Title:	Develop an Intelligent Digital Assistant for Project Planning
The Problem:	TxDOT has moved to paperless project administration, having electronic and digital data and information of past projects associated with scope of work, specifications, bid documents, and performance data. There is a need to mine the data with advanced data analytics techniques to support various work tasks during the project delivery process.

Technical Objectives:	The objectives of this project are:
	• Conduct a literature review and summarize state-of-the practice and key findings.
	• Researchers shall obtain a wide range of electronic and digital data, documents, and information of past highway projects and develop the Construction Project Phasing Digital Assistant (CPPDA) tool using advanced analytics and artificial intelligence algorithms for use within the various phases of a project, most specifically the project development stages.
	• The tool shall include but not be limited to the following functionality:
	    ○ Enhance the identification process of required work items.
	    ○ Establish a consistent reference point for identifying required work items.
	    ○ Generate a comprehensive list of work items for each project's phases.
	    ○ Identify required and incomplete work items during project phases.
	    ○ Increase accuracy, reliability, and completeness of required work items.
	    ○ Support the process of creating engineer's estimates using transparent and understandable explanations to support intelligent decision-making.
	
	The expected technology readiness level (TRL) for this project is 8.

Anticipated Deliverables:	1. Technical memorandum for each task completed. 2. Monthly progress reports. 3. Construction Project Phasing Digital Assistant (CPPDA) tool. 4. CPPDA training materials. 5. CPPDA training sessions. 6. Project Summary Report 7. Research report documenting the findings of this research, including: • Detailed algorithms and methodologies deployed, • In-depth information outlining the tool's efficacy, • Validation mechanisms, and any requisite adjustments. • Value of Research (VoR) that includes both qualitative and economic benefits.
Proposal Requirements:	1. RFP#1 Q&A Deadline: 12:00 p.m. Central Time, **Tuesday, February 20, 2024.** 2. Proposal Deadline: 12:00 p.m. Central Time, **Thursday, March 21, 2024**. 3. Use the current "ProjAgre" and "PA Forms" templates located at the [RTI Forms webpage](#). 4. Proposals will be considered non-responsive and will not be accepted for technical evaluation if they are not received by the deadline or do not meet the requirements stated in RTI's [University Handbook](#). 5. Proposals should be submitted by the University Liaison in PDF format; (1) PDF file per proposal. File name should include project name and university abbreviation. 6. This project will be tracked during the life of the project using the Technology Readiness Level ([TRL](#)) scale. 7. The 2021 Texas Legislative Session requires that universities be in compliance with Senate Bill 475 by submitting a completed and signed TxDOT Security Questionnaire (TSQ) to RTIMAIN@txdot.gov. Universities that have not submitted a completed and signed TSQ one week after award will be considered non-compliant and unable to participate in the Program.