IACMI's Impact: A Decade of Innovation

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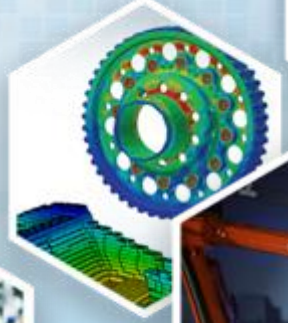
June 25, 2025



TENTH ANNIVERSARY
THE COMPOSITES iacmi INSTITUTE
2015 2025
TENTH ANNIVERSARY

Convene. Connect. Catalyze.

IACMI workforce for IACMI members

ACE
AMERICA'S CUTTING EDGE

METAL

INNOCRATE℠
By IACMI

Internship Programs IACMI 2.0

THE COMPOSITES iacmi INSTITUTE

ACE - Machining and Composites

Relationships in process

- Design
- Tooling
- Fabrication
- Finishing
- Computer Numerical Control systems
- Automation operation

ACE Online Courses & Bootcamps

ACE CNC MACHINING

- ***FUSION 360***
- ***MASTERCAM***

- Introduction to machining
- CAM instruction
- Introduction to machining dynamics
- Additional CAM instruction using CAM+, app that simulates machining force and vibration
- Introduction to machining cost
- 6+ Hours

ACE METROLOGY

- Introduction to manufacturing measurements
- Introduction to measurement uncertainty
- 2+ Hours

ACE COMPOSITES

- Introduction to composite materials
- Unit 1: Composites Machining
- Unit 2: Composites in Automotive
- Unit 3: Composites in Energy Storage
- Unit 4: Composites in Aerospace
- Unit 5: Nondestructive Testing of Composites

ACE CYBERSECURITY

- ***CMMC 1.0***
- Network Security Basics
- Virtual Private Networks
- Firewall Security
- Intrusion Detection Systems
- Cryptographic, Transport Layer, Hashing, and PKI Security
- *6+ Hours*

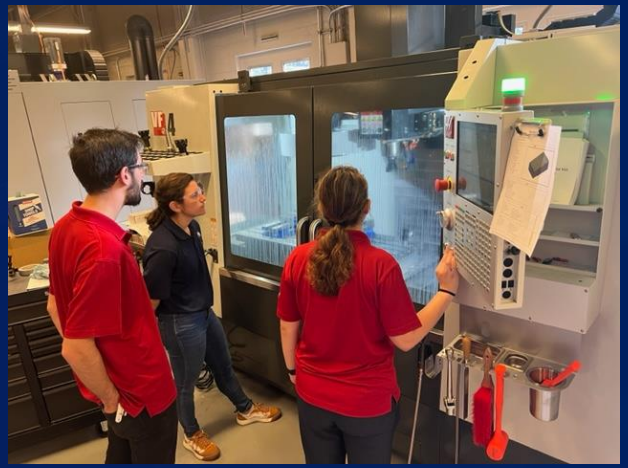
- ***CMMC 2.0***
- *24+ Hours*

Be A Maker

ACE
AMERICA'S CUTTING EDGE

ACE – Machining Metals and Composites

CNC Machining Programming & Operations (ACE)



CNC Machining

CNC programming , Automation Machined Metal precision equipment (Airbus)

Metal Tool, Automated Tape Laying (Airbus)

Composites Machining

Machining and Composites

Part Trimming and Flash removal

Finish and hole cuts

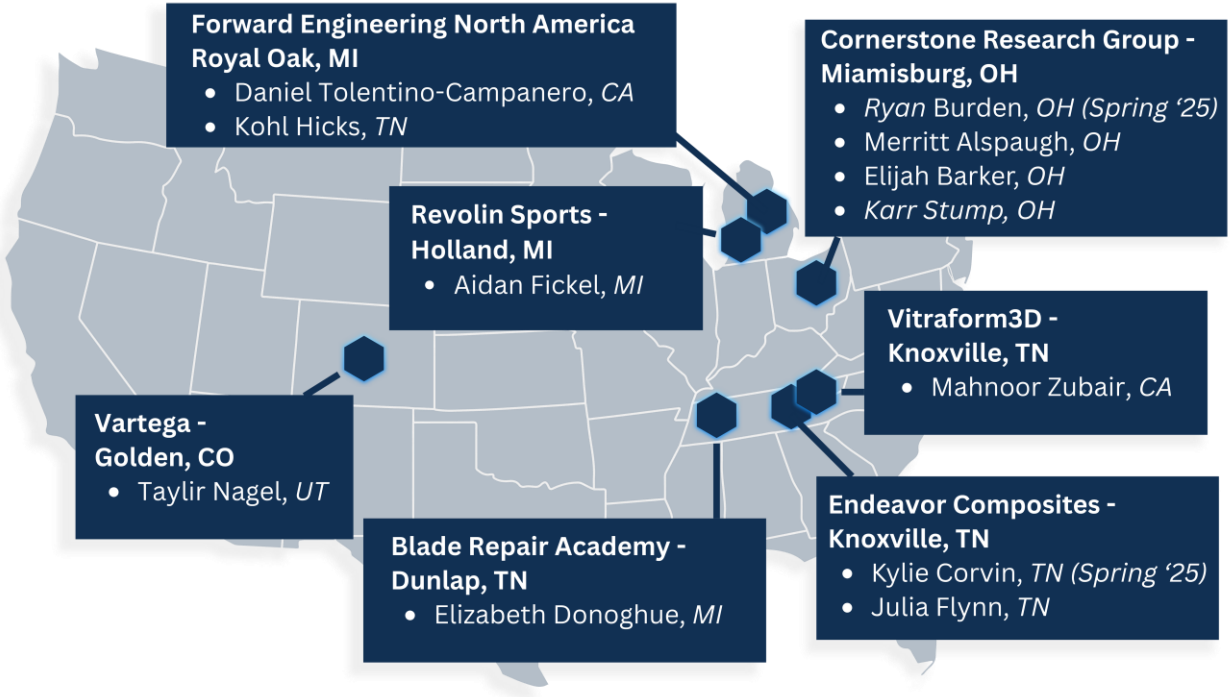
Cut outs on molded parts (CNC, Water Jet, Ultrasonic)

Machining for fastening and part fit

Machined equipment for composites manufacturing

IACMI 2.0 Interns

Access to motivated and skilled interns in STEM fields including composites and advanced manufacturing.



Cost Share Details:

- Small Business (1-50 employees): Host covers 20%; IACMI reimburses 80%
- Medium Business (51-500 employees): Host covers 30%; IACMI reimburses 70%
- Large Business (500+ employees): Host covers 40%; IACMI reimburses 60%

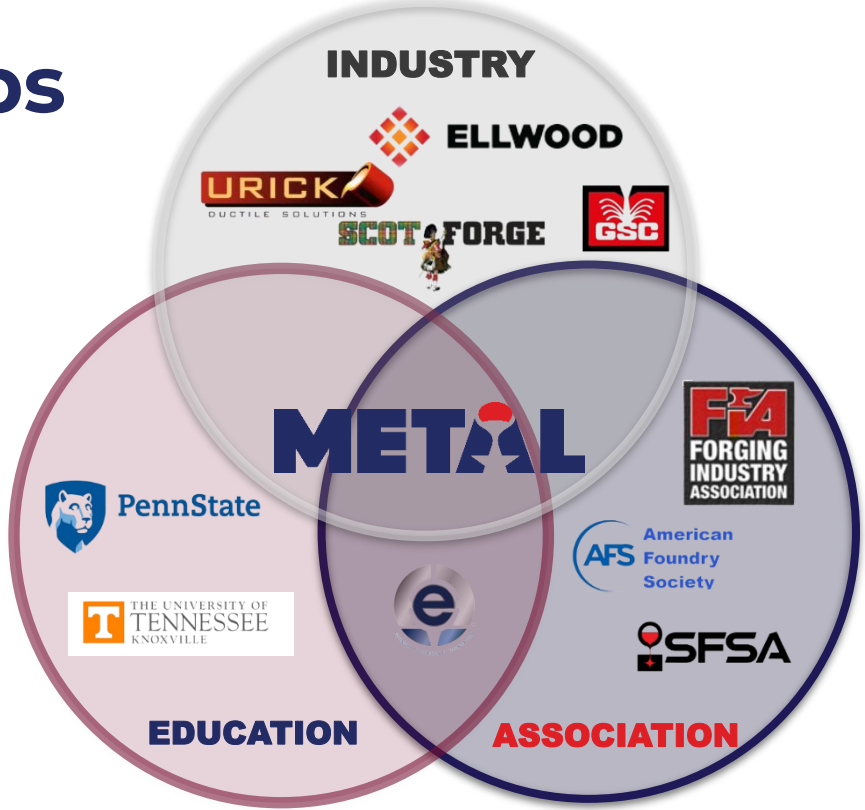
Now matching for Fall 2025.

Spring 2026 applications will open soon.

METAL Overview

Building Relationships

METAL is collaborating with Industry, Education, and Associations to fill the workforce gaps needed for our national security



Examples of METAL for composites

Metal machine components

Metal composites tooling forged and machined

Metal Casting to CNC Machining

METAL and ACE camps give students a full-spectrum manufacturing experience—turning raw metal into a precision part within a working air engine.

- **METAL Bootcamp**: students cast aluminum air pistons using traditional foundry method learning like mold making, metal pouring, and material properties
- Piston sent to ACE Bootcamp for CNC machining and precision finishing
- **ACE Bootcamp:** students use CAD/CAM and CNC machines to shape the final part
- Piston assembled into a working air engine, demonstrating a full manufacturing cycle

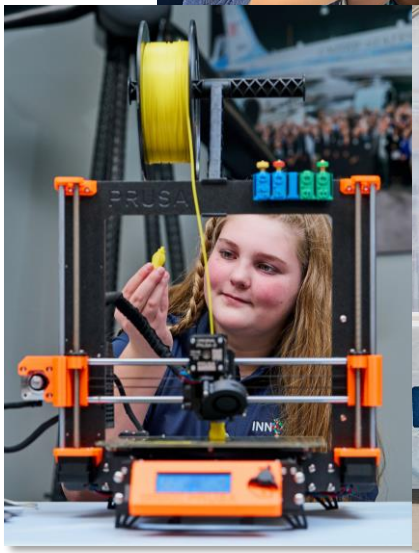
Composite Products and Processes with Metal components

- Metal composite tooling – multiple alloys and uses
- Metal fasteners and integrated molded components.
- Metal framing on molds.
- Metal machined parts in composites equipment.
- Mixed composite and metal assemblies and products.
- Reinforcement material making equipment.


INNOCRATE
SM
By IACMI
Building the
Pipeline

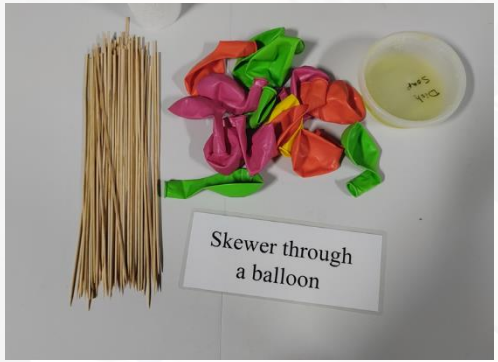
InnoCrate Overview

- Creative STEM activity kits to expand horizons of K-5 students
- Equipping students with foundational knowledge for careers in composites, CNC machining, and metal casting
- Pre-packaged, hands-on experiments led by teachers in classrooms
- Kits provide students with the opportunity to explore, design, and innovate materials of the future
- Designed with educators in mind
- Kits offer comprehensive learning experience with all the materials they need



Work with your table on two examples of IACMI workforce activities.

InnoCrate Activity



Air Engine Assembly


Thank you