

## Table of Contents

Using Light-Band Sensors for Stress Evaluation in Rainfed Maize Agricultural Crop <i>Paulo Cruvinel and Wilbur Veramendi</i>	1
Dimensionality Reduction for CCD Sensor-Based Image to Control Fall Armyworm in Agriculture <i>Alex Bertolla and Paulo Cruvinel</i>	7
Use of Affordable Sensors to Investigate Aeration and Resistance to Plant Root Penetration for Soil Assessment <i>Ladislau Rabello, Paulo Herrmann, and Paulo Cruvinel</i>	13
Earth-Satelite Monitoring System for Stored Grains <i>Jose Dalton Cruz Pessoa, Victor Bertucci Neto, Ladislau Marcelino Rabello Rabello, and Sergio da Silva Soares Soares</i>	19
Real-time Detection and Reconfiguration of Sensors in Agricultural Sprayers Subject to Failures <i>Deniver Reinke Schutz, Vilma Alves de Oliveira, and Paulo Cruvinel</i>	24
Development of Urine Monitoring Sensor Module with Wireless Transmission Function <i>Lan Zhang, Jian Lu, and Sohei Matsumoto</i>	30
Investigation of Thermo-formed Piezoelectret Accelerometer under Different Electrodynamical Vibration Conditions <i>Igor Nazareno Soares, Ruy Alberto Correa Altafim, Ruy Alberto Pisani Altafim, and Mario Masahiro Tokoro</i>	32
Passive RFID Antenna Sensor Technology for Structural Behavior Monitoring <i>Dohyeong Kim, Sang-Hyeok Nam, Mok Jeong Sim, and Chunhee Cho</i>	38
Structural Behavior Monitoring System Using Scalable Carbon Nanotube Patch Sensors <i>Sang-Hyeok Nam, Dohyeong Kim, Giwan Jo, and Seung-Hwan Jang</i>	43
CuBr@SiO <sub>2</sub> Mesoporous Composite for ppb Level Ammonia Detection in Humid Environment at Room Temperature <i>Lisa Weber, Virginie Martini, Marc Bendahan, and David Grosso</i>	48