BARRIERS AND SOLUTIONS FOR SMALL AND MEDIUM SIZED MANUFACTURERS' COLLABORATIVE ROBOT ADOPTION
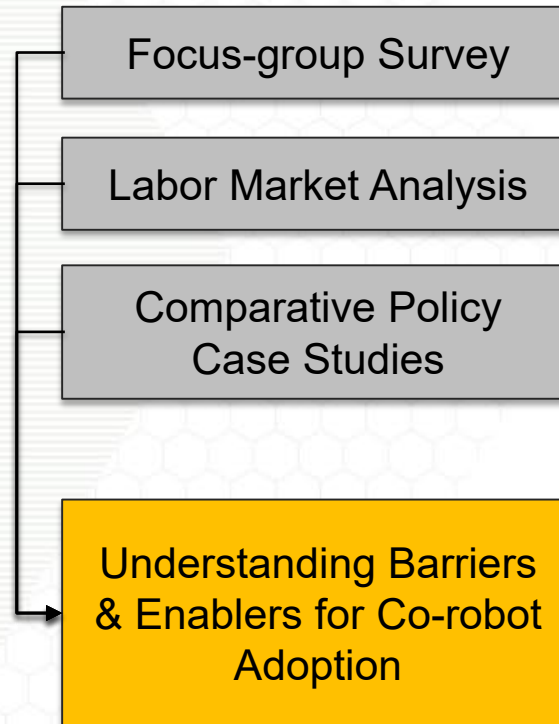
Georgia Tech

Award Number: 2024706 | Award Date: September 1, 2020 | PI: Nancey Green Leigh, Georgia Institute of Technology

Challenge

- Slow diffusion of co-robot technology
- Innovation challenges for small and medium-size manufacturers (SMMs)
- Lacking systematic understanding of barriers to co-robot adoption

Solution

- Identifying the barrier structure through Delphi survey technique & Interpretive Structural Modeling
- Firm and labor market analysis using real time labor market information
- International case studies to identify enabling environments

Focus-group Survey

Labor Market Analysis

Comparative Policy Case Studies

Understanding Barriers & Enablers for Co-robot Adoption

Scientific Impact

- First systematic analysis on barriers to co-robot adoption
- Development of labor market analysis method with novel datasets

Broader Impact

- Potential solution to problems & support for SMMs → increase productivity & competitiveness, upskill jobs & higher wages, attract workers & counter growing inequality
- Insight for industrial development policy & regional economic development planning.