

| UTC Project Information | |
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| Project Title | MPC-649 – Assessment of Safe Work Indicators in Transportation Construction Using Personal Monitoring Systems |
| University | University of Colorado Denver |
| Principal Investigator | Caroline M. Clevenger Moatassem Abdallah |
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| Funding Source(s) and Amounts Provided (by each agency or organization) | <p>USDOT, Office of the Assistant Secretary for Research and Technology \$60,000</p> <p>GE Johnson equipment donation (\$18,000) ORS Large Grant (\$12,000) Faculty Summer Salary (\$10,000) University of Colorado Denver (\$20,000)</p> |
| Total Project Cost | \$120,000 |
| Agency ID or Contract Number | 69A3551747108 |
| Start and End Dates | March 26, 2021 to July 31, 2022 |
| Brief Description of Research Project | The objective of this research is to develop and implement a non-intrusive system for monitoring and providing feedback regarding individual transportation construction workers' physical health and performance. Our piloted system synchronizes physiological data with video recordings. Specifically, the system links Zephyr Bioharness, an off-the-shelf physiological monitoring (PSM) device (chest strap) to on-site construction video capture (GoPro or security camera system video recordings). Monitored stress indicators include: heart rate, breathing rate, posture, physiological load, and mechanical load. |
| Describe Implementation of Research Outcomes (or why not implemented) | |
| Place Any Photos Here | |

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| Impacts/Benefits of Implementation (actual, not anticipated) | |
| Web Links <ul style="list-style-type: none">• Reports• Project Website | |