

1. Record Nr.	UNINA9910485152203321
Titolo	Interdigital Sensors : Progress over the Last Two Decades / / edited by Subhas Chandra Mukhopadhyay, Boby George, Joyanta Kumar Roy, Tarikul Islam
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-62684-9
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XIII, 407 p. 298 illus., 270 illus. in color.)
Collana	Smart Sensors, Measurement and Instrumentation, , 2194-8410 ; ; 36
Disciplina	681.2
Soggetti	Electronics Microtechnology Microelectromechanical systems Materials Detectors Electronics and Microelectronics, Instrumentation Microsystems and MEMS Sensors and biosensors
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Progress of Interdigital sensors over last two decades -- Interdigital Proximity Sensor: Electrode Configuration, Interfacing, and an Application -- Fabrication of Interdigitated sensors: Issues and Resolution -- Design and Fabrication of Fringing field Interdigital Sensors for Physical Parameters Measurement -- Optimization of interdigitated sensor characteristics -- Epsilon Near Zero Microwave Sensors -- An Overview of Interdigitated Microwave Resonance Sensors for Liquid Samples Permittivity Detection -- IDC Planar RF Sensors for Dielectric Testing and Applications -- Biomedical Application of Interdigital Sensors -- Fabrication of Interdigital Electrodes for Monolithic Biosensing -- Interdigital Sensing System for Kidney Health Monitoring -- Recent advancement of Interdigital sensor for nitrate monitoring in water -- Temperature and Humidity Compensated Graphene Oxide Coated Interdigital Sensor for Carbon Dioxide Gas

Sensing -- Development of Dual-friction Drive based Piezoelectric Surface Acoustic Wave Actuator -- Interdigital Sensor for IoT Applications -- Some applications of Interdigital Sensor for Future Technologies.

Sommario/riassunto

The book highlights the research contributions of the interdigitated (IDT) sensors over a period of two decades in the field of sensing technology. It presents theory, design, and practical realization of the IDT sensors working over wide frequency range for scientific, industrial, and consumer applications. The IDT sensors have been widely investigated for wide range of sensing applications including agriculture, environmental monitoring, structural health monitoring, health care, food and beverage testing, testing of dielectric material, proximity sensing, microfluidic application, automatic dispensing system etc. Hence, importance of IDT sensors is growing continuously for future applications. As such, it offers a key reference guide on IDT sensors for students, applied physicists, material scientists, engineers, sensors designers and technicians. .
