



Host University  
UVU, Orem, UT USA

MAY 9-10  
2025

# Innovations & Solutions for Today's Challenges

## i-ETC May 9th & 10th, 2025

Intermountain Engineering, Technology and Computing (i-ETC.org) Conference provides a forum for interaction among students, faculty, and industry. As contributors in the technology fields of engineering, technology, and computing, we join together to present research, product technology demonstrations, and advances in higher education.

Attendees will learn about current research, and industry best practices for digital product design, development, testing, deployment, and operation.

i-ETC is supported by Utah Valley University (UVU), Utah State University (USU), Brigham Young University (BYU), Weber State University, Idaho State University, Montana State University and a number of Utah's technology industries located along the Silicon Slopes.

### Sponsorships:

We welcome sponsoring donations from industry and academic institutions. In addition to recognition on the conference website, sponsors meeting minimum levels will be granted space in the conference area for a table or booth. For sponsorship information, please contact Stefan Harlan at [stefan.harlan@uvu.edu](mailto:stefan.harlan@uvu.edu)

## Call for Papers

Prospective authors from universities, research institutions, government agencies and industry are invited to submit a full paper electronically (<https://i-etc.org>) with a maximum of six pages. **Full papers are due by February 24th, 2025.**

All papers presented at the conference will be published in the conference proceedings. Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements.

### Call for Posters

We invite undergraduate and graduate student researchers to participate in the student research poster competition. The best posters presented at the conference will receive nominal cash prizes. Abstracts of Posters are due March 29, 2025.

Abstracts of posters presented at the conference will be published in the i-ETC 2025 conference proceedings.

### Panel Sessions/Tutorials and Technical Sessions

Prospective organizers of special sessions, panel sessions, tutorials sessions, and technical sessions are invited to submit proposals by February 24th, 2025.

## Registration

One-Day	Student	Participant
<b>\$100</b>	<b>\$75</b>	<b>\$200</b>
Industry Participants	3/30/25 Early Bird Registration	3/30/25 Early Bird Registration

Full participant registration fee is \$250 (\$200 early), & \$100 per full-time student participant (\$75 early), or \$100 for one-day registration for industry participants. *Early bird registration ends March 30, 2025.*

### Student Paper Awards

There will be up to 9 student paper and poster awards.

### Conference Chair

Mohammad Masoum (UVU)

• [mmasoum@uvu.edu](mailto:mmasoum@uvu.edu)

### Conference Secretariat

• [ietc@uvu.edu](mailto:ietc@uvu.edu)



## ENGINEERING TRACK

### Energy Systems

Smart Grid; Power Systems Operation and Planning; Sustainable and Renewable Energy Systems; Power Electronics; Electromechanical Energy Conversion and Storage; Energy Consumption Modeling and Optimization; Energy and Environmental Engineering

### Signal/Image Processing & Control

Smart Manufacturing & Automation; Intelligent Robot Systems; Artificial Intelligence; Machine Learning & Neural Networks; Sustainable Manufacturing; Manufacturing Process Monitoring and Control

### Communication and Computer Engineering

5G and 6G Wireless Communication Technologies; Computer Architecture & High-Performance Computing; VLSI & Low-power Design, Robotic Systems; Internet of Things(IOT)

### Electronics and Circuits

Smart Circuits and Systems; VLSI Design; Nanomaterials and Nanotechnology; Optical Communication

### Mechanical Engineering

Heat Transfer; Fluid Mechanics; Thermodynamics; Mechanisms & Robotics; Mechanical Design; Mechanics & Mechatronics

### Material Science & Engineering

Smart Materials; Innovative Engineering Materials; Materials Design and Applications; Composite Materials Science and Technology; Nanomaterials; Materials and Manufacturing Engineering

### Civil and environmental Engineering

Environmental Engineering; Water Resources; Hydraulic Information; Geotech, Water and Air Quality Studies; Instrumentation and Remote Sensing; Geographic Information Systems; Building Information Modeling; New Construction Materials; Sustainable Solutions and Practices; Transportation

### Education Topics\*

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[www.i-etc.org](http://www.i-etc.org)



Intermountain Engineering, Technology and Computing Conference

## TECHNOLOGY TRACK

### Technology Design

Architecture; Drafting; Survey & Mapping, Drone Surveying; 3D Printing & Prototyping; UX Digital Product Design; Civil Engineering; Web & Digital Platforms; Human Centered Design; Mobile App; Accident Reconstruction

### Digital Media

Digital Animation; Game Development; Digital Cinema Production; Cinematography; Directing; Post-Production; Digital Photography; 360° Photography & Video; Digital Audio; Music Editing & Production; Home Automation & Internet of Things (IOT); VX Voice Experience Design & Development; Digital, Web, Interface & Experience Design

### Information Technology

Networking & Data Communications; Cybersecurity; Network Administration and Security; Virtualization; Automated Testing & Monitoring; Computer Forensics & Security; Healthcare Information Systems; Project Management; Product Management; Facilities

### Aerospace Technology and Management

Propulsion Systems; Fixed Wing, Helicopter, Advanced Air Mobility, UAS, Space Vehicle Technology; Maintenance Concepts; Technician Training; Safety Management; Airline & Airport Operations, Route Planning; Aviation Business Management; Security; Flight Training; Corporate and Airline Pilot Operations

### Industrial Automation, Power, and Control

Designing & Maintaining Automated Systems & Machines; Control System Programming; Protecting Critical Cyber Systems; Robotics in Manufacturing; Integrating Automation Solutions; Automated Safety Systems; Power System Protection & Control Solutions; Electrical Safety & Arc-Flash Hazard Reduction; Smart Sensors & Industrial Internet of Things (IIOT)

### Transportation & Automotive

Diesel Systems; Automotive Technology; Collision Repair; Power Sport; Street Rod; Vehicle Electrification

### Mixed Reality

Augmented Reality; Virtual Reality; Hybrid Reality; Mixed Reality Visual and Audio; MR Simulations, 3D Modeling; Training Simulations; Drone Surveying and Automation

### Technology Management

Business Intelligence Systems; Production and Operations Management; Project Management; Quality Control, Safety and Health Issues, and Statistics.

### Education Topics\*

## COMPUTING TRACK

### Computing Trends

Database Systems; UX and Visualization; e-Business, e-Learning & e-Government; Modeling & Simulation; Data Science; Computing Education & Recruitment; Computing Frontiers.

### Software Engineering

Software Design and Design Patterns; Software Reliability, Safety & Security Methods; Software Engineering Methodologies; Software Testing; Evaluation & Analysis Technologies.

### Medicine & Healthcare

Bioinformatics; Health Informatics; Biomedical Engineering & Sciences; Medical Image Processing & Object Recognition.

### Intelligent Systems

Artificial Intelligence; Machine Learning & Deep Learning; Cognitive Computing; Information & Knowledge Engineering; Data Mining; Computer Vision & Pattern Recognition.

### Security & Communication

Privacy; Internet Security; Cryptography; Secure Storage and Transactions; Parallel & Distributed Computing; Internet of Things; Wireless/Mobile Communication; Cloud Computing.

### Education Topics\*

### \*Additional Education Topics in Each Track

### Capstone Projects/Undergraduate Research

#### Education

Effective Teaching Activities; Interdisciplinary Education; Engaging Undergraduate Students in Research; Industry & Education Collaboration.

#### Technology in Teaching and Learning

Innovation Strategies; Infrastructure Technologies; Online & Distance Learning; Smart Classrooms; Virtual & Remote Labs; Game-Based Learning.

#### Accreditation and Assessment

Curriculum Design & Development; Accreditation & Quality Control; Retention & Support Strategies; Educational Innovation, Role of Laboratories.

#### Diversity and Inclusion Issues

Academic Leadership, Diversity, & Inclusion; Assessing Diversity & Inclusion Programs; Skills Development & Competencies; Retention of Women & Gender Equality.