

RESEARCH OPEN HOUSE 2019 POSTER WINNERS

Best Graduate Poster Award Winners

Biomedical Engineering

Matthew T. Remy, Adil Akkouch, Li He, Mason Sweat, Fang Qian, Xuan Song, Brad A. Amendt, Liu Hong
3D-Printed Bio-Scaffolds for Bone Regeneration

Best Undergraduate Poster Award Winners

Biomedical Engineering

Michael Ho, Kevin Dibbern, Michael Willey, J. Lawrence Marsh, Donald D. Anderson
3D joint space width measures from weight bearing CT detect early joint changes

2nd place Popular Choice Award Winners

Biomedical Engineering

Carley G. Stewart, Brianna M. Hilkin, Michael J. Welsh, Mahmoud H. Abou Alaiwa
Modeling Mucociliary Transport in Porcine Airways

Best Graduate Poster Award Winners (Tie between two posters by same author)

CBE:5405 Green Chemical and Energy Technologies

Marisol Contreras

End-of-Life of Photovoltaic Solar Cells: An Environmental Assessment

Marisol Contreras, Charles O. Stanier, and Syed Mubeen

A Technoeconomic Analysis of Hydrogen Production using Seawater Brine from a Desalination Plant

Best Undergraduate Poster Award Winners

CBE:5405 Green Chemical and Energy Technologies

Jonah Marks, Lisa Eischens

Environmental Comparison of Disposal Methods for Standard Polyethylene and Biodegradable Plastic Bags

Best Graduate Poster Award Winners

Center for Bioinformatics & Computational Biology

Rae Ann Corrigan, Emily Lavering, Michael Schnieders, Thomas Casavant

Comparative Analysis of Computational Folding Methods for Nucleic Acids in Fixed Charge and Polarizable Force Fields

Best Undergraduate Poster Award Winners

Center for Bioinformatics & Computational Biology

Chibuzo Nwakama, Thomas Casavant, Richard Smith, Rae Corrigan

A Mobile App to Collect Expert Inherited Deafness Diagnosis Data to Support Personalized Genomic Medicine

Best Graduate Poster Award Winners

Center for Computer-Aided Design

Wenbo Wang, Xuan Song

Multi-scale-material 3D Printing of Biodegradable Microneedles as Drug Delivery Devices

Best Undergraduate Poster Award Winners

Center for Global & Regional Environmental Research

Austin Doak, Charles Stanier, Megan Christiansen

Local Source Characterization using Positive Matrix Factorization

Best Graduate Poster Award Winners

Center for Global & Regional Environmental Research

Beiming Tang, Charles O. Stanier, Gregory R. Carmichael

Seasonal Variations of South Korean NO₂ from the TROPOMI Satellite

Best Graduate Poster Award Winners

Chemical & Biochemical Engineering

Nicole Thiher, Sage Schissel, Julie Jessop

Predicting Dose Rate Effects of EB-Initiated Polymers Using Monomer Chemistry

Best Undergraduate Poster Award Winners

Chemical & Biochemical Engineering

Katie O'Rourke, Erion Hasa, Dr. Allan Guymon

Photopolymerization Induced Phase Separation

Best Undergraduate Poster Award Winners

Civil & Environmental Engineering

Maeve Bittle, Rachel F. Marek, Peter S. Thorne, Keri C. Hornbuckle

Evidence of Construction and Environmental Sources in Air of Rrban Homes Near PCB-contaminated Waterway Pre- and Post-Dredging

Best Graduate Poster Award Winners

Civil & Environmental Engineering

Hannah Molitor, Emily Moore, Jerald Schnoor

Maximum CO₂ Utilization by Nutritious Microalgae

Best Undergraduate Poster Award Winners

Creative Kick-Start

Annie Cahill, Ethan Slater, Collin Zweifel, Shao Yang Zhang, and Nina VanDerZanden

Root Canal Pal

3rd place Popular Choice Award Winners

Creative Kick-Start

Libby Chelsvig, Emily Leibold

Body Betty

Best Graduate Poster Award Winners

Electrical & Computer Engineering

Yusuf Sermet, Ibrahim Demir

Virtual Stage Sensors: Alternative Approaches for Smartphone-Based Crowdsourced Water Level Measurements

Best Undergraduate Poster Award Winners

Electrical & Computer Engineering

Qitong Jin, David R. Andersen

Terahertz Rabi Oscillations in 2D Graphene-like Materials

Best Graduate Poster Award Winners

IIHR-Hydroscience & Engineering

Panithi Saktrakulkla, Kai Wang, and Keri Hornbuckle

A Statistical Model for Predicting the Relative Responses of Unidentified OH-PC Undergraduate

Best Undergraduate Poster Award Winners

IIHR-Hydroscience & Engineering

David Wu, Corey Markfort, Anton Kruger

Bat Recording Interface for Analyzing Wind Turbine Interaction

Best Graduate Poster Award Winners

Industrial & Systems Engineering

Nicole Beckligner, Geb Thomas

Development of an Online Self-Report System for Agricultural Injuries and Near-Misses

Best Undergraduate Poster Award Winners

Industrial & Systems Engineering

John Golec, Stephen Baek

Quantifying and Validating Computer Vision Algorithms for Ergonomic Analysis

Best Graduate Poster Award Winners

Iowa Institute for Biomedical Imaging

Johanna Uthoff, Sarah Mott, Brian Smith, Jessica C. Sieren

Clustering the Risk: Quantitative Imaging Features of Chronic OUndergraduatetructive Pulmonary Disease Associated with Lung Cancer

Best Graduate Poster Award Winners

Mechanical Engineering

Avik Samanta, Scott K. Shaw, Hongtao Ding

Co-existence of Superhydrophilicity and Superoleophobicity on Laser Textured Metal Surface by Controlling Surface Chemistry

Best Undergraduate Poster Award Winners

Mechanical Engineering

Jesslyn Coghlan, Dr. Craig Kletzing, Dr. Scott Bounds, Rich Dvorsky

TRACERS Spacecraft: ACE Structural Analysis

1st place Popular Choice Award Winners

Mechanical Engineering

Haixuan You, Zach Lowery, Qinghua Wang, Hongtao Ding

Innovative Laser Surface Patterning for Fabrication of Flexible and Transparent Conducting Heaters