CESMII RFP Project Selection - May 2018

Regional Manufacturing Center (RMC)	Project Lead Organizatio	Location	Project Title	Description
Northern	University of Connecticut	Storrs, CT	Energy Management Systems for Subtractive and Additive Precision Manufacturing	This project aims to develop and demonstrate tangible benefits of Smart Manufacturing approaches applicable to subtractive and additive precision manufacturing. Coordinated utilization of systems engineering, modeling, advanced controls, data analytics and secure communication protocols for energy efficiency improvement in the precision machining and hybrid manufacturing of metals/alloys.
Northern	Penn State University	New Kensington, PA	Factory 4.0 Educational Toolkit	The proposed idea is to build a small scale process simulator, with both machinery and software components that mimics aspects of a smart manufacturing system for educational purposes. : developing the communication and data storage architecture, developing the optimization/ machine learning algorithms and models, and developing the educational modules and interfaces.
Northern	ArcelorMittal	Chicago, IN	Production of zero-defect (ZD) slabs through the implementation of Smart Manufacturing technologies in steel continuous casting	The main objective of the project is to improve steel slab quality and productivity of the continuous casting process by adopting SM methodologies and technologies, and thereby reduce the overall energy intensity of the existing steelmaking and casting operations.
Southern	Texas A&M Experimental Station	College Station, TX	Smart Manufacturing for Chemical Processing Energy Efficient Operation of Air Separation Unit	The aim of this project is to develop Smart Manufacturing (SM) Platform-ready tools for the reliable, profitable and energy efficient operation of a cryogenic air separation unit, rigorously test these tools in cyber-physical environment and validate them to efficiently operate in a commercial air separation plant.
Southern	University of Louisville	Louisville, KY	Energy-Efficient Cement Manufacturing	The project intends to incorporate modern monitoring, simulation and control systems that will allow lower energy use in the Cement making process. Because energy (fuel) costs are a significant portion of the cost of the cement production, lowering firing temperatures and times will reduce cost and environmental impacts making this industry more viable through adoption of Smart Manufacturing technologies and processes.
Southern	Virginia Polytechnic Institute and University	Blacksburg, VA	Energy-Efficient Material Processing through Automated Process Monitoring and Controls	The overall project goal is to will develop optimization strategies to improve recovery (ratio of product output over incoming raw material) and quality (reworkelimination), which are anticipated to substantially reduce energy requirements, waste and environmental impact. The testbed will be implemented at a facility of Arconic Inc, which specializes in lightweight metals engineering and manufacturing with Thermal-Mechanical Processing path.
Western	Honeywell	Plymouth, MN	Data Analytics - Machine Learning and Data-Centric Analytics	This project will develop technologies on data modeling, machine learning and data-centric analytics for smart Aerospace additive manufacturing. It will implement these innovations using data from working Aerospace manufacturing facilities.
Western	El Camino Community College	Hawthorne, CA	Smart Manufacturing Workforce Development Model Program	Project goal is to develop and imbed an SM workforce model that leverages existing education and workforce training systems in California.This program is designed so that any curriculum, training component, or business development tool can be easily adopted and customized by organizations nation-wide.
Western	University of California Irvine	Irvine, CA	Smart Connected Workers in Advanced Manufacturing	The Project Goal of this proposed Smart Connected Workers program is to create affordable, scalable, accessible, and portable smart manufacturing systems (A.S.A.P. SM systems) through which advances in Internet of Things (IoT) technologies can be effectively integrated into mobile sensor platforms to augment the intelligence of workers and supervisors with smart manufacturing principles and methods.
Western	THINKIQ	Aliso Viejo, CA	Inferential Modeling for Driving Out Energy Waste	The goal of this project is ultimately to drive out wasted energy in manufacturing facilities through improved information technology. This project will apply new data modeling and analytics technology to significantly reduce the cost and time to implement an effective energy optimization solution.