

Contents

Part I Bio-Medical Sensors

A CNT Network Platform Integrated on the CMOS Circuit	3
Jaeheung Lim, Jun Yeon Yun, Jinhong Ahn and Young June Park	
Exhaled Breath Sensors	19
Il-Doo Kim, Seon-Jin Choi, Sang-Joon Kim and Ji-Su Jang	
Implantable Neural Sensors for Brain Machine Interface	51
Jungwoo Jang, Jihun Lee, Mingyu Kang and Yoon-Kyu Song	
Implantable Brain Interface: High-Density Microelectrode Array for Neural Recording.	75
Sang Beom Jun	
Optical Coherence Tomography for Clinical Applications	107
Wang-Yuhl Oh	

Part II Sensors for Environmental Monitoring

Microfabricated and Nanoengineered Chemical Sensors for Air Quality Monitoring System.	141
Inkyu Park, Daejong Yang and Kyungnam Kang	
Miniaturized VOC Detectors for Monitoring Indoor Air Quality	171
Kyoungsoon Lee, Dae-Hyun Baek, Han-Il Jung and Jongbaeg Kim	
Heaterless Operation of Chemoresistive Gas Sensors for Further Functional Convergence.	189
Ho Won Jang, Young Seok Shim and Yeon Hoo Kim	

Sensors and Devices for Heavy Metal Ion Detection	213
Si-Hyung Lim and Sungho Yoon	

A Fatigue Crack Detection Methodology.	233
Hoon Sohn, Hyung Jin Lim and Suyoung Yang	

Part III Wireless Connectivity Solutions for Sensors

Data Networking for Autonomous Fatigue Crack Detection.	257
Jinhwan Jung, Deawoo Kim, Hankyeol Lee and Yung Yi	

Energy-Efficient Sensing Data Delivery for Low Power Environmental Sensors	281
Deawoo Kim, Jinhwan Jung, Hankyeol Lee and Yung Yi	

Coding for Wireless Sensor Networks.	307
Sae-Young Chung and Si-Hyeon Lee	

Smart Sensors for Health and Environment Monitoring

Kyung, C.-M. (Ed.)

2015, VI, 323 p. 166 illus., 121 illus. in color., Hardcover

ISBN: 978-94-017-9980-5