Encyclopedia of Sensors is the first encyclopedia ever published in the field of sensors. The multivolume encyclopedia will provide a complete coverage of most recent advances and emerging new sensor technologies in the fields of science, engineering and medicine. Although there are many books focused on sensors however no encyclopedic reference work has been published as of today. This encyclopedia will cover all aspects of sensor science and technology dealing with all types of sensor materials, their synthesis and spectroscopic characterization, sensor designs, fabrication and manufacturing techniques, sensor probes, features, physical, chemical and biosensors, their applications in electronics, photonic and optoelectronic industries, medicine, surface sensing, food industry, environmental engineering and nanotechnology. It is written for a wide range of audience from non-scientists to active scientists and engineers, professionals and experts working in the field of sensors.

Encyclopedia Scope

Innovative sensing concepts, Cell and tissue-based sensors, Chemical, biological and physical sensors, Sensor networks and systems, Sensor system integration, Advanced sensing materials, Sensor architectures, Self-cleaning sensors, One-shot disposable sensors, Biotoxin sensors, Data fusion of sensor arrays, Sensor fabrication, packaging, testing and reliability, Sensor instrumentation, Electronic interfaces and data processing, Sensor signal processing electronics, Sensor applications and uses, Optical, acoustic, mechanical, thermal, electromagnetic, electrochemical and radiation sensors, Environmental sensors, Fiber optic sensors, Sonar sensors, Flow sensors, Analytical systems, lab-on-a-chip, Sensor neural networks, Sensor telemetry, Measurement compensation and calibration, Electronic-nose sensors, Nanosensors, Computational and theoretical aspects of sensors, Fabrication techniques, Characterization, Spectroscopy, and much more ...

World's first and only encyclopedia ever published in the field of SENSORS

- Comprehensive coverage of all aspects of the sensor science and technology
- Most up-to-date reference work drawing on the past three decades of pioneering research
- Over 400 review chapters contributed by the world's leading scientists, engineers and medical experts
- State-of-the-art review chapters of approximately 30 to 350 manuscript pages in length
- Edited and written by internationally known experts familiar with current sensor technologies
- Truly international, authors from 46 countries
- Timely, authoritative and most comprehensive
- Published in both print and online formats. Online edition will be updated
- Extensive cross-referencing in each article provides reader with broader range of knowledge
- Multidisciplinary reference source for all researchers working in science, engineering and medicine
- Available Online Edition allowing multiple users and fully searchable text.

About the Authors

Dr. Craig A. Grimes is an Associate Professor in the Department of Electrical Engineering, and Department of Materials Science and Engineering at the Pennsylvania State University, University Park, USA. He is the Editor-in-Chief for the journal SENSOR LETTERS. Dr. Grimes received his Ph.D. (1990) degree in Electrical and Computer Engineering from the University of Texas at Austin. Dr. Grimes' research interests cover a span of topics, including sensors, nano-dimensional materials, electromagnetism, and wave propagation in material media. Dr. Grimes has published over 120 scientific research articles in archival scientific journals, and is co-author of The Electromagnetic Origin of Quantum Theory and Light (2002); Dr. Elizabeth C. Dickey is an Associate Professor in the Materials Science and Engineering Department at the Pennsylvania State University. She received her Ph.D. in Materials Science and Engineering from Northwestern University in 1997. Professor Dickey's research interests are in the area of interface materials science, nanostructured materials and sensing materials. She has published over 40 archival journal articles and is an Editorial Board member of the Journal of Nanoscience and Nanotechnology.
This is a list of sensors sorted by sensor type. Geophone. Hydrophone. Lace Sensor a guitar pickup. Microphone. Seismometer. Sound locator. Air flow meter. Airâ€“fuel ratio meter. AFR sensor. Blind spot monitor. Crankshaft position sensor. Engine coolant temperature sensor. Hall effect sensor. Wheel speed sensor. Airbag sensors. Automatic transmission speed sensor. Brake fluid pressure sensor. Camshaft position sensor. Cylinder Head Temperature gauge. Crankshaft position sensor. Encyclopedia of Sensors is the first encyclopedia ever published in the field of sensors. The multivolume encyclopedia will provide a complete coverage of most recent advances and emerging new sensor technologies in the fields of science, engineering and medicine. Although there are many books focused on sensors however no encyclopedic reference work has been published as of today. Encyclopedia of Sensors is the first encyclopedia ever published in the field of sensors. The multivolume encyclopedia will provide a complete coverage of most recent advances and emerging new sensor technologies in the fields of science, engineering and medicine. Although there are many books focused on sensors however no encyclopedic reference work has been published as of today.