Theresa Litteral, GISP	
Statewide MDST Facilitator, Iowa Local Technical Assistance Program, Institute for Transportation Iowa State University 2711 South Loop Dr. Suite 4700 Ames, IA 50010	515-294-7465 litteral@iastate.edu IOWA STATE UNIVERSITY Institute for Transportation

EDUCATION

- MS, Geobiophysical Modeling, Marshall University, Huntington, WV, 2003
- BS, Geology, Anglia Ruskin University, Cambridge, United Kingdom, 1999

PROFESSIONAL EXPERIENCE

- Statewide MDST Facilitator/Program Manager, Iowa Local Technical Assistance Program, Institute for Transportation, Iowa State University, 2015–present
- Adjunct Professor, Department of Information Technology and Geospatial Sciences, Mountwest Community and Technical College, Huntington, WV, 2015–2018
- Assistant Professor, Department of Information Technology and Geospatial Sciences, Mountwest Community and Technical College, Huntington, WV, 2013–2015
- Adjunct Professor, Marshall University, Huntington, WV, 2011–2018
- Project Manager, Cabell County Planning Commission, Huntington, WV, 2013–2014
- Project Manager, City of Milton, Milton, WV, 2014
- Trails Systems Program Manager, Rahall Transportation Institute, Marshall University, Huntington, WV, 2009–2013

SELECTED RESEARCH PROJECTS

- ***Multidiscipline Safety Team Facilitation (MDST) (Iowa DOT, PI, 2015–present):*** This project addresses local collaboration in reviewing safety concerns while planning for events and potential transportation incidents as a key element in implementing highway safety best practices at the local level. Not only do communities become more prepared for emergencies, but they also benefit from the partnerships forged for improving the local transportation system safety infrastructure and operations shared among stakeholder agencies and jurisdictions through this project. The tasks involved promote, create, facilitate, and support MDST groups throughout Iowa.
- ***Developing a Tutorial for Iowa Crash Analysis Tool (ICAT) (Iowa DOT, PI, 2018–2020):*** Over the past several years, considerable effort has been devoted to developing an easy-to-use software program that provides convenient access to Iowa crash data through a simple GIS online interface. The goal of this effort is to offer easily accessible streamlined online basic training to a broad base of multi-discipline users, both technically advanced and novice.
- ***Use of Temporary Barriers in Work Zones (Iowa DOT, Co-PI, 2019–2020):*** The objective was to assess when each type of barrier should be used in two-way two lane (TLTW) work zone and to develop guidelines for their use. This includes evaluation of the safety and operational impacts and

an assessment of the tradeoffs (benefit and cost).

- ***Use of Wider Edge Lines (Iowa DOT, Co-PI, 2019–2020):*** Several counties in Iowa installed 6-inch edge lines during 2019. This research provided a unique opportunity to track locations where installations occur in order to conduct a safety analysis once sufficient crash data are available. The objectives for this research included working with Iowa counties to identify installations, documenting and verifying physical extents of installations, creating a database for future CMF development.

SELECTED PUBLICATIONS

- Hallmark, S., A. Goswamy, T. Litteral, and M. Pawlovich. 2018. Safety Evaluation of Destination Lighting Treatment at Stop Controlled Cross-Intersections. *Transportation Research Record: Journal of the Transportation Research Board.*
- Fet, G. N., T. M. Litteral, J. O. Brumfield, and R. E. Oberly. 2004. Demonstration of the Image Map Web Server Technology to Assess Environmental Concerns in Appalachians. *Proceedings of the ICA HMRSC VII International Symposium*, University of Graz, Austria, pp. 60–62.
- Litteral, T. M., G. N. Fet, J. O. Brumfield, and R. E. Oberly. 2003. Using Remote Sensing and GIS with Image Map Web Server for Transportation Corridors and Economic Development in Mingo County, West Virginia. *Proceedings of the ICA HMRSC VII International Symposium with Global Mountain Summit*, Bishkek, Kyrgyz Republic.
- Litteral, T. M., G. N. Fet, J. O. Brumfield, and R. E. Oberly. 2003. Using 3D Satellite Image Analysis for Mining Reclamation in West Virginia. *Proceedings of the Appalachian Remote Sensing Conference*, West Virginia University, Morgantown, West Virginia.
- Litteral, T. M., J. Brumfield, and R. Oberly. 2001. Remote Sensing Techniques for Environmental Impact of Mining Activity. *Proceedings of the Appalachian Section of American Association of Physics Teachers*, Marshall University, Huntington, West Virginia, October 13.

PROFESSIONAL AFFILIATIONS, HONORS, AND SERVICE

- West Virginia Association of Geospatial Professionals
- Transportation Research Board, Pedestrian and Bicycle Education Subcommittee
- Geological Society of London, FGS
- Geographical Information Systems Professional (GISP)
- Mining and Resource Contractors Safety and Training Association (MARCSTA)
- ESRI Building Geodatabases
- ESRI Special Achievement Award in GIS
- Society of American Military Engineers
- URISA Cartographic Mapping
- Certified Railroad Safety Instructor, Operation Lifesaver, West Virginia