YES SMASIS ALWAYS PRODUCES!!!!

PIONEER BANQUET AWARDS CEREMONY

American Society of Mechanical Engineers
2020 Conference on Smart Materials,
Adaptive Structures and Intelligent Systems

Tuesday, September 15, 2020

SMASIS AWARDS

2020 Student Best Paper Competition Finalists

CHARACTERIZATION AND DESIGN OF PROGRAMMABLE SELF-FOLDING POLYMER FILMS

Derosh George (deroshg@uci.edu)

DESIGN OF A SMART MORPHING WING USING INTEGRATED AND DISTRIBUTED TRAILING EDGE CAMBER MORPHING

Tigran Mkhoyan (T.Mkhoyan@tudelft.nl)

PNEUMATIC EXTENSION ACTUATORS WITH KIRIGAMI SKINS

Steven Iannucci, Suyi Li (suyil@clemson.edu)

A TWO-DIMENSIONAL FINITE ELEMENT MODEL FOR PRESTRESS EFFECTS ON MAGNETOELECTRIC LAMINATED COMPOSITES

Sudersan Sridhar (sudersansridhar@yahoo.co.in)

IMPACT OF INCLUDING ELECTRONICS DESIGN ON DESIGN OF INTELLIGENT STRUCTURES: APPLICATIONS TO MULTIFUNCTIONAL STRUCTURES FOR ATTITUDE CONTROL (MSAC)

Vedant (vedant2@illinois.edu)

DESIGN OF COMPLIANT JOINTS FOR LARGE SCALE STRUCTURES

Angela Nastevska (dzolinastevska@gmail.com)

ON THE EFFECTS OF ELECTRICAL CONDUCTIVITY ON THE TRIBOELECTRIC BEHAVIOR OF A PDMS-BASED COMPOSITE MATERIAL

Zhao, Xiaoyue (xxz307@psu.edu)

2020 Student Best Hardware Competition Finalists

DESIGN OF A SMART MORPHING WING USING INTEGRATED AND DISTRIBUTED TRAILING EDGE CAMBER MORPHING

Tigran Mkhoyan
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POSABLE TENSEGRITY-CONSTRAINED INFLATABLE KINEMATIC GRAPHICAL ANALYSIS

Adeline Wihardja
adelinew@umich.edu

SYSTEM DESIGN AND IMPLEMENTATION OF A TRANSIENT-MOTION-POWERED IOT SENSOR NODE

Xin Li
lixin1@shanghaitech.edu.cn

ADDITIVELY MANUFACTURED CONTINUOUS FIBRE-REINFORCED THERMOPLASTICS FOR MECHANISMS SUBJECTED TO PREDOMINANT INERTIAL LOAD: A CASE STUDY

Riccardo Pucci
riccardo.pucci3@studio.unibo.it

RECONFIGURABLE MULTI-STABLE HELICAL LATTICE

Seán Carey
Sean.Carey@ul.ie

2020 ASMS BRANCH AWARDS

2020 Best Paper in Structures and Structural Dynamics

VIBRATION DAMPING MECHANISM OF FIBER-REINFORCED COMPOSITES WITH INTEGRATED PIEZOELECTRIC NANOWIRES, ACS APPLIED MATERIALS AND INTERFACES; LoriAnne Groo, Kelsey Steinke, Daniel J. Inman, and Henry A. Sodano, vol. 11, 47373−47381

2020 Ephrahim García Best Paper Award

FUNCTIONALLY GRADED KNITTED ACTUATORS WITH NITI - BASED SHAPE MEMORY ALLOYS FOR TOPOGRAPHICALLY SELF - FITTING WEARABLES

Rachael Granberry, Kevin Eschen, Brad Holschuh, Julianna Abel
Advanced Materials Technologies; 04 October 2019
https://doi.org/10.1002/admt.201900548

2020 Best Paper In Mechanics And Materials Systems

PAIRING ELECTROSTATIC LEVITATION WITH TRIBOELECTRIC TRANSDUCTION FOR HIGH-PERFORMANCE SELF-POWERED MEMS SENSORS AND ACTUATORS

Applied Physics Letters, Vol. 115, 133503 (2019); https://doi.org/10.1063/1.5119814 Mark Pallay, Alwathiqbellah I. Ibrahim, Ronald N. Miles, and Shahrzad Towfighian

2020 ASMS TECHNICAL COMMITTEE AWARDS

2020 Best Paper Award in Energy Harvesting

A PARAMETRIC RESONATOR WITH LOW THRESHOLD EXCITATION FOR VIBRATION ENERGY HARVESTING

WeiYang, Shahrzad Towfighian, Journal of Sound and Vibration
Volume 446, 28 April 2019, Pages 129-143

2020 Best Conference Paper

ENHANCING ADAPTABLE TOPOLOGICAL WAVE BANDWIDTH IN PIEZOELECTRIC METAMATERIALS VIA CIRCUITRY AND LATTICE SYMMETRY CONTROL

Authors: Patrick Dorin, K.W. Wang, Department of Mechanical Engineering, University of Michigan, Ann Arbor, Michigan

2020 Best Paper Award in Active Material Technology and Integrated Systems Technical Committee

FUNCTIONALLY GRADED KNITTED ACTUATORS WITH NITI - BASED SHAPE MEMORY ALLOYS FOR TOPOGRAPHICALLY SELF - FITTING WEARABLES

Rachael Granberry Kevin Eschen Brad Holschuh Julianna Abel
Advanced Materials Technologies; 04 October 2019
https://doi.org/10.1002/admt.201900548

2020 Best Paper Award in Bioinspired Smart Materials and Systems

L-SYSTEM-GENERATED MECHANISM TOPOLOGY OPTIMIZATION USING GRAPH-BASED INTERPRETATION

Brent R. Bielefeldt, Ergun Akleman, Gregory W. Reich, Philip S. Beran, Darren J. Hartl
Journal of Mechanisms and Robotics. Apr 2019, 11(2): 020905

2020 Best Paper Award in Structural Health Monitoring & NDE

STEP-LEVEL OCCUPANT DETECTION ACROSS DIFFERENT STRUCTURES THROUGH FOOTSTEP-INDUCED FLOOR VIBRATION USING MODEL TRANSFER

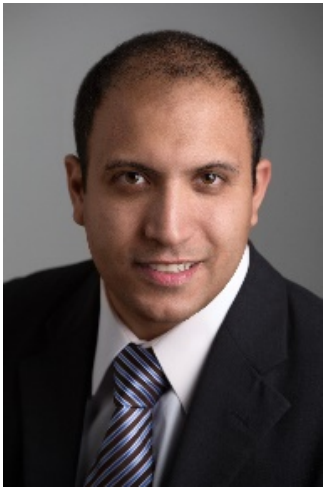
Mostafa Mirshekari, Jonathon Fagert, Shijia Pan; Pei Zhang; and Hae Young Noh; Journal of Engineering Mechanics; Volume 146 Issue 3 - March 2020

FAILURE PREDICTION IN SELF-SENSING NANOCOMPOSITES VIA GENETIC ALGORITHM-ENABLED PIEZORESISTIVE INVERSION

Hashim Hassan, Tyler N Tallman, Structural Health Monitoring, Volume: 19 issue: 3, page(s): 765-780

2020 GARY ANDERSON AWARD

Mostafa A. Nouh, University at Buffalo, State University of New York



Mostafa Nouh is an Assistant Professor of Mechanical and Aerospace Engineering at the University at Buffalo (SUNY). He obtained his BS from Cairo University (2008), his MS and PhD in Mechanical Engineering from the University of Maryland (2013). From 2013-2015, he served as a postdoctoral research associate at the Smart Materials & Structures Research Center at the University of Maryland. His research interests span the areas of smart materials, acoustics and vibration control, with a focus on phononic and resonant metamaterials, nonreciprocal structures, and thermoacoustic energy harvesting. He has co-authored 4 book chapters and has 39 papers in archival journals, with editorially featured articles in Physical Review Applied and the Journal of Applied Physics. He is a recipient of the NSF CAREER award, the University of Maryland Future Faculty award, as well as Young Investigator and Teacher of the Year awards from the University at Buffalo. He chaired the Energy Harvesting symposium at SMASIS in 2018, co-chaired the Student Best Paper competitions in 2017 and 2018, and served as an Associate Editor for special issues for the Journal of Intelligent Material Systems and Structures in 2018 and 2019.

ASME 2020 ADAPTIVE STRUCTURES & MATERIAL SYSTEMS AWARD

Wei-Hsin Liao, PhD - The Chinese University of Hong Kong (Hong Kong, China)

Wei-Hsin Liao received his Ph.D. degree in mechanical engineering from The Pennsylvania State University, University Park, PA, USA. Since 1997, Dr. Liao has been with The Chinese University of Hong Kong, where he is currently a Professor and the Chairman of the Department of Mechanical and Automation Engineering. His research has led to publications of over 280 papers in international journals and conference proceedings, 19 granted patents. As the General Chair, he organized the 20th International Conference on Adaptive Structures and Technologies (ICAST 2009). He was the Conference Chair for the Active and Passive Smart Structures and Integrated Systems, SPIE Smart Structures/NDE in 2014 and 2015. He received the T A Stewart-Dyer/F H Trevithick Prize 2005, awarded by the Institution of Mechanical Engineers, the ASME Best Paper Awards in Structures (2008), Mechanics and Material Systems (2017). Dr. Liao is the recipient of the SPIE 2018 *SSM Lifetime Achievement Award*, and ASME 2020 *Adaptive Structures and Material Systems Award*. He currently serves as an Associate Editor for the *Journal of Intelligent Material Systems and Structures*, as well as *Smart Materials and Structures*. Dr. Liao is a Fellow of the American Society of Mechanical Engineers, the Institute of Physics, and the Hong Kong Institution of Engineers.

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