The Alabama Department of Transportation (ALDOT) has had success with some Intelligent Transportation Systems (ITS) projects and encountered challenges with others. The primary objective of this project is to develop tools for long-range planning of ITS. The secondary objectives include the development of an ITS strategic vision for Alabama and the incorporation of principles of sustainability into the ITS planning process in Alabama. Sustainable transportation planning is based on the principle of balancing often-competing priorities to enhance economic development and protect the environment in a socially equitable manner. Since its inception, ITS planning has been driven by a systems-engineering approach that emphasizes concepts such as component interoperability, system functionality, and technology integration. ITS planning and programming is a complex decision-making process. The explicit incorporation of sustainability-related principles increases that complexity by comparing technologies, capabilities, deployment scales, etc., and considering potential economic, environmental, and social impacts. The proposed project will engage ITS stakeholders in Alabama to participate in a multi-criteria decision-making (MCDM) process to develop a long-term vision of ITS that incorporates sustainability. The project’s final deliverable is envisioned as a comprehensive advisory report that clearly outlines the long-term ITS vision in Alabama. This report can then be used to advise the development of statewide system architectures and municipal ITS deployment plans and to form an overall basis for leveraging ITS to enhance the sustainability of the transportation system in Alabama.
Subjects
Operations and Traffic Management
Planning and Forecasting
Policy