NSF Convergence Accelerator's 2023 Cohort Phase 1 Award

Project Title
Improving Water Quality and Fairness through Sensor Data and Machine Learning Models

Awardee
University of Kansas Center for Research, Inc.

Award/Contract
24C0008

Award Contract Type
R&D

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NSF Funded Program
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PROJECT ABSTRACT
This project builds a water management data ecosystem so that the state of Kansas can make decisions that sustain water quantity, improve water quality, and ensure water distribution fairness. The technical solution involved in this project uses a system-of-systems approach to integrate high-frequency water monitoring into communities, offices of local government officials, and state government agencies. This is made possible using innovative Internet of Things (IoT) devices capable of monitoring quality and quantity of water. The data from these devices will be processed, modeled, and transformed to show real-time water quality, water quantity, and water metrics on a publicly accessible data dashboard. The data dashboard will streamline and integrate data collection efforts across multiple state agencies. The result of this project aims to make livelihoods in parts of Kansas sustainable and for Kansas to serve as a model for how to integrate high-frequency data into decision-making processes and enhance equitable, unbiased data-driven solutions to the urgent water equity problems our society faces.