

# 2019 FALL CONFERENCE

## Moving Industry 4.0 Forward: Models for Competency-Based Credentialing and Career Pathways

September 11–13 • Twin Cities, Minnesota



Hosted by



### MMMFG Partner Institutions



Register at [ncatc.org](http://ncatc.org)

# Moving Industry 4.0 Forward: Models for Competency-Based Credentialing and Career Pathways

## Schedule at a Glance

### Tuesday, September 10

1:00–6:00 P.M.	Registration
Noon–4:30 P.M.	NCATC Board Meeting
6:00–11:30 P.M.	Exhibitor Set-up

### Wednesday, September 11

7:30 A.M.–4:30 P.M.	Registration
7:30 A.M.–5:00 P.M.	Exhibits Open
8:00–9:15 A.M.	Breakfast / Opening Remarks by Dr. Faith Hensrud
9:30 A.M.–12:15 P.M.	Concurrent Sessions
12:30–1:45 P.M.	Lunch / Keynote: Carolyn Lee, Manufacturing Institute
1:45–2:30 P.M.	Special Session / Roundtable with Strategic Partners
2:45–3:45 P.M.	Special Session
4:00–5:00 P.M.	First-Time Attendees and New Members Reception
4:45–5:30 P.M.	Strategic Partners Leadership Meeting <i>(invitation only)</i>
5:30 P.M.	Social Networking Event at <a href="#">SMAAASH</a>

### Thursday, September 12

7:30 A.M.–Noon	Registration
7:30 A.M.–7:30 P.M.	Exhibits Open
7:30–8:15 A.M.	Breakfast and Networking with Sponsors and Exhibitors
8:15–8:45 A.M.	Keynote: Deon Clark, TCI Solutions
9:00–11:45 A.M.	Concurrent Sessions
Noon–12:30 P.M.	Lunch / NCATC Annual Business Meeting and Elections
12:30–1:15 P.M.	Keynote: Traci Tapani, Wyoming Machine
1:30–2:15 P.M.	Dedicated Exhibit Time
2:30–5:00 P.M.	Industry / Innovation Tours <i>(attendees select 1 of 3)</i>
5:30–7:30 P.M.	President's Reception, Awards, Drawings

### Friday, September 13

7:30–8:15 A.M.	Breakfast and Networking
8:30–9:15 A.M.	General Session / Keynote: Steve Kalina, Minnesota Precision Manufacturing Association
9:30 A.M.–12:30 P.M.	ATC Tours / rms Tour <i>(attendees select ATCs or rms)</i>
12:30–1:00 P.M.	Box Lunches / Networking / End of Conference

## Keynote Speakers



**Carolyn Lee**  
Executive Director  
The Manufacturing Institute



**Deon Clark**  
Owner  
TCI Solutions, LLC



**Traci Tapani**  
Co-President  
Wyoming Machine, Inc



**Steve Kalina**  
President and CEO  
Minnesota Precision Manufacturing Assn

## Concurrent Sessions

- Moving Forward with Industry 4.0 and a New Advanced Technology Center at Rowan-Cabarrus Community College
- Taking Education to the Road
- AI, VR, and SIM: New Tools for Technical Education
- Autonomous Technologies 2019
- IRAP: The "Gateway Drug" of Choice
- How to Build an Industry 4.0 Career Pathway
- Live Online: Innovative Training Model for Adult Learners
- Mechatronics Certifications – PMMI
- High Potential Candidates + Certified Manufacturing Skills = Value Driven Results
- Hawaii Industry Sector Strategies and Pathways for Cybersecurity
- Raising the Bar Through Competency Training
- Space Coast Consortium Apprenticeship Program (SCCAP) Industry 4.0 Advanced Manufacturing for Commercial Space, Aerospace and Defense Advanced Manufacturing Industries
- Advanced Technology Centers (ATC) and Centers of Excellence (CoE): The Journey of NCATC Best Practices
- Pathways to Opportunity: Closing Opportunity Gaps Across Oregon
- Preparing Technicians for the Future of Work (NSF ATE Project)
- Industry 4.0 Readiness – Competency-Based Certifications
- Apprenticeships: The Other 4-Year Degree – What We've Learned

Sponsored by



Register online at [www.ncatc.org](http://www.ncatc.org)

## Industry Tours *(Thursday 2:30–5:00 / Choose one of three.)*

**Stratasys** manufactures 3D printers and 3D production systems for office-based rapid prototyping and direct digital manufacturing. Engineers use Stratasys systems to model complex geometries in FDM thermoplastic and polyjet photopolymers. The company's reach encompasses aerospace, defense, dental, architecture, automotive, creative, medical, and other sectors.



**ZEISS** is an internationally leading technology enterprise in optics and optoelectronics. At their North America headquarters in Maple Grove, MN, ZEISS Industrial Quality Solutions manufactures high-precision measurement equipment. This tour will discuss the history of ZEISS and walk through the lean manufacturing process applied to build ZEISS coordinate measuring machines.



Seeing beyond

**Minnetronix Medical** designs, develops, and manufactures medical devices for patients and companies across the globe. The company specializes in creating Class II and Class III technologies in four areas: RF energy, fluid and gas management, optical systems, and stimulation and wearable devices.



## ATC Tours / rms Tour *(Friday 9:30–12:30 / Choose ATCs or rms.)*

### Hennepin Technical College

welcomes NCATC to our robotics lab in Eden Prairie. Participants will view our six Fanuc robots along with our UR collaborative robots. Instructors will demonstrate our Amatrol mechatronics system as well as our electro mechanical training equipment. The tour will also include our PLC systems and automated food packaging lines (Denester). *(Photo courtesy of Hennepin Technical College, Automation Robotics, 2019. All rights reserved.)*



The ATC tour at **Saint Paul College** will include our CNC machine shop, where participants will see mills, lathes, wire EDM, CMMs, plastic injection molds, surface grinders, and an automated CNC cell with a Fanuc robot. The tour will visit the welding shop, which has CNC welding centers, plasma tables, over 80 welding booths, and virtual welding demos. A final stop will be the electro mechanical lab.

**rms — A Cretex Medical Company** Attendees will see CNC manufacturing capabilities centered around the medical device field as well as our aerospace connector division. CNC capabilities will include multi axis milling, turning, and swiss. Also, our new and growing additive titanium machining department will be on display.



## Conference Welcome



On behalf of Bemidji State University and the Minnesota State Advanced Manufacturing Center of Excellence | ATE Regional Center, located at Bemidji State University, I am pleased to welcome the National Coalition of Advanced Technology Centers to the state of Minnesota.

BSU offers more than 80 undergraduate majors and eight graduate degrees. BSU is a member of the Minnesota State system of colleges and universities and has a faculty and staff of more than 550.

The Minnesota State Advanced Manufacturing Center of Excellence—a National Science Foundation Advanced Technological Education Regional Center—is a consortium of 18 two-year technical and community colleges led by BSU. The center works closely with industry to meet the dynamic, evolving needs of the region's manufacturing employers.

The center is building the next generation of advanced manufacturing talent by:

- Leading Dream It. Do It. Minnesota.
- Coordinating the Minnesota Statewide Tour of Manufacturing.
- Funding statewide advanced manufacturing and STEM youth outreach events.
- Managing 360 eTECH, an online and hands-on education program offered through our consortium.

The center helps industry gain qualified employees by:

- Working closely with industry to develop curriculum that meets their needs.
- Developing learning modules focused on professional skills.
- Supporting project-based learning through robotics.
- Funding program improvement at colleges.
- Leading the adoption of new educational models.
- Developing new and enhancing existing curriculum.

As president of two institutions (Bemidji State University and Northwest Technical College) that work with the Minnesota State Advanced Manufacturing Center of Excellence, I am keenly aware of the impact of manufacturing jobs on our local economy as well as the state of Minnesota and the region.

I am happy to host the NCATC fall conference and I am sure you will enjoy the opportunities to learn, network, connect with colleagues, and spend time with sponsors and exhibitors.

Faith C. Hensrud, Ed.D.  
President  
Bemidji State University  
Northwest Technical College



**BEMIDJI**  
STATE UNIVERSITY



**MINNESOTA STATE**  
Advanced Manufacturing  
Center of Excellence

ATE Regional Center





33607 Seneca Drive  
Cleveland, Ohio 44139



**2019 Fall Conference**  
**September 11 – 13**  
**Twin Cities, Minnesota**

**Register Today:**



**REGISTRATION FEES**

REGISTRATION TYPE	NCATC MEMBERS		NON-MEMBERS	
	Early-Bird Fee through 8/23/19	Standard Fee beginning 8/24/19	Early-Bird Fee through 8/23/19	Standard Fee beginning 8/24/19
Standard Registration	\$495	\$545	\$695	\$745
Team Member (beginning 8/24/19)	N/A	\$495	N/A	\$695
<b>SPECIAL OPTIONS</b>				
SPECIAL MN College Non-members (through 8/31/19)	N/A		\$495	
CTE High School Attendees (through 8/31/19)	\$250		\$395	
Only Wednesday (beginning 8/24/19)	\$295	\$345	\$395	\$445
Only Thursday (beginning 8/24/19)	\$295	\$345	\$395	\$445
<b>EXHIBITORS</b>				
Exhibitor	\$595		\$995	
<b>WANT TO BECOME A MEMBER?</b>				
One-Membership + Conference Fee	N/A		\$995	\$995

**Conference Hotel**

Hilton Minneapolis / St. Paul Airport Mall of America  
3800 American Blvd E, Bloomington, MN 55425

Special conference rate of \$169 per night (single/double) plus 14.5% tax (applies to Sept 10–Sept 14). Complimentary self-parking and in-room Internet. Reserve online or at 952.854.2100. Special rate good through Friday, Aug 27.

