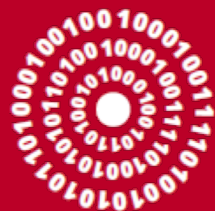




Carnegie Mellon University



**Manufacturing
Futures
Initiative**

The Digital Transformation of Manufacturing

Enabled by a grant from the R.K. Mellon Foundation

MFI Request for Proposals (RFP) Information Session



Agenda

- Introductions (5 min – 3:00-3:05 pm)
- 2019 MFI RFP Overview (10 min – 3:05–3:15 pm)
- Q&A (45 min – 3:15-4:00 pm)

April 17, 2019

MFI Leadership



Gary Fedder

Faculty Director, MFI

Howard M. Wilkoff Professor,
Electrical and Computer
Engineering

Courtesy Faculty in Biomedical
Engineering, Mechanical
Engineering and The Robotics
Institute



Sandra DeVincent Wolf

Executive Director, MFI

Executive Director,
NextManufacturing Center

Director of Research
Partnerships, College of
Engineering

Manufacturing Futures Forum

Monday April 29

8:30 am – 6:00 pm

President's welcome

Keynote – Ray Betler, Wabtec

Three panels: Additive Manufacturing, AI & Robotics, Workforce for Manufacturing

Reception and Research Showcase

Sunday April 28

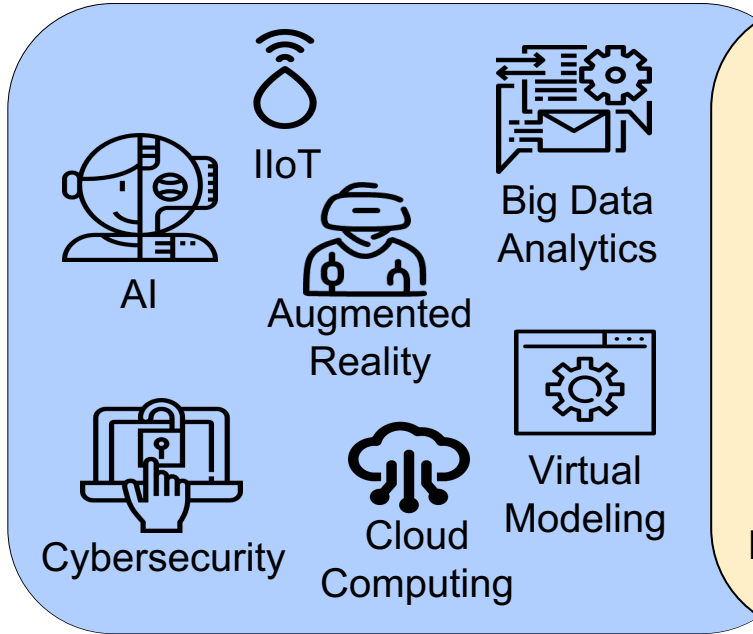
4 pm – 6:30 pm Tour and reception at Mill19

Please contact Kelly McQuoid if interested in attending!

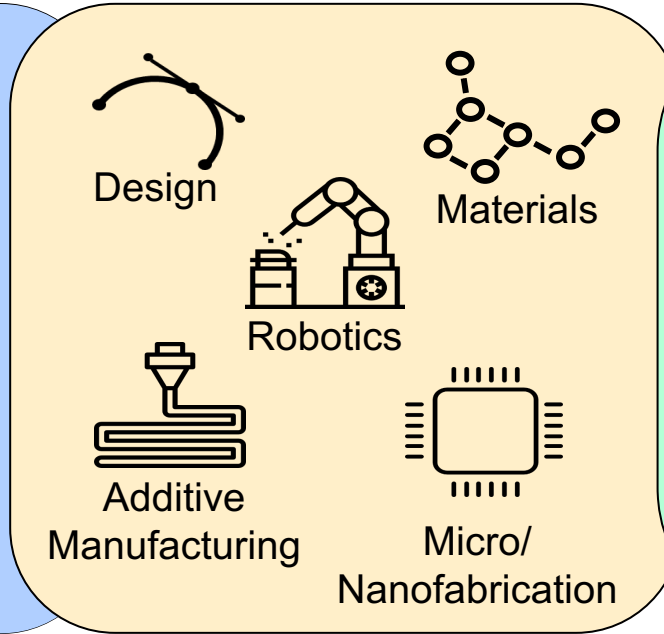


MFI - Catalyzing the convergence of R&D in manufacturing technologies, machine intelligence and human values

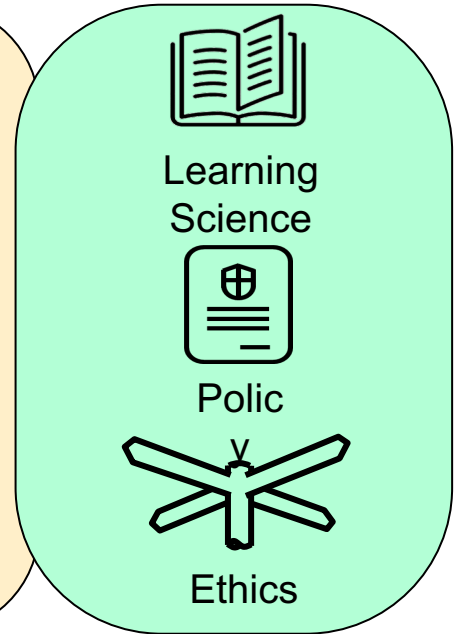
Machine Intelligence



Manufacturing Technologies



Human Intelligence



MFI Goals

- Sustain academic leadership and excellence
 - *Thought leadership in the future of manufacturing*
 - *Generate high impact research results with national visibility*
- Blaze paths to attract substantial new federal funding
 - *Nurture convergent research teams and foster new thrusts*
 - *Raise awareness of expertise and opportunities*
- Scale and broaden our impact
 - *Expand hands-on partnerships with industry and workforce development organizations*
 - *Scale R&D at the new Mill19 advanced manufacturing facility*
 - *Accelerate translation of R&D to energize regional activity*

MFI RFP - Program Details

MFI plans to fund up to 10 projects with a combined budget of up to \$2.0M for 1 year **Proposals due Friday, June 7, 2019**

Proposal evaluation criteria:

- Innovative objective that integrates multiple MFI thrust areas and indication of expected outcomes
- Teaming across different disciplines (cross-college and/or interdepartmental)
- Quality and fit of the expertise of the team to the project
- Prospects of winning subsequent externally sponsored awards from the federal government, industry or elsewhere
- Regional impact (e.g. as measured in terms of connectivity to regional industry and/or potential for startup generation)
- Potential to impact future activities at the Mill 19 at Hazelwood Green facilities
- Budget reasonableness (e.g. can the proposed work and outcomes be accomplished within the budget?)

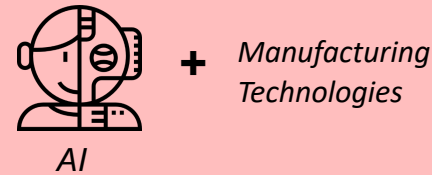
Any proposal that fits the MFI mission is encouraged and welcomed.

MFI RFP – Examples of Convergence of Disciplines

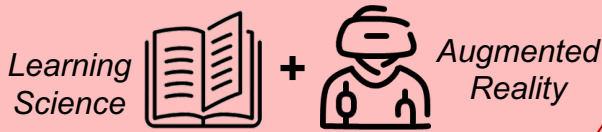
Robotics to advance additive manufacturing integration in production environments



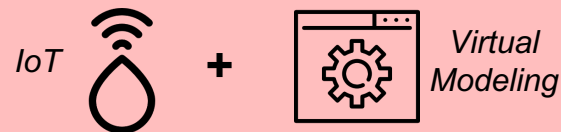
Artificial intelligence and machine learning applied to advanced manufacturing



Science of learning, augmented reality, and other areas accelerating workforce skill development



Internet-of-things-informed virtual modeling of advanced manufacturing workcells and/or workflows



MFI RFP - Application Overview

- Brief Proposal
 - *3 pages, 1 inch margins, 11 pt Times New Roman font, single spaced, 4th page for Budget*
- Follow Proposal Template – blank Proposal template was provided
 - *Sections: Project Summary, Expected Outcomes, Impact, Leverage, Mill 19 at Hazelwood Green, & Expertise*
- Use the Budget Template – blank template was provided
- Application must be submitted via MFI website using the jotform. Proposals due Friday, June 7, 2019
- Awards are expected to be announced Friday July 19, 2019

Note: Proposals for a next phase of existing MFI-funded projects must place the project narrative in the context of the current project effort, distinguishing between the current effort and the proposed new effort.

Proposal Development

- Nine weeks allocated for proposal formation
 - *April 5 – June 7*
- No “black out” period: We are here to help with partnering and connectivity
 - *Internal teaming*
 - *Industry connectivity*
 - *Ideas related to Mill19*

Mill19 @ Hazelwood Green

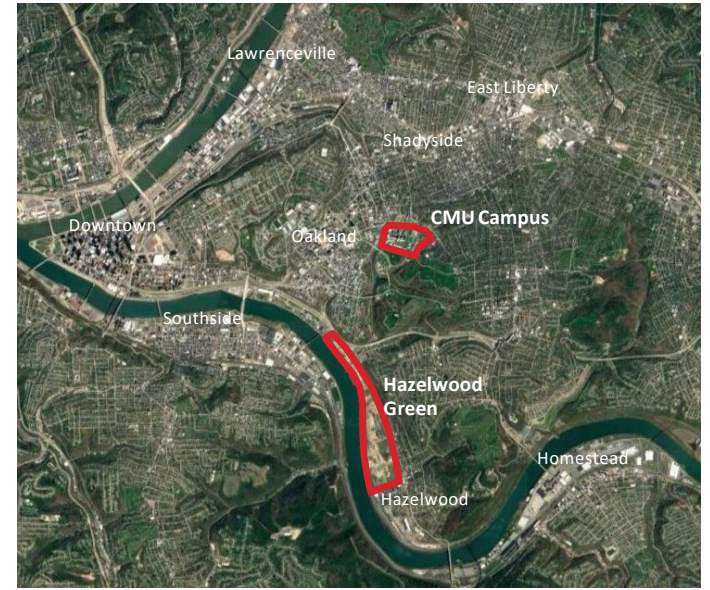
Revolutionizing manufacturing with a unique and powerful innovation ecosystem

Open June 2019

58,000 sf facility

Co-location:

- Carnegie Mellon
- ARM Institute
- Catalyst Connection (MEP)
- Embedded industry partners



Mill19 Advanced Manufacturing Facility

- Execute ARM & industry sponsored projects
- Collaborate on federally sponsored R&D
- De-risk technology through maturation
- Integrate and transfer technologies with partners
- Consign equipment for shared workcells
- Embed personnel on site
- Develop and execute workforce training
- Recruit students
- Leverage infrastructure and personnel





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Thank you!

Questions?