POSITION ANNOUNCEMENT

Assistant Professor of Internet-of-Things and Ecological Analytics

The Department of Forestry and Natural Resources at Purdue University in West Lafayette, Indiana, is seeking applicants to develop a leading research and education program focused on ecological analytics and the advancement of natural resource management using data derived from an Internet of Things (IoT). IoT in this context involves using heterogeneous data streams generated from a multitude of sensors and sensor networks for the purpose of understanding ecosystem dynamics in ways that can improve the sustainable management of natural resources.

RESPONSIBILITIES: This is a tenure-track, academic-year position. The successful candidate will be expected to develop a leading, extramurally funded research program in the area of IoT and ecological analytics, such as the development of IoT components and architecture, analytical and pedagogical approaches involving IoT and big data, and ecological analytics or related analytical procedures. The ideal candidate will develop novel methods and tools to integrate diverse data across a variety of ecological domains, IT platforms, and analytical frameworks, such as those found in high-performance computing or big-data environments. The relevant ecological domains span the breadth of natural resource-related questions in fields such as forestry, aquatic science, wildlife ecology, and human-environment interactions. Analytical efforts focusing on data fusion, visualization, forecast modeling, or data mining are all desirable areas of scholarship. Interdisciplinary collaboration across the department's diverse natural resources faculty will be essential.

This position is part of a college-level initiative in Digital Agriculture. Other duties include developing upper division and/or graduate courses in IoT and ecological analytics, as well as providing lecture modules on IoT/data analytics where appropriate in undergraduate courses currently taught to departmental majors. Depending on preferences of the successful candidate, a minority joint appointment in another academic department on Purdue's campus (e.g., Computer Science; Mathematics & Statistics; Environmental & Ecological Engineering; Biology; and Earth Atmospheric, & Planetary Sciences) may be available. Relationships with Purdue research centers and initiatives (e.g., Integrative Data Science Initiative, Center for the Environment, Center for Global Soundscapes, Purdue Climate Change Research Center, Illinois-Indiana Sea Grant, etc.) are also encouraged.

QUALIFICATIONS: A Ph.D. in statistics, computer science, geospatial analytics, or artificial intelligence with demonstrated knowledge of ecology and environmental science, or a Ph.D. in an ecological discipline with demonstrated expertise and experience in developing and implementing IoT-based analytics at a high level.

SALARY: Commensurate with experience, qualifications, and previous accomplishments.

ABOUT PURDUE: Purdue University's Department of Forestry and Natural Resources (FNR, www.ag.purdue.edu/fnr/) is diverse and emphasizes interdisciplinary approaches across a broad spectrum of natural resource subjects, including forestry, wildlife, fisheries & aquatic sciences, wood science, ecology, and natural resource social sciences. FNR hosts several leading research centers/programs, most notably the Hardwood Tree Improvement and Regeneration Center with U.S. Forest Service, state, and non-governmental cooperators, and the Illinois-Indiana Sea Grant program

with the University of Illinois and the National Oceanic and Atmospheric Administration. FNR also has two large private endowments (Jonathan S. Wright and Frederick M. van Eck) that support our research, teaching, and extension activities.

FNR is part of the College of Agriculture, one of the world's leading colleges of agricultural, food, life, and natural-resource sciences. The College boasts 3 World Food Prize laureates, and the ninth-ranked Agriculture program in the world (QS 2018). The College has 11 academic departments and currently includes 313 faculty, 672 graduate students, and 2,803 undergraduate students. The College is deeply committed to the three land-grant missions (teaching, research, and extension); to international activities and perspectives that span all missions; and to supporting a diverse and inclusive environment focused on excellence in all that we do. The College's strategic plan can be found at https://ag.purdue.edu/plan/Pages/default.aspx. Purdue is an ADVANCE institution (https://www.purdue.edu/advance-purdue/).

Interaction with faculty at Purdue's Discovery Park (http://www.purdue.edu/discoverypark/) is encouraged. Other resources available for candidates to succeed in this position include:

- Purdue Integrative Data Science Initiative https://www.purdue.edu/data-science/
- CoAg Smarter Agriculture https://smarteragriculture.org/
- CoAg Hadoop/Spark data pipeline
- Research Computing high-performance resources http://rcac.purdue.edu/
- Purdue Libraries research data tools and services https://www.lib.purdue.edu/researchdata

CLOSING DATE: December 1, 2018, or until filled.

APPLICATION PROCESS: Submit: 1) letter of application, 2) statement of research goals and objectives in this position (two pages maximum), 3) statement of teaching philosophy (two pages maximum), and 4) curriculum vitae that includes a complete publication list, including the names and contact information for at least three professional references.

FNR is committed to advancing diversity in all areas of faculty effort, including scholarship, instruction, and engagement. Candidates should address at least one of these areas in their cover letter, indicating their past experiences, current interests or activities, and/or future goals to promote a climate that values diversity and inclusion.

Questions may be directed to the Search Committee Co-Chairs, **Dr. Bryan Pijanowski** (via telephone at 765-496-2215 or email bpijanow@purdue.edu) or **Dr. Songlin Fei** (via telephone at 765-496-2199 or email sfei@purdue.edu). Application packets should be emailed to Marlene Mann (mmann@purdue.edu). A background check will be required for employment in this position.

Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply.