

# Mark C. Schall, Jr., PhD, CPE

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## Education

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- 2014 Ph.D., Industrial Engineering, University of Iowa, Iowa City, Iowa  
2011 M.S., Industrial Engineering, University of Iowa, Iowa City, Iowa  
2010 B.S., Industrial Engineering *with Distinction and Honors*, University of Iowa, Iowa City, Iowa

## Academic Positions

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- 2022 – present Director, Center for Occupational Safety, Ergonomics, and Injury Prevention, Auburn University, Auburn, Alabama  
2022 – present Daniel F. and Joesphine Breeden Associate Professor, Industrial and Systems Engineering, Auburn University, Auburn, Alabama  
2017 – present Joint Appointment, School of Kinesiology, Auburn University, Auburn, Alabama  
2020 – 2022 Associate Professor, Industrial and Systems Engineering, Auburn University, Auburn, Alabama  
2015 – 2020 Assistant Professor, Industrial and Systems Engineering, Auburn University, Auburn, Alabama

## Notable Honors and Awards

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- 2021 Rising Star of Safety (future leaders younger than 40), National Safety Council  
2021 *Ergonomics* Best Paper Award (as co-author), Chartered Institute of Ergonomics and Human Factors  
2020 Best Paper in the Occupational Ergonomics Technical Independent Research Category, *HFES*  
2018 College of Engineering Research Award for Excellence, Junior Faculty, Auburn University  
2014 Industrial Engineering Graduate Student Outstanding Achievement Award, University of Iowa  
2013 Jack Beno Award for Academic Achievement, Iowa Governor's Safety Council  
2012 Industrial Engineering Graduate Student Outstanding Achievement Award, University of Iowa  
2010 Industrial Engineering Outstanding Senior Award, University of Iowa  
2010 NIOSH Fellow (2010-2014), Heartland Education and Research Center, University of Iowa

## Editorial Service

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- 2022 – present Editor, *International Journal of Industrial Ergonomics*  
2022 – present Editorial Board Member, *IISE Transactions on Occupational Ergonomics and Human Factors*  
2020 – present Editorial Board Member, *Human Factors*  
2019 – 2021 Editorial Board Member, *International Journal of Industrial Ergonomics*

## Professional Certifications and Memberships

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- 2017 – present Certified Professional Ergonomist (#1908), Board of Certification in Professional Ergonomics  
2017 – present American Society of Safety Professionals (ASSP)  
2016 – present Institute of Industrial and Systems Engineers (IISE)  
2014 – present Human Factors and Ergonomics Society (HFES; full member since 2017)  
2009 – present Tau Beta Pi National Engineering Honors Society

## Journal Articles

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\* Graduate Student Chaired by Schall (majority of research conducted while the student was at Auburn University)

1. **Schall Jr MC**, Chen H, Cavuoto L. (2022). Wearable inertial sensors for objective kinematic assessments: a brief overview. *Journal of Occupational and Environmental Hygiene*. 19(9), 501-508. [doi: 10.1080/15459624.2022.2100407](https://doi.org/10.1080/15459624.2022.2100407)
2. \*Graben PR, **Schall Jr MC**, Gallagher S, Sesek RF, Acosta-Sojo Y. (2022). Reliability Analysis of Observation-based Exposure Assessment Tools for the Upper Extremities: A Systematic Review. *International Journal of Environmental Research and Public Health*. 19, 10595. [doi: 10.3390/ijerph191710595](https://doi.org/10.3390/ijerph191710595)
3. Zelik KE, Nurse CA, **Schall Jr MC**, Sesek RF, Marino MC, Gallagher S. (2022). An ergonomic assessment tool for evaluating the effect of back exoskeletons on injury risk. *Applied Ergonomics*. 99, 103619. [doi: 10.1016/j.apergo.2021.103619](https://doi.org/10.1016/j.apergo.2021.103619)
4. \*Zhang X, **Schall Jr MC**, Chen H, Gallagher S, Davis GA, Sesek RF. (2022). Manufacturing worker perceptions of using wearable inertial sensors for multiple work shifts. *Applied Ergonomics*. 98, 103579. [doi: 10.1016/j.apergo.2021.103579](https://doi.org/10.1016/j.apergo.2021.103579)
5. **Schall Jr MC**, \*Zhang X, Chen H, Gallagher S, Fethke N. (2021). Comparing Upper Arm and Trunk Kinematics between Manufacturing Workers Performing Predominantly Cyclic and Non-cyclic Work Tasks. *Applied Ergonomics*. 93, 103356. [doi: 10.1016/j.apergo.2021.103356](https://doi.org/10.1016/j.apergo.2021.103356)
6. **Schall Jr MC**, Chen P. (2021). Evidence-based Strategies for Improving Occupational Safety and Health among Teleworkers During and After the Coronavirus Pandemic. *Human Factors: The Journal of the Human Factors & Ergonomics Society*. [doi: 10.1177/0018720820984583](https://doi.org/10.1177/0018720820984583)
7. Coker J, Chen H, **Schall Jr MC**, Gallagher S, Zabala M. (2021). EMG and Joint Angle-Based Machine Learning to Predict Future Joint Angles at the Knee. *Sensors*. 21(11), 3622. [doi: 10.3390/s21113622](https://doi.org/10.3390/s21113622)
8. Bani Hani D, Huangfu R, Sesek RF, **Schall Jr MC**, Davis GA, Gallagher S. (2021). Development and Validation of a Cumulative Exposure Shoulder Risk Assessment Tool Based on the Fatigue-Failure Theory. *Ergonomics*. 64, 39-54. [doi: 10.1080/00140139.2020.1811399](https://doi.org/10.1080/00140139.2020.1811399)
9. Chen H, **Schall Jr MC**, Fethke NB. (2020). Measuring Upper Arm Elevation using an Inertial Measurement Unit: An Exploration of Sensor Fusion Algorithms and Gyroscope Models. *Applied Ergonomics*. 89, 103187. [doi: 10.1016/j.apergo.2020.103187](https://doi.org/10.1016/j.apergo.2020.103187)
10. Gunter L, Davis GA, Abulhassan Y, Sesek RF, **Schall Jr MC**, Gallagher S. (2020). Increasing Evacuation Flow through School Bus Emergency Roof Hatches. *Applied Ergonomics*. 88, 103178. [doi: 10.1016/j.apergo.2020.103178](https://doi.org/10.1016/j.apergo.2020.103178)
11. Fethke NB, **Schall Jr MC**, Chen H, Branch C, Merlino L. (2020). Biomechanical factors during common agricultural activities: results of on-farm exposure assessments using direct measurement methods. *Journal of Occupational & Environmental Hygiene*. 17:2-3, 85-96. [doi: 10.1080/15459624.2020.1717502](https://doi.org/10.1080/15459624.2020.1717502)
12. Mehdizadeh A, Vinel A, Hu Q, **Schall Jr MC**, Gallagher S, Sesek RF. (2020). Job rotation and work-related musculoskeletal disorders: a fatigue failure perspective. *Ergonomics*. 63(4), 461-476. [doi: 10.1080/00140139.2020.1717644](https://doi.org/10.1080/00140139.2020.1717644) *Awarded Best Paper of the Year by the Chartered Institute of Ergonomics and Human Factors.*
13. McManus B, Porterfield JR, Heaton K, Mrug S, **Schall Jr MC**, Ponce BA, Gailbraith JW, Stavrinou D. (2020). Sleep and stress before and after duty across residency years under 2017 ACGME hours. *The American Journal of Surgery*. 220(1), 83-89. [doi: 10.1016/j.amjsurg.2019.10.049](https://doi.org/10.1016/j.amjsurg.2019.10.049)
14. Gunter L, Davis GA, Abulhassan Y, Sesek RF, Gallagher S, **Schall Jr MC**. (2020). School Bus Rear Emergency Door Design Improvements to Increase Evacuation Flow. *Safety Science*. 121, 64-70. [doi: 10.1016/j.ssci.2019.09.007](https://doi.org/10.1016/j.ssci.2019.09.007)

15. \*Badawy M, **Schall Jr MC**, Zabala M, Coker J, Seseke RF, Gallagher S, Davis GA (2019). Effects of Age and Obesity on Trunk Kinetics and Kinematics during One-handed Carrying. *Journal of Biomechanics*. 94, 107-114. [doi: 10.1016/j.jbiomech.2019.07.016](https://doi.org/10.1016/j.jbiomech.2019.07.016)
16. \*Badawy M, **Schall Jr MC**, Zabala ME, Coker, JE, Davis GA, Seseke RF, Gallagher S. (2019). Trunk Muscle Activity among Older and Obese People during One-handed Carrying. *Applied Ergonomics*.78, 217-223. [doi: 10.1016/j.apergo.2019.03.007](https://doi.org/10.1016/j.apergo.2019.03.007)
17. Barim MS, Seseke RF, Capanoglu MF, Drinkaus P, **Schall Jr MC**, Gallagher S, and Davis GA. (2019). Improving the Predictive Capability of the Revised NIOSH Lifting Equation by Incorporating Personal Characteristics. *Applied Ergonomics*. 74, 67-73. [doi: 10.1016/j.apergo.2018.08.007](https://doi.org/10.1016/j.apergo.2018.08.007)
18. \*Badawy M, **Schall Jr MC**, Seseke RF, Gallagher S, Davis GA, Capanoglu MF. (2018). One-Handed Carrying Among Elderly and Obese Individuals: A Systematic Review to Identify Research Gaps. *Ergonomics*. 61(10), 1345-1354. [doi: 10.1080/00140139.2018.1470680](https://doi.org/10.1080/00140139.2018.1470680)
19. Gallagher S, **Schall Jr MC**, Seseke RF, Huangfu R. (2018). An Upper Extremity Risk Assessment Tool Based on Fatigue Failure Theory: The Distal Upper Extremity Tool (DUET). *Human Factors: The Journal of the Human Factors and Ergonomics Society*. 60(8), 1146–1162. [doi: 10.1177/0018720818789319](https://doi.org/10.1177/0018720818789319)
20. **Schall Jr MC**, Fethke NB, Roemig V. (2018). Digital human modeling in the occupational safety and health process: An application in manufacturing. *IIEE Transactions on Occupational Ergonomics and Human Factors*. 6(2), 64-75. [doi: 10.1080/24725838.2018.1491430](https://doi.org/10.1080/24725838.2018.1491430)
21. Fethke NB, **Schall Jr MC**, Merlino L, Chen H, Branch C, Ramaswamy M. (2018). Whole-body vibration and trunk posture during agricultural vehicle operation. *Annals of Work, Exposures, and Health*. 62(9), 1123–1133. [doi: 10.1093/annweh/wxy076](https://doi.org/10.1093/annweh/wxy076)
22. Abulhassan Y, Davis GA, Seseke RF, Callender A, **Schall Jr MC**, Gallagher S. (2018). Physical and Cognitive Capabilities of Children during Operation and Evacuation of a School Bus Emergency Roof Hatch. *Safety Science*. 110(A), 265-272. [doi: 10.1016/j.ssci.2018.08.026](https://doi.org/10.1016/j.ssci.2018.08.026)
23. Garnett RF, Davis GA, Seseke RF, Gallagher S, **Schall Jr MC**, Huangfu R. (2018). Evaluating the OSHA Hand Speed Constant for Stamping Press Applications. *Safety Science*. 107, 1-8. [doi: 10.1016/j.ssci.2018.04.002](https://doi.org/10.1016/j.ssci.2018.04.002)
24. **Schall Jr MC**, Seseke RF, Cavuoto L. (2018). Barriers to the Adoption of Wearable Sensors in the Workplace: A Survey of Occupational Safety and Health Professionals. *Human Factors: The Journal of the Human Factors and Ergonomics Society*. 60(3), 351-362. [doi: 10.1177/0018720817753907](https://doi.org/10.1177/0018720817753907)
25. Cao L, Davis GA, Gallagher S, **Schall Jr MC**, Seseke RF. (2018). Characterizing Posture and Associated Physiological Demand during Evacuation. *Safety Science*. 104, 1-9. [doi: 10.1016/j.ssci.2017.12.032](https://doi.org/10.1016/j.ssci.2017.12.032)
26. Chen H, **Schall Jr MC**, Fethke NB. (2018). Accuracy of Angular Displacements and Velocities from Inertial-based Inclinometers. *Applied Ergonomics*. 67, 151-161. [doi:10.1016/j.apergo.2017.09.007](https://doi.org/10.1016/j.apergo.2017.09.007)
27. \*Granzow RF, **Schall Jr MC**, Smidt MF, Chen H, Fethke NB, Huangfu R. (2018). Characterizing Exposures to Physical Risk Factors among Reforestation Hand Planters in the Southeastern United States. *Applied Ergonomics*. 66, 1-8. [doi:10.1016/j.apergo.2017.07.013](https://doi.org/10.1016/j.apergo.2017.07.013)
28. Abulhassan Y, Davis GA, Seseke R, **Schall Jr MC**, Gallagher S. (2018). Evacuating a Rolled-Over School Bus: Considerations for Young Evacuees. *Safety Science*. 108, 203-208. [doi:10.1016/j.ssci.2017.07.017](https://doi.org/10.1016/j.ssci.2017.07.017)
29. Gallagher S, Seseke RF, **Schall Jr MC**, Huangfu R. (2017). Development and Validation of an Easy-to-Use Risk Assessment Tool for Cumulative Low Back Loading: The Lifting Fatigue Failure Tool (LiFFT). *Applied Ergonomics*. 63, 142-150. [doi:10.1016/j.apergo.2017.04.016](https://doi.org/10.1016/j.apergo.2017.04.016)

30. **Schall Jr MC**, Cullen L, Pennathur P, Chen H, Burrell K, Matthews G. (2017). Usability Evaluation and Implementation of a Health Information Technology Dashboard of Evidence-based Quality Indicators. *CIN: Computers, Informatics, Nursing*. 35(6), 281-288. [doi:10.1097/CIN.0000000000000325](https://doi.org/10.1097/CIN.0000000000000325)
31. Gallagher S, **Schall Jr MC**. (2017). Musculoskeletal Disorders as a Fatigue Failure Process: Evidence, Implications, and Research Needs. *Ergonomics*. 60(2), 255-269. [doi:10.1080/00140139.2016.1208848](https://doi.org/10.1080/00140139.2016.1208848)
32. **Schall Jr MC**, Fethke NB, Chen H, Oyama S, Douphrate DI. (2016). Accuracy and repeatability of an inertial measurement unit system for field-based occupational studies. *Ergonomics*. 59(4), 591-602. [doi:10.1080/00140139.2015.1079335](https://doi.org/10.1080/00140139.2015.1079335)
33. Rusch ML, **Schall Jr MC**, Lee JD, Dawson JD, Edwards SV, Rizzo M. (2016). Time-to-Contact Estimation Errors among Elderly Drivers with Useful Field of View Impairments. *Accident Analysis and Prevention*. 95, 284-291. [doi:10.1016/j.aap.2016.07.008](https://doi.org/10.1016/j.aap.2016.07.008)
34. Abulhassan Y, Davis GA, Sesek RF, Gallagher S, **Schall Jr MC**. (2016). Establishing School Bus Baseline Emergency Evacuation Times for Elementary School Students. *Safety Science*. 89, 249-255. [doi:10.1016/j.ssci.2016.06.021](https://doi.org/10.1016/j.ssci.2016.06.021)
35. **Schall Jr MC**, Fethke NB, Chen H. (2016). Working Postures and Physical Activity among Registered Nurses. *Applied Ergonomics*. 54, 243-250. [Corrigendum: *Applied Ergonomics*. 56, 75.] [doi:10.1016/j.apergo.2016.01.008](https://doi.org/10.1016/j.apergo.2016.01.008)
36. **Schall Jr MC**, Fethke NB, Chen H. (2016). Evaluation of four sensor locations for physical activity assessment. *Applied Ergonomics*. 53, 103-109. [doi:10.1016/j.apergo.2015.09.007](https://doi.org/10.1016/j.apergo.2015.09.007)
37. Fethke NB, **Schall Jr MC**, Determan EM, Kitzmann AS. (2015). Neck and shoulder muscle activity among ophthalmologists during routine clinical examinations. *International Journal of Industrial Ergonomics*. 49, 53-59. [doi:10.1016/j.ergon.2015.06.001](https://doi.org/10.1016/j.ergon.2015.06.001)
38. Fethke NB, Merlino LA, Gerr F, **Schall Jr MC**, Branch C. (2015). Musculoskeletal pain among Midwest farmers and associations with agricultural activities. *American Journal of Industrial Medicine*. 58 (3), 319-330. [doi:10.1002/ajim.22398](https://doi.org/10.1002/ajim.22398)
39. **Schall Jr MC**, Fethke NB, Chen H, Gerr F. (2015). A comparison of instrumentation methods to estimate thoracolumbar motion in field-based occupational studies. *Applied Ergonomics*, 48, 224-231. [doi:10.1016/j.apergo.2014.12.005](https://doi.org/10.1016/j.apergo.2014.12.005)
40. **Schall Jr MC**, Fethke NB, Chen H, Kitzmann AS. (2014). A comparison of examination equipment used during common clinical ophthalmologic tasks. *IIE Transactions on Occupational Ergonomics and Human Factors*, 2 (2), 105-117. [doi:10.1080/21577323.2014.964812](https://doi.org/10.1080/21577323.2014.964812)
41. Rusch ML, **Schall Jr MC**, Lee JD, Dawson JD, Rizzo M. (2014). Augmented Reality Cues to Assist Older Drivers with Gap Estimation for Left-Turns. *Accident Analysis and Prevention*, 71, 210-221. [doi:10.1016/j.aap.2014.05.020](https://doi.org/10.1016/j.aap.2014.05.020)
42. **Schall Jr MC**, Rusch ML, Lee JD, Dawson JD, Thomas G, Aksan N, Rizzo M. (2013). Augmented reality cues and elderly driver hazard perception. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 55(3), 643-658. [doi:10.1177/0018720812462029](https://doi.org/10.1177/0018720812462029)
43. Rusch ML, **Schall Jr MC**, Gavin P, Lee JD, Dawson JD, Vecera S, Rizzo M. (2013). Directing driver attention with augmented reality cues. *Transportation Research Part F: Traffic Psychology and Behaviour*, 16 (1), 127-137. [doi:10.1016/j.trf.2012.08.007](https://doi.org/10.1016/j.trf.2012.08.007)

## Book Chapters

\* Graduate Student Chaired by Schall (majority of research conducted while the student was at Auburn University)

1. **Schall Jr MC**, Sesek RF, Bandekar A. (In Press). Personalizing Ergonomics for the Changing Workforce. *In Maynard's Industrial Engineering Handbook, 6th ed.* McGraw-Hill Education.

## Conference Proceedings and Published Abstracts

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First author presenting author unless otherwise noted.

\* Graduate Student Chaired by Schall (majority of research conducted while the student was at Auburn University)

1. Smidt M, Lynch S, **Schall Jr MC**, Seseke RF. (2022). "Speed and whole body vibration relationships in a sample of grapple skidders from the US South." *American Society of Agricultural and Biological Engineers (ASABE) Annual International Meeting*. 2022 July 17-20. Houston, TX. [doi: 10.13031/aim.202200547](https://doi.org/10.13031/aim.202200547)
2. Bandekar A, Seseke RF, **Schall Jr MC**, Huangfu H, Bani Hani D, Gallagher S. (2021). Validation of Fatigue Failure Risk Assessment Tools against Physician-Diagnosed Outcomes. Proceedings of the Human Factors and Ergonomics Society 65th Annual Meeting. 2021 October 4 – 8; Baltimore, MD. [doi: 10.1177/1071181321651194](https://doi.org/10.1177/1071181321651194)
3. **Schall Jr MC**, Michel, J. (2020). Leadership Styles in Participatory Ergonomics Programs: A Bibliometric Analysis. *Proceedings of the 64<sup>th</sup> Annual Meeting of the Human Factors and Ergonomics Society*; 2020 October 5-9, Chicago, IL. (Virtual Meeting). **Awarded Best Paper in the Occupational Ergonomics Technical Independent Research Category.** [doi: 10.1177/1071181320641215](https://doi.org/10.1177/1071181320641215)
4. Zabala M, Kennedy S, **Schall Jr MC**, Cummings P, Kiehl Z. (2020). Inter-operator and inter-day motion classification accuracy with an electromyography sensor-embedded textile base layer. *Military Health System Research Symposium*. [Link to MHSRS Archives](#). (Conference canceled - COVID-19).
5. \*Granzow R, **Schall Jr MC**, Smidt M, Davis GA, Seseke RF, Gallagher S. (2019). Measuring the Effect of Tool Design on Exposure to Physical Risk Factors among Novice Hand Planters. *Proceedings of the Human Factors and Ergonomics Society 63rd Annual Meeting*. 2019 October 28 – November 1; Seattle, WA. [doi: 10.1177/1071181319631091](https://doi.org/10.1177/1071181319631091)
6. Bani Hani D, Gallagher S, Seseke RF, Huangfu R, **Schall Jr MC**, Davis GA. (2019). Shoulder Risk Assessment Based on Fatigue Failure Theory. *Proceedings of the Human Factors and Ergonomics Society 63rd Annual Meeting*. 2019 October 28 – November 1; Seattle, WA. [doi: 10.1177/1071181319631395](https://doi.org/10.1177/1071181319631395)
7. \*Zhang X, Bani Hani D, Gallagher S, **Schall Jr MC**. (2019). Manufacturing Worker Perceptions of Wearing Ambulatory Inertial Sensors in the Workplace: An Exploratory Cluster Analysis. *2019 Annual Conference of the International Society for Occupational Ergonomics and Safety*; 2019 June 12-13; New Orleans, LA. <https://www.iso.es.info/2019/Papers/Zhang.pdf>
8. **Schall Jr MC** (2019). Advancing Workplace Safety Surveillance with Ambulatory Inertial Sensors: A Research to Practice to Research Study. *2019 Annual Conference of the International Society for Occupational Ergonomics and Safety*, Research to Practice to Research (RtPtR) Invited Panelist; 2019 June 12-13; New Orleans, LA. <https://www.iso.es.info/2019/Papers/Schall.pdf>
9. Gallagher S, Seseke RF, **Schall Jr MC**, Huangfu R. (2019). Validation of the Lifting Fatigue Failure Tool (LiFFT). In: Bagnara S, Tartaglia R, Albolino S, Alexander T, Fujita Y. (eds) Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018). IEA 2018. Advances in Intelligent Systems and Computing, vol 825. (pp. 216-223). Springer, Cham. [doi: 10.1007/978-3-319-96068-5\\_24](https://doi.org/10.1007/978-3-319-96068-5_24)
10. Gallagher S, **Schall Jr MC**, Seseke RF, Huangfu R. (2019). Assessment of Job Rotation Effects for Lifting Jobs Using Fatigue Failure Analysis. In: Bagnara S, Tartaglia R, Albolino S, Alexander T, Fujita Y. (eds) Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018). IEA 2018. Advances in Intelligent Systems and Computing, vol 825. (pp. 189-192). Springer, Cham. [doi: 10.1007/978-3-319-96068-5\\_21](https://doi.org/10.1007/978-3-319-96068-5_21)
11. Barim MS, Seseke RF, Capanoglu MF, Gallagher S, **Schall Jr MC**, Davis GA. (2019). Can the Revised NIOSH Lifting Equation Be Improved by Incorporating Personal Characteristics?. In: Bagnara S, Tartaglia R, Albolino S, Alexander T, Fujita Y. (eds) Proceedings of the 20th Congress of the

- International Ergonomics Association (IEA 2018). IEA 2018. Advances in Intelligent Systems and Computing, vol 825. (pp. 553-560). Springer, Cham. [doi: 10.1007/978-3-319-96083-8\\_73](https://doi.org/10.1007/978-3-319-96083-8_73)
12. Barim MS, Seseke RF, Capanoglu MF, Sun W, Gallagher S, **Schall Jr MC**, Davis GA. (2019). Quantifying Vertebral Endplate Degeneration Using the Concavity Index. In: Bagnara S, Tartaglia R, Albolino S, Alexander T, Fujita Y. (eds) Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018). IEA 2018. Advances in Intelligent Systems and Computing, vol 825. (pp. 734-741). Springer, Cham. [doi: 10.1007/978-3-319-96083-8\\_88](https://doi.org/10.1007/978-3-319-96083-8_88)
  13. Barim M.S., Seseke RF, Capanoglu M.F., Gallagher S., **Schall Jr MC**, Davis GA. (2019). Evaluating the Reliability of MRI-Derived Biomechanically-Relevant Measures. In: Bagnara S, Tartaglia R, Albolino S, Alexander T, Fujita Y. (eds) Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018). IEA 2018. Advances in Intelligent Systems and Computing, vol 825. (pp. 742-749). Springer, Cham. [doi: 10.1007/978-3-319-96083-8\\_89](https://doi.org/10.1007/978-3-319-96083-8_89)
  14. Huangfu R, Gallagher S., Seseke RF, **Schall Jr MC**, Davis GA. (2019) Evaluating the Effectiveness of Estimating Cumulative Loading Using Linear Integration Method. In: Bagnara S., Tartaglia R., Albolino S., Alexander T., Fujita Y. (eds) Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018). IEA 2018. Advances in Intelligent Systems and Computing, vol 820. (pp. 283-288). Springer, Cham. [doi: 10.1007/978-3-319-96083-8\\_38](https://doi.org/10.1007/978-3-319-96083-8_38)
  15. Garnett RF, Davis GA, Seseke RF, Gallagher S, Schall Jr MC, Chen H. (2019) Evaluating an Inertial Measurement Unit Based System for After-Reach Speed Measurement in Power Press Applications. *9th International Conference on Applied Human Factors and Ergonomics (AHFE)*; 2018 July 21-25; Orlando, FL. (pp. 146-157). In: Ahram T. (eds) Advances in Human Factors in Wearable Technologies and Game Design. AHFE 2018. Advances in Intelligent Systems and Computing, vol 795. Springer, Cham. [doi: 10.1007/978-3-319-94619-1\\_14](https://doi.org/10.1007/978-3-319-94619-1_14)
  16. McManus B, Heaton K, Mrug S, Porterfield J, **Schall Jr MC**, Stavrinou D. (2018). The effect of poor sleep and occupational demands on driving safety in medical residents. *Proceeding of the 62nd Annual Conference of the Association for the Advancement of Automotive Medicine (AAAM). Traffic Injury Prevention, 19(sup2)*, S137-S140. [doi: 10.1080/15389588.2018.1532202](https://doi.org/10.1080/15389588.2018.1532202)
  17. \*Badawy M, **Schall Jr MC**, Gallagher S, Seseke RF, Davis GA. (2018). Heart Rate and Perceived Exertion among Young Adult Obese Males during One-Handed Carrying. *Proceedings of the Human Factors and Ergonomics Society 62nd Annual Meeting*. 2018 October 1-5; Philadelphia, PA. (pp. 893-896). [doi: 10.1177/1541931218621205](https://doi.org/10.1177/1541931218621205)
  18. Vinel, A., Mehdizadeh, A., **Schall Jr MC**, Gallagher S, Seseke RF. (2018). An Optimization Framework for Job Rotation to Better Assess the Impact on Overall Risk. *Proceedings of the Human Factors and Ergonomics Society 62nd Annual Meeting*. 2018 October 1-5; Philadelphia, PA. (pp. 843-847). [doi: 10.1177/1541931218621192](https://doi.org/10.1177/1541931218621192)
  19. Gallagher S, **Schall Jr MC**, Seseke RF, Huangfu R. (2018). Use of Varied Definitions of Repetition with the Distal Upper Extremity Tool (DUET). *Proceedings of the Human Factors and Ergonomics Society 62nd Annual Meeting*. 2018 October 1-5; Philadelphia, PA. (pp. 818-822). [doi: 10.1177/1541931218621187](https://doi.org/10.1177/1541931218621187)
  20. Huangfu R, Gallagher S, Whitley P, Seseke RF, **Schall Jr MC**, Davis GA. (2018). Lumbar Muscle Fatigue Analysis Using Sorensen Test with Different Upper Body Offload Conditions. *Proceedings of the Human Factors and Ergonomics Society 62nd Annual Meeting*. 2018 October 1-5; Philadelphia, PA. (pp. 879-881). [doi: 10.1177/1541931218621201](https://doi.org/10.1177/1541931218621201)
  21. Huangfu R, Gallagher S, Seseke RF, **Schall Jr MC**, Davis GA (2018). Evaluating the Linear Integration Method of Cumulative Loading Using an Eccentric Muscle Model. *Proceedings of the Human Factors and Ergonomics Society 62nd Annual Meeting*. 2018 October 1-5; Philadelphia, PA. (pp. 882-885). [doi: 10.1177/1541931218621202](https://doi.org/10.1177/1541931218621202)

22. Reid CR, **Schall Jr MC**, Amick RZ, Schiffman JM, Lu M, Smets M, Moses HR, Porto R. (2017). Wearable Technologies: How Will We Overcome Barriers to Enhance Worker Performance, Health, And Safety? Human Factors and Ergonomics Society Panel Discussion; *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting*, 2017 October 9-13; Austin, TX. (pp. 1026-1030). [doi: 10.1177/1541931213601740](https://doi.org/10.1177/1541931213601740)
23. \*Zhang X, **Schall Jr MC**, Seseke RF, Gallagher S, Michel JS. (2017). Burnout and its Association with Musculoskeletal Pain among Primary Care Providers. *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting*, 2017 October 9-13; Austin, TX. (pp. 1010-1014). [doi: 10.1177/1541931213601735](https://doi.org/10.1177/1541931213601735)
24. Huangfu R, \*Granzow, R., Gallagher S, **Schall Jr MC**. (2017). easyBLS, a Tool for Querying Nonfatal Injury Information from United States Bureau of Labor Statistics Database. *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting*, 2017 October 9-13; Austin, TX. (pp. 955-959). Granzow Presenting Author. [doi: 10.1177/1541931213601720](https://doi.org/10.1177/1541931213601720)
25. Chen H, Fethke NB, **Schall Jr MC**. (2017). Effects of Movement Speed and Magnetic Disturbance on the Accuracy of Inertial Measurement Units. *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting*, 2017 October 9-13; Austin, TX. (pp. 1046-1050). [doi: 10.1177/1541931213601745](https://doi.org/10.1177/1541931213601745)
26. Gallagher S, **Schall Jr MC**, Seseke RF, Huangfu R. (2017). Job Rotation as a Technique for the Prevention of MSDs: The Fatigue Failure Perspective. *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting*, 2017 October 9-13; Austin, TX. (pp. 993-994). [doi: 10.1177/1541931213601730](https://doi.org/10.1177/1541931213601730)
27. Gallagher S, **Schall Jr MC**, Seseke RF, Huangfu R. (2017). Validation of a Fatigue Failure-based Risk Assessment Tool for Distal Upper Extremity MSDs. *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting*, 2017 October 9-13; Austin, TX. (pp. 911-913). [doi: 10.1177/1541931213601707](https://doi.org/10.1177/1541931213601707)
28. Gallagher S, Seseke RF, **Schall Jr MC**, Huangfu R. (2017). Validation of the LiFFT Risk Assessment Tool and Guidance on Its Use. *Proceedings of the Human Factors and Ergonomics Society 61st Annual Meeting*, 2017 October 9-13; Austin, TX. (pp. 916-919). [doi: 10.1177/1541931213601709](https://doi.org/10.1177/1541931213601709)
29. \*Granzow, R., **Schall Jr MC**, Smidt MF. (2016). Full Shift Physical Activity among Reforestation Hand Planters: A Feasibility Study. *Proceedings of the Human Factors and Ergonomics Society 60th Annual Meeting*. 2016 September 19-23; Washington D.C. (pp. 1017-1020). [doi: 10.1177/1541931213601236](https://doi.org/10.1177/1541931213601236)
30. **Schall Jr MC**, Huangfu R, Gallagher S, Davis GA, Seseke RF, Escobar C. (2016). Application of Inertial Measurement Units to Assess Vehicle Ingress and Egress Characteristics. *Proceedings of the Human Factors and Ergonomics Society 60th Annual Meeting*. 2016 September 19-23; Washington D.C. (pp. 854). [doi: 10.1177/1541931213601195](https://doi.org/10.1177/1541931213601195)
31. Gallagher S, **Schall Jr MC**. (2016). The biomechanical relevance of stress range and mean stress in the analysis of variable loading on musculoskeletal tissues. *Proceedings of the Human Factors and Ergonomics Society 60th Annual Meeting*. 2016 September 19-23; Washington D.C. (pp. 986-990). [doi: 10.1177/1541931213601228](https://doi.org/10.1177/1541931213601228)
32. Salar M, Seseke RF, **Schall Jr MC**. (2016). The Concavity Index: A Novel Approach for Quantifying Intervertebral Disc Degeneration. *Proceedings of the Human Factors and Ergonomics Society 60th Annual Meeting*. 2016 September 19-23; Washington D.C. (pp. 952-956). [doi: 10.1177/1541931213601219](https://doi.org/10.1177/1541931213601219)
33. Abulhassan Y, Davis GA, Seseke RF, Gallagher S, **Schall Jr MC**, Callender A. (2016). Relating Strength Capabilities to the Design of Emergency Evacuation Exits. *Proceedings of the Human Factors*

- and *Ergonomics Society 60th Annual Meeting*. 2016 September 19-23; Washington D.C. (pp. 1650-1653). [doi: 10.1177/1541931213601380](https://doi.org/10.1177/1541931213601380). **Awarded Best Student Paper in the Safety Technical Group.**
34. Sims L, Davis GA, Seseck R, Gallagher S, **Schall Jr MC**, Bhardwaj P. (2016). Determining Empirical Donning and Doffing Times for Complex Combinations of Personal Protective Equipment (PPE). *7th International Conference on Applied Human Factors and Ergonomics (AHFE)*; 2016 July 27-31; Orlando, FL. (pp. 89-100). In: Arezes P. (eds) *Advances in Safety Management and Human Factors. Advances in Intelligent Systems and Computing*, vol 491. Springer, Cham. [doi: 10.1007/978-3-319-41929-9\\_10](https://doi.org/10.1007/978-3-319-41929-9_10)
  35. Huangfu R, Davis GA, **Schall Jr MC**, Seseck RF, Gallagher S. (2016). Smoke hood design considerations for stairwell evacuation. *4th Annual International Conference on Industrial, Systems, and Design Engineering*; 2016 June 20-23; Athens, Greece. [No: IND2016-1954](#).
  36. Gallagher S, **Schall Jr MC**. (2016). The influence of repeated and fluctuating stress on fatigue life of musculoskeletal tissues. *9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders Book of Abstracts* (pp. 98). *PREMUS* 2016 June 20-24 Toronto, Canada.
  37. Gallagher S, **Schall Jr MC**. (2016). Musculoskeletal disorders as a fatigue failure process: implications and research needs. *9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders Book of Abstracts* (pp. 172). *PREMUS* 2016 June 20-24 Toronto, Canada.
  38. Huangfu R, Gallagher S, **Schall Jr MC**. (2016). The influence of individual characteristics on fatigue life of musculoskeletal tissues: implications and recommendations *9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders Book of Abstracts* (pp. 173). *PREMUS* 2016 June 20-24 Toronto, Canada.
  39. Salar M, Seseck RF, **Schall Jr MC**. (2016). The Concavity Index: A Novel Approach for Quantifying Intervertebral Disc Degeneration. *9th International Scientific Conference on the Prevention of Work-Related Musculoskeletal Disorders Book of Abstracts* (pp. 250). *PREMUS* 2016; 2016 June 20-24; Toronto, CAN.
  40. Gallagher S, **Schall Jr MC**. (2016). The Influence of Loading Parameters on Fatigue Life of MSD Tissues. 2016 *American Industrial Hygiene Conference and Exposition*; (pp. 61; SR-115-04). 2016 May 21-26; Baltimore, MD. **Winner of the Don B. Chaffin Award for Best Podium Presentation.**
  41. **Schall Jr MC**, Fethke NB, Chen H (2015). Comparing Fatigue, Physical Activity, and Posture among Nurses in Two Staffing Models. *Proceedings of the Human Factors and Ergonomics Society 59th Annual Meeting*. 2015 October 26-30; Los Angeles, CA. (pp. 1269-1273). [doi: 10.1177/1541931215591204](https://doi.org/10.1177/1541931215591204)
  42. **Schall Jr MC**, Chen H, Pennathur P, Cullen L. (2015). Development and Evaluation of a Health Information Technology Dashboard of Quality Indicators. *Proceedings of the Human Factors and Ergonomics Society 59th Annual Meeting*. 2015 October 26-30; Los Angeles, CA. (pp. 461-465). [doi: 10.1177/1541931215591099](https://doi.org/10.1177/1541931215591099)
  43. Aksan N, **Schall Jr MC**, McDonald, A., Dawson, J., Anderson, S., Lee JD, Tippin, J., & Rizzo M. (2013). Self-Regulation of Real-World Driving Changes after PAP-Treatment in OSA. In *Proceedings of the 13th Annual Meeting of the American Neurological Association*; 2013 October 13-15; New Orleans, LA. In *Annals of Neurology* (Vol. 74 (SI Supplement: 17), pp. S30).
  44. Aksan N, **Schall Jr MC**, Dawson JD, Anderson, S., Tippin, J., Rizzo M. (2013). Can intermittent video sampling capture individual differences in naturalistic driving? *Proceedings of the Seventh International Driving Symposium on Human Factors in Driver Assessment, Training, and Vehicle Design*; 2013 June 17-20; Bolton Landing, NY. [PMID:24535569](https://pubmed.ncbi.nlm.nih.gov/24535569/)
  45. Aksan N, **Schall Jr MC**, Dawson, J., Zilli, E. Tippin, J., Rizzo M. (2012). Utility of Actigraphy in Long Term Tracking of Sleep Quality in Patients Treated with CPAP. *26th Annual Meeting of the Associated Professional Sleep Societies*; 2012 June 9-13; Boston, MA. In *SLEEP* (Vol. 35, pp. A177-A178).



46. **Schall Jr MC**, Rusch ML, Lee JD, Thomas G (2011). An Investigation of Learning Style and Discipline in a Human Factors Course. *Proceedings of the Human Factors and Ergonomics Society 55th Annual Meeting*. 2011 September 19-23; Las Vegas, NV. (pp. 555-559).  
[doi:10.1177/1071181311551113](https://doi.org/10.1177/1071181311551113)
47. Rusch, M. L., **Schall Jr MC**, Gavin P, Lee, J. D., Dawson, J., Rizzo M. (2011). Effects of augmented reality cues on driver hazard perception. *Proceedings of the Transportation Research Board 90th Annual Meeting (No. 11-1205)*. [trid:1091817](https://trid.org/trid/1091817)
48. **Schall Jr MC**, Gavin P, Rusch ML, Flynn, I., Johnson, A., Lee JD, Vecera S, Rizzo M. (2010). Attraction without distraction: Effects of augmented reality cues on driver hazard perception. *Vision Sciences Society 10th Annual meeting*; May 7-12; Naples, FL. In *Journal of Vision*, 10(7), 236-236.  
[doi:10.1167/10.7.236](https://doi.org/10.1167/10.7.236)

### **Invited Lectures, Presentations at Professional Meetings, and Workshops**

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First author presenting author unless otherwise noted.

\* Graduate Student Chaired by Schall (majority of research conducted while the student was at Auburn University)

1. \*Ali D, **Schall Jr MC**. Preliminary Results from the Evaluating the Physiological Effects of Inclined Carrying (EPIC) Study. *13th International Conference on Applied Human Factors and Ergonomics (AHFE 2022)*. July 24-28, 2022. New York, NY.
2. Nageswaran S, Abulhassan Y, Gunter A, Davis GA, Sesek RF, Gallagher S, **Schall Jr MC**. School Bus Evacuation Safety Research. *Auburn University Graduate Engineering Research Showcase*. March 29, 2022. Huntsville, AL.
3. \*Ali D, **Schall Jr MC**. Evaluating the Physiological Effects of Inclined Carrying. *Southeast Regional Research Symposium*. 2022 March 20-23. Chapel Hill, NC.
4. Hollinger D, **Schall Jr MC**, Chen H, Coker J, Zabala M. The Effect of Sensor Combinations on Predicting Knee Flexion Angle, *45th Annual Meeting of the American Society of Biomechanics (ASB2021)*. 2021 August 10-13; Virtual Meeting.
5. Lu M, Marras W, **Schall Jr MC**, Kingma I, Allread G. Non-traditional manual lifting and assessment methodologies. *The 21st Congress of the International Ergonomics Association (IEA 2021)*. Lecture Panelist; 2021 June 14–18; Virtual Meeting.
6. **Schall Jr MC**, \*Ali D, \*Badawy M. One-handed Carrying among Older and Obese Individuals. *The 21st Congress of the International Ergonomics Association (IEA 2021)*. 2021 June 14–18; Virtual Meeting.
7. Bandekar A, Sesek RF, Bani Hani D, Huangfu H, **Schall Jr MC**, Davis GA, Gallagher S. Concurrent validation of The Shoulder Tool against physician-diagnosed bicipital tendinosis. *The 21st Congress of the International Ergonomics Association (IEA 2021)*. 2021 June 14–18; Virtual Meeting.
8. Bandekar A, Sesek RF, **Schall Jr MC**, Huangfu H, Gallagher S. Concurrent validation of the Distal Upper Extremity Tool (DUET) risk assessment tool against the prevalence carpal tunnel syndrome. *The 21st Congress of the International Ergonomics Association (IEA 2021)*. 2021 June 14–18; Virtual Meeting.
9. Lungu C, **Schall Jr MC**, Oh J. The Deep South Center for Occupational Health and Safety: An Interdisciplinary Approach to OS&H Practice, Training and Research. *Center for Engagement in Disability Health and Rehabilitation Sciences (CEDHARS) and the SHP Rehabilitation Science PhD Program*. University of Alabama-Birmingham (UAB). 2021 June 1. Virtual Meeting.
10. \*Ali D, Schall Jr MC. One-handed Carrying on Flat and Inclined Surfaces. *Southeast Regional Research Symposium*. 2021 February 17-18; Virtual Meeting.

11. **Schall Jr MC**, \*Zhang X. Wearable Sensors for Ergonomics: Worker Ratings of Discomfort, Distraction, and Burden. *23rd Annual Applied Ergonomics Conference*. 2020 August 4-6; Virtual Meeting.
12. Haight J, Sesek RF, Castillo D, **Schall Jr MC**, Gesinger S. Automation and its Impact on Safety and Health of the Workforce. *Safety 2020: the American Society of Safety Professionals' Professional Development Conference*. Lecture Panelist; 2020 June 23–25. Virtual Meeting.
13. Nageswaran S, Davis GA, Abulhassan Y, Sesek RF, Gallagher S, **Schall Jr MC**. Implications of a Lift-Lever Buckle on School Bus Emergency Evacuation. *18th Annual Regional National Occupational Research Agenda (NORA) Young/New Investigators Symposium*. 2020 April 17; Salt Lake City, UT.
14. Mehdizadeh A, Vinel A, Hu Q, **Schall Jr MC**, Gallagher S, Sesek RF. Job Rotation and Work-related Musculoskeletal Disorders: A Fatigue-Failure Perspective. *4th annual Academic Research Colloquium (ARC)*; 2019 September 10-12; Dayton, OH.
15. **Schall Jr MC**. Wearable Sensors for Ergonomics in the Industry 4.0 Era. *32nd Annual Alabama Governor's Safety and Health Conference*; 2019 August 26-28; Orange Beach, AL.
16. \*Badawy M, **Schall Jr MC**, Zabala M, Coker J, Sesek RF, Gallagher S, Davis GA. Trunk Kinetics and Kinematics among Obese and Older Individuals during One-handed Carrying. *XXVII Congress of the International Society of Biomechanics (ISB2019), held in conjunction with the 43rd Annual Meeting of the American Society of Biomechanics (ASB2019)*; 2019 July 31- August 4; Calgary, Alberta, CAN. Coker presenting author.
17. \*Badawy M, \*Zhang X, **Schall Jr MC**. The effects of age and obesity on physical responses during one-handed carrying. *Southeast Regional Research Symposium*; 2019 April 4-5; Tampa, FL. Zhang presenting author.
18. \*Zhang X, **Schall Jr MC**, Sesek RF. Perceived Barriers of Using Wearable Sensors among Industrial Workers in the Internet of Things Architecture. *Southeast Regional Research Symposium*; 2019 April 4-5; Tampa, FL.
19. Bani Hani D, \*Zhang X, Gallagher S, **Schall Jr MC**. Are wearable sensors unobtrusive for long-term assessment in the workplace? An exploratory cluster analysis. *Southeast Regional Research Symposium*; 2019 April 4-5; Tampa, FL.
20. **Schall Jr MC**, Bevely D, Davis GA, Gallagher S, Sesek RF, Zabala ME. Operator 4.0: Collaborative Research to Improve Worker Performance and Safety during the 4th Industrial Revolution. *This is Research: Faculty Symposium*, 2018 October 23; Auburn, AL.
21. **Schall Jr MC**, Gallagher S, Sesek RF, Huangfu R, Davis GA. Musculoskeletal Disorders as a Fatigue Failure Process: A New Foundation for Risk Assessment. *Workshop and Short Course - Musculoskeletal Disorders - 20th Triennial Congress of the International Ergonomics Association*; 2018 August 26-30; Florence, ITA.
22. Chen H, **Schall Jr MC**, Fethke NB. Identification of Magnetically-disturbed Data Segments Using Inertial Measurement Units. *20th Triennial Congress of the International Ergonomics Association*; 2018 August 26-30; Florence, ITA.
23. \*Badawy M, **Schall Jr MC**, Coker, J., Sesek RF, Davis GA, Zabala, M.E., Gallagher S. Effect of Obesity on Trunk Muscle Activity During One-handed Carrying. *42nd Annual Meeting of the American Society of Biomechanics*; 2018 August 8-11; Rochester, MN.
24. Sesek RF, Gallagher S, **Schall Jr MC**, Huangfu R, Davis GA, Garnett RF. A New Understanding of MSD Injuries and the Associated New Tools for Assessing Ergonomic Risk. *ORCHSE Strategies Occupational Safety and Health Group Corporate Health Directors Network Joint Meeting*. 2018 August 8; Washington, D.C.

25. Callender A, Abulhassan Y, Davis GA, Seseek RF, Gallagher S, **Schall Jr MC**. Children's Cognitive Abilities to Understand Emergency Instructions in a Rolled over School Bus. *Annual Meeting of the Association for Psychological Science*; 2018 May 24-27; San Francisco, CA.
26. Seseek RF, Gallagher S, **Schall Jr MC**, Huangfu R, Davis GA, Garnett RF. A New Understanding of MSD Injuries and the Associated New Tools for Assessing Ergonomic Risk. *ORCHSE Strategies Western Occupational Safety & Health Group*. 2018 May 15; Newport Beach, CA.
27. Lusk, C., \*Zhang X, \*Badawy M, †Cressman S, Seseek RF, Redden L, Pascoe D, **Schall Jr MC**. Aluminet: Investigating a potential intervention for preventing heat-related illness among construction workers. *7th Annual Southeastern States Occupational Network (SouthON) Meeting*; 2018 April 5-6; Savannah, GA. *Schall presenting author*.
28. **Schall Jr MC**, \*Granzow RF, Casanova, V., Smidt MF, Douphrate DI. Improving the Health and Safety of Forestry Workers through a Cross-Regional Collaboration. *Deep South Center for Occupational Health and Safety Research Symposium*; 2018 April 3-4; Savannah, GA.
29. Badawy\* M, **Schall Jr, MC**, Gallagher S, Seseek RF, Davis GA. How much load should young adult obese males carry in one hand? *Deep South Center for Occupational Health and Safety Research Symposium*. 2018 April 3-4; Savannah, GA.
30. Gunter, A., Davis GA, Abulhassan Y., **Schall Jr MC**, Gallagher S, Seseek RF. School Bus Emergency Exit System Improvement Evaluation. *Deep South Center for Occupational Health and Safety Research Symposium*; 2018 April 3-4; Savannah, GA.
31. Cavuoto L., **Schall Jr MC**, Seseek RF. Understanding the potential uses and barriers to adoption of wearable technology in the workplace. *2018 Applied Ergonomics Conference*; 2018 March 26-29; Atlanta, GA.
32. \*Badawy M, **Schall Jr MC**, Gallagher S, Seseek RF, Davis GA. One-handed carrying in the workplace: A systematic review of the literature. *2018 Applied Ergonomics Conference*; 2018 March 26-29; Atlanta, GA.
33. Huangfu R, Gallagher S, **Schall Jr MC**, Seseek RF. Musculoskeletal Disorders as a Fatigue Failure Process: a New Upper Extremity Risk Assessment Tool. *2018 Applied Ergonomics Conference*; 2018 March 26-29; Atlanta, GA.
34. Seseek, R.F, Gallgher, S., **Schall Jr MC**, and Davis GA. Musculoskeletal Risk Assessment Using Fatigue Failure Methods and Increased Personalization. *4-hour workshop presented at 34th Annual Conference on Safety and Industrial Hygiene*. 2017 October 11; Salt Lake City, UT.
35. Zhou, H., Franco-Watkins, A., **Schall Jr MC**. Impact of Deceleration Lane Length on Vehicles' Speed and Deceleration Rates Based on NDS Data. *This is Research: Faculty Symposium*, 2017 September 22; Auburn, AL.
36. **Schall Jr MC**, \*Granzow RF, Smidt MF, Seseek RF, Gallagher S, Davis GA. Applying Wearable Sensors to Characterize Exposures to Ergonomic Hazards among Alabama Forestry Workers. *This is Research: Faculty Symposium*, 2017 September 22; Auburn, AL.
37. \*Granzow RF, **Schall Jr MC**, Smidt MF. Hand Planter Ergonomics: Characterizing Physically Demanding Work in the Southeastern United States. *125<sup>th</sup> Anniversary Congress 2017 hosted by the International Union of Forest Research Organizations*. 2017 September 19-22; Freiburg, Germany.
38. **Schall Jr MC**, Cavuoto L., Seseek RF. Perceived Barriers to the Adoption of Wearable Technologies in the Workplace. *ErgoX 2017*; 2017 June 19-21; Tampa, FL.
39. Gallagher S, **Schall Jr MC**, Seseek RF, Huangfu R. Job Rotation to Prevent Back Pain: Help or Hindrance? *ErgoX 2017*; 2017 June 19-21; Tampa, FL.
40. Gallagher S, Seseek, R., **Schall Jr MC**, Huangfu R. The LiFFT Tool: A practitioner-friendly risk assessment tool to assess the risk of low back pain. *American Industrial Hygiene Conference and Exposition (AIHce)*. 2017 June 3-5; Seattle, WA.

41. **Schall Jr MC**, Huangfu R., Gallagher S, Sesek RF. LiFFT: A new application for assessing cumulative low back risk in the workplace. *IISE Annual Conference and Expo: Safety, Human Factors and Ergonomics (SHFE) Invited Lecture Panel*; 2017 May 20–23; Pittsburgh, PA.
42. \*Granzow RF, **Schall Jr MC**, Smidt MF. Evaluation of physical risk factors among hand planting reforestation workers. *Southeastern Human Factors Applied Research Conference (SHARC)*. 2017 April 1; Raleigh, NC.
43. McManus B, Heaton K, Porterfield JR, **Schall Jr MC**, Stavrinou D. A Hard Day's Night: Provisional Findings of Sleep and Activity in Surgical Residents. *Deep South Center for Occupational Health and Safety Research Symposium*; 2017 March 30-31; Opelika, AL.
44. Gallagher S, **Schall Jr MC**, Sesek RF, Thomas, R.E., and Davis GA. *Cutting Edge Ergonomics*. Workshop. 2016 December 12; Auburn, AL.
45. \*Granzow RF, **Schall Jr MC**. Characterization of Physical Risk Factors among Hand Planting Reforestation Workers. University of Kentucky Southeast Center and ERC Research Day. 2016 November 18; Lexington, KY.
46. **Schall Jr MC**, Thomas RE. Occupational Safety, Ergonomics, and Injury Prevention at Auburn University. Clemson University Department of Industrial Engineering Seminar. 2016 November 10; Clemson, SC.
47. **Schall Jr MC**. Total Worker Health™: Integrating Health Protection and Promotion at your Workplace. *29th Annual Alabama Governor's Safety and Health Conference*; 2016 August 29-31; Orange Beach, AL.
48. Sesek RF, Gallagher S, **Schall Jr MC**, Thomas RE, and Davis GA. *How to Apply Ergo Principles in the Real World*. 8-hour Workshop. 2016 August 8; Auburn, AL.
49. Chen H, **Schall Jr MC**, Fethke NB. Characterizing Errors of Inertial Measurement Units. *National Occupational Research Agenda (NORA) Symposium*; 2016 May 4, Minneapolis, MN.
50. **Schall Jr MC**, Cullen L, Pennathur P, Chen H, Burrell K, Matthews G. Implementing Evidence-based Quality Indicators into a Health Information Technology Dashboard. *4th Annual Improving Primary Care Through Industrial and Systems Engineering (I-PrACTISE) Conference*; 2016 April 24-26; Madison, WI.
51. \*Granzow R, **Schall Jr MC**, Smidt MF. Physical Activity Assessment of Hand Planting Forestry Workers. *Deep South Center for Occupational Health and Safety Research Symposium*; 2016 April 15; Birmingham, AL.
52. Abulhassan Y, Davis GA, Sesek RF, Gallagher S, **Schall Jr MC**. Impact of School Bus Post-accident Orientation on Egress through the Rear Emergency Exit. *14th Annual National Occupational Research Agenda (NORA) Young/New Investigators Symposium*; 2016 April 14-15; Salt Lake City, UT.
53. \*Granzow R, **Schall Jr MC**, Smidt MF. Evaluation of physical risk factors among hand planting reforestation workers. *Auburn University This is Research: Student Symposium*; 2016 April 12-13; Auburn, AL.
54. Huangfu R, Davis GA, Abulhassan Y, **Schall Jr MC**, Sesek RF, Gallagher S. Quantifying stairwell evacuation times. *Auburn University This is Research: Student Symposium*; 2016 April 12-13; Auburn, AL.
55. Chen H, **Schall Jr MC**, Fethke NB. Characterizing Operable Conditions of Inertial Measurement Units: Preliminary Results. *1st Annual Occupational Health and Safety Research Conference*. 2016 April 1; Iowa City, IA.
56. \*Granzow R, **Schall Jr MC**, Gallagher S, Sesek RF, Huangfu R, Davis GA. Strategies for Vehicle Ingress/Egress: Aging and Obese Populations. *5th Annual Southeastern States Occupational Network (SouthON) Meeting*; 2016 March 8-9; New Orleans, LA.

57. **Schall Jr MC**, Gallagher S. Musculoskeletal Disorders as a Fatigue Failure Process: Evidence and Implications. Florida Institute for Human & Machine Cognition (*IHMC*). 2016 February 21; Pensacola, FL. *Both presenting authors*.
58. **Schall Jr MC**. Physical Risk Factors for Musculoskeletal Disorders among Registered Nurses. University of Alabama-Birmingham Department of Environmental Health Sciences Seminar. 2016 February 17; Birmingham, AL.
59. Huangfu R, \*Granzow R, Su S, Huang Z, Gallagher S, **Schall Jr MC**, Sesek RF, Davis GA. Motion capture of critical populations for vehicle ingress and egress. *Auburn University College of Engineering Graduate Research Showcase*; 2015 October 22; Auburn, AL. (Awarded Best in Industrial and Systems Engineering)
60. **Schall Jr MC**, Fethke NB, Ramaswamy M, Chen H, Branch C, Merlino L, Watabe J, Gerr F. Whole-body vibration among agriculture workers performing common agricultural activities. *International Society for Agricultural Safety and Health*; 2015 June 21-24; Normal, IL. *Ramaswamy presenting author*.
61. Chen H, Merlino L, Branch C, **Schall Jr MC**, Gerr F, Fethke NB. Seasonal effects of common farm tasks on the experience of low back pain. *International Society for Agricultural Safety and Health*; 2015 June 21-24; Normal, IL.
62. **Schall Jr MC**, Chen H, Cullen L, Pennathur P, Matthews G, Burrell K, May N. Human Factors Considerations for a Health Information Technology Dashboard of Evidence-Based Quality Indicators. *22nd National Evidence-Based Practice Conference: Nursing Workload Balance—Quality Care and Staff Wellness*; 2015 April 23-24; Coralville, IA.
63. **Schall Jr MC**, Fethke NB. Characterizing the Muscle Activity of Ophthalmologists Performing Routine Patient Examinations. *13th Annual National Occupational Research Agenda (NORA) Young/New Investigators Symposium*; 2015 April 16-17; Salt Lake City, UT.
64. Chen H, **Schall Jr MC**, Fethke NB, Oyama S, Douphrate D. Inertial Measurement Units for Wrist Posture Measurement: A Pilot Study. *13th Annual National Occupational Research Agenda (NORA) Young/New Investigators Symposium*; 2015 April 16-17; Salt Lake City, UT.
65. **Schall Jr MC**. Inertial Measurement Technologies for Ergonomics Exposure Assessment. Human Factors and Ergonomics Seminar. Virginia Tech Grado Department of Industrial and Systems Engineering. 2015 February 24; Blacksburg, VA.
66. **Schall Jr MC**. Ambulatory Inertial Sensors for Ergonomics Applications. 2014 Industrial and Systems Engineering Seminar Series. Auburn University. 2015 January 28; Auburn, AL.
67. **Schall Jr MC**, Chen H, Merlino L, Gerr F, Fethke NB. A prospective study of musculoskeletal symptoms among agricultural workers in the Midwest region of the United States. *7th International Symposium: Safety & Health in Agricultural & Rural Populations: Global Perspectives (SHARP)*; 2014 October 19-22; Saskatoon, Saskatchewan.
68. Douphrate DI, Fethke NB, Hagevoort R, Nonnenmann M, Gimeno D, Marshall A, **Schall Jr MC**, Chen H, Mixco A, Reynolds S. Task-specific & full-shift sampling of upper extremity muscle activity among US large-herd dairy parlor workers. *7th International Symposium: Safety & Health in Agricultural & Rural Populations: Global Perspectives (SHARP)*; 2014 October 19-22; Saskatoon, Saskatchewan.
69. **Schall Jr MC**, Fethke NB. Digital human modeling of non-occupational risk factors for manufacturing work task design. *1<sup>st</sup> International Symposium to Advance Total Worker Health*; 2014 October 6-8; Bethesda, MD.
70. Fethke NB, Gerr F, Merlino L, Branch C, **Schall Jr MC**. Exposure to physical risk factors for musculoskeletal health outcomes during common agricultural activities. *International Society for Agricultural Safety and Health*; 2014 June 22-26; Omaha, NE. *Schall presenting author*.

71. Fethke NB, Gerr F, Merlino L, Branch C, **Schall Jr MC**. Musculoskeletal symptoms among Midwest farmers. *Midwest Rural Agricultural Safety and Health Conference*; 2013 November 21-22; Ames, IA.
72. Fethke NB, Gerr F, Merlino L, Branch C, **Schall Jr MC**. A prospective study of musculoskeletal symptoms among agricultural workers. *International Society for Agricultural Safety and Health*; 2013 June 23-27; Sandusky, OH.
73. **Schall Jr MC**, Aksan N, Dawson J, Zilli E, Tippin J, Rizzo M. Utility of Actigraphy in Long Term Tracking of Sleep Quality in Patients Treated with CPAP. *University of Iowa James F. Jakobsen Graduate Conference*; 2012 March 24; Iowa City, IA.
74. **Schall Jr MC**, Rusch ML, Lee JD, Dawson JD, Thomas G, Rizzo M. Augmented reality cues and elderly driver hazard perception. *Inaugural Symposium of the University of Iowa Aging Mind and Brain Initiative*; 2012 March 24; Iowa City, IA. (Awarded 3rd Place)
75. Edwards S, Rusch ML, **Schall Jr MC**, Lee JD, Dawson J, Thomas G, Rizzo M. An investigation of speed of processing in relationship to predicting the arrival of oncoming vehicles. *University of Iowa Center for Undergraduate Research Summer Undergraduate Research Festival*; 2011 July 27; Iowa City, IA.
76. DeFranco RA, **Schall Jr MC**, Rusch ML, Thomas G, Dawson J, Lee JD, Philbert R, Rizzo M. An investigation of visual cues to improve driver safety in changing lanes. *University of Iowa Center for Undergraduate Research Spring Undergraduate Research Festival*; 2011 March 26; Iowa City, IA. (Awarded second place, Excellence Award in Math and Engineering Sciences)
77. **Schall Jr MC**, Gavin P, Rusch ML, Flynn I, Johnson A, Lee JD, Vecera S, Rizzo M. Attraction without distraction: Effects of augmented reality cues on driver hazard perception. *University of Iowa Center for Undergraduate Research Spring Undergraduate Research Festival*; 2010 March 27; Iowa City, IA. (Awarded second place, Excellence Award in Math and Engineering Sciences)
78. Rusch ML, Dastrup E, Flynn I, Gavin P, **Schall Jr MC**, Lee JD, Vecera S, Rizzo M. Effects of Augmented Reality Cues on Driver Performance. *University of Iowa 11th Annual Student Interdisciplinary Health Research Poster Session*; 2010 April 22; Iowa City, IA.

## Sponsored Research

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**Schall Jr., M.C.** (PI -- 34%), Sesek, R. (Co-PI -- 33%), Acosta-Sojo, Y. (Co-PI -- 33%). “Occupational Safety and Ergonomics Research Training Program.” CDC/NIOSH: Deep South Center for Occupational Health and Safety Education and Research Center Training Grant, Federal. 07/01/2022 – 06/30/2027. Total: \$ 1,565,551. Share: \$ 391,388.

Gallagher, S. (PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%), Sesek, R. (Co-PI -- 25%), Acosta-Sojo, Y. (Co-PI -- 25%). “Occupational Injury Prevention Research Training Program.” CDC/NIOSH: Deep South Center for Occupational Health and Safety Education and Research Center Training Grant, Federal. 07/01/2022 – 06/30/2027. Total: \$ 529,844. Share: \$ 132,461.

Zabala, M. (PI -- 45%), **Schall Jr., M.C.** (Co-PI -- 45%), Bevly, D. (Co-PI -- 10%). “Human Augmentation: Systematic Evaluation of Lower Extremity Motor Adaptations to Joint Actuation”, U.S. Army U.S. Army Natick Soldier Systems Center, Ground Vehicle Systems (GVS) Other Transaction Agreement (OTA) #W15QKN-17-9-1025, Federal. 6/16/2020 – 6/15/2023. Total: \$ 1,750,000. Share: \$ 787,500.

Davis, G.A. (PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%), Sesek, R. (Co-PI -- 25%), Gallagher, S. (Co-PI -- 25%). “Occupational Safety and Ergonomics Research Training Program.” CDC/NIOSH: Deep South Center for Occupational Health and Safety Education and Research Center Training Grant, Federal. 07/01/2017 – 06/30/2022. Total: \$ 1,484,095. Share: \$ 371,024.

Gallagher, S. (PI -- 25%), Sesek, R. (Co-PI -- 25%), Davis, G.A. (Co-PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%). "*Occupational Injury Prevention Research Training Program.*" CDC/NIOSH: Deep South Center for Occupational Health and Safety Education and Research Center Training Grant, Federal. 07/01/2017 – 06/30/2022. Total: \$ 518,503. Share: \$ 129,626.

**Schall Jr., M.C.** (PI -- 100%). "*Advancing Workplace Safety Surveillance with Ambulatory Inertial Sensors*", Centers for Disease Control and Prevention / National Institute for Occupational Safety and Health Mentored Research Scientist Development Award (K01), Federal. 09/01/2018 – 08/31/2022. Total: \$ 324,000. Share: \$ 324,000.

Graben, P. (Student), **Schall Jr., M.C.** (100%; Faculty Advisor to Graben), "Rater reliability of observational fatigue failure risk assessment", CDC/NIOSH: Sunshine Education and Research Center, Federal. 01/01/2022 – 12/31/2022. Total: \$ 1,620. Share: \$ 1,620.

**Schall Jr., M.C.** (PI -- 100%). "The Impact of thermal load on PFD use among Shrimp Fishermen", Subcontract – Carruth, A. (PI). CDC/NIOSH: Southwest Center for Agricultural Health, Injury Prevention and Education, Federal. 09/01/2019 – 08/31/2021. Total: \$ 8,035. Share: \$ 8,035.

Ali, D. (Student), **Schall Jr., M.C.** (100%; Faculty Advisor to Ali), "One-Handed Carrying on Flat and Inclined Surfaces", CDC/NIOSH: Deep South Center for Occupational Health and Safety, Federal. 07/01/2020 – 06/30/2021. Total: \$ 10,000. Share: \$ 10,000

Davis, G.A. (PI -- 25%), Gallagher, S. (Co-PI -- 25%), Sesek, R. (Co-PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%). "*Pilot Project Research Training.*" CDC/NIOSH: Deep South Center for Occupational Health and Safety Education and Research Center Training Grant, Federal. 07/01/2017 – 06/30/2020. Total: \$ 307,563. Share: \$ 76,891.

Gallagher, S. (PI -- 25%), Sesek, R. (Co-PI -- 25%), Davis, G.A. (Co-PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%). "*The Low Back Cumulative Trauma Index: A Fatigue-Failure Based Risk Assessment Tool*". CDC/NIOSH Exploratory/Developmental Grant Program (R21), Federal. 09/01/2018 – 08/31/2020. Total: \$ 380,968. Share: \$ 95,242.

**Schall Jr., M.C.** (PI -- 33%), Zabala, M. (Co-PI -- 33%), Bevly, D. (Co-PI -- 33%). "*Sensor Technologies for Augmenting the Naturalistic Control of Exoskeletons (STANCE)*", Subcontract, Aptima, Inc., U.S. Army Research Office, Contract W911NF-17-C-0062. 08/01/2017 – 07/31/2019. Total: \$ 380,000. Share: \$ 126,692.

Gallagher, S. (PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%), Bevly, D. (Co-PI -- 25%), Zabala, M. (Co-PI -- 25%). "*Cervical Readiness Using Analytics & Non-Invasive Evaluation*", Phase I STTR Subcontract, Aptima, Inc., Department of Defense. 01/01/2019 – 07/01/2019. Total: \$ 42,000. Share: \$ 10,500.

Gallagher, S. (PI -- 25%), Sesek, R. (Co-PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%), Davis, G.A. (Co-PI -- 25%). "*Chronic Cyclic Fatigue Failure and Muscle Fatigue in the Lumbar Spine*", Subcontract – CFD Research Corp. 09/01/2016 – 08/31/2018. Total: \$ 144,043. Share: \$ 36,011.

Badawy, M. (Student), **Schall Jr., M.C.** (100%; Faculty Advisor to Badawy), "*The effects of age and obesity on physical responses during one-handed carrying*", CDC/NIOSH: Deep South Center for Occupational Health and Safety, Federal. 07/01/2017 – 06/30/2018. Total: \$ 9,555. Share: \$ 9,555.

**Schall Jr., M.C.** (PI -- 25%), Gallagher, S. (Co-PI -- 25%), Bevly, D. (Co-PI -- 25%), Sesek, R.F. (Co-PI -- 25%). "*Sensor and Material Handling Equipment Technology to Improve Warehouse Performance and Safety*", Phase I SBIR Subcontract, Aptima, Inc., Defense Logistics Agency. 01/01/2017 – 12/31/2017. Total: \$ 29,985. Share: \$ 7,496.

**Schall Jr., M.C.** (PI -- 65%), Pascoe, D. (Co-PI -- 27.5%), Sesek, R.F. (Co-PI -- 7.5%). "*Aluminet<sup>®</sup> Vests: An Innovative Intervention for Preventing Heat-Related Illness among Construction Workers*", CDC/NIOSH, via Center for Construction Research and Training, CPWR, Federal. 01/01/2017 – 12/31/2017.

Total: \$ 30,000. Share: \$ 19,500.

Granzow, R. (Student), **Schall Jr., M.C.** (90%; Faculty Advisor to Granzow), Smidt, M. (10%). "*A comparison of physical risk factors among tree planters using mechanized and hand planting methods*", CDC/NIOSH: Southwest Center for Agricultural Health, Injury Prevention and Education, University of Texas Health Science Center at Tyler, Federal. 09/15/2016 – 08/31/2017. Total: \$ 19,028. Share: \$ 17,125.

**Schall Jr., M.C.** (PI -- 75%), Sesek, R. (Co-PI -- 15%), Sefton, J. (Co-PI -- 10%). "*Auburn University's Ergonomic Assessment of Pilgrim's Facilities: Athens, GA*", Pilgrim's. 03/01/2017 - 08/31/2017. Total: \$ 26,957. Share: \$ 20,218.

**Schall Jr., M.C.** (PI -- 75%), Sesek, R. (Co-PI -- 15%), Sefton, J. (Co-PI -- 10%). "*Auburn University's Ergonomic Assessment of Pilgrim's Facilities: Athens, GA*", Pilgrim's. 03/15/2017 - 08/31/2017. Total: \$ 24,712. Share: \$ 18,534

**Schall Jr., M.C.** (PI -- 50%), Sesek, R. (Co-PI -- 50%). "*Auburn University's ergonomics training of Pilgrim's employees*", Pilgrim's. 11/15/2016 - 04/15/2017. Total: \$ 8,680. Share: \$ 4,343

Huangfu, R. (Student), Gallagher, S. (50%; Faculty Advisor to Huangfu), **Schall Jr., M.C.** (50%). "*Evaluating Methods of Estimating Cumulative Tissue Damage in Muscle*", CDC/NIOSH: Deep South Center for Occupational Health and Safety, Federal. 07/01/2016 – 06/30/2017. Total: \$ 9,991. Share: \$ 4,996

Sefton, J. (Co-PI -- 25%), Wadsworth, D. (Co-PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 50%). "*AU's injury reduction and wellness intervention program for Pilgrims employees*", Pilgrim's. 07/01/2016 - 09/16/2016. Total: \$ 16,422. Share: \$ 8,211

**Schall Jr., M.C.** (PI -- 95%), Smidt, M. (Co-PI -- 5%). "*Characterizing exposures to physical risk factors among reforestation hand planters: A feasibility study in a challenging work environment*", CDC/NIOSH: Southeast Center for Agricultural Health and Injury Prevention, Federal. 11/01/2015 – 09/29/2016. Total: \$ 11,983. Share: \$ 11,384.

Sesek, R. (PI -- 25%), Davis, G.A. (Co-PI -- 25%), Gallagher, S. (Co-PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%). "*Occupational Safety and Ergonomics Program.*" CDC/NIOSH: Deep South Center for Occupational Health and Safety Education and Research Center Training Grant, Federal. 07/1/2015 – 06/30/2017. Total: \$ 458,342. Share: \$ 114,586.

Gallagher, S. (PI -- 25%), Sesek, R. (Co-PI -- 25%), Davis, G.A. (Co-PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%). "*Occupational Injury Prevention Research Training Program.*" CDC/NIOSH: Deep South Center for Occupational Health and Safety Education and Research Center Training Grant, Federal. 07/1/2015 – 06/30/2017. Total: \$ 224,317. Share: \$ 56,079.

Gallagher, S. (PI -- 25%), Sesek, R.F. (Co-PI -- 25%), Davis, G.A. (Co-PI -- 25%), **Schall Jr., M.C.** (Co-PI -- 25%). "*Motion Capture of Critical Populations for Vehicle Ingress/Egress.*", HATCI (Hyundai America Technical Center, Inc.), Ann Arbor, MI. 06/01/2015 – 12/31/2015. Total: \$ 79,960. Share: \$ 19,990.

Chen, H., **Schall Jr., M.C.**, Fethke, N. B. "Characterizing Operable Conditions for Inertial Measurement Units", CDC/NIOSH: Heartland Center for Occupational Health and Safety, Federal. 07/01/2015 – 06/30/2016. Total: \$ 15,000.

**Schall Jr., M.C.** (while student at University of Iowa), "Inertial Measurement Units as a Tool for Simultaneous Worker Health Protection and Promotion", CDC/NIOSH: Total Worker Health Center for Excellence, Federal. 07/01/2014 – 06/30/2015. Total: \$ 29,108.

**Schall Jr., M.C.** (while student at University of Iowa), "Assessment of a Novel Device for Directly Measuring Trunk Posture", CDC/NIOSH: Heartland Center for Occupational Health and Safety, Federal. 07/01/2012 – 06/30/2013. Total: \$ 5,000.



## Teaching

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\* Developed course (6 / D) Designation represents online distance section prior to / after 2021.

### Undergraduate

ENGR 1110: Introduction to Industrial and Systems Engineering - Fall 2017, Fall 2022

INSY 3410: Deterministic Operations Research - Fall 2015, 2016, 2017

INSY 3700: Operations Planning and Control - Spring 2016

INSY 4960: Special Problems in INSY (undergraduate independent study) - Spring 2017

### Graduate

INSY 7080(6/D): Human Factors Engineering - Summer 2016, 2017, 2018, 2020, 2021, 2022  
Fall 2021

INSY 71/7390: Occupational Safety and Health Forum - Fall 2017, Fall 2022

INSY 72/7490: Occupational Safety and Health Practicum - Spring 2018

\* INSY 8020(6/D): Research Methods for Occupational Safety, Ergonomics, and Injury Prevention –  
Spring 2017, 2020, 2022

INSY 7980: MISE Project Course (graduate independent study) - Spring 2017

INSY 8060(6/D): Contemporary Ergonomics – Fall 2016, 2018, 2020

## Student Mentorship

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\* Note: All students studying Industrial and Systems Engineering at Auburn University unless otherwise noted

### PhD Dissertations (as committee chair)

Duha Ali, Anticipated 05/2023

*“One-Handed Carrying on Inclined Surfaces”*

Preston Graben, Anticipated 08/2023

*“Rater Reliability Analysis of the Distal Upper Extremity Tool”*

Xuanxuan “Avery” Zhang, PhD, 08/2020

*“Adoption of Wearable Technologies among Industrial Workers in the Internet of Things Architecture”*

First position: Assistant Professor (tenure-track), Marshall University, Huntington, WV

Ike Stutts, PhD, 05/2020

*“Human Trust in Cyber Vulnerable Automated Systems”*

First position: Permanent Military Professor, U.S. Naval Academy, Annapolis, MD

Mohamed Badawy, PhD, 12/2018

*“Evaluating Responses to One-handed Carrying among Older and Obese Individuals”*

First position: Ergonomist, KIA Motors Manufacturing of Georgia, West Point, GA

Robert Granzow, PhD, CSP, CPE, 12/2018

*“Evaluation of Physical Risk Factors for Musculoskeletal Disorders among Reforestation Workers in the Southeastern United States”*

First position: Senior EHS Specialist, Schneider Electric, Columbia, SC

### MS Theses (as committee chair)

Robert Granzow, PhD, CSP, CPE, 12/2016

*“Characterizing Full Shift Physical Risk Factors among Hand Planter Forestry Workers.”*

Andrew Kauffman, PhD, CSP, 5/2022

*“Categorization of Coast Guard Aviation Mishaps Following Aircraft Model Transitions: A Natural Language Processing Approach.”*

- Recognized as one of Auburn University’s outstanding master’s students for 2021-2022

### **PhD Dissertations (as committee member)**

Amir Mehdizadeh, Vinel (Chair), 12/2021  
Connor Lusk, Sesek (Chair), 8/2021  
Muhammet Fehmi Capanoglu, Sesek (Chair), 8/2021  
Dania Bani Hani, Gallagher (Chair), 12/2019  
Nicholas Smith, Gallagher (Chair), 8/2019  
Alan Gunter, Davis (Chair), 5/2019  
Tenchi Smith, Gallagher (Chair), 5/2019  
Rong Huangfu, Gallagher (Chair), 12/2018  
Benjamin McManus, Stavrinou (Chair), Psychology, UAB, Birmingham, AL, 5/2018  
Jin Wang, Zhou (Chair), Civil Engineering, Auburn University, Auburn, AL, 5/2018  
Menekse Salar Barim, Sesek (Chair), 12/2017  
Richard Garnett, Davis (Chair), 12/2017  
Li Cao, PhD, Davis (Chair), 8/2017  
John Pentikis, Sesek (Chair), 5/2017  
Thomas Sanders, Evans (Chair), 5/2016  
Yousif (Joe) Abulhassan, Davis (Chair), 5/2016

### **PhD Dissertations (as university reader)**

Jacob Larsen, Zabala (Chair), anticipated 8/2022  
Taylor Oldfather, Zabala (Chair), 8/2020

### **MS Theses (as committee member)**

Jordan Coker, Zabala (Chair), Mechanical Engineering, Auburn University, Auburn, AL, 08/2020  
Raju Gupta, Zabala (Chair), Mechanical Engineering, Auburn University, Auburn, AL, 08/2019  
Scott Kennedy, Zabala (Chair), Mechanical Engineering, Auburn University, Auburn, AL, 08/2019  
Alexander Sherman, Davis (Chair), 12/2015

## **Service Activities**

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### ***Peer Review Activities (external to Auburn University)***

Ad Hoc Referee for Peer-Reviewed Journals and Conference Proceedings

- Applied Ergonomics
- Ergonomics
- Plos One
- Sensors
- IEEE Access
- IEEE Sensors
- Accident Analysis and Prevention
- Annals of Work Exposures and Health (formerly Annals of Occupational Hygiene)
- Occupational and Environmental Hygiene
- IISE Transactions on Occupational Ergonomics and Human Factors
- Journal of Applied Biomechanics
- Agromedicine
- Traffic Injury Prevention
- Medical & Biological Engineering & Computing

- WORK: A Journal of Prevention, Assessment, and Rehabilitation
- Applied Clinical Informatics
- Open Access Journal of Sports Medicine
- Proceedings of the Human Factors and Ergonomics Society

#### Ad Hoc Grant Reviewer

- Safety and Occupational Health Study Section, NIOSH (Summer 2022)
- Total Worker Health Center Applications, NIOSH (2021)
- Pilot Projects Research Training Program, NIOSH Southwest Center for Occupational and Environmental Health (2015-2019)
- Pilot Projects Research Training Program, NIOSH Deep South Center for Occupational Health and Safety (2015-2019)
- PSI Foundation (2018)
- Alabama Agricultural Experiment Station (AAES) HATCH proposal (2019)

#### Conference Activities

- 2022 Chapanis Best Student Paper Award Committee, Human Factors and Ergonomics Society 66<sup>th</sup> Annual Meeting, 2022 October 10-14; Atlanta, GA.
- Chair of Virtual/Augmented Reality – Wearable Technology Session, 31st Annual International Occupational Ergonomics and Safety Conference, 2019 June 12-13; New Orleans, LA.
- Chair of Wearable Sensor Technology Session, Human Factors and Ergonomics Society 61st Annual Meeting, 2017 October 9-13; Austin, TX.
- Co-Chair of Wearable Technologies Discussion Panel, symposium at the Human Factors and Ergonomics Society 61st Annual Meeting, 2017 October 9-13; Austin, TX.
- Co-Chair of NIOSH Prospective Musculoskeletal Disorder Studies Discussion Panel, symposium at the Human Factors and Ergonomics Society 59th Annual Meeting, 2015 October 26-30; Los Angeles, CA.

#### *Notable University, College, and Department Service*

##### Auburn University

- Auburn University Faculty Research Committee, College of Engineering Representative, 2021 – Present.
- Campus CCERT member, 2019 – Present.
- Administrator Review Committee, Dr. John Evans, 2020.
- Faculty Senator, 2016-2019.
- IBM facilitated Research Lifecycle Retreat led by Assistant Vice President for Research, Electronic Research Administration, Martha Taylor, 2019.
- International Student Engagement Faculty Focus Group, Nov. 9, 2017.

##### Samuel Ginn College of Engineering

- Biomedical Engineering Education and Research Center, Committee Member, 2022.
- Interim Dean Search Advisory Committee Member, 2022.
- Engineering Safety Council, ISE Department Representative, 2022 – present.
- Engineering Safety Council, Chair and ISE Department Representative, 2020 – 2021.
- Reviewer for ORAU Ralph E. Powe Junior Faculty Enhancement Awards competition, 2021.
- Engineering Safety Council, Vice Chair and ISE Department Representative, 2019-2020.
- Graduate Student Research Showcase, Judge, 2015-2017.
- Provide support for Promoting Engineering at Auburn for Kids (PEAK), 2017-2018.

Department of Industrial and Systems Engineering

- Faculty Search Committee, Chair, 2021, 2022.
- Administrative Assistant Search Committee, 2022.
- Department Accountant Search Committee, 2022.
- Faculty Office Renovation Committee, 2020.
- Faculty Search Committee, 2016-2017.
- Graduation Representative for ISE Department, Fall 2016.
- Graduate Recruiting Visit, 2015, 2016, 2018.
- Provide support for E-Day, 2015-2022.