<table>
<thead>
<tr>
<th>Time</th>
<th>Track 1: PKI 150</th>
<th>Track 2: PKI 250</th>
<th>Track 3: PKI 350</th>
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<tbody>
<tr>
<td>8:30-noon</td>
<td>Check-in PKI 301</td>
<td>Check-in PKI 301</td>
<td>Check-in PKI 301</td>
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| 9:00 a.m.  | The influence of Drought Stress on Anthocyanin Production in *Coriandrum Sativum*  
*Jacob Bliss*  
*Undergrad, Informatics, UNO*  
| Forward Osmosis: Definition and Evaluation of Mass Transmission Coefficient  
*Kang Rong*  
*Grad, CIVE, UNL*  
|  
| 9:15 a.m.  | Vietnamese Immersive Language Learning  
*Vincent Ha*  
*Undergrad, IT Innovation, UNO*  
| Howard Brandston Lighting Design Competition Submission  
*Samantha Anderson, Cody Largent*  
*Undergrad, AE, UNO*  
|  
| 9:30 a.m.  | Correction of Perceived Visual Distortions and Correlation to Retinal Changes in Eyes with Age-Related Macular Degeneration  
*Adithi Deborah Chakravarthy*  
*PhD, CSCI, UNO*  
| A Quantitative Comparison of Statistical and Deterministic Methods on Virtual In-Situ Calibration in Building Systems  
*Sungmin Yoon*  
*PhD, AE, UNL*  
|  
| 9:45 a.m.  | Performing Arts Center Design Project  
*Brenna Boyd*  
*Undergrad, AE, UNL*  
| ELM HI ASHRAE Student Design Competition  
*Adam Heyen*  
*Undergrad, AE, UNL*  
<p>|</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Presenter/Authors</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 a.m.</td>
<td>Transcribing Crowd Trajectories Using Video Overlays</td>
<td>Alexander Fuchsberger, PhD, MIS, UNO</td>
<td></td>
</tr>
<tr>
<td>10:15 a.m.</td>
<td>Comparison of Organisms That Contribute to Metabolic Function in the Oral and Gut Microbiome</td>
<td>Jamison Linscott, Undergrad, Informatics, UNO</td>
<td></td>
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<tr>
<td>10:30 a.m.</td>
<td>Design of Evaporative System</td>
<td>Trevor Steinkruger, Undergrad, AE, UNO</td>
<td></td>
</tr>
<tr>
<td>10:45 a.m.</td>
<td>Westwood Golf Course and Hell Creek Rehabilitation</td>
<td>Dakoda Kilzer, Andrew Wicks, Undergrad, CIVE, UNL</td>
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<tr>
<td>11:00 a.m.</td>
<td>BREAK</td>
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<tr>
<td>11:15 a.m.</td>
<td>Microfinancing: We are the Solution for Your Problems!</td>
<td>Anindita Roy Burman, Gaurab Sajel, Garima Pandey, Undergrad, MIS, UNO</td>
<td></td>
</tr>
<tr>
<td>11:30 a.m.</td>
<td>The Bus Factor</td>
<td>Nathan Pettepier, Donald Steffensmeier, Remy Patterson, Chen Chen, Undergrad, CEEN, UNL</td>
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<tr>
<td>Time</td>
<td>Presentation Title</td>
<td>Presenter(s)</td>
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| 11:45 a.m. | The Influence of Heavy Metal Stress Factors on Artemisinin Production in Artemisia Annua | Matthew Martens  
Undergrad, Informatics, UNO                                                                 |
|            | The Effect of the Quality and Quantity of Light on the Production of Artemisinin in Artemisia annua | Connor Phipps  
Undergrad, Informatics, UNO                                                                 |
|            | Efficient Parallel Algorithms for Analyzing Dynamic Networks                           | Sriram Srinivasan  
PhD, CSCI, UNO                                                                                     |
| 12:00-1:00 p.m. | LUNCH                                                                               | LUNCH                                                                                           |
| 1:00 p.m.  | Peer-Based Benchmarking Tool for Higher Ed                                         | Kavya Sathyanaryana, Elaine Locke  
Graduate, MIS, UNO                                                                                  |
|            | Database of Secondary Metabolic Production in Medicinal Plants                        | Allyshia Brown  
Undergrad, Informatics, UNO                                                                        |
|            | Inventory Database for Family Focus Federal Credit Union                             | Cecelia Carson  
Undergrad, MIS, UNO                                                                                   |
| 1:15 p.m.  | Sympathetic Vasomotion Observation System                                          | Michael Lehman, Mai Morgan, Patrick Davlin  
Undergrad, CEEN, UNL                                                                                   |
|            | Characterization of Structural Measures from Gene Co-Expression Networks             | Qianran Li  
Graduate, Informatics, UNO                                                                           |
|            | glnnO                                                                                | Nicholas Lauber  
Undergrad, ITIN, UNO                                                                                   |
| 1:30 p.m.  | Physiologically-Aware Communication Architecture for Transmission of Biomedical Signals in BASNs for Emerging IoT Applications | Jose Santos  
PhD, ECE, UNL                                                                                          |
|            | Evaluation of Health Levels Using a Correlation Network Model Made by Gait Parameters | Elham Rastegari  
PhD, Informatics, UNO                                                                                   |
| 1:45 p.m.  | Energy Efficiency in Heterogeneous Networks                                         | Dongfeng Fang  
PhD, CEEN, UNL                                                                                                |
|            | Preventative Maintenance Portal                                                      | Brandon Franklin, Derek Sims, Jackson Urrutia, Jonathan Hale  
Undergrad, CSCI, UNO                                                                                   |
|            | Tool Support for Capturing the Essence of a Concern in Source Code                   | Chuntao Fu  
Graduate, CSCI, UNO                                                                                                |
| 2:00 p.m.  | Algorithm to Determine the Location and Number of Charging Stations Placed in an Interstate and US-Highway for an Electric Vehicle | Subhaditya Shom  
Undergrad, CSCI, UNO                                                                                   |
|            | Developing an Embedded System for Rehabilitation Gaming                                | Jonathan Hautzinger  
Undergrad, CSCI, UNO                                                                                   |
|            | Modeling Molecular Channel Using Queueing Theory Approach                              | Vahraz Honary  
PhD CEEN, UNL                                                                                     |
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<tr>
<th>Time</th>
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<th>Presenter A &amp; B</th>
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| 2:15 p.m.| Generalized Effects of Faults on Normalized Performance Variables of Air Conditioners and Heat Pumps | Mehdi Mehrabi  
*PhD, AE, UNL*  
*Undergrad, AE, UNL* |
|          | Mitochondrial Disorders and Genetic Variations                                             | Mahmoud Elgaray  
*Undergrad, Informatics, UNO* |
|          | STEM-Meter                                                                                | Josh Hansen, Monroe Mallum, Steven Towne  
*Undergrad, CEEN, UNO* |
| 2:30 p.m.| Rehabilitation Gaming with Affordable Sensors                                             | Jonathan Hautzinger, Andrew Susman, Cole Nardini, Adam Nasim, Kyle Leonard  
*Undergrad, CSCI, UNO* |
|          | Construction of Plant Growth Chamber and Stress Detection with Computer Vision            | David Vincent  
*Undergrad, Informatics, UNO* |
|          | Granularity-Aware Integration through Indirect Data Fusion                                 | Sean West  
*PhD, Informatics, UNO* |
| 2:45 p.m.| Robot Swarm Modeling, Tracking and Analysis                                               | Robert Gibbs, Brandon Kirk, Jordan Nash, Mark Peters  
*Undergrad, CSCI, UNO* |
|          | Design of a Three-Story Steel Diaphragm Structure                                         | Anthony McWilliams, Brennan Fowler  
*Undergrad, AE, UNO* |
|          | Hybrid Technology Networking: Intelligent On-Board Real-Time Monitoring of Railcars       | Sushanta Mohan Rakshit  
*PhD, CEEN, UNL* |
| 3:00 p.m.| BREAK                                                                                     | BREAK                                                                            |
| 3:15 p.m.| Low Charge Detection and Diagnoses for Non-Critically Charged Refrigeration System        | Amro Quedan  
*PhD, AE, UNL* |
|          | Implementing Fifth Generation Wireless Systems in High Speed Train                         | Subharthi Banerjee  
*Graduate, CEEN, UNL* |
|          | Joint Steganography and Source-Channel Coding for Physiological Signal Transmission        | Neerja Sahu  
*PhD, CEEN, UNL* |
| 3:30 p.m.| Injury Tracking & Workflow Web app for Omaha Fire Department                              | Jake Weskamp, Moustafa Al Adawi, Anthony Mainelli, Avery Miller  
*Undergrad, CEEN, UNL* |
|          | Complete Coverage of 3D Surfaces using Autonomous Unmanned Aerial Vehicles                 | Venkat Ramana, Reddy Garlapati  
*Graduate, CSCI, UNO* |
| 3:45 p.m.| Project HALON                                                                              | Joshua Smrcina  
*Undergrad, AE, UNO* |
<p>|          | Howard Brandston Student Lighting Design Project                                          | Toward Dynamic Programming-based Management in Reconfigurable Battery Packs       |
|          | Howard Brandston Student Lighting Design Project                                          | Toward Dynamic Programming-based Management in Reconfigurable Battery Packs       |</p>
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>4:00 p.m.</td>
<td>Predicting Movement of Vertices Across Communities in Dynamic Networks</td>
<td>Marissa Gigantelli, Mazoun Al Riyami</td>
<td>Ni Lin PhD, ECE, UNL</td>
</tr>
<tr>
<td></td>
<td>Sriram Srinivasan <em>PhD, CSCI, UNO</em></td>
<td><em>Undergrad, AE, UNL</em></td>
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<td>Real-Time Robot Path Planning Around Complex Obstacle Patterns through Learning and Transferring Options</td>
<td>Olimpiya Saha <em>PhD, CSCI, UNO</em></td>
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<td>Scalable Coherent M-ary QAM Transmitter for Next Generation Optical Networks</td>
<td>Naji Albakay <em>PhD, CEEN, UNL</em></td>
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<tr>
<td>4:00-4:30 p.m.</td>
<td>Judges Breakout Session</td>
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<tr>
<td>4:30-5:30 p.m.</td>
<td>Awards Ceremony PKI 158</td>
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