



Qiliang Li, PhD

Professor, Electrical and Computer Engineering
Virginia MicroElectronics Consortium Distinguished Professor

Education

PhD, Electrical and Computer Engineering, North Carolina State University

Key Interests

Smart Sensor System | Chemical Sensors | Optical Sensors | Semiconductor | Nanoelectronics | Materials Science and Engineering | Nanowire | Graphene | Unmanned Aerial Vehicle | Memory Devices

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SELECT PUBLICATIONS

- › Shi, C., *et al.* (2018). Precise gas discrimination with cross-reactive graphene and metal oxide sensor arrays. *Applied Physics Letters*, 113(22), 222102.
- › Ye, H., *et al.* (2018). Enhance the discrimination precision of graphene gas sensors with a hidden markov model. *Analytical Chemistry*, 90(22), 13790-13795.
- › Khan, M. A. H., *et al.* (2019). Recent advances in electrochemical sensors for detecting toxic gases: NO₂, SO₂ and H₂S. *Sensors*, 19(4), 905.
- › Yuan, H. *et al.* (2018). A hierarchical vision-based localization of rotor unmanned aerial vehicles for autonomous landing. *International Journal of Distributed Sensor Networks*, 14(9).

Research Focus

I design and fabricate sensors, integrate sensors into a smart sensor system to monitor the chemicals and pollution in the environment. In addition, my research focuses on self-powered, autonomous-driving monitoring platforms for aquatic ecosystems.

Current Projects

- Topological insulator field effect transistors for memory and sensors (NSF research grant).
- Nanoengineered hybrid gas sensors for spacesuit monitoring.
- Graphene chemical sensors for precise discrimination.