



## FACULTY POSITION IN THE COLLEGE OF ENGINEERING – FLUID POWER SYSTEMS

**POSITION:** Assistant/Associate Professor of Agricultural and Biological Engineering with a joint appointment in Mechanical Engineering, academic year, tenure track

**RESPONSIBILITIES** The successful candidate is expected to develop an internationally recognized program in fluid power research and education. The Purdue Maha Fluid Power Research Center provides a state-of-the-art facility for collaboration with other colleagues in a highly interdisciplinary effort to address needs and provide innovative solutions in fluid power. The individual will engage local, state, national and international government, and non-government agencies, industry, and other stakeholders to address their fluid power research needs, and contribute to Purdue's research and teaching efforts focused largely on fluid power related disciplines.

Applicants must have expertise in fluid power and in one or more fields specified below:

1. Modeling and design of hydrostatic transmissions and hydraulic hybrid systems, including electro-hydraulic hybrids;
2. Distributed sensing, controls, acoustics and diagnostics for complex fluid power systems;
3. Modeling, design and control of hydraulically driven flexible robots, wearable power assist devices and/or portable robots;
4. Functional fluids, ER fluids and/or tribological systems;
5. Modeling, design and control of pneumatic systems;
6. Analysis, modeling and simulation of multi-domain systems;
7. Design and motion control of water hydraulic systems;
8. Modeling and control of micro fluid power systems;

Teaching in undergraduate and/or graduate-level Agricultural Engineering and Mechanical Engineering majors is expected. The individual will also develop a successful externally funded research program.

This is an academic year, tenure track, research and teaching position. The successful candidate will build a renowned program in this area that is inclusive of an international dimension.

**QUALIFICATIONS:** Applicants must have a PhD degree in agricultural engineering, mechanical engineering or related discipline. Applicants should have industry experience or demonstrated research funding from industry or government agencies. Candidates with a multi-disciplinary research focus are particularly encouraged. Faculty candidates should have exceptional potential for world-class research, and a commitment to both undergraduate and graduate education. Excellent communication and grant writing skills are required.

**THE COLLEGES:** The Department of Agricultural and Biological Engineering is part of the Colleges of Agriculture and Engineering and the School of Mechanical Engineering is part of the College of Engineering. Purdue University and these units are deeply committed to the three land-grant missions (teaching, research, and extension), to international activities and perspectives that span all missions, and to excellence in all we do. The College of Agriculture is one of the world's leading colleges of

agricultural, food, life, and natural resource sciences and ranked ninth globally in the 2018 QS World University Rankings. The College has 11 academic departments and includes 313 faculty, 2803 undergraduate students, and 672 graduate students. The College of Engineering has 13 academic units and includes 452 faculty, more than 8918 undergraduate students, and nearly 3,550 graduate students. The College of Engineering is ranked number 8 for undergraduate programs and number 7 for graduate programs by U.S. News and World Report. The Colleges' strategic plans can be accessed at <https://ag.purdue.edu/plan/Pages/default.aspx> and [https://engineering.purdue.edu/Engr/AboutUs/MeetDean/Pinnacle/index\\_html](https://engineering.purdue.edu/Engr/AboutUs/MeetDean/Pinnacle/index_html)

**OPPORTUNITIES FOR COLLABORATION:** Numerous opportunities for collaborations throughout Purdue University exist. The Purdue Moves Plant Science Initiative is a major investment in plant production and utilization that presents opportunities for collaboration (<https://ag.purdue.edu/plantsciences>). Collaborators may be found in Discovery Park (<http://www.purdue.edu/discoverypark>), in the Mechanical Engineering Research Labs (Herrick Labs, Zucrow Labs, Birk Nanotechnology Center), Purdue Agricultural Centers, Center for Commercial Agriculture, and Laboratory for Applications of Remote Sensing.

**CLOSING DATE FOR APPLICATIONS:** Review of applications will begin January 15, 2019 and will continue until the position is filled.

**APPLICATION MATERIALS:** Letter of interest, resume, official academic transcripts, statement of teaching and research philosophies, and names, addresses and phone numbers of three references. Applications should be submitted electronically to [abejob@ecn.purdue.edu](mailto:abejob@ecn.purdue.edu). A background check is required for employment in this position.

The Department, School and Colleges are 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. Purdue is an ADVANCE institution – <https://www.purdue.edu/advance-purdue>).

**CONTACT:** Address inquiries to: Dr. Andrea Vacca, Department of Agricultural & Biological Engineering, School of Mechanical Engineering, Purdue University. [avacca@purdue.edu](mailto:avacca@purdue.edu); (765) 430-0081.

For additional information see <http://www.purdue.edu/ABE>

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