

UPCOMING CANDIDATE SEMINAR

Candidate for Instructional Assistant
Professor in Agricultural and Biological
Engineering

JANUARY 16, 2025

Frazier Rogers 122, 10:30 a.m.



**Jose Garcia-
Bravo Ph.D.**

ASSOCIATE PROFESSOR OF
MECHANICAL ENGINEERING
TECHNOLOGY
PURDUE UNIVERSITY

THURSDAY, JANUARY 16
ROG 122 • 10:30 A.M.

ZOOM LINK: [HTTPS://
UFL.ZOOM.US/J/93138942794
?PWD=4JAI0BCDSMD585B34
DVXRSQJWVU6HY.1](https://ufl.zoom.us/j/93138942794?pwd=4JAI0BCDSMD585B34DVXRSQJWVU6HY.1)

PASSCODE: 190842
Meeting ID: 931 3894 2794

“Fluid power engineering, a still relevant
technology in the era of electrification, AI and
extended reality”

About the Seminar

Fluid power is a multi-billion industry found in applications spanning off-road equipment, food and pharmaceuticals, manufacturing, and virtually any machine or process used to transform and multiply the force of a prime mover. With over 60 years of academic research and development this technology is still as relevant, novel and exciting as it was in the late 1960's. This talk will present an overview of some of the innovative applications utilizing fluid power, tools and techniques for teaching and training engineers in the use of fluid power and a perspective of jobs, companies and fields that are leading innovators in this field. A special focus will be given to the use of Mixed Reality and the development of Digital Twins for fluid power systems in real life applications such as excavators, reverse osmosis processes or pneumatic systems.

About Dr. Jose Garcia-Bravo

Dr. Jose M. Garcia-Bravo is currently an Associate Professor for the Mechanical Engineering Technology academic program where he has a special focus on fluid power (hydraulic and pneumatic systems) research and instruction, additive manufacturing and smart manufacturing using Industrial Internet of Things technologies. Dr. Garcia-Bravo received his B.Sc. in Mechanical Engineering from Universidad de Los Andes, Bogota in 2002, His M.Sc. in 2006 and Ph.D. in 2011 from Purdue University.

Dr. Garcia-Bravo has gained national recognition for his work in applied fluid power. His work includes the use of additive manufacturing for the fabrication of soft actuators, valves, embedded sensors and low-pressure positive displacement pumps for applications in robotics, industrial and vehicular systems. He holds one patent for an invention for 3D printed lens gratings, and three provisional patents for materials and processes for the development of additively manufactured sensors.

Dr. Garcia-Bravo investigates how hydraulic systems can improve the performance and efficiency of heavy-duty vehicles or industrial equipment, the use of Mixed Reality in the classroom and manufacturing, and improved processes for water purification. In 2019, Dr. Garcia-Bravo was awarded the Purdue Polytechnic Outstanding Faculty in Learning Award, a distinction given to the faculty in the college for their performance and contributions to teaching and learning at the Purdue Polytechnic Institute. In 2022 he received the Outstanding Faculty in Engagement award for his contributions to advance the fluid power industry.