

Prof. Avi Zadok

Electrical Engineering

Bar Ilan University

Avi Zadok received the B.Sc. degree in Physics and Mathematics from the Hebrew University, Jerusalem in 1994 (cum laude), the M.Sc. degree in Electrical Engineering from Tel-Aviv University in 1999 (cum laude), and his Ph.D. in Electrical Engineering from Tel-Aviv University, in 2008 (with distinction). In 2007-2009 he was a post-doctoral research fellow with the Department of Applied Physics, California Institute of Technology (Caltech). He joined the Faculty of Engineering and the Institute of Nano-Technology of Bar-Ilan University in 2009, and was appointed an Associate Professor in 2013.

Prof. Zadok's research interests are in communication networks and sensors based on optical fibers and in photonic devices in glass in silicon for sensor and signal processing applications. Optical fibers were designed and developed to guide light over long distance, and provide the exclusive medium for large-volume, long-reach communication. Optical fibers are key enablers of internet. In addition, optical fibers also constitute an exceptional sensing platform: the propagation of light in the fiber can be made sensitive to a variety of environmental parameters such as temperature, mechanical deformation, sound and vibrations, electrical and magnetic fields, chemical and biological species and more. Fibers support remote sensing over long ranges, may be simply embedded within structures, and can be used in hazardous environments where electricity may not be employed. Fiber sensors find applications in structural health monitoring by the oil and gas, energy, transportation, aerospace, civil engineering and bio-medical sectors .

Prof. Zadok is a coauthor of more than 120 papers in scientific journals and proceedings of international conferences. He serves in the technical program committees of several international conferences in Electro-Optics. He received the Clore Foundation Fellowship for doctoral studies (2005), the Rothschild Fellowship for post-doctoral studies from Yad- Hanadiv Foundation (2007), the Alon Fellowship from the Higher Education Council of Israel (2009), and the Krill Award from the Wolf Foundation (2013). He obtained a Starter Grant from the European Research Council (ERC) in 2015. Prof. Zadok is the Chairman of the Curriculum and Teaching Committee of the Faculty of Engineering, Bar-Ilan University since 2014 ,and received the Bar-Ilan University Excellence in Teaching Award in 2011.