

FW-HTF-RM: The Future of Teleoperation in Construction Workplaces (# 2026574) PI(s): Youngjib Ham, Texas A&M University (TAMU), yham@tamu.edu Hangue Park, Mindy Bergman, Camille Peres, Jeonghee Kim, Thomas Ferris, TAMU

A novel approach to combating data overload problems that considers the separate and interacting impacts of information processing capacity and work-related stress effects during teleoperation in challenging construction workplaces

Future Work & Future Worker

- Understand the key human (e.g., experience, prior accidents, training, information processing), task (e.g., difficulty, risk, duration), and environmental/contextual (e.g., weather, illumination, proximity to hazards) factors that are relevant in the performance of the work
- Explore technology adoption, detailing the risks and benefits of introducing new technologies into emerging socio-technological landscapes where workers can face issues with phased adoption of technologies

Future Technology - Virtual robotic simulation & Interface design

- test the key human, task, environmental, and contextual factors in challenging construction workplaces
- develop an interface designed to augment operator spatial awareness and performance in construction workplaces





