



Graduate Research Showcase winners announced

Posted by Kimber Crull
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Winners of the oral presentation session pose with Dr. Rainer Glaser. From left, Ogbole Inalegwu, Sargun Kaur, Jennifer Harrell, Omar Rinchi, Glaser, and Hsin-Yin Chuang.

On Wednesday, April 12, more than 60 graduate students presented their work at the Graduate Research Showcase in the form of a poster or short oral presentation. Their work was evaluated in the areas of communication, innovation and overall research by a panel of judges that included S&T faculty, staff and representatives from employers across the state. First-place winners were awarded a cash prize of \$500. Second- and third-place finishers received \$300 and \$150, respectively. Other category winners received a cash prize of \$150.

The following students were honored at an awards banquet in recognition of their outstanding achievements:

Photo: Winners of the poster presentation session pose with Dr. Rainer Glaser. From left, Effat Eskandari, Aidan Brooks, Chukwuma Mgbenu, Jeremiah Rittenhouse, Glaser and Niloofar Zendeudel.



Winners of the poster presentation session pose with Dr. Rainer Glaser. From left, Effat Eskandari, Aidan Brooks, Chukwuma Mgbenu, Jeremiah Rittenhouse, Glaser and Niloofar Zendeudel.

Best research oral presentation

- **First place**

“Walking through High Temperatures (Up to 1600°C) Unscathed” by Ogbole Inalegwu, Ph.D. student in computer engineering. The research advisors are Dr. Jie Huang, Roy A. Wilkens Telecommunications Associate Professor of electrical and computer engineering, and Dr. Rex E. Gerald, research professor of electrical and computer engineering.

- **Second place**

“uPA-Mediated Polyamidoamine Dendrimer-Based Targeted Drug Delivery System for Triple Negative Breast Cancer” by Hsin-Yin Chuang, a master’s student in applied and environmental biology. The research advisors are Dr. Yue-wern Huang, professor of biological sciences, and Dr. Hu Yang, Linda and Bipin Doshi Department Chair and professor of chemical and biochemical engineering.

- **Third place**

“The Role of LIDAR Sensors in Future 6G Networks” by Omar Rinchi, a Ph.D. student in computer engineering. The research advisor is Dr. Ahmad Alsharoa, assistant professor of electrical and computer engineering.

Best Research Poster

- **First place**

“Human-Robot Collaboration in Manufacturing” by Niloofar Zendeudel, Ph.D. student in mechanical engineering. The research advisor is Dr. Ming Leu, Keith and Pat Bailey Distinguished Professor of Mechanical Engineering.

- **Second place**

“Using Vibration to Insert Rebar Reinforcement into 3D Printed Concrete” by Jeremiah Rittenhouse, a Ph.D. student in aerospace engineering. The research advisor is Dr. Daniel Stutts, associate professor of mechanical engineering.

- **Third place**

“High Resolution Characterization and Stratigraphic Variability of the Tuscaloosa Marine Shale: Implication on Fine-Grained Sedimentation Dynamics of the Continental Shelf” by Chukwuma Mgbenu, a Ph.D. student in geology and geophysics. The research advisor is Dr. Wan Yang, professor of geosciences and geological and petroleum engineering.

Best Communication in Oral Presentation

“Protein Concentration Differences in Predicted Long-Lived and Predicted Short-Lived Flies Based on Sleep Characteristics” by Jennifer Harrell, a master’s student in applied and environmental biology. The research advisors are Dr. Matthew S. Thimgan and Dr. Robin Verble, associate professors of biological sciences.

Best Communication in Poster

“Spatially Informed Thermal Feedback Control of Glass Filament Additive Manufacturing” by Aidan Brooks, a Ph.D. student in mechanical engineering. The research advisor is Dr. Douglas Bristow, professor of mechanical engineering.

Most Innovative in Oral Presentation

“Fe₃O₄-Coated Activated Carbon Catalysts for Drinking Water Disinfection and Toxic Disinfection Byproduct Control” by Sargun Kaur, a Ph.D. student in chemistry. Research advisors and coauthors include Dr. Paul Nam, associate professor of chemistry, Dr. Honglan Shi, adjunct professor of chemistry, Dr. John Yang, professor of environmental sciences at Lincoln University of Missouri, and Bin Hua, lab manager at Lincoln University of Missouri.

Most Innovative in Poster

“Investigating New Methods for Evaluating Soil Characteristics by Geophysics, Drones (UAV), Remote Sensing Data, and Machine Learning” by Effat Eskandari, a Ph.D. student in geological engineering. The research advisor is Dr. Katherine Grote, associate professor of geosciences and geological and petroleum engineering.

Guest judges included:

- Brandi Suhre from Thermo Fisher Scientific.
- Chris Coffman and Ryan Whitaker from Ocelot Consulting.
- Christy Truluck and Becca Balcom from Liberty Energy and Water.
- Dillynn Cook and Wes Safarik from the U.S. Army Corps of Engineers.
- Samuel Vader from the U.S. Navy.

Judges from the S&T community included:

- Dr. Hanli Wu, research associate in civil, architectural and environmental engineering.
- Dr. Sanjay Madria, Curators’ Distinguished Professor of computer science.
- Dr. Sanaz Vajedian, postdoctoral fellow in geosciences and geological and petroleum engineering.
- Dr. Daoru Han, assistant professor of mechanical and aerospace engineering.
- Dr. Fateme Fayyazbakhsh, assistant research professor of mechanical and aerospace engineering.
- Dr. Chang-Soo Kim, professor of electrical and computer engineering.
- Dr. Viraj Athavale, assistant research professor of materials science and engineering.
- Dr. Irina Ivliyeva, professor of Russian.
- Dr. Michel Guedry, professor of French.
- Dr. Rachel Kohman, director of Kummer Student Programs.
- Dr. Rainer Glaser, interim vice provost of graduate education and professor of chemistry.

Thank you to all our judges, guests, academic advisors and especially our student researchers for making this year’s Graduate Research Showcase a success.