

CURRICULUM VITAE



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AREAS OF INTEREST

Automotive and Aircraft Crashworthiness, Occupant Protection of Transportation Systems, Biodynamics, Injury Biomechanics, Multibody Dynamics, Structures, Impact Dynamics, Mechanical Systems Analysis and Design, Computer-Aided Design

EDUCATION

Doctor of Philosophy in Mechanical Engineering
University of Arizona, Tucson, Arizona, August 1988

Master of Science in Mechanical Engineering
University of Iowa, Iowa City, Iowa, December 1983

Bachelor of Science in Mechanical Engineering
University of Iowa, Iowa City, Iowa, December 1981

PROFESSIONAL CAREER

2001-date	Professor, Department of Mechanical Engineering Interim Department Chair (January - June 2005) Senior Fellow, National Institute for Aviation Research Wichita State University, Wichita, Kansas
1994-2000	Associate Professor and Bombardier/Learjet Fellow Department of Mechanical Engineering Fellow, National Institute for Aviation Research Wichita State University, Wichita, Kansas
1989-1994	Assistant Professor, Department of Mechanical Engineering Faculty Associate, National Institute for Aviation Research Wichita State University, Wichita, Kansas

- 1988-1989 Adjunct Assistant Professor
 Department of Aerospace and Mechanical Engineering
 University of Arizona, Tucson, Arizona
- 1984-1988 Teaching and Research Assistant
 Computer-Aided Engineering Laboratory
 Department of Aerospace and Mechanical Engineering
 University of Arizona, Tucson, Arizona
- 1985-1986 Multibody Dynamics and Finite Element Structural Analyst
 CASA-GIFTS Structural Software Company
 Tucson, Arizona
- 1981-1983 Teaching and Research Assistant
 Center for Computer-Aided Design
 University of Iowa, Iowa City, Iowa

PROFESSIONAL SOCIETIES

- American Society of Mechanical Engineering – Elected Fellow (2005), Member (1980-2004),
 Executive Member in charge of College Relations (1992-present) and Elected Treasurer
 (1989-1991) for the Central Kansas Section
- Society of Automotive Engineers -- Member (1989-present)
- SAE Aircraft Seat Standards Committee – Contributing Member (1994-present)
- American Society of Engineering Education -- Member (1989-present)
- American Institute of Aeronautics and Astronautics -- Member (1994-present)
- European Mechanics Society -- Member (1998-present)

HONORS AND AWARDS

- Inducted to the Order of the Bender of Twigs at Wichita State University for completing 25 years
 of service as an educator, 2014
- Sustained Research Production and Collaboration Award at the European Conference on
 Mechanism Sciences (EUCOMES), Portugal, 2014
- Wichita State University Engineering Council's Polished Professor award (voted by students):
 1992, 2004, 2006, 2010, 2013, and 2014
- Recipient of the 2007 Wichita State University *Excellence in Research* Award
- Recipient of the Wichita State University College of Engineering Dwane and Velma Wallace
 2005 Outstanding Educator Award toward *Excellence in Teaching*
- Recipient of two *Bombardier-Learjet Fellowships* for academic excellence, 1995-1998 and 1998-
 2001
- Fellow* of the National Institute for Aviation Research, Elected 1995 and re-appointed every
 year 1995-2000. Elected *Senior Fellow*, 2001-present
- Elected *Fellow* of the *American Society of Mechanical Engineering*, 2005
- Elected *Boeing Fellow*, 2005-2006
- Member of the Advanced Materials and Medical Devices Hot Team for the Kansas Bioscience
 Initiative 2006-2008
- Recipient of the 2001 Wichita State University *Academy for Effective Teaching* Award
- Recipient of the 1994 Wichita State University Board of Trustees *Young Faculty Scholar* Award
 for Excellence in Teaching, Research, and Professional Service

Winner of the 1993 Society of Automotive Engineers *Ralph R. Teetor* Outstanding Educator Award for significant contribution to *teaching, research, and student involvement* (one of the 15 selected nationwide)

Recipient of the Wichita State University College of Engineering Dwane and Velma Wallace 1993 Outstanding Educator Award toward *Excellence in Research*

Nominated every year since 1992 for the Board of Trustees Excellence in Teaching Award and also the Academy of Effective Teaching Award

Three-term Associate Technical Editor for ASME *Journal of Mechanical Design*, 1995-1997, 1998-2000, and 2001-2003

Two-term Associate Technical Editor for ASME *Journal of Computational and Nonlinear Dynamics*, 2004-2006 and 2007-2009 (plus 2010, one additional year)

Two-term Associate Technical Editor for ASME *Journal of Medical Devices*, 2006-2008 and 2009-2011 (plus 2012, one additional year)

On the Editorial Boards for the *International Journal of Multibody Systems Dynamics*, *International Journal of Composite Materials*, *International Journal of Aerospace Engineering*, *Journal of Frontiers in Aerospace Engineering*, *International Research Publication House Journal of Mechanics and Structures*, *Advances in Mechanical Engineering Journal*, *International Journal of Crashworthiness*, *Journal of Engineering Research and Technology*, *Journal of Medical Instruments*, *Advances in Aerospace Engineering*, *Frontiers in Aerospace Science and Technology*, *Engineering Science and Letters (ESL)*, *World of Mechanics (Zeal Scienza)*, *International Journal of Aeronautical Science & Aerospace Research (IJASAR)*

Executive Member of ASME *Technical Committee on Multibody Systems and Nonlinear Dynamics*, 2003-present

On the Advisory Panel for *Aircraft Interior* magazine, 1997-2001

Chair of the Crashworthiness Research Group for the *FAA Airworthiness Assurance Center of Excellence*, 1999-2002

Chair of the Crashworthiness Research Team for the *FAA General Aviation Center of Excellence*, 2001-2002

Member of Tau Beta Pi, the Engineering Honor Society, (1980-present)

Member of Pi Tau Sigma, National Honorary Mechanical Engineering Fraternity, (1979-present)

Award for Best Teaching Assistant in College of Engineering, University of Arizona, 1986

Dean's List and Undergraduate Scholarship, University of Iowa, 1978-1981

Graduated with Distinction, University of Iowa, 1981

Listed in the International Guide for Men of Achievement since 1994

Honored Member, Strathmore Who's Who

Listed in the Lexington Who's Who Millennium Edition of the Registry

PUBLICATIONS

Refereed Journal Articles and Book Chapters

Huculak, R.D., and Lankarani, H.M., "Methods of Evaluating ES-2 Leg Flail in Dynamic Evaluation and Certification Tests of Side-Facing Aircraft Seats," *International Journal of Crashworthiness*, Paper No. IJCR-S-15-00075, 17p. Online version: [DOI: 10.1080/13588265.2015.1076585].

Umstead, C., Tay, Y.Y., and Lankarani, H.M., "Multibody Modeling of an Internal Gyroscopic Micro-mechanism for Development of Lateral Deviation of a Projectile," *Journal of Multi-Body Dynamics*, Special Issue on *Multibody for Mechanisms*, Paper No. JMBD 14-

- 0090, 11p, March 2015. [DOI: 10.1177/1464419315573132].
- Nedukanjirathingal, S.K., Yihun, Y., and Lankarani, H.M., "Finite Element Analysis and Vibration Testing of a Simple Replicate Beam-Type Aircraft Wing with and without Secondary Structure Attached," *International Journal of Aeronautical Science & Aerospace Research (IJASAR)*, Paper No. IJASAR-15-01-14, Vol. 2, No. 3, pp. 27-38, 2015.
- Tay, Y.Y., Bhonge, P., ND Lankarani, H.M., "Crash Simulations of an Aircraft Fuselage Section in Water Impact and Comparison with Solid Surface Impact," *International Journal of Crashworthiness*, Paper No. IJCR.909, Vol. 20, NO. 5, pp. 464-482, 2015. [DOI: 10.1080/13588265.2015.1033972].
- Patil, S., and Lankarani, H.M., "Simulation Study of Spot Weld Material Configurations for Crash Analysis," *Journal of Applied Mechanical Engineering*, Paper No. Engr-14-695R1, Vol. 3, No. 4, 2014. [DOI: 10.4172/2168-9873.1000149].
- Tay, Y.Y., Papa, A., Koneru, L.S., Moradi, R., and Lankarani, H.M., "A Finite Element Approach Estimating Driver Fatality Ratios of a Fleet of LTVs Striking a Passenger Car Based on Vehicles' Intrusion, Acceleration, and Stiffness Ratios in Side Impact Collisions," *Journal of Mechanical Science and Technology*, Paper No. MEST-D-14-00429, Vol. 29, No. 3, pp. 1231-1242, 2015. [DOI: 10.1007/s12206-015-0237-4].
- Alves, J., Peixinho, N., Silva, M., Flores, P., and Lankarani, H.M., "A Comparative Study of the Viscoelastic Constitutive Models for Frictionless Contact Interfaces in Solids," *Mechanism and Machine Theory*, Paper No. MECHMT-D-14-00429, Vol. 85, pp. 172-188, 2015. [DOI: 10.1016/j.mechmachtheory.2014.11.020].
- Zhang, Z., Xu, L., Tay, Y.Y., Flores, P., and Lankarani, H.M., "Multi-Objective Optimization of Mechanisms with Clearances in Revolute Joints," Chapter in the book, **New Trends in Mechanism and Machine Science: From Fundamentals to Industrial Applications**, P. Flores and F. Viadero (Ed.), Part VI: Dynamics of Machinery, pp. 423-433, Springer, 2015. [DOI: 10.1007/978-3-319-09411-3_45].
- Umstead, C., Tay, Y.Y., and Lankarani, H.M., "An Internal Gyroscopic Micro-mechanism for Development of Lateral Deviation of a Projectile," Chapter in the book, **New Trends in Mechanism and Machine Science: From Fundamentals to Industrial Applications**, P. Flores and F. Viadero (Ed.), Part XIII: Micro-mechanisms, pp. 859-868, Springer, 2015. [DOI: 10.1007/978-3-319-09411-3_45].
- Baratzadeh, F., Tay, Y.Y., Patil, S., and Lankarani, H.M., "An Experimental and Numerical Investigation into the Dynamic Crash Performance of Vehicle Bumpers Fabricated using Friction Stir Welding (FSW) and Gas Metal Arc Welding (GMAW)," *International Journal of Crashworthiness*, Paper No. IJCR.828, Vol. 19, No. 4, pp. 371-384, 2014. [DOI: 10.1080/13588265.2014.904062].
- Zhang, Z., Xu, L., Flores, P., and Lankarani, H.M., "A Kriging Model for Dynamics of Mechanical Systems with Revolute Joint Clearances," *ASME Journal of Computational and Nonlinear Dynamics*, Paper No. CND-13-1195, Vol. 9, pp. 031013-13p, July 2014. [DOI: 10.1115/1.4026233].
- Tay, Y.Y., Lim, C.S., and Lankarani, H.M., "A Finite Element Analysis of High Energy Absorption of Cellular Materials in Enhancing Passive Safety of Road Vehicles in Side Impact Accidents," *International Journal of Crashworthiness*, Paper No. IJCR.806, Vol. 19, No. 3, pp. 288-300, 2014. [DOI: 10.1080/13588265.2014.893789].
- Moradi, R., McCoy, M.L., and Lankarani, H.M., "Impact Analysis of Mechanical Systems Using Stress Wave Propagation Methodology," invited Book Chapter for the Book, **Wave Propagation**, L. Rocha and M. Gomes (Ed.), Academy Publish, ISBN: 978-09835850-X-X, pp. 211-249, , 2014.

- Tay, Y.Y., Moradi, R., and Lankarani, H.M., "A Design-of-Experiment Method In Predicting Injuries To Out-Of-Position Occupants From Torso-Only Side-Impact Airbags," *Global Journal of Research in Engineering - B: Automotive Engineering*, GJRE-B, Vol. 13, Issue 2, pp. 1-14, October 2013.
- Moradi, R., and Lankarani, H.M., **Impact Dynamics of Mechanical Systems and Structures - Applications in Crash Energy Management, Impulse mitigation, and Impact Injury Biomechanics**, Scientific Book, 252p, Lambert Academic Publishing, 2013.
- Reuter, K., Chong, A., Madhavan, V., Wooley, P., and Lankarani, H.M., "Development of a Finite Element Computer Model to Study the Torsional Fracture Strength of a Composite Tibia with Screw Holes," *International Journal of Experimental and Computational Biomechanics*, Paper No. IJECB-43316, Vol. 2, No. 2, pp. 158-170, 2013.
- Faishal, K., Cheraghi, S.H., Krishnan, K., and Lankarani, H.M., "Study of the Impact of Riveting Parameters on the Quality of the Riveted Lap Joints Using Finite Element Method," *International Journal of Advanced Manufacturing Technology*, Paper No. IJAMT-7017, Vol. 67, Issue 1-4, pp. 545-562, 2013. [DOI: 10.1007/s00170-012-4506-6].
- Koshy, C.S., Flores, P., and Lankarani, H.M., "Study of the Effect of Contact Force Models on the Dynamic Response of Mechanical Systems with Dry Clearance Joints: Computational and Experimental Approaches," *Nonlinear Dynamics*, Paper No. NODY-D-12-03975, Vol. 73, pp. 325-338, 2013. [DOI: 10.1007/s11071-013-0787-x].
- Setpally, R., Moradi, R., and Lankarani, H.M., "Use of Finite Element Analysis for the Prediction of Driver Fatality Ratios Based on Vehicle Intrusion Ratios in Head-on Collisions," *Journal of Applied Mathematics*, Special Issue on *Finite Element Method*, Paper No. 7401418, Vol. 4, No. 5A, pp. 56-63, May 2013. [DOI: 10.4236/am.2013.45A007].
- Huculak, R.D., and Lankarani, H.M., "Evaluation of ATD Head Trajectory in terms of Euler Parameters Using Accelerometers and Angular Rate Sensors in Aircraft Seat Dynamic Testing," *International Journal of Crashworthiness*, Paper No. IJCR.682, Vol. 18, No. 2, pp. 174-182, March 2013. [DOI: 10.1080/13588265.2013.766404].
- Moradi, R., Kh-Beheshti, H., and Lankarani, H.M., "Lumbar Load Attenuation for Rotorcraft Seated Occupants Using an Effective Seat Energy-Absorber Systems Design Methodology," *Central European Journal of Engineering (CEJE)*, Special Issue on *Blast and Impact Performance of Engineering Structures*, Paper No. CEJE-S-12-00050, Vol. 2, No. 4, pp. 562-577, 2012. [DOI: 10.2478/s13531-012-0030-4].
- Baratzadeh, F., Widener, C., Lankarani, H.M., and Burford, D., "Methods to Increase the Fatigue Life of Friction Stir Lap Welds in No-load Transfer Coupons Using a Retractable Pin Tool," *Journal of ASTM International (JAI)*, Paper No. JAI 103899, Vol. 9, No. 5, 16p, May 2012.
- Machado, M., Moreira, P., Flores, P., and Lankarani, H.M., "Compliant Contact Force Models in Multibody Dynamics: Evolution of the Hertz Contact Theory," *Journal of Mechanism and Machine Theory*, Paper No. MECHMT-D-11-00403, Vol. 53, pp. 99-121, 2012. [DOI: 10.1016/j.mechmachtheory.2012.02.0101, 23p]. (Among Top 1% Most Cited Paper in the Field based on Thomson Reuter's Web of Science).
- Flores, P., and Lankarani, H.M., "Dynamic Response of Multibody Systems with Multiple Clearance Joints," *ASME Journal of Computational and Nonlinear Dynamics*, Paper No. CND-11-1080, Vol. 7, pp. 031003-1 031003-13, 13p, July 2012. [DOI: 10.1115/1.4005927].
- Moradi, R., and Lankarani, H.M., "Evaluation of the Kinematics and Injury Potential to Different Sizes of Pedestrians Impacted by a Utility Vehicle LTV with a Frontal Guard," *International Journal of Crashworthiness (IJCrash)*, Paper No. IJCR.551, Vol. 16, No. 6, pp. 645-655, December 2011.

- Umstead, C., and Lankarani, H.M., "Examination of Lateral Deviation of a Projectile Subjected to Internal Gyroscopic Forces," *International Journal of Applied Science and Technology (IJAST)*, Paper No. S-10246, Vol. 1, No. 6, pp. 98-112, November 2011.
- Moreira, P., Flores, P., Pimenta Claro, J.C.P., and Lankarani, H.M., "Influence of the Dissipative Contact Force Models on the Simulation of the Dynamic Response of Multibody Systems," *Journal of Materials Science and Engineering B*, Paper No. JMSE20110726-3, Vol. 1, pp. 828-837, 2011.
- DeWeese, R., Moorcroft, D., Thorbole, C., and Lankarani, H.M., "Use of a Head Component Tester to Evaluate the Injury Potential of an Aircraft Head-Up Display," *International Journal of Crashworthiness (IJCrash)*, Paper No. IJCR.526, Vol. 16, No. 4, pp. 385-395, August 2011.
- Moradi, R., Setpally, R., and Lankarani, H.M., "Influence of a Truck Side Under-ride Guard Height on Cabin Intrusion and Occupant Injury Potential of a Small Car in Car/Large-Truck Side Crashes" *International Journal of Vehicle Structures and Systems (IJVSS) – Special Issue: Structural Impact and Crashworthiness – Part II*, Paper No. IJVS1019, Vol. 3, No. 3, pp. 169-177, 2011.
- McCoy, M.L., Moradi, R., and Lankarani, H.M., "Analysis of Fatigue Resistance of Continuous and Non-Continuous Welded Rectangular Frame Intersections by Finite Element Method," *Journal of Mechanical Science and Technology*, Paper No. J2010-354, Vol. 25, No. 5, pp. 1175-1183, 2011.
- Flores, P., Koshy, C.S., Lankarani, H.M., Ambrosio, J., and Claro, J.C.P., "Numerical and Experimental Investigation on Multibody Systems with Revolute Clearance Joints," *Nonlinear Dynamics*, Paper No. NODY1782, Vol. 65, No. 4, pp. 383-398, 2011.
- Baratzadeh, F., Handyside, A., Lankarani, H., Carlson, B., and Burford, D., "Microstructure and Mechanical Properties of Friction Stir Welded of Dissimilar Aluminum Alloys 6082-T6 with 6053-T6," Chapter in the book, **Friction Stir Welding and Processing**, R. Mishra, M.W. Mahoney, Y. Sato, Y. Hovanski, and R. Verma (Ed.), pp. 229-235, Wiley, 2011.
- Handyside, A., Baratzadeh, F., Buller, J., Lankarani, H., Carlson, B., and Burford, D., "Friction Stir Welded "A" Frame for Dual Function Test Fixture," Chapter in the book, **Friction Stir Welding and Processing**, R. Mishra, M.W. Mahoney, Y. Sato, Y. Hovanski, and R. Verma (Ed.), pp. 159-169, Wiley, 2011.
- Bhonge, P., and Lankarani, H.M., "Fine-tuning Nonlinear Finite Element Analysis Methodology for Aircraft Seat Certification Using Component Level Testing and Validation," *International Journal of Vehicle Structures and Systems (IJVSS) – Special Issue: Structural Impact and Crashworthiness – Part I*, Paper No. IJVS1020, Vol. 3, No. 2, pp. 129-138, 2011.
- McCoy, M.L., Moradi, R., and Lankarani, H.M., "Use of Simple Finite Elements in Impact Analysis of Mechanical Systems with Stereomechanics, Wave Propagation, and Energy Method Approaches," *Journal of Mechanical Science and Technology*, Paper No. J2010-209, Vol. 25, No. 3, pp. 783-795, 2011.
- Machado, M., Flores, P., and Lankarani, H.M., "Spatial Multibody Systems with Lubricated Spherical Joints: Modeling and Simulation," Chapter in the book, **New Trends in Mechanism Science: Analysis and Design**, D. Pisla (Ed.), Chapter 10, pp. 397-404, Springer, 2010.
- Kademhosseini-Beheshti, and Lankarani, H.M., "An Investigation in Crashworthiness Evaluation of Aircraft Seat Cushion at Extreme Ranges of Temperature," *Journal of Mechanical Science and Technology (JMST)*, Paper No. J2009-02083, Vol. 24, No. 5, pp. 1105-1110, May 2010.
- Adams, A., Thorbole, C.K., and Lankarani, H.M., "Scale Modeling of Aircraft Structure – An

- Innovative Strategy to Evaluate and Improve Crashworthiness,” *International Journal of Crashworthiness*, Paper No. IJCR.227, Vol. 15, Issue 1, pp. 71-82, 2010.
- Machado, M., Flores, P., Pimenta Claro, J.C., Ambrosio, J., Silva, M., Completo, A., and Lankarani, H.M., “Development of a Planar Multibody Model of the Human Knee Joint,” *Nonlinear Dynamics*, Paper No. NODY1059, Vo. 60(3), pp. 459-478, 2010.
- Flores, P., and Lankarani, H.M., “Spatial Rigid Multibody Systems with Lubricated Spherical Clearance Joints – Modeling and Simulation,” *Nonlinear Dynamics*, Paper No. NODY9583, Vol. 60(1-2), pp. 99-114, 2010.
- Flores, P., Ambrosio, J., Claro, J.C.P., Lankarani, H.M., and Koshy, C.S., “Lubricated Revolute Joints in Rigid Multibody Systems,” *Nonlinear Dynamics*, Paper No. NODY465, Vol. 56, No. 3, pp. 277-295, 2009.
- Flores, P., Claro, J.C.P., Ambrosio, J., and Lankarani, H.M., **Kinematics and Dynamics of Multibody Systems with Imperfect Joints: Models and Case Studies**, Scientific Book, Springer Verlag book series in Applied and Computational Mechanics, 169p, 2008.
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- Flores, P., Ambrosio, J., and Claro, J.C.P., Lankarani, H.M., “Dynamic Behavior of Planar Rigid Multibody Systems Including Revolute Joints with Clearance,” *International Journal of Multi-body Dynamics*, IMechE, Part K, Vol. 221, No. 2, pp. 161-174, June 2007.
- Flores, P., Ambrosio, J., and Claro, J.C.P., Lankarani, H.M., “Influence of the Contact-Impact Force Model on the Dynamic Response of Multibody Systems,” *International Journal of Multi-body Dynamics*, IMechE, Part K, Vol. 222, No. 1, pp. 21-34, 2006.
- McCoy, M.L., and Lankarani, H.M., “Determination of Crush Stiffness Coefficients of a Typical Aftermarket Frontal Protective Guard Used in Light Trucks and Vans with Comparisons of Guard Stiffness to Frontal Vehicle Crush Coefficients,” *Journal of Automobile Engineering*, IMech E, Vol. 220, Part D, pp. 1073-1084, 2006.
- Flores, P., Ambrosio, J., and Claro, J.C.P., and Lankarani, H.M., “Dynamics of Multibody Systems with Spherical Clearance Joints,” *ASME Journal of Computational and Nonlinear Dynamics*, Vol. 1, Issue 3, pp. 240-247, July 2006.
- Beheshti, H.K., and Lankarani, H.M., “A Simplified Test Methodology for Crashworthiness Evaluation of Aircraft Seat Cushions,” *International Journal of Crashworthiness*, Vol. 11, No. 1, pp. 27-35, 2006.
- Flores, P., Ambrosio, J., Claro, J.C.P., Lankarani, H.M., and Koshy, C.S., “A Study on Dynamics of Mechanical Systems Including Joints with Clearance and Lubrication,” *Journal of Mechanism and Machine Theory*, Vol. 41, No. 3, pp. 247-261, March 2006.
- Flores, P., Ambrosio, J., and Claro, J.C.P., Lankarani, H.M., “Spatial Revolute Joints with Clearance for Dynamic Analysis of Multibody Systems,” *International Journal of Multi-body Dynamics*, IMechE, Part K, Paper No. JMBD70, Vol. 220, No. 4, pp. 257-271, 2006.
- Alshaer, B.J., Nagarajan, H., Beheshti, H.K., Shivaswamy, S., and Lankarani, H.M., “Dynamics of a Multibody Mechanical System with Lubricated Long Journal Bearings,” *ASME Journal of Mechanical Design*, Vol. 127, pp. 493-498, May 2005.
- Nagarajan, H., McCoy, M., Lankarani, H.M., “Design of HIC-Compliant Aircraft Bulkheads and Cabin Class Divider Panels,” *International Journal of Crashworthiness*, Vol. 10, No. 5, pp. 525-534, 2005.
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- Randhawa, H.S, and Lankarani, H.M., "Finite Element Analysis of Impacts on Water and Its Application to Helicopter Water Landing and Occupant Safety," *International Journal of Crashworthiness*, Vol. 8, No. 2, pp. 189-200, 2003 (top 3 most read article in this journal).
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- Adams, A., and Lankarani, H.M., "A Modern Aerospace Modeling Approach for Evaluation of Aircraft Fuselage Crashworthiness," *International Journal of Crashworthiness*, Vol.8, No. 4, pp.401-413, 2003 (top 5 most ever cited article in this journal).
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- Lankarani, H.M., "Aircraft Crashworthiness and Occupant Protection," Chapter 16 in the book, **Impact with Friction of Solids, Structures and Machines**, A. Guran (Ed.), Birkhauser, Boston, 2003.
- Ramalingam, V.K., and Lankarani, H.M., "Analysis of Impact on Soft Soil and Its Application to Aircraft Crashworthiness," *International Journal of Crashworthiness*, Vol. 7, No. 1, pp. 57-66, 2002.
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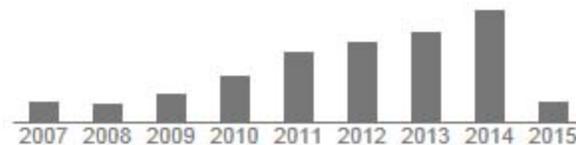
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- Rustman, Kistopher M., "Modeling and Simulation Validation of Aircraft Mechanical Flight Control Systems Utilizing Flight Test Data," Masters Project, Wichita State University, October 2014. Current Employer: Bombardier/Learjet, Wichita, Kansas.
- Vangara, Keshava Kumar, "Dynamics of Hybrid II and FAA Hybrid III ATDs on an Aircraft Rigid Seat with and without Seat Cushion under FAR Part 25 Combined Vertical-Horizontal Impact Conditions," Masters Project, Wichita State University, May 2014. Current Employer: Ford Motor Co., Dearborn, Michigan.
- Cao, Christopher, "Kinematic and Dynamic Analysis of a Jansen-Type Multibody Walking Linkage System," Masters Project, Wichita State University, May 2014. Current Employer: Spirit Aerosystems, Wichita, Kansas.
- Nguyen, Chris Quoc, "Design and Analysis of a Hydraulic Scissors Lift Transferring Table for CNC Machines," Masters Project, Wichita State University, May 2014. Current Employer: Boeing Aircraft Co., Oklahoma City, Oklahoma.
- Le, Vu Chi, "Design Modification and Analysis of a Coconut De-Shelling Machine from Coconut Husk," Masters Project, Wichita State University, May 2014. Current Employer: Spirit Aerosystems, Wichita, Kansas.
- Debele, Zelalem, "Finite Element Modeling and Simulations of Uncontained Engine Failure Debris Impact on an Aircraft Fuselage Skin Using LS-DYNA," Masters Project, Wichita State University, May 2014. Current Employer: Boeing Aircraft Co., Wichita, Kansas.
- Gorijala, Sunil Kumar, "Estimation of Driver Fatality and Overall Safety Rating based on Vehicle Intrusions in Truck Under-ride Collisions," Masters Project, Wichita State University, May 2014.
- Tay, Yi Yang, "New Techniques and Applications in Energy-Absorbing Cellular Materials, Airbag Pre-Deployment, Injury Prediction to Out-of-Position Occupants, and Estimation of Deriver Fatality Ratio, for Enhancing Passive Safety of Road Vehicle in Side impact

- Accidents,” Masters Thesis, Wichita State University, May 2014. Current Employer: Tass Americas, Lavonia, Michigan.
- Herring, Jennifer, M., “Modeling of the Crank-train and Analysis of the Effects of Connecting Rod Vibrations on the Overall Performance of Otto Cycle Engines,” Masters Thesis, Wichita State University, May 2014.
- Siddalingaiah, Deepa, “Study of Response Parameters for the Hybrid II and the FAA Hybrid III ATDs on an Aircraft Rigid Seat under FAR Part 23 Dynamics Test Conditions for Passengers,” Masters Project, Wichita State University, April 2014. Current Employer: PAC Seating System, Palm City, Florida.
- Pakki Reddy, Sree Chukradhar E., “Finite Element Crash Analysis of a Transport Vehicle and Prediction of Potential Occupant Injuries,” Masters Project, Wichita State University, December 2013. Current Employer: PAC Seating System, Palm City, Florida.
- Koneru, Lakshmi V.S. Praneeth, “Prediction of Accident Severity and Driver Fatality Ratios in Side Impact Accidents for Different Target and Bullet Cars Based on Computational Modeling of FMVSS 214 and US-NCAP Test Conditions,” Masters Thesis, Wichita State University, December 2013. Current Employer: PAC Seating System, Palm City, Florida.
- Wollenberg, Jamie L., “Design And Analysis of a Ball Joint Drive Assembly for Leveling Applications,” Masters Project, Wichita State University, November 2013. Current Employer: Bradbury Group, Moundridge, Kansas.
- Weragoda, Thimuthu V., “Finite Element Analysis and Comparison of the Structural Integrity and Occupant Protection of an Older and a Late Model Year Compact Sedan per Current and Pre-2007 FMVSS 214 MDB and Pole Side Impact Test Requirements,” Masters Project, Wichita State University, November 2013. Current Employer: Viega, McPherson, Kansas.
- Xu, Liang, “A Generic Bayesian Approach Using Laplace Approximation for Model-Based Failure Prognosis,” Masters Thesis, Wichita State University, August 2013. Current Employer: SpectraQuest, Inc., Richmond, Virginia.
- Gupta, Naman, “Head Impact Evaluation onto Conventional Tempered Glass and Laminated Glass Car Windows in Side Impact and Rollover Accidents,” Masters Thesis, Wichita State University, August 2013. Current Employer: Gulfstream, Savannah, Georgia.
- Wagner, James, “A Hybrid Finite Element Analysis of Shot-Peen Contour Forming using Residual Stress Measurement,” Masters Thesis, Wichita State University, May 2013. Current Employer: Spirit Aerosystems, Wichita, Kansas.
- Parvatikar, Prasanna, K., “Dynamics and Safety Assessment of a Truck Impact onto Various Types of Roadside Concrete Barriers on Curved Roads,” Masters Thesis, Wichita State University, May 2013. Current Employer: B/E Aerospace, Tucson, Arizona.
- Zhang, Zhenhua, “A Design-Of-Experiment and Kriging-based Model for Studying the Dynamics of Multibody Mechanical Systems with Revolute Clearance Joints,” Masters Thesis, Wichita State University, May 2013. Current Employer: Tianjin Industries, China.
- Jayarathne, Madhuka, M., “Behavior of Ball Bearings under External Eccentric Loading Conditions in Vertical Small HVAC Condenser Motors,” Masters Project, Wichita State University, May 2013. Current Employer: Johnson Controls, Wichita, Kansas.
- Papa, Ashalatha, “Estimation of Aggressivity and Driver Fatality Ration for Side Impact Crashes,” Masters Project, Wichita State University, March 2013. Current Employer: Altair Engineering, Detroit, Michigan.
- Liang, Qilin, “Thermal Characterization Study in Friction Stir Welding,” Masters Project, Wichita State University, November 2012. Current Employer: InSeat Solutions. LLC, Wichita, Kansa.
- Malli, Anush Kumar, “Performance Evaluation of Thin Walled Tube Filled with Nano-Based

- Polyurethane Rigid Foam for Increased Roof Strength of a Car,” Masters Thesis, Wichita State University, June 2012. Current Employer: General Motors, Detroit, Michigan.
- Kostov, Ivaylo, P., “Outdoor Air Moving Parametric Study Using CFD Modeling,” Masters Project, Wichita State University, May 2012. Current Employer: Johnson Control, Wichita, Kansas.
- Chen, Xi, “Design of an Improved Pitch and Roll Fixture for Aircraft Seats Dynamic Certification Testing,” Masters Project, Wichita State University, May 2012. Current Status: PhD student at Kansas State University, Manhattan, Kansas.
- Sabbani, Shraavan Kumar, “Design and Evaluation of a Truck Rear Under-ride Guard for Improved Offset Rear Impact Protection,” Masters Project, Wichita State University, May 2012. Current Employer: Ford Motor Company, Dearborn, Michigan.
- Kantharaju, Harsha, “Analysis of Fiber Waviness in Laminated Composites Subjected to Compressive Loads,” Masters Thesis, Wichita State University, May 2012. Current Employer: Cessna Aircraft Co., Wichita, Kansas.
- Fernandes, Roshan, “Modeling a Fully Immersive Virtual Environment of an Aircraft Cockpit from CAD Data,” Masters Project, Wichita State University, May 2012. Current Employer: Hawker Beechcraft, Wichita, Kansas.
- Seetamsetti, Arun Santosh, “Comparison of Lagrangian, ALE and SPH Methods for Modeling Impact on Water and Soft Soil and Application to Airframe Impact Crashes,” Masters Thesis, Wichita State University, December 2011. Current Employer: CNH Technologies, Chicago, Illinois.
- Kammane Nadiminti, Satya Chetan, “A Computational Finite-Element-Based Method for the Prediction of Driver Fatality Ratio in Automobile Frontal Offset Collisions,” Masters Project, Wichita State University, December 2011. Current Employer: Ford Motor Company, Dearborn, Michigan.
- Donga, Amarnath, “Application of Sandwich Beam in Automobile Front Bumper for Frontal Crash Analysis,” Masters Thesis, Wichita State University, November 2011. Current Employer: Gulfstream Aerospace, Savannah, Georgia.
- Jawed, Nadia, “Finite Element Modeling of Riveted Lap Joints,” Masters Project, Wichita State University, August 2011. Current Employer: Bombardier/Learjet, Wichita, Kansas.
- Vinnakota, Lakshman, “Parametric Study of Stress Concentration in Single and Double Bolted Lap Joints between Adhesive Bonded Aluminum Laminates,” Masters Thesis, Wichita State University, June 2011. Current Employer: John Deere, Dubuque, Iowa.
- Gomez-Valbuena, Luis Manuel, “Analysis of Passenger Safety for those on Side-facing Seats in Light Rail Vehicle,” Masters Thesis, Wichita State University, July 2011. Current Employer: National Institute for Aviation Research, Wichita State University, Wichita, Kansas.
- Huculak, Robert D., “Evaluation of Spatial Orientations and Positions Using Accelerometers and Angular Rate Sensors in Dynamic Impact Testing,” Masters Thesis, Wichita State University, June 2011. Current Employer: Impact Dynamic Laboratory (Manager), National Institute for Aviation Research, Wichita State University, Wichita, Kansas.
- Thota, Srilatha, “Determination of the Head Injury Potential for a Pedestrian Struck by a Small Car with a Deployed External Airbag on the Windshield,” Masters Project, Wichita State University, May 2011. Employer: 3Core Systems Inc., Louisville, Kentucky.
- Vemuri, Lavanya, “Computational Analysis of Vehicle Occupants Dynamic Response in Side Impact Accidents with Tempered Glass in Windows Replaced by of Laminated-Glazing,” Masters Thesis, Wichita State University, May 2011. Current Employer: Ford Motor Company, Detroit, Michigan.
- Tankara, Damodar, “Study of Energy Absorption Characteristics of Thin Walled Tube Filled with

- Carbon Nano-Polyurethane Foams,” Masters Thesis, Wichita State University, May 2011. Current Employer: CMS Energy, Jackson, Michigan.
- Dye, John, “Development and Application of Computational Dynamic and Kinematic Constrained Multi-body Systems Simulations in MATLAB,” Masters Thesis, Wichita State University, May 2011. Current Employer: Spirit Aerosystems, Wichita, Kansas.
- Handyside, Alan Bruce, “Development of a Dual Function Fixture for Dynamic Testing of Vehicle Bumper/Crash Box Utilizing Friction Stir Welding,” Masters Thesis, Wichita State University, April 2011. Current Employer: Advanced Joining Laboratory, College of Engineering, Wichita State University, Wichita, Kansas.
- Gudimani, Gurusiddeshwar, “Oblique Machining of Unidirectional Carbon Fiber Reinforced Polymer Composites,” (co-advised with Dr. Bahr), Masters Thesis, Wichita State University, April 2011. Current Employer: Kanchi Technologies, Milwaukee, Wisconsin.
- Malepolla, Abhinav Reddy, “Lagrangian, ALE, and SPH Modeling Methods for the Simulations of Ballistic Impact on Metal and Composite Plates,” Masters Project, Wichita State University, January 2011. Current Employer: PAC Seating Systems, Palm City, Florida.
- Setpally, Rajarshi, “Estimation of Driver Fatality ratio Using Computational Modeling and Objective Measures based on Vehicle Intrusion Ratio in Head-on Collisions,” Masters Thesis, Wichita State University, November 2010. (Also to be published in: LAP Lambert Academic Publishing). Current Status: PhD Student in Mechanical Engineering, Wichita State University, Wichita, Kansas. Current Employer: Bosch, Stuttgart, Germany.
- Subba Rao, Vinay Sagar, “Evaluation of Mechanical Properties of Laminated Composites Using Multi-Continuum Theory in ABAQUS,” Masters Thesis, Wichita State University, November 2010. Current Employer: QuEST Global Services, Bristol, England.
- Srinivasa, Ashwin, “Immersive Interaction of a Virtual Airplane Assembly – Fuselage and Cockpit,” Masters Project, Wichita State University, October 2010. Current Employer: Jacobsen & Ransomes, Charlotte, North Carolina.
- Bijju, Manikanta, “Failure Analysis of Self-Piercing Riveted Joint under Different Loading Conditions Using Finite Element Method,” Masters Thesis, Wichita State University, September 2010 (Also to be published in: LAP Lambert Academic Publishing). Current Employer: Ricaro Aircraft Co., Dallas, Texas.
- Dhole, Nilesh, “Development and Validation of a Model for a Transport Aircraft Seat under Part 25.562 Dynamic Test Conditions,” Masters Thesis, Wichita State University, April 2010 (Also to be published in: LAP Lambert Academic Publishing). Current Status: Crash Research Engineer, National Institute for Aviation Research, Wichita State University, Wichita, Kansas.
- Baratzadeh, Farzad, “An Investigation into Methods to Increase the Fatigue Life of Friction Stir Welds,” Masters Thesis, Wichita State University, March 2010, (PhD, May 2014). Current Employer: Collins Automotive, Hutchinson, Kansas.
- Konde, Viraj, “Virtual Business Jet Interior: Design, Development and Certification by Analysis,” Masters Project, Wichita State University, February 2010. Current Employer: Gulfstream, Savannah, Georgia.
- Walvekar, Vinayak, “Bird Strike Analysis on the Leading Edge of Aircraft Wing Using Smooth-Particle-Hydrodynamic Bird Modeling,” Masters Thesis, Wichita State University, February 2010. Current Employer: Engineering Solutions, Troy, Michigan.
- Oliva-Perez, Oriol, “Evaluation of the FAA Hybrid III 50th Percentile Anthropomorphic Test Dummy Under the FAR 23.562 and FAR 25.562 Emergency Landing Conditions for Combined Horizontal-Vertical Dynamic Loading,” Masters Thesis, Wichita State University, January 2010 (Also to be published in: LAP Lambert Academic Publishing).

Current Status: Certification Engineer, PAC Seating Systems, Palm City, Florida.

Umstead, Christopher, "Examination of Lateral Deviation of a Projectile Subjected to Internal Gyroscopic Forces," Masters Thesis, Wichita State University, November 2009. Current Status: PhD Student, University of Texas at Austin, Austin, Texas.

Reuter, Kimberly M., "A Finite Element Model to Study the Effect of Rotational Direction and Holes on the Torsional Fracture Strength off the Human Tibia," Masters Thesis, Wichita State University, December 2009. Current Employer: National Center of Innovation for Biomaterials in Orthopaedic Research, Wichita State University, Wichita, Kansas.

Devshatwar, Ganesh R., "Modeling and Analysis of an Inflatable Lap Belt Airbag Restraint System for Crash Protection of Mass Transit Bus Operators," Masters Thesis, Wichita State University, October 2009. Current Employer: Cessna Aircraft Co., Bangalore, India.

Ramaprasad, Pradeep, "Finite Element Modeling and Analysis of Cold Ring Rolling," Masters Thesis, Wichita State University, December 2008.

Sundararajan, Arun Karthik, "Numerical Investigation of Spring Back Prediction in Slit Ring Test," Masters Project, Wichita State University, December 2008. Current Employer: Mtech Group, Piscataway, New Jersey.

Krishna Chowdary, Prathi C., "Human Head-Neck Injury Assessment Using Multibody Modeling," Masters Project, Wichita State University, December 2008. Current Status: PhD Student, California State University.

Charku, Rakesh Reddy, "Numerical Investigation of Hydro-forming and Sheet Panels," Masters Project, Wichita State University, December 2008. Current Employer: PAC Seating Systems, Palm City, Florida.

Krishnappa, Umashankar, "Numerical Investigation of Self-Piercing Riveted Dual Layer Joint," Masters Thesis, Wichita State University, November 2008. Current Employer: Standard Register, Dayton, Ohio.

Bhagavathula, Kapeesh, "Protection of Occupants in Side Impact Crashes with an Inflatable Upper Torso Belt Restraint System," Masters Thesis, Wichita State University, October 2008. Current Employer: Caterpillar, Peoria, Illinois.

Virginia, Mark, "Crashworthiness of a Pre-NCAP Safety Standard Light Truck and Corresponding Suspension Analysis," Masters Thesis, Wichita State University, September 2008. Current Employer: Altair, Wichita, Kansas.

Paneeru, Niranjana Kumar, "Estimation of Surface Roughness and Modulus Degradation Due to Damage Caused by Nano-indentation," Masters Thesis, Wichita State University, September 2008. Current Employer: Caterpillar, Peoria, Illinois.

Balwan, Nishant K., "Implementation and Evaluation of Automotive Child Restraint Systems in Mass Transit Buses," Masters Thesis, Wichita State University, August 2008. Current Employer: Humanetics Innovative Solutions (FTSS), Plymouth, Michigan.

Mittur-Narayana, Mohan, "Bearing Response Test for the Polymer Matrix Composite Laminates: Optimization of Displacement Gage Position," Masters Thesis, Wichita State University, March 2008. Current Employer: Capstone MicroTurbines, Los Angeles, California.

Foster, Brian, "Design of a Stroking Aircraft Seat," Masters Project, Wichita State University, December 2007. Current Employer: Cessna Aircraft Co., Wichita, Kansas. Current Employer: Cessna Aircraft Co., Wichita, Kansas.

Ramamurthy, Shashikumar, "Kinematic Analysis of a Motorcycle and Rider Impact on a Concrete Barrier under Different Impact and Road Conditions," Masters Thesis, Wichita State University, December 2007. Current Employer: Caterpillar, Decatur, Illinois. Current Status: PhD Student, Wichita State University.

Chelluru, Sai Kiran, "Finite Element Simulations of Ballistic Impact on Metal and Composite

- Plates,” Masters Thesis, Wichita State University, December 2007. Current Employer: Bharath Earth Movers Limited, Hyderabad, India.
- Gowda, Arun, K.S., “Safety Evaluation of Standing and Seated Passengers in Real-life Crash Scenarios of Mass Transit Buses,” Masters Project, Wichita State University, December 2007. Current Employer and Position: HAECO Cabin Solutions (Certification Manager – Seating), Winston-Salem, North Carolina.
- Pendse, Nachiket, “Crash Safety Assessment of Bus Operators in Mass Transit Buses,” Masters Thesis, Wichita State University, November 2007. Current Employer: TASS Americas, Lavonia, Michigan.
- Jadhav, Yuvraj, “Crashworthiness of Wheel-Chaired Occupants with Restraint System for Real-life Crash Scenarios of Mass Transit Buses,” Masters Thesis, Wichita State University, November 2007. Current Employer: Key Safety, Detroit, Michigan.
- Thokade, Sujeet, S. “Evaluation of Passenger Safety in Real-life Crash Scenarios of Mass Transit Buses,” Masters Thesis, Wichita State University, September 2007. Current Employer: Dorel Juvenile Group, Columbus, Indianan.
- Patel, Dhruv, V., “Study of Rear Impact in Light Trucks and Corresponding Occupant Neck Injuries,” Masters Thesis, Wichita State University, April 2007. Current Employer: Satyam Service PVT (for Dassault Falcon Jet), Little Rock, Arkansas.
- Ganji, Nagesh, “Parametric Study of Load Transfer in Two-Bolted Single Lap Hybrid (Bonded/Bolted) Shear Joints,” Masters Thesis, Wichita State University, March 2007.
- Seram, Sai Bhargavi, (Co-advised with Dr. K. Soschinske), “Use of SPH and Lagrangian Meshing Techniques to Assess Damage Area in Bumper Shields Impacted by Hypervelocity Space Debris,” Masters Thesis, Wichita State University, March 2007. Current Employer: Satyam Service PVT (for Dassault Falcon Jet), Fayetteville, Arkansas.
- Narkhede, Sachin Narayan, “Analysis of Pedestrian Collision with a Pickup Truck,” Masters Thesis, Wichita State University, March 2007. Current Employer: Tata Automotive, India.
- Reddy, Santosh, “Modeling and Analysis of a Composite B-Pillar for Side-Impact Protection of Occupants in a Sedan,” Masters Thesis, Wichita State University, February 2007. Current Employer: Case New Holland, Wichita, Kansas.
- Chatbai, Ashokanand, “Parametric Study of Energy Absorption Characteristics of an Aluminum Tube Wrapped with E-Glass/Epoxy,” Masters Thesis, Wichita State University, January 2007. Current Employer: Airbus, Wichita, Kansas.
- Siruvole, Sandeep, K., “Evaluation of the Occupant Response and Structural Damage According to the Newly Proposed Federal Motor Vehicle Safety Standards for Side Impact Regulation,” Masters Thesis, Wichita State University, January 2007. Current Employer: TASS Americas, Bangalore India.
- Dhillon, Kyle, “Simulations of Potential Injuries to a Passenger due to a Fall Event at the Aircraft Entry Door and Design Modifications to the Current Systems,” Masters Thesis, Wichita State University, January 2007. Current Employer: Boeing Aircraft Co., Seattle, Washington.
- Bodapati, Venkata, K.K., “Evaluation of Energy Absorbing Pliers Under-ride Guards for Rear and Side of Large Trucks,” Masters Thesis, Wichita State University, December 2006. Current Employer: Butler International at Caterpillar, Peoria, Illinois.
- Prabhu, Ghanashyam, “Parametric Study of Head Paths and HIC Data for Aircraft Seat and Cabin Interior Certification,” Masters Thesis, Wichita State University, December 2006. (Also published in: LAP Lambert Academic Publishing, June 2010, ISBN: 3838355571). Current Employer: B/E Aerospace, Everett, Washington.
- Katepalli, Nagababu, “Parametric Study of Stress Concentration in Bolted Lap Joints between

Particulate Metal Matrix Composite Materials,” Masters Thesis, Wichita State University, December 2006. Current Employer: Dynastrosi Corporation, Layton, Utah.

Ramakrishnapillai, Govind, “Response of Adhesively Bonded Composite Joints to Low Velocity Impact,” Masters Thesis, Wichita State University, November 2006. Current Employer: National Institute for Aviation Research, Wichita State University, Wichita, Kansas.

Deshpande, Amit A., “Certification by Analysis -- Effect of Seat belt Modeling Techniques on the Simulation of the Crash Dynamics and Expected Injury Criteria for a Hybrid III 50th Percentile FAA Dummy,” Masters Thesis, Wichita State University, October 2006. Current Employer: Amsafe, Inc., Kent, Washington.

Singh, Kulvinder, “Comparison of Hypervelocity Impact of Space Debris on Aluminum and Composite Panels Used as Whipple Shield on Spacecraft,” Masters Project, Wichita State University, October 2006. Current Employer: Bombardier/Learjet, Wichita, Kansas.

Joshi, Aditya U., “Finite Element Modeling of a Low-Floor Mass Transit Bus and Analysis of Frontal Impact Scenarios,” Masters Thesis, Wichita State University, September 2006. Current Employer: Altair Engineering, Detroit, Michigan.

Deshmukh, Pankaj S., “Rollover and Roof Crush Analysis of a Low-Floor Mass Transit Bus and Analysis of Frontal Impact Scenarios,” Masters Thesis, Wichita State University, September 2006. Current Employer: TASS Corporation, Detroit, Michigan.

Kumbhar, Sachin S., “Development of Finite Element Model and Analysis of Rear-Impact Scenarios for a Low-Floor Mass Transit Bus,” Masters Thesis, Wichita State University, August 2006. Current Employer: Altair Engineering, Detroit, Michigan.

Patil, Ashutosh, “Modeling and Analysis of Child Safety Seat and Restraint System for Aerospace Applications,” Masters Thesis, Wichita State University, August 2006. Current Employer: BETA CAE Systems, Detroit, Michigan.

Yadav, Vikas T., “Finite Element Modeling and Side Impact Study of Low-Floor Mass Transit Bus,” Masters Thesis, Wichita State University, August 2006. Current Employer: Bombardier Aerospace – Learjet, Wichita, Kansas.

Deshpande, Anand, “Characterization of CFRP and GFRP Composite Materials at High Strain Rate Tensile Loading,” Masters Thesis, Wichita State University, August 2006. Current Employer: Cessna Aircraft Co., Bangalore, India, Wichita, Kansas.

Shenoy, Sudhir S., “Energy Absorption of a Car Roof Reinforced with a Stiffened Composite Panel in the Event of a Rollover,” Masters Thesis, Wichita State University, May 2006. Current Employer: Butler International, Decatur, Illinois.

Shetty, Sandeep, “Finite Element Modeling and Energy Absorption Characteristics of a Hybrid Structure - Composite Wrapped on a Square Metal Tube,” Masters Thesis, Wichita State University, May 2006. Current Employer: Cummins, Team Lead, Columbus, Indiana.

Venkateshappa, Harish, “Analysis of Bulkhead Honeycomb Core Properties under Different Parametric Conditions for the Head Injury Criteria Compliance in Aerospace Applications,” Masters Thesis, Wichita State University, May 2006. Current Employer: Apple Computers, Cupertino, California.

Kagi, Bahubali C., “Study of the Response of Fiber-reinforced Polymeric Composite Beam Under Dynamic Loading and Hygrothermal Environment,” Masters Thesis, Wichita State University, May 2006. Current Employer: Oracle, Chicago, Illinois.

Pai, Krishna, “Modeling of Rollover Protective Structure and Falling Object Protective Structure Tests on a Composite Cab for Skid Steer Loaders,” Masters Thesis, Wichita State University, April 2006. Current Employer: Caterpillar, Decatur, Illinois.

Bhamare, Vinay V., “Transverse Impact Characteristics of Adhesively Bonded Composite Single Lap Joint,” Masters Thesis, Wichita State University, April 2006. Current Employer: Caterpillar, Decatur, Illinois.

Bangalore, Krishnaprasad, "Protective Bollard Design for High Speed Impact Energy Absorption," Masters Thesis, Wichita State University, April 2006. Current Employer: Caterpillar, Decatur, Illinois.

Honnagangaiah, Kumar, "Modeling and Analysis of a Car Composite Front Sub-frame Rails and Its Corresponding Occupant Injuries in a Crash," Masters Thesis, Wichita State University, March 2006. Current Employer: Ricaro Seating Americas, Fort Worth, Texas.

Sheshadri, Ashwin, "Design of Composite Polymer Tubes and Frames for Improved Side Impact Protection," Masters Thesis, Wichita State University, February 2006. Current Employer: Ricaro Seating Americas, Fort Worth, Texas.

Deo, Anirudha P., "A Reverse Engineering Approach for Development and Validation of a Belt-Positioning Booster Child Seat Model," Masters Thesis, Wichita State University, December 2005. Current Employer: Cessna Aircraft Co., Wichita, Kansas.

Krishnamurthy, Vikram, "A CAE-Based Study on Reduction of Crash Aggressivity of Pickup Trucks," Masters Thesis, Wichita State University, December 2005. Current Employer: B/E Aerospace, Tucson, Arizona.

Mariyanna, Vivek, "Energy-Absorption Mechanisms in Corrugated Sandwich Panels," Masters Thesis, Wichita State University, October 2005. Current Employer: Goodrich Aerospace, San Diego, California.

Marudhamautha, Karthikeyan, "Analysis of 3+2 Point Belt System and Occupant Responses in a Dolly Rollover Crash of a Pick-Up Truck," Masters Thesis, Wichita State University, September 2005. Current Employer: General Motors, Troy, Michigan.

Basavaraju, Divaker, "Analysis of Composite Beams for Side Impact Protection," Masters Thesis, Wichita State University, October 2005. Current Employer: AAR Cargo Systems, Livonia, Michigan.

Tasneem, Nazia, "Parametric Analysis of Split Hopkinson Pressure Bar Apparatus for Testing Composite Materials," Masters Thesis, Wichita State University, November 2005. Current Employer: Truth Hardware Design, Minneapolis, Minnesota.

Hassan, Mohamad Amer, "Comparison of the Structural Damage and Occupant Injuries Corresponding to a Vehicle Collision Onto a Pole Versus a Flat Barrier," Masters Thesis, Wichita State University, October 2005. Current Employer: J.B. Dwerlkotte, Inc., Wichita, Kansas.

Nagendra, Sriranga, "Calibration of an ACPD Crack Growth Measurement System for Short Cracks in Aluminum Alloys," Masters Thesis, Wichita State University, July 2005. Current Employer: Nordam Group (Repair Division), Tulsa, Oklahoma.

Mangamuri, Chiranjivi, "Dynamic Behavior of the Composite Beams Subjected to a moving Load with a Constant Velocity," Masters Thesis, Wichita State University, November 2005. Current Employer: Caterpillar, Peoria, Illinois.

Deshpande, Avinash P., "Finite Element Study of the Energy Absorption in Corrugated Beams." Masters Thesis, Wichita State University, November 2005. Current Employer: Caterpillar, Decatur, Illinois.

Singh, Vivek, "Effectiveness of Negative G-Strap in Reducing the Belt Submarining for Five Point Restraint System," Masters Thesis, Wichita State University, May 2005.

Satheesh, Balu, "Development, Validation and Fabrication of an Innovative Stabilization System Augmented in an Attitude Indicator Gyroscope," Masters Thesis, Wichita State University, May 2005. Current Employer: BE Aerospace Corp., Rockford, Illinois.

Reka, Linga Raju, "Development of a Sliding Seat to Prevent Whiplash Injury in Rear-End Collision," Masters Thesis, Wichita State University, May 2005. Current Employer: Cummins, Automotive Application Engineer, Columbus, Indiana.

Paraman, Nalluswamy, "Quality and Process Improvement through Manufacturing and

- Technology Advancement,” Masters Project, Wichita State University, May 2005. Current Employer: Hoff Welding Products, Denton, Texas.
- Korrapati, Padmaja, “Comparison of a Hybrid III Standing Dummy and a Human Pedestrian Model Kinematics in Vehicle-Pedestrian Collisions,” Masters Thesis, Wichita State University, March 2005. Current Employer: Butler International, Aurora, Illinois.
- Devireddy, Kiran, “Performance of a Child Restraint Using the Latch System in Full-Frontal and Offset-Frontal Impacts,” Masters Thesis, Wichita State University, March 2005. Current Employer: Data Warehousing, New Jersey.
- Nelluri, Kranthi, “Kinematic Analysis of a Motorcyclist with and without a Tank-Mounted Airbag in Passenger Car Collision Environment,” Masters Thesis, Wichita State University, December 2004. Current Employer: Entegee Corp., Dubuque, Iowa.
- Nekkadapu, Naresh, “Biofidelity of Human Body Models and Comparison to Dummy Models in Side Impact Crash Scenarios,” Masters Thesis, Wichita State University, December 2004. Current Employer: Cummins, Product Validation Group Lead, Columbus, Indiana.
- Bannur-Nagaraj, M., “Design and Analysis of a New Energy-Absorbing Pliers-Guard for Heavy Truck Under-ride Impacts,” Masters Thesis Wichita State University, December 2004. Current Employer: Caterpillar, Peoria, Illinois.
- Sahare, Lalit-kumar, “Flexible Chassis and Seat Mechanism for Frontal Impact Protection,” Masters Thesis Wichita State University, December 2004. Current Employer: Nissan Corporation, Detroit, Michigan.
- Kanetkar, Gunesh, “A Methodology for Carrying Out Real-World Rollover Simulations and Occupant Safety Evaluation in J-Turn, Fishhook, and Ditch Rollovers,” Masters Thesis, Wichita State University, December 2004. Current Employer: TASS Americas, Livonia, Michigan.
- Sripuram, Vasudha, “Effect of Various Parameters on the Biomechanics of Cervical Spine in Rear-End Collisions.” Masters Thesis, Wichita State University, November 2004. Current Employer: El Paso, Texas.
- Gopal Rao, Sudhi B., “Contours of Head Injury Criteria for Impacts on Various Aircraft Bulkheads,” Masters Thesis, Wichita State University, December 2004. Current Position and Employer: Senior Research and Development Engineer, Fountainhead Groups, New York.
- Siruvole, Satish, “Studying the Effectiveness of External Airbag as a Safety Device in Side Impact protection,” Masters Thesis, Wichita State University, November 2004. Current Employer: TASS Americas, Livonia, Michigan.
- Maletz, Michael, “Comparative Analysis of Structural Crash Behavior and Corresponding Occupant Responses in Vehicle-To-Vehicle Impact Scenarios,” Master Thesis, Graz University of Technology, Co-advised with Professor Hermann Steffan, October 2004. Current Status: Assistant Professor of Production, Chalmers University, Sweden.
- Krishnaprasad, Sriram, “Performance Comparison Between Three- and Four-point Seatbelt Systems for Frontal and Side Impact Protection,” Masters Thesis, Wichita State University, August 2004. Current Employer: Textron Global Technology Center, Bangalore, India.
- Chinchani, Rohan, “Feasibility of the Use of an Extendable Bumper for Frontal Crash Protection,” Masters Thesis, Wichita State University, August 2004. Current Employer: Siemens Corporation, Bellefontaine, Ohio.
- Manikonda, Kiranchand C., “ISOFIX – An Alternative Approach for Misuse Reduction of Child Restraint Systems and Performance Enhancement,” Masters Thesis, Wichita State University, August 2004. Current Employer: B/E Aerospace, Miami, Florida.
- Athale, Nikhil, “Sensitivity Analysis of Pedestrian Collision for Small Size Family Car,” Masters

- Thesis, Wichita State University, August 2004. Current Employer: Electrolux North America, Webster City, Iowa.
- Mahalingam, Arun, "Nonlinear Finite Element Analysis of Vehicle Side Impact," Masters Thesis, Wichita State University, July 2004. Current Employer: Asystem-Airbus, Bangalore, India.
- Long, Teng-Fei, "Mechanical Joint Analysis and Control for Prosthetic Ankle Design," Masters Thesis, Wichita State University, May 2004.
- Brown, Tyler, "Analysis of Energy-Absorbing Seat Concepts," Masters Project, Wichita State University, April 2003. Current Employer: Wichita Technology Corporation, Wichita, Kansas.
- Joshi, Saurabh V., "Study of Static and Dynamic Roof Crush Resistance Tests (FMVSS-216) and Effect of Roof Crush on Head and Neck Injuries," Masters Thesis, Wichita State University, December 2003. Current Employer: Chrysler Corp., Detroit Michigan.
- Joshi, Rahul, "Effectiveness of Deployable Knee Bolsters for Frontal Crash Application," Masters Thesis, Wichita State University, November 2003. Current Employer: Velma Engineering, Detroit, Michigan.
- Le, Nguyet M., "Rudder Control System Issues for Commercial Airplanes," Masters Project, Wichita State University, November 2003. Current Employer: Aircraft Instrument Quality, Wichita, Kansas.
- Jagan, Brijesh, "Reconstruction of a Real World Rear-End Impact of a Typical Midsize Sedan and Corresponding Occupant Injuries," Masters Thesis, Wichita State University, May 2004. Current Employer: Gulfstream R&D, Savannah, Georgia.
- Prabhala, Venkat, "Pedestrian Protection - Feasibility of an Airbag System through Modeling," Masters Thesis, Wichita State University, December 2003. Current Employer: Holtec Industries, Marlton, New Jersey.
- Kendale, Anand, "Biofidelity of Human Body Models and Comparison to Dummy Models in Reconstruction of Frontal Crash Scenario," Masters Thesis, Wichita State University, January 2004. Current Employer: TNO Madymo North America, Detroit Michigan.
- Buthala, Kapil, "Reconstruction of Car-To-Car Rear End Impacts and Corresponding Injuries to the Occupants in the Target Vehicle," Masters Thesis, Wichita State University, December 2003. Current Employer: TNO Madymo North America, Detroit Michigan.
- Adiga, Vishwanath, "Numerical, Analytical and Experimental Methods to Predict Lumbar Load in the Event of an Aircraft Crash," Masters Thesis, Wichita State University, February 2004. Current Employer: Piper Aircraft, Tampa, Florida.
- Cheriyen, Sony Koshy, "Modification and Correlation of an Enhanced HIC Component Tester for Aerospace Crashworthiness Applications," Masters Thesis, Wichita State University, August 2003; PhD Dissertation, Wichita State University, May 2006. Current Employer: X-Ray Optical Systems, East Greenbush, New York.
- Amesar, Pankaj T., "Aggressiveness of a Consumer Frontal Protection Guard," Masters Thesis, Wichita State University, September 2003. Current Employer: Britex Child Safety Inc., Charlotte, North Carolina.
- Parekh, Kalpesh, "Rollover Analysis of Light Pickup Truck and Corresponding Occupant Responses in Various Rollover Scenarios," Masters Thesis, Wichita State University, August 2003. Current Employer: Behr Heat Transfer, Charleston, South Carolina.
- Chillamcharla, Prashant, "Analysis of Exterior Bumper Airbag and Corresponding Occupant Injuries in a Frontal Crash," Masters Thesis, Wichita State University, December 2003. Current Employer: Jet Aviation, St. Louis, Missouri.
- Tumarada, Raju P.G., "Design and Evaluation of Child Restraint Systems Using Latch in Forward-facing Upright Configuration," Masters Thesis, Wichita State University, June

2003. Current Employer: Gulfstream, Savannah, Georgia.
- Shewtanasantorn, D., "Mathematical Modeling and Parametric Study of Shimmy Effect for an Aircraft Nose Landing Gear System," Masters Thesis, Wichita State University, March 2003.
- Balasundaram, N.B., "Analysis of Neck Injury for Occupants in Side-facing Aircraft Seats," Masters Thesis, Wichita State University, May 2003. Current Employer: Gulfstream, Savannah, Georgia.
- Loh, Simon, "Comparison of Tubular Roof and Curtain Airbags for Side Impact Protection," Masters Thesis, Wichita State University, March 2003.
- Gottumukkala, Vijay R., "Study of Vehicle Aggressivity in Frontal Crash and Corresponding Occupant Injuries," Masters Thesis, Wichita State University, May 2003. Current Employer: B/E Aerospace, Tucson, Arizona.
- Vaddepati, Radhika, "Design Guidelines for HIC Compliant Aircraft Bulkheads," Masters Thesis, Wichita State University, May 2003. Current Employer: B/E Aerospace, Tucson, Arizona.
- Noor, Mohammad Shaik, "Crash Analysis of a Typical Pickup Truck under NCAP/IHHS Standards and Corresponding Occupant Responses," Masters Thesis, Wichita State University, October 2002. Current Employer: ESI Group/General Motors, Mumbai, India.
- Bhagavatula, Ramkamal, "Calibration and Validation of a Head Injury Criteria (HIC) Tester for Aluminum Sheet Panels," Masters Thesis, Wichita State University, July 2002. Current Status: PhD student in Petroleum Engineering, Texas Tech University.
- Gopalan, Sivaraman, "Parametric Study of Row-To-Row Head and Neck Injuries in Transport Aircraft," Masters Thesis, Wichita State University, October 2002. Current Employer: National Plastics Color, Inc., Valley Center, Kansas.
- Jategonkar, Rohit, "Modeling of Aircraft Fuselage Drop Test," Masters Thesis, Wichita State University, September 2002. Current Employer: Key Safety, Detroit Michigan.
- Ahmed, Ahasan F., "Parameters Affecting the Performance of Aircraft Seat Cushion," Masters Thesis, Wichita State University, November 2002. PhD, Ottawa University, 2010. Current Employer: Life Prediction Technologies, Inc., Ottawa, Canada.
- Ranganatha, Manjunath, "Analysis of Injury Potentials and Design Guidelines for Rear-End Automotive Crashes," Masters Thesis, Wichita State University, December 2002. Current Employer: ESI Group/General Motors, Mumbai, India.
- Tummala, Shirish, "Full-width and Offset Frontal Impact of a Ford Taurus and its Corresponding Occupant Injuries," Masters Thesis, Wichita State University, November 2001. Current Employer: Chrysler Automotive, Detroit Michigan.
- Adams, Alan, "Development of Development of a New Crashworthiness Evaluation Strategy for Advanced General Aviation and Transport Aircraft Seats," Masters Thesis (Aerospace Engineering), Wichita State University, July 2001; PhD Dissertation, Wichita State University, August 2002. Current Employer: Spirit Aerosystems, Wichita, Kansas.
- Balakrishnan, Harishankar, "Design of an Airbag for Aircraft Bulkhead HIC Applications," Masters Thesis, Wichita State University, September 2001. Current Employer: Cessna Aircraft Co., Wichita, Kansas.
- Ghati, Yogannad, "Testing and Validation of a Two Degree-of-freedom Component HIC Tester," Masters Thesis, Wichita State University, August 2001. Current Employer: University of Pennsylvania Children's Hospital, Philadelphia, Pennsylvania.
- Ansari, Mohammad Farooq, "Rollover Analysis of a Vehicle Model and Corresponding Occupant Injuries," Masters Thesis, Wichita State University, December 2001. Current Status: PhD student at George Washington University.

Nagarajarao, Manjunath S., "Analysis, Fabrication and Mode-I Calibration of the Component HIC Tester," Masters Thesis, Wichita State University, August 2001. Current Employer: Daimler/Chrysler, Detroit, Michigan.

Dhara, Somashekhar, "Development of a HIC Compliant Bulkhead," Masters Thesis, Wichita State University, August 2001. Current Employer: BE Aerospace (Manager), Miami, Florida.

Buchholz, Steve L., "The Freedom Earplug," Masters Project, Wichita State University, August 2001. Current Employer: Boeing Aircraft Co., Wichita, Kansas.

Jain, Prashant, "Design of Inflatable Seat Belts for Automotive Applications," Masters Thesis, Wichita State University, December 2001. Current Status: University of Pennsylvania Children's Hospital, Philadelphia, Pennsylvania.

Runghe, Atul P., "Analysis of Pedestrian Kinematics in a Vehicle Accident," Masters Thesis, Wichita State University, November 2001. Current Employer: Tata Technologies, Deputy Manager - India Engineering CAE, Pune, India.

Ramalingham, Visnu, "Analysis of Impact on Soft Soil and Its Application to Aircraft Crashworthiness," Masters Thesis, Wichita State University, May 2001, Current Employer: Ford Engineering Technology Services (Business Manager), India.

Aaron, Vinoj J., "Finite Element Analysis of Drop Test Equipment for Nose Landing Gear Configuration and Its Application to Aircraft Crashworthiness and Occupant Safety," Masters Thesis, Wichita State University, May 2001, (PhD, WSU 2005). Current Employer: Seagate Technologies, San Jose, California.

Randhawa, Hermanjit, "Finite Element Analysis of Impacts on Water and Its Application to Helicopter Water Landing and Occupant Safety," Masters Thesis, Wichita State University, May 2001. Current Employer: TNO Vehicle Safety Corp., Detroit, Michigan.

Chan, Keng F., "Performance Evaluation of Head Strike Test Rig and Head-Neck Impactor Using Biodynamic Modeling Software," Masters Thesis, Wichita State University, May 2001. Current Employer: Airbus, Wichita, Kansas.

Irde, Kiran, "Evaluation of Component HIC Testers Using Multibody and Finite Element Tools," Masters Thesis, Wichita State University, December 2000. Current Employer: ArmorWorks, Chandler, Arizona.

Pham, Hien L., "Design and Analysis of Aircraft Nose Gear Weight-On-Wheel Switch Actuator for Retrofitting," Masters Thesis, Wichita State University, August 2000. Current Employer: Bombardier/Learjet Aircraft Corporation, Wichita, Kansas.

Dumbala, Vijandhar, "Design Guidelines for Side-facing Aircraft Seats," Masters Thesis, Wichita State University, August 2000. Current Employer: TNO Vehicle Safety Corp., Detroit, Michigan.

Nagarajan, Harishankar, "Design of an Enhanced Component HIC Tester," Masters Thesis, Wichita State University, August 2000, (PhD 2008), Current Status: Space-X, Los Angeles, California.

Furtado, Roland, "Finite Element Analysis of Bird Strike on Aircraft Structures," Masters Thesis, Wichita State University, May 2000, Current Employer: Intier Corp., Detroit, Michigan.

White, Harold, "An Object-oriented Windows-based Environment for Kinematics Analysis of Mechanical Systems, Masters Thesis, Wichita State University, May 1999. Current Employer: Lockheed Martin Space Operations.

Kishore, P., "Modeling Responses of SID and EuroSID-1 Anthropomorphic Test Dummies on Side-facing Aircraft Seats," Masters Thesis, Wichita State University, May 1999. Current Employer: Honda R&D Americas, Raymond, Ohio.

Murthy, Ayyagiri, "Kinematics of Occupants on Side-facing Aircraft Seats Using SID and BioSID," Masters Thesis, Wichita State University, May 1999. Current Employer: Altair

- Engineering, Troy, Michigan.
- Mirza, Moinuddin G., "Parametric Study of Crashworthy Aircraft Bulkhead Designs," Masters Thesis, Wichita State University, December 1999. Current Employer: Daimler/Chrysler, Detroit, Michigan.
- Kuntesy, Harshad, "Design of Child Restraint Systems for Aircraft Environment," Masters Thesis, Wichita State University, August 1999. Current Employer: ESI (Pamcrash) – Lead Engineer, Blooming Hill, Michigan.
- Vo, Huy H., "Main Landing Gear Free-fall Control Module: A Cam Application in Aircraft Component Design and Analysis," Masters Thesis, Wichita State University, December 1999. Current Employer: Lockheed Martin Space Systems – Orion Structures project, New Orleans, Louisiana.
- Hijazi, Ala, "Knee-Joint Kinematics and Its Application in Prosthetic Limb Design," Masters Thesis, Wichita State University, December 1998. PhD Dissertation, Wichita State University, May 2003.
- Lepper, Steve, "Dynamic Analysis of a Vehicle Drop Test and the Response of its Occupants," Masters Project, Wichita State University, December 1998. Current Employer: Cessna Aircraft Co., Wichita, Kansas.
- Xia, Zhaoqun, "Structural Dynamics of a Vehicle Under-frame in a Rigid Barrier Collision," Masters Thesis, Wichita State University, December 1998. Current Employer: J.B. Dwerlkotte Associates, Inc., Wichita, Kansas.
- Zhang, Kai, "Optimization of an Automobile Side Impact Door Beams and Side Airbags," Masters Thesis, Wichita State University, December 1998. Current Employer: International Associates, Inc., Philadelphia, Pennsylvania.
- Siddiquie, Ikramullah, "Experimental Analysis of Impact with Friction in Open-loop Multibody Mechanical Systems," Masters Thesis, Wichita State University, December 1998. Current Employer: Apex Engineering, Wichita, Kansas.
- Liang, Bin, "Nonlinear Finite Element Analysis for Crashworthiness Analysis of a Vehicle Torque Box," Masters Thesis, Wichita State University, August 1998. Current Employer: J.B. Dwerlkotte Associates, Inc., Wichita, Kansas.
- Olivares, Gerardo, "Retractable Steering and Sidling Seat Safety Systems: Alternatives to the Use of Frontal and Side Airbags," Masters Thesis, Wichita State University, May 1998 (PhD Dissertation, Wichita State University, August 2001). Current Employer: National Institute for Aviation Research, Wichita, Kansas.
- Meka, Babu R., "Analysis of Dynamic Test Criteria for Side-facing Aircraft Seats," Masters Thesis, Wichita State University, May 1998. Current Employer: Quantum Corp., Lansing, Michigan.
- Banihashemi, Zahir, "Simplified Modeling and Parameter Study of Head Impact Using Multibody and Nonlinear Finite Element Methods," Masters Thesis, Wichita State University, August 1997. Current Employer: Boeing Aircraft Co., Seattle, Washington.
- Rajeswaren, Swarna, "Simplified Head Impact Modeling Onto Energy-absorbing Aluminum and Honeycomb Structures," Masters Thesis, Wichita State University, August 1997. Current Position/Employer: Lead Crash Safety Integration Engineer, General Motors, Detroit, Michigan.
- Karighiri, Shyam, "Occupant Protection in Vehicle Rollover," Masters Thesis, Wichita State University, December 1996. Current Employer: B.F. Goodrich Aerospace, Bangalore, India.
- Gunasekar, T.J., "Dynamic Responses of Occupants on Aft-facing Seats and Development of an Integrated Analysis System," Masters Thesis, Wichita State University, December 1996. Current Employer: Daimler/Chrysler, Detroit, Michigan.

- Yanumula, Venkat S., "Validity of Door Beams in Side Impact Protection," Masters Thesis, Wichita State University, December 1996. Current Employer: Quantum Corp, Lansing, Michigan.
- Boyapalli, Pandu, "Prediction and Analysis of Failure of Aircraft Engine Components," Masters Project, Wichita State University, December 1996. Current Employer: Caterpillar, DeKalb, Illinois.
- Ng, Choon, "Design and Evaluation of Alternative Energy-absorbing Seat Legs," Masters Thesis, Wichita State University, February 1996. Current Employer: Nissan Corp, Detroit, Michigan.
- Meng, Haiwen, "Modeling the Impact Responses of the S-shaped Seat Legs," Masters Thesis, Wichita State University, April 1996. Current Employer: BF Goodrich, Phoenix, Arizona.
- Shakil, Ahmed, "Prediction of Frictional Impact Responses in Mechanical Systems," Masters Thesis, Wichita State University, April 1996. Current Employer: Boeing Corporation, Seattle, Washington.
- Swamy, Mahesh, "Analysis of the Occupant Responses in Aircraft Side-Facing Seats," Masters Thesis, Wichita State University, February 1996. Current Employer: Chrysler Corp., Detroit, Michigan.
- Tiwari, Dev W., "Head Impact Protection onto Aircraft Bulkhead," Masters Thesis, Wichita State University, January 1996. Current Employer: Ford Motor Co. (supervisor), Dearborn, Michigan.
- Palaniappan, Prebaker, "Design, Fabrication, and Operation of a Pendulum Head Impact Testing Apparatus," Masters Thesis, Wichita State University, August 1995. Current Employer: EASI Engineering, Southfield, Michigan.
- Qian, Xuping, "Optimization of Structures Using Multibody and Plastic Hinge Concepts," Masters Thesis, Wichita State University, June 1995. Current Employer: EASI Engineering, Southfield, Michigan.
- Sambatur, Kirankumar, "Evaluation of the Spine and Femur Injury," Masters Thesis, Wichita State University, December 1994. Current Employer: Easi/Meg Engineering, Southfield, Michigan.
- Santhanam, Sudharshan, "Transient Dynamic Response of Structures Under Impact with High Degree of Material and Geometric Nonlinearities," Masters Thesis, Wichita State University, August 1994. Current Employer: Delphi Corporation, Southgate, Michigan.
- Maruthyappan, Ramakrishnan, "Plastic Hinge Technique for Analysis of Structural Responses of Seats Under Impact," Masters Thesis, Wichita State University, August 1994. Current Employer: Chrysler Corp., Detroit, Michigan.
- Zhou, Xiaoping, "A Kineto-Static Analysis Methodology for Inclusion of Flexibility into the Rigid Multibody Dynamics," Masters Thesis, Wichita State University, August 1994. Current employer: B&D Industries, Valley Center, Kansas.
- Kumaran, Prinianan, "Scaling Laws for Development of Injury Criteria and Range of Occupant Sizes," Masters Thesis, Wichita State University, May 1994. Current employer: Pratt & Miller Engineering, Ann Arbor, Michigan.
- Malapati, Srinivas R., "Child Restraint Systems Design and Evaluation of Potential Head Injuries," Masters Thesis, Wichita State University, May 1994. Current Employer: Quantum Corporation, Lansing, Michigan.
- Darling, Charles, "Automation of Cylinder Filling Operations," Masters Project, Wichita State University, December 1993. Current employer: Vulcan Chemicals, Wichita, Kansas.
- Sanjeev, Aravinthan, P., "Design and Fabrication of Head Strike Test Rig for Dummy Crash Testing," Masters Thesis, Wichita State University, May 1994. Current employer:

- Detroit Testing Laboratory, Warren, Michigan.
- Kompalli, Chandra, "An Integrated Child Seat for Aircraft - Design and Evaluation," Masters Thesis, May 1994. Current employer: Global Information Systems, Inc. (founder), Detroit, Michigan.
- Li, Wen, "Three-dimensional Interactive Computer Graphical Animation of Crash Tests," Masters Thesis, Wichita State University, December 1993. Current employer: UniGraphics, Anaheim, California.
- Goldberg, Jerrold, I., "Design and Analysis of a Computer-Controlled Surface Walking Robot," Masters Thesis, Wichita State University, December 1992. Current employer: Self-employed, Wichita, Kansas.
- Jung, Eckehard, "Development of a Graphical Animation Program for Analysis of Crash Test Data," Masters Thesis, Wichita State University, December 1992. Current Employer: Bosch Auto Part Manufacturing, Hamburg, Germany.
- Raza, Sayed Khalid, (co-advised with Dr. S. Motavalli), "Automated Target Tracking System for Analysis of Crash Experiments," Masters Thesis. Originator of Cisco Center at WSU, Formerly a Distinguished Engineer at Cisco Systems, Formerly a Distinguished Technologist at Hewlett Packard, Founder and CTO of Viptela Networking Co., San Jose, California.
- McCoy, Michael, L., "Design, Analysis, and Synthesis of an Automobile Wheelchair Lifter Mechanism," Masters Thesis, Wichita State University, May 1992; PhD Dissertation, Wichita State University, January 2003 (PhD 2003). Current Position and Employer: Executive Vice President, Electromech Industries, Wichita, Kansas.

PhD Dissertations Directed

- Pingili, Kranthi, "Modeling and Evaluation of Impact Hail Damage on Aircraft Fuselage Structures," PhD Dissertation, Wichita State University, expected May 2016. Current Employer: Gulfstream, Savannah, Georgia.
- Dye, John, "Development and Application of 2D and 3D Computational General-Purpose Multibody Simulations with Path Planning in MATLAB with Simple Graphical/ Visualization Capability," PhD Dissertation, Wichita State University, expected May 2016. Current Employer: Spirit Aerosystems, Wichita, Kansas.
- Huculak, Robert, "Applications of Angular Rate Sensors for ATD Head Trajectory in Component and Full-Scale Testing, and ES-2 Leg Flail in Dynamic Aircraft Seat Testing and Certification," PhD Dissertation, Wichita State University, expected December 2015. Current Position and Employer: Manager of Impact Dynamics Laboratory, National Institute for Aviation Research, Wichita, Kansas.
- Nedukanjirathingal, Santosh, K., "Characterization of In-Phase and Out-of-Phase Vibration Modes of Secondary Structures Attached to a Primary Structure by Experimentation and Finite Element Analysis," PhD Dissertation, Wichita State University, May 2015. Current Position and Employer: Engineering Manager A350, Spirit Aerosystems, Wichita, Kansas.
- Patil, Sachin, "Finite Element Modeling and Optimization of Spot and Friction Stir Welded Regions for Vehicle Crash Analysis," PhD Dissertation, Wichita State University, May 2014. Current Employer: Honda Engineering Center, Marysville, Ohio.
- Baratzadeh, Farzad, "Friction Stir Weld Development and Crash Dynamic Performance of Bumper Crash Box Assemblies Made from Dissimilar Aluminum Alloys Extrusions (AA6082 and AA6063-T3)," PhD Dissertation, Wichita State University, December 2013. Current Employer: Collins Automotive, Hutchinson, Kansas.

- Moradi, Rasoul, "Impact Dynamics of Mechanical Systems and Structures, and Applications in Crash Energy Management, Impulse mitigations, and Impact Injury Biomechanics," PhD Dissertation, Wichita State University, May 2012. Current Employer: General Motors Corp., Detroit, Michigan.
- Bhonge, Prasanna K., "Aircraft Seat Certification by Dynamic Finite Element Analysis," PhD Dissertation, Wichita State University, December 2008. Current Employer: Cessna Aircraft Co., Wichita, Kansas.
- Nagarajan, Harishankar, "An Integrated System for Transport Aircraft Interior Design and Certification by Analysis," PhD Dissertation, Wichita State University, December 2008. Current Employer: Space-X, Los Angeles, California.
- Cheriyian, Sony Koshy, "Characterization of Mechanical Systems with Joint Clearances and Flexibility," PhD Dissertation, Wichita State University, May 2006. Current Employer: X-Ray Optical Systems, New York.
- Thorbole, Chandrashekar K., "Biomechanical Response of Lumbar Motion Segment Under Vertical Impact Load During Aircraft Crash," PhD Dissertation, Wichita State University, August 2005. Current Employer: The Engineering Research Institute, Fayetteville, Arkansas.
- Beheshti, Hamid Khadem, "Energy Absorption Capability of Foam-based Composite Materials and Their Application as Seat Cushions in Aircraft Crashworthiness," PhD Dissertation, Wichita State University, October 2004. Current Position and Employer: Professor and Chair, University of Isfahan, Isfahan, Iran.
- McCoy, Michael, "Engineering Assessment of the Utility of Vehicle Frontal Protective Guards and Their Aggressiveness in Vehicle Collisions," PhD Dissertation, Wichita State University, January 2003. Current Position and Employer: Executive Vice President, Electromech Industries, Wichita, Kansas.
- Olivares, Gerardo, "Development of an Enhanced Component Head Injury Criteria Tester for Aerospace Crashworthiness Applications," PhD Dissertation, Wichita State University, August 2001. Current Position and Employer: Crashworthiness Research Director, National Institute for Aviation Research, Wichita, Kansas.
- Adams, Alan "Development of a Modern Aerospace Strategy to Evaluate Crashworthiness of Transport Aircraft Fuselage," PhD Dissertation, Wichita State University, August 2002. Current Employer: Spirit Aerosystems, Wichita, Kansas.
- Al-Shaer, Bassam, "Dynamics of Multibody Mechanical Systems with Joint Clearances and Lubrication," PhD Dissertation, Wichita State University, May 2000. Current Position and Employer: Professor, Jordan University of Science and Technology, Jordan.
- Shivaswamy, Shashishekar, "Analytical and Experimental Evaluation of Energy Absorbing Structures and Padding Materials," PhD Dissertation, Wichita State University, May 1997. Current Employer: Airbus, Bangalore, India.
- Menon, Rajiv, "A Multibody/Hydrodynamic Model of the Human Skull-Brain-Neck," PhD Dissertation, Wichita State University, December 1995. Current Position and Employer: R&D Director, Dorel Juvenile Group, Columbus, Indiana.
- Wu, Fubang, "Optimization of Contact Force Models in Selection of Suitable Padding Materials," PhD Dissertation, Wichita State University, February 1995. Current Employer: Ford Motor Company, Dearborn, Michigan.
- Ma, Deren, "A Multibody/Finite-Element Approach for Analysis of Crash Environments," PhD Dissertation, Wichita State University, December 1993. Current Position and Employer: President, Cherry Automotive Worldwide, China.
- Moussavi, Hassan, "Optimization of Spur Gear Systems by Tooth-profile and Face-width Modifications," (co-advised with Dr. M. Naji), PhD Dissertation, Wichita State

University, May 1991. Current Position and Employer: Professor, University of Isfahan, Iran.

RESEARCH GRANTS

- “AIRSEAT – a Design Tool for Aeronautical Seating Systems Certification by Analysis,” submitted to National Portuguese Foundation, 2015-2017, (Collaborator, PI: Dr. Martha Carvalho).
- “Micro Electro-Mechanical Systems Research Center,” funded by Portuguese Foundation for Science and Technology, 2014-2016, (serve as “Distinguished Collaborator” in the area of “Medical Applications” with Dr. Paulo Flores, PI: Dr. Higinio Correia).
- “Computer Simulation of All-Terrain Vehicle Injury Crashes,” Arkansas Children’s Hospital, 2012, (Co-PI with Dr. C. Thorbole, The Engineering Institute).
- “Development, Testing, and Evaluation of a Dual-function Test Fixture for Friction Stir Welded Vehicle Bumpers,” NSF Center for Friction Stir Welding Processes (CFSP), January 2010 – May 2013, (Co-PI with Dr. Michael McCoy and Dr. D. Burford).
- Nano-composite Coatings for the UV Protection of Composite Airframes,” ADMRC - Aircraft Design and Manufacturing Research Center, January 2010 - December 2010, (Co-PI with Dr. R. Asmatulu).
- “Dynamic Finite Element Analysis of Aircraft Seat Structures and Installations per AC 20-146,” Gulfstream Aircraft Co., August 2009 - December 2010, (Co-PI with Dr. G. Olivares).
- “In-Situ Methods of Spacecraft Repair and Construction Using a Portable Friction Stir Welder,” Kansas NASA EPSCoR, November 2007 - November 2010, (Co-PI with K. Soschinske - PI).
- “Performance Evaluation of Child Safety Seats in Lateral Sled Test at Varying Speeds,” National Science Foundation, Collaborative Research with The Children’s Hospital of Philadelphia (University of Pennsylvania), April 2007 - March 2008, (PI).
- “Bus Crash Protection: Operator, Passengers, and Children,” Federal Transit Authority FTA/DOT, July 2006 - June 2008 (Co-PI with G. Olivares).
- “Spacecraft Leak Repair Methods,” KUCR/NASA/EPSCoR, September 2006 - May 2007, (Co-PI with K. Soschinske - PI).
- “Component HIC Testing and Analysis on the Head Up Display Unit for the MD10 and A300 Aircraft,” ElectroOptics Industries, January - December 2006 (PI).
- “Spacecraft Leakage Repair Methods,” Kansas NASA EPSCoR, KNEP Research Team Augmentation Grant,” May 2006 - December 2006, (Co-PI with K. Soschinske - PI).
- “Crashworthiness of Composites Fuselage Structures - High Strain Rate Effects on Material Properties, Phase II” NIAR/Industry/State of Kansas (NIS Program), July 2005 - June 2006 (Co-PI with K.S. Raju).
- “DOE Study of the Rockwell Collins HUD Units,” Rockwell Collins, November 2005 - February 2006, (Co-PI with G. Olivares).
- “Child Safety Seat Provisions,” NIAR/Industry/State of Kansas (NIS Program), July 2005 - June 2007 (Co-PI with G. Olivares).
- “Bus Safety and Cabin Optimization for Improved Crashworthiness and Passenger Biomechanical Response,” Federal Transit Authority, DOT, July 2005 - June 2007 (Co-PI with G. Olivares).
- “Head Injury Criteria for the Head Up Display Combiner Unit of the MD10 and A300 Aircraft – Preliminary Analysis Phase,” ElectroOptics Industries and Fedex Corp., March- August 2005 (PI).
- “Dynamic Analysis of a Crew Seat and a Passenger Seat for Eclipse 500,” Millennium Concepts

- Inc., April - May 2005.
- “Crashworthiness of Composites Fuselage Structures – High Strain Rate Effects on Material Properties, Phase I,” NIAR/Industry/State of Kansas (NIS Program), July 2004 - June 2005 (Co-PI with K.S. Raju).
- “Spacecraft Leakage Repair Methods,” NASA EPSCoR, October 2004 - September 2006, (Co-PI with K. Soschinske - PI).
- “Crashworthiness of Composites - Material Dynamic Properties,” Federal Aviation Administration, October 2004 - September 2005 (Co-PI with K.S. Raju).
- “Validation of NIAR Component Head Injury Criteria Tester for FAR Part 23/25 Aircraft Seat Certification,” FAA AACE, Air Transportation Center of Excellence for Airworthiness Assurance, January 2003 -January 2005, (PI).
- “Prediction of the Global 5000 PAX Seat Bottom Cushion Lumbar Loads at Extreme Temperatures,” 4/Flight Industries, September - October 2003, (PI).
- “Injury Biomechanics of Children’s Skull, Brain and Cervical Spine,” National Institute of Child Health and Human Development -- NIH, October 2003 - September 2004, (PI).
- “Analysis of Head Injury Criteria for the C-27J Combiner Design,” Lockheed Martin, September - October 2003, (PI).
- “Development of Analytical Methods to Predict Crash Impact Responses of General Aviation Aircraft Seat/Occupant/Restraint System,” Federal Aviation Administration - Center of Excellence for General Aviation Research (CGAR), November 2001- December 2004, (PI).
- “Airplane Seat-Occupant-Restraint System Modeling Using Madymo,” Civil Aero Medical Institute, March 2001 - August 2002, (PI).
- “Enhancement of NIAR Component HIC Tester for GA Aircraft Seats,” FAA CGAR, Center of Excellence for General Aviation Research, Dec. 2001 – Dec. 2002, (PI).
- “Virtual Reality Applications in the Aviation Industry,” NSF EPSCoR program, May 2002 - December 2002, (Co-PI, Dr. Vis Madhavan - PI).
- “Seat Cushion Replacement Program,” Federal Aviation Administration, September 2000 - August 2002, (PI).
- “Analytical Evaluation of Component HIC Devices for Certification of Aircraft Cabin Furnishings,” ADMRC - Aircraft Design and Manufacturing Research Center, January 1999 - December 2001, (PI).
- “Landing Gear Drop Test for Sino Swearingen Mode SJ30-2 Landing Gears,” Sino Swearingen Aircraft Co., January 1998 - June 2000, (PI).
- “Development of an Enhanced Component HIC Tester,” Federal Aviation Administration, July 2000 - August 2001, (PI).
- “Design and Fabrication of a HIC Compliant Bulkhead,” Federal Aviation Administration, July 2000 - October 2001, (PI).
- “Development of Validated Energy-absorbing Aircraft Seat Models,” NASA AGATE, Advanced General Aviation Technology Experiments, February 2000 - November 2000, (PI).
- “Development of a Validated Component HIC Testing Apparatus,” Air Transportation Center of Excellence for Airworthiness Assurance, February 1998 - July 2000, (PI).
- “Enhancing Aviation Research Through Acquisition of Impact Test Equipment,” National Science Foundation EPSCoR, January 1999 - December 1999, (Co-PI, C. Yang - PI).
- “Establishing Compliance Test Criteria for Side-facing Aircraft Seats,” ADMRC - Aircraft Design and Manufacturing Research Center, March 1997 - December 1999, (PI).
- “Design Evaluation of the C-130J Heads-Up-Display,” Lockheed Martin, March 1998 - April 1998, (Co-PI, S. Hooper - PI).
- “Water Jet Impingement Forming of Aluminum Aircraft Skins,” ADMRC - Aircraft Design and

Manufacturing Research Center, January 1999 - December 1999, (Co-PI, J. Mathis - PI).

“Learjet/Bombardier Academic Excellence Fellowship,” Learjet-Bombardier, August 1998 - August 2001.

“Three-point Restraint Systems for Aircraft Seat Testing,” Schroth Aircraft Belts Inc., total of 65 restraint systems, May 1997, (PI).

“Software MADYMO for Crash Simulation of Vehicle Occupants,” TNO North America, Inc., since 1992, (PI).

“Software EASi-CRASH for Crashworthiness Analysis,” EASi-Megatech Corp., since 1997, (PI).

“Development and Evaluation of Simplified Head Impact Component Testing Methodologies,” Federal Aviation Administration, July 1996 - March 1998, (PI).

Aircraft Bulkheads for Head Impact Testing,” Continental Airlines, total of 40 bulkheads and two galleys, October 1996, (PI).

“Simplified HIC Component Testing and Analysis for Reducing Interior Aircraft Certification Time and Cost,” State/Industry/University (SIU) Cooperative Research Center, January 1997 - December 1997, (PI).

“Crashworthiness and Occupant Protection of Transportation Systems,” NATO/ASI (North Atlantic Treaty Organization/Advanced Science Institute), NATO Scientific and Environmental Affairs and NSF (National Science Foundation), Graduate Fellowship Program, Travel Grants for US Participants, Portugal, July 1996.

“Learjet/Bombardier Academic Excellence Fellowship,” Learjet-Bombardier, August 1995- August 1998.

“Computational Dynamics for Vehicle Crashworthiness,” Joint Research between Instituto Superior Tecnico in Portugal and WSU, supported by JNICT (NSF equivalent in Portugal), January 1993 - January 1995, (Co-PI, J. Ambrosio - PI).

“Dynamic Seat Testing and Analysis,” Federal Aviation Administration, July 1995 - July 1996, (Co-PI, S.J. Hooper - PI).

“Automated Body Movement Tracking in Crash Environment Using Machine Vision,” Federal Aviation Administration Grants Program, May 1993 - December 1993, (Co-PI, Dr. S. Motevalli -PI).

“Travel Grant for Ralph R. Teetor Outstanding Educator Award,” Society of Automotive Engineers for trip to Annual Congress and Exposition, February 1993, (PI).

- “Impact Dynamics of Multibody Mechanical Systems - Application in Crashworthiness,” NATO/ASI (North Atlantic Treaty Organization/Advanced Science Institute on "Computer-Aided Analysis of Mechanical Systems," NATO Scientific and Environmental Affairs Travel Grant to Portugal, June 1993, (PI).
- “Development of an Improved Biodynamics Model for SOM-LA/TA,” Federal Aviation Administration, October 1993 - September 1994, (PI).
- “Injury Biomechanics of Human Head-Brain-Neck System,” Wesley Medical Foundation, Wichita, Kansas, January 1992 - September 1994, (PI).
- “Occupant Biodynamic Responses for Evaluation of Aircraft Crash Safety,” Federal Aviation Administration, June 1991 - September 1993, (PI).
- “Crack Detection, Surface-Generated Scratches, and Mechanical Paint Removal of Aging Aircraft,” Federal Aviation Administration, October 1990 - August 1992 (Co-PI, Dr. J. Talia - PI).
- “Automatic Generation and Numerical Solution of Equations for Analysis and Design of Mechanical Systems,” University Research Grant, Wichita State University, January 1990 - May 1990 (PI).

TEACHING EXPERIENCE

Courses Taught

Have taught graduate and undergraduate courses in:

Engineering Mechanics - Statics and Dynamics,
 Machine Dynamics
 Design of Machinery
 Multibody Dynamics*
 Numerical Analysis
 Engineering Analysis (Mathematical Methods)
 Mechanical Engineering Design
 Mechanical Vibrations
 Intermediate and Advanced Dynamics
 Computer-Aided Analysis and Design of Mechanical Systems*
 Advanced Computer- Aided Analysis and Design of Mechanical Systems*
 Impact Dynamics*
 Crash Injury Biomechanics*
 Finite Element Analysis in Mechanical Design

* *new courses developed at WSU*

Workshops, Institutes, and Short Courses Taught

- “Crashworthiness and Impact Injury Biomechanics,” workshop, Wichita State University, 2008
- “Crashworthiness and Occupant Protection,” workshop, National Institute for Aviation Research, April 2006
- “Aircraft Crash Injury Biomechanics,” Invited Principal Lecture/Keynote given at the Advanced Passive Safety Network Workshop on Passive Safety in Road, Rail and Aerospace Transportation Modes, Invited Principal Lecture, Lisbon, Portugal, February, 2005
- “Crashworthiness and Occupant protection,” Lecture at the George Washington University’s National Crash Analysis Center, March 2005
- “Contact/Impact Treatment Methodologies applied to Vehicle Crashworthiness,” Keynote given to the International Symposium on Impact and Friction, Ottawa, Canada, June 2000

- “Aircraft Crashworthiness and Occupant Protection,” Keynote Lecture given to the Enhanced 7th International Madymo Users’ Conference, Windsor, Canada, June 1998
- “Crashworthiness and Biodynamics Research at NIAR,” Faculty Fellows Workshop, National Institute for Aviation Research, Annually since 1997
- “Aircraft Crashworthiness Research at NIAR,” KTEC Peer Review presentations, May 2001
- “From Basics of Impact to Applications in Crashworthiness,” University of Missouri, Columbia, October 1997
- “Contact/Impact Mechanics for Design Applications,” University of Maryland, Baltimore County, July 1996
- “Impact Dynamics Applied to Crashworthiness,” University of Illinois at Chicago, April 1996
- “Contact Mechanics and Biomechanics of Crash,” City College of New York, April 1996
- “Injury Biomechanics of Head, Spine, and other Extremities,” workshop given at the Technical University of Lisbon, Department of Mechanics, May 1994
- “Biodynamic Responses for Evaluation of Vehicle Crash Safety,” workshop given at the Technical University of Lisbon, Department of Mechanics, May 1994
- “Impact Dynamics of Multibody Systems Using Contact Forces,” workshop given at the Technical University of Lisbon, Department of Mechanics, May 1994
- “Investigations of Crash Safety Evaluation of Occupant, Seat Structure, and Restraint Systems by Analytical Means,” Short course given at Instituto Superior Técnico, Portugal, July 1993

Curriculum and Laboratory Developments

- Developed a new undergraduate/graduate class on “Crash Injury Biomechanics” (ME709) with the enrollment of approximately 50 on average
- Developed a new undergraduate/graduate class on “Impact Dynamics” (ME750L) with the initial enrollment of 42
- Developed a new undergraduate/graduate course, ME 729, on Analysis and Design of Multibody Mechanical Systems
- Developed a new graduate course, ME829, on Advanced Computational Analysis and Design of Multibody Mechanical Systems
- As chair of Design/Controls/Manufacturing committee at WSU, the mechanical engineering design curriculum is continuously improved to reflect the latest technological advances as well as the new accreditation requirements by ABET
- The NIAR Computational Mechanics Laboratory (Aircraft Design and Analysis Laboratory) was regularly improved by the addition of new computer workstations and microcomputers as well as acquiring new and updated engineering software (1992-2001)
- The Mechanical Engineering Workstation Laboratory has been continuously improved by the addition of new computer workstations and state-of-the-art software such as Pro-E, CADAM, CATIA, ADAMS, WORKING MODEL, MADYMO, MARC, ANSYS, NASTRAN, LS-DYNA3D, HYPERMESH, etc.
- Involved with the activities of the NIAR Impact Dynamics Laboratory in terms of its strategic planning, acquiring new systems and devices, test facilities, fixtures, dummies, instrumentations, and new projects are continuously engaged in this lab
- Computer software has been developed implementing techniques in analysis and design of planar and spatial multibody mechanical systems for use by students
- An instructional analysis and graphics software for mechanical system modeling, simulation, and graphical animation has been developed
- Commercial large-scale multibody software packages have been introduced in several undergraduate and graduate classes

PROFESSIONAL/SERVICE ACTIVITIES

Committee Service

Mechanical Engineering Dept.- Design/Controls/Manufacturing Committee, Chair, 1990-present
Mechanical Engineering Dept.- Curriculum Committee, Member, 1989-present
Mechanical Engineering Dept.- Graduate Committee, Member, 1989-present
Mechanical Engineering Dept.- Design Faculty Search Committee, Member, 1989-present
Mechanical Engineering Dept.- Undergraduate Brochure Committee, Member, 1998-present
College of Engineering - Strategic Planning Committee, Member, 2010-present
College of Engineering - SPC Organization Team, Member, 2011-present
College of Engineering - Composites Committee, Member, 2006-present
College of Engineering - Curriculum Committee, Member, 1993-2003
College of Engineering - Tenure and Promotion Committee, Member, 2001-present
College of Engineering - Awards Committee, Member, 2000-present
College of Engineering - Dean Search Committee, Member, 1999-2000
Wichita State University - Graduate Council, 2002-2006
Wichita State University - Doctoral Program Sub-council, Member, 1998-2002
Wichita State University - Graduate Programs Assessment Committee, Member, 1995-2002
Wichita State University - Faculty Grievance Committee, Member, 1997-present
Wichita State University - Teaching and Learning Technology, Member, 1998-2005

Student Recruitment and Support for Students

Participate in the Wallace Scholarship Competition as an interviewer
Assist the Graduate Coordinator in recruiting many foreign graduate students
Participate in activities such as College of Engineering Open house, Kansas Science Olympiad, and Technology Fair in an effort to recruit undergraduate students
Provide support for graduate and undergraduate students from funded research projects
Continuously coordinate the theses and dissertations of several graduate students
Publish annually several technical papers jointly with students
Regularly host several faculty members and graduate students visiting from Europe, joint research with the visiting faculty and supervision of theses and dissertations of the visiting students

Scholarly Functions

SAE, organize technical sessions and review technical papers for various SAE meetings, 1990-present
SAE Aircraft Seat Committee, contributing member since 1996 for the following working groups: Restraint System, Component HIC Tester, Side-facing Seat, Components, Definitions, and Methods
ASME *Journal of Mechanical Design*, Associate Technical Editor, 1995-1997, 1998-2000, and 2001-2003
ASME *Journal of Computational and Nonlinear Dynamics*, Associate Technical Editor, 2004-2006, 2007-2009, and 2010
ASME *Journal of Medical Devices*, Associate Technical Editor, 2006-2008, 2009-2011, and 2012
ASME Technical Committee on *Multibody Systems and Nonlinear Dynamics*, 2002-present

On the Editorial Boards for the *International Journal of Multibody Systems Dynamics*, *International Journal of Composite Materials*, *International Journal of Aerospace Engineering*, *Journal of Frontiers in Aerospace Engineering*, *International Research Publication House Journal of Mechanics and Structures*, *Advances in Mechanical Engineering Journal*, *International Journal of Crashworthiness*, *Journal of Engineering Research and Technology*, *Journal of Medical Instruments*, *Advances in Aerospace Engineering*, *Frontiers in Aerospace Science and Technology (FAST)*, *Engineering Science and Letters (ESL)*, *World of Mechanics (Zeal Scienza)*, *International Journal of Aeronautical Science & Aerospace Research (IJASAR)*

International Journal of Multibody Systems Dynamics, review technical papers, 1996-present
ASME *Journal of Mechanical Design*, review technical papers, 1990-present
International Journal of Crashworthiness, review technical papers, 1996-present
International Journal of Vibration and Control, review papers, 1997-present
International Journal of Sound and Vibration, review technical papers, 1997-present
International Journal of Robotic Systems, review technical papers, 1998-present
International Journal of Nonlinear Dynamics, review technical papers, 1992-present
International Journal of Finite Elements in Analysis and Design, Review Technical Papers, 1999-present
ASME Computers in Mechanical Engineering, review technical papers, 1991

ASME Design Automation conferences, organize technical sessions and review papers, 1990-present

ASME Mechanism Synthesis and Design conferences, organize technical sessions and review papers, 1990-present

SES, organize technical sessions and review papers, 1992

Nonlinear Dynamics conferences, organize technical sessions and review papers, 1992-present

NATO/ASI on Multibody Dynamics, technical program organization committee, 1995

Member of the SAE Committee on Head Impact Protection by Component Testing, 1994

Reviewer for the book, "Computational Methods in Multibody Dynamics," M.S. Pereira and J.A.C. Ambrosio editors, Kluwer Academic Publishers, 1994

Faculty Associate of the National Institute for Aviation Research, 1989-present

Session Chair in: ASME Computers in Mechanical Engineering conferences; ASME Design Automation conferences; ASME Mechanism Synthesis and Design conferences; Nonlinear Dynamics conferences; SES Meetings; 1994 NATO/ASI on Multibody Dynamics; European Colloquium on Multibody Dynamics, 1994; 1996 NATO/ASI on Crashworthiness, 1998 International Symposium on Impact and Friction, 1999 International Conference on Dynamics and Control, Multibody Dynamics and Vibration Symposium of the ASME Design Technical conferences, Euromech 404, 5th US Congress on Computational Mechanics, NATO Advanced Science Institute (ASI) on Virtual Nonlinear Multibody Systems

Member of panels discussing issues in Multibody Dynamics -- 1993 NATO/ASI and European Mechanics Colloquium, 1994

NATO/ASI on Crashworthiness, Planning and Organizing Committee, NSF-appointed US Representative

International Symposium of Impact and Friction of Solids, Structures and Machines, member of Organizing Committee, 1998 and 2000

Int. Conference on Dynamics and Control, member of Organizing Committee, 1998-1999

Mechanical Engineering Department Graduate Seminar Organizer, 1992- present

Organizer, Multibody Dynamics Symposium, 6th US National Congress on Computational Mechanics, Dearborn, Michigan, 2001

Member of Organizing Committee, 3rd Int. Conference on Aircraft Cabin Safety, Atlantic City, New Jersey, 2001

Member of the Organizing Committee for NATO Advanced Science Institute (ASI) on Virtual Nonlinear Multibody Systems, Prague, Czech Republic, 2002

Organizer, "Biomechanics" Symposium, ASME Design Technical Conferences, Long Beach, California, 2005

Member of the Steering Committee for the State of Kansas DEPSCoR program, 2001-2004

Reviewer for the NSF EPSCoR K*STAR proposals, 1999-2004

Member of ASME Technical Committee on Multibody Systems and Nonlinear Dynamics, 2003-present

Member of the Program Committee for the 2014 European Conference on Mechanism Science, University of Minho, September 2014, in Guimarães, Portugal