



**MarTREC UTC Project Information Form**  
 USDOT Tier 1 University Transportation Center  
 Agency ID or Contract Number 69A3551747130

Project Title: Analysis of Blockchain’s Impacts on and Applicability to Maritime Industry
Project Abstract (Brief Description): It is unclear how relevant or critical the use of blockchain is for maritime business. A recent survey by Deloitte interviewed U.S.-based executives in the shipping sector and found that 39% of them have little or no knowledge about blockchain. Still 55% of them believe that failure to implement blockchain will put their company at a disadvantage; and 25% of them said that their companies viewed blockchain as a critical top 5 priority. These are critical numbers within the maritime sector and in comparison with other sectors, possibly indicating that the maritime industry is (again) catching up on technology. This is the central problem on which this research project focuses. It is clear to maritime shipping industry members that cargo tracking is an important function for customer satisfaction as it ties the physical movement of goods with payments, inventory management, and accountability. In this sense, blockchain might be of higher relevance than initially thought. However, our initial investigation finds that different blockchain protocols do not communicate with each other, lacking interoperability. Since it is new to an industry that is international, fragmented, and complex in nature, we explore several research questions arising from the application of blockchain to maritime supply chains and logistics, in particular the possible integration with existing technologies, such as automatic identification and data capture (AIDC) technologies.
Describe Implementation of Research Outcomes (or why not implemented) - Place any photos here <i>To be determined upon conclusion of the project:</i>
Impacts/Benefits of Implementation (actual, not anticipated) <i>To be determined upon conclusion of the project:</i>
Web Links: <a href="http://martrec.uark.edu">martrec.uark.edu</a>
Budget (Funding) Amounts & Source(s) (US DOT +Match(s) =Total Costs): MarTREC funds \$46,035 + cost share of \$46,125 = \$92,160
Project Start and End Dates: Starting May 1, 2019 and ending May 31, 2020.
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Principal Investigator Institution (University): Texas A&M Transportation Institute