



UTC Project Information	
Project Title	ACCELERATED FOUNDATION REPAIR/RETROFITS FOR CAPACITY UPGRADATION AND STRENGTHENING
University	Florida International University
Principal Investigator	Anil Misra
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Funding Source(s) and Amounts Provided (by each agency or organization)	ABC-UTC funds: \$70,000 Match funds : \$35,000
Total Project Cost	\$ 105,000
Agency ID or Contract Number	69A3552348322
Start and End Dates	January 1, 2024 - June 30, 2025
Brief Description of Research Project	The anticipated research output will be a state-of-art compilation of efforts at bridge foundations reuse based upon capacity upgradation and strengthening using mini-/micro-pile retrofits. The aim of the effort will be to enable standardization of such efforts leveraging data science and soil-structure interaction mechanics guided AI approaches. The research will prepare preliminary data for systematic development of construction techniques, materials selection, and capacity estimation methodologies that are compatible with superstructure design. The novel technologies to be pursued in the proposed work is twofold: (1) novel probabilistic soil-structure interaction method for harmonization with LRFD superstructure design, and (2) development of AI/ML ready database of mini-/micro-pile retrofits of bridge foundations.
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.

<p>Web Links</p> <ul style="list-style-type: none">• Reports• Project website	<p>https://abc-utc.fiu.edu/research-projects/accelerated-foundation-repair-retrofits-forcapacity-upgradation-and-strengthening/</p>
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