Integration of large and complex data sets of fine-grained environmental data, remote sensing data, and precision agricultural practices is needed to improve agricultural productivity and efficiency. Recent advances in equipment and instrumentation increase the potential to utilize these technologies. Improved data analytics techniques are needed to close the gap between measurements and real-world applications. By closing this gap, agricultural producers, equipment and instrumentation manufacturers, data providers, and the environment all benefit. With its central motivation to improve agricultural productivity and contribute to this global need, Minnesota’s AGREETT (Agricultural Research Education, Extension and Technology Transfer) Initiative is making significant investments in research, education, and Extension to work in key areas of agricultural production, taking advantage of the technological changes that are transforming agriculture, and complementing the University’s MnDRIVE (MN Discovery, Research and InnoVation Economy) Initiative.

The Department of Bioproducts and Biosystems Engineering, of the College of Food, Agricultural and Natural Resource Sciences (CFANS) at the University of Minnesota seeks candidates for a 9-month tenure-track assistant professor position in the areas of data analytics for precision agriculture with 50% research and 50% teaching responsibilities.

The goal of this position is to improve productivity in agricultural systems by developing new ways to collect, interpret, and analyze agricultural data (which may include both phonemic and environmental surveillance) at various scales, in order to inform agricultural practitioners. The faculty member will be expected to advance the design and implementation of highly productive agricultural systems that have minimal adverse impacts on the environment. Research in this position will require interactions with a broad spectrum of disciplines: from sensing and measurement technologies to data collection and analysis. This includes the integration of advances within the fields of data analytics, remote sensing, instrumentation, geospatial and temporal data collection platforms, and sensor networks.

The University of Minnesota’s research, teaching, and Extension programs have a long history of developing and delivering cutting edge research and education to farmers and other stakeholders. The successful applicant is expected to continue this tradition by working with both public and private concerns with culturally diverse backgrounds. This faculty member will help Minnesota maintain its strong leadership position in sustainable agricultural production.

The successful applicant is expected to develop a nationally and internationally recognized research program, seek and secure extramural research funding from state and national competitive grant programs, and develop an independent research program of basic and applied research. The position is expected to closely interact and collaborate with appropriate departments within CFANS and across the University including the University’s research computing resources. The University of Minnesota offers opportunities to work with engineers, agricultural scientists, and other faculty on campus, as well as a network of Research and Outreach Centers across the state.

Teaching responsibilities are expected to include undergraduate and graduate level courses offered by the department and related to the successful candidate’s discipline and background, including Advanced Precision Agriculture, Big Data Analytics in Agriculture, and/or Sustainable Systems. Other faculty responsibilities include advising graduate students and service commitments to the department, college, University, and the profession.
Qualifications

Required: PhD in Biosystems or agricultural engineering, or related agricultural, environmental, or computational fields; research experience in environmental or agricultural systems.

Preferred: Preference will be given to candidates with: a strong peer reviewed publication record and experience in technological applications to agriculture; evidence of abilities to work collaboratively on interdisciplinary projects; evidence of potential to develop and manage interdisciplinary research programs at the forefront of a discipline; evidence of effective teaching with diverse audiences, along with excellent written and oral communication skills; demonstrated experience in obtaining external funding; interest in, experience with, and commitment to diversity and inclusiveness.

Salary and Benefits
Salary is competitive and commensurate with experience and qualifications. The University’s outstanding fringe benefits package includes participation in the University’s faculty retirement program; group life, medical, and dental insurance plans; and sabbatical, semester, and parental leave opportunities. Detailed benefits information is available at: http://humanresources.umn.edu/benefits

Application Instructions
Interested applicants should submit a cover letter referencing the Data Analytics for Precision Agriculture faculty position; detailed curriculum vitae; statements on research (up to two pages) and teaching interests (up to one page); copies of official undergraduate and graduate transcripts; a brief statement (up to one page) describing interest, experience with, and commitment to diversity and inclusiveness to the online application system described below and three reference letters sent to Susan Seltz at seltz043@umn.edu. Review of applications will begin 10/16/2017 and continue until the position is filled.

Please apply online via the University of Minnesota Employment System: https://humanresources.umn.edu/jobs, Job ID 318385.

To learn more about BBE visit: http://z.umn.edu/dapa

Please visit the following links to learn more about the Department of Bioproducts and Biosystems Engineering, www.bbe.umn.edu; the College of Food, Agricultural and Natural Resource Sciences, www.cfans.umn.edu; the AGREETT program, www.cfans.umn.edu/agreett; Research Computing, www.researchcomputing.umn.edu; and University of Minnesota Extension, www.extension.umn.edu.

Any offer of employment is contingent upon the successful completion of a background check.

The University of Minnesota provides equal access to and opportunity in its programs, facilities, and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. As an institution committed to demonstrating excellence through diversity, the College of Food, Agricultural and Natural Resource Sciences and the University are committed to hiring a diverse faculty and staff, and strongly encourage candidates from historically underrepresented groups to apply. We welcome you to visit our college's Diversity and Inclusion web page at: http://www.cfans.umn.edu/diversity/