MSI STEM Research & Development CONSORTIUM

MSRDC FMSG Letter of Intent

Proposal Title: FMSG: Developing Cyber Future Manufacturing Involving Nontraditional Researchers Through MSI STEM Research & Development Consortium (MSRDC)

Goals: Expanding participation of underrepresented minority researchers in future manufacturing is a critical goal for NSF and the nation as a whole. MSI STEM Research & Development Consortium (MSRDC) plays a key role in achieving this goal by supporting and stimulating research and technology development at Historically Black Colleges and Universities (HBCU) and Minority Serving Institutions (MSI). MSRDC creates a platform that cultivates relationships, develops business strategies, and creates solution teams that are aligned with agency priorities.

MSRDC works with academic institutions to increase funding revenue, diversify research portfolios, provide students with a quality education/experience, and provide postdocs and fellows with opportunities to expand their research expertise. We also work with industry partners, including small/medium sized business enterprises (SMBE), to increase access to federal funding opportunities. Finally, MSRDC works with federal agencies to align their technical needs with novel and innovative solutions towards the end goal of increasing equity of federal funding to nontraditional performers.

This proposed seed grant project would support the development of future cyber manufacturing projects through engaging MSRDC researchers in an exploratory initiative to develop convergence translational projects. While focusing on cyber manufacturing, projects potentially combine bio, cyber and eco manufacturing. To date, researchers at various MSRDC member institutions have completed independent projects that include pieces of a future cyber manufacturing initiatives. Through bringing together researchers, businesses and government, the project would foster the convergence teams and initial development phases for projects. Goals include:

- Bring together researchers, businesses, and government agencies that have been working on elements of future cyber manufacturing to develop teams and project ideas.
- Cultivate researchers employed by minority serving universities with tools to effectively develop large scale, convergence future manufacturing projects through training in the administrative, business, and partnership development skills needed to develop and run large scale convergence research enterprise.
- Support project teams as they explore project development through initial research and translation to production activities.