**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 Janechek
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