

Engineering Dean's Distinguished Lecture: Soft Robotics

Presented by George M. Whitesides
Woodford L. and Ann A. Flowers University Professor
Harvard University

Wednesday, April 4, 2018

Seminar: 3–4 p.m.

Reception: 4–4:30 p.m.

College Avenue Commons (CAVC) 101, Tempe campus

Register to attend: links.asu.edu/Whitesides

Robotics is a field with broad interest: it combines mechanical engineering, information science and animal physiology with manufacturing, workforce development, economics and other areas. The most highly developed classes of robots have been built based on conceptual models provided by the body plans of animals with skeletons (such as humans and horses), and have made it possible to carry out tasks that humans and animals could not, for a variety of reasons.

Whitesides is interested in robots based on a different, simpler class of organisms: invertebrates, such as starfish, worms and octopi. Because these organisms, and the robots having designs stimulated by them, have no skeletons, they provide enormous opportunities in materials and polymer science, rather than primarily in mechanical engineering. This seminar will outline one approach to soft robots, and suggest problems and opportunities in this new field.

About the speaker



George M. Whitesides received his AB degree from Harvard University in 1960, and his PhD from the California Institute of Technology in 1964 (with J.D. Roberts). He began his independent career at MIT, and is now the Woodford L. and Ann A. Flowers University Professor at Harvard University. His current research interests include physical and organic chemistry, materials science, biophysics, water, self-assembly, complexity and simplicity, origin of life, dissipative systems, affordable diagnostics and soft robotics.