Michigan Technological University in collaboration with USDA's Northern Research Station is launching a research project, relying on remote sensing and field measurements, to develop invasive species spread maps to support management efforts to actively manage wetland ash forests to maintain forest productivity. EAB has been sweeping across the region, where over 2.1 billion ash trees are at risk for die-off. The dying ash trees combined with low diversity of these stands make them prime candidates for invasive plants. These invasive plants further prevent the regeneration of native trees important to maintaining carbon sequestration and healthy ecosystems.

The primary objective of the study is to develop tools for early detection and rapid response to locate and eradicate potential invasive species. The study will be conducted in the lowland forests by Lake Superior in northern Wisconsin, the Upper Peninsula of Michigan, and Minnesota using remote sensing images such as Sentinel-2's. We are seeking applications for a Ph.D. student in the areas of forestry, forest science, vegetation science, or ecology, with a very strong skill set in remote sensing. The position is housed at the College of Forest Resources and Environmental Science and can start as early as spring 2027.

The successful candidate should have an MS degree in forestry, forest science, natural resources or ecology from an accredited college or university. Required qualifications also include excellent written and oral communication skills, a strong analytical and statistical background in remote sensing, experience in publishing with professional journals, a keen research interest in forest science, and enthusiasm for remote sensing. Ability of driving independently with a valid US driver's license and programming with R and Python is desirable at the time of hiring.

The assistantship covers 3 academic years, including tuition. To apply, submit a single PDF document with CV, transcripts, statement of research interest and plan, and names and email addresses of three references to Fengjing Liu (fliu7@mtu.edu) and Randy Kolka (randall.k.kolka@usda.gov). Review of applications will start as soon as a sufficient pool is established and will continue until a candidate is identified. Subsequent application to Michigan Technological University's Graduate School will be required of the successful candidate.

For more information about our graduate programs, visit: www.mtu.edu/forest/graduate/. Michigan Technological University is an Equal Opportunity Educational Institution/Equal Opportunity Employer that provides equal opportunity for all, including protected veterans and individuals with disabilities.