



Akshara Sreedhar, MS
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Injury Biomechanics



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Ms. Sreedhar received a Master of Science in Mechanical Engineering in 2021 and a Bachelor of Science in Materials Science and Engineering in 2018 from The Ohio State University.

Akshara worked at the Injury Biomechanics Research Center (IBRC) at The Ohio State University both as an undergraduate student and Graduate Research Associate collaborating with the National Highway Traffic Safety Administration (NHTSA) Vehicle Research & Testing Center. Ms. Sreedhar worked on a variety of experimental studies with post-mortem human subjects (PMHS aka cadavers) and anthropometric test devices (ATDs, aka crash test dummies) to study thorax injury biomechanics. Her work included leading the thoracic hierarchy project by evaluating frontal thoracic response and characterizing human variability in soft tissue and skeletal response to impact through experimental PMHS testing and analytical modeling.

Ms. Sreedhar was also involved in injury biomechanics research projects utilizing sled testing and instrumentation of PMHS to assess side airbag and seat belt loading to vulnerable occupants such as 5th percentile females in side-impact scenarios as it related to thoracic injury risk, automated vehicle crashworthiness, and non-standard seating positions. She also worked on belt fit of children in various child restraint systems and is a Certified Child Safety Passenger Technician (CPST).

Ms. Sreedhar has co-authored several scientific papers and presentations on thoracic injury biomechanics including the impact response and age-related effects of pediatric and adult ribs.

At VSI Ms. Sreedhar conducts injury biomechanics analyses and research related to occupant injuries in automobile impacts. Her current research project is working with NHTSA's CISS injury database to investigate injury trends in various impact configurations and restraint scenarios.

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