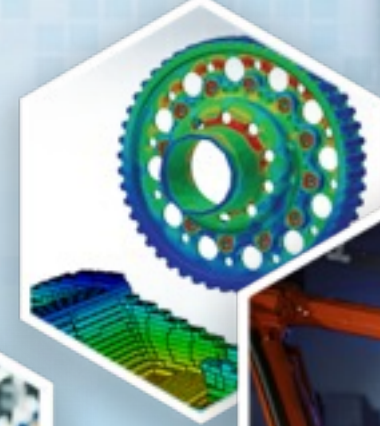


Members Meeting Summer 2023

June 21, 2023



Convene. Connect. Catalyze.

A nighttime photograph of the Knoxville skyline. The Sunsphere tower is prominent on the left, illuminated with purple and blue lights. The city buildings are lit up, and the sky is a deep blue. The text 'WELCOME To Knoxville' is overlaid on the right side of the image.

WELCOME

To Knoxville



WELCOME To Knoxville

SUMMER 2023



MEMBERS MEETING

June 20-22 • Knoxville, TN
Convene. Connect. Catalyze.

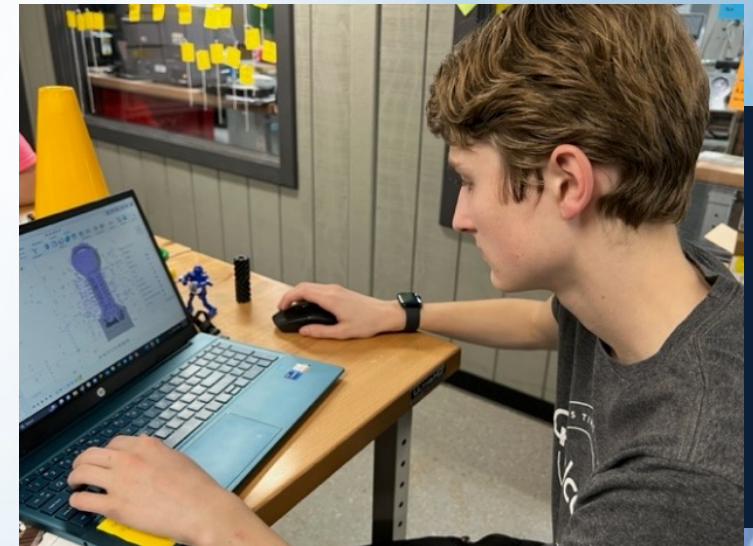
Oak Ridge High School Wildcat Manufacturing

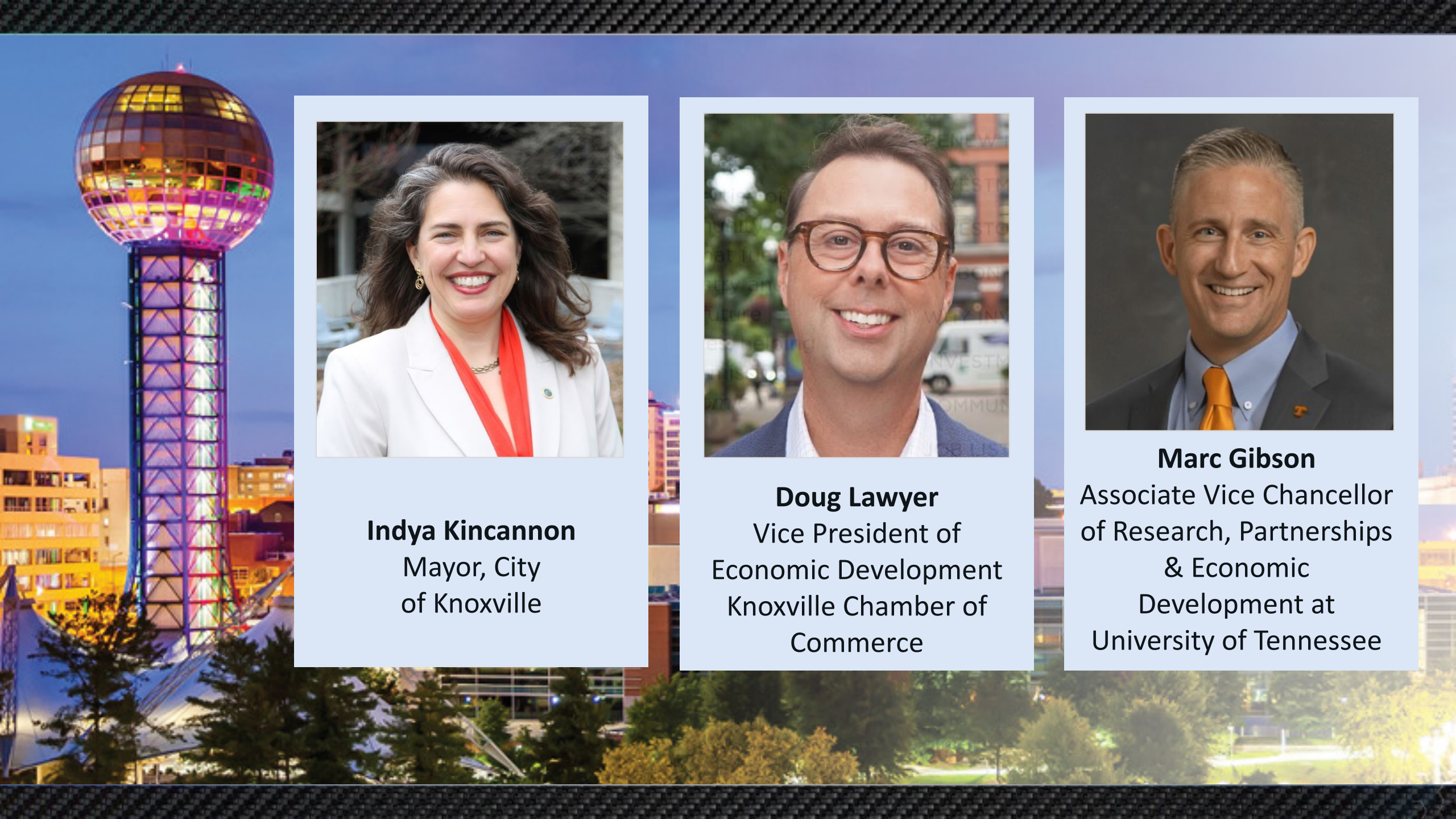
- Students designing, manufacturing IACMI “swag,” leveraging machining skills

- >300 Attendees will receive a custom memento made by ORHS students connected to Workforce
- Students designed and fabricated acrylic keychain and carbon fiber base
- Students have completed ACE training through IACMI partner Roane State Community College



- Composite filament for base donated by IACMI-member Vartega
- Subtractive and additive at work





Indya Kincannon
Mayor, City
of Knoxville



Doug Lawyer
Vice President of
Economic Development
Knoxville Chamber of
Commerce



Marc Gibson
Associate Vice Chancellor
of Research, Partnerships
& Economic
Development at
University of Tennessee

SUMMER 2023



**MEMBERS
MEETING**

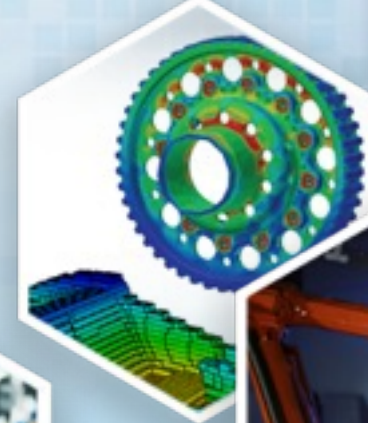
June 20-22 • Knoxville, TN
Convene. Connect. Catalyze.

IACMI: Accelerating Our Progress

Chad Duty

Chief Executive Officer

June 21, 2023



Convvene. Connect. Catalyze.

Professional Background

- Virginia Tech: Mech Eng (BS)
- Georgia Tech: Mech Eng (PhD)



Professional Background

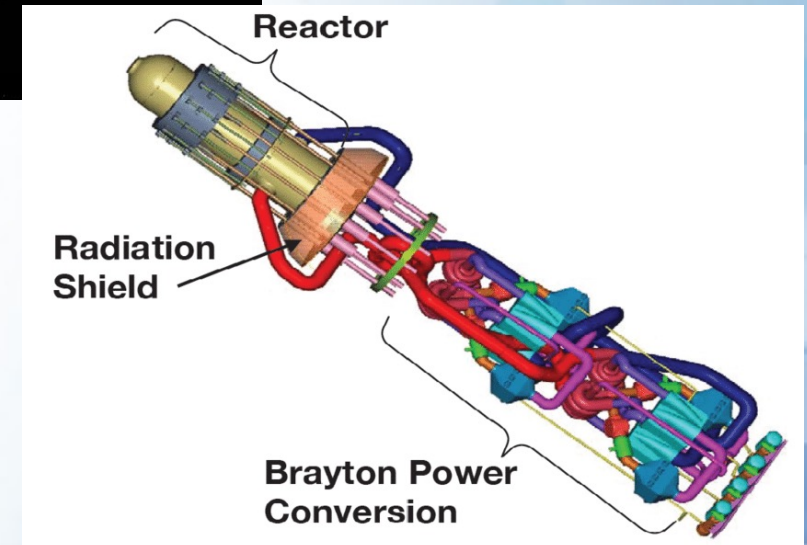
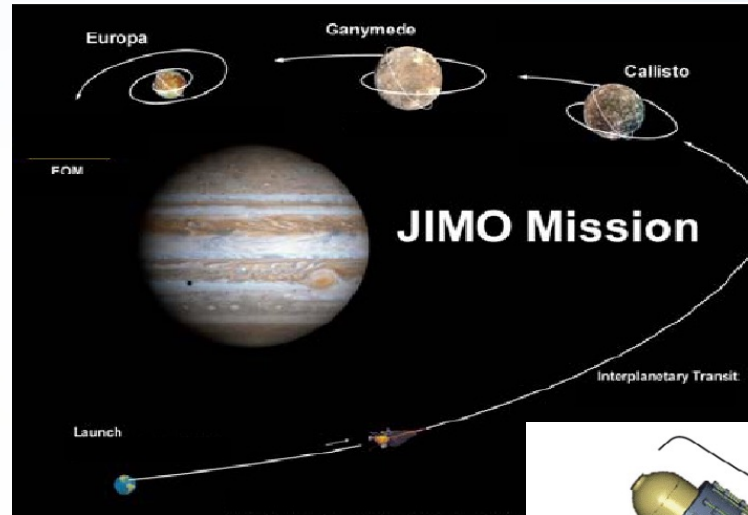
- Virginia Tech: Mech Eng (BS)
- Georgia Tech: Mech Eng (PhD)
- Lockheed Martin

LOCKHEED MARTIN 



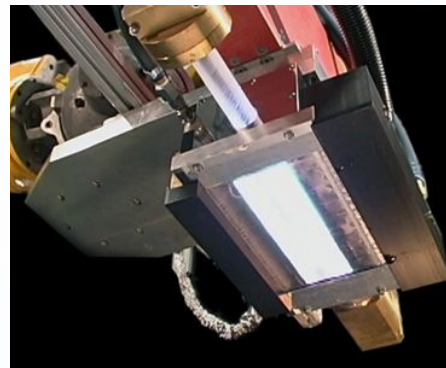
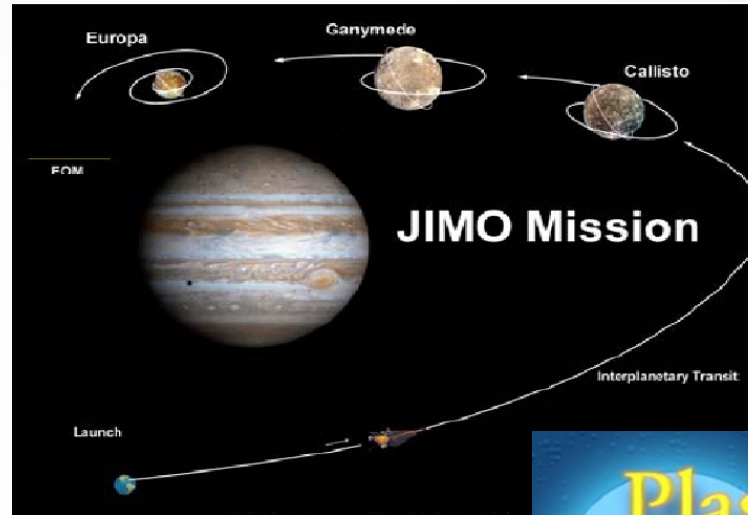
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- Georgia Tech: Mech Eng (PhD)
- Lockheed Martin
- Oak Ridge National Lab
 - Prometheus



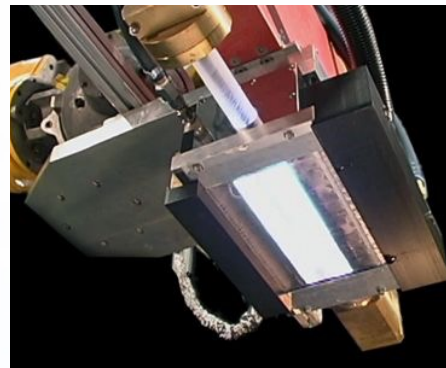
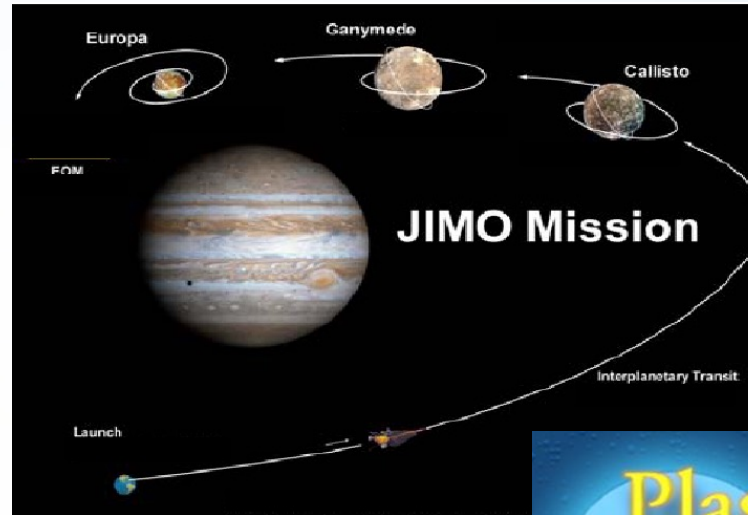
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 - Prometheus
 - Pulsed Thermal Processing



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 - Prometheus
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 - Solar Program Manager



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- Oak Ridge National Lab
 - Prometheus
 - Pulsed Thermal Processing
 - Solar Program Manager
 - MDF – BAAM – Cobra

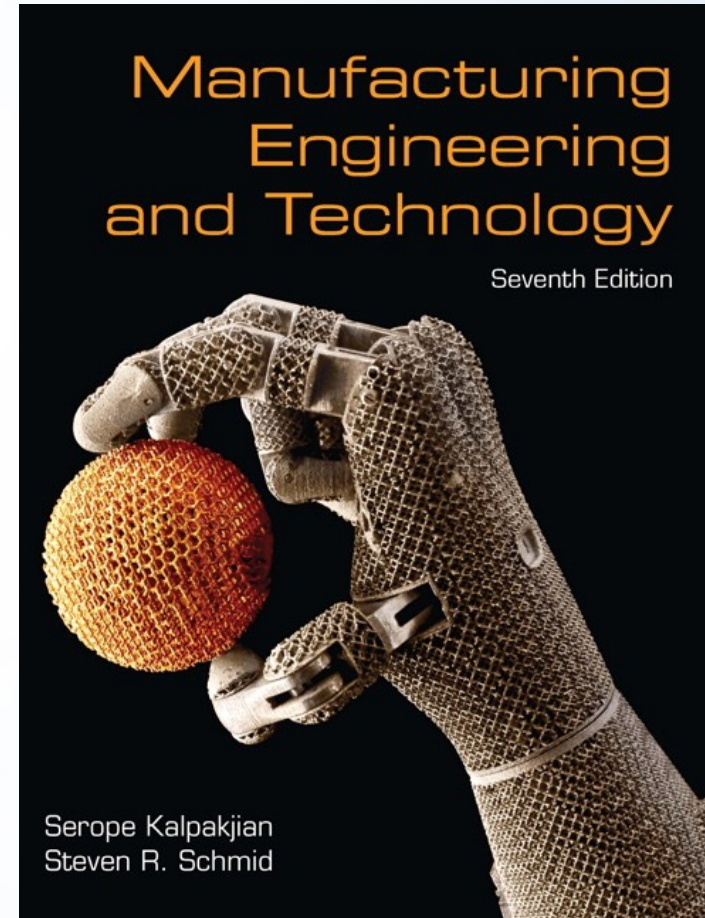


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- Univ of Tennessee
 - ME366 – Computer Aided Manufacturing



THE UNIVERSITY OF
TENNESSEE
KNOXVILLE



Professional Background

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 - ME366 – Computer Aided Manufacturing
- IACMI



THE
COMPOSITES
INSTITUTE

Convene.
Connect.
Catalyze.

Driving innovation in advanced composites
through networking, collaboration and
workforce development.

Introduction: Chad Duty

- **CEO** (first 100 days)
IACMI – The Composites Institute
- **Professor** (Mech Eng)
University of Tennessee
- **Joint Faculty Researcher**
Oak Ridge National Lab



Introduction: Chad Duty

- Married, Father of 4
- Amateur Woodworker



IACMI – The Composites Institute

2015-2021

\$70M
of DOE
funding was
matched by
\$130M
of industry,
university,
and state
cost share



Technology
\$150M portfolio
>60 R&D projects
25+ commercial
products

Partnerships
135+ Members
Industry, Universities,
National Labs,
Gov't Agencies

Infrastructure
\$400M Value

Tennessee (4 facilities)

Michigan (2)

Ohio (1)

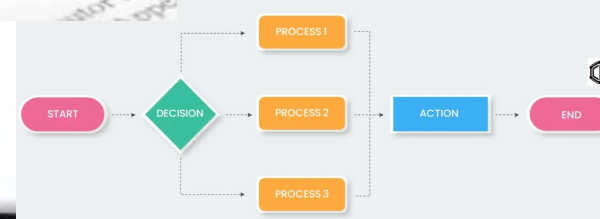
Indiana (2)

Colorado (1)

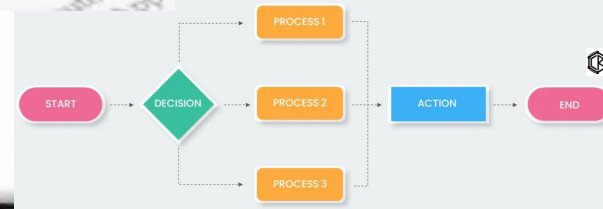
Pipeline
100 Internships
100% placement rate
15,000 Trainees
K-12, post-secondary
& adult workers

Jobs
**3,000 Manufacturing
Job Commitments**
by IACMI members
partners

Building Capabilities



Building Capabilities & Producing Fruit





IACMI 2.0

*Accelerating
Progress from
a Strong
Foundation*



April 11 | DOE Awards IACMI Renewal Funding

DOE Furthers Commitment to Advancing Composites Manufacturing Through IACMI Renewal





Published 4/11/2023

IACMI receives funding renewal from U.S. DOE to continue composites R&D

Over the next five years, IACMI aims to further composites R&D efforts to support U.S. decarbonization and its pillars: technology, economy and workforce development.

The U.S. Department of Energy (DOE)'s Office of Energy Efficiency and Renewable Energy publicly announced its decision to renew funding for its **Institute for Advanced Composites Manufacturing Innovation (IACMI)**. IACMI becomes the first Clean Energy Manufacturing Innovation Institute to be renewed by DOE.

IACMI will receive federal funding across five fiscal years, with a first-year investment of \$6 million to further technological R&D and accelerate commercialization in the domestic composites manufacturing sector. This federal funding builds upon initial institute funding of \$70 million from DOE and \$130 million from IACMI's member partners.



Advanced Materials & Manufacturing Technologies Office

DOE Furthers Commitment to Advancing Composites Manufacturing Through Innovation Institute Renewal

APRIL 11, 2023

“Today, I am thrilled to announce DOE is extending our partnership with IACMI with a continued investment over another five years.”

- **U.S. Department of Energy Secretary Jennifer Granholm**



DOE and IACMI cut a ribbon on a new IACMI Collaboration Facility in Knoxville, TN

IACMI 2.0

2023-2028

On Track for:
\$30M
of DOE
funding to be
matched by
\$30M
of state
cost share
over
5 years

Innovation South at the University of Tennessee Research Park

- **New lab** for the Fiber and Composites Manufacturing Facility
- **Expand IACMI's collaboration and impact** by co-locating with new start-ups and members
- Led by **Dr. Uday Vaidya**, UT/ORNL Governor's Chair in Advanced Compositing Manufacturing



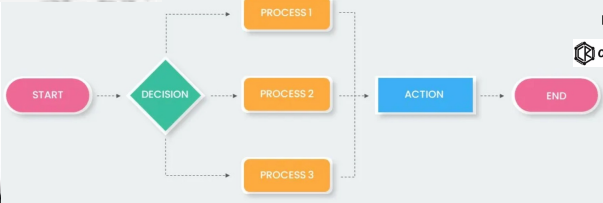
Next Generation Innovations & New Companies

New Company?

New Product?

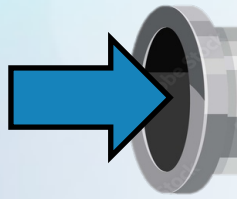
Qualified Workforce

Simpler & Quicker

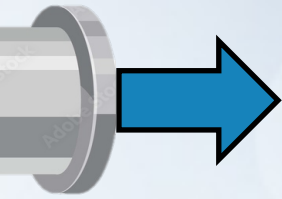


IACMI: Filling the Talent Pipeline

Widespread Source



Advanced Manufacturing



Qualified Workforce

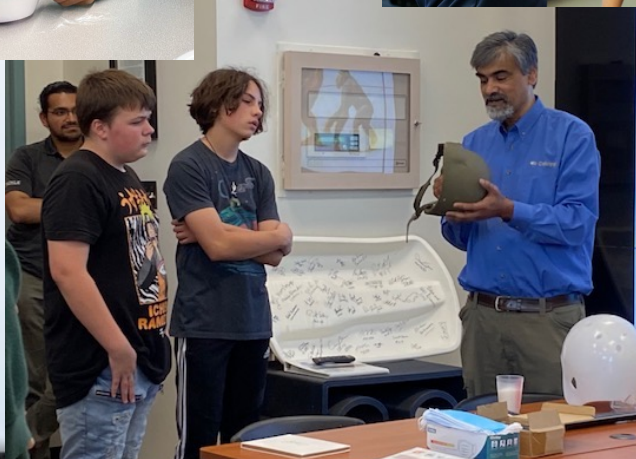
K-6
Inspire



7-12
Perception Opportunity



2-yr
Certification



4-yr
Hands On



Grad School
R&D



Incumbent
Retrain





Scaling Up a Successful Model Nationwide



ADONIS



NEEKI

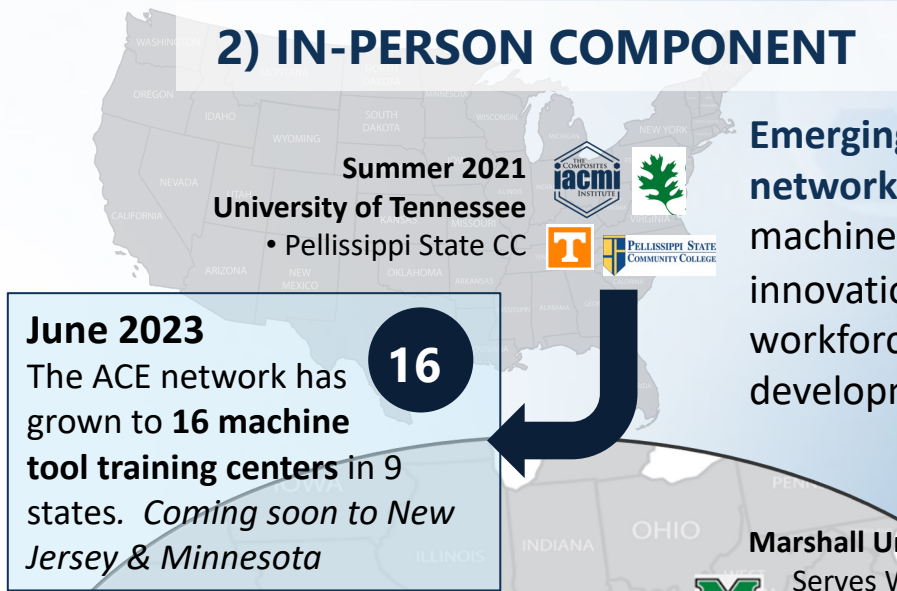
Since December 2020:

4450 ONLINE PARTICIPANTS



IN **50** STATES

400+ in-person ACE training alums



Emerging national network of regional machine tools innovation & workforce development centers

University of Tennessee
• Pellissippi State CC
• Roane State CC
• TCAT

Marshall University (RCBI)
Serves West Virginia and parts of Kentucky & Ohio

NC A&T State University
• Alamance CC

Texas A&M (TEES)
• University of North Texas

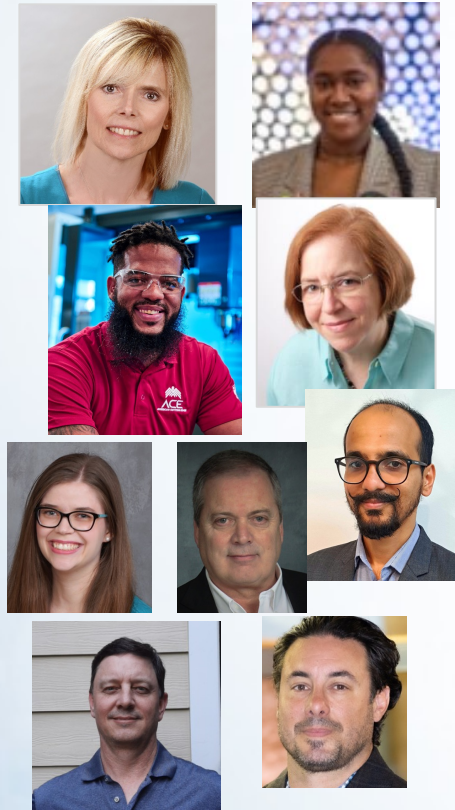
University of Florida
• Indian River CC
• Polk State CC

IACMI SMM: Bringing the Best Together

High Caliber Speakers



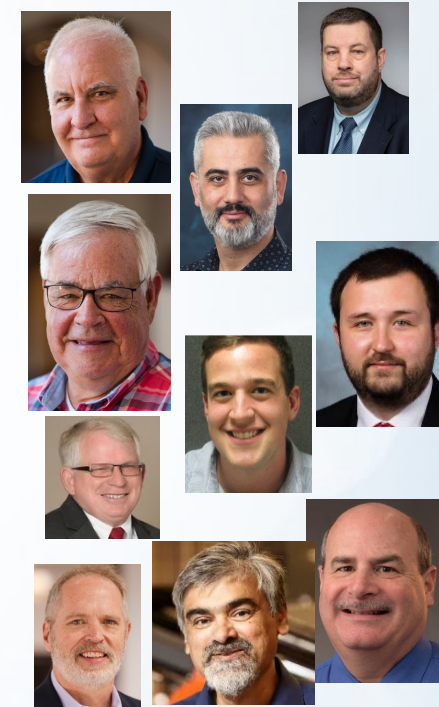
Engaging Panels



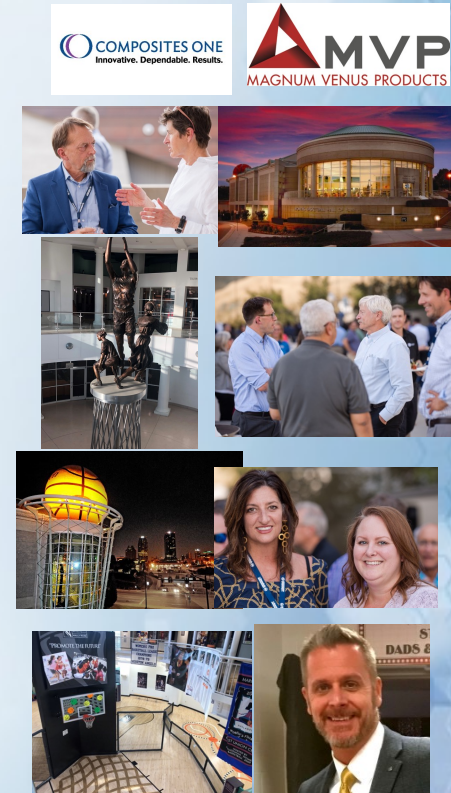
Success Stories



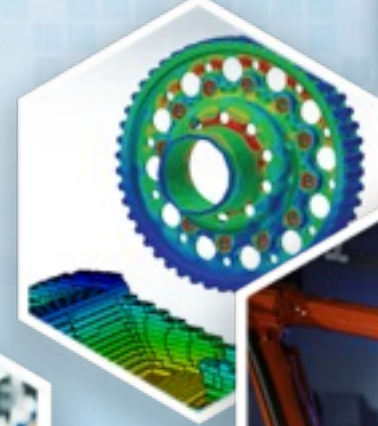
Working Groups



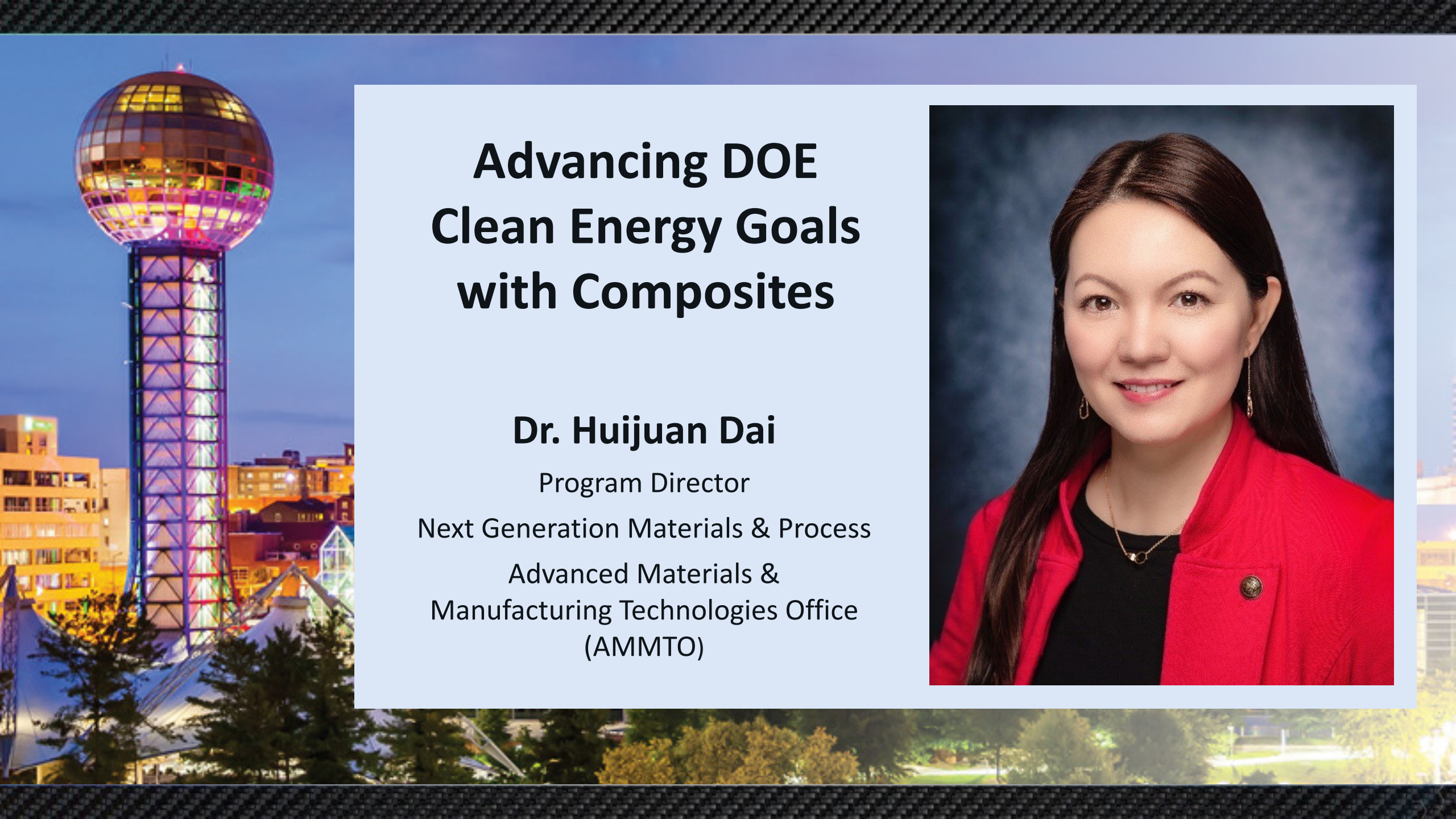
Networking Reception



THANK YOU



Convvene. Connect. Catalyze.



Advancing DOE Clean Energy Goals with Composites

Dr. Huijuan Dai

Program Director

Next Generation Materials & Process

Advanced Materials &
Manufacturing Technologies Office
(AMMTO)

