

PADT Teams Up with ASU's Manufacturing, Automation, and Data Engineering Science and Technology Center on Two Manufacturing Research Projects



Supported by the New Economy Initiative, PADT, and MADE STC are Working Together on Projects Centered Around 3D Printing and AI-Based Manufacturability

TEMPE, Ariz. - **June 8, 2023** - <u>PRLog</u> -- <u>PADT</u>, a globally recognized provider of numerical simulation, product development, and 3D printing products and services, announced that it has teamed up with ASU's Manufacturing, Automation, and Data Engineering (MADE) Science and Technology Center (STC) on two projects focused on recycled materials for additive manufacturing and using AI-based tools to predict manufacturability. MADE STC is supported by Arizona's New Economy Initiative, an investment in ASU's assignment to drive the state's future economic growth and resiliency through engineering and technology innovation and training. PADT was brought on to the projects due to its expertise in 3D printing and product design and development, as well as its work across industries to accelerate 3D printing's potential.

"STC projects are critical to advancing the additive manufacturing space, especially as it relates to commercializing its application and creating impactful solutions across sectors," said Rey Chu, co-founder, and principal, PADT. "We're proud to join ASU MADE, with the support of the New Economy Initiative, in discovering what we can accomplish in the world of 3D Printing."

The first project is focused on the development of new technologies to recycle and upcycle unused materials to optimize additive manufacturing processes. The second is aimed at creating AI-based software capabilities that will predict the manufacturability of a new product design. The scope of both projects was determined by Chu, who also serves as the project manager for the two projects. He and his team of two other PADT engineers were paired with ASU faculty, enabling a collaborative space for ideas to transform into concepts that can eventually be commercialized.

"ASU has worked with PADT on a wide range of projects related to the advancement of additive manufacturing, and we're excited to be paired up for two more ambitious projects," said Keng Hsu,

associate professor, ASU School of Manufacturing Systems and Networks. "With each of these new research tasks, we're looking at ways that additive manufacturing and software can make a significant impact on sustainability, quality control, and efficiency in advanced manufacturing."

The first project will take place over 12 months and is aimed at the aerospace industry. Its goal is to develop technology that can turn unused materials into useful feedstock for other operations like conventional MIG welding and directed energy deposition, or DED, metal additive manufacturing technology.

The second project, led by Andi Wang and Hyungwoong Ko, assistant professors in the School of Manufacturing Systems and Networks, will take place over the course of 18 months and utilize AI-based software capabilities to establish an analysis process that automatically determines a product design's likelihood of success, or manufacturability before the manufacturing process starts. PADT's role will be as the "additive manufacturing advisor" and will help to reduce cost and waste caused by trial and error.

To learn more about the joint project, check out ASU's blog at https://fullcircle.asu.edu/fulton-schools/stimulating-manufacturing-innovation-in-asus-made-science-and-te-chnology-center/. ASU and PADT also developed a video outlining the importance of the New Economy Initiative, which can be viewed https://eulcircle.asu.edu/fulton-schools/stimulating-manufacturing-innovation-in-asus-made-science-and-te-chnology-center/. ASU and PADT also developed a video outlining the importance of the New Economy Initiative, which can be viewed https://example.gov/here-new-manufacturing-innovation-in-asus-made-science-and-te-chnology-center/.

PADT has been the leading provider of <u>3D Printing services</u> in Arizona since they leased their first machine, a 3D Systems SLA250 in 1994. PADT co-founder Rey Chu is recognized as one of the world's foremost experts on the practical application of additive manufacturing technology. In 2022, PADT continued in its leadership role, delivering over 16,190 individual parts to 199 customers.

About PADT, Inc

Phoenix Analysis and Design Technologies, Inc. (PADT) is an engineering product and services company that focuses on helping customers who develop physical products by providing Numerical Simulation, Product Development, and 3D Printing solutions. PADT's worldwide reputation for technical excellence and experienced staff is based on its proven record of building long-term win-win partnerships with vendors and customers. Since its establishment in 1994, companies have relied on PADT because "We Make Innovation Work." PADT is proud to be an Ansys Elite Channel Partner, Stratasys Diamond Partner as well as a value-added reseller for EOS, Flownex, and ZEISS solutions. With over 80 employees, PADT services customers from its headquarters at the Arizona State University Research Park in Tempe, Arizona, and from offices in Torrance, California, Littleton, Colorado, and Albuquerque, New Mexico, as well as through staff members located around the country. More information on PADT can be found at www.PADTINC.com.

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