics Society. Chicago, IL
79. Davis F, Hirabayashi L, Sorensen J, Milkovich P, McCue-Weil L, **Kim JH** (2025) Incubating a fisherman's intervention idea for reducing musculoskeletal injuries among scallopers. 2025 Gulf Coast and Caribbean State of the Science Meeting. Puerto Rico
78. Hirabayashi L, Sorensen J, McCue-Weil L, Milkovich P, Geraghty E, Davis F, **Kim JH** (2025) Ideas That Work: A Transdisciplinary Ecosystem for Developing Health and Safety Interventions for Farmers, Loggers, and Commercial Fishermen. 2025 International Society for Agricultural Safety and Health, Portland, ME.

77. Chan A*, Chandler KB, Kincl L, **Kim JH** (2025) Job Demands and Resources of Oregon Commercial Fishers' Well-being. Work, Stress, Health Conference 2025, Seattle, WA.
76. Athanasiadis D, Brown CN, Hannigan KS, Pollard CP, **Kim JH**, Norcross MF (2025) Foot Morphology Classification is Influenced by the Static Classification Test Used: Implications for Research and Clinical Practice. 2025 National Athletic Trainers' Association Clinical Symposia & AT Expo, Orlando, FL.
75. Dzugan J, Sorensen J, Fay L, **Kim JH**, Kincl L (2024) Putting the Pencil Pushers to Work: Mobilizing Researchers and Advocates to Support Industry Sustainability and Worker Wellbeing. 2024 Pacific Marine Expo. Seattle, WA.
74. Kia K, Salehi Sedeh M, Chan A, Agnew M, Kincl L, **Kim JH** (2024) Effects of Different Mechanized Winch Swing Directions on Low Back Load during Crab Pot Hauling. 2024 International Annual Meeting of the Human Factors & Ergonomics Society. Phoenix, AZ.
73. Salehi Sedeh M, Kia K, Chan A, Agnew M, Choi, S, Kincl L, **Kim JH** (2024) Toward Safer Crab Harvesting Environment: Sorting Table Height and Low Back Biomechanical Load During Crab Sorting. 2024 International Annual Meeting of tHuman Factors & Ergonomics Society. Phoenix, AZ.
72. Salehi Sedeh M, **Kim JH** (2024) Preliminary evaluation of a smartphone-based markerless motion capture system for joint kinematic measurement during symmetric and asymmetric lifting. 2024 International Annual Meeting of the Human Factors & Ergonomics Society. Phoenix, AZ.
71. Kia K, Chan A, Salehi Sedeh M, Agnew M, Pan C, Zheng L, Warren C, **Kim JH** (2024) Effects of Shoulder Exoskeletons on Muscular Load and Postural Stability during Electrical Cable Pulling Tasks on an Unstable Work Platform. 2024 International Annual Meeting of the Human Factors & Ergonomics Society. Phoenix, AZ.
70. Barton HJ, Jeon M, Trippe J, Cohen M, **Kim JH**, Wooldridge, Lum HC (2024) What does it mean to be inclusive? A Conversation with the HFES Council of Affinity Groups (COAG). 2024 International Annual Meeting of the Human Factors & Ergonomics Society. Phoenix, AZ.
69. Warburnton C, Chung W, **Kim JH** (2024) Assessing Cognitive Load and Productivity on Steep Slopes. 2024 Council on Forest Engineering Annual Meeting. Moscow ID.
68. Chung W, **Kim JH**, Lyons K (2024) Advancing Technologies for Sustainable Forestry and Workforce Development. 26th World Congress International Union of Forest Research Organizations. Stockholm, Sweden.
67. Kia K*, Chan A, Kincl L, **Kim JH** (2024) Testing of a fishermen-developed ergonomic intervention for Dungeness crab harvesting. International Fishing Industry Safety and Health Conference 6. Rome, Italy.
66. **Kim JH**, Kong YK, Park SS, Shim JW, Choi KH*, Shim HH, Kia K* (2023) Effects of a Shoulder-support Exoskeleton on Shoulder Strain during Augmented Reality Interactions. 67th International Meeting of the Human Factors & Ergonomics Society. Washington, D.C.
65. Kia K*, Hwang J, **Kim JH** (2023) Errors in Augmented Reality Interactions Affected Muscular Loads in the Neck and Shoulders. 67th International Meeting of the Human Factors & Ergonomics Society. Washington, D.C.
64. Kia K*, Park JH, Chan A, Srinivasan D, **Kim JH** (2023) Effects of Vertical-axial Dominant and Multi-axial Vibration on Postural Stability. 67th International Meeting of the Human Factors & Ergonomics Society. Washington, D.C.
63. **Kim JH**, Chung WD (2023) Forestry Stakeholders' Perspectives on Exoskeletons. 67th International Meeting of the Human Factors & Ergonomics Society. Washington, D.C.
62. **Kim JH**, Chung WD (2023) Assessing the Potential for Exoskeletons (Wearable Assistive Technology) in the Forestry Sector. The 45th Council on Forest Engineering (COFE) meeting, Flagstaff, AZ.
61. Kia K*, Park JH, Chan A, Srinivasan D, **Kim JH** (2023) Changes postural stability measures following exposure to vertical- and multi-axial whole body vibration. 2023 IISE Annual Conference and Expo. New Orleans, LA.

60. Kia K*, Laurel K, **Kim JH** (2022) Evaluation of an Ergonomic Intervention Demonstrates Reduced Low Back Loads Associated with Commercial Dungeness Crab Harvesting. 2022 International Meeting of the Human Factors & Ergonomics Society. Atlanta, GA
59. **Kim JH**, Kia K*, Hwang J, Kim, I, Ishak H (2022) The effects of target size and error rate on biomechanical and cognitive load during augmented reality interactions. Ergonomics Society of Korea Meeting. Seoul, Korea.
58. Kia K*, Laurel K, **Kim JH** (2022) Effects of an ergonomic intervention on biomechanical stress during a simulated commercial fishing task. Ergonomics Society of Korea Meeting. Seoul, Korea.
57. Kong YK, Choi KH, Shim HH, Park SS, **Kim JH** (2022) Effects of a passive upper-limb exoskeleton on reducing physical workloads augmented reality interactions. Ergonomics Society of Korea Meeting. Seoul, Korea.
56. Kia K*, Hwang J, Kim I, Ishak H*, **Kim JH** (2021) Different System Error Rates in Augmented Reality Interface Affected Cognitive Stress. 2021 International Meeting of the Human Factors & Ergonomics Society. Baltimore, MD
55. Hwang, J, Yerriboina V, Ari H, **Kim JH** (2021) Biomechanical Evaluation of Back-Support Exoskeletons during Patient Transfers. 2021 International Meeting of the Human Factors & Ergonomics Society. Baltimore, MD
54. Pan-Zagorski W, **Kim JH**, Pereny MA, Collins JG, Johnson PW (2021) Dynamic Comfort Testing of Automotive Seats in a Laboratory Setting. Comfort Congress 2021. Virtual (Online), United Kingdom.
53. Pan-Zagorski W, **Kim JH**, Kiana K*, Pereny MA, Johnson PW (2021) Seat Dynamic comfort and vibration performance in laboratory testing. The 8th American Conference on Human Vibration organized by West Virginia University School of Medicine and Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Morgantown, WV.
52. Kia K*, Hwang J, Kim I, Ishak H*, **Kim JH** (2021) Cognitive Demand Was Affected by Error Rate during Augmented Reality Interactions. The 21th International Ergonomic Association Conference. Vancouver, BC, Canada
51. **Kim JH**, Ari H, Madasu C, Hwang J (2021) Influences of Target Distance and Size on Shoulder Stress and Task Performance during Augmented Reality Interactions. The 21th International Ergonomic Association Conference. Vancouver, BC, Canada
50. Johnson PW, **Kim JH** (2021) Evaluation of a prototype suspension to reduce neonate whole body vibration exposure during ambulance transport. The 21th International Ergonomic Association Conference. Vancouver, BC, Canada
49. Ryou HF, Johnson PW, **Kim JH**, Seto E (2021) A Comparison of Forklift Operator Whole-body Vibration Exposures When Operating Forklifts With And Without A Mast-based Vibration Damping System. The 21th International Ergonomic Association Conference. Vancouver, BC, Canada
48. Kia K*, Hwang J, Kim I, Ishak H*, **Kim JH** (2021) Cognitive Demand Was Affected by Error Rate during Augmented Reality Interactions. The 21th International Ergonomic Association Conference. Vancouver, BC, Canada
47. Kia K*, Ishak H*, Hwang J, **Kim JH** (2020) The Effects of Target Sizes on Biomechanical Exposures and Perceived Workload during Virtual and Augment Reality Interaction. 2020 International Meeting of the Human Factors & Ergonomics Society. Chicago, IL.
46. **Kim JH**, Kia K*, Pan-Zagorski W, Pereny M, Johnson PW (2020) The Evaluation of Seat - Comfort, Body Discomfort and Seat Vibration Performance in a Dynamic Testing Environment. 2020 International Meeting of the Human Factors & Ergonomics Society. Chicago, IL.
45. **Kim JH**, Ari H, Madasu C, Hwang J (2020) Evaluation of Hologram Distances in Reducing Shoulder Stress during Augmented Reality Interactions. 2020 International Meeting of the Human Factors & Ergonomics Society. Chicago, IL.

44. **Kim JH**, Ari H, Madasu C, Hwang J (2020) The Effect of Hologram Distance/Size on Shoulder Stress During Augmented Reality Interactions. The XXXIInd Annual International Occupational Ergonomics and Safety Conference, Newark, NJ.
43. Kia K*, Fitch SM*, Johnson PW, Dennerlein JT, **Kim JH** (2019) Comparisons of Single-axial and Multi-axial Suspension Seats in Reducing Whole Body Vibration and Related Biomechanical Stress: Mining Vehicle Application. 31st Annual International Occupational Ergonomics and Safety Conference. New Orleans, LA.
42. Penumudi SA, Kuppam VA, **Kim JH**, Hwang J (2019) Biomechanical Exposures in the Neck and Shoulders during Virtual Reality Interaction. 31st Annual International Occupational Ergonomics and Safety Conference. New Orleans, LA.
41. Hwang JJ, Ari H, Matoo M, Chen J, **Kim JH** (2019) Systematic Evaluation of Engineering Controls to Reduce Muscular Loading during Patient Handling Tasks. 10th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders. Bologna, Italy.
40. Kia K*, Johnson PW, Fitch SM*, Dennerlein JT, **Kim JH** (2019) Comparisons of whole body vibration exposures and related musculoskeletal stress between single-axial passive and multi-axial active suspension in a mining vehicle application. 10th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders. Bologna, Italy.
39. Dennerlein JT, Cavallari JM, **Kim JH**, Johnson PW (2019) The effects of an electro-mechanical seat suspension to reduce whole body vibration and low back pain in long haul truck drivers: Results from a randomized controlled trial. 10th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders. Bologna, Italy.
38. Penumudi SA, Kuppam VA, **Kim JH**, Hwang J (2019) Biomechanical Exposures in the Neck and Shoulders during Virtual Reality Interaction. 21st International Conference on Human-Computer Interaction. Orlando, FL.
37. Hwang J, Ari H, Matoo M, Chen J, **Kim JH** (2019) Effects of Patient Turning Device on Muscular Demands of Caregivers. International Meeting of Human Factors & Ergonomics Society. Seattle, WA.
36. Kia K*, Fitch SM*, Newsom S, **Kim JH** (2019) Physiological and Muscular Stress Associated with Multi-axial Whole-Body Vibration Exposure in Mining Heavy Equipment Vehicle Environment. 2019 International Meeting of the Human Factors & Ergonomics Society. Seattle, WA.
35. Park JH, Kia K*, Fitch SM*, Srinivasan D, **Kim JH** (2019) Effects of Multi-axial Whole Body Vibration Exposures on Postural Stability. 2019 International Meeting of the Human Factors & Ergonomics Society. Seattle, WA.
34. Hwang JJ, Ari H, Matoo M, Chen J, **Kim JH** (2019) Evaluation of Patient Turning Device to Reduce Muscular Demands among Caregivers. 2019 International Symposium on Human Factors and Ergonomics in Health Care. Chicago, IL.
33. Kia K*, Johnson PW, Fitch SM*, Dennerlein JT, **Kim JH** (2019) Evaluation of Multi-axial Active Suspension to Reduce Whole Body Vibration Exposures and Associated Biomechanical Loading in Mining Heavy Equipment Vehicle Operators. 2019 International Meeting of the Human Factors & Ergonomics Society. Seattle, WA.
32. Kia K*, Johnson PW, **Kim JH** (2018) The effects of whole body vibration on biomechanical loading and non-driving task performance in a self-driving car environment. American Conference of Human Vibration 2018, Seattle, WA.
31. Kia K*, Johnson PW, **Kim JH** (2018) Comparisons of whole body vibration, muscle activity and non-driving task performance between different seat suspensions in Autonomous Passenger Car Application. 2018 International Meeting of Human Factors & Ergonomics Society. Philadelphia, PA.
30. Syamala KR, Ailneni RC, **Kim JH**, Hwang, J (2018) Effects of chair support on biomechanical exposures on the neck during mobile phone use. 2018 International Meeting of the Human Factors & Ergonomics Society. Philadelphia, PA.

29. Hwang JJ, Chen J, **Kim JH** (2018) Evaluation of different patient transfer devices in reducing biomechanical exposures among professional caregivers. 2018 International Meeting of the Human Factors & Ergonomics Society. Philadelphia, PA.
28. **Kim JH** (2018) Seating Interventions and the Influence of Whole Body Vibration Exposures on Health Outcomes in Truck Drivers. The 20th International Ergonomic Association Conference. Florence, Italy.
27. Sisley J*, Kia K*, Johnson PW, **Kim JH**. (2017) Effects of Key Travel Distances on Biomechanical Exposures and Typing Performance During Ultra-Low Key Travel Keyboards. 2017 International Meeting of the Human Factors and Ergonomics Society. Austin, TX.
26. Sisley J*, Kia K*, Johnson PW, **Kim JH**. (2017) Effects of Ultra-Low Key Travel Keyboards on Biomechanical Exposures and Typing Performance. The XXIXth Annual Occupational Ergonomics and Safety. Seattle, WA.
25. **Kim JH**, Zigman M, Ibbotson-Brown J, Aulck L, Dennerlein J, Johnson PW. (2016) Whole body vibration exposures and professional truck driver's health status in the United States. 2016 Industrial and Systems Engineering Research Conference. Anaheim, CA.
24. **Kim JH**, Zigman M, Ibbotson-Brown J, Aulck L, Dennerlein J, Johnson PW. (2016) Whole body vibration exposures and truck driver's health status in the United States. 9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders. Toronto, Canada.
23. Johnson PW, Zigman M, Ibbotson-Brown J, Aulck L, Dennerlein J, **Kim JH**. (2016) A randomized controlled trial evaluating the ability of truck seats to reduce WBV exposures and self-reported adverse health outcomes. 9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders. Toronto, Canada.
22. **Kim JH**, Johnson PW. (2016) Typing biomechanics on the touchscreen virtual keyboard on mobile devices. 9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders. Toronto, Canada. (*Invited symposium*)
21. **Kim JH**, Zigman M, Dennerlein JT, Johnson PW. (2016) Cross-sectional Analysis of Whole Body Vibration Exposures and Health Status among Long-haul Truck Drivers. The 2016 International Meeting of the Human Factors and Ergonomics Society. Washington DC.
20. **Kim JH**, Dennerlein JT, Johnson PW. (2016) The Comparisons of Whole Body Vibration Exposures and Supporting Musculature Loading between Single- and Multi-axial Suspension Seats during Agricultural Tractor Operation. The 2016 International Meeting of the Human Factors and Ergonomics Society. Washington DC.
19. **Kim JH**, Zigman M, Dennerlein JT, Johnson PW. (2016) Cross-sectional analysis of whole body vibration exposures and health status among long-haul truck drivers. American Conference of Human Vibration 2016, Milwaukee, WI.
18. **Kim JH**, Dennerlein JT, Johnson PW. (2016) Evaluation of a multi-axial suspension seat in reducing whole body vibration among agricultural tractor drivers. American Conference of Human Vibration 2016, Milwaukee, WI.
17. **Kim JH**, Johnson PW, Hughes M, Cavallari J, Sheldon A, Meglio D, Dennerlein JT. (2016) Truck driver's exposures to whole body vibration and musculoskeletal health outcomes. American Conference of Human Vibration 2016, Milwaukee, WI.
16. **Kim JH**, Lovenoor A, Zigman M, Dennerlein JT, Johnson PW. (2015) The Effects of an Engineering Intervention to Reduce Whole Body Vibration on Self-reported Low Back Pain: Randomized Controlled Trial. 19th Triennial Congress of the International Ergonomics Association. Melbourne, Australia.
15. **Kim JH**, Lovenoor A, Zigman M, Dennerlein JT, Johnson PW. (2015) The Effects of an Engineering Intervention to Reduce Whole Body Vibration on Self-reported Low Back Pain: A Randomized Controlled Trial Study. 31st International Congress on Occupational Health. Seoul, South Korea.
14. **Kim JH**, Lovenoor A, Hughes M, Cavallari J, Zigman M, Dennerlein JT, Johnson PW. (2015) Whole Body Vibration Exposures in Long-haul Truck Drivers. The 2015 International Meeting of the Human Factors and Ergonomics Society. Los Angeles, CA.

13. Johnson PW, Lovenoor A, Hughes M, Cavallari J, Zigman M, Dennerlein JT, **Kim JH**. (2015) A Randomized Controlled Trail of New Truck Seats to Reduce Whole Body Vibration Exposures and Low Back Pain. International Meeting of the Human Factors & Ergonomics Society. Los Angeles, CA.
12. **Kim JH**, Zigman M, Lovenoor A, Ibbotson J, Dennerlein JT, Johnson PW. (2014) Determinants of Whole Body Vibration Exposures in Long-haul Truck Drivers. 2014 American Conference on Human Vibration, Guelph, Ontario.
11. **Kim JH**, Aulck L, Trippany D, Johnson PW. (2014) Evaluation of Contact Pressure and Biomechanical Exposures on Different Work Surface Hardness. 2014 International Annual Meeting of the Human Factors and Ergonomics Society, Chicago, IL.
10. **Kim JH**, Aulck L, Thamsuwan O, Bartha M, Harper CA, Johnson PW. (2013) The Effects of Key Sizes of Touch Screen Virtual Keyboard on Productivity, Usability, and Typing forces. The 15th International Conference on Human-Computer Interaction, Las Vegas, NV.
9. **Kim JH**, Johnson PW. (2013) Temporal Physiological Changes in a Finger Flexor Muscle Paralleled Changes in Keystroke Durations. 8th International Conference on Prevention of Work-related Musculoskeletal Disorders, Pusan, South Korea.
8. **Kim JH**, Aulck L, Thamsuwan O, Bartha M, Johnson PW. (2013) The Effects of Virtual Keyboard Key Sizes on Typing Productivity and Physical Exposures. 2013 International Annual Meeting of the Human Factors and Ergonomics Society, San Diego, CA.
7. Johnson PW, **Kim JH**, Zigman M, Ibbotson J. (2013) Preliminary Whole Body Vibration Exposure Measurements from a Randomized Controlled Trial (RCT) Evaluating Truck Seats. Association of Canadian Ergonomists 44th Annual Conference, Whistler, BC., CA.
6. **Kim JH**, Johnson PW. (2012) Can Digital Signals from the Keyboard Capture Force Exposures during Typing? 18th World Congress on Ergonomics, Recife, Brazil.
5. **Kim JH**, Aulck L, Johnson PW. (accepted) Typing Force and Performance Variability between Conventional and Virtual Keyboards. 62nd Industrial Engineering Research Conference, Orlando, FL.
4. **Kim JH**, Aulck L, Bartha MC, Harper CA, Johnson PW. (2012) Are there Differences in Force Exposures and Typing Productivity between touchscreen and conventional keyboard? Human Factors and Ergonomics Society 56th Annual Meeting, Boston, MA.
3. **Kim JH**, Aulck L, Johnson PW. (2012) Are there Differences in Muscle Activity, Subjective Discomfort, and Typing Performance between Virtual and Conventional Keyboards? 34th Annual International Conference of the Engineering in Medicine and Biology Society, San Diego, CA.
2. **Kim JH**, Johnson PW. (2011) Validation of Software-based Measures of Keystroke Durations with External USB-based Logger. 61st Annual Industrial Engineering Research Conference, Reno, NV.
1. **Kim JH,** Johnson PW. (2011) Validation of a Software Program for Measuring Fatigue-Related Changes in Keystroke Durations. 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Boston, MA.

C.4. Other Invited Presentations

24. **Kim** (2023) Emerging issues in agricultural ergonomics and biomechanics research, Rural Development Administration of Korea, Jeon-ju, South Korea, August 2023.
23. **Kim** (2023) Exoskeleton applications in Agriculture, Korea-US-Japan Joint Symposium, Sungkyunkwan University, South Korea, August 2023.
22. **Kim JH** (2022) Biomechanics Research in Pacific Northwest, Graduate Colloquium, Clemson University, SC, September 2022.
21. **Kim JH** (2022) Work-related musculoskeletal disorders and Ergonomics Research, Undergraduate Seminar, Kwangwon National University, South Korea, June 2022.
20. **Kim JH** (2022) Occupational Ergonomics and Exoskeletons, Undergraduate Seminar, Sungkyunkwan University, South Korea, June 2022.
19. **Kim JH** (2022) Work-related musculoskeletal disorders and Ergonomics Research, Undergraduate Seminar, Hankyung University, South Korea, May 2022.

18. **Kim JH** (2022) Ergonomics and Musculoskeletal Disorders, Graduate Colloquium, Seoul National University, Seoul, South Korea, May 2022.
17. **Kim JH** (2022) Exoskeletons as Ergonomic Interventions in Various Occupational Settings, Undergraduate Seminar, Incheon National University, South Korea, May 2022.
16. **Kim JH** (2022) Ergonomics and Musculoskeletal Disorders, Undergraduate Seminar, Korea National University of Transportation, South Korea, April 2022.
15. **Kim JH** (2021) Occupational Ergonomics and Biomechanics (OEB) Laboratory at Oregon State University. OSU's University Wide Ignite Research Colloquium -Interdisciplinary Health Sciences.
14. **Kim JH** (2020) Occupational Exposure to Whole Body Vibration and Related Health Outcomes. 2020 Cascade Occupational Safety & Health Conference. Eugene, OR.
13. **Kim JH** (2020) AR/VR Biomechanical Exposures in the Neck and Upper Extremities during Augmented Reality Interaction. Office Ergonomics Research Committee Marconi 2020
12. Choi SD, Borchardt JG, Lin JH, **Kim JH**, Malone G, Fox R, McMullin D (2017) Research to Practice to Research – Bridging the Gap between the Practitioners and Academics. The XXIXth Annual Occupational Ergonomics and Safety. Seattle, WA.
11. Sisley J*, Kia K*, Johnson PW, Kim JH (2017) Effects of Key Travel Distances on Biomechanical Exposures and Typing Performance During Ultra-Low Key Travel Keyboards. 2017 Northwest Biomechanics Symposium. Eugene, OR.
10. Sisley J*, Kia K*, Johnson PW, **Kim JH** (2017) Effects of Ultra-Low Key Travel Keyboards on 8. Biomechanical Exposures and Typing Performance. Puget Sound Human Factors and Ergonomics Society, Seattle, WA.
9. Hughes M, **Kim, JH**, Aulck, L, Johnson, PW (2014) Effects of Computer Keyboard Characteristics on Three-Dimensional Applied Forces. Annual Occupational, Environmental, & Public Health Conference, Blain, WA.
8. **Kim JH** (2014) Typing on Touchscreen Virtual Keyboards: Usability and Biomechanics. Office Ergonomics Research Committee 2014 Marconi Conference, Austin, TX.
7. **Kim JH,** Johnson PW (2012) Non-invasive Force Exposure Assessment during Typing: Using Digital Signals from a Keyboard. Annual US-Korea Conference on Science & Engineering, Log Angeles, CA.
6. **Kim JH** (2012) Occupational Ergonomics: a Contemporary Issue and Innovative Approach. Puget Sound Human Factors and Ergonomics Society, Seattle, WA.
5. **Kim JH** (2012) Non-invasive Assessment of Muscle Fatigue during Computer Use. Korean-American Engineers and Scientists Association Northwest Regional Conference 2012, Sacramento, CA.
4. **Kim JH**, Johnson PW. (2011) Validation of UW/Harvard Computer Interaction Monitoring Software for Measuring Fatigue-Related Changes in Keystroke Durations. 23rd Annual Occupational, Environmental, and Public Health Conference, Blaine, WA.
3. **Kim JH**, Johnson PW. (2011) Can Digital Signals from the Keyboard Capture Force Exposures during Typing? Northwest Biomechanics Symposium 2011, Vancouver, BC, Canada.
2. **Kim JH**, Johnson PW. (2011) Computer Input Devices as a surrogate exposure assessment tool. Korean-American Engineers and Scientists Association Northwest Regional Conference 2011, San Jose, CA.
1. **Kim JH,** Johnson PW. (2011) Validation of a Software Program for Measuring Fatigue-Related Changes in Keystroke Durations. Annual US-Korea Conference on Science and Engineering 2011, Park City, UT.

D. Contracts, Grants, and Sponsored Research Projects

Current Grants

1. Title: Job Function Testing at LANL: A Business Case for Continued Implementation
   Sponsor: Los Alamos National Laboratory
   Total Amount: $50,000
   Dates: January 2025 – December 2025
   Role: PI
2. Title: Non-invasive low back injury risk assessment using a smartphone-based motion capture system with machine learning and musculoskeletal modeling
   Sponsor: National Safety Council.
   Total Amount: $49,999
   Dates: September 2024 – August 2025
   Role: PI (Student PI: Mina Salehi Sedeh*, *PhD advisee)
3. Title: Smart Forestry - Paving the Way from Forest Restoration to Mass Timber
   Sponsor: Economic Development Administration, U.S. Department of Commerce.
   Total Amount: $5.5M
   Dates: September 2022 – March 2027
   Role: Co-PI (Lead PI: Dr. Woodam Chung at OSU's College of Forestry)
4. Title: Exoskeletons for Commercial Dungeness Crab Fishing to Reduce Musculoskeletal Injuries
   Sponsor: 09/ (U01)
   Total Amount: $947,991
   Dates: September 2023 – August 2026
   Role: Principal Investigator
5. Title: A Comparative Study of Different Wheelchair-toilet Transfer Approaches to Reduce Caregiver's Work-Related Musculoskeletal Disorders
   Sponsor: Washington State Department of Labor & Industries
   Total Amount: $174,634
   Dates: June 2023 – May 2025
   Role: Principal Investigator (with Co-PI: Jong Yoon at University of Washington)
6. Title: Improving Dungeness crab vessel equipment: an ergonomic intervention to reduce risk for musculoskeletal injuries and falls overboard (U01)
   Total Amount: $895,286
   Dates: September 2021 – August 2025
   Role: Principal Investigator (with Co-PI: Laurel Kincl at OSU)
7. Title: Estimating lumbar spine loading when using a passive back-support exoskeleton among Dungeness crab fishermen
   Sponsor: National Institute for Occupational Safety and Health Northwest Center for Occupational Health and Safety (NWCOHS) at University of Washington
   Total Amount: $10,000
   Dates: September 2023 – June 2025
   Role: Principal Investigator (Student PI: Mina Salehi Sedeh*, *PhD advisee)
8. Title: Characterizing the Well-being of Oregon Commercial Fishermen: A Mixed Methods Study
   Sponsor: National Institute for Occupational Safety and Health Northwest Center for Occupational Health and Safety (NWCOHS) at University of Washington
   Total Amount: $10,000
   Dates: September 2023 – August 2024
   Role: Co-PI (PIs: Kelly Chandler and Allen Chan*, *PhD advisee)

Pending Grants

1. Title: Wind-UP: AI-Enhanced Adaptive Training for Wind Heavy Equipment Operators
   Sponsor: The National Academies of Sciences, Engineering, and Medicine
   Total Amount: $747,182
   Dates: November 2025 – October 2028
   Role: Co-PI (Lead PI: Dr. Namgyun Kim, **mentee**)
2. Title: Mitigating Fall Risk Among Aging Vehicle Operators: Postural Stability Restoration Following Whole Body Vibration Exposure
   Sponsor: National Institute of Health (R21)
   Total Amount: $404,424
   Dates: April 2026 – March 2028
   Role: Co-PI (Lead PI: Dr. Jangho Park, **former postdoc**)
3. Title: Development of a Minimally Invasive AI-Based Fall Risk Monitoring System for Elderly Populations
   Sponsor: National Institute of Health (R21)
   Total Amount: $408,938
   Dates: April 2026 – March 2028
   Role: Co-PI (Lead PI: Dr. Heejin Jeong at Arizona State University, **mentee**)
4. Title: Task-Specific Injury Risk Mitigation for Firefighters
   Sponsor: DHS-Federal Emergency Management Agency
   Total Amount: $408,938
   Dates: August 2025 – August 2029
   Role: Co-I (PI: Jenna Yentes)
5. Title: Development of Virtual Reality-Based Commercial Fishing Safety Training Program
   Sponsor: National Institute for Occupational Safety and Health (U01)
   Total Amount: $975,000
   Dates: April 2025 – March 2028
   Role: Co-PI (Lead PI: Dr. Heejin Jeong at Arizona State University, **mentee**)
6. Title: Improving commercial fishers' mental health through socially assistive robotics
   Sponsor: National Institute for Occupational Safety and Health (U01)
   Total Amount: $942,352
   Dates: April 2025 – March 2028
   Role: Principal Investigator (Co-PI: Dr. Naomi Fitter at Oregon State University)
7. Title: Development of a non-invasive wearable sensor system for monitoring physical and heat exposures among agricultural workers
   Sponsor: National Institute for Occupational Safety and Health (R21)
   Total Amount: $353,043
   Dates: April 2025 – March 2028
   Role: Principal Investigator (Co-PI: Daehan Won and Ahyeon Koh at Binghamton University)
8. Title: Improving EMS clinician and patient safety in pre-hospital care through a systems-based approach for implementing wearable-robotics interventions
   Sponsor: National Institute for Occupational Safety and Health (R01)
   Total Amount: $1,999,999
   Dates: July 2025 – June 2029
   Role: Co-I (PI: Divya Srinivasan at Clemson University)

9. Title: Smart Safety Solutions for Roofers: Quantifying and Reducing Fall/Slip Risks with Minimal Invasive Techniques
   Sponsor: National Institute for Occupational Safety and Health (R21)
   Total Amount: $353,043
   Dates: April 2025 – March 2028
   Role: Co-I (PI: Jaejin Hwang at Northern Illinois University, **mentee**)
10. Title: NSF Convergence Accelerator Track M: Tensegrity-based Assistive Exosuits that Complement Human Biomechanics (TANDEM)
    Sponsor: National Science Foundation
    Total Amount: $ 820,949
    Dates: January 2025 – December 2027
    Role: Co-PI (PI: Chuma Nnaji at TAMU)
11. Title: Development of Non-invasive sweat sensors to monitor physiological stress biomarkers in outdoor workers
    Sponsor: Texas A&M Targeted Proposal Teams (TPT) - Collaborative Seed Grants.
    Total Amount: $60,000
    Date: January 2025 – January 2026
    Role: PI
12. Title: Non-invasive sweat sensors to monitor physiologic stress associated with heat exposure
    Sponsor: Texas A&M Center for Environmental Health Research (TiCER) 2024 Pilot Project Program
    Total Amount: $50,000
    Date: January 2025 – January 2026
    Role: PI

Completed Grants

1. Title: Evaluation Studio
   Sponsor: The Army Research Office via the DoD Fiscal Year 2024 Defense University Research Instrumentation Program (DURIP)
   Total Amount: $550,000
   Dates: September 2, 2023
   Role: Co-PI (PI: Julie Adams at OSU)
2. Title: Exoskeletons as an Innovative Approach to Prevent Musculoskeletal Disorders in Surface Mining
   Sponsor: National Institute for Occupational Safety and Health
   Total Amount: $483,470
   Dates: March 2021 – March 2023
   Role: OSU PI (PI: Maury Nussbaum at Virginia Tech.)
3. Title: Effects of Multi-axial Whole Body Vibration on Postural Stability.
   Sponsor: National Institute for Occupational Safety and Health (R21)
   Total Amount: $330,000
   Dates: September 2019 – September 2022
   Role: Principal Investigator (with Co-PI: Divya Srinivasan at Virginia Tech)
4. Title: Exoskeleton Study in Construction
   Total Amount: $33,796
   Dates: August 2022 – August 2023
   Role: Principal Investigator
5. Title: Improving vessel equipment: evaluating fishermen-led safety design ideas in the Dungeness crab fleet.
   Sponsor: National Institute for Occupational Safety and Health (U01)
   Total Amount: $531,812
   Dates: September 2019 – August 2023
   Role: Principal Investigator (with Co-PI: Laurel Kincl at OSU)

6. Title: Systematic evaluation of industrial exoskeletons in reducing work-related musculoskeletal disorders.
   Sponsor: National Research Foundation of Korea
   Total Amount: $121,600
   Dates: August 2021 – July 2022
   Role: Principal Investigator
7. Title: Physical and Cognitive Impact of Virtual and Augmented Reality Interactions.
   Sponsor: Office Ergonomics Research Committee
   Total Amount: $25,000
   Dates: January 2020 – December 2021
   Role: Principal Investigator
8. Title: Systematic evaluation of exoskeletons in reducing musculoskeletal disorders in manual timber felling.
   Sponsor: Pacific Northwest Agricultural Safety and Health Center through National Institute for Occupational Safety and Health
   Total Amount: $5,500
   Dates: September 2019 – September 2021
   Role: Principal Investigator
9. Title: Systematic evaluation of Multi-axial Suspension to Reduce Whole Body Vibration Exposures in Heavy Equipment Mining Vehicle Operators.
   Sponsor: Alpha Foundation
   Total Amount: $361,407
   Dates: August 2017 – June 2021
   Role: Principal Investigator
10. Title: Automobile Seat Vibration Study
    Sponsor: Lear Corporation
    Total Amount: $31,000
    Dates: January 2019 – December 2019
    Role: Principal Investigator
11. Title: Evaluation of Biomechanical Exposures in the Neck and Upper Extremities During Augmented Reality Interactions.
    Sponsor: Office Ergonomics Research Committee
    Total Amount: $25,000
    Dates: January 2018 – December 2019
    Role: Principal Investigator (with Co-PI: Jaejin Hwang at Northern Illinois)
12. Title: Assessment of Whole Body Vibration and Work-Related Interventions within a Public Works Department
    Sponsor: National Institute for Occupational Safety and Health Northwest Center for Occupational Health and Safety (NWCOHS) at University of Washington
    Total Amount: $10,000
    Dates: January 2019 – December 2019
    Role: Principal Investigator (Student PI: Stephanie Fitch)
13. Title: Effects of Whole Body Vibration Exposure on Physiological Stresses in Mining Heavy Equipment Vehicle Operators.
    Sponsor: Alpha Foundation
    Total Amount: $150,000
    Dates: August 2017 – October 2019
    Role: Principal Investigator (with Co-PI: Sean Newsom at OSU)

14. Title: Evaluating the Effects of Multi-axial Whole Body Vibration Exposure on Postural Stability in Mining Equipment Vehicle Operators.
    Sponsor: Alpha Foundation
    Total Amount: $148,270
    Dates: August 2017 – October 2019
    Role: Principal Investigator (with Co-PI: Divya Srinivasan at Virginia Tech.)
15. Title: Randomized Controlled Trial of Whole Body Vibration Intervention in Truck Drivers.
    Sponsor: National Institute for Occupational Safety and Health R01
    Total Amount: $2,199,302
    Dates: August 2013 – May 2019
    Role: Co-Investigator (PIs: Jack Dennerlein and Peter Johnson)
16. Title: Systematic Evaluation of Patient Transfer Devices to Improve Musculoskeletal Health among Caregivers and Patients.
    Sponsor: NIOSH Pilot Project Research Training Program
    Total Amount: $15,000
    Dates: August 2018 – August 2019
    Role: Co- Investigator (PI: Jaejin Hwang at Northern Illinois)
17. Title: Effects of Whole Body Vibration on Non-driving Activity Performance.
    Sponsor: Bose Corporation
    Total Amount: $46,600
    Dates: January 2017 – December 2017
    Role: Principal Investigator
18. Title: Evaluating Biomechanical Exposures and Usability on Ultra-low Travel Keyboards.
    Sponsor: Office Ergonomics Research Committee
    Total Amount: $25,000
    Dates: January 2016 – December 2017
    Role: Principal Investigator
19. Title: Evaluating biomechanical stresses during nasal spray use.
    Sponsor: InsightsNow Inc.
    Total Amount: $37,000
    Dates: November 2016 – February 2017
    Role: Principal Investigator
20. Title: Evaluation of an engineering control to reduce whole-body vibration in agricultural equipment.
    Sponsor: Bose Corporation
    Total Amount: $28,280
    Dates: August 2014 – July 2015
    Role: Principal Investigator
21. Title: Evaluating Automotive Seat Using Objective and Subject Biomechanics Measures.
    Sponsor: Faurecia
    Total Amount: $10,000
    Dates: April 2014 – December 2014
    Role: Principal Investigator
22. Title: Characterizing and Reducing Whole Body Vibration for Agricultural Tractor Drivers.
    Sponsor: Northern Illinois University Great Journeys Program
    Total Amount: $13,000
    Dates: August 2014 – July 2015
    Role: Principal Investigator

23. Title: Whole Body Vibration Exposure Assessment on Off-road Vehicles.
    Sponsor: University of Washington
    Total Amount: $140,000
    Dates: January 2012 – August 2013
    Role: Co-Investigator (PI: Peter Johnson at UW)
24. Title: Computer Work Surface Comparative Study.
    Sponsor: Steelcase Inc.
    Total Amount: $50,000
    Dates: February 2012 – January 2013
    Role: Co-Investigator (PI: Peter Johnson at UW)
25. Title: Randomized Controlled Trial of Whole Body Vibration Intervention in WA Truck Drivers.
    Sponsor: Washington State Department of Labor and Industries.
    Total Amount: $250,000
    Dates: January 2012 – September 2013
    Role: Co-Investigator (PI: Peter Johnson at UW)

E. SERVICE

E.1. Services to the Profession

Invited Presentations

"Virtual and Augmented Reality in Office Settings and beyond", Invited speaker, Office Ergonomics Research Committee Marconi meeting. San Francisco, CA, April 2025.

"Occupational Ergonomics – Challenges and Opportunities", Invited speaker, National Society of Black Engineers (University of Washington Chapter). Seattle, WA, January 2023.

"Occupational Whole-Body Vibration and Related Health Outcomes", Invited speaker, 2020 Cascade Occupational Safety & Health Conference. Eugene, OR, March 2020.

"Effects of Virtual and Augmented Reality Interface Design and Interactions on Physical and Cognitive Demand", Invited speaker, Office Ergonomics Research Committee Marconi meeting. San Francisco, CA, February 2020.

"Addressing occupational exposure to Whole Body Vibration and associated injury risks using multi-axial electromagnetic active suspension system", Invited Speaker, Korean-American Scientists and Engineers Association West Regional Conference. Seattle, WA, November 2019.

"Research to Practice to Research – Bridging the Gap between the Practitioners and Academics", Invited Panelist, 29th Annual Occupational Ergonomics and Safety. Seattle, WA, June 2017.

Organizing/leading professional meetings

Organizing committee, The International Ergonomics Association (IEA) 2024 Congress. Jeju, Korea (2024)

Session chair, The International Ergonomics Association (IEA) 2024 Congress. Jeju, Korea (2024)

Session chair, Human Factors and Ergonomics Society Annual Meeting. Phoenix, AZ. (2024)

Session chair, Human Factors and Ergonomics Society Annual Meeting. Washington D.C. (2023)

Session chair, Ergonomics Society of Korea International Meeting. Jeju, Korea. (2022)

Session chair, Ergonomics Society of Korea Spring Meeting. Seoul, Korea. (2022)

Session chair, Ergonomics Society of Korea Autumn Meeting. Jeju, Korea. (2021)

Session chair, 31st International Occupational Ergonomics and Safety Meeting in New Orleans, LA (2019)

Co-conference organizer/chair, American Conference on Human Vibration (ACHV) in Seattle, WA (2018)

Co-symposium chair, Puget Sound HFES annual symposium, Seattle, WA (2017)

Session chair, American Conference on Human Vibration (ACHV) in Milwaukee, WI, (2016)

Session chair, Industrial and Systems Engineering Research Conference (ISERC) in Anaheim, CA, (2016)

Session chair, International Conference on Prevention of Work-related Musculoskeletal Disorders (2013)

Track chair, Ergonomics Track, 62nd IIE Annual Applied Solution Conference (2012)

Grant review

1. National Institute for Occupational Safety and Health (NIOSH), NY/NJ (Region II) Education and Research Center (ERC) 2025 Pilot Project review March 2025.
2. NIOSH intramural grant review on December 2024
3. NIOSH, the Northwest Center for Occupational Health and Safety (NWCOHS) 2024 Professional Training Opportunities Program (PTOP) grant review on September 2024
4. NIOSH, Education and Research Center (ERC) competitive renewal grant review on February 2024
5. Mitacs Canada, "The physical demands support levels of low back exoskeletons" October 2023
6. NIOSH, the Northwest Center for Occupational Health and Safety (NWCOHS) 2023 Professional Training Opportunities Program (PTOP) grant review on September 2023
7. NIOSH, the Northwest Center for Occupational Health and Safety (NWCOHS) 2023 Professional Training Opportunities Program (PTOP) grant review on September 2022
8. NIOSH, NY/NJ (Region II) Education and Research Center (ERC) 2022 Pilot Project review March 2022.
9. NIOSH, Center for Disease Control and Prevention, Study section meeting: ZOH1 EHG (05) May 2020.
10. Discovery grant program in Mechanical Engineering (EG 1512), Natural Sciences and Engineering Research Council of Canada, 2019.
11. "Development of a comprehensive toolkit for evaluating workplace musculoskeletal injury interventions: swine injection technologies as a test case" Workers Compensation Board of Manitoba, Canada. 2014.

Federal Agency Document review

1. NIOSH/CDC "Simple Solutions for Dusty Mining Environments: Reducing Dust Exposures while Improving Ergonomics", December 2020.

Charitable scientific organization

2022 – present	ACGIH TLV-Physical Agents Committee (consultant)
2022 – present	The Oregon Occupational Public Health Program Advisory Committee (member)
2022 – 2023	Korean-American Human Factors and Ergonomic Society ***(chair-elect***)
2023 – present	Korean-American Human Factors and Ergonomic Society (***chair***)

Professional Membership

2008 - 2012	Institute of Industrial Engineers
2010 - present	Human Factors and Ergonomic Society
2011- 2016	Korean-American Scientists and Engineers Association
2009 - present	Alpha Pi Mu, the National Industrial Engineering Honor Society

Editorial service:

Senior editor: *Ergonomics in Design*
Editorial board member: *Applied Ergonomics*
Editorial board member*: International Journal of Industrial Ergonomics*
Editorial board member: *Journal of Agromedicine*

Review activities for:

Applied Ergonomics
Ergonomics in Design
Ergonomics
Clinical Biomechanics
Human Factors
Journal of Occupational & Environmental Hygiene
Annals of Work Exposures and Health (old: Annals of Occupational Hygiene)
Journal of Agromedicine
IIE transactions on Occupational Ergonomics and Human Factors
Safety and Health at Work
Behaviour & Information Technology
European Journal of Applied Physiology
PLOS ONE
International Journal of Industrial Ergonomics
International Journal of Environmental Research and Public Health
Human Factors and Ergonomics Society meetings
International Ergonomics Association meetings

D.2. Services to the School, College, and University

Texas A&M University

Timeframe	Service	Level
2025	Member, P&T	

Oregon State University

2022 – 2024	Member, BPHS Personal Committee	School/Program
2022 – 2023	Member, CPHHS Curriculum Committee	College
2020 – 2021	Member, CPHHS Curriculum Committee	College
2016 – present	Founding Faculty Advisor, OSU's HFES student chapter	University
2017 – 2020	Member, CPHHS Web-Communication Committee	College
2017	Panelist, CPHHS Undergraduate Research Program	College
2017	Guest speaker, URSA Engage Program	University
2019	Moderator, Oregon Public Health Association (OE session)	College
2020	Member, EOH Instructor Search Committee	School/Program
2020 – 2021	Member, OSU Innovation & Entrepreneurship Fellow	University
2019 – present	Campus Security Authority (CSA), Oregon State University	University
2019 – present	Ergonomics Graduate Minor Advisor	School/Program
2020	Organizer/Judge, CPHHS Next Great Startup Competition	College
2017	Member, CPHHS Head Advisor Search Committee	College
2016 – 2017	Member, Faculty Search Committee	School/Program
2015	Judge, Oregon Public Health Association Student Poster Competition	College

Northern Illinois University

2013 – 2015	Faculty Advisor, Alpha Pi Mu, National Honor Society	University

2013 – 2015	Faculty Marshal at NIU Commencement ceremonies	University
2014	Member, University Scholarship Committee	University
2014	Judge, Undergraduate Research and Artistry Day Poster Competition	University
2014	Judge, Engineering Senior Design Day	College

E. HONORS AND AWARDS

2023	Research Advancement Academy Fellow, Oregon State University
2022	Ajou Global Fellow, Ajou University, South Korea
2022	Korea Brain Pool Fellow, Nation Research Foundation of Korea
2020	Innovation & Entrepreneurship fellow, Oregon State University
2019	ASPPH Early Career Public Health Research Award nominee, Association of Schools and Programs of Public Health
2015	Faculty of the year nominee, Northern Illinois University
2015	Excellence in Innovation award nominee, Northern Illinois University
2013	Principal Investigator Academy, 2013-2014, Northern Illinois University
2012	Outstanding Graduate Student Award, Industrial & Systems Engineering, U of Washington
2012	GPSS Travel Award, University of Washington
2011	International Ergonomics Association KU Smith Award finalist (best paper award)
2011	Community of Innovators Awards nominee, College of Engineering, University of Washington, (best student researcher)
2011	Two Graduate student travel awards, College of Engineering, University of Washington
2009	Alpha Pi Mu, the National Industrial Engineering Honor Society
2008	Clairmont L. Egtvedt Fellowship, University of Washington

F. HONORS AND AWARDS (Students, Advisees, and Mentees)

2025	Oregon State University's College of Health Travel award (Allen Chan, PhD advisee)
2023	PTOP research grant through the NIOSH NWCOHS center (Allen Chan, PhD advisee)
2023	PTOP research grant through the NIOSH NWCOHS center (Mina Salehi, PhD advisee)
2023	Human Factors and Ergonomics Society Student Travel Award (Allen Chan, PhD advisee)
2023	Human Factors and Ergonomics Society Student Travel Award (Mina Salehi, PhD advisee)
2022	2022-2023 OSU Provost's Distinguished Graduate Scholarship (Mina Salehi, PhD advisee)
2021	2021-2022 OSU Provost's Distinguished Graduate Fellowship (Allen Chan, PhD advisee)
2021	CPHHS Outstanding graduate student nominee (Natalie Wenzlick, MPH advisee)
2020	ASSP scholarship, American Society of Safety Professionals (Laurence Miller, MPH advisee)
2020	Undergraduate Research, Scholarship, and the Arts (URSA) award (Catherine Petersen, Undergraduate research assistant)
2019	PTOP research grant through the NIOSH NWCOHS center (Stephanie Fitch, Graduate research assistant)
2018	PNS-AIHA scholarship, Pacific Northwest Section of the American Industrial Hygiene Association (Jillian Cote, MPH advisee)
2018	Graduate School Travel Award (Kiana Kia, PhD advisee)
2018	PechaKucha Showcase Excellence Award (Kiana Kia, PhD advisee)
2017	PTOP research grant through NIOSH ERC center at University of Washington with Dr. Kincl (Hayley Strenke, MHP advisee)
2017	Human Factors and Ergonomics Society Student Author Presentation Support Award (Kiana Kia, PhD advisee)
2017	Undergraduate Research Awards Program (URAP) Scholarship (Ashley Chen)

G. MEDIA COVERAGE

Virtual reality interface design affects users both physically and mentally, study finds. MSN.com/health. April 25, 2025

Virtual reality interface design affects users both physically and mentally. Texas A&M VitalRecord, April 9, 2025

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Can a fishermen-developed 'banger bar' help reduce risk of injury on crab boats? Global Seafood Alliance. April 27, 2023

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'Gorilla arm' warning for virtual reality users. ***The Times***. April 19, 2022

VR to the ER: Metaverse Early Adopters Prove Accident-Prone. ***The Wall Street Journal.*** February 1, 2022

OSU researchers to study how to make 'deadliest catch' safer. ***OPB.org***. October 10, 2021

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Grant will help find ways to prevent injury in crab industry. ***Newportnewstimes.com***. September 1, 2021

New grant will help OSU researchers find ways to prevent injury in Dungeness crab industry. ***OSU Synergies*** and ***OSU Newsroom.*** August 10, 2021

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Too much virtual reality can strain on your body, OSU researchers say. ***Fox 12 Oregon***. January 7, 2020

Virtual Reality Can Bring Real-Life Pain. ***U.S.News***. January 16, 2020

Virtual reality, real injuries: OSU study shows how to reduce physical risk in VR. The News Guard (Lincoln County Leader). January 21, 2020

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This Study Explores the Health Risks of VR. ***Engineering.com***. January 31, 2020

Virtual reality and safety training: The benefits – and potential concerns. ***Safety and Health*** by **National Safety Council.** February 23, 2020

Better design can stop virtual reality causing real injury. ***IET E&T***. January 9, 2020

Researchers Are Looking For Ways To Make VR Less Painful. ***DesignNews***. January 15, 2020

Uncovering clues to alleviate bodily stress from heavy equipment vehicles. ***OSU Synergies***. September 18, 2017

Rock 'n' RollL: Improve health for drivers and equipment operators. ***OSU Terra***. August 3, 2017

Find the Best Phone-Screen Size for You. ***The Wall Street Journal*** March 26, 2014.

Buckle Up: Test Driving Comfort Technology Of Vehicle Seats. ***National Public Radio*** (Northern Public Radio) June 5, 2014

Typing on a Tablet Can Put a Strain on Your Shoulders. ***The Wall Street Journal*** October 13, 2014

Typing on a tablet linked to chronic shoulder problems. ***Fox News*** October 14, 2014

Typing on Tablet Keyboards Can Be Murder on the Shoulders. ***ABC News Radio*** October 15, 2014

Typing on a tablet can be a pain ***MarketWatch*** October 15, 2014

Prolonged use of touch-screen keyboards leads to chronic shoulder problems ***Big News Network*** October 15, 2014

Problemi alla spalla con il touch screen ***italiasalute*** October 15, 2014

Nuove sindromi: ecco quella da touchscreen ***LA STAMPA*** October 16, 2014
