Additive Manufacturing Users Group Awards Two Scholarships

Alex Campbell and Phil Rufe to be recognized at the 2024 AMUG Conference.

AMUG has awarded scholarships to Alex Campbell (left), an aerospace engineering student at Ohio State University, and Phil Rufe, Assistant Professor in the School of Engineering at Eastern Michigan University.

ZEELAND, MICHIGAN, USA, February 8, 2024 /EINPresswire.com/ -- The Additive Manufacturing Users Group (AMUG) today announced the recipients of its scholarships. Alex Campbell, a fourth-year aerospace engineering student at Ohio State University, has been awarded the Guy E. Bourdeau Scholarship for students in additive manufacturing. Phil Rufe, an Assistant Professor in the School of Engineering at Eastern Michigan University, has been selected for the Randy Stevens Scholarship for educators in additive manufacturing.

As scholarship recipients, Campbell and Rufe will attend the AMUG Conference, where they will engage with additive manufacturing users. They will take the stage to present their work on Tuesday, March 12, 2024. The AMUG Conference will be held in Chicago, Illinois, from March 10-14, 2024.

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>
> *Rajeev Kulkarni*

The scholarships recognize students and educators who demonstrate a passion and vision for additive manufacturing to advance education and industry. Rajeev Kulkarni, Chair of the AMUG Scholarship Committee, expressed, "The recipients of the scholarships embody a deep-seated enthusiasm for additive manufacturing that originated many years ago and has endured over time.

Additionally, the committee acknowledged their aspirations to challenge and improve established practices, accompanied by proactive efforts to transform these into reality. Through their mentorship initiatives, they inspire others to contribute to global change."

Kulkarni added, "The heightened caliber of the submissions also left a strong impression on the scholarship committee. As each year passes, selecting the most outstanding scholarship recipients becomes progressively challenging, reflecting the remarkable advancements within the additive manufacturing industry."

Alex Campbell's additive manufacturing journey began in middle school with a MakerBot printer. That exposure ignited his fascination and is central to his academic and professional pursuits. Campbell said, "What began as a hobby has evolved into a cornerstone of my skill set, making additive manufacturing an integral aspect of my professional identity."

Campbell is pursuing an aerospace engineering degree at Ohio State University (OSU) with the goal of entering the aerospace industry to make significant contributions, either by manufacturing rocket engines or applying intelligent design to next-gen propulsion systems. In particular, he cited using additive manufacturing for combustion chambers and injectors. He said, "I find this interesting because it not only allows for increasingly complex regenerative cooling setups but also allows for the use of unique, often hard-to-machine materials, such as niobium C-103."

In a letter of support, Cameron Gygi, Additive Manufacturing Research Specialist - Lead Engineer for OSU's Center for Design and Manufacturing Excellence (CDME), said, "Alex has consistently showcased his dedication, proficiency, and problem-solving acumen. Alex stands out for his self-starting ability and eagerness to tackle and solve complex problems. His leadership is evident not only in his work ethic but also in his mentorship of his peers."

In OSU's CDME, Campbell is an undergraduate research assistant in the metal AM lab and is well-versed in various technologies, including LPBF, EBM, SLA, and FDM. He said, "My role involves not only running four metal AM machines but also training fellow students in this cutting-edge technology." Campbell is also the project manager of OSU's liquid engine project in the Buckeye Space Launch Initiative.

Having recently completed an internship at Castheon (an ADDMAN Group Company), Campbell was immersed in metal additive manufacturing. In his time at the company, he developed validation and verification processes, helped facilitate the installation of an SLM 280 HL, learned the additive production process, and worked with niobium C-103.

Professor Phil Rufe teaches in the School of Engineering at Eastern Michigan University (EMU) using his extensive manufacturing background. He is a Certified Manufacturing Engineer (CMfgE) with degrees in mechanical engineering, manufacturing and education.

At EMU, his courses are in manufacturing processes, industrial operations, CAD, mechanics, GD&T, lean manufacturing, intellectual property, design for manufacturing and assembly (DFMA), and additive manufacturing. Rufe also manages EMU's 3D Printing/AM Lab.

Dr. Vijay Mannari, Interim Director of the School of Engineering at Eastern Michigan University, said, "Professor Rufe has provided strong leadership in promoting and integrating 3D printing/additive manufacturing within the School of Engineering at EMU." Mannari continued, "Professor Rufe has been instrumental in implementing 3D printing/additive manufacturing." He noted that additive manufacturing is one of the strongest technology areas in the School of Engineering.

In the courses Rufe teaches, and even for those he does not, he makes additive manufacturing accessible while providing guidance on the processes, advantages, disadvantages, and considerations. The insights he offers range from preparing files for 3D printing to understanding the cost, time and quality considerations when evaluating additive manufacturing as an alternative to other manufacturing processes.

Mannari said, "Professor Rufe has integrated 3D printing, in some form, into many of our engineering and engineering technology majors and classes. Additionally, he has initiated and maintained strong industrial partnerships resulting in industry-relevant education and equipment for our engineering students."

Rufe said, "Based on my research, AM [additive manufacturing] is a tool with a wide variety of applications and a diverse audience. While a dedicated 3D printing class is good, it alone does not meet the needs of a diverse set of applications or audiences. Shifting paradigms and providing AM education to students outside of the traditional dedicated-course model is a challenge."

Complementing Rufe's university contributions, he is also active in technology transfer, teaches industrial seminars and serves on advisory boards for local schools.

The Guy E. Bourdeau Scholarship—founded by Guy's wife, Renee Bourdeau, and financially supported by Cimquest, Inc. since 2019—is awarded annually to one college student. The Randy Stevens Scholarship—founded and financially supported by Randy's former employer, In'Tech Industries—is awarded annually to one educator focusing on additive manufacturing.

ABOUT ADDITIVE MANUFACTURING USERS GROUP (AMUG)

The Additive Manufacturing Users Group (AMUG), a 501(c)(6) nonprofit corporation, is a catalyst for its community of members to drive additive manufacturing forward. We are committed to educating and advancing AM applications for industrial purposes. Our annual gatherings provide a platform for in-depth technical presentations, workshops, and hands-on experiences, focusing on processes, technologies, and real-world applications. Join us at www.amug.com to be part of the innovation shaping the future of manufacturing.

Todd Grimm

AMUG
+1 859-331-5340
email us here