SATCHI VENKATARAMAN

Department of Aerospace Engineering
San Diego State University
San Diego, CA 92182-1308
e-mail: satchi@sdsu.edu
Tel: 619-594-6660

Dr. Venkataraman, Professor of Aerospace Engineering at San Diego State University is an expert in Analysis and Design of Aerospace Structures, Structural Optimization, Failure and Life prediction of Composites. His current research investigates models for failure analysis of aerospace composite structures, efficient techniques for design optimization; design approaches for damage tolerance and predictable failure, reliability based design optimization, and quantification of variability and model uncertainty in complex multi-scale problems. He has extensive teaching experience at graduate and undergraduate level courses in solid mechanics, aerospace structural analysis and optimization, and earned several teaching awards. He has published more than 50 technical articles and received research grants from Air Force, Navy, NASA and Northrop Grumman. He has led several student training programs and held various leadership positions as well as served on several committees at SDSU.

EDUCATION

Institution	Year	Degree	Major Field
University of Florida	1999	Ph.D.	Engineering Mechanics
Clemson University	1993	M.S.	Mechanical Engineering
Anna University, Madras, India	1991	B.E.	Mechanical Engineering

PROFESSIONAL EXPERIENCE

Professor, Dept. of Aerospace Engineering, San Diego State University, Aug 2014 to present.

Associate Director, Computational Science Research Center, San Diego State University, AY 2012-2021.

Associate Professor, Dept. of Aerospace Engineering, San Diego State University, Aug 2007 to Aug 2014.

Associate Faculty, Computational Science Research Center, San Diego State University, Aug 2004-present.

Assistant Professor, Dept. of Aerospace Engineering, San Diego State University, Aug 2002 to July 2007.

Research Engineer, AeroChem Corporation, Gainesville, FL, Mar 2001 to Aug 2002.

Visiting Assistant Professor, Dept of Aerospace Engineering, Mechanics and Engineering Science, University of Florida, Gainesville, FL, Mar 2001 to Aug 2002.

Postdoctoral Research Associate, University of Florida, Gainesville, FL, Mar 2000 to Feb 2001.

Visiting Researcher, NASA Langley Research Center, Hampton, VA, Jan 2000 to Feb 2000.

Graduate Research Assistant, University of Florida, Gainesville, FL, Jan 1995 to Dec 1999.

Summer Intern, Ford Research Labs, Dearborn, MI, May-August, 1997.

Graduate Teaching and Research Assistant, Clemson University, Clemson, SC, May 1993 to Apr 1994.

Research Assistant, Clemson University, Clemson, SC, Jan 1992 to Apr 1993.

AWARDS & HONORS

Northrop-Grumman Excellence in Teaching Award, San Diego State University, 2019.

Summer Faculty Fellowship, U.S. Air Force Air Vehicles Directorate Summer Faculty Program, 2018.

Award for Outstanding Contribution to Aerospace Research, AIAA San Diego Section Award, 2016.

Most Influential Faculty Award, Department of Aerospace Engineering, San Diego State University, Awarded in academic years 2017, 2016, 2015, 2014, 2011, and 2006.

Homer Peabody Award for Excellence in Mentoring and Teaching, SDSU Bridges Program, 2014.

AIAA Associate Fellow, American Institute of Aeronautics and Astronautics, 2011.

Northrop-Grumman Outstanding Teacher Award, San Diego State University, 2011.

Award for Outstanding Contribution to Aerospace Education, AIAA San Diego Section Award, 2009.

Summer Faculty Fellowship, U.S. Air Force Air Vehicles Directorate Summer Faculty Program, 2008.

Outstanding International Student Academic Achievement Award, College of Engineering, University of Florida, April 1997.

COURSES TAUGHT

Course Name	Institution
Introduction to FORTRAN Programming	Clemson Univ.
Statics (*EM 200/AE 200*)	SDSU
Mechanics of Materials (*EGM 3520*)	Univ. of Florida
Aerospace Structural Dynamics *(AE410)*	SDSU
Aerospace Structural Analysis (*AE 310*)	SDSU
Finite Element Methods (*ME 610, EM 510*)	SDSU
Composite Structural Analysis (*EM 530/AE535*)	SDSU
Theory of Elasticity (*EM 621/ AE 621*)	SDSU
Theory of Elastic Stability (*EM 727/AE651*)	SDSU
Engr. Design: Analytical Methods (*ME 614*)	SDSU
Structural Optimization (*EM 600/AE 641*)	SDSU
Seminar: Failure and Fatigue of Laminated Composites (AE600)	SDSU

PUBLICATIONS

Articles in Refereed Journals

JP 1. Díaz-Montiel, P., Hesise, J., Venkataraman, S., Kim, H., . "Interaction of compression failure mechanisms in composites with ply waviness defects." Composite Structures 318 (2023): 117074.

JP 2. Diaz-Escobar, J., Díaz-Montiel, P., Venkataraman, S. and Díaz-Ramírez, A., 2023. Classification and Characterization of Damage in Composite Laminates Using Electrical Resistance Tomography and Supervised Machine Learning. *Structural Control and Health Monitoring*, 2023.

JP 3. Díaz-Montiel, P., Escalona-Galvis, L. and Venkataraman, S., 2023. Kriging and dimension reduction techniques for delamination detection in composites using electrical resistance tomography. *Engineering Optimization*, 55(1), pp.19-34.

JP 4. Díaz-Montiel, P., Venkataraman, S. and Kim, H., 2021. The effects of plasticity mechanisms on micromechanics of composites with fiber waviness defects under compression. Mechanics of Advanced Materials and Structures, pp.1-16.

JP 5. Escalona, L., Diaz-Montiel, P., and Venkataraman, S. Optimum Reduction of Sensing Electrodes for Delamination Identification with Electrical Resistance Tomography, *Structural Control and Health Monitoring*, 28(6), 2021, p. e2726.

JP 6. Khan, A.I., Venkataraman, S. and Miller, I., Predicting Fatigue Damage of Composites Using Strength Degradation and Cumulative Damage Model. *Journal of Composites Science*, 2(1), p.9, 2018.

JP 7. Escalona-Galvis L, Diaz-Montiel P, Venkataraman S. Optimum Electrode Configurations for Two-Probe, Four-Probe and Multi-Probe Schemes in Electrical Resistance Tomography for Delamination Identification in Carbon Fiber Reinforced Composites. *Journal of Composites Science*, 2(2):29, 2018.

JP 8. Escalona Galvis, L.W., Diaz-Montiel, P. and Venkataraman, S., 2017. Optimal Electrode Selection for Electrical Resistance Tomography in Carbon Fiber Reinforced Polymer Composites. *Materials*, 10(2), 125.

JP 9. Bilge, Kaan, et al. "Global and local nanofibrous interlayer toughened composites for higher in-plane strength." Composites Part A: Applied Science and Manufacturing 58 (2014): 73-76.

JP 10. Marhadi, K. S., Venkataraman, S., and Pai, S.S., Quantifying uncertainty in statistical distribution of small sample data using Bayesian inference of unbounded Johnson distribution. *International Journal of Reliability and Safety* , Vol. 6, No. 4,pp 311-337, 2012.

JP 11. Marhadi, K.S., Venkataraman, S., and Wong, S., Load redistribution mechanism in damage tolerant and redundant truss structure. *Journal of Structural and Multidisciplinary Optimization*, Vol. 44, Iss. 2, pp 213-233, 2011.

JP 12. Marhadi K. S., and Venkataraman, S., Comparison of Quantitative and Qualitative Information Provided by Different Structural Load Path Definitions. *International Journal for Simulation and Multidisciplinary Design Optimization*, Vol. 3, pp.384-400, 2009.

JP 13. Marhadi, K. and Venkataraman, S., Surrogate Measures to Optimize Structures for Robust and Predictable Progressive Failure, *Structural & Multidisciplinary Optimization*, Vol. 39, No. 4, pp. 245-261, 2009.

JP 14. Salas, P.A., Benson, D. J., Venkataraman, S., and Loikkanen, M., Numerical Implementation of Polymer Viscoplastic Equations for High Strain-Rate Composite Models, *J. Aerosp. Engrg*. 22(3), pp. 304-309, 2009.

JP 15. Salas, P., and Venkataraman, S., "Optimization of Laminates for Predictable Failure in the Presence Model Parameter Uncertainties and Variability," *Structural &Multidisciplinary Optimization*, Vol. 37, No 6, 2009, p 541-555.

JP 16. Salas, P. and Venkataraman, S., Controlling failure using structural fuses for predictable progressive failure of composite laminates," *Structural &Multidisciplinary Optimization*, Vol. 34, No 6, 2007, p 473-489.

JP 17. Venkataraman, S., and Salas, P., Optimization of Composite Laminates for Robust and Predictable Progressive Failure Response," *AIAA Journal*, Vol. 45, No. 5, 2007, p 1113-1125.

JP 18. Venkataraman S., "Reliability optimization using probabilistic sufficiency factor and correction response surface," *Engineering Optimization*, Vol. 38, No. 6, 2006, pp. 671-685.

JP 19. Venkataraman S. and Haftka R. T., "Structural Optimization: What has Moore's Law Done for Us?" *Structural & Multidisciplinary Optimization*, Vol. 28, No. 6, pp 375-387, 2004.

JP 20. Zhu, H., Sankar, B. V., Haftka, R. T., Venkataraman, S., Blosser, M. L., "Optimization of Functionally Graded Metallic Foam Insulation under Transient Heat Transfer Conditions," *Structural & Multidisciplinary Optimization*, Vol. 28, No. 5, November, pp 349-355, 2004.

JP 21. Venkataraman, S., Zhu, H., Haftka, R. T., Sankar, B. V. and Blosser, M., "Optimum Design of a Functionally Graded Metallic Foam Thermal Insulation," *AIAA Journal*, Vol. 42, No. 11, pp 2355-2363, 2004.

JP 22. Zhu, H., Sankar, B. V., Haftka, R. T., Venkataraman, S., and Blosser, M., Minimum Mass Design of Insulation Made of Functionally Graded Material," *Journal of Spacecraft and Rockets*, Vol. 40, No. 2, 2004, pp. 467-469

JP 23. Venkataraman, S., and Sankar, B.V., "Analysis of Sandwich Beams with a Functionally Graded Core," *AIAA Journal*, Vol. 41, No. 12, 2003, pp. 2501-2505.

JP 24. Qu, X., Venkataraman, S., Haftka, R. T. and Johnson, T. F., "Reliability, Weight, and Cost Tradeoffs in the Design of Composite Laminates for Cryogenic Environments," *AIAA Journal*, Vol. 41, No. 10, 2003, pp. 2029-2036.

JP 25. Huang J., Venkataraman S., Haftka R.T. and Rapoff A.J., "Optimization of Axisymmetric Distribution of Elastic Modulus Around a Hole for Increased Strength," *Structural & Multidisciplinary Optimization*, Vol. 26, pp 1-12, 2003.

JP 26. Rapoff, A. J., Johnson, W. and Venkataraman, "Transverse Plane Shear Test Fixture for Total Knee Systems," *Experimental Techniques*. Vol. 27, Iss. 3, pp. 37-39, 2003.

JP 27. Venkataraman, S., Lamberti, L., Haftka, R. T., and Johnson, T. F., "Challenges in comparing numerical solutions for optimum weights of stiffened shells," *Journal of Spacecraft and Rockets*, Vol. 40 (2), pp. 183-192, 2003.

JP 28. Venkataraman, S., Haftka, R.T., and Rapoff, A.J.," Structural Optimization Using Biological Variables to Understand How Bones Design Holes," *Structural & Multidisciplinary Optimization*, Vol. 25, pp. 19-34, 2003.

JP 29. Lamberti, L., Venkataraman, S., Haftka, R. T., and Johnson, T. F., "Preliminary Design Optimization of Stiffened Panels Using Approximate Analysis Models," *International Journal of Numerical Methods in Engineering*, Vol. 57, pp. 1351-1380, 2003.

JP 30. Venkataraman, Haftka, R. T., and Johnson, T. F., "Maximal Errors due to Use of Equivalent Properties for Sublaminates," *AIAA Journal*, Vol. 39, No. 2, pp 296-302, 2001.

Articles in Conference Proceedings

CP 1. Agarwal, M., Kapania, R.K., Minaya, C.A., Venkataraman, S. and Hammerand, D.C., 2024. Design Framework for Optimization of Curvilinearly Stiffened Variable Stiffness Composite Laminates with Direct Fiber Angle Parameterization. In AIAA SCITECH 2024 Forum (p. 1071).

CP 2. Minaya, C.A., Venkataraman, S., Kapania, R.K., Agarwal, M. and Hammerand, D.C., 2024. Tow Path Recovery and Quantification of Manufacturing Constraints for Tow Steered Composite Structures. In AIAA SciTech 2024 Forum (p. 2899).

CP 3. Heise, J., Diaz Montiel, P. and Venkataraman, S., 2023. Investigation of Damage Mechanisms in Composites due to the Interaction of Ply and Fiber Waviness Defects. AIAA SCITECH 2023 Forum.

CP 4. Rivera, A.X., Venkataraman, S. and Pineda, E.J., 2023. Sensitivity Analysis of Geometric Imperfection Sources in Honeycomb Cores on Flatwise Compression Behavior. In AIAA SCITECH 2023 Forum.

CP 5. Díaz-Montiel, P., Heise, J., Kim, H. And Venkataraman, S., 2022. The Effect of Ply Waviness on Damage Initiation and Growth in Composites under Fully Reversed Cyclic Loading. In Proceedings of the American Society For Composites-Thirty-Seventh Technical Conference.

CP 6. Rivera, A.X., Venkataraman, S., Kim, H., Pineda, E. And Bergan, A., 2022. Finite Element Modeling for Compression Strength Prediction of Honeycomb Cores with Geometric Imperfections Measured Using X-Ray CT Imaging. In Proceedings of the American Society for Composites-Thirty-Seventh Technical Conference.

CP 7. Diaz Montiel, P., Venkataraman, S. and Kim, H., 2022. Experimental Investigations of Carbon-Epoxy Composites with Ply Waviness Under Cyclic Bending. In AIAA SCITECH 2022 Forum.

CP 8. Diaz Montiel, P., Venkataraman, S. and Kim, H., Modeling Polymer-Matrix Composites with Fiber Waviness Defects under Cyclic Loading. *In AIAA Scitech 2021 Forum* (p. 1232), 2021

CP 9. Rivera, A.X., Venkataraman, S., Hyonny, K., Pineda, E.J. and Bergan, A., 2021. Characterization and Modeling of Cell Wall Imperfections in Aluminum Honeycomb Cores using X-ray CT Imaging. In AIAA Scitech 2021 Forum (p. 1620). https://doi.org/10.2514/6.2021-1620

CP 10. Diaz Montiel, P. and Venkataraman, S., 2019. Numerical Investigation of the Evolution of Fiber Kinking Damage in Composites Under Cyclic Loading. *In AIAA Scitech Forum*, 2020 (p. 1038), 2019.

CP 11. Borwankar, P., Fonanelli, A. and Venkataraman, S., Optimization of Progressive Failure Response for Elucidation of Failure Mechanisms, Mode Interactions, and Sensitivity to Geometry, Material and Model Parameters. *Proceedings of AIAA Scitech Forum*, San Diego, CA (p. 0706), 2019.

CP 12. Borwankar, P., Fontanelli, A., and Venkataraman, S., Effect of Edge Distance to Diameter Ratio on Progressive Failure of Bolted Joints in Laminated Composites. Proceedings of the American Society for Composites—33rd Technical Conference, Seatlle, WA. 2018.

CP 13. Khan, A.I., Venkataraman, S. and Miller, I., 2018. Fatigue Failure Predictions of Laminated Composites using Mechanical Properties Degradation and Continuum Damage Models. *In 2018 AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference* (AIAA-2018-1642).

CP 14. Fontanelli, A., Diaz Montiel, P. and Venkataraman, S., 2018. Anisotropic Fiber Kinking Model for Improving Bearing Failure Predictions in Composite Bolted Joints using a Continuum Damage Mechanics Approach. *In 2018 AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference* (p. 0978).

CP 15. Fontanelli, A., Venkataraman, S. Progressive Failure Analysis of Composite Countersunk Bolted Joints Tests using an Energy Based Continuum Damage Model. *Proc. American Society for Composites: 32st Technical Conference (October 2017).*

CP 16. Optimum Reduction of Electrodes Needed for Delamination Identification Using Electrical Resistance Tomography. Escalona, L., Diaz-Montiel, P., Venkataraman, S. Proc. of the 11th International Workshop on Structural Health Monitoring 2017.

CP 17. Optimum Sensing Configurations for Delamination Identification using Electrical Resistance Tomography. Escalona, L., Diaz-Montiel, P., Venkataraman, S. *Proc. American Society for Composites: 32st Technical Conference (October 2017).*

CP 18. Diaz Montiel, P., Escalona, L. and Venkataraman, S., 2017. Exploration of Surrogate Models for Inverse Identification of Delamination Cracks in Composites using Electrical Resistance Tomography. In 58th AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference (AIAA-2017-0199).

CP 19. Popescu, A. and Venkataraman, S. "Experimental Characterization of Progressive Damage in Countersunk Composite Laminates Loaded in Bearing." Proceedings of the American Society for Composites: 31st Technical Conference. 2016.

CP 20. Luis Escalona ; Paulina Díaz-Montiel ; Satchi Venkataraman; Optimum electrode configuration selection for electrical resistance change based damage detection in composites using an effective independence measure. *Proc. SPIE 9804, Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace, and Civil Infrastructure 2016*, April 15, 2016.

CP 21. Kamaraj, Amudha Varshini; Yadav, Vaibhav, and Satchi Venkataraman, " Estimating Uncertainty Bounds for Blade Vibratory Stresses Under Multi-Mode Excitation" *Proceedings of the AIAA Science and Technology Forum, Aerospace Science Meeting, San Diego, CA, Jan 4-8, 2016.*

CP 22. Yadav, Vaibhav, Satchi Venkataraman and Callasans Veras Pessoa, Geovana, " Mode-tracking in surrogate-based inverse identification of rotor blade geometry using Campbell diagram " *Proceedings of the 2016 AIAA Science and Technology Forum, Aerospace Science Meeting, San Diego, CA, Jan 4-8, 2016.*

CP 23. Sanz-Douglass, Gabriela and Satchi Venkataraman, "Parametric Study of Influence of Stiffener Variables on Postbuckling Response of Frame-Stiffened Composite Panels" *Proceedings of the 2016 AIAA Science and Technology Forum: 57th Structures, Structural Dynamics, and Materials Conference. San Diego, CA, Jan 4-8, 2016.*

CP 24. Palwankar, Manasi, Popescu, Alexandru, and Satchi Venkataraman, " Finite Element Analysis and Testing of Countersunk Composite Bolted Joints in Double Lap Shear" *Proceedings of the 2016 AIAA Science and Technology Forum: 57th Structures, Structural Dynamics, and Materials Conference. San Diego, CA, Jan 4-8.*

CP 25. Casini, Jacopo, Satchi Venkataraman, and Juan Barragan. "Experimental Characterization of Full Field Creep Deformation in Adhesively Bonded Joints." *Proceedings of the 55th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference. January 2014.*

CP 26. Wagschal; K. R. Venkataraman, S., "Numerical Investigation of Tapered Sandwich Closeouts with Isotropic Functionally Graded Cores," *Proceedings of the 54th AIAA/ASME/ASCE/ AHS/ASC Structures, Structural Dynamics and Materials Conference*, Boston Massachusetts, April 8-11, 2013

CP 27. Christensen, A., James, S., Sens, B., and Venkataraman, S., Experimental Investigation of Tapered Edge Closeouts in Sandwich Composites," *Proceedings of the 54th AIAA/ASME/ASCE/ AHS/ASC Structures, Structural Dynamics and Materials Conference*, Boston Massachusetts, April 8-11, 2013

CP 28. Stromsoe, J,. and Venkataraman, S., Functionally Grading Honeycomb Core Material by In-Plane Crushing For Tapered Sandwich Closures, *Proceedings of the 53rd AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference*, AIAA 2012-1702, Honolulu, Hawaii, April 23-26, 2012.

CP 29. Navaid, R., and Venkataraman, S., Variance Sensitivity Analysis Of Parameters In Puck's Failure Theory For Composites, *Proceedings of the 53rd AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference*, Honolulu, Hawaii, April 23-26, 2012.

CP 30. Salas, P., Benson, D., Venkataraman, S., Model Error Estimation in Response Prediction of Multilevel Composite Systems using Bayesian Networks, *Proceedings of the 13th AIAA Non-Deterministic Approaches Conference*, Denver, Colorado, April 4-7, 2011.

CP 31. Marhadi K.S. and Venkataraman, S., Comparison of Load Path Definitions in 2-D Continuum Structures. *Proceedings of the 50th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference*, Palm Springs, California, May 4-7, 2009.

CP 32. Venkataraman, S., Marhadi, K. S., and Haney, M., Investigating Alternate Load Paths and Damage Tolerance of Structures Optimized for Multiple Load Cases. *Proceedings of the 50th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference*, Palm Springs, California, May 4-7, 2009.

CP 33. Marhadi, K.,Venkataraman, S. and Pai, S. S., "Quantifying Uncertainty in Statistical Distribution of Small Sample Data Using Bayesian Inference of Unbounded Johnson Distribution," *Proceedings of the 49th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference,* Schaumburg, Illinois, April 2008.

CP 34. Sirimamilla R. R..,Venkataraman, S. and Pai, S. S., "Incorporating Data Uncertainty in Reliability Based Design Optimization Using Inverse Reliability Measures," *Proceedings of the 49th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference*, Schaumburg, Illinois, April 2008.

CP 35. Marhadi, K. and Venkataraman, S., "Characteristics of Designs and Load Paths in Structures Optimized for Robust Damage Tolerance," AIAA-2008-1795. Proceedings of the *49th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference*, Schaumburg, Illinois, April 2008..

CP 36. Venkataraman, S. and R. Haftka, R.T., Teaching Undergraduate Aerospace Structural Analysis – Preparing Students For Future Workforce, AIAA-2008-2183, . Proceedings of the *49th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference*, Schaumburg, Illinois, April 2008.

CP 37. Wesley, R., and Venkataraman, S., "Progressive Sampling for Response Surface Fitting Using Method of Dividing Rectangles (DIRECT)," Proceedings of the *48th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference*, Waikiki, Hawaii, April 2007.

CP 38. Venkataraman, S., Mahadevan, S., Strack, W. C., Nagpal. V., and Pai, S. S., "Calculating Confidence Intervals for Reliability to Quantify Effect of Distribution Parameter Uncertainty," Proceedings of the *48th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics and Materials Conference*, Waikiki, Hawaii, April 2007.

CP 39. Venkataraman, S., Strack, W. C., Nagpal. V., and Pai, S. S., "Incorporating Distribution Parameter Uncertainty in Reliability Calculation," *Proceedings of the Annual Reliability & Maintainability Symposium 2007*, Orlando, Florida, January 22-25, 2007.

CP 40. Salas, P., and Venkataraman, S., "Incorporating Model Uncertainties and Variability in Optimization of Laminates for Predictable Failure," AIAA-2006-7040, *Proceedings of the 11th AIAA/ ISSMO Multidisciplinary Analysis and Optimization Conference*, Portsmouth, Virginia, September 2006.

CP 41. Marhadi, K. and Venkataraman, S., Effect of Competing Failures and Load Redistributions on Progressive Failure Predictability in Truss Structures," AIAA-2006-7101, *Proceedings of the 11th AIAA/ ISSMO Multidisciplinary Analysis and Optimization Conference*, Portsmouth, Virginia, September 2006.

CP 42. Venkataraman, S. and Salas, P., "Optimum Design of Structural Fuses for Tailoring Robust and Predictable Progressive Failure," *submitted to 47th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Newport, Rhode Island, April 2006.

CP 43. Venkataraman, S. and Salas, P., "Optimization of Performance and Failure Predictability in Composite Laminates Undergoing Progressive Failure," AIAA-2005-2225 *Proceedings of the 46th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics, and Materials Conference*, Austin, Texas, April 2005.

CP 44. S. Venkataraman, "Reliability Optimization of Structures Using Probabilistic Sufficiency Factor and Correction Response Surface, *AIAA Paper 2004-2033, Proceedings of the 45th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics, and Materials Conference*, Palm Springs, California, April 2004.

CP 45. S. Venkataraman, and B. Sankar, "Elasticity Analysis and Optimization of a Functionally Graded Plate with Hole," *AIAA Paper 2003-1466, Proceedings of the 44th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Norfolk Virginia, April 2003.

CP 46. W. Wang and A. Kurdila, and Venkataraman, S., "Shape Optimization of Electrodes for Piezoelectric Actuators – Static Analysis," AIAA Paper 2003-1806, *Proceedings of the 44th AIAA/ ASME/ ASCE/ AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Norfolk, Virginia, April 2003.

CP 47. Zhu, H., Sankar B. V., Venkataraman, S., and Haftka, R. T., "Optimization of a Functionally Graded Metallic Foam Insulation Under Transient Heat Transfer Conditions," *AIAA Paper 2003-1531, Proceedings of 44th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Norfolk, Virginia, April 2003.

CP 48. Venkataraman S. and Haftka R. T., "Structural Optimization: What has Moore's Law Done for Us?, *Proceedings of the 43rd AIAA/ASME ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference*, Denver, Colorado, April, 2002.

CP 49. B. Sankar, N. Apetre and S. Venkataraman , Indentation of a Sandwich Beam with Functionally Graded Core, *AIAA Paper 2002-1683, Proceedings of the 43rd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Denver Colorado, April 2002, 11 pages.

CP 50. S. Buskirk, S. Venkataraman, P. Ifju and A. Rapoff, "Functionally Graded Biomimetic Plate with Hole," *AIAA Paper 2002-1330, Proceedings of the 43rd AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics, and Materials Conference*, Denver Colorado, 2002.

CP 51. J. Huang, S. Venkataraman, A. Rapoff and R. Haftka, , "Optimization Design of Inhomogeneous Isotropic Plates with Holes by Mimicking Bones," *AIAA Paper 2002-1236, Proceedings of the 43rd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Denver Colorado, April, 2002.

CP 52. Zhu, H, Sankar, B. V., Haftka R. T., and Venkataraman, S. "Minimum Mass Design of Insulation Made of Functionally Graded Material," *AIAA Paper 2002-1425 Proceedings of 43rd AIAA/ ASME/ ASCE/ AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Denver Colorado, April, 2002.

CP 53. Grosset, L., Venkataraman, S., and Haftka, R. T., "Probability-based genetic algorithm for composite laminate optimization," *Proceedings of the 43rd AIAA/ASME ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference*, Denver, Colorado, April, 2002.

CP 54. Venkataraman, S., Zhu, Z., Sankar, B. V., and Haftka, R. T., "Optimum Design of a Functionally Graded Metallic Foam Thermal Insulation," *Proceedings of the American Society of Composites-16th Annual Technical Conference*, September, 2001, Blacksburg, VA.

CP 55. Venkataraman, S., Haftka, R. T., and Rapoff, A. J.," Structural Optimization Using Biological Variables to Understand How Bones Design Holes," *Proceedings of the Fourth World Congress of Structural and Multidisciplinary Optimization, WCSMO-4-18*9, Dalian, China, June 4-8, 2001.

CP 56. Venkataraman, S., and Sankar, B. V., "Analysis of Sandwich Beams with a Functionally Graded Core, AIAA Paper 2001-1281, *Proceedings of the 42nd AIAA/ASME ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference*, Seattle, WA, Apr. 16-19, 2001.

CP 57. Qu, X., Venkataraman, S., Haftka, R. T., and Johnson, T. F., "Reliability, Weight, and Cost Tradeoffs in the Design of Composite Laminates for Cryogenic Environments," *AIAA Paper 2001-1327, Proceedings of the*

42nd AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics, and Materials Conference, Seattle, WA, Apr. 16-19, 2001.

CP 58. Qu, X., Venkataraman, S., Haftka, R. T., and Johnson, T. F., "Reliability based Optimization of Composite Laminates for Cryogenic Environments," *AIAA Paper 2000-4760, Proceedings of 8th AIAA/USAF/NASA/ISSMO Symposium on Multidisciplinary Analysis and Optimization*, Long Beach, CA, Sept. 6-8, 2000.

CP 59. Qu, X., Venkataraman, S., Haftka, R. T., and Johnson, T. F., "Response Surface Options for Reliability based Optimization of Composite Laminates" *Proceedings of the 8th ASCE Special Conference on Probabilistic Mechanics and Structural Reliability*, June 2000.

CP 60. Lamberti, L., Venkataraman, S., and Haftka, R. T., "Comparison of Preliminary Designs of Stiffened Panels Optimized Using PANDA2 for Reusable Launch Vehicle Propellant Tanks," *AIAA Paper 2000-1657, Proceedings of 41st AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics, and Materials Conference*, Atlanta, GA, Apr. 3-6, 2000.

CP 61. Venkataraman, S., and Haftka, R.T., " Optimization of Composite Panels - a review, " *Proceedings of the American Society of Composites- 14th Annual Technical Conference*, Fairborn, OH, pp. 479-488, 1999.

CP 62. Venkataraman, S., Haftka, R. T. and Johnson, T. F., "Design of Shell Structures for Buckling Using Correction Response Surface Approximations," *AIAA Paper 98-4855, Proceedings of the 7th AIAA/USAF/NASA/ISSMO Symposium on Multidisciplinary Analysis and Optimization (Part. 2)*, St. Louis, MO, September, 1998, pp. 10-31.

CP 63. Venkataraman, S., Haftka, R. T. and Johnson, T. F., "Use of Equivalent Laminate Properties in the Optimization of Stiffened Composite Panels," *Proceedings of the 12th Annual Technical Conference, American Society of Composites*, Dearborn, Michigan, pp. 12-22, 1997.

CP 64. Venkataraman, S., and Haftka, R. T., "Integration of Finite Element Analysis and Panel Design Program," *AIAA Paper 97-1052. Proceedings of the 38th AIAA/ ASME/ ASCE/ AHS/ ASC Structures, Structural Dynamics, and Materials Conference*, Kissimmee, FL, April 7-10, 1997.

Books and Monographs

Modeling, Analysis and Optimization of Cylindrical Stiffened Panels for Reusable Launch Vehicle Structures. PhD Dissertation, University of Florida, 1999.

Published Abstracts

1. Rapoff AJ, Rinaldi RG, Johnson WM, Venkataraman S, Daegling DJ. Heterogeneous anisotropic elastic properties in a Macaca fascicularis mandible. *Proceedings of the 72nd Annual Meeting of the American Association of Physical Anthropologists*, Tempe, Arizona, 23-26 April 2003.
2. Daegling DJ, Marinescu R, Venkataraman S, Rapoff AJ. Effects of structural heterogeneity and anisotropy on finite element model predictions for a mandible of Macaca fascicularis. *Proceedings of the 72nd Annual Meeting of the American Association of Physical Anthropologists*, Tempe, Arizona, 23-26 April 2003. (published in the *American Journal of Physical Anthropology*: 83-83, Suppl. 36.)
3. Rapoff AJ, Fontanel O, Venkataraman S. Heterogeneous orthotropic elasticity about a nutrient foramen via microindentation. *Proceedings of the ASME Summer Bioengineering Conference*, Sonesta Beach, FL, 25-29 June 2003. (published in the *American Journal of Physical Anthropology:* 174-175, Suppl. 36)
4. Venkataraman, S., Zu, H., Haftka, R. T. and Sankar, B.V., Optimum Design of functionally graded metallic foam insulation for reentry vehicle thermal protection systems, *Proceedings of the Ninth International Conference on Composites in Engineering*, San Diego, California, July 2002.
5. Venkataraman, S., and Haftka, R.T., "Response Surfaces for Predicting Load Redistribution in Multi-level Structural Optimizations," *Proceedings of the 20th International Congress of the International Union of Theoretical and Applied Mechanics (IUTAM)*, Chicago, Illinois, August 27 – September 2, 2000.
6. Venkataraman, S., Haftka, R. T., Roux, W. and Harrison, P., "Comparison of NASTRAN and PANDA2 for the Optimization of Stiffened Panels," *Proceedings of the Second International Conference on Composites in Engineering*, New Orleans, Louisiana, August 1995.

Funded Grants

Friction Drilled Fasteners for Composite Structures, laminates (SBIR Phase I subcontract from M4 Engineering, Aug 2023-Dec 2023. $38,500.

Tools for Bearing Strength prediction of hybrid composite laminates (SBIR Phase II subcontract from MSC Corporation, Aug 2022-July 2024. $200,000.

Bioinspired Design of Vented Porous Structures for the Artemis Mission, CA Space Grant consortium, April 2022-Sep 2022. $15,000.

Undergraduate Student Engagement: Novel Design of Porous Materials and Structures for Space applications, CA Space Grant consortium, Aug 2021-Dec 2021. $15,000.

Design Tools for Advanced Tailorable Composites, NASA STTR Phase I sub award from M4 Engineering Inc., May 2021-June 2022. $15,897.

Academic Support, Career Training, and Professional Development to Improve Interdisciplinary Graduate Education for the Next Generation of Computational Scientists and Engineers, National Science Foundation, Oct 2019-Sep 2023. $1,000,000. (In collaboration with Dr. Jose Castillo & Dr. Dustin Thoman, co-PIs).

Tools for Bearing Strength prediction of hybrid composite laminates (SBIR Phase I subcontract from MSC Corporation, Feb 2019-Aug 2019. $50,000.

Residual strength of Sandwich composites after barely visible impact damage. NASA MUREP Award. Sep 2018-Aug 2021. $165,000

Life Prediction and Reliability Analysis of Composite Structures Northrop Grumman Corporation - Industrial Affiliates Program (IAP), Dec 2017. $10,000.

Baseline and Residual Strength Characterization of Composite Laminates Under Bearing and Bypass Loading, Office of Naval Research (in collaboration with Dr. Hyonny Kim and Joshua Rivera, NAVAIR), Supplement funding (Oct 2017- Dec 2017). $12,407.

Uncertainty Quantification for Fatigue Life Estimation in Composite Bolted Joints, AFOSR (SBIR Phase II subcontract from N&R Engineering), June 2016-May2018, $199,800.

Uncertainty Quantification for Fatigue Life Estimation in Composite Bolted Joints, AFOSR (SBIR Phase I subcontract from N&R Engineering), June 2015-Dec 2015, $49,905.

Experimental testing of Composite bolted joints, Northrop Grumman, $5000 (November 2014).

Baseline and Residual Strength Characterization of Composite Laminates Under Bearing and Bypass Loading, Office of Naval Research (in collaboration with Dr. Hyonny Kim and Joshua Rivera, NAVAIR), SDSU portion of funding, Oct 2013 – Oct 2017. $165,202

Blade Stress Estimation of Integrally Bladed Rotors Subjected to Multi-Source Excitations, (AFORSR (through STTR-Phase 2 subcontract from NextGen Aeronautics), $209,599 June 2014-June 2016.

Structural Evaluation of Frame-Stiffened Composite Panels, National Aeronautics and Space Administration, S18,000, Oct 2013 –Sep 2014.

Broadening Participation in Interdisciplinary Computational Science and Engineering Research and Training (ICSERT), NSF Directorate for Education and Human Resources, $618,792 (with Jose Castillo, PI, Paul Paolini, co-PI, Rob Edwards, co-PI) Sep 2013-Aug 2017.

Creep Characterization of EA 9394 at high temperatures and biaxial loading. Northrop Grumman Co., $5,000, Dec 2012 – Dec 2013.

Scaled up Compression After Impact Test on Stiffened Panels, AFOSR, (through STTR subcontract from Materials Sciences Corporation), $23,657, Sep 2012 – Dec 2012.

Blade Stress Estimation of Integrally Bladed Rotors Subjected to Multi-Source Excitations , AFOSR (through STTR-Phase 1 contract from NextGen Aeronautics), $30,549, AFOSR, March 2012- Dec 2012.

Positioning and Manipulation of Micro and Nano-Sized Particles Using Acoustic Manipulation and In-Plane Stress Actuation, CSU Program for Education and Research in Biotechnology (CSUPERB), $15,000, May 2009-Dec 2012.

Undergraduate Student Scholarships for Participation in Interdisciplinary Computational Science and Engineering Research, NSF Directorate for Education and Human Resources, $599,982 (with Jose Castillo, PI and Paul Paolini, co-PI) Aug 2009-July 2014.

Reliability Estimation and Optimization with Statistical Uncertainty, NASA (through SBIR Phase-II subcontract from N&R Engineering), $69,914, (Dec 2005-Dec2007).

Calculating confidence bounds for probability of failure using statistical data obtained from limited testing, NASA Glenn Research Center (through N& R Engineering), $15,000, Jun 2005 – Aug 2005..

Structural Health Monitoring of Deployed Space Structures, Grant-in-Aid Award, SDSU Foundation, $5,000, Jan 2005- July 2006.

Optimization for Predictable and Robust Failure, Research, Scholarship and Creative Activity Award, SDSU Foundation, $5,000, Jan - June 2006.

Load redistribution in multi-level coordination in optimization of complex aerospace structures, Northrop Grumman Corporation, $10,000, Oct 2004- Oct 2005.

Damage Identification in Large Periodic Lattice Structures Having Local and Global Imperfections-undergraduate student research grants, Sponsor: California Space Grant Consortium, $10,000, Oct 2004 – Sep 2005,

Modeling, Analysis and Optimization of High Emissivity Coatings, Space Micro Inc, San Diego, CA, $3000, June 2004

Development of Design Optimization Methods for Large Scale Structures, Northrop Grumman Corporation, $10,000, Oct 2003- Oct 2004.

Development of Multi-Fidelity Analysis and High-Accuracy Surrogate Models for Reliability-Based Optimization, Proposal for Research, Scholarship and Creative Activity Award 2003, $2500, January – June 2004,

Structural Design for Performance and Predictability via Optimization of Failure Sequences, Research, Scholarship, and Creative Activity (RSCA) Award San Diego State University, $5417, 2002-2003.

Structural Design for Performance and Predictability via Optimization of Failure Sequences, Faculty Grant-In-Aid Award, San Diego State University Foundation, $7998, 2002-2003.

Design for stress concentrations near holes via biomimetics, Principal Investigator, (CO-PI's: R. T. Haftka and A. J. Rapoff, University of Florida), NASA, Phase-II Small Business Innovation Research, $ 576,800, January 2001 to January 2003 .

Biomimetics Based Design of Damage Tolerant Airframe Panels, Principal Investigator (CO-PI's R. T. Haftka and A. J. Rapoff), University of Florida, Phase-I Small Business Innovation Research (SBIR) grant funded by NASA, AeroChem Corporation, $49, 989, Jan 2000 to June 2000.

Combined Thermal and Structural Optimization of Functionally Graded Tile, Co-Prinicipal Investigator, (Co-PI's R. T. Haftka and B. V. Sankar, University of Florida) NASA Langley Research Center, $65,000, March 2001 to Dec. 2001.

Post-Doctoral Candidates Mentored:

Rohit Madke, PhD Civil Engineering, Indian Institute of Technology –Rourkee, (May 2023-present)

Vaibhav Yadav, PhD. Mechanical Engineering University of Iowa (Aug 2014 – June 2016) – Research Associate at Idaho National Labs.

Arafat Khan, PhD, Aerospace Engineering, Virginia Tech (Sep 2016 – July 2018) Senior Composites Engineer, ESE Industries.

Doctoral Degree Students Directed as the Dissertation Committee Chair:

Adrian Rivera *PhD Structural Engineering (anticipated May 2024)*
Paulina Diaz-Montiel *PhD Structural Engineering (May 2022) -Asst Prof, Univ. of San Diego.*
Luis Escalona *Ph.D. Computational Science, 2020. Lecturer, Mechanical Engineering, SDSU.*
Pablo Salas *PhD. Engineering Science, 2010. Engineer, SpaceX.*
Kun Marhadi *PhD Computational Science 2009, Research Engineer, Brüel & Kjaer, Denmark.*

Master's Degree Students Directed as Thesis Committee Chair/Co-Chair):

Rommel Pineda, MS Aerospace Engineering, Dec 2023 (NAVAIR)
Jarod Heise, MS Aerospace Engineering, Aug 2023 (Lawrence Livermore National Labs)
John Crow, MS Computational Science, Dec 2022.
Andrea Fontanelli M.S. Computational Science, Aug 2021
Alejandrina Nuno, MS Aerospace Engineering, Aug 2020.(Senior Engineer, General Atomics)
Cristina Valen, MS Computational Science, Dec 2019.
Andrew Giles, MS Aerospace Engineering, Dec 2019 (Engineer, General Atomics)

Pranav Borwankar, MS Aerospace Engineering, Aug 2019, (PhD Student, Virginia Tech)
Andrea Fontanelli, MSc Aerospace Engineering (University of Pisa, Dec 2018) *PhD Student, Computational Science, San Diego State University/University of California Irvine.*
Beniamino Cimmino, MSc Aerospace Engineering (University of Pisa, Dec 2018) *PhD Student, Computational Science, San Diego State University/University of California Irvine.*
Amudha Varshini Kamaraj, *MS Aerospace Engineering, 2017. PhD Student Aerospace Engineering, Univ of Wisconsin.*
Manasi Palwankar, *MS Aerospace Engineering, 2017. PhD Student Aerospace Engineering, Virginia Tech.*
Alexandru Popescu, *MS Aerospace Engineering, 2016. Engineer, South West Fleet Readiness Center, NAVAIR, San Diego.*
Paulina Diaz-Montiel *MS Aerospace Engineering, 2016. PhD Student, Structural Engineering. SDSU/UCSD.*
Nicola Giorgi *MSc Aerospace Engineering*,University of Pisa, Dec 2015. *Engineer, Carbench, Italy*.
Ulas Akgun *MS Aerospace Engineering, Dec 2014. Engineer, Whirlwind Propellers Inc.*
James Mullinix *MS Applied Mathematics (w/ R. Carratero), May 2015, PhD candidate Computational Sciences, SDSU.*
Gabriela Sanz-Douglass, *MS Aerospace Engineering, Dec 2015, Engineering Northrop Grumman. Recipient of 2013-2014 NASA Harriet G. Jenkins Graduate Fellowship award $40K.*
Jacopo Casini *MSc Aerospace Engineering* (University of Pisa, Dec 2013) *Engineer, GE Gas & Oil Exploration, Italy*.
Gianmaria Bullegas *MSc Aerospace Engineering , University of Pisa, Dec 2013. PhD Imperial College, UK, Cofounder- Synbiosys Inc.*.
Kevin Joiner, *MS Mathematics (Non-Linear Dynamical Systems), 2013*, co advised with Ricardo Carratero). *SPAWAR San Diego.*
Vishal Agarwal *MS Aerospace Engineering, 2013, Engineer, United Technologies Aerospace Systems*
Kathy Wagschal, *MS Aerospace Engineering, 2012, Engineer, General Atomics.*
Jeremy Stromsoe *MS Aerospace Engineering, 2011. Engineer, General Atomics.*
Rafay Navaid *MS Aerospace Engineering , 2011. Engineer, General Atomics.*
Scott Wong, *MS Aerospace Engineering, 2009, Engineer, NAVAIR.*
Joshua Rivera *MS Aerospace Engineering, 2009. Senior Engineer, NAVAIR.*
Raghu Sirimamilla, *MS Aerospace Engineering, 2009. Engineer, United Technologies Aerospace Systems.*
James Issa *MS Aerospace Engineering, 2008. Reliability Engineer, Qualcomm.* (co advised with Eugene Olevsky)
Guy Watanabe *MS Aerospace Engineering, 2007,Structural engineer, Northrop Grumman.*
Himaja Jani *MS Aerospace Engineering, 2006. Reliability Engineer, Qualcomm.* (co advised with Eugene Olevsky)
Pablo Salas *MS Aerospace Engineering 2005, Research Engineer, Western Digital.*

Undergraduate Students Mentored/Mentoring (Research Engagement):

Jeron Rollns *B.S. Aerospace Engineering*, May 2023 (Engineer, Northrop Grumman)
Gillian Dowdy *B.S. Aerospace Engineering*, May 2022 (Engineer, Virgin Galactic)
Ian Jackson, *B.S. Aerospace Engineering*, May 2022 (Graduate Student, Purdue University)
Itzel Salgado *B.S. Aerospace Engineering*, May 2021 (Doctoral student, Northwestern University)
Jonathan Davami *B.S. Aerospace Engineering*, May 2021 (Doctoral student, Univ of Notre Dame)
Adrian Rivera *B.S. Aerospace Engineering*, 2018. (Doctoral Student – SDSU/UCSD)
Alexandra Mallory *B.S. Aerospace Engineering*, 2017 (M.S. Purdue University)
Victor Ortega *B.S. Aerospace Engineering*, 2017. (Engineer – NAVAIR)
Ace Elascio *B.S. Aerospace Engineering* , 2016. (Engineer – NAVAIR)
Zac Ghanim Alwakeel *B.S. Aerospace Engineering*, 2015) – Recipient *NSF STEM scholarship 2014-2015*.
Pietro Zerilli *B.S. Aerospace Engineering* (May 2015) – Recipient by *NSF STEM scholarship 2014-2015*.
Jeffrey Erickson *B.S. Aerospace Engineering* (May 2015) – Recipient *NSF STEM scholarship 2013-2015, Engineer SpaceX.*
Juan Barragan *B.S. Mechanical Engineering*, Recipient *NSF STEM scholarship 2012-2014.*
Francisco Candido *B.S. Aerospace Engineering* (May 2014) – Recipient MARC fellowship. Participated in summer 2013 REU at Harvard University. Recipient of CSU Chancellors Office Sally Casanova Pre-Doctoral Fellowship. PhD student, Cornell U.

Elizabeth Fortin	*B.S. Mechanical Engineering* (May 2014) – Recipient *NSF STEM scholarship 2011-2012,* MBRS-IMSD fellowship (2012-2014). Participated in summer 1013 REU at NC State University, Ph.D. student Arizona State Univ.
Scott James	B.S. Aerospace Engineering (May 2014). Recipient *NSF STEM scholarship 2011-2013.Student intern at Hamilton Sundstrand Co. Recipient of ASTM student research scholarship, RH Fleet scholarship, and Speer Scholarship..*
Jeromey Suko	B.S. Aerospace Engineering (May 2014) Recipient *NSF STEM scholarship 2011-2013. Engineer at United Launch Alliance Co.*
Juan Avila	B.S. Aerospace Engineering (May 2014) Recipient *NSF STEM scholarship 2011-2013.* MS Aerospace Engineering at SDSU, Engineer NAVAIR.
Andrew Christensen	*BS Aerospace Engineering, May 2013.* Recipient *NSF STEM scholarship 2012-2013.* Engineer, United Technologies Aerospace Systems.
Brett Sens	*BS Aerospace Engineering, May 2013.* Recipient *NSF STEM scholarship 2012-2013.* Engineer, United Technologies Aerospace Systems
Alejandrina Nuno	*BS Aerospace Engineering, May 2011. Recipient of NSF STEM scholarship 2010-201). Team Lead, Composite Structures, General Atomics. Student, MS Aerospace Engineering at SDSU.*
Eric Lundgren;	*BS Mechanical Engineering, May 2007, Recipient of NASA Summer Research Internships at NASA Langley Research Center, 2005 & 2006*). *Manager, Aerospace Corporation. M.S. Aerospace Engineering , Virginia Tech.*
Cecilia Larossa	*BS Aerospace Engineering - May 2007 Recipient of SAMPE scholarship, Aerospace Engineering Speer Scholarship, ARCS Scholarship, NASA Summer Research Internship, NASA Langley Research Center, 2006).*. Ph.D. Aerospace Engineering, Stanford University, 2013.
Joshua Rivera;	*BS Aerospace Engineering 2007, MS Aerospace Engineering 2009, Recipient of Aerospace Engineering Speer Scholarship, 2004, Senior Engineer, NAVAIR.*
Roya Yazandifar;	*BS Civil Engineering 2006, M.S. Civil Engineering, 2010, Structural Engineer at CalTrans.*
Eduardo Velazquez	*BS Aerospace Engineering 2005, Recipient of Aerospace Engineering Speer Scholarship, 2004, Doctoral Candidate at UCSD. Senior Engineer, Space X.*
Peter Seyforth;	*BS Mechanical Engineering – May 2004, Design Engineer, Vangaurd Composites*.

Professional Society Memberships

Associate Fellow, American Institute of Aeronautics and Astronautics (since 2011)
Member, AIAA Non-Deterministic Approaches Technical Committee (2007-2021)
Member of American Society of Mechanical Engineers (since 2000)
Member of American Society for Composites (since 1997)
Member, Intl. Society of Structural & Multidisciplinary Optimization (since 2000)
Member, Society for Advancement of Materials and Process Engineering (since 2002)

SERVICE TO UNIVERSITY AND COMMUNITY

Service to University

Graduate Advisor, Aerospace Engineering Master's Degree Program, SDSU, Spring 2004 – Fall 2020.
Associate Director, Computational Science Research Center, 2012 – 2021.
Graduate Council, SDSU, Fall 2011- Spring 2017.
HHS Dean Review committee, Spring 2015
Dept. of Chemistry Graduate Program Review Committee Fall 2013.
Undergraduate Research Working Group, SDSU Strategic Planning, Fall 2013 – 2015.
Academic Senate, SDSU, Fall 2011 – Spring 2014.
University Graduate Curriculum Committee, Fall 2011 – Spring 2015. Chair Spring 2014 – Spring 2015.
Senate Committee -Equal Opportunity Programs Committee, Fall 2012 – Spring 2013.
Faculty Student Mentoring Program (FSMP), SDSU, Fall 2008 – Spring 2011.
Aerospace Department Curriculum Committee, Fall 2002-present
College of Engineering Curriculum Committee, Fall 2003-Spring 2006)
College of Engineering Graduate Committee, Fall 2004 – present
College of Engineering, Joint Doctoral Program Committee, Fall 2003- Fall 2008.
College of Engineering, International Studies Committee, Spring 2004 – Spring 2005.

Faculty Mentor: CSEM Scholarship & Mentoring Program (Spring 2003-Spring 2006).
Faculty Advisor: SDSU SAMPE Student Chapter, Spring 2004 – Spring 2015)
Faculty Advisor, SDSU AIAA Student Chapter, Fall 2012- Spring 2014.
Faculty Advisor, SDSU Rocket Project, Fall 2012 – Spring 2013.
Aerospace Engineering Faculty Search Committee, Spring 2006 &Spring 2008.

Service to Community

Reviewer to professional technical journals: AIAA Journal, Journal of Aircraft, Structural & Multidisciplinary Optimization, Composite Structures.
Session Chair, AIAA SDM conferences (Non-Deterministic Approaches Forum papers (2008-present).
Vice-Chair for Technical Activities, AIAA San Diego Chapter, May 2012-May2013.
Advisory Board Member, Math Task Force, San Diego Unified School District, Aug 2011 – Mar 2013.
President, University of Florida International Folk Dancers, August 1996 to July 1997
Activities Director, University of Florida Sports Club Council, Sept. 1996 to May 1997
Graduate Student Rep., Teaching Effectiveness & Resources Committee Clemson University, Fall 1993.