

## Current Group Members

### Post-Doctoral Researcher



Dr. Venkata Srivishnu Mohan Vemuru, Ph.D. and M.S., Rice University, B.S. NIT India

### Complimentary Post-Doctoral Researcher



Dr. Kalil Erazo, Research Professor, Univ. of Dominican Republic, Santo Domingo, Ph.D. Civil Engineering, University of Vermont 2015, M.S. Georgia Tech 2011

### Ph.D. Students:



1. Debarshi Sen, Ph.D. Student, Wave Propagation based SHM, B.S. IIT Kharagpur. India.



2. Zhilu Lai, Ph.D. Student, Structural System Identification, M.S. HK-Poly, B.S. Xiamen University, China



3. Sutanu Bhowmick, Ph.D. Student, Sparse Identification, Sensing and St. ID., M.S. IIT Kanpur, B.S. Jadavpur, India



4. Debashish Jana, Ph.D. Student, Sparse Identification, Sensing and St. ID., M.S. IIT Kanpur, B.S. Jadavpur, India

### M.S. Student:



1. Meng Wei, M.S. and B.S. Naval Architecture, China Petroleum University, China



2. Kiachun Yang, B.S., Harbin Institute of Technology, China

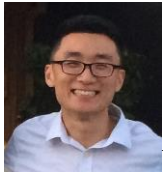
#### 4. FORMER GROUP MEMBERS:

**Former Ph.D. students – 20; Former Post-Doc 10; Former MS students 20**

20. Peng Sun (2017) Currently Post-Doc Univ. of Michigan, Ann Arbor.
19. Zhan Shu (2015-Jointly with UCLA Prof. Zhang in NSF-NEES project) Currently Consulting Engineer, Los Angeles.
18. Navid Attary (2015-Jointly with RPI Prof. Symans in NSF-NEES project), currently Post-doc Colorado State University
17. Apostolos Sarlis (2015-Jointly with UB Prof. Constantinou in NSF-NEES project), currently Research Engineering, Exxon Mobil, Houston, TX
16. Keguan Zou (2015), currently Structural Engineer, New York City, New York
15. Yongchao Yang (2014), currently at Directors-Post-Doc at Los Alamos National Lab, New Mexico
14. Srivishnu Mohan Venkata Vemuru (2014), currently Post-Doc at Rice University
13. Chao Sun (2014), currently, Assistant Professor, Louisiana State University, LA
12. Chaojun Huang (2013) currently, Subsea Riser Engineer, 2H Offshore Inc., Houston, TX
11. Dharma Theja Reddy Pasala (2013), currently Riser Engineer, INTECSEA, Houston, TX
10. Michael Contreras (2012), currently at Department of Energy, Washington, DC
9. Ertan Sonmez (2011), Assistant Professor, Ankara, Turkey
8. Chen Bilei (2008), currently Structural Engineering, Shell, Houston, TX
7. Zhiling li (2006), currently Floating Systems Engineer, BP, Houston, TX
6. Dharap Prasad (2006), currently at Structural Engineer, SBM, Houston, TX
5. Steve Wilkerson (2005), currently principal/VP at Cardano Hanes Whaley, Houston, TX
4. Nadathur Varadarajan (2005), Research Engineer, Shell Technology Center, Houston, TX
3. Sriram Narasimhan (2004), current Canada Research Chair, Associate Professor, University at Waterloo, Canada
2. Sanjay Sahasrabudhe (2001), currently Senior Structural Engineer at OFD Engineering, Houston, TX
1. Ravi Subramaniam (1994—Jointly with Professor Andrei Reinhorn, University at Buffalo), formerly Engineer @ Sun Micro Systems, CA

Graduated Students (Served as primary Advisor and Mentor at Rice University):

2017



Dr. Peng (Patrick) Sun “Strain-Sensing Smart Skin for Structural Health Monitoring” Ph.D. Dissertation, CEVE, Rice University, M.S., B.S. Southeast University, China.

Currently, Post-Doc, Univ. of Michigan, Dept. Civil Eng.

2016

Sam Wang, M.S. Student, Smart Skin for Measuring Fracture and Fatigue, B.S. Taiwan

2015



Dr. Keguan Zou, “Study of Adaptive Passive Stiffness Systems with Nonlinear Vibrations: New Analytical and Computational Techniques,” **Ph.D. Dissertation**, CEVE, Rice University, Dec. 2014, M.S., Southeast Univ., China, B.S., Tsinghua Univ., China,

Currently, Consulting Eng., New York

2014



Dr. Yongchao Yang, “Harnessing data structure for health monitoring and assessment of civil structures: sparse representation and low-rank structure” Department of Civil and Environmental Engineering, Rice University, August 2014, B.S. Harbin Institute of Technology, China

Currently, Directors Post-Doc, Los Alamos National Laboratory



Dr. Srivishnu Venkata Mohan Vemuru, “Dynamic Stability of elastomeric seismic isolation bearings and seismic protection using enhanced adaptive negative stiffness system.” **Ph.D. Dissertation**, CEVE, Rice University, M.S. Rice, B.S. NIT- Surtkal, India

Currently, Post-Doc, Rice University, Dept. Civil Eng and Chemistry



Dr. Chao Sun, “Structural Vibration Control of Nonlinear Systems Using the Smart Tuned Mass Damper (STMD) and the Nonlinear Tuned Mass Damper (NTMD).” **Ph.D. Dissertation**, CEVE, Rice University, M.S. Tongji University, China, B.S. Shanghai Jiao Tong University, China

[Currently, Assistant Professor, Dept. Civil Eng., Louisiana State Univ., Louisiana](#)

2013



Dr. Dharma Theja Reddy Pasala, “Seismic response control of structures using novel adaptive-passive and semi-active variable stiffness and negative stiffness devices” **Ph. D. Dissertation**, CEVE, Rice University, M.S. Rice, B.S., IIT - Guwahati, India.

[Currently, Riser Engineer at INTECSEA, Houston](#)



Dr. Chaojun Huang, “Structural Health Monitoring System for Deepwater Risers with Vortex-induced Vibration: Nonlinear Modeling, Blind Identification, Fatigue/Damage Estimation & Vibration Control” **Ph. D. Dissertation**, CEVE, Rice University, M.S. Tsinghua University, China, B.S. Tsinghua University, China.

[Currently, Engineering Specialist at 2H Offshore Inc., Houston](#)

2012



Dr. Michael Contreras, “Neural Network based real time structural damage monitoring and fault detection and control” **Ph. D. Dissertation**, CEVE, Rice University (*First Hispanic-American Student*). M.S. UCLA, B.S. UCLA.

[Currently, Co-Founder, Technologist, SensisChallenges, Washington D. C.](#)

2011



Dr. Ertan Sonmez, "Deterministic and Stochastic Responses of Smart Variable Stiffness and Damping Systems and Smart Tuned Mass Dampers," **Ph.D. Dissertation**, CEVE, Rice University. M.S. Vanderbilt University, B.S. Middle Eastern University, Turkey.

[Currently, Assistant Professor, Atlim University, Dept. Civil Eng., Turkey](#)

2010



Srivishnu Mohan, "Dynamic Response of Multi-Degree of Freedom Structure with Sliding Isolation System and Uplift" M.S. Thesis, CEVE, Rice University, B.S. NIT- Surtkal, India.

[See Above for Ph.D.](#)

2009



Dharma Theja Reddy Pasala, "Repetitive Control of Hysteretic Systems Using Robust H-infinity Controller" M.S. Thesis, CEVE, Rice University, B.Tech, IIT- Guwhati, India.

[See Above for Ph.D.](#)

2008



Dr. Chen Beili, "Detection Filter-based Method for Robust Structural Damage Detection," **Ph.D. Dissertation**, CEVE, Rice University. M.S. Tsinghua University, China, B.S. Tsinghua University, China.

[Currently, Research Engineer, Shell, Houston](#)

2007

Ike Akinwande, "Nanocomposite strain sensors: A study of electrical and thermal properties" M.S. Thesis, CEVE, Rice University (*First African American Student*). B.S. Rice University.

[Currently, Structural Engineer, Oklahoma Department of Transportation, Oklahoma](#)

2006



Dr. Li Zhiling, "Methods for real-time actuator-sensor failure and structural damage detection," **Ph.D. Dissertation**, CEVE, Rice University. M.S. Tsinghua University, China, B.S. Tsinghua University, China

[Currently, Floating Systems Engineer, BP, Houston](#)



Dr. Dharap Prasad, "Real-time structural damage monitoring using interaction matrix formulation and observers," **Ph.D. Dissertation**, CEVE, Rice University. M.S. IIT-Bombay, India, B.S. VJIT, Bombay, India.

[Currently, Structural Engineer, Sea Eng. Inc., Houston](#)

2005



Dr. Steve Wilkerson, "An optimization algorithm for minimum weight design of steel structures with non-smooth stress constraints," **Ph.D. Dissertation**, CEVE, Rice University. M.S. Rice University, B.S. Rice University.

[Currently, Senior Structural Engineer, EDI Building Consultants, Houston](#)



Dr. Nadathur Varadarajan, "Novel Smart Variable Stiffness Tuned Mass Damper and its Real Time Identification and Control using Time-frequency Techniques," **Ph.D. Dissertation**, Rice University, **Best graduate student award**, CEVE. M.S. BITS-Pilani, India, B.S. BITS-Pilani, India.

[Currently, Senior Research Engineer, Shell, Houston](#)

Michael Sullivan, "State Estimation of International Space Station Centrifuge Rotor with Incomplete Knowledge of Disturbance Inputs," M.S.Thesis, Department of Mech. Eng. and Mat. Sc., Rice University, (Draper Fellow).

[Currently, Chief of Electronic Warfare Operations at United States Air Force](#)

2004



Dr. Sriram Narasimhan, "Control of smart base isolated buildings with new semiactive devices and novel  $H_2/LQG$ ,  $H_\infty$ , and time frequency controllers" **Ph.D. Dissertation**, CEVE, Rice University., M.S. Rice, M.S. Louisiana State University, B.S. Osmania University, India.

[Currently, Chaired Associate Professor, Dept. Civil Eng., University of Waterloo, Canada](#)



Jeffery Dyck, "Experimental and analytical study of variable fluid damper and stiffness device" M.S. Thesis, CEVE, Rice University. B.S. Texas A&M University.

[Principal - President; Structural Engineer, Athos Consulting Engineers, Inc., Dallas](#)

2003



Dr. Ashutosh Agrawal, "Response of semiactive variable stiffness and damping systems to pulse type excitations: Analytical and experimental study" M.S. Thesis, CEVE, Rice University, B.S. IIT-Bombay, India.

[Currently, Associate Professor, Dept. Mech. Eng., University of Houston, Houston](#)

2002

Mao, Yuqing, "Sliding mode control and nonlinear spectra of smart base isolated structures," M.S. Thesis, CEVE, Rice University, B.S. Tongji University, China.

[Currently, Consultant, Houston](#)

Criste, Erin, "Testing and analysis of a prototype fluid damper," M. S. Thesis, Rice University, B.S. Vanderbilt University (*Third female student*).

[Currently, Engineer, AISC](#)

2001



Dr. Sahasrabudhe, Sanjay, "Semi-active control of sliding base isolated buildings and bridges with variable stiffness and damping systems," **Ph.D. Dissertation**, CEVE, Rice University. M.S. Pune University, India, B.S. Pune University, India.  
[Currently, Senior Structural Engineer, McDermott, Houston](#)

### [1998—University of Missouri-Columbia](#)



Iyer, Ravi, "Experimental study of a 1:20 scale bridge model with sliding isolation system and innovative dampers," M.S., CEE, Univ. of Missouri-Columbia. B.S. VJIT, India  
[Currently, Software Engineer, Infosys, India](#)

Ma, Xiaojiang, "System identification of an 8 story base isolated building using earthquake data," M.S. Thesis, CEE, University of Missouri-Columbia. B.S. Tongji University.  
[Currently, Consulting Engineer, China](#)

Mate, Datta, "Experimental and analytical study of semi-active variable stiffness control system," M.S. Thesis, CEE, University of Missouri-Columbia. B.S. Pune University.  
[Currently, Consulting Engineer, India](#)

Sunan, Wang, "Predictive control algorithms for semi-active variable stiffness systems in building structures," M.S. Thesis, (*Second Female Student*) CEE, University of Missouri-Columbia. B.S. Tongji University.  
[Currently, Consulting Engineer, Dallas](#)

### **1996—University of Missouri-Columbia**

Wei, Wu, "Application of partitioned predictor corrector algorithms in nonlinear structural analysis and optimal control", M.S. Project, University of Missouri-Columbia. B.S. Tianjin University.

[Currently, Research Engineer, BP, Houston](#)

Keith, Ferrell, "Stability of elastomeric seismic isolation bearings in buildings", M.S. Thesis, CEE, University of Missouri-Columbia. B.S. University of Missouri-Columbia.  
[Currently, Structural Engineer, Missouri DOT, Missouri](#)

Sun, (Tracy) Xiahong, "Response of base isolated structures to Northridge Earthquake including pounding," M.S. Thesis, (*First Female Student*), CEE, University of Missouri-Columbia. B.S. Tsinghua University.  
[Currently, Senior Structural Engineer, Houston](#)



### 1994—State University of New York at Buffalo

Dr. Subramaniam, R. S., "Application of fuzzy set theory to the active control of base isolated structures," **Ph.D. Dissertation**, CEE, SUNY at Buffalo, (Co-advisor with Prof. Andrei Reinhorn). M.S. IIT-Madras, B.S. IIT-Madras.

Currently, Senior Software Engineer, Intel Corp., California

### **1991—State University of New York at Buffalo**

Tsopelas, P., "Nonlinear dynamic analysis of multiple building base isolated structures," M.S. thesis, CEE, SUNY at Buffalo, (Co-advisor with Prof. Constantinou). B.S. NTU, Athens, Greece.

Currently, Associate Professor, Dept. Civil Eng., National Technical University, Athens

## **Undergraduate Students**

- Kyle Chow (Research Assistant), Rice University, 2017-present
- Ray Butgen (Research Assistant), Rice University, 2016-2017
- Jackie Zhao (Research Assistant), Rice University, 2014-2015
- Jihoon Kim (Research Assistant), Rice University, 2012-2014
- Dan Sloat (Research Assistant), Rice University, 2010-2012
- Peter Fobel (Research Assistant), Rice University, 2011-2012
- Eastman Landry (Research Assistant), Rice University, 2008-09
- Jeffery Haydon ((Research Assistant), Rice University, 2007-08
- Ike Akinwande (Research Assistant), Rice University, 2003-04
- Ryan Kent Giles (Research Assistant), Rice University, 2002-03
- Daniel Arizpe Rizzo (Research Assistant), Rice University, 2000-01
- Jose De La Pena (Research Assistant), Rice University, 99-2000
- Carlos Alvarez (Research Assistant), Rice University, 99-2000
- Sabrina Macedo Moran (Research Assistant), Cornell University, 99-2000
- Tyson Newhouse (Research Assistant), Univ. of Missouri, prior to 96-97
- Pulliam, John, E. (Research Assistant), Univ. of Missouri, prior to 96-97
- Hendrix, Rick (Research Assistant), Univ. of Missouri, prior to 95-96
- Stone, David (Research Assistant), Univ. of Missouri, 94-95
- Ferrell, Keith (Research Assistant), Univ. of Missouri, 93-94
- Gazdowski, Eric (Research Assistant), Univ. of Missouri, 93-94

## FORMER RESEARCH GROUP MEMBERS

### Visiting Professors

- Prof. Beom-Seon Jang, Seoul National University, 2014-2016
- Prof. J. Chang, Suzhou University of Science and Technology, China, 2014-2015
- Prof. Srinivasan, Mechanical Eng., Lamar/TAMU/IISc, Fall 2012
- Prof. Biswajit Basu, Trinity College, Dublin, Ireland, 2006 (on sabbatical), 2005 (summer), and 2004 (summer)
- Prof. Sriram Narasimhan, University of Waterloo, 2007 (on sabbatical)
- Prof. N. Sundararajan, Electrical Eng., Nanyang Tech. University, Singapore, 2004

### Visiting Students

- Wei Zhang, Ph.D. Student, Dept. of civil Engineering, Tongji University, 2016
- Tong Sun, Visiting Ph.D. Student, Smart Structures, B.S., M.S., Dalian University of Technology, 2014-2016
- Yuyi Beasho, University of Tokyo, 2015-2016
- Lin Chen, PhD. Student, Dept. of civil Engineering, Tongji University, 2012-2014
- Kaveh Karami, PhD. Student, Dept. of civil Engineering, Iran University of Science and Technology, Tehran, Iran, Spring 2013
- Yudong Shi, PhD. Student, Dept. of Civil Engineering, Kyoto University, Spring 2012

### Post-Doctoral Researchers (10 total)

- Dr. Venkata Srivishnu Mohan Vemuru, Ph.D. and M.S., Rice University, B.S. NIT India, 2016-present
- Dr. Kalil Erazo, Post Doc, 2015-2016, Ph.D. Civil Engineering, University of Vermont 2015, M.S. Georgia Tech 2011, currently Research Professor at Bogota Institute of Tech.
- Dr. Yongchao Yang, Post Doc, 2014-2015, Ph.D. Civil Engineering, Rice 2014, B.S. Harbin Institute of Technology, **Directors Post-Doc at Los-Alamos Laboratory**
- Dr. Chao Sun, Post Doc, 2014-2015, Ph.D. Civil Engineering, Rice 2013. M.S., Tongji Univ., B.S., Shanghai Jiao Tong University  
**Currently, 2015-Present, Assistant Professor, Dept. of Civil Engineering, Louisiana State University, <http://www.cee.lsu.edu/PEOPLE/faculty/structural/facstaff/chao.sun>**
- Dr. Dharap Prasad, Post Doc, 2006 – 2007, Ph.D. Civil Engineering, Rice, 2006, M.S. IIT Bombay, B.S. VJIT, Bombay, India.
- Dr. Li Zhiling, Post Doc, 2006 – 2007, Ph.D. Civil Engineering, Rice, 2006, M.S. & B.S. Tsinghua University, China.
- Dr. Steve Wilkerson, Post Doc, 2005 – 2006, Ph.D. Civil Engineering, Rice, 2005, M.S. & B.S. Rice University.
- Dr. Sriram Narasimhan, Post Doc, 2005 – 2006, Ph.D. Civil Engineering, Rice, 2005, M.S. Louisiana State University, B.S. Osmania University, India.  
**Currently, 2006-Present, Canada Research Chair in Smart Infrastructure and Associate Professor, Dept. of Civil Engineering, University of Waterloo, Canada.**  
<http://www.civil.uwaterloo.ca/snarasim/>

- Dr. Bong Hwan Koh, Post-doc, 2003-2004, Ph.D. Mechanical Engineering, Dartmouth College, 2003, M.S. & B.S. Sung Kyun Kwan University, Korea. **Currently Assistant Professor**, Department of Mechanical Engineering, Dongguk University, Seoul, Korea.  
[http://www.dongguk.edu/eng\\_html/college/seoulcampus\\_08.jsp](http://www.dongguk.edu/eng_html/college/seoulcampus_08.jsp)
- Dr. Sanjay Sahasrabudhe, Post Doc, 2001 – 2002, Ph.D. Civil Engineering, Rice, 2001, M.S. & B.S. Pune University, India.