Position title: Research Assistant Professor (two positions) in Agricultural & Biosystems Engineering

Department: Agricultural & Biosystems Engineering, North Dakota State University

Position Description: Research Assistant Professor (North Dakota Agricultural Experiment Station) 12-month appointment

Responsibilities:

This position is a non-tenure-track, 12-month, full-time, benefited faculty research position that is renewable annually. Responsibilities include research in precision agriculture - specifically on decision support to establish best crop management strategies under different environmental conditions and genetic interactions using sensors, automation systems, unmanned aerial systems (UAS), bioinformatics, artificial intelligence, and management of agricultural big data. The research focus will include: 1) develop decision support systems to estimate the best soil health and nutrient management strategies in Northern Plains crops using historical, real-time, and near real-time data; 2) develop tools and systems to identify, map, and site-specifically manage weeds, specifically resistant weeds, using technologies such as UAS, bioinformatics, artificial intelligence, and chemical/sprayer technologies. Application of data science, cloud computing, machine learning, 3-D analysis and artificial intelligence to agriculture is key to producing actionable intelligence. This position is important to the precise delivery of crop inputs; research is needed on monitoring and variable rate application technologies for managing soil and crop health.

Position expectations include: 1) develop a grant-supported research program in precision agriculture; 2) address the crop production research needs of the North Dakota and the region; 3) establish collaborative partnerships with researchers in other NDSU units, commercial industries, and other institutions; 4) present and publish research findings; and 5) serve the agricultural profession and stakeholders in general.

Minimum Qualifications:
- Ph.D. in precision agriculture, agricultural systems management, or agricultural engineering, or in a related scientific or engineering field (degree must be completed before accepting the offer)
- Interest and ability to develop an externally-funded research program in the broad areas of precision agriculture, with an emphasis in one or more areas such as UAS, or management of big digital data in agriculture
- Interest in and ability to mentor graduate students
- Experience to work independently and as a multidisciplinary team member within the institution and with stakeholders
- Excellent oral and written communication skills, especially in the communication of science and technology among professionals and to the public

Preferred Qualifications:

- Demonstrated record of scholarship, including experience in conducting field and laboratory research, and publishing research findings through different outlets
- Operational knowledge and understanding of advanced farming systems, including precision agriculture technology, UAS, and big data analytics
- Understanding of Midwestern United States agriculture
- Understanding of agronomy, soil science and crop protection in production agriculture
- Experience in preparing successful competitive research proposals

The department has strong relationships with local agricultural machinery companies, precision agriculture technology companies, UAS companies, and agronomy companies, and which will be helpful to the successful applicants to establish the program.

Salary: The position offers a competitive salary and benefits package.

Application Deadline: Initial screening of applicants will begin 11/30/2018 and continue until a suitable candidate is selected. Applications received by the screening date will be ensured full consideration.

Special Instructions to Applicants:

The application should include the following:
- Letter of application showing how all minimum qualifications are met, and highlighting those preferred qualifications that are met
- Statement of research interests and goals (1 page)
- Detailed curriculum vitae
- Transcripts of coursework for all university degrees
- Names, titles, addresses, phone numbers and e-mail addresses for three references

For further inquiries about this position, please e-mail Dr. Shafiqur Rahman, Search Committee Chair at s.rahman@ndsu.edu. Include a phrase such as "Inquiry into NDSU Research Assistant Professor position" in the subject line. To apply, please visit http://jobs.ndsu.edu/postings/9792.

EO/AA Statement:

North Dakota State University is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, disability or veteran status. Women & traditionally underrepresented groups are encouraged to apply.