

## **Graduate Best Poster Displays**

### **TIE for Biomedical:**

Biomedical Engineering – **Sarah Gerard**

*A Deep Learning Approach For Lung and Lobe Segmentation in CT Images*

And

### **Jacob Hermann**

*Modeling Lung Tissue Interdependence and Collapse During Mechanical Ventilation*

Chemical & Biochemical Engineering – **Austin McKee**

*Plasmon Mediated Carbon Dioxide Reduction Pathways*

Civil & Environmental Engineering – **Amina Grant**

*Snapshot of Lead and Copper in Iowa Drinking Water*

Electrical & Computer Engineering – **Wenqi Duan**

*High Sensitivity Silicon Nanowire Biosensor for Estrogen Detection in Water Streams*

Mechanical Engineering – **Avik Samanta**

*Molecular dynamics simulation of diffusion bonding during ultrasonic welding of dissimilar materials*

Industrial Engineering- **Hamed Salehi**

*Hazards Mental Models and The issue of Trust*

The Center for Bioinformatics & Computational Biology Graduate Poster – **Mallory Tollefson**

*GPU Accelerated Protein Structure Optimization and Its Application to Genes Associated with Hearing Loss*

The Center for Computer Aided Design – **Fan Fei**

*Multi-scale Additive Manufacturing: A 3D-printing Method based on Digital Light Processing*

The Center for Global & Regional Environmental Research – **Nathan Janecek**

*Experimental Characterization and Hygroscopicity Determination of Secondary Aerosol from D5 Cyclic Siloxane Oxidation*

IIHR-Hydroscience & Engineering – **Kim Yagin**

*CFD Simulation of a Generic Submarine operating near the surface*

Iowa Institute for Biomedical Imaging – **Sampurna Biswas**

*Model based deep learning in free breathing, ungated, cardiac MRI recovery*

### **Undergraduate Best Poster Displays**

#### **TIE for Biomedical:**

Biomedical Engineering – **Brett Austin**

*Multiaxial Failure Studies of Biological Soft Tissues*

And

**Russell Martin**

*Using zebrafish to test potential drugs for their efficacy against epileptic seizures*

Chemical & Biochemical Engineering – **Eric Knapp**

*Determining Parameters for Optimal Shadow Cure Polymerization*

Electrical & Computer Engineering – **Joshua Deutsch**

*Mie Scattering based Analytical Model to Compute Plasmon Resonances of Metal Nanoparticles*

IIHR-Hydroscience & Engineering – **Jian Teng**

*Investigation of the relationship between the wind turbine operating conditions and bat fatality*

The Center for Computer-Aided Design – **Elizabeth Niedert**

*Mechanical Testing of Neurovascular Stents*

The Center for Global & Regional Environmental Research – **Austin Doak**

*Investigating Pollution around Lake Michigan using Continuous Emissions Monitoring Systems*

The Creative Kick-Start program – **James Chenoweth, Ford Minaghan, Michael Garneau, and Velarchana Santhana**

*Minimizing Radiation during Gastrojejunal Tube Placement*

**Winners of the Popular Choice Award. This award is granted to the favorite posters as voted on by the visitors to the Open House**

1<sup>st</sup> place Popular Choice Award –

**Emily Pattee** from **Chemical & Biochemical** for the poster:

*Evaluation of Atrazine Bio-degradation Kinetics by Pseudomonas sp. ADP Biofilms and Planktonic cells*

2<sup>nd</sup> place Popular Choice Award –

**Christopher Feldmeier** from **Mechanical Engineering** for the poster:

*Wheel Profile Optimization to Mitigate Wear and Rolling Contact Fatigue for Railroad Vehicles*

3<sup>rd</sup> place Popular Choice Award (tie)–

**Amir Asgharzadeh Shishavan** from **Electrical & Computer Engineering** for the poster:

*Impact of Diffuse Shading Conditions on the Performance of Bifacial PV Modules*

And to

**Jian Teng** from **IIHR** for the poster:

*Investigation of the relationship between the wind turbine operating conditions and bat fatality*