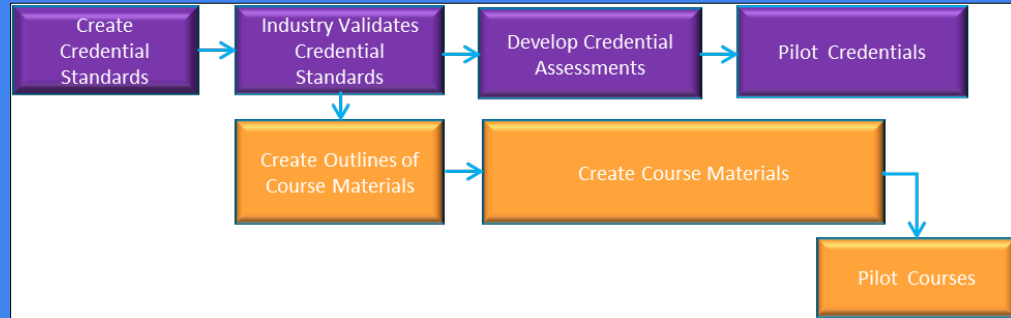


## PROJECT CASE STUDY

# Modular Smart Manufacturing Certifications



### PROJECT LEAD

Smart Automation Certification Alliance (SACA)

### PROJECT TEAM

Amatrol

### PROJECT OBJECTIVE

Create micro-credentials and modularized hands-on curricula for smart manufacturing energy efficiency skills and small-medium business needs, which builds on an existing foundation of smart manufacturing SACA micro-credentials and curricula.

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# Smart Automation Certification Alliance Develops Smart Manufacturing Certifications

### BENEFITS TO OUR NATION

Smart manufacturing certifications will help standardize advanced manufacturing practices, ensuring that companies adopt cutting-edge technologies and efficient processes. These certifications will promote the development of a skilled workforce, capable of handling automation, data analytics, and digital tools that are essential in modern manufacturing. As a result, the U.S. can increase productivity, reduce costs, and boost its competitiveness in global markets. Additionally, these certifications provide career and educational pathways that start with high school career technical education programs and earn credits towards various two-year and four-year manufacturing technical degrees.

### BENEFITS TO INDUSTRY

Smart manufacturing certifications will benefit industry by setting a clear standard for the adoption of advanced technologies and best practices. These certifications help ensure that companies are implementing efficient, automated, and data-driven processes, leading to increased productivity, reduced operational costs, and improved product quality. By certifying workers capable of managing complex systems, industries will have access to a large, trained workforce that will enable it to stay competitive in an evolving global market.

# PROJECT DESCRIPTION

## TECHNICAL APPROACH

- Develop new SACA standards for short-term credential standards in partnership with industry using an ISO credential development process
- Develop new SACA online/ hands-on credential assessments using industry experts/advisors
- Develop curricula aligned with new credentials using standardized development process
- Develop hands-on procedures to align with IIoT kit being developed under a separate RFP

## ACCOMPLISHMENTS

- Developed New Micro-Credential Standards and Piloted New Micro-Credential Exams covering:
  - Smart Manufacturing Fundamentals
  - Smart Manufacturing Data Acquisition
  - Smart Manufacturing Visualization & Data Analytics
  - Smart Manufacturing Data Transmission & Cyber Security
- Developed Smart Manufacturing Online Course Curricula

## DELIVERABLES

- Delivered Standards and online assessments for 4 new credentials:
  - Smart Manufacturing Fundamentals
  - Smart Manufacturing Visualization 1
  - Smart Manufacturing Production Systems 1
  - Smart Manufacturing Cyber Security 1
- Delivered online lessons, instructor and study guides aligned with new credentials
- Delivered hands-on skill procedure manual for IIoT kit.
- Delivered pre and post curriculum assessments

## REUSABLE OUTCOMES / SM MARKETPLACE

- Smart Manufacturing Credentials Standards
- Smart Manufacturing Course Online Assessments
- Smart Manufacturing Course Curricula
- Smart Manufacturing Course Lessons, Instructor Guides & Study Guides

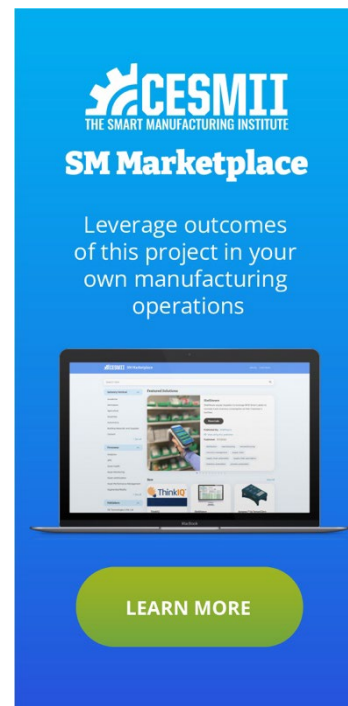
# RESULTS

## 4 Micro-credentials

Developed and delivered 4 new Smart Manufacturing micro-credential standards, assessments and curricula.

## 26+ Course Modules

Developed and delivered over 26 Smart Manufacturing short courses under new credentials standards.



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## PROJECT DETAIL

Budget Period: BP5  
Submission Date: 07/09/2024  
Sub-Award (contract) Number:  
4550 G LA061  
SOPO: 2353

## FOR MORE INFORMATION CONTACT

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