2018
Faculty Achievements and Activities
College of Engineering

Awards and Honors

Allan, Vicki H

Computer Science Service of the Year, Utah State University, (April 24, 2018).

Best Paper Award, SIGCSE, (February 23, 2018).

Barfuss, Steven L

Major Professor to Kade Beck who was awarded the College of Engineering MS researcher of the year, Utah State University College of Engineering, (January 2018).

Major Professor to Kade Beck who was awarded the department MS researcher of the year, Department of Civil and Environmental Engineering, (January 2018).

Becker, Kurt

University Service Award, Department of Engineering Education, (January 2018).

Berke, Ryan B

AFRL Summer Faculty Fellowship, AFRL, (March 2, 2018).

MAE Outstanding Undergraduate Research Mentor, USU MAE, (February 23, 2018).

Chakraborty, Koushik

Best Paper Award Nomination, 2018 ACM/IEEE Design Automation and Test in Europe, (2018).

Clyde, Stephen W

Researcher of the Year, Computer Science Department, (April 2018).

Cripps, Donald Lewis

Advisor of the Year, Utah State University, ECE Department, (February 2018).

Crookston, Brian Mark

Inaugural ASDSO Young Professional of the Year, Association of State Dam Safety Officials, (September 2018).

Doucette, William J

CEE Teacher of the Year 2018, (February 2018).

2018
Faculty Achievements and Activities
College of Engineering

Galarus, Douglas Edward

"High Value Research" (HVR) Project – Research Impacts, Better- Faster - Cheaper: From AWOS/RWIS to Caltrans Aviation Weather Information (AWI), Association of State Highway and Transportation Officials (AASHTO), (2018).

2018 Utah State University Proposal Writing Institute, Utah State University RGS (Research and Graduate Studies) and College of Engineering, (May 2018).

Geller, David K

Outstanding Teacher Award, MAE, Utah State University, (2018).

Goodridge, Wade Hamilton

Outstanding Research Award, the Council for Technology & Engineering Teacher Education (CTETE), (April 12, 2018).

Best Conference Presentation, American Society for Engineering Education - Rocky Mountain Section, (March 27, 2018).

2018 Undergraduate Research Mentor of the Year, College of Engineering, (February 2018).

2018 Undergraduate Research Mentor of the Year, Department of Engineering Education, (February 2018).

Graham, Jackson J

Undergraduate Faculty Mentor of the Year, College of Engineering, (March 30, 2018).

Undergraduate Faculty Advisor of the Year, Mechanical and Aerospace Engineering Department, (March 15, 2018).

Halling, Shelly Stock

Excellent Contribution Award, Engineering Education Department, (November 2018).

Hunsaker, Douglas F

Office of Naval Research Young Investigator Program (YIP) Recipient, (June 2018).

USU College of Engineering Graduate Mentor of the Year, (January 24, 2018).

Lawanto, Oenardi

The IEEE Transactions on Education Theodore E. Batchman Best Paper Award, Institute of Electrical and Electronics Engineers (IEEE), (October 5, 2018).

Liu, Ling

NSF CAREER Award, NSF, (2018).

2018
Faculty Achievements and Activities
College of Engineering

Maguire, Marc James

Undergraduate Research Adviser of the Year, Utah State University, (January 2018).

Mano, Chad D

USU College of Engineering Teacher of the Year, USU College of Engineering, (April 2018).

USU Department of Computer Science Teacher of the Year, USU Department of Computer Science, (April 2018).

Mekker, Michelle M

IRF Fellow, International Road Federation, (January 7, 2018).

Miller, Charles D

USU Faculty Service Award, Robins Award Finalist, USU, (May 2018).

Faculty Service Award, College of Engineering, USU College of Engineering, (April 2018).

Faculty Service Award, College of Engineering, Biological Engineering Department, (March 2018).

Minichiello, Angela L

Nominated for ASCE Educator of the Year Award, USU Student Chapter, American Society of Civil Engineering (ASCE), (February 27, 2018).

Outstanding Teacher of the Year, Department of Engineering Education, (February 27, 2018).

Phillips, Jonathan D

Outstanding Teacher of the Year 2017-2018, USU ECE Department, (February 2018).

Roper, Donald Keith

Excellence in Research Dissemination, University of Arkansas College of Engineering, (May 2018).

Presidential Citation, Institute of Biological Engineering, (April 2018).

Third Place, AIChE Mid-America Student Regional Conference Poster Session, AIChE, (April 2018).

Rosenberg, David E

Graduate Mentor of the Year, USU - Dept. of Civil and Environmental Engineering, (May 2018).

Roy, Sanghamitra

Best Paper Nomination at Design Automation and Test in Europe, ACM DATE 2018, (March 2018).

Sims, Ronald C

Fellow, American Institute of Medical and Biological Engineering, (April 9, 2018).

Outstanding Undergraduate Research Mentor, Biological Engineering Department, (February 2018).

Song, Ziqi

Outstanding reviewer-Transportation Research Part C, Elsevier, (August 2018).

Advisor of the Year, USU CEE Department, (March 2018).

Swenson, Charles M

Outstanding Teacher of the Year, Department of Electrical and Computer Engineering, Utah State University, (December 2018).

Tarboton, David G

Fellow, American Geophysical Union, (August 9, 2018).

Taylor, Timothy A

Outstanding Undergraduate Research Advisor, Department of Biological Engineering, (February 20, 2018).

Tullis, Blake P

ASCE Hydraulic Structures Medal, American Society of Civil Engineers, (June 2018).

Vargis, Elizabeth Ann

Outstanding Graduate Mentor of the Year, USU College of Engineering, (December 2018).

Outstanding Researcher of the Year, Department of Biological Engineering, (December 2018).

Outstanding Teacher of the Year, Department of Biological Engineering, (February 2018).

Villanueva, Idalis

Distinguished Paper Award, Northern Rocky Mountain Educational Research Association, (October 3, 2018).

Journal of Engineering Education Selects, Journal of Engineering Education, (September 1, 2018).

Diversity Paper Award, Engineering Ethics Division, American Society of Engineering Education, (June 24, 2018).

Graduate Research Mentor of the Year Award, Engineering Education Department, Utah State University, (February 27, 2018).

Researcher of the Year Award, Engineering Education Department, Utah State University, (February 27, 2018).

Wang, Haitao

Outstanding Graduate Mentor Award, Department of Computer Science, Utah State University, (April 2018).

Wendel, Spencer Clayton

Undergraduate Advisor of the Year, Mechanical & Aerospace Engineering Department, (February 2018).

Whitmore, Stephen A

NASA MSFC Summer Faculty Research Fellowship, NASA, (May 5, 2018).

Zane, Regan

David G. and Diann L. Sant Endowed Professor, (2018).

Zeng, Ruijie

Highlight of 2017, Environmental Research Letters, (March 1, 2018).

Creative Works, Performances, Exhibitions and Activities

Other

Goodridge, Wade Hamilton

Invited exhibit of our adapted Mental Cutting Test to the Tactile Mental Cutting Test and its use to measure spatial ability - Discovering Blind and Low Vision Spatial Ability by Creating a Tactile Spatial Ability Instrument, June 24, 2018.

Villanueva, Idalis

ARCH - Work in a national publication - Behind the Masks of Academia, October 1, 2018.

ARCH - Work in a national publication - Hearts and Minds: Interdisciplinary approaches and biosensors can help measure student engagement, August 1, 2018.

Publications/Intellectual Contributions

Abstract

Crookston, Brian Mark

Application of machine learning in the analysis of arced labyrinth weirs, (June 2018), 2018 IAHR European Congress.

Book, Chapter in Non-Scholarly Book

Villanueva, Idalis

The bigger picture: My journey to a purposeful life and career in academia, (August 15, 2018), Mom the Chemistry Professor.

The bigger picture: My journey to a purposeful life and career in academia, (April (2nd Quarter/Spring) 16, 2018), mom, the Chemistry Professor, 485-499.

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Faculty Achievements and Activities
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Book, Chapter in Scholarly Book

Dyreson, Curtis Elliott

Calendric System, (2018), Springer.

Chronon, (2018), Springer.

Now in Temporal Databases, (2018), Springer.

Physical Clock, (2018), Springer.

Temporal Indeterminacy, (2018), Springer.

Temporal XML, (2018), Springer.

Time-Line Clock, (2018), Springer.

Zhan, Jixun

Reconstitution of medicinally important plant natural products in microorganisms, (May 2018), Wiley-Blackwell, 383–416.

Book, Chapter in Textbook-New

Lawanto, Oenardi

Secondary School Students' Computer self-Efficacy and Its Relevance to IT-Based Education in Indonesia, (2018), Switzerland: Springer, 245-258.

Sims, Judith Larabee

Wastewater Recycling in Handbook of Environmental Engineering, (October (4th Quarter/Autumn) 2018), John Wiley and Sons, Inc., 375-424.

Book, Scholarly-New

Berke, Ryan B

Fracture, Fatigue, Failure, and Damage Evolution, Volume 6, (June 2018), Proceedings of the 2017 Annual Conference on Experimental and Applied Mechanics, 9.

Hu, Rose

Smart Grid Communication Infrastructures - Big Data, Cloud Computing, And Security, (March 2018), IEEE Press and Wiley.

Bulletin-Other

Lane, Belize A

Expanding Instream Flows to Protect Ecosystems in Overallocated River Basins, (September 2018).

Rosenberg, David E

Expanding Instream Flows to Protect Ecosystems in Overallocated River Basins, (September 2018).

Conference Proceeding

Allan, Vicki H

How Near Peer Mentoring Affects Middle School Mentees, (2018), ACM Technical Symposium on Computer Science Education (SIGSCE).

How Mother and Father Support Affect Youths' Interest in Computer Science. (August 13, 2018), Proceedings of the 2018 ACM Conference on International Computing Education Research (ICER 18), 215-222.

Allen, Lee Niel

Multispectral remote sensing for yield estimation using high-resolution imagery from an unmanned aerial vehicle, (May 21, 2018), SPIE/Society of Photo-Optical Instrumentation Engineers (SPIE)/Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III.

Barfuss, Steven L

Responding to unauthorized extreme activities at spillways in order to improve public safety, (August 13, 2018), ICOLD 2018 26th Congress -86th Annual Meeting.

Public safety and unauthorized extreme activities at spillways, (May 16, 2018), ISHS 2018 7th International Symposium on Hydraulic Structures.

Barr, Paul J

Bearing Friction Values for Slide-In Bridge Construction, (July (3rd Quarter/Summer) 2018), Proc. of IABMAS 2018 Conference, Melbourne, Australia, July 2018.

Dynamic Effects Caused by SPMT Bridge Transport, (July (3rd Quarter/Summer) 2018), Proc. of IABMAS 2018 Conference, Melbourne, Australia, July 2018.

Bay, James A

Testing Procedure to Evaluate Ductility of Cutoff Wall Backfill Material Relative to Changes in Permeability with Strain, (April (2nd Quarter/Spring) 2018), USSD Annual Conference, 2018.

Becker, Kurt

Interest and Needs of Secondary Science Educators Regarding Professional Development on Engineering Standards (Fundamental), (June 2018), 125th Annual Conference Proceedings of the American Society of Engineering Education.

2018
Faculty Achievements and Activities
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Budge, Scott E

Super-resolution textured digital surface model formation using aerial texel images taken from a low-cost, small unmanned aerial system, (May 2018), Laser Radar Technology and Applications XXIII, 10636, 10 636 - 10636-8.

Cetiner, Bedri A

Multifunctional Reconfigurable Antennas for Cognitive Radars, (2018), IEEE Radar Conference 2018.

Cognitive Radar Utilizing Multifunctional Reconfigurable Antennas, (May 2018), SPIE 2018.

Chakraborty, Koushik

ACE-GPU: Tackling Choke Point Induced Performance Bottlenecks in a Near-Threshold Computing GPU, (July (3rd Quarter/Summer) 2018), ACM Proceedings of the International Symposium on Low Power Electronics and Desig.

Reliability and Uniformity Enhancement in 8T-SRAM based PUFs operating at NTC, (July (3rd Quarter/Summer) 2018), ACM Proceedings of the International Symposium on Low Power Electronics and Desig.

Trident: A Comprehensive Timing Error Resilient Technique against Choke Points at NTC, (March 2018), Proceedings of the IEEE/ACM Design Automation and Test in Europe (DATE).

Cheng, Heng-Da

A novel hybrid framework for tumor saliency estimation, (2018), IEEE.

Efficient Dense-Dilation Network for Pavement Cracks Detection with Large Input Image Size, (2018), IEEE ITSC.

Medical knowledge constrained semantic breast ultrasound image segmentation, (2018), IEEE.

Clyde, Stephen W

Modeling Personal Identifiable Information Using First-Order Logic, (October (4th Quarter/Autumn) 28, 2018), 5th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2018).

INGRIM: A Middleware to Enable Remote Method Invocation Routing in Multiple Group Device -to-Device Networks, (August 3, 2018), the Proceeding of the 4th IEEE International Conference on Smart Data (SmartData-2018), 2018 IEEE Cybermatics Congress.

Crookston, Brian Mark

Successful Overtopping Protection Projects in the Eastern U.S., (2018).

Size-Scale Effects of Labyrinth Weir Hydraulics, (September 2018), International Symposium on Hydraulic Structures 2018.

Responding to unauthorized extreme activities at spillways in order to improve public safety, (August 13, 2018), ICOLD 2018 26th Congress -86th Annual Meeting.

Public safety and unauthorized extreme activities at spillways, (May 16, 2018), ISHS 2018 7th International Symposium on Hydraulic Structures.

Davidson, Ryan

CubeSat active thermal management in support of cooled electro-optical instrumentation for advanced atmospheric observing missions, (September 18, 2018), CubeSats and NanoSats for Remote Sensing II, 10769.

The Active CryoCubeSat Project: Testing and Preliminary Results, (August 2018), AIAA/USU Conference on Small Satellites.

Enabling critically cooled instrumentation via active thermal management for CubeSats: The active CryoCubeSat Project, (June 2018), International Cryocooler Conference.

Dyreson, Curtis Elliott

LINKSOCIAL: Linking User Profiles Across Multiple Social Media Platforms, (November 17, 2018), 2018 IEEE International Conference on Big Knowledge, ICBK 2018, 260-267.

Renovating Database Applications with DBAutoAwesome, (May 24, 2018), Databases Theory and Applications - 29th Australasian Database Conference, ADC 2018, 94-106.

Edwards, John Martin

Separation of syntax and problem solving in Introductory Computer Programming, (2018).

Galarus, Douglas Edward

An Analysis of Best Practices for DOT Traveler Information Data Quality, (June 7, 2018), ITS America 2018.

Geller, David K

Navigation and Maneuver Requirements Determination For Elliptic Orbit Rendezvous Operations, (September 2018).

Attitude Determination of Rotating Spacecraft Using Light Curve Measurements from Multiple Observatories, (August 2018).

Monte Carlo Methods and Skewed Kalman Filters for Orbit Determination, (August 2018).

Orbit and Attitude Observability Using Accelerometer Measurements, (August 2018).

Practical Survey Strategies for GEO from a Single Ground-Based Observatory, (August 2018).

Using Triangularization in Optical Orbit Determination, (August 2018).

Monte Carlo Methods and Skewed Kalman Filters for State Determination, (August 2018), AAS/AIAA Astrodynamics Conference, Snowbird, UT, August 2018.

RAON: Revolution in Autonomous Orbital Navigation, (February 2018), AAS 18-148, AAS Guidance and Control Conference, Breckenridge, CO, Feb 2018.

Optimal Maneuvers for Safe RPO Using Relative Orbital Elements and Sequential Convex Optimization, (February 2, 2018), AAS 18-148, AAS Guidance and Control Conference, Breckenridge, CO, Feb 2018.

A Performance Analysis of On-board Numerical Propagators, (February 1, 2018), AAS 18-092, AAS Guidance and Control Conference, Breckenridge, CO, Feb 2018.

Analysis of Angles-Only Hybrid Space-Based/Ground-Based Approach for Geosynchronous Orbit Catalog Maintenance, (January (1st Quarter/Winter) 2018), Space Flight Mechanics Conference, Kissimmee, Florida, Jan 2018.

Goodridge, Wade Hamilton

An initial exploration of engineering students' emotive responses to mechanics and statics problems, (June 2018), Proceedings of the American Society of Engineering Education Annual Conference and Exposition.

Interest and Needs of Secondary Science Educators Regarding Professional Development on Engineering Standards (Fundamental), (June 2018), 125th Annual Conference Proceedings of the American Society of Engineering Education.

Increasing Student Self-Efficacy through Undergraduate Research Experiences: A Qualitative Study, (June 24, 2018), 125th Annual Conference Proceedings of the American Society of Engineering Education.

The Correlation of Growth Mindset with Statics Course Performance, (June 24, 2018), 125th Annual Conference Proceedings of the American Society of Engineering Education.

The State of Engineering Integration in K-12 Science Standards – Five Years after NGSS (Fundamental), (June 24, 2018), 125th Annual Conference Proceedings of the American Society of Engineering Education.

Work in progress: Exploring Students' Affective Responses to Mechanical Engineering Statics Problems, (June 24, 2018), 125th Annual Conference Proceedings of the American Society of Engineering Education.

Adaptation of the Mental Cutting Test for Use among the Blind or Visually-impaired, (March 26, 2018), 2018 ASEE Zone IV Conference.

Gunther, Jacob Hans

A Tool for Training Speech Imitation Accuracy, (October (4th Quarter/Autumn) 2018), IEEE Asilomar Conference on Signals, Systems and Computers.

Geolocation from Received Signal Strength, (October (4th Quarter/Autumn) 2018), IEEE Asilomar Conference on Signals, Systems and Computer.

Source localization and room mapping using information derived from independent component analysis, (October (4th Quarter/Autumn) 2018), IEEE Asilomar Conference on Signals, Systems and Computers.

Sparse recovery via variational Bayesian Inference: Comparing Bernoullis-Gaussians Inverse Gamma and Gaussians-Inverse Gammas Modeling, (October (4th Quarter/Autumn) 2018), IEEE Asilomar Conference on Signals, Systems and Computers.

Acoustic Echo Cancellation During Doubletalk Using Convolutive Blind Source Separation of Signals Having Temporal Dependence, (June 2018), 2018 IEEE Statistical Signal Processing Workshop.

Contravariant Adaptation on the Manifold of Casual, FIR, Invertible Multivariable Matrix Systems, (June 2018), 2018 IEEE Statistical Signal Processing Workshop.

Contravariant Adaptation on the Manifold of Invertible Matrix Transfer Functions, (June 2018), 2018 IEEE Statistical Signal Processing Workshop.

Halling, Marvin W

Bearing Friction Values for Slide-In Bridge Construction, (July (3rd Quarter/Summer) 2018), Proc. of IABMAS 2018 Conference, Melbourne, Australia, July 2018.

Dynamic Effects Caused by SPMT Bridge Transport, (July (3rd Quarter/Summer) 2018), Proc. of IABMAS 2018 Conference, Melbourne, Australia, July 2018.

Hu, Rose

Computation Efficiency Maximization for Wireless-Powered Mobile Edge Computing, (December 2018), IEEE Globecom.

Heterogeneous Power-Splitting Based Two-Way DF Relaying with Non-Linear Energy Harvesting, (December 2018), IEEE Globecom.

Privacy-Preserving Data Preprocessing for Fog Computing in 5G Network Security, (December 2018), IEEE Globecom.

BER Analysis for NOMA-Enabled Visible Light Communication Systems with M-PSK, (October (4th Quarter/Autumn) 2018), WCSP.

Hierarchical Collaborative Cloud and Fog Computing in IoT Networks, (October (4th Quarter/Autumn) 2018), WCSP.

Resource Allocation Based on Deep Neural Networks for Cognitive Radio Networks, (August 2018), IEEE/CIC International Conference on Communications in China (ICCC).

A D2D Based Clustering Scheme for Public Safety Communications, (April (2nd Quarter/Spring) 2018), IEEE VTC.

A Relay Selection Scheme to Prolong Connection Time for Public Safety Communications, (April (2nd Quarter/Spring) 2018), IEEE VTC.

Hunsaker, Douglas F

A Sine-Summation Algorithm for the Prediction of Ship Deck Motion, (October (4th Quarter/Autumn) 2018), IEEE.

A propeller model based on a modern numerical lifting-line algorithm with an iterative semi-free wake solver, (January (1st Quarter/Winter) 2018), AIAA.

Aerodynamic centers of arbitrary airfoils, (January (1st Quarter/Winter) 1, 2018), AIAA.

Geometry and aerodynamic performance of parabolic trailing-edge flaps, (January (1st Quarter/Winter) 1, 2018), AIAA.

Numerical algorithm for wing-structure design, (January (1st Quarter/Winter) 1, 2018), AIAA.

Kulyukin, Vladimir Alekseyevich

Honeybee recognition in video bee traffic monitoring: Convolutional neural networks vs. random forests, (November 14, 2018), Proceedings of the ESA, ESC, and ESBC Joint Annual Meeting.

A convolutional neural network for recognizing bees in video analysis of forager traffic, (April (2nd Quarter/Spring) 28, 2018), Bee World: Proceedings of the 2018 American Bee Research Conference, 95.

Using logistic regression, k-nearest neighbor, and support vector machines to classify audio samples in audio beehive monitoring, (April (2nd Quarter/Spring) 28, 2018), Bee World: Proceedings of the 2018 American Bee Research Conference, 95.

Lawanto, Oenardi

Developing Portable Lab Kits for a Foundational Circuits Class, (June 2018), American Society of Engineering Education (ASEE).

Does Everyone Use Computational Thinking? – A Case Study of Art and Computer Science Majors, (June 2018), American Society of Engineering Education (ASEE).

Engineering undergraduates' task interpretation during problem solving in Thermodynamics, (June 28, 2018), American Society of Engineering Education (ASEE).

Maguire, Marc James

Bearing Friction Values for Slide-In Bridge Construction, (July (3rd Quarter/Summer) 2018), Proc. of IABMAS 2018 Conference, Melbourne, Australia, July 2018.

Dynamic Effects Caused by SPMT Bridge Transport, (July (3rd Quarter/Summer) 2018), Proc. of IABMAS 2018 Conference, Melbourne, Australia, July 2018.

McKee, Mac

Behavior of vegetation/soil indices in shaded and sunlit pixels and evaluation of different shadow compensation methods using UAV high-resolution imagery over vineyards, (May 21, 2018), SPIE/Society of Photo- Optical Instrumentation Engineers (SPIE)/Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III.

Implications of sensor inconsistencies and remote sensing error in the use of small unmanned aerial systems for generation of information products for agricultural management, (May 21, 2018), SPIE/Society of Photo- Optical Instrumentation Engineers (SPIE)/Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III.

Inter-comparison of thermal measurements using ground-based sensors, airborne thermal cameras, and eddy covariance radiometers, (May 15, 2018), SPIE/Society of Photo- Optical Instrumentation Engineers (SPIE)/Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III.

Mekker, Michelle M

Implementation of a Real-Time Data Driven System to Provide Queue Alerts to Stakeholder, (March 15, 2018), IEEE 20th International Conference on Intelligent Transportation Systems, 1-6.

Minichiello, Angela L

Argumentation in K-12 engineering education: A review of the literature (Fundamental), (June 28, 2018), American Society of Engineering Education (ASEE).

Engineering undergraduates' task interpretation during problem solving in Thermodynamics, (June 28, 2018), American Society of Engineering Education (ASEE).

Examining the literacy practices of engineers to develop a model of disciplinary literacy instruction for K-12 engineering (Work in Progress), (June 28, 2018), American Society of Engineering Education (ASEE).

Communicating findings about online forum use among undergraduates in distance-delivered calculus: Developing a help seeking usage model, (June 28, 2018), American Society of Engineering Education (ASEE).

Moon, Todd K

A Tool for Training Speech Imitation Accuracy, (October (4th Quarter/Autumn) 2018), IEEE Asilomar Conference on Signals, Systems and Computers.

Geolocation from Received Signal Strength, (October (4th Quarter/Autumn) 2018), IEEE Asilomar Conference on Signals, Systems and Computer.

Source localization and room mapping using information derived from independent component analysis, (October (4th Quarter/Autumn) 2018), IEEE Asilomar Conference on Signals, Systems and Computers.

Sparse recovery via variational Bayesian Inference: Comparing Bernoullis-Gaussians Inverse Gamma and Gaussians-Inverse Gammas Modeling, (October (4th Quarter/Autumn) 2018), IEEE Asilomar Conference on Signals, Systems and Computers.

Acoustic Echo Cancellation During Doubletalk Using Convolutive Blind Source Separation of Signals Having Temporal Dependence, (June 2018), 2018 IEEE Statistical Signal Processing Workshop.

Contravariant Adaptation on the Manifold of Casual, FIR, Invertible Multivariable Matrix Systems, (June 2018), 2018 IEEE Statistical Signal Processing Workshop.

Contravariant Adaptation on the Manifold of Invertible Matrix Transfer Functions, (June 2018), 2018 IEEE Statistical Signal Processing Workshop.

Qi, Xiaojun

Optimized Feature-Based Image Registration for RGB and NIR Pairs, (July (3rd Quarter/Summer) 2018), International Conference on Multimedia and Expo.

Robust Structured Multi-Task Multi-View Sparse Tracking, (July (3rd Quarter/Summer) 2018), International Conference on Multimedia and Expo.

Rice, John D

Reliability underseepage assessment of levees incorporating geomorphic, (April (2nd Quarter/Spring) 2018), USSD Annual Conference, 2018.

Testing Procedure to Evaluate Ductility of Cutoff Wall Backfill Material Relative to Changes in Permeability with Strain, (April (2nd Quarter/Spring) 2018), USSD Annual Conference, 2018.

Richards, Geordon Haley

Monte Carlo Methods and Skewed Kalman Filters for State Determination, (August 2018), AAS/AIAA Astrodynamics Conference, Snowbird, UT, August 2018.

Finding the Uncertainty of the Mean for Correlated Data From PIV, (July (3rd Quarter/Summer) 2018), 19th International Symposium on the Application of Laser and Imaging Techniques to Fluid Mechanics.

Roberts, Nicholas

Open Educational Resources in the Undergraduate Engineering Curriculum: A Materials Science Case Study, (June 2018), ASEE Annual Conference and Exposition.

Open Educational Resources in the Undergraduate Engineering Curriculum: A Materials Science Case Study, (June 23, 2018), 2018 ASEE Annual Conference & Exposition.

Roy, Sanghamitra

ACE-GPU: Tackling Choke Point Induced Performance Bottlenecks in a Near-Threshold Computing GPU, (July (3rd Quarter/Summer) 2018), ACM Proceedings of the International Symposium on Low Power Electronics and Desig.

Reliability and Uniformity Enhancement in 8T-SRAM based PUFs operating at NTC, (July (3rd Quarter/Summer) 2018), ACM Proceedings of the International Symposium on Low Power Electronics and Desig.

Trident: A Comprehensive Timing Error Resilient Technique against Choke Points at NTC, (March 2018), Proceedings of the IEEE/ACM Design Automation and Test in Europe (DATE).

Sharp, Zachary Brad

Optimizing Hydraulic Efficiency of Anoxic Zones in Activated Sludge Systems Using a CFD model, (October (4th Quarter/Autumn) 2018), Water Environment Federation's Technical Exhibition and Conference.

Smith, Barton L

Finding the Uncertainty of the Mean for Correlated Data From PIV, (July (3rd Quarter/Summer) 2018), 19th International Symposium on the Application of Laser and Imaging Techniques to Fluid Mechanics.

Swenson, Charles M

Best Practices, Lessons Learned and Challenges in Small Satellite Capacity-building, (September 2018), United Nations / Brazil Symposium on Basic Space Technology.

The Application of Small Satellites in Research and Teaching, (September 2018), United Nations / Brazil Symposium on Basic Space Technology.

The Scintillation Prediction Observation Research Task (SPORT) mission: An international science mission using a CubeSat, (September 2018), United Nations/Brazil Symposium on Basic Space Technology.

CubeSat active thermal management in support of cooled electro-optical instrumentation for advanced atmospheric observing missions, (September 18, 2018), CubeSats and NanoSats for Remote Sensing II, 10769.

Active Thermal Architecture for Cryogenic Optical Instrumentation, (August 2018), AIAA/USU Conference on Small Satellites.

The Active CryoCubeSat Project: Testing and Preliminary Results, (August 2018), AIAA/USU Conference on Small Satellites.

Enabling critically cooled instrumentation via active thermal management for CubeSats: The active CryoCubeSat Project, (June 2018), International Cryocooler Conference.

Torres, Alfonso Faustino

Behavior of vegetation/soil indices in shaded and sunlit pixels and evaluation of different shadow compensation methods using UAV high-resolution imagery over vineyards, (May 21, 2018), SPIE/Society of Photo- Optical Instrumentation Engineers (SPIE)/Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III.

Implications of sensor inconsistencies and remote sensing error in the use of small unmanned aerial systems for generation of information products for agricultural management, (May 21, 2018), SPIE/Society of Photo- Optical Instrumentation Engineers (SPIE)/Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III.

Multispectral remote sensing for yield estimation using high-resolution imagery from an unmanned aerial vehicle, (May 21, 2018), SPIE/Society of Photo-Optical Instrumentation Engineers (SPIE)/Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III.

Inter-comparison of thermal measurements using ground-based sensors, airborne thermal cameras, and eddy covariance radiometers, (May 15, 2018), SPIE/Society of Photo- Optical Instrumentation Engineers (SPIE)/Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III.

Tullis, Blake P.

Hydraulic Structures-ISHS2018 in Perspective, (September 2018), International Symposium on Hydraulic Structures 2018.

Size-Scale Effects of Labyrinth Weir Hydraulics, (September 2018), International Symposium on Hydraulic Structures 2018.

Bottom Outlets: Determining Air Demand and Air Vent Sizing for Small- to Medium-Sized Embankment Dams, (July (3rd Quarter/Summer) 2018), International Committee on Large Dams (ICOLD).

Villanueva, Idalis

Global engineering leadership for societal impact: perspectives among engineering faculty worldwide, (November 16, 2018), World Engineering Education Forum/Global Engineering Deans Council.

Hidden curriculum awareness: a qualitative comparison of engineering faculty, graduate students, and undergraduates, (November 16, 2018), World Engineering Education Forum/Global Engineering Deans Council.

Understanding first-year engineering students' perceived ideal learning environments, (November 16, 2018), World Engineering Education Forum/Global Engineering Deans Council.

Makerspaces vs. engineering shops: initial undergraduate student perspectives, (October (4th Quarter/Autumn) 6, 2018), IEEE Frontiers in Education.

Uncovering the hidden factors that could compromise equitable and effective engineering education, (October (4th Quarter/Autumn) 6, 2018), IEEE Frontiers in Education Conference.

Engineering students' perceived value of makerspaces in relation to future career preparation, (August 5, 2018), International Symposium on Academic Makerspaces.

An initial exploration of engineering students’ emotive responses to mechanics and statics problems, (June 2018), Proceedings of the American Society of Engineering Education Annual Conference and Exposition.

An initial exploration of engineering students' emotive responses to mechanics and statics problems, (June 27, 2018), American Society of Engineering Education, 21881, 1-15.

Developing a measure of engineering students' makerspace learning, perceptions, and interactions, (June 27, 2018), American Society of Engineering Education.

Exploring students' and instructors' perceptions of engineering: case studies of professionally-focused and career exploration courses, (June 27, 2018), American Society of Engineering Education, 21891, 1-14.

Perceptions of ethical behavior in ethical mentoring relationships between women graduate students and faculty in science and engineering, (June 27, 2018), American Society of Engineering Education, 1-20.

What does hidden curriculum in engineering look like and how can it be explored?, (June 27, 2018), American Society of Engineering Education, 1-16.

Wang, Hailei

Numerical Modeling for a Supercritical CO2-Liquid Sodium Hybrid Compact Heat Exchanger, (November 2018).

Wang, Haitao

On the Coverage of Points in the Plane by Disks Centered at a Line, (August 2018), Proceedings of the 30th Canadian Conference on Computational Geometry (CCCG 2018).

An O(n log n)-Time Algorithm for the k-Center Problem in Trees, (July (3rd Quarter/Summer) 2018), Proceedings of the 34th Annual Symposium on Computational Geometry (SoCG 2018).

Wendel, Spencer Clayton

Open Educational Resources in the Undergraduate Engineering Curriculum: A Materials Science Case Study, (June 23, 2018), 2018 ASEE Annual Conference & Exposition.

Winstead, Chris J

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Clyde, Stephen W

Child Health Advanced Record Management System, (December 2018), Utah Department of Health.

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Galarus, Douglas Edward

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Automated Safety Warning System Controller (Software & System), (January (1st Quarter/Winter) 2018), California Department of Transportation, Division of Research, Innovation and System Information.

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One-Stop-Shop for Rural Traveler Information (Web Application), (January (1st Quarter/Winter) 2018), Western States Rural Transportation Consortium.

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Western States Forum Conference Web Site/Application, (January (1st Quarter/Winter) 2018), Western States Rural Transportation Consortium.

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Sorensen, Andrew Dell

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Contracts, Grants and Sponsored Research

Agblevor, Foster Aryi

Development of insitu catalytic pyrolysis catalyst, Funded, $240,000.00, (January 1, 2017 - December 31, 2019).

Reformulated red mud as coagulant-adsorbent for wastewater treatment, Funded, $17,740.00, (December 2018 - June 2019).

Insitu catalytic pyrolysis and product bio-oil upgrading, Funded, $525,000.00, (October 2014 - December 2018).

Biobased Adhesive production from pinyon juniper catalytic pyrolysis oils, Funded, $100,000.00, (July 1, 2016 - July 2018).

Allan, Vicki H

Utah State University STARS! GEAR UP Partnership Cohort 4, Funded, $16,871,200.00, (October 1, 2018 - September 30, 2025).

Integration of Computing with Electronic Textiles to Improve Teaching and Learning of Electronics in Secondary Science, Funded, $1,091,533.00, (October 1, 2015 - October 1, 2019).

Understanding Gender in Two Dimensions: Combinatorial Effects of Recruitment Interventions in Computer Science, Funded, $804,000.00, (September 1, 2016 - September 1, 2019).

NCWIT Summit, Funded, $2,000.00, (May 2018).

Allen, Lee Niel

Optimizing Water Use in Agriculture by Stacking Conservation Practices, Funded, $600,000.00, (December 2018 - December 2021).

Optimizing Water Use in Agriculture by Stacking Conservation Practices, Funded, $40,000.00, (July 2018 - June 2021).

Optimizing Water Use in Agriculture by Stacking Conservation Practices, Funded, $600,000.00, (July 2018 - June 2021).

Nitrogen needs of small grains following alfalfa, Funded, $36,093.00, (June 2018 - June 2021).

Extension Food Safety Modernization Act Educator Position, Funded, $602,987.00, (June 1, 2017 - June 30, 2021).

Managing small grains after alfalfa for water savings, Funded, $36,093.00, (2018 - 2020).

Managing small grains after alfalfa for water savings, Funded, $45,592.00, (2018 - 2020).

Testing Irrigation Strategies to Stretch Limited Water Supplies, Funded, $75,000.00, (August 29, 2018 - September 2020).

Managing small grains after alfalfa for water savings, Funded, $45,592.00, (March 2018 - June 2020).

Documenting Current and Projected Water Reuse for Irrigation along the Wasatch Front, Funded, $84,000.00, (July 2018 - June 2020).

Drilling into Irrigation Surveys to Understand Local Water Conservation Research and Education Needs, Funded, $15,041.00, (March 2018 - December 2019).

Water Banking in Cache County, Funded, $84,000.00, (July 2017 - May 2019).

Documenting the Human Health Impacts of Exposure to Microbial and Chemical Hazards in Reclaimed Wastewater Used in Urban Agriculture, Cache Valley, Utah, Funded, $500,000.00, (April 2017 - May 2019).

Using High Resolution Remote Sensing Information for Yield Estimation under Deficit Irrigation, Funded, $25,600.00, (September 1, 2016 - December 31, 2018).

Verification of Water Conservation from Deficit Irrigation Pilot Projects in the Upper Colorado River Basin, Funded, $146,000.00, (January 1, 2015 - February 28, 2018).

Baker, Doran J

SABER Student Training Grant, Funded, $80,000.00, (January 2018 - December 2021).

Baktur, Reyhan

Integrated Solar Array and Reflectarray Collaborative Research, Funded, $39,813.96, (2017 - 2018).

Barfuss, Steven L

Proposals written in 2018 that were funded in the same calendar year, Funded, $661,375.00, (January 1, 2018 - December 31, 2018).

Barr, Paul J

MPC 2018, Funded, $238,936.00, (December 18, 2018 - December 31, 2020).

Improving Undergraduate Engineering Education Through Student-Centered, Active and Cooperative Learning, Funded, $624,642.00, (April 1, 2015 - March 31, 2020).

Improving undergraduate engineering education through student-centered, active and cooperative learning, Funded, $629,980.00, (April 1, 2015 - March 30, 2020).

Prestress Losses and Development of Short-Term Data Acquisition System for Bridges, Funded, $110,071.00, (May 1, 2016 - July 31, 2018).

Becker, Kurt

Utah State University STARS! – GEAR UP III Partnership, Funded, $30,314,400.00, (September 26, 2017 - September 25, 2024).

Utah State University STARS! – GEAR UP Partnership, Funded, $16,439,200.00, (August 10, 2015 - August 9, 2022).

Multiple-Institution Database For Investigating Engineering Longitudinal Development (MIDFIELD), Funded, $698,000.00, (December 2016 - December 2021).

Collaborative Research: Proofing A Basic Systems Engineering Model through Empirically-Based Cognitive Testing, Funded, $236,593.00, (August 2018 - July 2021).

Collaborative Research: Quantifying Differences Between Engineering Students and Expert Engineers Designing: Empirical Foundation, Funded, $698,000.00, (April 1, 2015 - March 31, 2018).

Berke, Ryan B

BPE: Investigating the Career Development and Professional Trajectories of LGBTQ+ Students in Engineering, Funded, $336,343.00, (October 1, 2018 - September 30, 2021).

Benchmarking Microscale Ductility Measurements, Funded, $800,000.00, (October 1, 2018 - September 30, 2021).

Transient Reactor (TREAT) Experiments to Validate MBM Fuel Performance Simulations, Funded, $5,000,000.00, (October 1, 2016 - September 30, 2020).

Damage Accumulation in a Novel High-Throughput Method to Measure High Cycle Fatigue, Funded, $19,845.00, (September 1, 2018 - August 25, 2019).

Focused Ion Beam for Advanced Specimen Preparation, 3D Microstructural Characterization and Simulated Irradition, Funded, $300,000.00, (2018).

Heterogeneous Strain Measurement during Hot-Fire Testing of Carbon-Carbon Rocket Nozzles, Funded, $120,973.00, (November 17, 2017 - November 16, 2018).

Faculty Development Program to Integrate New Faculty in Nuclear Engineering Research at Utah State University, Funded, $329,779.00, (August 31, 2015 - August 30, 2018).

Benchmark Simulations of Improved High-Throughput Method to Measure High Cycle Fatigue, Funded, $6,771.00, (January 2018 - August 24, 2018).

Improved High-Throughput Measurements for High Cycle Fatigue at Extreme Temperatures, Funded, $43,500.00, (June 18, 2018 - August 24, 2018).

Britt, David W

LI-COR 6800 Portable Photosynthesis Instrument, Funded, $66,135.00, (July 1, 2017 - June 30, 2021).

CuO NP bioactivity in the wheat rhizosphere: Interplay of soil chemistry, root exudation and biofilms, Funded, $308,163.00, (August 1, 2017 - July 31, 2020).

Nanoparticles prime crop defenses for abiotic stress, Funded, $450,200.00, (June 1, 2017 - May 31, 2020).

2018 Gordon Research Conference on Nanotechnology Applied to Agriculture and Food, Funded, $50,000.00, (May 1, 2018 - October 1, 2018).

Acquisition of a Beckman ProteomeLab XLI to Enhance Research and Training, Funded, $388,206.00, (October 1, 2015 - September 30, 2018).

Effects of Metals from Flue Gas on Microalgae Biofuels and Co-products: Sustainability and Scalability, Funded, $335,081.00, (September 1, 2013 - August 31, 2018).

Cetiner, Bedri A

SBIR Phase II: Multifunctional Reconfigurable Antenna Array Technology for Wi-Fi and 5G Small Cell Access Points, Funded, $750,000.00, (March 3, 2018 - February 28, 2020).

MRI: Acquisition of a sputtering deposition system to expand science and engineering research at Utah State University, Funded, $207,026.00, (September 1, 2016 - August 31, 2019).

Christensen, Randall S

Feasibility Study for Electric Roadway Paint, Funded, $23,455.17, (June 4, 2018 - August 31, 2018).

Synthetic Aperture Radar (SAR)-Aided GPS Denied Navigation, Funded, $75,643.02, (July 12, 2018 - September 14, 2018).

Clyde, Stephen W

Utah Dept. of Health - EHDI CHARM, Funded, $64,125.00, (July 1, 2018 - June 30, 2019).

Proactive Energy Management using Weather and Market Forecasts to Enhance Efficiency and Enable Renewables on the Grid, Funded, $120,000.00, (October 1, 2017 - September 30, 2018).

Utah Dept. of Health - EHDI CHARM, Funded, $64,125.00, (July 1, 2017 - June 30, 2018).

Davidson, Ryan

Plasma Enhancements in the Ionosphere-Thermosphere Satellite, Funded, $4,146,457.00, (May 25, 2018 - May 24, 2021).

A New Method for Making RPA-type Measurements in the Ionosphere, Funded, $19,203.00, (August 1, 2017 - July 31, 2018).

Dupont, Robert R

Evaluation of Optimal Methods for Measuring Nitrogen Transformation Rates in Utah Streams, Funded, $135,412.00, (July 1, 2015 - June 30, 2020).

Filter systems to produce industrial use water for UDOT maintenance stations - Extension, Funded, $133,000.00, (April 2018 - August 2019).

Documenting the Human Health Impacts of Exposure to Microbial and Chemical Hazards in Reclaimed Wastewater Used in Urban Agriculture, Cache Valley, Utah, Funded, $500,000.00, (April 2017 - May 2019).

Assessment of Stormwater Harvesting via Managed Aquifer Recharge to Develop New Water Supplies in the Arid West: the Salt Lake Valley Example, Funded, $749,998.00, (October 2015 - September 2018).

Dyreson, Curtis Elliott

Collaborative Research: ABI Development: Symbiota2: Enabling greater collaboration and flexibility for mobilizing biodiversity data, Funded, $718,737.00, (May 2018 - April 2021).

Scenario Analysis of Ecosystem Services of Agricultural Land along the Wasatch Front, Utah, Funded, $60,000.00, (July 1, 2018 - June 30, 2020).

Fang, Ning

In-class Real-world Demonstrations for Enhancing Student Learning in a High-enrollment, High-impact Gateway Engineering Course, Funded, $50,000.00, (September 2016 - August 2026).

Improving undergraduate engineering students' spatial skills through 3D interactive virtual and physical manipulatives, Funded, $300,000.00, (September 2018 - September 2021).

Improving Undergraduate Engineering Education Through Student-Centered, Active and Cooperative Learning, Funded, $624,642.00, (April 1, 2015 - March 31, 2020).

Improving undergraduate engineering education through student-centered, active and cooperative learning, Funded, $629,980.00, (April 1, 2015 - March 30, 2020).

Integrating Concept Mapping with Laboratory Experimentation and the 5E Learning Cycle to Improve Student Conceptual Understanding in a Foundational Engineering Course (Funded: April 2013 - March 2016), Funded, $199,998.00, (April 2013 - March 2019).

Improving students' problem-solving in engineering dynamics through interactive web-based simulation and animation modules (Funded: August 2011 - July 2015), Funded, $600,000.00, (August 1, 2011 - July 31, 2018).

Galarus, Douglas Edward

Master Agreement - Washington State Department of Transportation for the Western States Rural Transportation Consortium, Funded, $0.00, (April 2018 - December 2022).

Automated Safety Warning System Controller (ASWSC) Phase 3, ATC Migration, Funded, $249,995.00, (September 2018 - August 2020).

One Stop Shop Phase 4, Funded, $150,000.00, (September 2018 - August 2020).

Geller, David K

Support for Space Control Analysis and Orbital Engagement Maneuver Integrated Validation Team, Funded, $300,000.00, (June 2018 - June 2021).

Simultaneous Two-Site Photometry in Attitude Determination of Resident Space Objects, Funded, $30,000.00, (May 2018 - May 2019).

Robust Trajectory Optimization for Orbital Rendezvous and Proximity Operations, Funded, $40,000.00, (January 2018 - December 2018).

Simultaneous Two-Site Photometry in Attitude Determination of Resident Space Objects, Funded, $30,000.00, (May 1, 2017 - May 1, 2018).

Goodridge, Wade Hamilton

Spatial Ability and Blind Engineering Research, Funded, $2,093,624.00, (August 1, 2017 - September 30, 2022).

Improving undergraduate engineering students' spatial skills through 3D interactive virtual and physical manipulatives, Funded, $300,000.00, (September 2018 - September 2021).

Filter systems to produce industrial use water for UDOT maintenance stations - Extension, Funded, $133,000.00, (April 2018 - August 2019).

Filter Systems to Produce Industrial Use Water for UDOT Maintenance Stations, Funded, $150,000.00, (August 2016 - August 2018).

Graham, Jackson J

MAE Capstone Design Sponsorships, Funded, $182,517.36, (January 1, 2018 - December 31, 2018).

Air Force Research Lab University Design Competition, Funded, $20,000.00, (August 28, 2017 - August 14, 2018).

Creative 3D Plant Optimization (C3PO) System, Funded, $19,233.00, (August 1, 2017 - June 30, 2018).

Utah State University Design/Build/Fly Competition STEM Outreach, Funded, $8,000.00, (August 2017 - April 2018).

RGS Equipment Grant - Recirculating Subsonic Wind Tunnel, Funded, $40,000.00, (January 1, 2017 - April 30, 2018).

Halling, Marvin W

MPC 2018, Funded, $238,936.00, (December 18, 2018 - December 31, 2020).

Bond Performance of 1.125 Inch Diameter Prestressing Strands, Funded, $140,000.00, (March 2018 - September 2019).

Residual Capacity of Impacted Bridge Piers, Funded, $115,439.00, (March 2018 - September 2019).

Horsburgh, Jeffery S

Cyberinfrastructure for Advancing Hydrologic Knowledge through Collaborative Integration of Data Science, Modeling and Analysis, Funded, $4,000,000.00, (October 1, 2017 - September 30, 2021).

CAREER: Cyberinfrastructure for Intelligent Water Supply (CIWS): Shrinking Big Data for Sustainable Urban Water, Funded, $507,082.00, (February 1, 2016 - January 31, 2021).

Monitoring and Research for Water Quality and Stormwater Management in Logan City, UT, Funded, $164,701.00, (July 1, 2018 - December 31, 2019).

WikiWatershed: A web toolkit for advancing water quality restoration in the Delaware River Basin, Funded, $240,000.00, (January 16, 2017 - January 15, 2019).

Smart Water Data Acquisition and Analytics Technologies for Improving Efficiency of Water and Power Network Operations, Funded, $125,000.00, (November 2017 - December 2018).

NSF RAPID Building Cyber infrastructure to Prevent Disasters Like Hurricane Maria, Funded, $21,436.00, (December 15, 2017 - November 30, 2018).

Supporting Citizen Science within the DRWI Cluster Teams, Funded, $220,000.00, (January 1, 2016 - July 31, 2018).

Hu, Rose

NeTS: Small: Collaborative Research: SAW-MAN: A Novel Architecture for Smart Service-Aware Wireless Mixed-Area Networks, Funded, $600,000.00, (September 2017 - August 2020).

Fog-Cloud Computing and Communications, Funded, $60,000.00, (January 2018 - December 2018).

Collaborative Research: EARS: Spectrum and Energy Efficient Radio Resource Access in Wireless Networks with Densely Deployed Underlay Devices, Funded, $308,000.00, (September 30, 2015 - August 31, 2018).

Next Generation Wireless Network Design and Optimization, Funded, $400,000.00, (September 2013 - August 2018).

Hunsaker, Douglas F

Adaptive Aerostructures for Revolutionary Civil Supersonic Transportation, Funded, $10,000,000.00, (September 2017 - August 2022).

Continuous Flight Optimization of Morphing-Wing Aircraft, Funded, $165,000.00, (September 1, 2018 - August 31, 2021).

YIP: Control of Tailless Morphing Aircraft, Funded, $509,802.00, (June 1, 2018 - May 31, 2021).

AFRL Subject-Matter Expert: Morphing and Shape Adaptable Aircraft Structures, Funded, $281,411.00, (January 1, 2018 - December 31, 2019).

Bio-Inspired Wing Development for Highly Efficient Aircraft, Funded, $28,180.00, (July 2017 - August 2018).

Improvement of a Modern Lifting-Line Algorithm for Swept Wings, Funded, $25,250.00, (April 10, 2016 - April 9, 2018).

STTR: Design, Development, and Testing of a Nanolaunch Hybrid Upper Stage, Funded, $142,906.00, (May 2017 - March 2018).

Johnson, Michael C

Archimedes Screw Turbine performance testing, Funded, $115,000.00, (January 1, 2018 - December 31, 2019).

Physical Hydraulic and Numerical Model Studies, Funded, $195,000.00, (January 1, 2018 - December 31, 2019).

Annubar and orifice calibrations, Funded, $147,960.00, (January 1, 2018 - December 31, 2018).

Coin and Venturi Performance Testing, Funded, $64,980.00, (January 1, 2018 - December 31, 2018).

Fire hydrant performance testing, Funded, $45,800.00, (January 1, 2018 - December 31, 2018).

Flow meter performance testing, Funded, $5,280.00, (January 1, 2018 - December 31, 2018).

Flow meter performance testing, Funded, $3,000.00, (January 1, 2018 - December 31, 2018).

Flow meter performance testing, Funded, $7,500.00, (January 1, 2018 - December 31, 2018).

Flow meter performance testing, Funded, $7,550.00, (January 1, 2018 - December 31, 2018).

Flow meter performance testing, Funded, $3,300.00, (January 1, 2018 - December 31, 2018).

Flow meter performance testing, Funded, $11,680.00, (January 1, 2018 - December 31, 2018).

Flow meter performance testing, Funded, $201,444.00, (January 1, 2018 - December 31, 2018).

Flow meter performance testing, Funded, $675.00, (January 1, 2018 - December 31, 2018).

Flow meter performance testing, Funded, $1,250.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $3,680.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $3,600.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $6,900.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $10,880.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $11,000.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $1,950.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $11,100.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $7,950.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $6,970.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $7,200.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $60,401.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $4,960.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $1,040.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $2,300.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $13,280.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $3,300.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $6,400.00, (January 1, 2018 - December 31, 2018).

Valve performance testing, Funded, $4,200.00, (January 1, 2018 - December 31, 2018).

Valve performance testing and numerical simulations, Funded, $54,190.00, (January 1, 2018 - December 31, 2018).

Valve, strainer and fitting performance testing, Funded, $52,255.00, (January 1, 2018 - December 31, 2018).

Kulyukin, Vladimir Alekseyevich

Mobile Instructional Particle Image Velocimetry (mI-PIV): Hands-on Flow Visualization and Experimentation for Improved Student Interest and Technical Capacity in Navy-relevant Engineering Careers, Funded, $799,438.00, (September 1, 2018 - August 31, 2021).

Predictive Data Integration and Analysis of Heterogeneous Data Stream, Funded, $13,913.55, (January 10, 2018 - May 5, 2018).

Lane, Belize A

Hydrogeomorphic Classification of the State of California for Environmental Flows Management, Funded, $2,085,253.00, (December 2017 - December 2019).

Improving representation of environmental objectives in systems models to inform integrated water management strategies, Funded, $77,165.00, (March 2018 - March 2019).

Lawanto, Oenardi

Cognitive and Metacognitive Activities in Engineering Design Education, Funded, $9,061.00, (September 1, 2017 - August 31, 2018).

Li, Ming

NSF CAREER: Toward Cooperative Interference Mitigation for Heterogeneous Multi-hop MIMO Wireless Networks, Funded, $489,999.00, (July 2014 - June 2019).

TWC:Medium:Securing Vehicular Platooning, Funded, $1,200,000.00, (August 1, 2014 - July 30, 2018).

Liu, Ling

CAREER: Nanoscale Thermal Transport in Hydrogen-Bonded Materials, Funded, $500,000.00, (February 1, 2018 - January 31, 2023).

Transient Reactor (TREAT) Experiments to Validate MBM Fuel Performance Simulations, Funded, $5,000,000.00, (October 1, 2016 - September 30, 2020).

Multiscale Modeling of Composite Components with Defects under Static and Fatigue Loading, Funded, $30,000.00, (October 15, 2018 - February 20, 2020).

Crack Tracking and Multiscale Simulation for CB2ATA and XFA3D, Funded, $20,000.00, (September 1, 2017 - August 30, 2018).

Damage Prediction of Composite Structures with Defects, Funded, $30,000.00, (September 1, 2017 - August 30, 2018).

Maguire, Marc James

Expanding and Quantifying Thermal Efficiency of Concrete Sandwich Wall Panels, Funded, $175,000.00, (June 1, 2016 - June 1, 2021).

Bond Performance of 1.125 Inch Diameter Prestressing Strands, Funded, $140,000.00, (March 2018 - September 2019).

Residual Capacity of Impacted Bridge Piers, Funded, $115,439.00, (March 2018 - September 2019).

Repair material evaluation for Utah bridge decks, Funded, $42,351.00, (April 2018 - April 2019).

Ground Snow Load Predictions for Washington State, Funded, $12,000.00, (August 1, 2018 - January 31, 2019).

Life Cycle Analysis of GSB 88 Fog Seal, Funded, $35,316.00, (March 2018 - September 2018).

Filter Systems to Produce Industrial Use Water for UDOT Maintenance Stations, Funded, $150,000.00, (August 2016 - August 2018).

Thermally Efficient Lifting Anchor Development, Funded, $83,902.00, (January 1, 2017 - June 30, 2018).

Rapid Set Cement for Precast Prestressed Bridge Girder Applications, Funded, $60,000.00, (December 2017 - May 2018).

Calcium Sulfoaluminate Cement for Precast Concrete, Funded, $9,500.00, (December 1, 2017 - May 1, 2018).

Utah Ground Snow Load Prediction, Funded, $25,000.00, (August 2016 - January 2018).

Martin, Randal S

Documenting the Human Health Impacts of Exposure to Microbial and Chemical Hazards in Reclaimed Wastewater Used in Urban Agriculture, Cache Valley, Utah, Funded, $500,000.00, (April 2017 - May 2019).

McKee, Mac

Monitoring Vineyard Water Use and Vine Water Status with Land Surface Temperature for Improved and Sustainable Water Management from Field to Regional Scales, Funded, $1,347,823.00, (January 1, 2017 - November 30, 2019).

Plant scale characterization using Unmanned Aerial Systems Point Cloud and Reflectance Maps for Modeling Vine and Soil/Cover Crop Water Use, Funded, $25,000.00, (October 1, 2018 - June 30, 2019).

Use of sUAS for mapping wetland flow paths and consumptive use on the San Rafael River, Utah, Funded, $39,000.00, (March 1, 2017 - December 31, 2018).

Mapping Didymosphenia in the Logan River Drainage, Funded, $98,566.00, (February 2017 - February 2018).

McLean, Joan E

CuO NP bioactivity in the wheat rhizosphere: Interplay of soil chemistry, root exudation and biofilms, Funded, $308,163.00, (August 1, 2017 - July 31, 2020).

Nanoparticles prime crop defenses for abiotic stress, Funded, $450,200.00, (June 1, 2017 - May 31, 2020).

Filter systems to produce industrial use water for UDOT maintenance stations - Extension, Funded, $133,000.00, (April 2018 - August 2019).

Documenting the Human Health Impacts of Exposure to Microbial and Chemical Hazards in Reclaimed Wastewater Used in Urban Agriculture, Cache Valley, Utah, Funded, $500,000.00, (April 2017 - May 2019).

Assessment of Stormwater Harvesting via Managed Aquifer Recharge to Develop New Water Supplies in the Arid West: the Salt Lake Valley Example, Funded, $749,998.00, (October 2015 - September 2018).

McNeill, Laurie S

Improving Undergraduate Engineering Education Through Student-Centered, Active and Cooperative Learning, Funded, $624,642.00, (April 1, 2015 - March 31, 2020).

Improving undergraduate engineering education through student-centered, active and cooperative learning, Funded, $629,980.00, (April 1, 2015 - March 30, 2020).

Mekker, Michelle M

Uses and Challenges of Collecting LiDAR Data from a Growing Autonomous Vehicle Fleet, Funded, $100,000.00, (October 2018 - February 2020).

Miller, Charles D

Effect of natural products on gene expression and plant growth, Funded, $15,000.00, (November 2017 - October 2020).

School of Graduate Studies Dissertation Fellowship, Funded, $5,000.00, (August 2018 - May 2019).

Bioenergy and Waste Reduction from Municipal Reclaimed Water, Funded, $224,733.00, (October 2017 - May 2019).

Sustainable Remediation Of Petroleum Wastewater, Funded, $15,000.00, (February 2018 - January 2019).

American Society for Microbiology (ASM) Undergraduate Fellowship, Funded, $5,500.00, (June 2017 - May 2018).

Minichiello, Angela L

Mobile Instructional Particle Image Velocimetry (mI-PIV): Hands-on Flow Visualization and Experimentation for Improved Student Interest and Technical Capacity in Navy-relevant Engineering Careers, Funded, $799,438.00, (September 1, 2018 - August 31, 2021).

Learning from Engineers to Develop a Model of Disciplinary Literacy in Engineering, Funded, $317,971.00, (July 1, 2017 - June 30, 2020).

Online Learning Forums for Improved Engineering Student Outcomes in Calculus, Funded, $199,979.00, (February 1, 2013 - January 31, 2018).

Neilson, Bethany Teresa

LTER: The Role of Biogeochemical and Community Openness in Governing Arctic Ecosystem Response to Climate Change and Disturbance, Funded, $5,000,000.00, (August 2016 - July 2021).

Future of Colorado River, Funded, $221,338.00, (July 2018 - July 2020).

Monitoring and Research for Water Quality and Stormwater Management in Logan City, UT, Funded, $164,701.00, (July 1, 2018 - December 31, 2019).

Impacts of beaver dams on stream hydrology, temperature, and geomorphology within Curtis Creek, Utah, Funded, $37,500.00, (September 2016 - September 2019).

Collaborative Research: River regulation's effects on lateral and longitudinal mass and energy transfers in coupled terrestrial-aquatic systems, Funded, $695,258.00, (May 2014 - August 2019).

Improving representation of environmental objectives in systems models to inform integrated water management strategies, Funded, $77,165.00, (March 2018 - March 2019).

Understanding the variability of recharge and groundwater control on mountainous stream discharge in karst environments, Funded, $33,000.00, (March 1, 2018 - February 28, 2019).

Collaborative Research: Quantification of Dominant Heat Fluxes In Streams and Rivers in the Arctic, Funded, $984,000.00, (August 1, 2012 - 2018).

Mapping Didymosphenia in the Logan River Drainage, Funded, $98,566.00, (February 2017 - February 2018).

Pantic, Zeljko

Energy Management System for Battery Powered Mobility Devices Based on Wireless Power Transfer Concept to Promote Community Living and Participation, Funded, $599,077.00, (September 2016 - September 2019).

Peralta, Richard C

USU-Urmia Lake Restoration Program-University of Urmia Collaboration Program, Funded, $50,430.00, (October 2018 - December 2019).

Assessment of Stormwater Harvesting via Managed Aquifer Recharge to Develop New Water Supplies in the Arid West: the Salt Lake Valley Example, Funded, $749,998.00, (October 2015 - September 2018).

Birds Nest Aquifer Saline Injection Simulation, Optimization, and Economic Impact, Funded, $130,474.00, (August 2014 - August 2018).

Jordan River Water Quality for Irrigation, 2017, Funded, $29,568.00, (April 2017 - March 2018).

Qi, Xiaojun

A Data Fusion Approach for Extracting Highway Maintenance Features, Funded, $50,000.00, (November 1, 2017 - January 31, 2019).

Rice, John D

Update of UFC 3-220-01-N, Funded, $45,286.00, (2018 - 2020).

Reliability-based assessment of landslide risk along roadways, Funded, $50,000.00, (2018 - 2019).

Fulbright Grant to study in the Netherlands, Funded, $15,000.00, (September 2018 - December 2018).

Richards, Geordon Haley

Utah NASA Space Consortium Grant for Graduate Students, Funded, $30,000.00, (June 1, 2017 - May 31, 2019).

SPARC: Mathematical Modeling of Gut Microbial Interactions and Trimethylamine Production, Funded, $35,000.00, (June 1, 2017 - May 31, 2018).

Roberts, Nicholas

MRI:Acquisition of a sputtering deposition system to expand science and engineering research at Utah State University, Funded, $207,026.00, (September 1, 2016 - August 31, 2019).

Travel to Attend the 12th AIAA/ASME Joint Thermophysics and Heat Transfer Conference (Atlanta, GA, USA, June 25-29, 2018), Funded, $6,000.00, (June 2018 - May 2019).

Focused Ion Beam for Advanced Specimen Preparation, 3D Microstructural Characterization and Simulated Irradition, Funded, $300,000.00, (2018).

Faculty Development Program to Integrate New Faculty in Nuclear Engineering Research at Utah State University, Funded, $329,779.00, (August 31, 2015 - August 30, 2018).

Roper, Donald Keith

REU Site: Tomorrow's Nanomanufacturing: Engineering with Science (TNEWS), Funded, $359,982.00, (February 2018 - January 2021).

REU Site: From bench to Market: Engineering Systems for High Efficiency Separations, Funded, $334,963.00, (April 2017 - March 2020).

Planning Grant: Materials for agricultural resource imaging analytics at high resolution, Funded, $100,000.00, (September 2018 - August 2019).

Modified two-dimensional crystal to inactivate pathogens at surfaces, Funded, $15,838.00, (July 2018 - May 2019).

Materials for agricultural resource imaging analytics at high-resolution, Funded, $50,000.00, (August 2018 - April 2019).

Rosenberg, David E

NRT: Graduate Climate Adaptation Research that Enhances Education and Responsiveness of science at the management-policy interface (Grad-CAREER), Funded, $2,698,878.00, (September 15, 2016 - September 14, 2021).

Future of Colorado River, Funded, $221,338.00, (July 2018 - July 2020).

USU-Urmia Lake Restoration Program-University of Urmia Collaboration Program, Funded, $50,430.00, (October 2018 - December 2019).

Weber Basin Drought Vulnerability Study, Funded, $43,454.00, (September 2018 - December 2019).

Synthesizing drought characteristics prediction to inform drought resiliency decisions from days to years, Funded, $199,998.00, (November 1, 2017 - October 31, 2019).

Improving representation of environmental objectives in systems models to inform integrated water management strategies, Funded, $77,165.00, (March 2018 - March 2019).

Smart Water Data Acquisition and Analytics Technologies for Improving Efficiency of Water and Power Network Operations, Funded, $125,000.00, (November 2017 - December 2018).

Roy, Sanghamitra

CAREER: Predicting Timing Violations: A New Direction for Robust System Design, Funded, $466,050.00, (March 2013 - February 2018).

Sharp, Zachary Brad

Wave Court, LLC, Funded, $51,550.00, (March 3, 2018 - March 3, 2023).

GEI consultants, Funded, $195,000.00, (November 5, 2018 - November 5, 2019).

SMEC, Funded, $355,000.00, (May 29, 2018 - May 29, 2019).

Ross Valve, Funded, $61,900.00, (September 20, 2018 - March 20, 2019).

AECOM, Funded, $2,090.00, (July 26, 2018 - January 26, 2019).

terracon, Funded, $20,300.00, (June 15, 2018 - December 15, 2018).

American Valve and Hydrant, Funded, $8,100.00, (May 1, 2018 - November 1, 2018).

EJ USA, Inc., Funded, $8,100.00, (April 19, 2018 - October 19, 2018).

Nichols-IP PLLC, Funded, $2,500.00, (January 4, 2018 - July 4, 2018).

Sivan Valves LLC, Funded, $5,000.00, (January 4, 2018 - July 4, 2018).

Sims, Judith Larabee

Development of an On-Site Wastewater Treatment Demonstration Site at the Ash Creek Special Service District, Hurricane, Utah, Funded, $62,000.00, (July 1, 2018 - June 30, 2021).

On-Site Waste Water Certification Activities, Funded, $192,170.00, (July 1, 2015 - June 30, 2020).

Augmentation - Methane Mitigation from Septic Systems, Funded, $5,000.00, (July 1, 2017 - June 30, 2019).

Methane Mitigation from Septic Systems, Funded, $24,920.00, (July 1, 2012 - June 30, 2019).

Development of Manuals of Best Practice for On-Site Wastewater Treatment, Funded, $30,000.00, (July 1, 2014 - June 30, 2018).

Education Program for Homeowners and other Septic System Users in Utah, Funded, $48,041.00, (August 13, 2012 - June 30, 2018).

Sims, Ronald C

Bioenergy and Waste Reduction from Municipal Reclaimed Water, Funded, $224,733.00, (September 15, 2017 - May 15, 2019).

Reuse/ recycling of produced water using halophytic algae from the Great Salt Lake, Funded, $15,000.00, (April 1, 2017 - July 30, 2018).

Singleton, Patrick A

Needs-based approaches for representing personal transportation decision-making, Funded, $20,000.00, (January 1, 2019 - January 1, 2020).

Utilizing archived traffic signal performance measures for pedestrian planning & analysis, Funded, $65,000.00, (July 2018 - December 2019).

Identifying Effective Travel Behavior Change Strategies for Poor Air Quality Events in Northern Utah, Funded, $59,734.00, (December 2017 - June 2019).

Optimal Deployment of Dynamic Charging Lanes for Plug - in Hybrid Trucks, Funded, $59,734.00, (December 2017 - June 2019).

Smith, Barton L

Pressure PIV Uncertainty Study, Funded, $314,975.58, (December 1, 2018 - November 30, 2021).

CFD and System Code Benchmark Data for Plenum-to-Plenum Flow for Natural, Mixed and Forced Circulation, Funded, $800,000.00, (October 1, 2016 - September 30, 2018).

Song, Ziqi

Integrated Strategic and Operational Planning for a Fast-Charging Battery Electric Bus System, Funded, $50,000.00, (November 2018 - December 2022).

Electric Bus Corridor Model, Funded, $50,000.00, (October 2018 - October 2020).

Investigating the Feasibility of Introducing Alternative Fuel Vehicles into Maintenance Fleet, Funded, $50,000.00, (September 2018 - September 2020).

Strategic Deployment of Road Weather Information System (RWIS) Stations in Utah, Funded, $50,000.00, (September 2018 - September 2020).

WESTSMART EV: Western Smart Plug-in Electric Vehicle Community Partnership, Funded, $596,824.00, (July 1, 2017 - June 30, 2020).

Illinois Tollway Pre-Pilot Feasibility Study, Funded, $279,505.00, (November 2018 - June 2019).

Identifying Effective Travel Behavior Change Strategies for Poor Air Quality Events in Northern Utah, Funded, $59,734.00, (December 2017 - June 2019).

Optimal Deployment of Dynamic Charging Lanes for Plug - in Hybrid Trucks, Funded, $59,734.00, (December 2017 - June 2019).

Transportation Access and Individuals with Disabilities' Community Integration, Funded, $80,000.00, (June 1, 2017 - June 30, 2019).

Evaluation of Transit System Accessibility for Individuals with Disabilities, Funded, $40,000.00, (September 2017 - May 2019).

A Data Fusion Approach for Extracting Highway Maintenance Features, Funded, $50,000.00, (November 1, 2017 - January 31, 2019).

Exploring Potential New Features for Rest Areas in Utah, Funded, $40,000.00, (September 2017 - December 2018).

Feasibility Analysis of Electric Roadways Through Localized Traffic, Cost, Adoption, and Environmental Impact Modeling, Funded, $498,170.00, (October 1, 2017 - September 30, 2018).

Utah's Public/Public/Private Partnership for the Deployment of Electric Bus Technology: Downtown to the University Connection, Funded, $78,000.00, (October 1, 2017 - September 30, 2018).

CDOT Electric Vehicle Roadway Study, Funded, $57,800.00, (August 1, 2017 - July 31, 2018).

Sorensen, Andrew Dell

Bond Performance of 1.125 Inch Diameter Prestressing Strands, Funded, $140,000.00, (March 2018 - September 2019).

Residual Capacity of Impacted Bridge Piers, Funded, $115,439.00, (March 2018 - September 2019).

Life Cycle Analysis of GSB 88 Fog Seal, Funded, $35,316.00, (March 2018 - September 2018).

Rapid Set Cement for Precast Prestressed Bridge Girder Applications, Funded, $60,000.00, (December 2017 - May 2018).

Calcium Sulfoaluminate Cement for Precast Concrete, Funded, $9,500.00, (December 1, 2017 - May 1, 2018).

Sorensen, Darwin L

Evaluation of Optimal Methods for Measuring Nitrogen Transformation Rates in Utah Streams, Funded, $135,412.00, (July 1, 2015 - June 30, 2020).

Spall, Robert E

Improving Undergraduate Engineering Education Through Student-Centered, Active and Cooperative Learning, Funded, $624,642.00, (April 1, 2015 - March 31, 2020).

Improving undergraduate engineering education through student-centered, active and cooperative learning, Funded, $629,980.00, (April 1, 2015 - March 30, 2020).

RGS Equipment Grant - Recirculating Subsonic Wind Tunnel, Funded, $40,000.00, (January 1, 2017 - April 30, 2018).

Stevens, David K

USU-Urmia Lake Restoration Program-University of Urmia Collaboration Program, Funded, $50,430.00, (October 2018 - December 2019).

Swenson, Charles M

Active SPORT, Funded, $450,000.00, (November 2017 - November 2020).

(Augmentation) SPORT Deputy P Role Expansion, Funded, $95,000.00, (November 1, 2018 - November 1, 2020).

Active Thermal Architectures, Funded, $400,000.00, (March 1, 2018 - March 1, 2020).

FINIS Aircraft Testing, Funded, $95,898.00, (January 15, 2019 - August 31, 2019).

FINIS, USRA, Funded, $50,000.00, (January 2017 - May 2018).

Tarboton, David G

Collaborative Research: Framework: Software: NSCI: Computational and data innovation implementing a national community hydrologic modeling framework for scientific discovery, Funded, $339,985.00, (October 1, 2018 - September 30, 2022).

Cyberinfrastructure for Advancing Hydrologic Knowledge through Collaborative Integration of Data Science, Modeling and Analysis, Funded, $4,000,000.00, (October 1, 2017 - September 30, 2021).

NRT: Graduate Climate Adaptation Research that Enhances Education and Responsiveness of science at the management-policy interface (Grad-CAREER), Funded, $2,698,878.00, (September 15, 2016 - September 14, 2021).

Collaborative Research: Improving Student Learning in Hydrology & Water Resources Engineering by Enabling the Development, Sharing and Interoperability of Active Learning Resources, Funded, $249,312.00, (September 1, 2017 - August 31, 2021).

Future of Colorado River, Funded, $221,338.00, (July 2018 - July 2020).

Future of Colorado River, Funded, $150,000.00, (November 27, 2018 - January 15, 2020).

Advancing Water Supply Forecasts in the Colorado River Basin for Improved Decision Making, Funded, $324,963.00, (March 18, 2015 - March 17, 2019).

WikiWatershed: A web toolkit for advancing water quality restoration in the Delaware River Basin, Funded, $240,000.00, (January 16, 2017 - January 15, 2019).

RAPID: Archiving and Enabling Community Access to Data from Recent US Hurricanes, Funded, $200,000.00, (October 1, 2017 - September 30, 2018).

Earth Cube Building Blocks: GeoTrust: Improving Sharing and Reproducibility of Geoscience, Funded, $140,000.00, (September 2016 - August 31, 2018).

HEC-HMS Energy Balance Snowmelt Model Review, Testing and Validation, Funded, $41,558.00, (January 1, 2018 - July 10, 2018).

Snowmelt Testing and Validation for HEC-HMS, Funded, $41,558.00, (July 12, 2017 - January 12, 2018).

Taylor, Timothy A

Creative 3D Plant Optimization (C3PO) System, Funded, $19,233.00, (August 1, 2017 - June 30, 2018).

Torres, Alfonso Faustino

Monitoring Vineyard Water Use and Vine Water Status with Land Surface Temperature for Improved and Sustainable Water Management from Field to Regional Scales, Funded, $1,347,823.00, (January 1, 2017 - November 30, 2019).

Plant scale characterization using Unmanned Aerial Systems Point Cloud and Reflectance Maps for Modeling Vine and Soil/Cover Crop Water Use, Funded, $25,000.00, (October 1, 2018 - June 30, 2019).

Plant scale characterization using Unmanned Aerial Systems Point Cloud and Reflectance Maps for Modeling Vine and Soil/Cover Crop Water Use, Funded, $25,000.00, (July 2018 - May 2019).

Measuring Water Use and Assessing the Spatial Variability of a Golf Course Using Remote Sensing Information, Funded, $90,000.00, (January 1, 2017 - March 31, 2019).

USGS 104b, Funded, $28,000.00, (March 1, 2018 - February 28, 2019).

Use of sUAS for mapping wetland flow paths and consumptive use on the San Rafael River, Utah, Funded, $39,000.00, (March 1, 2017 - December 31, 2018).

Using High Resolution Remote Sensing Information for Yield Estimation under Deficit Irrigation, Funded, $25,600.00, (September 1, 2016 - December 31, 2018).

Oceanit/USU AggieAir for MAMBA device testing, Funded, $24,749.00, (October 1, 2017 - April 30, 2018).

Verification of Water Conservation from Deficit Irrigation Pilot Projects in the Upper Colorado River Basin, Funded, $146,000.00, (January 1, 2015 - February 28, 2018).

Truscott, Tadd

Mobile Instructional Particle Image Velocimetry (mI-PIV): Hands-on Flow Visualization and Experimentation for Improved Student Interest and Technical Capacity in Navy-relevant Engineering Careers, Funded, $799,438.00, (September 1, 2018 - August 31, 2021).

Understanding bubble dynamics in sonicated edible lipids to improve their physiochemical properties, Funded, $454,404.00, (2017 - 2020).

Slender body water entry: augmenting the dynamics and acoustics through geometric, material, and surface properties, Funded, $40,000.00, (September 2015 - May 2019).

Heterogeneous Strain Measurement during Hot-Fire Testing of Carbon-Carbon Rocket Nozzles, Funded, $120,973.00, (November 17, 2017 - November 16, 2018).

Natural swarm and crowds: observation and modeling, Funded, $500,000.00, (June 2015 - September 2018).

Water Surface Skipping of Elastic Bodies, Funded, $199,000.00, (October 2015 - May 2018).

RGS Equipment Grant - Recirculating Subsonic Wind Tunnel, Funded, $40,000.00, (January 1, 2017 - April 30, 2018).

Tullis, Blake P

Lake Ralph Hall Spillway Model Study, Funded, $129,500.00, (August 2018 - December 2018).

Nenggiri Spillway and Bottom Outlet Model Study, Funded, $358,500.00, (May 2018 - December 2018).

Miscellaneous Contracts, Funded, $33,700.00, (January 2018 - December 2018).

Atoka Dam Spillway Model Study, Funded, $170,400.00, (February 15, 2017 - February 15, 2018).

Vargis, Elizabeth Ann

Generating models of RPE disease to elucidate relationships between intercellular junctions and angiogenic factors, Funded, $420,713.41, (September 2018 - August 2021).

Faculty Development Program to Integrate New Faculty in Nuclear Engineering Research at USU, Funded, $312,145.00, (July 2016 - June 2019).

Focused Ion Beam for Advanced Specimen Preparation, 3D Microstructural Characterization and Simulated Irradition, Funded, $300,000.00, (2018).

Effects of Space Ionizing Radiation on Cell Viability, Funded, $24,458.00, (June 2017 - March 2018).

Villanueva, Idalis

CAREER: Advocating for engineering through hidden curricula- a multi-institutional mixed method approach, Funded, $722,779.00, (January 15, 2017 - December 30, 2022).

Self-Efficacy in Engineering Education, Funded, $138,000.00, (June 1, 2018 - May 30, 2021).

Research Initiation: Collaborative Research: Understanding pedagogically motivating factors for under-represented and non-traditional students in an engineering classroom, Funded, $199,891.00, (September 1, 2018 - August 31, 2020).

The Making of Engineers: Influence of Makerspaces on the Preparation of Undergraduates as Engineers, Funded, $350,000.00, (July 1, 2017 - August 30, 2020).

EHR CORE: Collaborative Research: Getting Real about Engineering: An Exploration of the Emotional and Motivational Components of Learning in the Engineering Classroom, Funded, $50,000.00, (June 1, 2017 - May 31, 2020).

Wang, Hailei

Advanced Power Cycle Modeling for Small Modular Light-Water Reactors, Funded, $92,386.00, (December 19, 2018 - December 31, 2019).

Transient Thermal Modeling of Bioprocess Equipment, Funded, $60,782.00, (January 1, 2019 - December 31, 2019).

Wendel, Spencer Clayton

MAE Capstone Design Sponsorships, Funded, $182,517.36, (January 1, 2018 - December 31, 2018).

Air Force Research Lab University Design Competition, Funded, $20,000.00, (August 28, 2017 - August 14, 2018).

Creative 3D Plant Optimization (C3PO) System, Funded, $19,233.00, (August 1, 2017 - June 30, 2018).

Utah State University Design/Build/Fly Competition STEM Outreach, Funded, $8,000.00, (August 2017 - April 2018).

Whitmore, Stephen A

3-D Printed Propulsion Systems for Small Spacecraft, Funded, $162,134.01, (December 1, 2016 - November 30, 2018).

Heterogeneous Strain Measurement during Hot-Fire Testing of Carbon-Carbon Rocket Nozzles, Funded, $120,973.00, (November 17, 2017 - November 16, 2018).

Suborbital Flight Test and Plume Contamination Measurements of a Novel Green-Propellant Thruster for SmallSats, Funded, $173,243.47, (August 31, 2016 - July 31, 2018).

Evaluation of Additively-Manufactured, Consumable Structure Options for Small Spacecraft Propulsion Systems, Funded, $134,339.00, (August 31, 2016 - June 30, 2018).

Performance Optimization of 3-D Printed Hybrid Rocket Fuel Materials, Funded, $32,985.00, (June 7, 2017 - June 6, 2018).

STTR: Design, Development, and Testing of a Nanolaunch Hybrid Upper Stage, Funded, $142,906.15, (May 1, 2017 - March 31, 2018).

Development and Integration of a FADS System for "Dream Chaser" Space Vehicle, Funded, $154,950.00, (May 11, 2016 - February 2, 2018).

Winstead, Chris J

NAND: Noise Against Noise Decoder, Funded, $1.00, (2016 - 2019).

USTAR UTAG: High-efficiency error correction for data infrastructure, Funded, $83,000.00, (2017 - 2018).

RELIASIC: Reliable ASIC, Funded, $1.00, (2014 - 2018).

TWC:Medium:Securing Vehicular Platooning, Funded, $1,200,000.00, (August 1, 2014 - July 30, 2018).

Xu, Tianfang

Understanding the variability of recharge and groundwater control on mountainous stream discharge in karst environments, Funded, $33,000.00, (March 1, 2018 - February 28, 2019).

HEC-HMS Energy Balance Snowmelt Model Review, Testing and Validation, Funded, $41,558.00, (January 1, 2018 - July 10, 2018).

Zane, Regan

High power wireless extreme fast charging development and deployment for electric trucks, Funded, $4,300,000.00, (August 2018 - July 2021).

Enabling secure and resilient XFC: A software/hardware security co-design approach, Funded, $2,500,000.00, (October 2018 - December 2020).

Advancing smart inverter integration in Utah, Funded, $99,997.00, (January 2018 - June 2020).

Development and demonstration of a microgrid system at the USU EVR, Funded, $189,999.00, (January 2018 - June 2020).

WESTSMART EV: Western Smart Plug-in Electric Vehicle Community Partnership, Funded, $596,824.00, (July 1, 2017 - June 30, 2020).

Energy Management System for Battery Powered Mobility Devices Based on Wireless Power Transfer Concept to Promote Community Living and Participation, Funded, $599,077.00, (September 2016 - September 2019).

GATE Center of Excellence, in Innovation Drivetrains in Electric Automotive Technology Education (IDEATE), Funded, $954,000.00, (October 2011 - September 2019).

Analysis and design of the series resonant converter and parallel resonant converter and wireless power transfer, Funded, $74,799.00, (May 2018 - December 2018).

Feasibility Study for Electric Roadway Paint, Funded, $23,455.17, (June 4, 2018 - August 31, 2018).

Robust plug-and-play expeditionary battery system, Funded, $737,217.00, (September 2016 - December 2018).

Feasibility Analysis of Electric Roadways Through Localized Traffic, Cost, Adoption, and Environmental Impact Modeling, Funded, $498,170.00, (October 1, 2017 - September 30, 2018).

Utah's Public/Public/Private Partnership for the Deployment of Electric Bus Technology: Downtown to the University Connection, Funded, $78,000.00, (October 1, 2017 - September 30, 2018).

Hybrid energy storage for electric trucks, Funded, $19,916.00, (April 2018 - July 2018).

CDOT Electric Vehicle Roadway Study, Funded, $57,800.00, (August 1, 2017 - July 31, 2018).

Thermal management test lab for high reliability energy storage systems, Funded, $694,514.00, (May 2017 - February 2018).

Zeng, Ruijie

USGS 104b, Funded, $28,000.00, (March 1, 2018 - February 28, 2019).

Zhan, Jixun

Enabling industrial production of a promising natural blue dye, Funded, $164,105.00, (December 1, 2016 - June 30, 2018).

Zhou, Anhong

Development of a 'Lab- on-a-chip' for Cryptosporidium DNA Detection, Funded, $90,000.00, (October 1, 2017 - September 30, 2021).

MRI: Acquisition of a sputtering deposition system to expand science and engineering research at Utah State University, Funded, $207,026.00, (September 1, 2016 - August 31, 2019).

A combined TERS and functional cellular imaging approach to explore receptor function, Funded, $300,000.00, (July 1, 2013 - June 30, 2018).

Presentations and Posters

Agblevor, Foster Aryi

Advances in biomass conversion to hydrocarbon fuels, Advances in biomass conversion science, October 23, 2018.

Advances in biomass catalytic pyrolysis and oil upgrading, Xiamen Forum on Biomass Frontiers, October 19, 2018.

Aqueous phase synthesis of long chain hydrocarbons from low molecular weight biomass oxygenates, The Sixth International Conference on Biomass Energy, October 16, 2018.

Liquid Fuel: Catalytic Conversion, The Sixth International Conference on Biomass Energy, October 16, 2018.

Advances in Renewable Energy, The Sixth International Conference on Biomass Energy, October 16, 2018.

Aqueous phase synthesis of biobased hydrocarbon fuels and chemicals, Symposium on Thermal and Catalytic Sciences for Biofuels and Biobased Products, October 8, 2018.

Deconstruction of cellulosic biomass, Symposium on Thermal and Catalytic Sciences for Biofuels and Biobased Products, October 8, 2018.

Allan, Vicki H

Making Apps: A Near Peer Mentoring Program for Girls, AERA (New York, NY) American Educational Research Association, April 2018.

Allen, Lee Niel

H51H-1412: Impacts of Climate Variability on Hay and Cattle Production in the Upper Colorado River Basin, American Geophysical Union Fall Conference, December 2018.

Agricultural Water - Production Water, Produce Safety Alliance Grower Training, December 4, 2018.

Innovative water management for alfalfa using precision mobile drip irrigation and biochar, ASA-CSSA Annual Meetings, November 2018.

Agricultural Water - Production Water, Produce Safety Alliance Grower Training, November 13, 2018.

Survey of Hyrum & Logan Concern Wastewater Reuse Project, Water Reuse and Non-Traditional Water Sources for Irrigated Agriculture, October 15, 2018.

Documenting Human Health Impacts Of Exposure To Microbial And Chemical Hazards In Reclaimed Wastewater Used In Urban Agriculture, Cache Valley, Water for Agriculture - Project Director Meeting, October 1, 2018.

Irrigation and Water Use of Pasture, Sustainable Grazing Institute Workshop, June 26, 2018.

Irrigation Management Research, Water Conservation Field Day, June 22, 2018.

Irrigation Scheduling Training and Irrigation Research, County Agent Annual Training and Conference, June 12, 2018.

Short Season Irrigation, Lewiston Pasture Field Day, June 7, 2018.

Open ET Filling the Biggest Data Gap in Water Management, Open ET Workshop, May 17, 2018.

Verification of Water Conservation from Deficit Irrigation in the Upper Colorado River Basin, Utah Geographic Information Council, May 7, 2018.

Irrigation Management Research, Utah Water Users Workshop, March 20, 2018.

Water Banking in Cache County, Utah Water Users Workshop, March 20, 2018.

Irrigation Research, Annual Extension Conference, February 26, 2018.

Irrigation Management Research, Beaver County Crop School, January 25, 2018.

Irrigation Management Research, Millard County Crop School, January 24, 2018.

Irrigation and Crop Water Requirements, Weber County Crop School, January 23, 2018.

Irrigation and Water Use of Forage and Pasture, Wyoming-Utah Ag Days, January 23, 2018.

Irrigation Management Research, Sevier County Crop School, January 18, 2018.

Utah Water Conservation Initiative and Research Update, Uinta Basin Water Summit, January 17, 2018.

Barfuss, Steven L

The Effects of a Short-Radius Elbow on Electromagnetic Flowmeter Accuracy (Poster), ACE18 American Water Works Association, June 11, 2018.

The Effects of a Short-Radius Elbow on Electromagnetic Flowmeter Accuracy (presentation), ACE18 American Water Works Association, June 11, 2018.

Public Safety and unauthorized extreme activities at spillways, ISHS 2018 7th International Symposium on Hydraulic Structures, May 15, 2018.

Calibration and Validation of Physical and Numerical Models, 38th Annual USSD Conference and Exhibition, April 30, 2018.

Barr, Paul J

A work-in-progress report on an S-STEM scholarship program at Utah State University, Proceedings of the International Conference on Social Science, Literature, Business and Education, December 28-29, 2018, Los Angeles, CA., December 28, 2018.

An S-STEM program for improving undergraduate engineering education, Proceedings of the 2018 American Society for Engineering Education (ASEE) Conference and Exhibition, June 24-27, Salt Lake City, UT., June 24, 2018.

2018
Faculty Achievements and Activities
College of Engineering

Becker, Kurt

Quantifying Differences Between Professional Expert Engineers and Engineering Students Designing: Empirical Foundations for Improved Engineering Education, 2018 ASEE Annual Conference & Exposition, June 2018.

Berke, Ryan B

Relative Errors of Motion Blur vs Depth of Field in Image-based Vibration Measurements, Annual Meeting for Out in STEM (oSTEM), November 15, 2018.

A Customized UV Lens for In-Situ Measurements at High Temperatures and High Magnifications, ASME International Mechanical Engineering Congress & Exposition, 2018, November 12, 2018.

Effect of Exposure Time on Ultraviolet DIC at Extreme Temperatures, ASME International Mechanical Engineering Congress & Exposition, 2018, November 12, 2018.

DIC at Long Working Distances: The Influence of Diffraction Limits, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 4, 2018.

Full-Field Vibration Fatigue Strains at Extreme Temperatures, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 4, 2018.

Speckle Pattern Inversion in DIC at Extreme Temperatures, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, June 4, 2018.

Britt, David W

CuO nanoparticle influence on wheat photosynthetic efficiency during simulated drought, Sustainable Nanotechnology Organization, November 14, 2018.

Nanoparticle influence on bacterial outer membrane vesicles, Sustainable Nanotechnology Organization, November 14, 2018.

Protective osmolyte coronal layers to enhance nanoparticle bioavailability and activity, Sustainable Nanotechnology Organization, November 14, 2018.

A novel root mimetic platform for testing the effects of SiO2 nanoparticles on the architecture of beneficial biofilms, Gordon Research Conference: Nanoscale science and engineering for agriculture and food, June 3, 2018.

Bacterial outer membrane vesicles: Nature's nano, Gordon Research Conference: Nanoscale science and engineering for agriculture and food, June 3, 2018.

Capped nanoparticles improving controlled nutrient delivery to crops, Gordon Research Seminar: Nanoscale science and engineering for agriculture and food, June 3, 2018.

Budge, Scott E

The Wonders of LADAR: Simulations, LADAR systems, and Texel Images, SDL-USU Technical Lecture Series, September 26, 2018.

Crookston, Brian Mark

Public Safety and unauthorized extreme activities at spillways, ISHS 2018 7th International Symposium on Hydraulic Structures, May 15, 2018.

Doucette, William J

Hydroponic uptake and distribution of PPCPs in Typha lafitolia and Zea mays: A comparative study in two monocotyledon model plants, 39th Annual Meeting of the North America Society of Environmental Toxicology and Chemistry, November 4, 2018.

Organosilicon adjuvants in pollen: Initial results from a 2018 field survey, 39th Annual Meeting of the North America Society of Environmental Toxicology and Chemistry, November 4, 2018.

Impact of Wood Biochar on Contaminant Uptake of Crops Irrigated with Reclaimed Water, US Biochar Initiative (USBI) Biochar 2018, August 20, 2018.

Impact of Biochar Additions to Soil on Contaminant Plant Bioavailability, 28th Annual Meeting of the Society of Environmental Toxicology and Chemistry, May 13, 2018.

Dupont, Robert R

Demonstrating the Pollutant Loading from Stormwater Discharge to an Urban River in the Intermountain West Using High-Frequency Data, 2018 StormCon Conference Denver, August 14, 2018.

Exposure detection of a variety of pharmaceuticals and personal care products in domestic reclaimed wastewater reuse practices, in Northern Utah, International Network of Environmental Forensics (INEF) conference, June 2018.

Investigating Various Methods of Pharmaceutical Compound Detection in Aerosols from Reclaimed Water Sprinkler Irrigation, 11th International conference on irrigation and drainage, October 16, 2018.

Investigation and analysis of a variety of pharmaceuticals and personal care products in reclaimed domestic wastewater used for urban agriculture in Northern Utah, 11th International conference on irrigation and drainage, October 16, 2018.

Environmental Engineering: the Curriculum for the 21st Century, 111th Air and Waste Management Association Annual Conference and Exhibit, June 25, 2018.

Stormwater Impacts to an Urban River in the Intermountain West: the Use of Continuous Monitoring Datasets, 111th Air and Waste Management Association Annual Conference and Exhibit, June 25, 2018.

Dyreson, Curtis Elliott

Renovating Database Applications with DBAutoAwesome, 2018 ADC Conference Talk, May 25, 2018.

Fang, Ning

A work-in-progress report on an S-STEM scholarship program at Utah State University, Proceedings of the International Conference on Social Science, Literature, Business and Education, December 28-29, 2018, Los Angeles, CA., December 28, 2018.

Student experiences with collaborative problem-based learning (CPBL) in a second-year undergraduate engineering course, Proceedings of the 2018 Frontiers in Education Conference, October 3, 2018.

An S-STEM program for improving undergraduate engineering education, Proceedings of the 2018 American Society for Engineering Education (ASEE) Conference and Exhibition, June 24-27, Salt Lake City, UT., June 24, 2018.

Concept mapping in an undergraduate engineering course: students' experiences and perceptions, Proceedings of the 22nd Global Chinese Conference on Computers in Education, May 25, 2018.

Collaborative problem-based learning in an undergraduate engineering dynamics classroom, Proceedings of the 2018 Global Conference on Education and Research, April 17, 2018.

Galarus, Douglas Edward

Caltrans Aviation Weather Information (AWI) from Surface Transportation and Concept to Aviation and Implementation, National Rural ITS (NRITS) Conference, October 21, 2018.

From AWOS/RWIS to Caltrans Aviation Weather Information (AWI), Western States Rural Transportation Technology Implementers Forum, June 19, 2018.

Goodridge, Wade Hamilton

Adaptation of the Mental Cutting Test for Use among the Blind or Visually-impaired, ASEE Zone IV Conference, March 25, 2018.

Halling, Marvin W

Structural Considerations in the use of embedded inductive coils in concrete, SELECT Annual Meeting, October 2018.

Horsburgh, Jeffery S

HydroShare tools and recommended practices for sharing and publishing data and models in support of collaborative reproducible research, American Geophysical Union Fall Meeting, December 10, 2018.

Operational data provenance and cybersecurity for anticipatory disaster planning, American Geophysical Union Fall Meeting, December 10, 2018.

Advancing Understanding of Residential Water Use via Low Cost, Open Source, Smart Metering Infrastructure, Water Smart Innovations Conference & Exposition, October 2, 2018.

HydroShare: A Platform for Collaborative Data and Model Sharing in Hydrology, Geoscience Digital Data Resource and Repository Service (GeoDaRRS) Workshop, August 7, 2018.

A Monitoring Network for Sensing Water Quality and Hydrology Across Mountain to Urban Transitions, 2018 UCOWR/NIWR Annual Water Resources Conference, June 26, 2018.

The iUTAH Experience: Cyberinfrastructure and Data Management for a Large, Interdisciplinary Water Project, 2018 UCOWR/NIWR Annual Water Resources Conference, June 26, 2018.

HydroShare: A Platform for Collaborative Data and Model Sharing in Hydrology, 9th International Congress on Environmental Modelling and Software, June 24, 2018.

Using HydroShare to Enhance Sharing and Reproducibility of Research Results, 9th International Congress on Environmental Modelling and Software, June 24, 2018.

Enabling High-Performance Heterogeneous Computing for Component-Based Integrated Water Modeling Frameworks, 9th International Congress on Environmental Modelling and Software, Modelling for Sustainable Food-Energy-Water Systems, June 24, 2018.

Inexpensive, High Resolution Data for Quantifying Water Use, Conservation, and Differences by Gender, European Geosciences Union General Assembly 2018, April 9, 2018.

HydroShare: A Platform for Collaborative Data and Model Sharing in Hydrology, European Geosciences Union General Assembly 2018, April 8, 2018.

Effects of Sampling Frequency on Estimated Residential Water Usage, Utah State University Spring Runoff Conference, March 27, 2018.

Examination of Age Differences in Residential Water Use, Utah State University Spring Runoff Conference, March 27, 2018.

Examination of Water Use Across Residential Buildings on a College Campus, Utah State University Spring Runoff Conference, March 27, 2018.

Examining Toilet-Related Water Use Within Multi-Unit Residential Buildings, Utah State University Spring Runoff Conference, March 27, 2018.

Logan River Observatory: Extending iUTAH's GAMUT Network for Long-term Monitoring to Inform Local Policy and Water Management, Utah State University Spring Runoff Conference, March 27, 2018.

Examining Toilet-Related Water Use within Multi-Unit Residential Buildings, Utah Conference on Undergraduate Research, February 8, 2018.

Hu, Rose

Key Wireless Access Technologies in 5G and IoT Systems, IEEE Communications Society (ComSoc) Distinguished Lecture Tour, January 15, 2018.

Kulyukin, Vladimir Alekseyevich

Honeybee recognition in video bee traffic monitoring: Convolutional neural networks vs. random forests, 2018 ESA, ESC, ESBC Annual Meeting: Crossing Borders: Entomology in a Changing World, November 14, 2018.

A Convolutional Neural Network for Recognizing Bees in Video Analysis of Forager Traffic, American Bee Research Conference, January 11, 2018.

Regression, K-Nearest Neighbor, and Support Vector Machines Accurately Classify Audio Samples in Audio Beehive Monitoring, American Bee Research Conference, January 11, 2018.

Lane, Belize A

Analyzing California reference streamflow with the seasonally-based Functional Flows Calculator, American Geophysical Union Fall Meeting, December 2018.

Hydrologic regime influences on the style of riffle-pool, plane-bed and step-pool sequences, American Geophysical Union Fall Meeting, December 2018.

Predicting channel forms from remote sensing data: A multi-tiered machine learning framework, American Geophysical Union Fall Meeting, December 2018.

Flow, form, and function: An extensible framework for environmental flows at management scales, 12th International Symposium on Ecohydraulics, August 21, 2018.

Establishing environmental flow targets in complex environments, Society for Freshwater Sciences Annual Conference, May 23, 2018.

Key challenges and opportunities in incorporating environmental flows into bioassessment, Society for Freshwater Sciences Annual Conference, May 23, 2018.

Flow alteration and functional flow metrics for California streams, Society for Freshwater Sciences Annual Conference, May 21, 2018.

Functional flows in modified hydroscapes, Spring Seminar, April 26, 2018.

Flow, form, and function, 36th Annual Salmonid Restoration Federation (SRF) Conference, April 14, 2018.

Tiered field sampling protocols to enhance the role of geomorphic classification in instream flow management, 36th Annual Salmonid Restoration Federation (SRF) Conference, April 14, 2018.

Can we have it all? Envisioning Utah’s rivers as coupled human – natural systems, Spring Runoff Conference, March 27, 2018.

Functional flows in modified hydroscapes, Spring Seminar Series, January 31, 2018.

Lawanto, Oenardi

Developing Portable Lab Kits for a Foundational Circuits Class, American Society of Engineering Education (ASEE), June 2018.

Does Everyone Use Computational Thinking? – A Case Study of Art and Computer Science Majors, American Society of Engineering Education (ASEE), June 2018.

Engineering Undergraduates' Task Interpretation during Problem Solving in Thermodynamics, ASEE Annual Conference and Exposition, June 2018.

Liu, Ling

Multiscale Characterization of Fabrication Defects and Their Effects in Composite Structures, ASME International Mechanical Engineering Congress, November 2018.

Nanoscale Thermal Transport in Hydrogen Bonded Materials, March 2018.

Martin, Randal S

Exposure detection of a variety of pharmaceuticals and personal care products in domestic reclaimed wastewater reuse practices, in Northern Utah, International Network of Environmental Forensics (INEF) conference, June 2018.

Investigating Various Methods of Pharmaceutical Compound Detection in Aerosols from Reclaimed Water Sprinkler Irrigation, 11th International conference on irrigation and drainage, October 16, 2018.

McKee, Mac

Assessment of Landsat Harmonized sUAS Reflectance Products Using Point Spread Function (PSF) on Vegetation Indices (VIs) and Evapotranspiration (ET) Using the Two-Source Energy Balance (TSEB) Model, American Geophysical Union, December 9, 2018.

Fusion of satellite and UAV imagery and big data for smarter farming, American Geophysical Union, December 9, 2018.

GRAPEX: A Project Integrating Ground, Aerial and Satellite Observations for Improved Water Management of Vineyards (invited), American Geophysical Union, December 9, 2018.

Pixel Resolution Sensitivity Analysis for the Estimation of Evapotranspiration Using the Two Source Energy Balance Model and sUAS Imagery under Agricultural Complex Canopy Environments, American Geophysical Union, December 9, 2018.

CWSI derived from Landsat 8 thermal imagery as an affordable alternative to high-resolution imagery for irrigation management in California vineyards, American Geophysical Union Fall Meeting, December 9, 2018.

McLean, Joan E

Exposure detection of a variety of pharmaceuticals and personal care products in domestic reclaimed wastewater reuse practices, in Northern Utah, International Network of Environmental Forensics (INEF) conference, June 2018.

CuO nanoparticle influence on wheat photosynthetic efficiency during simulated drought, Sustainable Nanotechnology Organization, November 14, 2018.

Protective osmolyte coronal layers to enhance nanoparticle bioavailability and activity, Sustainable Nanotechnology Organization, November 14, 2018.

Investigating Various Methods of Pharmaceutical Compound Detection in Aerosols from Reclaimed Water Sprinkler Irrigation, 11th International conference on irrigation and drainage, October 16, 2018.

Investigation and analysis of a variety of pharmaceuticals and personal care products in reclaimed domestic wastewater used for urban agriculture in Northern Utah, 11th International conference on irrigation and drainage, October 16, 2018.

A novel root mimetic platform for testing the effects of SiO2 nanoparticles on the architecture of beneficial biofilms, Gordon Research Conference: Nanoscale science and engineering for agriculture and food, June 3, 2018.

McNeill, Laurie S

A work-in-progress report on an S-STEM scholarship program at Utah State University, Proceedings of the International Conference on Social Science, Literature, Business and Education, December 28-29, 2018, Los Angeles, CA., December 28, 2018.

What happened in Flint, MI? ...and what can we learn from it?, ASCE Northern Utah Branch meeting, October 18, 2018.

Impact of Wood Biochar on Contaminant Uptake of Crops Irrigated with Reclaimed Water, US Biochar Initiative (USBI) Biochar 2018, August 20, 2018.

An S-STEM program for improving undergraduate engineering education, Proceedings of the 2018 American Society for Engineering Education (ASEE) Conference and Exhibition, June 24-27, Salt Lake City, UT., June 24, 2018.

Miller, Charles D

Engineering microbially enhanced inoculum for anaerobic digestion, TU Delft, November 2018.

Characterization of a Novel Purple Non-Sulfur Bacterium for Bioremediation of Petrochemical Wastewater, American Society for Microbiology Microbe, June 2018.

Characterization of Purple Non-Sulfur Bacteria for Applications in Wastewater Treatment, Institute of Biological Engineering National Conference, April 2018.

Sustainable Remediation Of Petroleum Wastewater, US Science and Engineering Festival, April 7, 2018.

Bioproducts from Bacteria: a Synthetic Biology Approach, Research on Capitol Hill, February 2018.

Minichiello, Angela L

Argumentation in K-12 Engineering Education: A Review of the Literature (Fundamental), ASEE Annual Conference and Exposition, June 2018.

Communicating Findings about Online Forum Use Among Undergraduates in Distance-delivered Calculus: Developing a Help Seeking Usage Model, ASEE Annual Conference and Exposition, June 2018.

Engineering Undergraduates' Task Interpretation during Problem Solving in Thermodynamics, ASEE Annual Conference and Exposition, June 2018.

Examining the Literacy Practices of Engineers to Develop a Model of Disciplinary Literacy Instruction for K-12 Engineering (Work in Progress), ASEE Annual Conference and Exposition, June 2018.

Applying Usage Model Concepts to Describe Nontraditional Undergraduate Online Forum Help-seeking Behaviors in Calculus, AERA 2018 Annual Meeting, April 13, 2018.

Using Narrative Inquiry to Explore Veteran Undergraduate Experience in Engineering Education, AERA 2018 Annual Meeting, April 13, 2018.

Moon, Todd K

Research at Utah State University, University of Barbados, May 2018.

Neilson, Bethany Teresa

Analysis of the effects of dam releases on bank storage fluid and solute exchange through linked longitudinal in-stream and transverse groundwater models, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Characterization of Spatial Heterogeneity in River Temperatures in a Tundra River Using Thermal Infrared Imagery, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Dynamic River Temperature Model for the Colorado River within Grand Canyon, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Groundwater flow and exchange across the land surface explain carbon export patterns in a continuous permafrost watershed, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Perpetual hyporheic motion (and reaction): a glimpse into dynamic coupled physical and biogeochemical processes in hyporheic zones, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Predictability of variable arctic soil hydraulic and thermal properties, and implications of such variability on future thaw, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Stream-centric methods for determining groundwater contributions in karst mountain watersheds, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Identifying source areas for flow and heat in the Kuparuk River, Alaska, 2018 Geological Society of America Annual Meeting, November 2018.

Impact of a depth-variable organic mat on thaw and groundwater flow in continuous permafrost, 2018 Geological Society of American Annual Meeting, November 2018.

Enabling High-Performance Heterogeneous Computing for Component-Based Integrated Water Modeling Frameworks, 9th International Congress on Environmental Modelling and Software, Modelling for Sustainable Food-Energy-Water Systems, June 24, 2018.

Controls on fluxes of labile DOC from the Kuparuk River to the Arctic Ocean, POLAR 2018 SCAR/IASC Open Science Conference, June 18, 2018.

Groundwater transport and exchanges on the land surface control stream chemistry in permafrost, POLAR 2018 SCAR/IASC Open Science Conference, June 18, 2018.

The role of hydrologic variability in understanding Arctic river temperature, POLAR 2018 SCAR/IASC Open Science Conference, June 18, 2018.

Beaver Induced Biogeochemical Alterations in Mountain Streams, 2018 Society for Freshwater Science Annual Meeting, May 20, 2018.

Combined Approaches for Estimating Groundwater Exchanges in Karst Watersheds, 2018 USU Student Research Symposium, April 2018.

Logan River Observatory: Extending iUTAH's GAMUT Network for Long-term Monitoring to Inform Local Policy and Water Management, Utah State University Spring Runoff Conference, March 27, 2018.

Roberts, Nicholas

Individual Phonon Branch Contribution to Thermal Conductivity of 3C-SiC, IMECE 2018, November 9, 2018.

Prediction of Spectral Contribution to Thermal Boundary Conductance Between Dissimilar Materials Exhibiting Extreme Interfacial Bond Strengths, IMECE 2018, November 9, 2018.

The Effects of Neutron Irradiation Damage on the Lattice Thermal Conductivity of Beta-Silicon Carbide, IMECE 2018, November 9, 2018.

Thermal Characterization of Carbon Nanofiber Structures based on their Aspect Ratio, IMECE 2018, November 9, 2018.

Panel on the Fundamentals and Applications of Thermal Rectification, Joint Thermophysics and Heat Transfer Conference, June 25, 2018.

Open Educational Resources in the Undergraduate Engineering Curriculum: A Materials Science Case Study, Annual Conference and Exposition, June 24, 2018.

Thermal Transport in Nanostructured Materials: Modeling, Experimentation, and Future Directions, Invited Seminar Speaker, May 16, 2018.

Thermal Transport in Nanostructured Materials: Modeling, Experimentation, and Future Directions, Invited Seminar Speaker, May 15, 2018.

A 3-omega based technique for measuring anisotropic thermal conductivity, Student Research Symposium, April 12, 2018.

Thermal management of a railgun armature using phase change materials, Student Research Symposium, April 12, 2018.

Roper, Donald Keith

Metal nanocrystals modulate electron density in exfoliated transition metal dichalcogenide, 2018 ACS Southwest Regional Meeting, November 8, 2018.

Nanoparticles enhance transition metal dichalcogenide catalysis of hydrogen evolution, 2018 ACS Southwest Regional Meeting, November 8, 2018.

Interface affects surface mode enhancement of photocurrent, American Chemical Society 2018 Southwest Regional Meeting, November 8, 2018.

Materials for Agricultural Resource Imaging Analytics at High Resolution, North Carolina State University, November 6, 2018.

Energetics in 2D materials: plasmon-induced carriers and nonlinear susceptibility, University of Cincinnati Department of Mechanical Engineering Graduate Seminar, November 2, 2018.

Geometry and composition of soft polymer films embedded with nanoparticles enhance rates for optothermal heat dissipation, AIChE 2018 Annual Meeting, October 28, 2018.

Nanoantenna-induced hot carriers and nonlinear susceptibility in 2D materials, AIChE 2018 Annual Meeting, October 28, 2018.

Plasmons influence catalytic reduction by metal nanoparticles reduced on monolayer transition metal dichalcogenide, AIChE 2018 Annual Meeting, October 28, 2018.

Plasmon-induced carriers and nonlinear susceptibility in 2D nanocrystals, Physics & Astronomy Colloquium, September 24, 2018.

Development of Novel Sampling Systems, Arkansas Association for Food Protection, September 20, 2018.

Modified 2D crystal: enhanced redox activity, University of Arkansas Department of Animal Science Seminar, August 27, 2018.

Integrating plasmonic metals and 2D transition metal dichalcogenides for enhanced nonlinear frequency conversion, SPIE Optics + Photonics, August 23, 2018.

Energetics in two-dimensional materials: plasmon-induced carriers and nonlinear susceptibility, 2018 Southeast Symposium on Contemporary Engineering Topics, August 3, 2018.

Materials for Agricultural Resource Imaging Analytics at High Resolution, 2018 Arkansas NSF EPSCoR Annual Conference, June 11, 2018.

Nanoantenna augment carrier dynamics and wavelength mixing in 2D semiconductor nanocrystals, 2018 Emerging Technologies: Communications, Microsystems, Optoelectronics, and Sensors, May 9, 2018.

Nanoantenna-induced carriers and nonlinear susceptibility in 2D materials, 38.Electrical and Computer Engineering Seminar Series, University of Houston, April 23, 2018.

Production of a nanolayer tungsten disulfide catalyst for the hydrogen evolution reaction, AIChE Mid-America Student Regional Conference, April 21, 2018.

Building tomorrow's leaders, IBE 2018 Annual Meeting, April 6, 2018.

Predicting scalable plasmon-thermal heating rates in nanoantennae-embedded soft matter, IBE 2018 Annual Meeting, April 6, 2018.

Monolayer-enriched production of gold-decorated tungsten disulfide nanosheets via defect engineering, Materials Research Society Spring Meeting, April 2, 2018.

Plasmon-functionalized 2D transition metal dichalcogenides – nonlinear harmonic generation and ultrafast hot electron injection, Materials Research Society Spring Meeting, April 2, 2018.

Thermoplasmonic dissipation in gold nanoparticle-polyvinylpyrrolidone thin films, Materials Research Society Spring Meeting, April 2, 2018.

Transdisciplinary university-industry-federal partnerships, Institute for Critical Technologies and Applied Sciences, Virginia Polytechnic and State University, February 19, 2018.

Rosenberg, David E

Can we have it all? Envisioning Utah's rivers as coupled human – natural systems, Spring Runoff Conference, March 27, 2018.

H51H-1412: Impacts of Climate Variability on Hay and Cattle Production in the Upper Colorado River Basin, American Geophysical Union Fall Conference, December 2018.

Measuring Replicability to Promote Reproducibility in Hydrology, American Geophysical Union Fall Conference, December 2018.

Dynamic River Temperature Model for the Colorado River within Grand Canyon, American Geophysical Union Fall Meeting 2018, December 10, 2018.

ECSTATIC to Integrate Formal Education and Practice in Water Resources Systems Analysis, Environmental Water Resources Institute Conference, June 2018.

Preparing Graduate Researchers for Careers that Span Boundaires to Foster Adaptation to Climate Change, Boundary Spanning: Advances in Socio-Environmental Systems Research, An International Symposium, June 11, 2018.

Inexpensive, High Resolution Data for Quantifying Water Use, Conservation, and Differences by Gender, European Geosciences Union General Assembly 2018, April 9, 2018.

Sims, Ronald C

Engineering microbially enhanced inoculum for anaerobic digestion, TU Delft Netherlands, November 18, 2018.

Antioxidant Byproducts from Cyanobacteria Biofilms Cultivated on Industry Waste (Produced Water), Algae Biomass Summit, October 14, 2018.

Effects of Photoperiods on the performance of an algae biofilm reactor for wastewater remediation & biomass production, Algae Biomass Summit, October 14, 2018.

Reuse/recycling produced water with halotolerant microalgae, Algae Biomass Summit, October 14, 2018.

SWBEC Exhibit Booth - Algae Biofilm Technology, Algae Biomass Summit, October 14, 2018.

Biological Engineering - Enabling Fusion of Science and Art, ASABE Global Initiative - Global Water Security, October 3, 2018.

Algalytic Bacteria Increase Methane Production during Anaerobic Digestion of Algal Biomass, IBE Annual Conference, April 5, 2018.

Characterization of Purple Non-Sulfur Bacteria for Applications in Wastewater Treatment, IBE Annual Conference, April 5, 2018.

Developing a response to HABs through detection, separation, removal and disposal, IBE Annual Conference, April 5, 2018.

Engineering - An Enabling Fusion of Art And Science, IBE Annual Conference, April 5, 2018.

Bioproducts from Bacteria: A Synthetic Biology Approach, Research on Capitol Hill, February 2018.

Smith, Barton L

The Role of Seams to the Flight of Spinning and Non-spinning Baseballs, Invited talk, December 3, 2018.

Velocity Field of pitched baseball using particle image velocimetry, 71st Annual DFD Meeting, November 18, 2018.

The Role of Seams in Modifying the Direction of Baseball Pitches, Invited talk, October 20, 2018.

The Uncertainty of Particle Image Velocimetry Data, Invited Talk, September 19, 2018.

Song, Ziqi

A Cost-Competitiveness Analysis of Charging Infrastructure for Electric Bus Operations, TRB 97th Annual Meeting, January 7, 2018.

Estimation of Standard Pedestrian Equivalent Factors for Heterogeneous Pedestrian Stream Containing Individuals with Disabilities, TRB 97th Annual Meeting, January 7, 2018.

Exit Choice Behavior of Pedestrians Involving Individuals with Disabilities During Building Evacuations, TRB 97th Annual Meeting, January 7, 2018.

Fast-Charging Station Deployment for Electric Bus Systems Considering Electricity Demand Charges, TRB 97th Annual Meeting, January 7, 2018.

Planning of Fast-Charging Stations for a Battery Electric Bus System Under Energy Consumption Uncertainty, TRB 97th Annual Meeting, January 7, 2018.

The Prevalence of Cellphone Use While Driving and Its Impact On Near-crash Risk, TRB 97th Annual Meeting, January 7, 2018.

Spall, Robert E

A work-in-progress report on an S-STEM scholarship program at Utah State University, Proceedings of the International Conference on Social Science, Literature, Business and Education, December 28-29, 2018, Los Angeles, CA., December 28, 2018.

An S-STEM program for improving undergraduate engineering education, Proceedings of the 2018 American Society for Engineering Education (ASEE) Conference and Exhibition, June 24-27, Salt Lake City, UT., June 24, 2018.

Tarboton, David G

Assessment and Enhancement of National Water Model Height above Nearest Drainage Flood Inundation Mapping Using Planet CubeSat for the 2017 Bear River Flood Event, American Geophysical Union Fall Meeting, December 9, 2018.

HydroShare tools and recommended practices for sharing and publishing data and models in support of collaborative reproducible research, American Geophysical Union Fall Meeting, December 10, 2018.

An enhanced representation of forest cover for distributed hydrologic modeling based on national-scale forest monitoring data, remote sensing, and biophysical variables in a statistical learning algorithm, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Dynamic River Temperature Model for the Colorado River within Grand Canyon, American Geophysical Union Fall Meeting 2018, December 10, 2018.

HydroLearn: An online platform for developing and sharing of active learning resources in hydrology and water resources engineering, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Illustrating Hydroshare's Functionality for Supporting FAIR Data Principles through an Example Use Case and Reproducibility Workshop, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Sciunits: Reusable Research Objects, American Geophysical Union Fall Meeting 2018, December 10, 2018.

The Development of Sharable pySUMMA Simulation Environment using Singularity on HydroShare, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Web Based Tools for Reproducible Preparation and Execution of an Energy Balance Snowmelt Model, American Geophysical Union Fall Meeting 2018, December 10, 2018.

Web Based Hydrologic Terrain Analysis through HydroShare, Geomorphometry, August 13, 2018.

HydroShare: A Platform for Collaborative Data and Model Sharing in Hydrology, Geoscience Digital Data Resource and Repository Service (GeoDaRRS) Workshop, August 7, 2018.

HydroShare: A Platform for Collaborative Data and Model Sharing in Hydrology, 9th International Congress on Environmental Modelling and Software, June 24, 2018.

Using HydroShare to Enhance Sharing and Reproducibility of Research Results, 9th International Congress on Environmental Modelling and Software, June 24, 2018.

Hydroshare, JupyterHub, and strategies for collaborative and cloud based data sharing, modeling and analysis, EarthCube All Hands Users Meeting, June 6, 2018.

Invited Presentation on Panel: FEW Data Science Frontiers: Harnessing the Data Revolution for FEW Systems, Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS) 2018 Principal Investigators Workshop, May 16, 2018.

HydroLearn An Open-source Platform for Developing, Sharing and Adoption of Active-learning Resources in Hydrology and Water Resources, 2018 AWRA Spring Specialty Conference: Geographic Information Systems (GIS) and Water Resources X, April 23, 2018.

Model My Watershed: A Web Application for Modeling Stormwater Runoff and Water Quality, 2018 AWRA Spring Specialty Conference: Geographic Information Systems (GIS) and Water Resources X, April 23, 2018.

The Model My Watershed Rapid Watershed Delineation Tool, 2018 AWRA Spring Specialty Conference: Geographic Information Systems (GIS) and Water Resources X, April 23, 2018.

Using Digital Elevation Model Derived Height Above the Nearest Drainage for flood inundation mapping and determining river hydraulic geometry, 2018 AWRA Spring Specialty Conference: Geographic Information Systems (GIS) and Water Resources X, April 23, 2018.

Hydrologic Terrain Analysis Using Web Based Tools, European Geosciences Union General Assembly 2018, April 8, 2018.

HydroShare: A Platform for Collaborative Data and Model Sharing in Hydrology, European Geosciences Union General Assembly 2018, April 8, 2018.

Evapotranspiration Estimates in Stony Soils using Noah-MP Land Surface Model, 2018 SSSA Annual Meeting, January 6, 2018.

Torres, Alfonso Faustino

Assessment of Landsat Harmonized sUAS Reflectance Products Using Point Spread Function (PSF) on Vegetation Indices (VIs) and Evapotranspiration (ET) Using the Two-Source Energy Balance (TSEB) Model, American Geophysical Union, December 9, 2018.

Fusion of satellite and UAV imagery and big data for smarter farming, American Geophysical Union, December 9, 2018.

GRAPEX: A Project Integrating Ground, Aerial and Satellite Observations for Improved Water Management of Vineyards (invited), American Geophysical Union, December 9, 2018.

Pixel Resolution Sensitivity Analysis for the Estimation of Evapotranspiration Using the Two Source Energy Balance Model and sUAS Imagery under Agricultural Complex Canopy Environments, American Geophysical Union, December 9, 2018.

Assessment and Enhancement of National Water Model Height above Nearest Drainage Flood Inundation Mapping Using Planet CubeSat for the 2017 Bear River Flood Event, American Geophysical Union Fall Meeting, December 9, 2018.

CWSI derived from Landsat 8 thermal imagery as an affordable alternative to high-resolution imagery for irrigation management in California vineyards, American Geophysical Union Fall Meeting, December 9, 2018.

Evapotranspiration and Energy Balance of Irrigated Urban Turfgrass, American Geophysical Union Fall Meeting, December 9, 2018.

Remote Sensing for Irrigation Decisions, Utah Association of County Agricultural Agents Summer Meeting and Tour, June 12, 2018.

Verification of Water Conservation from Deficit Irrigation in the Upper Colorado River Basin, Utah Geographic Information Council, May 7, 2018.

Evapotranspiration Estimates in Stony Soils using Noah-MP Land Surface Model, 2018 SSSA Annual Meeting, January 6, 2018.

Tullis, Blake P

Fish Passage Considerations through Slip-Lined Culverts with & without Baffles, Fish Passage 2018, December 11, 2018.

Size-Scale Effects for Piano Key Weirs, USSD 2018, April 29, 2018.

Vargis, Elizabeth Ann

Nanoparticle influence on bacterial outer membrane vesicles, Sustainable Nanotechnology Organization, November 14, 2018.

In Vitro Muscular Atrophy Model with Suspended Muscle Fibers, American Society for Gravitational and Space Research (ASGSR), October 2018.

Simulating Muscle Atrophy due to Microgravity and Ionizing Radiation, American Society for Gravitational and Space Research (ASGSR), October 2018.

Bacterial outer membrane vesicles: Nature's nano, Gordon Research Conference: Nanoscale science and engineering for agriculture and food, June 3, 2018.

Mechanical Stress in RPE Cells Induces VEGF Expression and Promotes in vitro Angiogenesis, Association for Research in Vision and Ophthalmology, May 2018.

Characterizing the Effects of Radiation on Muscle Cells, Institute of Biological Engineering, April 2018.

Combined Dielectrophoresis and Raman Spectroscopy for Detecting and Identifying Bacteria, Institute of Biological Engineering, April 2018.

Villanueva, Idalis

NSF Panel on Grant Writing, March 2018.

Exploring how engineering faculty, graduates, and undergraduates evaluate hidden curriculum via emotions and self-efficacy, Northern Rocky Mountain Educational Research Association, October 17, 2018.

Perhaps engineering design is not so cold: an investigation of emotions and self-efficacy, Northern Rocky Mountain Educational Research Association, October 17, 2018.

If I value the test do I feel more or less shame when I fail? Exploration of value an emotions, International Conference on Motivation, August 15, 2018.

Engineering and... : Women negotiating their future in the present, Gender in STEM conference, July 31, 2018.

Exploring Assumptions about Engineering Education: A New Workshop to Improve Pedagogy for Inclusive Learning Environments, May 17, 2018.

Culturally Responsive Education, Why Bother, CONeCD Conference, May 1, 2018.

Promoting mathematics education in dual-language education programs in Spanish towards a growing understanding of engineering, American Association of Hispanics in Higher Education, March 9, 2018.

An initial exploration of hidden curriculum in engineering, Purdue University Graduate Research Seminar Series, January 11, 2018.

Wendel, Spencer Clayton

Fast Acting Gas Sampling Manifold and Pyrotechnic Valve, 2018 ASEE Annual Conference & Exposition, June 24, 2018.

Zane, Regan

Electric roads – a vision for the future of transportation, University of Cantabria, Spain, May 2018.

Challenges and opportunities in transportation electrification, Visiting Professor, March 2018.

Practical challenges in designing a dynamic wireless charging system, Task 26 Workshop 9 on Wireless Charging, November 6, 2018.

Future of Transportation, Utah Clean Cities 25th Anniversary Celebration, November 2, 2018.

Zeng, Ruijie

The spatial-temporal change of terrestrial evapotranspiration due to groundwater-fed irrigation in the High Plains, Spring Runoff 2018, March 27, 2018.

Zhan, Jixun

Microbial production of plant natural products, The 2nd Symposium on Processing and Preservation of Fresh Foods, July 6, 2018.

Elucidating the biosynthetic pathway of pradimicin A: an antiviral and antifungal natural product, June 25, 2018.

Isolation of an endophytic carotenoid-producing Pseudomonas strain and functional analysis of the carotenoid biosynthetic genes, 2018 Institute of Biological Engineering Annual Conference, April 5, 2018.

The roles of three regulatory proteins in the biosynthesis of angucyclines Sch47554 and Sch47555, 2018 Institute of Biological Engineering Annual Conference, April 5, 2018.

Zhou, Anhong

Differentiation of extracellular vesicles from bovine placenta and peripheral blood mononuclear cells by Raman spectroscopy, Society for the Study of Reproduction, July 2018.

A novel three-dimensional microTAS chip for ultra-selective single base mismatched Cryptosporidium DNA biosensor, 2018 Annual Institute of Biological Engineering Meeting, April 5, 2018.