

DAGSI Research Topic

1. Research Title: Multi-constellation GNSS Network Testbed Development

2. Individual Sponsor:

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3. Academic Area/Field and Education Level

Electrical Engineering and Computer Science
Guidance, Navigation and Control (MS or PhD level)

4. Objectives: To develop a multi-constellation GNSS network testbed throughout the state of Ohio that can be used for research, development, and test for new and innovative position, navigation, and timing (PNT) applications.

5. Description: This project will involve the establishment of remote multi-constellation GNSS receivers at various locations throughout the state of Ohio. These GNSS receivers will be spatially separated to support various prototype differential GNSS technique research and development. The GNSS receivers will be remotely controlled, configured, maintained, and controlled remotely via the Internet. Real-time data will be streamed to a server located at a central location, and real-time corrections will be delivered to a mobile client GNSS receiver. Analysis on network performance, resilience, and robustness will be conducted.

6. Research Classification/Restrictions: This project will be unclassified.

7. Eligible Research Institutions: State of Ohio Universities

NOTE: Topics submitted to DAGSI must be approved for public release. Need PA Approval #