UTC Project Information	
Project Title	RL-Empowered Optimizer for Bridge Fortification: A Novel Decision-Making Mechanism to Optimize Bridge Fortification in Disaster-Prone Communities.
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Funding Source(s) and Amounts Provided (by each agency or organization)	IBT-ABC-UTC funds: $35,000 Match funds : $35,000
Total Project Cost	$ 70,000
Agency ID or Contract Number	69A3552348322
Start and End Dates	January 1, 2025 - Active
Brief Description of Research Project	Effective operation of any society is heavily dependent on its critical infrastructures. Road infrastructure is an essential component of societies, facilitating access to different areas. This infrastructure is an integration of several modalities such as roads, highways, bridges, rails, and public transit. Among these modalities, bridges are the most vulnerable ones against disasters such as earthquakes, floods, hurricanes, and fires. This poses significant risks to the integrity and functionality of road infrastructure. Bridges have experienced the highest rates of damage during past disasters. For instance, the collapse of the I-95 bridge in Philadelphia, Pennsylvania, in June 2023, due to a tanker truck fire, disrupted transportation across a significant portion of the Eastern Seaboard, illustrating how critical this structure was in connecting the surrounding road network.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	The outcomes will be tracked and reported once they are identified.

Impacts/Benefits of Implementation (actual, not anticipated)	The impacts will be tracked and reported once they are identified.
Web Links • Reports • Project website	https://abc-utc.fiu.edu/rl-empowered-optimizer-for-bridge-fortification-a-novel-decision-making-mechanism-to-optimize-bridge-fortification-in-disaster-prone-communities/