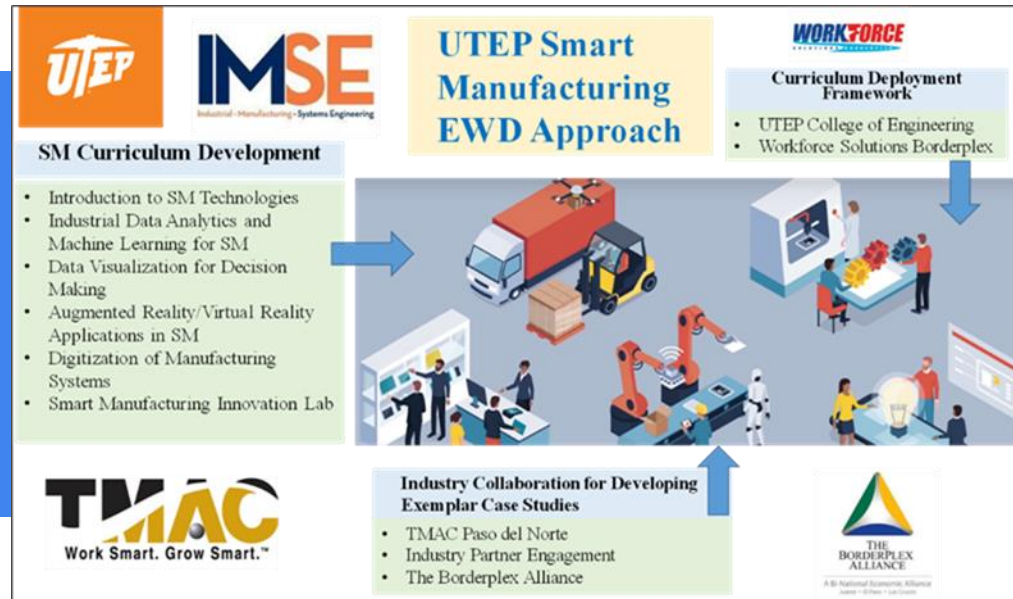


PROJECT CASE STUDY
Smart Manufacturing
for Small
Manufacturers in a
Predominantly
Hispanic Workforce
Region



PROJECT LEAD

University of Texas – El Paso

PROJECT TEAM

Texas Manufacturing Assistance
Center

PROJECT OBJECTIVE

The project objective is to create a curriculum and certificate program to promote Smart Manufacturing concepts in an underserved region, including undergraduate, graduate students, and incumbent workers.

[MORE ON CESMII.ORG](https://www.cesmii.org)

UTEP Establishes Smart Manufacturing Certification for an Underserved Workforce

BENEFITS TO OUR NATION

Implementing a Smart Manufacturing Certification program in a predominantly underserved Hispanic workforce region will bolster American industry by fostering inclusivity. Equipping the regional workforce with smart manufacturing skills creates pathways to high-demand, well-paying jobs, reducing unemployment and boosting economic resilience. The program will empower individuals and families, opening doors to career opportunities that can significantly improve their quality of life. A more diverse and skilled manufacturing workforce enhances industry competitiveness, innovation, and adaptability, contributing to the overall strength and competitiveness of American manufacturing.

BENEFITS TO INDUSTRY

Establishing a Smart Manufacturing Certification program in a predominantly underserved Hispanic workforce region holds tremendous potential benefits for the American manufacturers. This initiative will bridge the skills gap by creating a pool of well-trained workers who are proficient in smart manufacturing technologies. A diverse and inclusive workforce brings fresh perspectives and innovative solutions, contributing to the industry's long-term growth and competitiveness. Ultimately, empowering underserved communities with smart manufacturing certifications not only enriches individual lives but also strengthens the entire manufacturing landscape, ensuring a more robust and prosperous future for American industry.

PROJECT DESCRIPTION

TECHNICAL APPROACH

UTEP will provide the resources needed to advance Smart Manufacturing capabilities in an underserved Hispanic demographic through effective delivery of industry-relevant Smart Manufacturing best practices, capabilities, and programs.

ACCOMPLISHMENTS

- Developed 5 Smart Manufacturing course modules aligned with CESMII guidelines
- Completed research on Smart Manufacturing specific use cases:
 - Smart automation for manufacturing assembly
 - Digitization advantages in additive manufacturing
- Developed a graduate certificate in Smart Manufacturing. Certificate was approved by the UTEP Graduate Council.
- Delivered 5 Smart Manufacturing Webinars
- Conducted 2 Smart Manufacturing workshops
- Convened a regional Smart Manufacturing focused Summit

DELIVERABLES

- Delivered Complete 5 Course Smart Manufacturing Certificate Curriculum
- Engaged with 19 Small and Medium-Sized Manufacturers on Smart Manufacturing Certification

REUSABLE OUTCOMES

- 5 Course Smart Manufacturing Certificate Curriculum

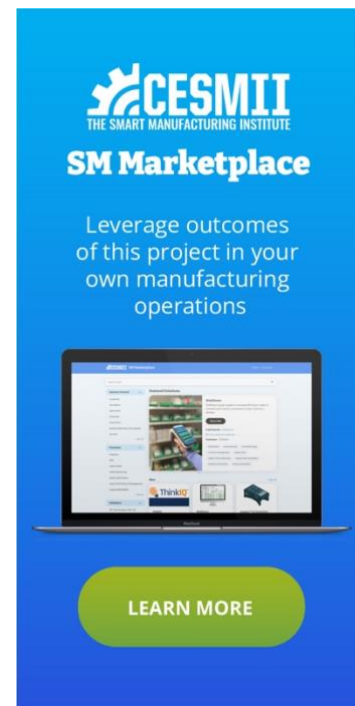
RESULTS

5

Developed 5 Smart Manufacturing curriculum course modules.

19

Engaged with 19 Small and Medium-Sized Manufacturers on Smart Manufacturing Certification.



CESMII
THE SMART MANUFACTURING INSTITUTE

SM Marketplace

Leverage outcomes of this project in your own manufacturing operations

[LEARN MORE](#)

PROJECT DETAIL

Budget Period: BP4 – BP5
Submission Date: 7/8/2022
Sub-Award (contract) Number:
4550 G WA222
SOPO: 2322

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