



Embracing the Future: Lean 4.0 Strategies for Digital Transformation in Manufacturing

An ADAMC Success Story

The Workshop

The second workshop of the Lean 4.0 Series, hosted at the Advanced Manufacturing Innovation and Integration Center (AMIIC), brought together industry professionals to explore the integration of traditional Lean manufacturing with cutting-edge Industry 4.0 technologies. The workshop provided a comprehensive look at how digital tools such as 3D scanning, VR training, and data-driven decision-making can enhance operational efficiency, streamline processes, and enable companies to remain competitive in the rapidly evolving industrial landscape.



Shaping the Future of Manufacturing

Lean Meets Industry 4.0:

The combination of Lean methodologies and Industry 4.0 technologies creates opportunities for greater operational efficiency and adaptability. This marriage emphasizes continuous improvement and the integration of digital tools like automation, IoT, and real-time data to accelerate the optimization of manufacturing processes.

Technology as an Enabler:

The UAH team shared a way to expand upon the proven Value Stream Mapping process to visualize opportunities for Industry 4.0 technologies that accelerate the elimination of waste and improve flow. Breakout sessions in the workshop provided participants with the opportunity to practice what they are learning prior to heading back to their own organizations.

Adaptability and Innovation:

The workshop reinforced the importance of flexibility in manufacturing processes, with Industry 4.0 tools enabling businesses to respond to market demands and internal challenges with speed and precision. This adaptability is critical in maintaining competitiveness in today's industrial landscape.



“The continued reinforcement and utilization of Industry 4.0 was both impactful and well-structured. The content was perfectly tailored to fit within the time frame, making the learning experience seamless and effective.”

VR Training by I3:

I3 presented a prototype virtual reality (VR) training module focused on Geometric Dimensioning and Tolerancing (GD&T), which provides immersive and standardized training for manufacturing personnel. The VR platform helps bridge the knowledge gap between experienced workers and new hires by offering consistent, high-quality training.



“This program was a real eye-opener, showing the mindset shifts needed for the future.”

3D Scanning by Hexagon:

Hexagon showcased the capabilities of their 3D scanning technologies, including both fixed-arm and mobile scanners. These tools enable manufacturers to compare physical products against digital designs, ensuring precision and quality control. The demonstrations illustrated how 3D scanning can enhance accuracy in production, reduce errors, and support built-in quality initiatives.

The Value

The Lean 4.0 Series Workshop 2 provided participants with valuable insights into how digital transformation can serve as a catalyst for enhancing Lean practices. Attendees learned how blending data-driven automation with traditional Lean principles enables manufacturers to achieve new levels of efficiency, flexibility, and innovation. The workshop emphasized the critical role Industry 4.0 technologies play in supporting Lean objectives, such as improving operational efficiency, reducing waste, and boosting workforce productivity.

Learn More about ADAMC at www.ADAMC.Tech