



TENNESSEEVUE 2023 - 2024

AmericaViewSM
Empowering Earth Observation Education
americaview.org

TENNESSEEVUE 2023 - 2024 ACTIVITIES

TennesseeView (TNView) is dedicated to advancing Earth observation research, education, outreach, and workforce development across the state of Tennessee. In Fiscal Year 2023 (GY23), TNView undertook several impactful activities:

- **Student Competition:** In collaboration with the Tennessee Geographic Information Council (TNGIC), we hosted a student competition at the TNGIC Annual Conference. This event provided students with a platform to showcase their skills and connect with a wider professional network within the state.
- **Training Workshops:** We conducted a 4-hour workshop titled "[Cloud Computing with Google Earth Engine and Geemap](#)" at the TNGIC Annual Conference. This session equipped students, researchers, and professionals with the knowledge to leverage cloud computing platforms for analyzing remote sensing data using open-source tools. Additionally, TNView PI Qiusheng Wu presented "[Interactive Visualization of Geospatial Data with Leafmap](#)," further enriching the conference's educational offerings.
- **Development of Learning Resources:** We launched an online open-access course, "[Introduction to GIS Programming](#)," focusing on Python fundamentals and open-source packages for visualizing and analyzing geospatial data. The lecture videos, available on [YouTube](#), have attracted over 30,000 views. More than 80 students globally have enrolled in this course, earning certificates upon completion.



TNView led a cloud computing workshop at the TNGIC Conference



TNView PI Wu presented at the TNGIC Annual Conference



An online open-access course: Introduction to GIS Programming



TennesseeView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G23AP00683.

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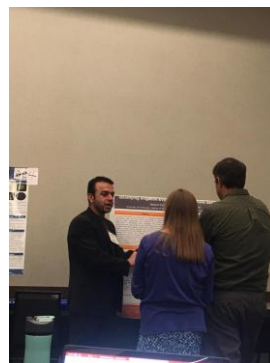
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BENEFITS TO TENNESSEE

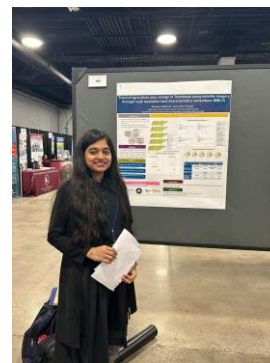
The activities of TNView provide significant benefits to the state of Tennessee by offering accessible and comprehensive learning resources focused on cloud-based remote sensing. By utilizing cloud computing platforms such as Google Earth Engine, Microsoft Planetary Computer, and Amazon Web Services (AWS), we empower students and professionals to efficiently process and analyze large volumes of remote sensing datasets. Our learning resources and video tutorials are adaptable for undergraduate and graduate programs throughout the state.

Understanding the importance of nurturing the next generation of remote sensing professionals, we awarded five TNView student fellowships—four at the graduate level and one at the undergraduate level. These fellowships promote in-depth study and research in cloud-based remote sensing. This investment not only enhances their educational journey but also contributes to the development of a skilled workforce in remote sensing technologies.

Additionally, we supervised an undergraduate research assistant at the University of Tennessee, who processed 400 GB of high-resolution [historical imagery for Tennessee](#). This data is now available through an [interactive web app](#), serving as a valuable resource for visualizing and analyzing land cover changes in the state over the past two decades.



TNView fellow Mabood Farhadi presented at the TWRS conference



TNView fellow Maheen Mehnaz presented at the ARD Research Symposium



An interactive web app for visualizing Tennessee historical imagery: <https://bit.ly/tn-imagery>

TENNESSEEVUE CONSORTIUM MEMBERSHIP



EAST TENNESSEE STATE
UNIVERSITY



Federal consortium members identified above do not receive funding from AmericaView.

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