



2024 AMUG CONFERENCE

EDUCATION & TRAINING CONFERENCE

March 10-14 | Hilton Chicago | Chicago, Illinois, USA



Additive Manufacturing Users Group
FOR USERS. BY USERS.



Welcome to the 2024 AMUG Conference

Letter from AMUG President, **Shannon VanDeren**

Welcome to the Additive Manufacturing Users Group (AMUG)!! We have been preparing for your arrival and are delighted that you are here!

AMUG is YOUR event! AMUG is where YOU can share your experience and AM skillset with others; AMUG is where YOU can browse and learn about the offerings of our sponsors/exhibitors who have invested in AMUG (and thus YOU); AMUG is where YOU can share the product/services that your company wants the AMUG members to know.

AMUG is lifted on the shoulders of hundreds of volunteers, dedicated to creating this event aimed at educating and advancing additive manufacturing

technologies. YOU are instrumental in keeping AMUG relevant, valued, and collaborative...whether you also volunteer, whether you are a conference attendee (thus a member), and whether you are a sponsor/exhibitor. Together, we as users create this unique five days of additive-focused activities!

May it be time well spent, well valued, and well remembered!

Make it a fantastic conference!!

Joyfully, Shannon



Agenda-at-a-Glance

PRE-CONFERENCE ACTIVITY		AMUG CONFERENCE		
SATURDAY, MARCH 9, 2024	MONDAY, MARCH 11, 2024	TUESDAY, MARCH 12, 2024	WEDNESDAY, MARCH 13, 2024	THURSDAY, MARCH 14, 2024
ASTM Certificate Course (2-day course) Methods of Qualification and Certification for Additive Manufacturing 8:00am - 4:30pm	Registration Open 7:00am - 8:00pm Networking Breakfast 7:00am - 8:00am AMUG Insights and Highlights <ul style="list-style-type: none"> Welcome Insights AMUG Conference Highlights AMUG Board Election Insights Diamond Sponsor Insights and Highlights 8:00am - 10:00am AMUGexpo Open 10:00am - 1:30pm Networking Lunch in the AMUGexpo 12:00pm - 1:15pm AMUG and Sponsor Breakout Sessions 1:30pm - 2:30pm Afternoon Break 2:30pm - 3:00pm AMUG and Sponsor Breakout Sessions 3:00pm - 5:30pm	Registration Open 7:00am - 4:00pm Networking Breakfast 7:00am - 8:00am AMUG Keynote 8:00am - 9:00am 2024 DINO Awards - Distinguished INnovator Operator Awards 9:00am - 10:00am Morning Break 10:00am - 10:30am International Report 10:30am - 11:15am 2024 AMUG Scholarship Winners 11:15am - 12:00pm Networking Lunch 12:00pm - 1:15pm AMUG and Sponsor Breakout Sessions 1:30pm - 2:30pm Afternoon Break 2:30pm - 3:00pm AMUG and Sponsor Breakout Sessions 3:00pm - 5:30pm AMUGexpo and Networking Dinner 6:00pm - 10:00pm AMUG Technical Competition 6:00pm - 10:00pm AMUG Technical Competition 6:00pm - 10:00pm AMUGderby Competition 6:00pm - 9:00pm	Registration Open 7:00am - 4:00pm Networking Breakfast 7:00am - 8:00am AMUG Innovators Showcase 8:00am - 9:00am AMUG Business Meeting 9:00am - 10:00am Morning Break 10:00am - 10:30am AMUG and Sponsor Breakout Sessions 10:30am - 12:00pm Networking Lunch 12:00pm - 1:15pm AMUG and Sponsor Breakout Sessions 1:30pm - 2:30pm Afternoon Break 2:30pm - 3:00pm AMUG and Sponsor Breakout Sessions 3:00pm - 4:00pm Board Buses to AMUG Special Event and Dinner 5:15pm - 6:00pm AMUG Special Event and Dinner Back to the User - 80's Theme Night 6:00pm - 10:00pm	Registration Open 7:00am - 11:00am Networking Breakfast 7:00am - 8:00am AMUG Keynote - Design for Additive Manufacturing: Understanding Value 8:00am - 9:00am 2023 Technical Competition Winners Presentations 9:00am - 9:30am 2024 Technical Competition Winners Announced 9:30am - 10:00am Morning Break 10:00am - 10:30am Building the Future - AMUG Member Feedback Session 10:30am - 12:00pm Networking Lunch 12:00pm - 1:15pm AMUG and Sponsor Breakout Sessions 1:30pm - 2:30pm Afternoon Break 2:30pm - 3:00pm AMUG and Sponsor Breakout Sessions 3:00pm - 5:30pm AMUG Family Closing Dinner 6:00pm - 10:00pm
SUNDAY, MARCH 10, 2024 Tooling U-SME Certificate Course Certified Additive Manufacturing Fundamentals (CAMF) Review Course & Exam 7:30am - 3:00pm ASTM Certificate Course (day 2) Methods of Qualification and Certification for Additive Manufacturing 8:30am - 3:00pm Off-Site Tours EDM Network 9:30am - 2:30pm Sciaky, Inc 11:00am - 2:00pm				
AMUG CONFERENCE BEGINS SUNDAY, MARCH 10, 2024 Registration Open 10:00am - 8:00pm New Member Welcome 3:00pm - 4:00pm AMUGexpo and Networking Dinner 4:00pm - 10:00pm				

AMUG CONFERENCE AMUG Conference begins Sunday, March 10 at 3:00pm with the New Member Welcome, followed by the start of the AMUGexpo at 4:00pm. AMUG Conference concludes Thursday, March 14 at 10:00pm. See Agenda-at-a-Glance page 3.

REGISTRATION AND BADGE PICKUP HOURS

Sunday, March 10:	10:00am - 8:00pm
Monday, March 11:	7:00am - 8:00pm
Tuesday, March 12:	7:00am - 4:00pm
Wednesday, March 13:	7:00am - 4:00pm
Thursday, March 14:	7:00am - 11:00am

All pre-conference Training and Certification Courses require additional registration and fee. See page 10.

AMUGEXPO HOURS

Sunday, March 10:	4:00pm - 10:00pm
Monday, March 11:	10:00am - 1:30pm 6:00pm - 10:00pm
Tuesday, March 12:	6:00pm - 10:00pm

AMUGexpo is open to all registered conference attendees and registered AMUGexpo booth staff.

DINING Your AMUG Conference attendee pass includes all meals from Sunday evening through Thursday evening.

SPECIAL EVENT AND DINNER Conference attendees have full access to all conference activities including the Wednesday night Special Event and Dinner (surprise location!). Conference attendees have the option of bringing a guest for an additional fee, which can be purchased at the registration desk.

Bus Schedule	Hilton Chicago
Line up for Buses begins at:	5:15pm
Buses Board at:	5:15pm
Buses leave at:	5:15pm - 5:30pm
You must wear your conference badge to board the bus. We suggest you wear closed-toe shoes and comfortable clothing appropriate for indoor and outdoor activities.	

IMPORTANT! BOARD OF DIRECTORS ELECTION

Attention all AMUG Members! The AMUG Board of Directors election will take place via the AMUG mobile app or in-person ballot. All paid conference attendees are eligible to vote. Voting will take place Sunday, March 10 at 10:00am through Tuesday, March 12 at 2:00pm (local conference time). All AMUG Conference attendees are considered AMUG Members, *even first-time attendees*.

BUSINESS MEETING The AMUG Business Meeting will take place Wednesday, March 13 at 9:00am. The Business Meeting is for AMUG Conference attendees only. The 2024-2025 Board of Directors will be announced at the meeting. Please make sure to attend!

WIFI WIFI is available for free throughout the entire hotel and in your room. Code for the WIFI will be available through the mobile app and signage at registration.

NAME BADGES REQUIRED Wear your AMUG badge at all times during the conference, as it is required for entry to all sessions and evening activities. Badges are mandatory for the Wednesday night event. Badges are issued to the registered individual and may not be used by others. A valid ID is required to obtain your AMUG badge.

SAFETY AND SECURITY Please do not leave your belongings or conference materials unattended in session rooms or in the general area of the hotel. Should you have any issues during your stay, please contact Thomas Sorovetz, mobile: +1 (734) 320-6310, or visit the AMUG Office on the Lobby Level near the AMUG Registration desk.

EVENT CONDUCT AND SAFETY - WE

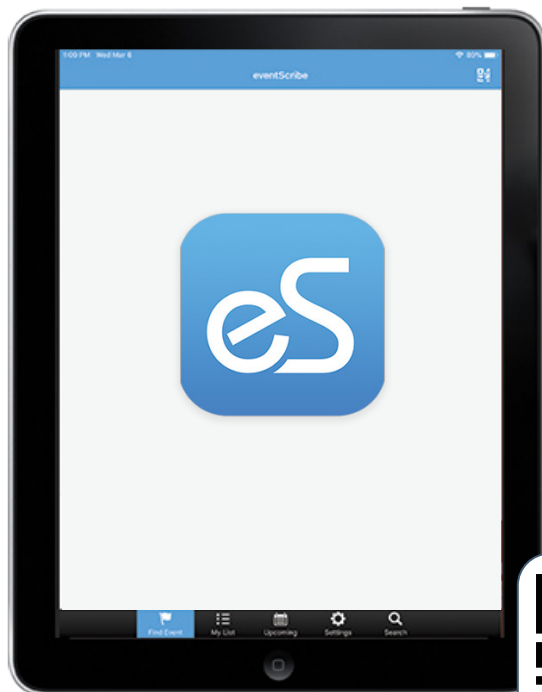
VALUE YOU AMUG is committed to providing a safe, productive, and welcoming environment to all participants, including staff and vendors. AMUG has no tolerance for discrimination, harassment, or bullying in any form at AMUG-related events and activities. In addition, suitcasing or outboarding is prohibited at AMUG Conference. AMUG Conference

Organizer reserves the right to escort any individual from AMUG Conference who is reported to be soliciting in the exposition and who is not an AMUG Conference sponsor or exhibitor. AMUG Conference Organizer encourages attendees to support the paid sponsors and exhibitors who, in turn, are supporting the industry. AMUG Conference Organizer also encourages you not to listen to a sales pitch from a non-sponsor or non-exhibitor. Participants are expected to adhere to these principles and respect the rights of others.

HOW TO REPORT AN ISSUE:

- 1. Report directly to on-site contacts:** Thomas Sorovetz, Director, Events & Hospitality, Shannon VanDeren, AMUG President or any AMUG Board member. Thomas Sorovetz is the primary coordinator to help participants contact venue security or local law enforcement, provide safety escorts, or otherwise assist those experiencing harassment to feel safe for the duration of the event.
- 2. Report an issue through the mobile app.** Use the Report an Issue button in the mobile app to report event conduct and safety concerns.

AMUG Online Planner and Mobile App



Scan the QR Code to download the eventScribe App



The AMUG Online Planner is the place to start and return to during the conference and after the conference. Everything that will be found in the mobile app is also found on the AMUG Online Planner. Create your schedule with the Online Planner by first setting up your account with your Username (email address used to register) and Registrant ID found on your confirmation email. Access the online planner at: <https://amug2024.eventscribe.net/>

STEP 1. Download the eventScribe App & Search For AMUG 2024

- Search for "eventScribe" in the Apple App Store or Google Play Store OR scan the QR Code below to go directly to eventScribe.
- INSTALL and OPEN the app then search for 2024 AMUG Conference, SELECT the event: "AMUG 2024"
- CLICK the icon to launch your app.

STEP 2. Login to the AMUG Conference Event App

- To start using the event app, select "Login" and enter your:
- Username (email address you registered with for the conference) and Registrant ID (this is the registration identification you received when you registered)
- Don't worry, this information will be provided on the back of your badge.

STEP 3. Share Your Profile With Attendees

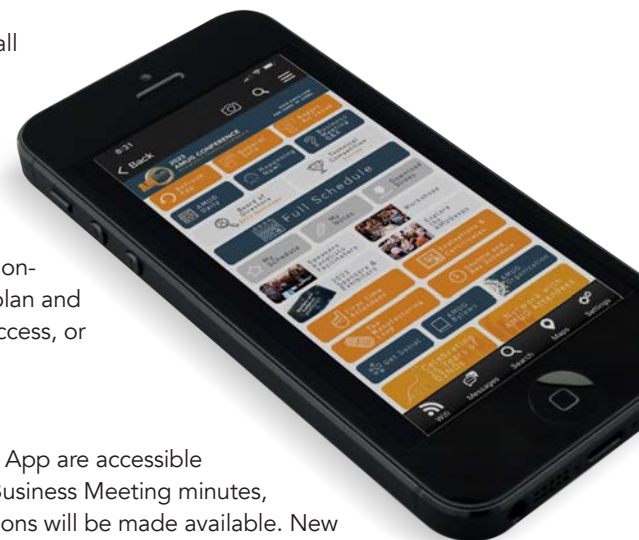
- When you access the app, you will be asked to set up your profile. In order for attendees to connect with you, make sure to check YES to share your contact details with attendees. Turn push notifications ON for the app. AMUG will send out important updates and reminders throughout the day.

Access DURING the Conference

- AMUG attendees receive access to all content within the app including all course materials, presentations, evaluations, election for the Board of Directors, and voting for Technical Competition Member's Choice.
- Expo Booth Staff receive access to non-course materials (AMUGexpo floor plan and information, no presentation/slide access, or conference-only activity).

Access after the Conference

- Both the Online Planner and Mobile App are accessible after the conference. Proceedings, Business Meeting minutes, election results and content for sessions will be made available. New information will be added and presentations will be available for one year. AMUG encourages all speakers to upload a presentation for attendees to access.



Use the AMUG Mobile App to:

- Build your conference schedule by favoriting the presentations and events you would like to attend
- View PDFs of presentations and take notes (presentations will be made available on the morning of the scheduled presentation)
- Network with AMUG Attendees (view contact information and message within the app - contact information available if agreed by attendee)
- Vote in the App for AMUG Board of Directors 2024-2025 and the Technical Competition Member's Choice Award
- Evaluations for presentations and conference survey
- Report an Issue



Jason Lopes

Tuesday, March 12 | 8:00am - 9:00am | International Ballroom

Jason has played a pivotal role in shaping some of the biggest Hollywood blockbusters of all time using Additive Manufacturing. His remarkable credits include blockbuster hits like Avatar, Terminator Genisys & Salvation, Thor, Iron Man 1, 2, & 3, and many more iconic films and TV productions. His expertise in leveraging 3D printing technologies, 3D scanning, design, and modeling has been instrumental in creating stunning visual effects and products.

As Chair for the SPE Additive Manufacturing TIG, Jason has demonstrated his commitment to advancing the field of additive manufacturing. He has been recognized for his contributions, receiving prestigious awards such as the Distinguished INnovator Operators Award (DINO) in 2012 by the Additive Manufacturing Users Group and being named the 3D Printing Industry's Maker of The Year in 2017.

With his extensive knowledge and experience, Jason is a strong advocate for 3D printing and its applications across various industries. His passion for innovation and his dedication to educating others have made him a highly respected figure in the 3D printing community.



Olaf Diegel

Design for Additive Manufacturing: Understanding Value

Thursday, March 14 | 8:00am - 9:00am | International Ballroom

Olaf is an educator and a practitioner of additive manufacturing (AM) and product development with an excellent track record of developing innovative solutions to engineering problems. As a professor of additive manufacturing, at the University of Auckland, in New Zealand, he is involved in all aspects of AM and is one of the principal authors of the annual Wohlers Report, considered by many to be the bible of AM. His current main area of research expertise is in design for AM.

In his consulting practice, he develops a wide range of products for companies around the world. Over the past three decades he has developed over 100 commercialized new products and, for this work, has received numerous product development awards.

Over the last 25 years, Olaf has become a passionate follower of AM. He believes it is a technology that has been fantastic for innovation, as it allows designers and inventors to instantly test out ideas to see if they work. It removes the traditional manufacturing constraints that become a barrier to creativity and allows us to get real products to market without the normally high costs that can become a barrier to innovation. In 2012, Olaf started manufacturing a range of 3D printed guitars that has developed into a successful little side business and provides excellent stress relief.

2024 AMUG Innovators Award Recipient Greg Morris, Strategic Advisor, Zeda Inc.



Greg Morris

Wednesday, March 13 | 8:00am - 9:00am | International Ballroom

After working in his family's sixth-generation steel distributorship, which was divested, Greg Morris, his brother Wendell, and mutual friend Bill Noack founded Morris Technologies Inc. (MTI) in 1994. As was typical during this timeframe, MTI offered polymer additive manufacturing services focusing on prototypes and related low-volume applications.

In 2003, MTI expanded into additive metals, bringing the first metal machine to North America. In the years that followed, MTI became well-known for its groundbreaking work and developments with metals. To further expand its offerings, MTI spun up a sister company, Rapid Quality Manufacturing (RQM), that focused on production applications with additive metals and invested in a joint venture that created MicroTek Finishing for post-processing of metal components.

Through this work, Greg became well-recognized worldwide for his additive metals applications and excellence—a reputation that continues to this day.

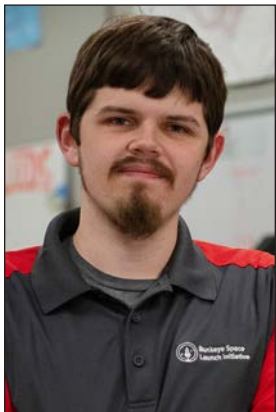
The next chapter in Greg's career unfolded at GE. In 2012, MTI and RQM were acquired by GE Aviation, and he assumed the role of additive technologies leader. In 2016, GE formed GE Additive, for which Morris served in an advisory role focused on additive strategies and special projects.

In 2018, Greg retired to spend more time with family and to work on personal projects. However, his additive legacy did not end there.

During his retirement downtime, Greg and former colleagues from MTI discussed starting an advanced manufacturing business, which led to the founding of Vertex Manufacturing for advanced manufacturing services. Greg was involved as an investor and served as part-time CEO. Eighteen months later, PrinterPrezz, a start-up focused on medical devices, acquired Vertex as its manufacturing arm. The combined companies now operate under the name Zeda, Inc., and Greg serves as a strategic advisor in a part-time capacity to preserve family time, serve on advisory boards, and volunteer with charitable organizations.

2024 AMUG Scholarship Recipients

Guy E. Bourdeau Student Scholarship



Alex Campbell
Ohio State University

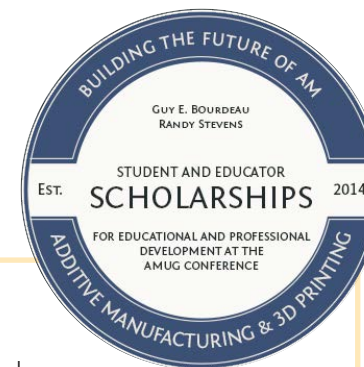
Alex is a fourth-year Aerospace Engineering student at Ohio State, where his passion for additive manufacturing has grown. His journey began in middle school when he created his first part on a Makerbot, igniting a fascination that has since become a central aspect of his academic and professional pursuits.

At Ohio State's Center for Design Manufacturing and Excellence (CDME), he works as an Undergraduate Research Assistant in the metal AM lab. Here, he developed skills in various AM processes, including LPBF, EBM, MSLA, and FDM. His role involves not only running four metal AM machines, but also training fellow students on this cutting-edge technology.

A pivotal experience during his academic journey was

a summer spent at Castheon, where he immersed himself in mastering diverse machines and delved into the intricacies of Niobium C103 printing. This hands-on experience further enriched his understanding of additive manufacturing and its applications.

As he transitions into the aerospace industry, his ambition is to contribute significantly, either by producing rocket engines or leveraging his expertise in additive manufacturing and aerospace to intelligently design next-generation engines. What began as a hobby has evolved into a cornerstone of his skill set, making additive manufacturing an integral aspect of his professional identity.



Randy Stevens Educator Scholarship



Phil Rufe
Eastern Michigan University

Mr. Rufe is a faculty member in the School of Engineering at Eastern Michigan University. He holds degrees in education, mechanical engineering, and manufacturing, and is also a Certified Manufacturing Engineer and Registered Patent Agent. Mr. Rufe has taught courses in areas such as manufacturing processes, industrial operations, CAD, mechanics, GD&T, lean manufacturing, intellectual property, DFMA, and additive manufacturing. His research agenda includes additive manufacturing education, publications, and grant funding. In addition to teaching, Mr. Rufe has an active role in technology transfer at the University and served as the School of Engineering Interim Director for several years.

Beyond EMU, Mr. Rufe taught industrial seminars in DFMA, GD&T, dimensional metrology, and metallurgy. He is the editor of the Fundamentals of Manufacturing, 3rd ed. and author of the Fundamentals of Manufacturing Workbook published by the Society of Manufacturing Engineers. Mr. Rufe also taught Manufacturing Engineering Certification review courses across the country. In the local community, he serves on the Ann Arbor Spark microloan and grant screening committee and various advisory boards at local schools.



2024 Financial Supporter of Guy E. Bourdeau Scholarship

2024 Financial Supporter for the Randy Stevens Scholarship

2023 Technical Competition Winners

The AMUG Technical Competition provides a forum for users of additive manufacturing technologies to display their unique applications as well as their finishing capabilities.

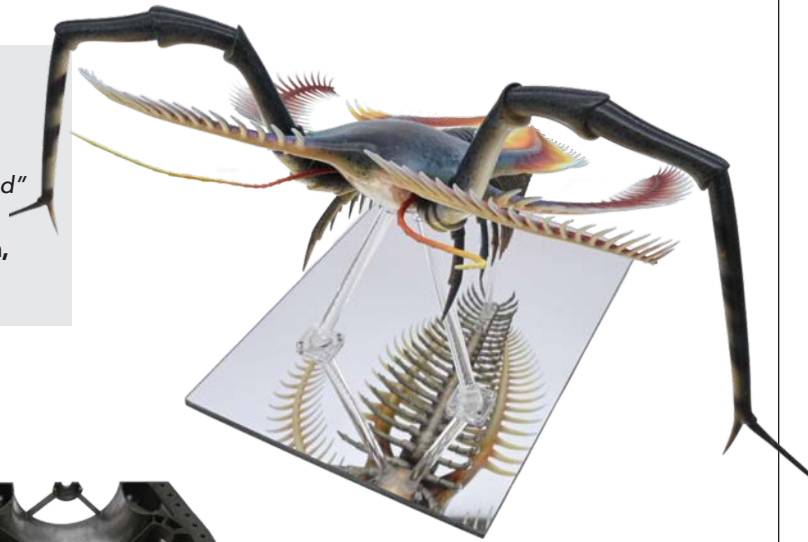
2023 Technical Competition Winners Presentation

Thursday, March 14 | 9:00am | International Ballroom, 2nd Floor

2023 Advanced Finishing Winner

"Tomlinsonus Dimitrii – The Oldest Fossil of a Marine Animal Ever Found"

Daniel Goncalves and Jung Kyu Im,
Custom Prototypes



2023 Advanced Concepts and Members Choice Winner

"Additively Manufactured (AM) Micro-Turbine Engine"

Ben Loerke, University of Dayton
Research Institute

2024 AMUG Technical Competition

Monday, March 11 | 6:00pm-10:00pm

Salon B, Lower Level

Visit the Technical Competition in Salon B during the AMUGexpo. Entries in both Advanced Concepts and Advanced Finishing will be on display. A panel of previous DINO Award recipients will evaluate the entries and select a winner in each category.

2024 Winners Announced

Thursday, March 14 | 9:30am

International Ballroom

Members Choice

Entries on Display During AMUGexpo:

Monday, March 11 | 6:00pm-10:00pm

Tuesday, March 12 | 6:00pm-10:00pm

Salon B, Lower Level

Voting

Voting for Members Choice is available to all AMUG Conference attendees via the mobile app. Voting will be open from Monday, March 11 at 6:00pm, until Tuesday, March 12 at 10:00pm.

Sunday, March 10 - Thursday, March 14
8th Street Registration, Lobby Level

Registration, Speaker Center and Mobile App

Sunday, March 10

Registration and Badge Pick-up 10:00am - 8:00pm
Speaker Center and Mobile App 10:00am - 6:00pm

Monday, March 11

Registration and Badge Pick-up 7:00am - 8:00pm
Speaker Center and Mobile App 7:00am - 12:30pm
1:00pm - 4:30pm

Tuesday, March 12

Registration and Badge Pick-up 7:00am - 4:00pm
Speaker Center and Mobile App 7:00am - 12:30pm
1:00pm - 4:30pm

Wednesday, March 13

Registration and Badge Pick-up 7:00am - 4:00pm
Speaker Center and Mobile App 7:00am - 12:30pm
1:00pm - 4:00pm

Thursday, March 14

Registration and Badge Pick-up 7:00am - 11:00am
Speaker Center and Mobile App 7:00am - 12:30pm

Certification Courses

ASTM Certification Course

Methods of Qualification and Certification
for Additive Manufacturing



Course Dates:

Saturday, March 9 (8:00am – 4:30pm)
Sunday, March 10 (8:30am – 3:00pm)

Course Location:

AMUG 2024, Hilton Chicago, Chicago, IL
Boulevard A (2nd Floor)

Course Instructors:

Dr. Martin White, *ASTM International*
Shane Collins, *Wohlers Associates*

Details & Registration:

<http://www.amcoe.org/event/amug2024course>

Cost: \$799.00 (early-bird rate through Feb. 9). \$949.00 after Feb. 9.

Course Level:

Intermediate to Advanced users

This course is aimed at those who are using, or plan to use, AM in serial or critical applications and would like to learn more about the routes to qualification and certification. Attendees would be required to have a strong background in additive manufacturing.

Tooling U-SME Certification Course

Certified Additive Manufacturing
Fundamentals (CAMF) Review Course
& Exam



Course Dates:

Sunday, March 10 (7:30am – 3:00pm)

Course Location:

AMUG 2024, Hilton Chicago, Chicago, IL
Boulevard C (2nd floor)

Course Instructor:

Sheku Kamara, *MSOE*

Details & Registration:

<https://showpro.cdsreg.com/CAMF0324>
Cost: \$395.00

Course Level: Intermediate users

This one-day program includes a review course covering the foundations of additive manufacturing, followed by the Certified Additive Manufacturing Fundamentals (CAMF) exam. The review course and certification are ideal for individuals working in or seeking to work in additive manufacturing roles in automotive, aerospace, and medical equipment. It is also ideal for high schools and colleges as a capstone or stand-alone achievement to increase workforce readiness in additive manufacturing.

Sunday, March 10, 2024

The Manufacturing Loop

presented by AMUG and SME

Sunday, March 10 - Thursday, March 14

2nd Floor across from Normandie Lounge

As Rapid Prototyping evolved into Additive Manufacturing (AM), one of the shared visions has been to put AM on the manufacturing floor to produce production components, inserts for tooling, end of arm robotics, fixtures, gauges, and more. One of the barriers to widespread adoption of this vision has been the understanding of the complexities of traditional manufacturing, such as equipment, Geometric Dimensioning and Tolerancing (GD&T), and tooling.

With the goal of bridging this knowledge gap, the AMUG organization and SME have teamed up for a second year to present a compilation of manufacturing videos called "The Manufacturing Loop". These short videos (provided by SME) will showcase several traditional manufacturing processes,

such as CNC Machining, Injection Molding, Finishing Processes, and more. The videos will also provide an overview on other areas of manufacturing, including GD&T, and automation on the manufacturing floor. These videos are a valuable resource for individuals and organizations looking to expand their knowledge of manufacturing and better adopt additive manufacturing onto their factory floor.

The Manufacturing Loop will be on display during the AMUG Conference on the second floor, across from the Normandie Lounge. There will be a poster next to each of the video monitors that outlines what is highlighted in each video, and a QR Code with a link so you can access the content at a later date. Access will also be available through the AMUG mobile app.

Sunday Off-Site Tours

On Sunday, March 10, 2024, AMUG Conference attendees can tour Sciaky, Inc and EDM Network.

Please note that advance registration is required and there is a cap on the number of people who can attend. Transportation between the Hilton Chicago and the off-site tours will be provided.

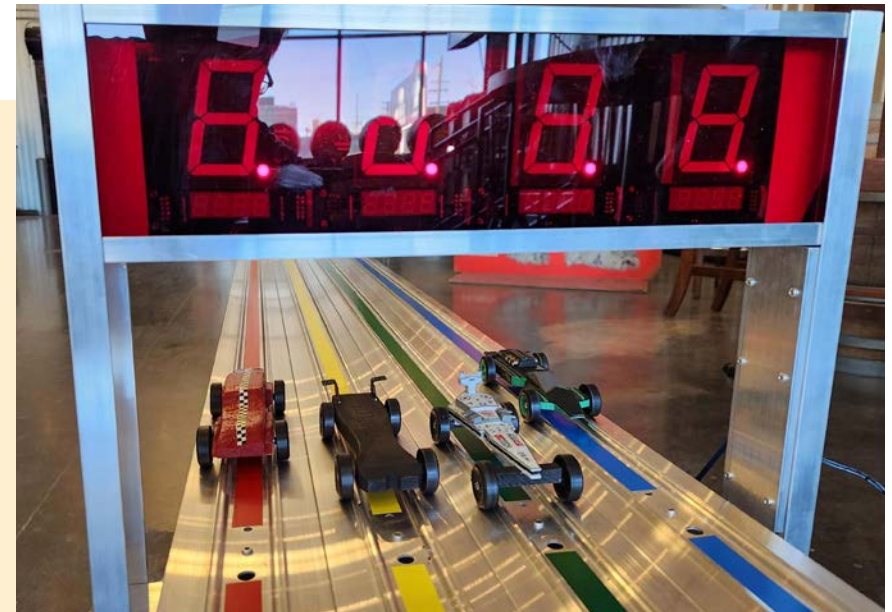
Additional tour information can be found on the AMUG website:
<http://www.amug.com/tours>

AMUG Conference Begins

TIME	AMUG SESSIONS AND ACTIVITIES	
3:00pm - 4:00pm	New Member Welcome Nick Licari AMUG New Member Committee Chair Location: Grand Ballroom, 2nd Floor	
	AMUGexpo OPEN Location: Salon A, C, and D (Lower Level)	Networking Dinner Location: Salon A, B, C, and D, (Lower Level)

AMUG's Inaugural AMUGderby

Join your colleagues by spectating and participating in the first ever AMUGderby competition, held Tuesday, March 12, 2024, during the final night of the AMUGexpo. AMUG member-designed racecars printed using additive manufacturing and propelled by gravity will compete in a series of heats to determine the fastest car. In addition to the award for fastest car, a finalist for "best-design" will also be chosen. Note: Pre-registration required to participate. For additional information, rules and regulations, and race registration link, please visit <https://www.amug.com/amugderby>.



TIME	SESSIONS AND ACTIVITIES			LOCATION		
7:00am - 8:00am	NETWORKING BREAKFAST			Grand Ballroom, Normandie Lounge, Boulevard Room (2nd Floor)		
	AMUG GENERAL SESSION					
8:00am - 10:00am	AMUG INSIGHTS AND HIGHLIGHTS AMUG Welcome Insights with AMUG President, Shannon VanDeren AMUG Conference Highlights with AMUG Director, Education & Conference, Ed Graham AMUG Board Election Insights with AMUG Immediate Past President, Carl Dekker Diamond Sponsor Insights and Highlights with Todd Grimm, T.A. Grimm & Associates			International Ballroom (2nd Floor)		
10:00am - 1:30pm	AMUGexpo Open			AMUGexpo area in Salon A, C, and D (Lower Level)		
12:00pm - 1:15pm	NETWORKING LUNCH			AMUGexpo area in Salon A, C, and D (Lower Level)		
	BREAKOUT SESSIONS					
Track	Aerospace, Transportation and Defense	AM Metal Technologies	Education and Training	Healthcare	AM Non-Metal Technologies	Scanning and Metrology
Room Floor	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Marquette 3rd Floor	Williford C 3rd Floor	Waldorf 3rd Floor
1:30pm - 2:30pm	<u>30 MINUTES</u> Qualification of Additive Manufactured Parts - CAM-QT and Beyond Douglas Greenwood ASTRO America <u>30 MINUTES</u> Jointless Hull. Towards Large Scale, Metal Additive Manufacturing with Additive Friction Stir Deposition (AFSD) Matt Kelly, US Army GVSC	Dependence of LPBF Surface Roughness on Laser Incidence Angle and Build Orientation Tad Steinberg Siemens Energy Inc.	Networking For Introverts/Beginners – Getting the Most Out of AMUG MODERATOR: John Thiehl Beehive Engineered Solutions PANELISTS: Sarah Jordan, Skuld LLC Ben DiMarco, Ohio State University Shannon VanDeren, Layered Manufacturing and Consulting Lisa Block, Hybrid Manufacturing Technologies	Bitmap Printing in Medicine: Planning, Prosthetics, and Implants Nicholas Jacobson University of Colorado Anschutz Medical Campus	Adoption of Large Format Polymer AM MODERATOR: Brian Post, Oak Ridge National Laboratory PANELISTS: Zac DiVencenzo, JuggerBot 3D Austin Schmidt, Additive Engineering Solutions Mike Matlack, Boeing	An Introduction to 3D Scanning and Metrology for AM Giles Gaskell Pinnacle X-Ray Solutions
2:30pm - 3:00pm	AFTERNOON BREAK			Continetal Foyer (Lobby Level), International Foyer (2nd Floor), 3rd Floor Hallway		
3:00pm - 4:00pm	Building Bigger Parts -Unlocking New Defense Sustainment Opportunities MODERATOR: LJ Holmes, Harrisburg University PANELISTS: Laura Satkiewicz, GDLS Matt Kelly, US Army GVSC Emma Gallegos, Astro America Daniel Braley, Boeing Global Services Emma Gallegos, Astro America	A Review of Current Thermal Process Technologies and Their Applications MODERATOR: Shane Collins, Wohlers Associates PANELISTS: Chad Beamer, Quintus Technologies LLC Stephen Feldbauer, Abbott Furnace Company Michael Nappi, Bodycote	<u>90 MINUTES</u> Workforce Development Panel MODERATOR: Jeannine Kunz, SME PANELISTS: Steve Grundahl, Prototek Evan Kirby, Materialise Philip Rufe, Eastern Michigan University Rajeev Kulkarni	Device Fatigue Performance Across Process Conditions; are Results Correlated to Tensile Properties? Trey Rodgers Sony Manandhar Zimmer Biomet	Thermoplastic Large Scale Additive Manufacturing - Data-Driven Component Quality Control Bernhard Bauer Technical University of Munich Andreas Bierbaumer KraussMaffei Technologies GmbH	<u>WORKSHOP</u> Hands-On 3D Scanning Workshop WORKSHOP LEAD: Bob Renella, Go Engineer
4:00pm - 4:30pm	AFTERNOON TRANSITION					
4:30pm - 5:30pm	The Age of the Terminator is Here: AM Enables System-Level Digital Design & Manufacturing Daniel-Steve Fournier General Atomics Aeronautical Systems Inc.	Applications of Metal 3D Printing for Tooling MODERATOR: Jim Snodgrass, Cimquest PANELISTS: Jonah Myerberg, Desktop Metal Scott Kraemer, Xact Metal Giorgio Olivieri, Meltio Ted Sorom, Mantle	Expanding AM into the Electrical, Electronic and Consumer Product Industries Kenneth Vessey UL Solutions	Merging 3D printing and Special Effects Techniques To Create Realistic Anatomic Models Christian Hanson Mayo Clinic	3D and 4D Printing: High Performance Materials and AI/ML Strategies Rigoberto Advincula University of Tennessee	3D Scanning and Metrology Expert Panel Discussion MODERATOR: Bob Renella, GoEngineer PANELISTS: Sam Cheney, GoEngineer Giles Gaskell, Pinnacle X-Ray Solutions Jake Rickter, Pinnacle X-Ray Solutions Arthur Young-Spivey, Direct Dimensions
5:30pm - 6:00pm	BREAKOUT SESSIONS CLOSE					
6:00pm - 10:00pm	AMUGexpo Open Location: Salon A, C, and D (Lower Level)		Networking Dinner Location: Salon A, B, C, and D (Lower Level)		Technical Competition Location: Salon B (Lower Level)	

MONDAY AGENDA HIGHLIGHTS

AMUG Insights and Highlights
8:00am - 10:00am

AMUGexpo and Networking Lunch
10:00am - 1:15pm

AMUGexpo, Networking Dinner,
and Technical Competition
6:00pm - 10:00pm

	BREAKOUT SESSIONS				
Track	Platinum Speaking Session	Platinum Speaking Session	Diamond Speaking Session	Diamond Speaking Session	Diamond Speaking Session
Room Floor	Joliet 3rd Floor	Astoria 3rd Floor	Williford A 3rd Floor	Williford B 3rd Floor	PDR 2 3rd Floor
1:30pm - 2:30pm	3D SYSTEMS Advanced Materials and Applications in Laser Powder Bed Fusion Ryan Fishel 3D Systems	RENISHAW, INC. TEMPUS Technology– When Every Second Counts, We Have No Time to Wait Kevin Brigden Renishaw, Inc.	STRATASYS How to 3D Print in Color (And Why You Should) Shuvom Ghose Stratasys	HP INC WORKSHOP PRE-REGISTRATION REQUIRED Announcement: New MJF Material. Exploring HP's Evolving Material Landscape Clara Remacha HP Inc Pre-register: rita@hp.com	GOENGINEER The Journey from Additive Missteps to Mastery MODERATOR: Simon Pinter, GoEngineer PANELISTS: Hunter Bernstein, GoEngineer Tim Crennen, GoEngineer Richard Cromwell, GoEngineer Nick Licari, GoEngineer
2:30pm - 3:00pm	AFTERNOON BREAK			Continetal Foyer (Lobby Level), International Foyer (2nd Floor), 3rd Floor Hallway	
3:00pm - 4:00pm	TEKNA Using Coarser Powders in Laser Powder Bed Fusion: Results and Potential Benefits Jerome Pollak Tekna	ADDITIVE INDUSTRIES Additive Industries and Volkswagen Realize Significant Tooling Cost Reduction with MetalFABG2 Andrew Hawkins Additive Industries	DMG MORI USA L-PBF Process Integration: Automation of the Additive/Subtractive Process Chain Lennart Tasche DMG MORI Additive Solutions	MELTIO Laser Cladding and Repair with Wire-Laser Metal 3D Printing Giorgio Olivieri Meltio	ADDITEC Liquid Metal Jetting Toolpath Development: Design Rules and Advanced Slicer Algorithms Paul McConville Priyanka Guggilapu ADDITEC
4:00pm - 4:30pm	AFTERNOON TRANSITION				
4:30pm - 5:30pm	MATERIALISE Revolutionizing Additive Manufacturing: Innovations in Laser Powder Bed Fusion Process Optimization Ian O'Loughlin Materialise	SANDVIK ADDITIVE MANUFACTURING Latest Developments in Metal Powders for Additive Manufacturing, Including Copper Alloys Paul Davies and Eleonora Bettini Sandvik Additive Manufacturing Mahmood Shirooyeh, 3DEO	WÜRTH ADDITIVE GROUP Always in Stock: Additive Made Easy, Digital Inventory Services Mikhail Gladkikh AJ Strandquist Würth Additive Group	SME TBA	No Session
5:30pm - 6:00pm	BREAKOUT SESSIONS CLOSE				
6:00pm - 10:00pm	AMUGexpo Open Location: Salon A, C, and D (Lower Level)		Networking Dinner Location: Salon A, B, C, and D (Lower Level)		Technical Competition Location: Salon B (Lower Level)

TIME	SESSIONS AND ACTIVITIES			LOCATION		
7:00am - 8:00am	NETWORKING BREAKFAST			Grand Ballroom, Normandie Lounge, Boulevard Room (2nd Floor)		
	AMUG GENERAL SESSION					
8:00am - 9:00am	Keynote Jason Lopes, Gentle Giant Studios			International Ballroom (2nd Floor)		
9:00am - 10:00am	2024 DINO Awards - Distinguished INnovator Operator Awards AMUG Director at Large and DINO Committee Chair, Gary Rabinovitz					
10:00am - 10:30am	MORNING BREAK			International Foyer (2nd Floor)		
10:30am - 11:15am	International Report AMUG International Committee Chair, Stefan Ritt			International Ballroom (2nd Floor)		
11:15am - 12:00pm	2024 AMUG Scholarship Winners AMUG Scholarship Committee Chair, Rajeev Kulkarni Guy E. Bourdeau Winner - Alex Campbell, Ohio State University Randy Stevens Winner - Phil Rufe, Eastern Michigan University					
12:00pm - 1:15pm	NETWORKING LUNCH			Grand Ballroom, Normandie Lounge, Boulevard Room (2nd Floor)		
	BREAKOUT SESSIONS					
Track	Aerospace, Transportation and Defense	AM Metal Technologies	AM Materials	Software	AM Non-Metal Technologies	Scanning and Metrology
Room Floor	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Marquette 3rd Floor	Williford C 3rd Floor	Waldorf 3rd Floor
1:30pm - 2:30pm	Eaton's Aerospace Additive Manufacturing Journey Georges Elhelou Eaton Aerospace	Metal AM Post-Processing Surface Finishing Panel MODERATOR: Joy Gockel, Colorado School of Mines PANELISTS: Agustin Diaz, REM Surface Engineering Tim Hall, Faraday Technology Jim Ringer, Tech Met Inc. Laurent Cataldo, MicroTek Finishing Ray Amin, Extrude Hone	AM Materials Data - Challenges and Opportunities Richard Huff ASTM International	Modeling the Mesoscale: How Modern Design Software Brings Mesoscale to All Engineers Matthew Shomper Not a Robot Engineering	A General Overview of Ceramic Additive Brandon Kirkpatrick, Sandia National Laboratories	The Challenges of Measuring AM-Polymer Parts to Meet Automotive Standards Brennon White General Motors
2:30pm - 3:00pm	AFTERNOON BREAK			Continetal Foyer (Lobby Level), International Foyer (2nd Floor), 3rd Floor Hallway		
Track	Aerospace, Transportation and Defense	AM Metal Technologies	AM Materials	Software	Education and Training	Metal Casting
3:00pm - 4:00pm	30 MINUTES Hydrogen Operation of Gas Turbines to 100% by 2030 Enabled by AM Tad Steinberg Siemens Energy Inc.	Untangling the Web of Directed Energy Deposition (DED) Systems Mark Barfoot EWI	AM Polymers for Challenging Environments See mobile app for individual presentation details 30 MINUTES EACH Callie Higgins, NIST Emily Rusnak, General Motors Jessica Hemond, TE Connectivity Sam Mills and John Hana, Eaton	Computational Design from Micro to Macro Scale MODERATOR: Duann Scott 3MF Consortium PANELISTS: Ryan O'Hara, Beehive Industries Matthew Shomper, Not a Robot Engineering Mary Baker, HP	90 MINUTES The Business Relevance of Contract Manufacturing MODERATOR: Shannon VanDeren, Layered Manufacturing and Consulting PANELISTS: Joe Calmese, ADDMAN Steve Grundahl, Prototek Mike Littrell, BuildParts by CIDEAS Inc. Greg Morris, Zeda Inc.	Additive Manufacture of High Pressure Die Cast Tooling Clay Rasmussen Mercury Marine
4:00pm - 4:30pm	AFTERNOON TRANSITION					
4:30pm - 5:30pm	The Future of AM in the US Military MODERATOR: Glen Drebes, Pratt and Whitney PANELISTS: Jim Zunino, US Army Futures Command Marybeth Radtke, US Air Force Brandon Phillips, US Army DEVCOM Aviation & Missile Center Joseph Ullman, US Naval Air Warfare Center Aircraft Division	Mastering Metal: Endeavor 3D's Adoption of Metal 3D Printing Tibor Gyorfi Endeavor 3D	Todd Menna, Element Materials Technology	Additive Manufacturing: Driving Efficiencies for Factory Applications Mansura Islam Eaton Corporation	Environmental Benefits of AM: A Discussion on Leveraging Sustainability to Increase Adoption MODERATOR: Sherri Monroe, Additive Manufacturer Green Trade Association PANELISTS: Kristin Mulherin, Hubbell Abdalla Nassar, John Deere	Use of 3D Printed Sand Beyond Prototype Brandon Lamoncha Humtown Products
5:30pm - 6:00pm	BREAKOUT SESSIONS CLOSE					
6:00pm - 10:00pm	AMUGexpo Open Location: Salon A, C, and D (Lower Level)		Networking Dinner Location: Salon A, B, C, and D (Lower Level)		AMUG Technical Competition Salon B (Lower Level) AMUGderby Competition Salon C (Lower Level)	

TUESDAY AGENDA HIGHLIGHTS

Keynote and
DINO Award Winners
8:00am - 10:00am

International Report
and Scholarship Winners
10:30am - 12:00pm

Networking Lunch
12:00pm - 1:15pm

AMUGexpo,
Networking Dinner,
and AMUGderby
Competition
6:00pm - 10:00pm

	BREAKOUT SESSIONS				
Track	Platinum Speaking Session	Platinum Speaking Session	Diamond Speaking Session	Diamond Speaking Session	Diamond Speaking Session
Room Floor	Joliet 3rd Floor	Astoria 3rd Floor	Williford A 3rd Floor	Williford B 3rd Floor	PDR 2 3rd Floor
1:30pm - 2:30pm	EVONIK True Black and Superior Performance Parts with PA12 Encapsulated Powder Wolfgang Diekmann Amanda Verissimo <i>Evonik</i>	MASSIVIT Digital Casting to Automate Composites Manufacturing Avi Cohen Randy VanBuren <i>Massivit</i>	DMG MORI USA 3D Scanning & Hybrid Manufacturing: Then, Now and Beyond Kevin Stenberg <i>DMG MORI ASI</i>	WÜRTH ADDITIVE GROUP Always in Stock: First-Hand OEM Feedback and Future Considerations MODERATOR: AJ Strandquist, <i>Würth Additive Group</i> PANELISTS: Jacob Ayers, <i>Würth Additive Group</i> Nina Kosmic, <i>IMS</i>	ADDITEC Liquid Metal Jetting of 6061 Al Alloy Paul McConville <i>ADDITEC</i>
2:30pm - 3:00pm	AFTERNOON BREAK			Continental Foyer (Lobby Level), International Foyer (2nd Floor), 3rd Floor Hallway	
Track	Platinum Speaking Session	Platinum Speaking Session	Diamond Speaking Session	Diamond Speaking Session	Diamond Speaking Session
3:00pm - 4:00pm	RP AMERICA TBA	PROTOTEK Qualification and Certifications for Production Work Jim Wise <i>Prototek</i>	MELTIO <i>PRE-REGISTRATION REQUIRED</i> Meltio - New Product Launch Giorgio Olivieri <i>Meltio</i> Pre-register: carol.vilaplana@meltio3d.com	STRATASYS Additive Manufacturing & Electric Vehicles: How Lucid Motors Speeds Production with Stratasys Fadi Abro <i>Stratasys</i> Matthew Hitch <i>Lucid Motors</i>	SME TBA
4:00pm - 4:30pm	AFTERNOON TRANSITION				
4:30pm - 5:30pm	PROFITKEY Solving 3D Printer and Post-Process Scheduling Challenges David Bennett <i>Profitkey</i>	AXTRA3D, INC. Highlighting Performance, Quality, Throughput, and Freedom In Applications Using HPS and TruLayer Gianni Zitelli Paul Spoliansky <i>Axtra3D</i>	GOENGINEER WORKSHOP Snap, Crack & Pop: Hands-on Material Testing Tim Crennen Hunter Bernstein Sam Cheney Richard Cromwell Simon Pinter Judah Sher <i>GoEngineer</i>	HP INC WORKSHOP Navigating Additive Manufacturing: From "NO" to "YES" with HP's Process Development Liz Storstrom Rebecca Dake <i>HP Inc</i>	No Session
5:30pm - 6:00pm	BREAKOUT SESSIONS CLOSE				
6:00pm - 10:00pm	AMUGexpo Open Location: Salon A, C, and D (Lower Level)		Networking Dinner Location: Salon A, B, C, and D (Lower Level)		AMUG Technical Competition Salon B (Lower Level) AMUGderby Competition Salon C (Lower Level)

TIME	SESSIONS AND ACTIVITIES			LOCATION		
7:00am - 8:00am	NETWORKING BREAKFAST			Grand Ballroom, Normandie Lounge, Boulevard Room (2nd Floor)		
	AMUG GENERAL SESSION					
8:00am - 9:00am	Innovators Showcase Todd Grimm hosts a fireside chat with our 2024 Innovators Award winner, Greg Morris			International Ballroom (2nd Floor)		
9:00am - 10:00am	AMUG Annual Business Meeting AMUG Organization Update, AMUG President, Shannon VanDeren Review of 2023 Business Meeting Minutes, AMUG Secretary, Heather Natal Treasurer's Report, AMUG Treasurer, Robin Van Bragt 2024 Board of Directors Election Results, AMUG Immediate Past President, Carl Dekker					
10:00am - 10:30am	MORNING BREAK			Continental Foyer (Lobby Level), 3rd Floor Hallway		
	BREAKOUT SESSIONS					
Track	Scanning and Metrology	AM Metal Technologies	AM Materials	Software	AM Non-Metal Technologies	Education and Training
Room Floor	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Marquette 3rd Floor	Williford C 3rd Floor	Waldorf 3rd Floor
10:30am - 12:00pm	Light, X-Rays or Neutrons? Exploring Radiation Based Inspection Techniques in Additive Manufacturing Katie Rittenhouse Phoenix Neutron Imaging Jake Rickter, Pinnacle X-Ray Sam Cheney, GoEngineer	Simplifying Heat Treatment with Aid of Modern Hot Isostatic Pressing Technologies Chad Beamer Quintus Technologies LLC	Metal Powders - Intro Session <i>See mobile app for individual presentation details</i> <u>30 MINUTES EACH</u> Miranda Moschel and Joe Croteau, Kymera International Łukasz Żrodowski, AMAZEMET Sabina Kumar, Eaton Corporation	<u>WORKSHOP</u> Digital Workflow for Patient Specific Devices David Johnson, HP Inc Steven Szymeczek, 3D Printing Mentality Joe Johnson, Quorum Prosthetics Dustin Kloempken, HP Inc Judah Sher, GoEngineer	The Use of Additive Manufacturing in the Production of Firearms and Machine Guns James Vann Bureau of Alcohol, Tobacco, Firearms and Explosives	Additive Manufacturing and Key Safety Considerations Paul Bates ASTM International
12:00pm - 1:15pm	NETWORKING LUNCH			Grand Ballroom, Normandie Lounge, Boulevard (2nd Floor)		
Track	Scanning and Metrology	Aerospace, Transportation, and Defense	AM Materials	Software	AM Non-Metal Technologies	Metal Casting
Room Floor	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Marquette 3rd Floor	Williford C 3rd Floor	Waldorf 3rd Floor
1:30pm - 2:30pm	Overcoming the Challenges of Validating Metal AM Components with CT Tyler Ripperger Waygate Technologies	<u>30 MINUTES</u> Use of Welding Based Additive Manufacturing Technologies for Structural Aerospace Spares Daniel Braley, Boeing Global Services <u>30 MINUTES</u> Design of an Additively Manufactured Heat Exchanger for Military Ground Vehicles William Slocumb, BAE Systems Dan Cassar, Siemens Energy	Metal Powders for L-PBF <i>See mobile app for individual presentation details</i> Chimnay Phutela, Nesma Aboulkhair, and Federico Bosio, Technology Innovation Institute Amir Nobari, Tekna Evan Bulter-Jones, Equispheres	MES Software Panel - The Future of Additive Manufacturing MODERATOR: Kevin Ayers, 3D Metal Consulting PANELISTS: Dave Flynn, Materialise David Bennett, Profitkey Erica Vlahinos, Authentise Aleksander Ciszek, 3YOURMIND	Additive After Dark: Vapor Smoothing at Scale Dan Berman KINK3D	<u>30 MINUTES</u> Additive Manufacturing Evaporative Casting - Combining the Best of AM & Casting Sarah Jordan and Mark DeBruin Skuld LLC <u>30 MINUTES</u> RSI Ceramic AM for Low Cost Turbine Castings Rick Pressley Renaissance Services, Inc
2:30pm - 3:00pm	AFTERNOON BREAK			Continetal Foyer (Lobby Level), International Foyer (2nd Floor), 3rd Floor Hallway		
Track	Healthcare	Aerospace, Transportation, and Defense	AM Materials	Software	AM Non-Metal Technologies	Metal Casting
Room Floor	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Marquette 3rd Floor	Williford C 3rd Floor	Waldorf 3rd Floor
3:00pm - 4:00pm	AM Materials for Healthcare Applications MODERATOR: Camila Uzategui, Vitro3D PANELISTS: Rob Clemons, Henkel Allen Younger, AddUp Meisam Shir Mohammadi, BASF Katie Weimer, 3D Systems	Impact of Supply Chain Material Shortages on Aerospace AM Adoption MODERATOR: Daniel Braley, Boeing Global Services PANELISTS: Carl Dekker, Met-L-Flo Laura Macht, US Army DEVCOM Aviation and Missile Center Scott Rose, Boeing Research & Technology Paul Bates, ASTM International	Metal Powders for Sinter-based Technologies <i>See mobile app for individual presentation details</i> <u>30 MINUTES EACH</u> Miranda Moschel, Kymera International Hughston Young, Endeavor 3D	MES-Excel-Whiteboards: A Comparison Derek Ellis, Authentise Patrick Gannon, Ricoh USA	So You Want To Start an Additive Manufacturing Business: A Panel Discussion MODERATOR: Paul DeWys, Forerunner 3D Printing PANELISTS: Chris Beck, Innovative 3D Manufacturing Jay Dinsmore, Dinsmore, Inc. Mike Littrell, BuildParts by CIDEAS Inc.	Integrating AM and Traditional Metal Casting - Alloys, Process, and Properties MODERATOR: Vadim Pikhovich, MAGMA Foundry Technologies PANELISTS: Kirk Mrozek, MAGMA Foundry Technologies Dave Rittmeyer, Matthews Additive Technologies Thomas Sorovetz, TA Sorovetz Consulting John Thiehl, Beehive Industries
4:00pm - 5:00pm	BREAKOUT SESSIONS CLOSE					
5:15pm - 6:00pm	Board Buses for AMUG Special Event and Dinner Hilton Chicago: Queue and board at 8th St entrance		<i>Badges are required to board the bus and attend the AMUG Special Event and Dinner. All attendees must take the AMUG bus to attend event. Due to safety and security, AMUG does not allow 3rd party transportation. Guest passes may be purchased at the AMUG Registration Desk prior to 4:00 pm, Wednesday March 13, 2024. All guests must be accompanied by an AMUG Member.</i>			
6:00pm - 10:00pm	AMUG Special Event and Dinner, Back to the User - 80's Theme Night					

WEDNESDAY AGENDA HIGHLIGHTS

2024 Innovators Showcase
8:00am - 9:00am

AMUG Business Meeting
9:00am - 10:00am

Networking Lunch
12:00pm - 1:15pm

Special Event and Dinner
80's Theme Night
6:00pm - 10:00pm

	BREAKOUT SESSIONS				
Track	Platinum Speaking Session	Platinum Speaking Session	Diamond Speaking Session	Diamond Speaking Session	Diamond Speaking Session
Room Floor	Joliet 3rd Floor	Astoria 3rd Floor	Williford A 3rd Floor	Williford B 3rd Floor	PDR 2 3rd Floor
10:30am - 11:30am all sessions 60 minutes	FORMLABS INC TBA	ONE CLICK METAL GMBH Metal 3D Printing – Successful Implementation in Series Production and Fixture Construction Michael Staiger One Click Metal GmbH	MELTIO PRE-REGISTRATION REQUIRED Meltio - New Product Launch Giorgio Olivieri Meltio Pre-register: carol.vilaplana@meltio3d.com	SME TBA	GOENGINEER 3D-Printed Medical Devices: Navigating Approvals & Predicting Market Trends in Regulated Sectors Richard Cromwell GoEngineer
12:00pm - 1:15pm	NETWORKING LUNCH			Grand Ballroom, Normandie Lounge, Boulevard (2nd Floor)	
Track	Platinum Speaking Session	Platinum Speaking Session	Diamond Speaking Session	Diamond Speaking Session	Diamond Speaking Session
Room Floor	Joliet 3rd Floor	Astoria 3rd Floor	Williford A 3rd Floor	Williford B 3rd Floor	PDR 2 3rd Floor
1:30pm - 2:30pm	EPLUS3D Canada's First Orbital Launch Vehicle and Pushing MPBF to its Limits Enis Jost Eplus3D Rahul Goel NordSpace Corp	AMAZEMENT Alloy Development for Additive Manufacturing Using Ultrasonic Atomization Łukasz Żrodowski and Tomasz Choma AMAZEMET Steven Adler, A3DM	STRATASYS Building Next Generation Rockets with Additive Manufacturing Chase Smaellie Northrop Grumman Corporation Patrick Price Stratasys	HP INC HP Metal Jet: Pioneering Mass Production in Metal AM Matthew Smith HP Inc	WÜRTH ADDITIVE GROUP Elevating Additive Manufacturing Safety: Workshop with Ed Tackett & Würth Experts MODERATOR: Ed Tackett Würth Additive Group PANELISTS: Dawn Hartung, BOFA Filtration Jacob Ayers, Würth Additive Group
2:30pm - 3:00pm	AFTERNOON BREAK			Continetal Foyer (Lobby Level), International Foyer (2nd Floor), 3rd Floor Hallway	
Track	Platinum Speaking Session	Platinum Speaking Session	Diamond Speaking Session	Diamond Speaking Session	Platinum Speaking Session
Room Floor	Joliet 3rd Floor	Astoria 3rd Floor	Williford A 3rd Floor	Williford B 3rd Floor	PDR 2 3rd Floor
3:00pm - 4:00pm	NIKON SLM SOLUTIONS Challenges and Solutions in the Industrialization of Large-Platform SLM Machines Jonas Mersch Nikon SLM Solutions AG	ENDEAVOR 3D WORKSHOP Automation Workflow for Polymer Production Daniel Baker Endeavor 3D	ADDITEC Hybrid Manufacturing for Sustainable Manufacturing and Repair Sriram Manoharan Brian Matthews ADDITEC	DMG MORI USA Unleashing Precision & Performance: AI-controlled Programmable Laser Provides L-PBF Production Step Change Nils Niemeyer DMG MORI ASI	GE ADDITIVE How Point Melt is Expanding EBM Applications Dan Frydryk GE Additive
4:00pm - 5:00pm	BREAKOUT SESSIONS CLOSE				
5:15pm - 6:00pm	Board Buses for AMUG Special Event and Dinner Hilton Chicago: Queue and board at 8th St entrance		Badges are required to board the bus and attend the AMUG Special Event and Dinner. All attendees must take the AMUG bus to attend event. Due to safety and security, AMUG does not allow 3rd party transportation. Guest passes may be purchased at the AMUG Registration Desk prior to 4:00 pm, Wednesday March 13, 2024. All guests must be accompanied by an AMUG Member.		
6:00pm - 10:00pm	AMUG Special Event and Dinner, Back to the User - 80's Theme Night				

TIME	SESSIONS AND ACTIVITIES			LOCATION		
7:00am - 8:00am	NETWORKING BREAKFAST			Grand Ballroom, Normandie Lounge, Boulevard Room (2nd Floor)		
	AMUG GENERAL SESSION					
8:00am - 9:00am	Keynote - Design for Additive Manufacturing: Understanding Value Olaf Diegel, University of Auckland			International Ballroom (2nd Floor)		
9:00am - 10:00am	2023 Advanced Finishing Winner Presentation Tomlinsonus Dimitrii – The Oldest Fossil of a Marine Animal Ever Found, Andrew Sliwa, Custom Prototypes 2023 Advanced Concepts Winner Presentation Additively Manufactured (AM) Micro-Turbine Engine, Kelsey Snively, University of Dayton Research Institute 2024 Technical Competition Winners Announced AMUG Technical Competition Committee Chair, Bonnie Meyer					
10:00am - 10:30am	MORNING BREAK			International Foyer (2nd Floor)		
10:30am - 12:00pm	Building the Future - AMUG Member Feedback Session AMUG President, Shannon VanDeren			International Ballroom (2nd Floor)		
12:00PM - 1:15pm	NETWORKING LUNCH			Grand Ballroom, Normandie Lounge, Boulevard (2nd Floor)		
	BREAKOUT SESSIONS					
Track	Aerospace, Transportation, and Defense	AM Non-Metal Technologies	AM Metal Technologies	AM Materials	Education and Training	Metal Casting
Room Floor	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Marquette 3rd Floor	Williford C 3rd Floor	Waldorf 3rd Floor
1:30pm - 2:30pm	Expanding the Additive Manufacturing Materials Portfolio MODERATOR: Jeff DeGrange, <i>Impossible Objects</i> PANELISTS: Zaynab Mahbooba, <i>EOS</i> Chase Cox, <i>MELD Manufacturing</i> Bruce Colter, <i>Titomic</i>	Engaging Users - A No-agenda Roundtable Discussion for Non-Metals Users Colton Rooney <i>EMI Corp</i>	Industry Trends in Directed Energy Deposition Jeffrey Crandall <i>Connecticut Center for Advanced Technology</i>	High Fidelity Modeling and Optimization of Bead Geometry in Directed Energy Deposition Garrett Clyma <i>FLOW-3D AM</i>	Heat Treat 101 Plus Advanced Q&A Mark DeBruin, <i>Skuld LLC</i>	<u>30 MINUTES</u> Digital Casting: Solving Supply Chain Resiliency, Prototyping, and Rapid Qualification Challenges Cameron Peahl, <i>Eaton</i> <u>30 MINUTES</u> Innovative Design and Development using Toolingless Additive Manufacturing of Castings Jiten Shah <i>Product Development & Analysis LLC</i>
2:30pm - 3:00pm	AFTERNOON BREAK			Continental Foyer (Lobby Level), International Foyer (2nd Floor), 3rd Floor Hallway		
Track	Software	Aerospace, Transportation, and Defense	AM Metal Technologies	Healthcare	Education and Training	Software
Room Floor	Continental A Lobby Level	Continental B Lobby Level	Continental C Lobby Level	Marquette 3rd Floor	Williford C 3rd Floor	Waldorf 3rd Floor
3:00pm - 4:00pm	Scale up Post-Processing & Quality Control Workflows With AM Software MODERATOR: Mark Morrison, <i>Smith & Nephew</i> PANELISTS: Jay Dinsmore, <i>Dinsmore Inc</i> Mirco Schöpf, <i>EOS</i> Andrew Graves, <i>Stratasys</i> Egwin Bovyn, <i>Materialise</i>	Open Discussion - Aerospace Additive Manufacturing - What Can We Do To Collaboratively Speed Up Material, Process, and Technology Readiness? Daniel Braley <i>Boeing Global Services</i>	WORKSHOP Comparing Sinter Based or Melt Based Metal AM Processes for Specific Parts Ryan Hayford, <i>Endeavor 3D</i> Benjamin Arnold, <i>Tritone Technologies</i>	Additive Manufacturing Use Cases to Improve Efficiency and Accuracy of Plastic Surgery Victoria Sears, <i>Mayo Clinic</i>	Mitigating Condensate Reactivity and Other Common AM Fire and Explosion Hazards Jason Reason, <i>Airdusco EDS</i>	AM Software: Considerations for the Complete Workflow from an End User Perspective MODERATOR: Kristin Mulherin, <i>Hubbell</i> PANELISTS: Ladan Salari Sharif, <i>Advanced Lattice Innovations</i> Jonathan Kolodner, <i>Hubbell</i> Joe Johnson, <i>Quorum Prosthetics</i>
4:00pm - 4:30pm	Metal Casting	AM Materials	AFTERNOON TRANSITION			
4:30pm - 5:30pm	A Collaborative Leap in Digital Investment Casting Patterns MODERATOR: Merrin Muxlow, <i>Intrepid Automation</i> PANELISTS: Jeremy Smith, <i>Nagase</i> Ben Wynne, <i>Intrepid Automation</i>	FGF (Fused Granulate Fabrication) AM Materials: Small Scale to Large Scale MODERATOR: Allen Mishek, <i>Mitsubishi Chemical Group</i> PANELISTS: Doug Costlow, <i>Bell Flight</i> Mike Gorski, <i>Filament Innovations</i> Alex Roschli, <i>Oak Ridge National Laboratory</i>	From Prototype Facility to Production Facility: A Journey in LPBF Garrett Hawkins, <i>Optisys</i> Matt Donovan	3D Printing in Quality Assessment of Complex Drug Products Xiaofei Liu <i>US FDA</i>	Inkjet in 3D and the Effect of Fluid Viscosity on Material Performance Gareth Neal <i>Xaar</i>	Optimizing AM processes with an Effective Data Management Peter Lindecke, <i>amsight GmbH</i>
5:30pm - 6:00pm	BREAKOUT SESSIONS CLOSE					
6:00pm - 10:00pm	AMUG Family Closing Dinner Location: Grand Ballroom, 2nd Floor					

THURSDAY AGENDA HIGHLIGHTS

Keynote and Technical Competition Winners 8:00am - 10:00am	AMUG Member Feedback Session 10:30am - 12:00pm	Networking Lunch 12:00pm - 1:15pm	AMUG Drop-in Workshops 3:00pm - 5:30pm	AMUG Family Closing Dinner 6:00pm - 10:00pm
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BREAKOUT SESSIONS				
Track		Diamond Speaking Session	Diamond Speaking Session	Diamond Speaking Session
Room Floor		Williford A 3rd Floor	Williford B 3rd Floor	PDR 2 3rd Floor
1:30pm - 2:30pm	No Session	HP INC Scaling Mass Customization Akash Valavala Justin Hopkins HP Inc	WÜRTH ADDITIVE GROUP WORKSHOP Always in Stock: Let's Get Digital with Your Inventory Grant Michel Victor Kurtz Würth Additive Group	STRATASYS The Essentials for Scaling 3D Printing for Prototyping, Tooling and End-Use Parts Anirudh Krishnakumar Victor Gerdes Stratasys
2:30pm - 3:00pm	AFTERNOON BREAK	Continental Foyer (Lobby Level), International Foyer (2nd Floor), 3rd Floor Hallway		
Track	AMUG Drop-in Workshops	Diamond Speaking Session	Diamond Speaking Session	Diamond Speaking Session
Room Floor	Salon C Lower Level	Williford A 3rd Floor	Williford B 3rd Floor	PDR 2 3rd Floor
3:00pm - 4:00pm	Foundry In a Box Dave Rittmeyer, <i>Matthews Additive Technologies</i> Marcus Knoespel and Erich Knoespel, <i>Artcast Inc.</i> Beyond Adhesives: Hands-on Workshop for Assembling 3D Printed Plastics Aubrey Woern, Dan Klompaker and Andrew Roderick, <i>Extol, Inc.</i> Jeremy Vos, <i>BASF</i> Advanced Casting with Additive Manufactured Molds Siyani McFall, Gunner Santana and Joshua Dunn, <i>Boeing</i> Bethany Charboneau, <i>Thermoset Solutions</i>	GOENGINEER Digital Anatomy Creator SW for Hospitals and Medical OEMs Tyler Reid <i>GoEngineer</i> Reut Reina Catherine Wallace <i>Stratasys</i>	ADDITEC Correlating Microstructure to Pyrometer Based Thermal Signatures in Laser Wire DED Sriram Manoharan Dinesh Krishna Kumar Jayabal <i>ADDITEC</i>	DMG MORI USA 10x Faster: Introducing a Powder DED-Process for High-Speed Build Ups and Coatings Robert Chiari <i>DMG MORI Additive Solutions</i>
4:00pm - 4:30pm	Support Removal Workshop (Non-Metals): SLA, FFF, & MJF Maddie Frank, <i>Formlabs</i> Alex Keil, <i>EMI Corp</i> Ed Graham, <i>Prototek</i>	AFTERNOON TRANSITION		
4:30pm - 5:30pm	Cost-Effective Defect Identification and Inspection in Ceramic Additive Manufacturing Dale Cillessen, Brandon Kirkpatrick and Chris Miller, <i>Sandia National Laboratories</i>	MELTIO No Session	SME TBA	No Session
5:30pm - 6:00pm	BREAKOUT SESSIONS CLOSE			
6:00pm - 10:00pm	AMUG Family Closing Dinner Location: Grand Ballroom, 2nd Floor			

AMUGexpo Hours

Sunday, March 10, 2024

4:00pm - 10:00pm

Monday, March 11, 2024

10:00am - 1:30pm

6:00pm - 10:00pm

Tuesday, March 12, 2024

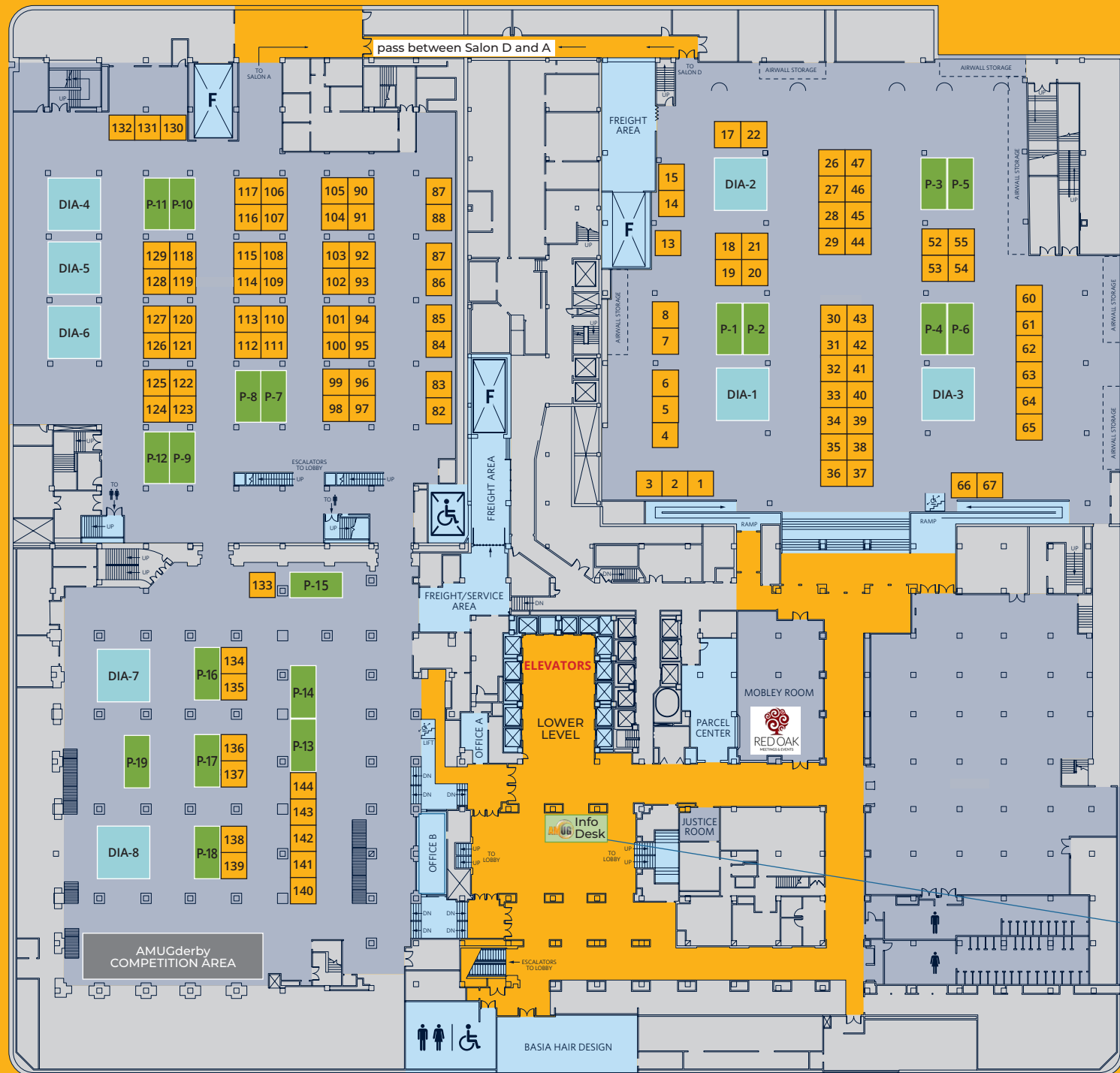
6:00pm - 10:00pm

Company	Participation Level	Booth
3D Control Systems	Exhibitor	1
3D Systems	Platinum Sponsor	P14
3Degrees	Exhibitor	42
3YOURMIND	Gold Sponsor	110
6K Additive	Gold Sponsor	82
Abbott Furnace Company	Exhibitor	140
Addiguru	Exhibitor	115
ADDiTEC	Diamond Sponsor	DIA-2
Additive Assurance	Gold Sponsor	86
Additive Industries	Platinum Sponsor	P9
ADDMAN	Gold Sponsor	114
AddUp	Gold Sponsor	112
Agile Manufacturing Inc.	Exhibitor	108
Alro Steel & Plastics	Exhibitor	118
ALTANA New Technologies GmbH - Cubic Ink®	Exhibitor	55
Amazemet	Platinum Sponsor	P17
AM-Flow	Exhibitor	137
amsight GmbH	Exhibitor	119
AON3D	Exhibitor	131
ARBURG Inc.	Gold Sponsor	125
assonic USA	Exhibitor	96
ASTM Additive Manufacturing Center of Excellence	Exhibitor	106
Authentise	Exhibitor	83

Company	Participation Level	Booth
Axtra3D, Inc.	Platinum Sponsor	P11
BigRep America	Exhibitor	117
b-jetting	Exhibitor	127
Bodycote	Exhibitor	43
BOFA - A Donaldson Company	Exhibitor	40
CAPTURE 3D	Exhibitor	103
CoreTechnologie	Gold Sponsor	133
DMG MORI USA	Diamond Sponsor	DIA-1
DyeMansion North America Inc.	Gold Sponsor	98
Dyze Design	Gold Sponsor	134
EDM Network, Inc.	Exhibitor	13
Element Materials Technology	Exhibitor	89
Endeavor 3D	Platinum Sponsor	P18
Eplus3D	Platinum Sponsor	P3
Equispheres Inc.	Gold Sponsor	18
eSUN	Exhibitor	31
Evonik Corp	Platinum Sponsor	P12
EWI	Gold Sponsor	97
Exentis	Exhibitor	122
Extrude Hone LLC	Exhibitor	87
Fabrisonic LLC	Exhibitor	104
Farsoon Technologies	Exhibitor	33
FLOW-3D AM	Exhibitor	52
Formlabs Inc	Platinum Sponsor	P10
Fortius Metals, Inc.	Exhibitor	138
Foundry Lab	Gold Sponsor	46
Freemelt-Americas, Inc.	Exhibitor	5
Gasbarre Thermal Processing Systems	Exhibitor	95
GE Additive	Platinum Sponsor	P19
GoEngineer	Diamond Sponsor	DIA-4
GrindoSonic	Exhibitor	7
GSC	Exhibitor	26
Herding Filtration LLC	Exhibitor	141
HK Technologies	Exhibitor	15
Hoganas AB	Exhibitor	132
Howco Metals Management LLC	Exhibitor	107
HP Inc	Diamond Sponsor	DIA-5
Indo-MIM Inc	Gold Sponsor	53
Interspectral	Exhibitor	88

Company	Participation Level	Booth
Jabil	Exhibitor	28
JEOL USA, Inc	Gold Sponsor	105
Jesse Garant Metrology Center	Exhibitor	85
Kimya	Gold Sponsor	116
Kymera International	Gold Sponsor	36
Laboratory Testing Inc.	Exhibitor	109
Linde Advanced Material Technologies Inc.	Exhibitor	113
Lithoz America, LLC	Exhibitor	29
M Aerospace RTC	Exhibitor	8
Malvern Panalytical	Exhibitor	38
Massivit	Platinum Sponsor	P13
Materialise	Platinum Sponsor	P8
MC Machinery Systems Inc	Exhibitor	94
Meltio	Diamond Sponsor	DIA-7
Metal Powder Industries Federation	Exhibitor	34
MET-L-FLO, Inc.	Exhibitor	20
MicroTek Finishing	Exhibitor	128
Mitsubishi Chemical Group	Gold Sponsor	135
MX3D	Exhibitor	27
Nabertherm Inc.	Exhibitor	120
NIDEC Machine Tool America	Exhibitor	39
Nikon Metrology	Exhibitor	142
Nikon SLM Solutions	Platinum Sponsor	P5
North Star Imaging	Exhibitor	121
Novastar Solutions	Exhibitor	92
NSL Analytical Services, Inc.	Exhibitor	41
One Click Metal GmbH	Platinum Sponsor	P1
Ophir/ An MKS Brand	Exhibitor	84
Optris IR Sensing, LLC	Exhibitor	64
Oqton	Exhibitor	100
Parmatech Corporation	Exhibitor	6
Phase3D	Exhibitor	101
Piab Inc	Exhibitor	14
Powder Alloy Corporation	Exhibitor	63
Pressure Technology Inc.	Exhibitor	61
pro-beam additive GmbH	Exhibitor	32
Process Sensing Technologies (PST) Ntron Ltd	Exhibitor	54

Company	Participation Level	Booth
Product Evaluation Systems, Inc.	Gold Sponsor	65
ProfitKey	Platinum Sponsor	P6
Prototek	Platinum Sponsor	P16
Quintus Technologies	Exhibitor	22
Rapid Prototyping Services, LLC	Gold Sponsor	37
Rapidia Tech Inc	Exhibitor	130
Renaissance Services, Inc.	Exhibitor	66
Renishaw, Inc.	Platinum Sponsor	P4
RePliForm	Exhibitor	4
RP America	Platinum Sponsor	P15
Ruwac USA	Exhibitor	60
Sandvik Additive Manufacturing	Platinum Sponsor	P2
Sciaky, Inc.	Gold Sponsor	123
Senvol	Exhibitor	21
Skuld LLC	Exhibitor	143
SME	Diamond Sponsor	DIA-8
Solar Atmospheres	Exhibitor	44
Stratasys	Diamond Sponsor	DIA-6
Sugino Corp.	Exhibitor	93
TANIOBIS GmbH	Exhibitor	19
Tech Met, Inc	Exhibitor	30
Tekna	Platinum Sponsor	P7
TIGER Drylac U.S.A., Inc.	Exhibitor	91
TIGER-VAC INC.	Exhibitor	111
trinckle	Gold Sponsor	129
United Performance Metals	Gold Sponsor	45
University Of Dayton Research Institute	Exhibitor	3
UPTIVE	Exhibitor	139
VALIMET, Inc.	Exhibitor	136
Visitech Americas	Gold Sponsor	144
VJ Technologies, Inc.	Exhibitor	126
voxeljet America Inc.	Exhibitor	35
Waygate Technologies	Exhibitor	90
Wintech Digital Systems	Exhibitor	124
WENZEL America Ltd.	Exhibitor	62
Würth Additive Group	Diamond Sponsor	DIA-3
Xact Metal	Exhibitor	99
ZEISS Industrial Quality Solutions	Exhibitor	102

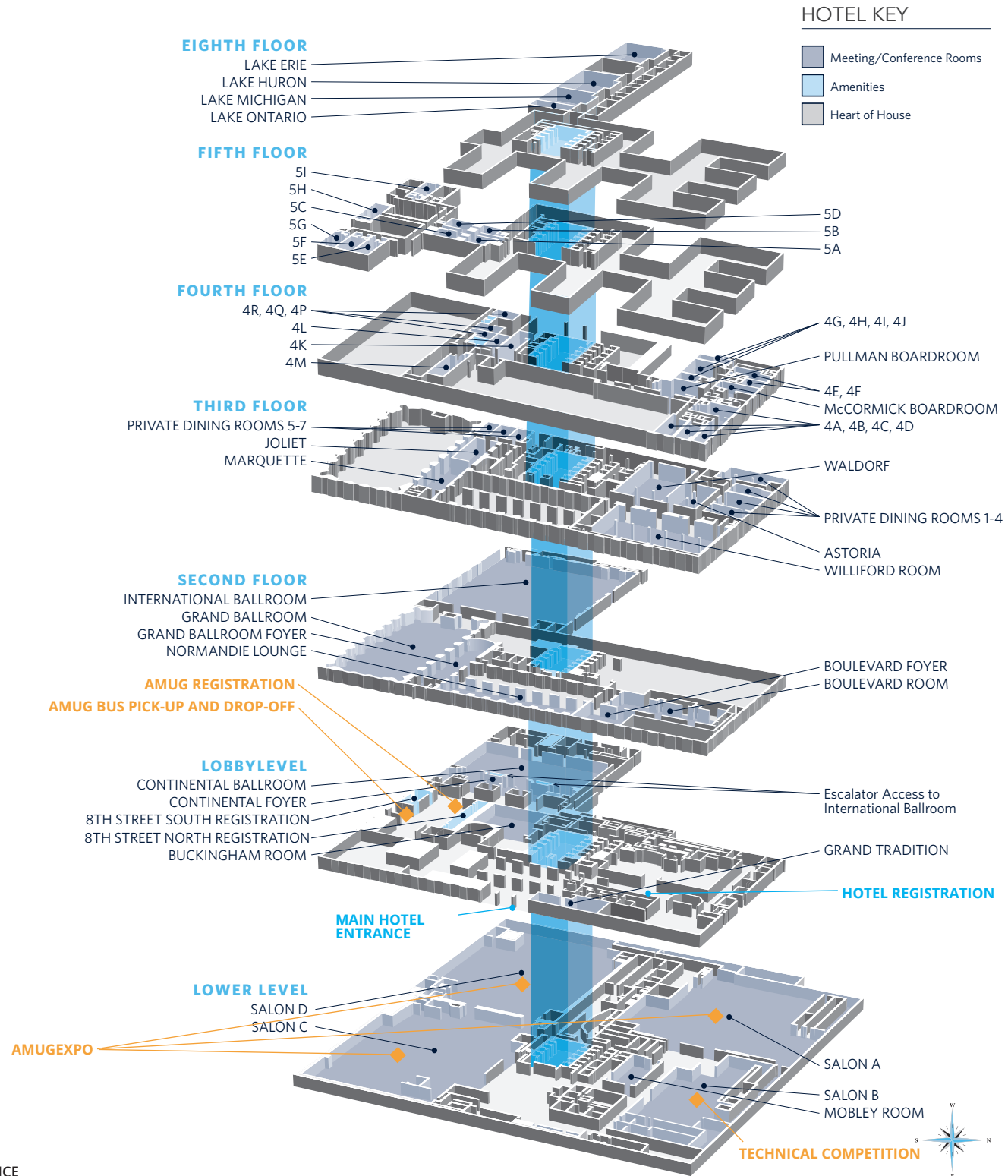


Floorplan Subject to change without notice



Hilton Chicago

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DINO Award

Distinguished INnovator Operator

The Distinguished INnovator Operator (DINO) Award recognizes individuals for both their contributions and years of service within the additive manufacturing industry and within the AMUG organization. Each year, following an open call for peer/self-nominations, the selection committee reviews all submissions as well as the list of conference registrants and selects DINO's based on factors such as:

- Contributions to the AM industry worldwide
- Contributions to AMUG (e.g., speaker, volunteer)
- Years of hands-on work with an AM technology
- Willingness to share and assist
- Skill level
- And other subjective factors

These criteria make the DINO Award very prestigious.

AMUG would like to acknowledge the following companies for their generous contributions to the fabrication of the AMUG DINO Awards:



Printing of SL DINO's



Plating of DINO's

PictureItOnThis.com



Printing of DINO Plates



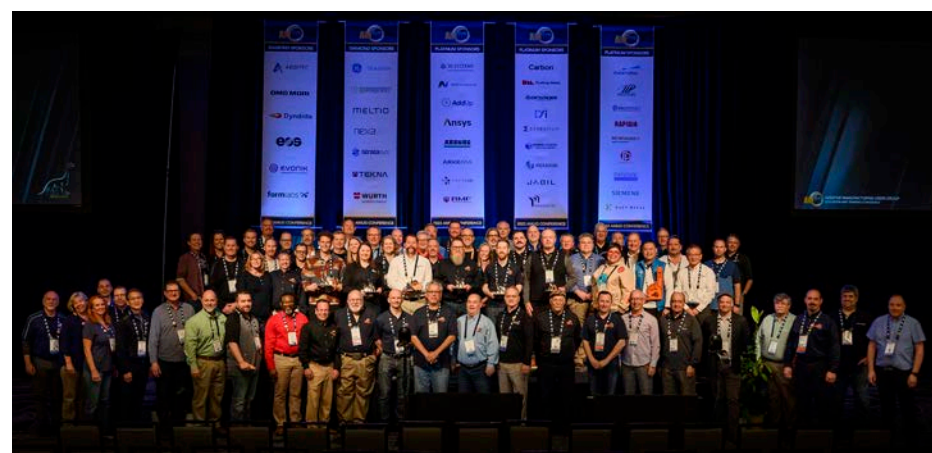
Printing of Metal DINO Pins

2023 Award Recipients



2023 DINO Award Winners

(Left to Right): Bogdan Filipkowski (Custom Prototypes Inc.), Matthew Mitchell (Yazaki North America), Dave Rittmeyer (Mathews International), Rob Hassold (Cimquest, Inc.), Colton Rooney (EMI Corp.), Danny Levy (Influit Energy), Heather Natal (GoEngineer), Tim Bell (MELD Manufacturing Corporation), Alex Roschli (Oak Ridge National Laboratory), and Roger Nielsen (In'Tech Industries).



25 Years of DINO Award Winners

For a complete list of all previous DINO recipients, visit <https://www.amug.com/dino/>



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Shannon VanDeren
*Layered Manufacturing
and Consulting*



VICE PRESIDENT
Ted Anderson
GE Aerospace



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GoEngineer



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**IMMEDIATE PAST
TREASURER**
Vince Anewenter
*Milwaukee School of
Engineering (MSOE)*

The AMUG organization has been building the user group since 1988. As a volunteer-based organization, the AMUG Board works with individuals globally to increase awareness and build a strong additive manufacturing community.

AMUG Awards and Recognitions

AMUG Awards and Recognitions

At AMUG, we consider ourselves very fortunate. There are many passionate AMUG members and industry associates that contribute to the success of this event. We would like to take a moment to say thank you to everyone that participated in the 2024 AMUG Education & Training Conference. We truly appreciate your continued support and dedication.

AMUG Awards

AMUG is a volunteer-based organization that recognizes an individual's contribution to the Users Group and the AM community.

Lifetime Achievement Award – AMUG Lifetime Achievement Award is presented to individuals with more than 20 years of service to AMUG and is at the discretion of the Executive Committee.

President's Award – President's Award is in recognition of exemplary vision, leadership, and tireless years of service for the advancement of the Additive Manufacturing Users Group and is at the President's discretion.

DINO (Distinguished INnovator Operator Award) – The DINO is presented to members with extraordinary AM expertise, and actively shares that knowledge, and contributes to AMUG members and the industry.

Innovators Showcase – This honor recognizes those that have had a significant impact on the additive manufacturing industry over an extended period of time.

Scholarship Awards – These awards honor the memory of two long-time and avid supporters of AMUG. The Guy E. Bourdeau Scholarship is for Students, and the Randy Stevens Scholarship is for Teachers/Professors.

Technical Competition Awards – Advanced Concepts, Advanced Finishing, and Members Choice Award are granted to AMUG members for their unique applications and finishing capabilities in additive manufacturing methods.

President's Award

"In recognition of exemplary vision, leadership, and tireless years of service for the advancement of the Additive Manufacturing Users Group."

**Service – Perseverance – Passion – Selflessness
Professionalism – Friendship**



Mark Wynn (Yazaki North America) presented with the President's Award by Mark Abshire during the 2023 AMUG Conference.

AMUG President's Award Recipients

2000	Thomas A. Sorovetz	2016	Mark Abshire
2006	Patti Brown	2019	Elizabeth Goode
2007	Guy E. Bourdeau	2021	Vince Anewenter
2010	Robert Zubrickie	2021	Terry Hoppe - posthumously
2013	Timothy Gornet	2023	Mark Wynn
2014	Gary Rabinovitz		

Lifetime Achievement Award

AMUG Lifetime Achievement Award is presented to individuals with more than 20 years of service to AMUG.

AMUG Lifetime achievement Award Recipients

2018	Thomas A. Sorovetz - 25 years of service
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The AMUG organization relies on the support of volunteers from the AM community for its success. Active participation in committees is one way to engage, learn, support, and contribute. Below are the committees and the current members that make them work. If you are interested in participating, complete the AMUG Volunteer form on the AMUG website now or before June 1st. The term for all committees will be one year starting July 1st.

AGENDA & PROGRAM

CHAIRPERSON: Ed Graham, *Prototek*
Members:

Patrick Gannon, *Ricoh, USA*
Ted Anderson, *GE Aerospace*
Todd Grimm, *T. A. Grimm & Associates*
Nate Schumacher, *Prototek*

COLLABORATION

CHAIRPERSON: Gary Rabinovitz, *Reebok*
Members:

Ed Graham, *Prototek*
Tom Sorovetz, *T.A. Sorovetz, LLC*

DINO SELECTION

CHAIRPERSON: Gary Rabinovitz, *Reebok*
Members:

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Andrew Graves, *Covestro*
Bob Markley, *ADDMAN Engineering*
Stefan Ritt, *AM/3-D Market Integration*
Todd Grimm, *T. A. Grimm & Associates*

EVENT & HOSPITALITY

CHAIRPERSON: Thomas Sorovetz,
T.A. Sorovetz, LLC

Members:
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EXECUTIVE

CHAIRPERSON: Shannon VanDeren,
Layered Manufacturing and Consulting

Members:
Heather Natal, *GoEngineer*
Robin Van Bragt, *Eagle Design & Technology*
Ted Anderson, *GE Aerospace*

EXPO (AMUGexpo)

CHAIRPERSON: Matthew Mitchell,
Yazaki North America

Members:
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Dan Welker, *Yazaki North America*
Jamie Cone, *BD*
Thomas Murphy

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Eagle Design & Technology

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Vince Anewenter, *MSOE*

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GoEngineer

Members:
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Shannon VanDeren, *Layered Manufacturing and Consulting*

INTERNATIONAL

CHAIRPERSON: Stefan Ritt,
AM/3-D Market Integration

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Andrew Graves, *Stratasys*
Daniel Landgraf, *Castor*
Dror Danai, *Xjet*
Johannes Gartner, *3Druck.com*
Ulf Lindhe, *ADAXIS*

MARKETING

CHAIRPERSON: Kim Killoran, *Stratasys*

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Danny Levy, *Influit Energy*
Joseph Workman, *Fabric8Labs*
Laura Santangelo, *Henkel*
Robert Lent, *Vision Miner*
Tuan TranPham

MEMBERSHIP

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UPM Additive Solutions

Members:
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Glen Drebes, *DTI Concepts*
Jacob Rindler, *ADDMAN/Castheon*

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CHAIRPERSON: Nick Licari, *GoEngineer*
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David Johnson, *HP*
Jason Lopes, *Gentle Giant Studios*
John Sorvillo, *Westwood Prep Academy*
Phil Abshire

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Members:

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James Harrison, *MELD Manufacturing*
Leslie Frost, *6K*

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Heather Natal, *GoEngineer*

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Leslie Frost, *6K*
Phil Abshire
Renee Bourdeau
Stevie Fealtman, *Xact Metal*

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Brent Griffith, *Labconco*
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Dylan Schickel, *TYC Americas*
Evan Kirby, *Materialise*
Ryan Kircher, *rms Company*

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Bob Renella, *GoEngineer*
Colton Rooney, *EMI*
Daniel Braley, *Boeing Global Services*
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