73rd EDGD Midyear Conference Program and Schedule

Sunday, 6 January 2019, Bowles Hall

3:00 – 5:00 PM	EDGD Executive Committee meeting
5:00 – 6:00 PM	NCSU Workshop
6:00 – 8:00 PM	Welcome Reception, Media Showcase, hosted by Solidworks

Monday, 7 January 2019, Bowles Hall

7:30 – 8:30 AM	Breakfast
8:30 – 10:00 AM	Technical Session 1
10:00 – 10:30 AM	Break
10:30 AM – 12:00 PM	Technical Session 2
12:00 – 1:00 PM	Lunch
1:00 – 2:30 PM	Technical Session 3
2:30 – 3:00 PM	Break
3:00 – 5:00 PM	Autodesk Workshop
5:00 – 5:30 PM	Break
5:30 – 6:30 PM	Solid Professor Workshop
7:00 – 8:30 PM	Dinner at Free House in Berkeley, hosted by Solid Professor

Tuesday, 8 January 2019, Bowles Hall

7:30 – 8:30 AM	Breakfast
8:30 – 10:00 AM	Technical Session 4
10:00 – 10:30 AM	Break
10:30 AM – 12:00 PM	Technical Session 5
12:00 – 1:00 PM	Lunch
1:00 – 2:00 PM	Travel by BART to San Francisco, Embarcadero Station
2:00 – 5:00 PM	Autodesk Gallery & Pier 9 Workshop
5:00 – 7:00 PM	Awards Dinner at Autodesk Gallery in San Francisco, hosted by Autodesk

Wednesday, 8 January 2019

Depart

Technical Session 1

Gender Differences in Spatial Visualization Among Rural and Urban Populations
Grace C. Panther and Sheryl A. Sorby

Material Dissemination of the Biewald Orthographic Visualization Battery
Daniel P. Kelly, Nolan Fahrer, Kevin Sutton, and Aaron Clark

Student Design Projects to Improve Spatial Visualization Ability
Sara McMains and Sara Shonkwiler

Use of Decision-Tree Approach for Identification of Dominant Predictive Factors in Standardized Visualization Testing
Jorge Rodriguez and Luis G. Rodriguez-Velazquez

Technical Session 2

A Comparative Analysis of Gender and the Impact of Mathematics Achievement on Spatial Visualization Ability in Engineering Technology Students
Mildred V. Jones & Petros Katsioloudis

Using Solid Models to Visualize Concepts in Engineering Mechanics
Holly K. Ault

Datum Reference Frame Applications in a Senior-Level, Engineering Technology Capstone Course
Kevin L. Devine and Theodore J. Branoff

Underrepresented and International Student Success and Confidence in a Small, Lab-based CAD Class
Hannah Budinoff and Sara McMains

Technical Session 3

Picture Exchange Communication System (PECS) Mediums: Comparative Analysis
Daniel Cubillos and Magesh Chandramouli

The Necessity and Results of Autonomous Integrity Evaluation of CAD Files
Jeff Morris

Systematic Analysis of Graphics-Based Hardware and Software for Virtual Reality Instructional Framework
Magesh Chandramouli, Ge Jin, Daniel Cubillos, and Justin Heffron

A Review of File Comparison Utilities for Assessing Student Work

Steven J. Kirstukas and Jeff Morris

Technical Session 4

Modeling Cognitive Activities in a Virtual Reality- assisted Industrial Robot Programming Environment

Yi-hsiang Chang and Kevin L. Devine

Coloring Inside the Lines: A Learning Strategy Using Coloring to Help Students Understand Orthographic Projections

Sara McMains and Hannah Budinoff

Instilling an Entrepreneurial Mindset in a New Generation of First-Year Engineering Students Through a Graphics Course Project

L. Sun and L. L. Long III

Does the Glass Box Visualization Method Increase Student Learning Outcomes?

Christopher Schroder and Rustin Webster

Technical Session 5

A Cornerstone Course for Engineering Education: The Engineering Design Graphics Collaboratory

Ronald E. Barr

Curricular Maintenance: Responding to Partners and Higher Authorities

Robert A. Chin

Distribution of the Engineering Graphics Concept Inventory

Steven Nozaki, Nancy Study, Daniel P. Kelly, Heidi Steinhauer, Kaloki Nabutola, Sheryl Sorby

Investigating Performance Assessment Practices in Post- Secondary Fundamental Technical Graphics Courses

K. G. Sutton, A. C. Clark, C. D. Denson, and N. E. Fahrer

Learning Modules: Iterating the Flipped Classroom

Jennifer McInnis, Anat Eshed, Bo Kim, and Yan Xiang