

Passive Moisture Sensor Based on Conductive and Water-Soluble Yarns

ClothFace

A Batteryless RFID-Based Textile Platform for Handwriting Recognition

Gas-phase endstation of electron, ion and coincidence spectroscopies for diluted samples at the FinEstBeAMS beamline of the MAX IV 1.5 GeV storage ring

5G new radio evolution towards sub-THz communications

Circularly Polarized Corner-Truncated and Slotted Microstrip Patch Antenna on Textile Substrate for Wearable Passive UHF RFID Tags

Headband Antenna for Wireless Power Transfer to Millimeter-Sized Neural Implants with Minimal Misalignment Effects

Measurements of Reflection and Penetration Losses in Low Terahertz Band Vehicular Communications

Multifrequency Pulsar Image Classification Using Dual-Band 1D Convolutional Neural Networks

Protective Coating Methods for Glove-Integrated RFID Tags - A Preliminary Study

Towards Asteroid Tomography

Modellings and Measurements Using an Analogue Model

Sequential Collinear Photofragmentation and Atomic Absorption Spectroscopy for Online Laser Monitoring of Triatomic Metal Species

In-flightwind field identification and prediction of parafoil systems

Passive RFID-based Textile Touchpad

Environmental monitoring with distributed mesh networks

An overview and practical implementation perspective for urban scenario

Spectral object recognition in hyperspectral holography with complex-domain denoising

Position Estimation for Drones based on Visual SLAM and IMU in GPS-denied Environment

Statistical evaluation of barkhausen noise testing (BNT) for ground samples

Sensor Fusion for Unobtrusive Respiratory Rate Estimation in Dogs

Location-based beamforming architecture for efficient farming applications with drones

Exploiting the Momentary Dependence of Radar Observations for Non-Cooperative Target Recognition

Incorporating Aircraft Kinematics and Radar Cross Section into the Performance Prediction of Air Surveillance

Methods for simultaneous robot-world-hand-eye calibration  
A comparative study

Automatic numerical differentiation by maximum likelihood estimation of a linear Gaussian state space model

Composite nonlinear feedback control of a JIB trolley of a tower crane behaviors

Impact of Different Concrete Types on Radio Propagation  
Fundamentals and Practical RF Measurements

Methods for long-term GNSS clock offset prediction

Secure environmental monitoring for industrial internet of things  
From framework to live implementation

Bioimpedance Sensor Array for Long-Term Monitoring of Wound Healing from Beneath the Primary Dressings and  
Controlled Formation of  $H_2O_2$  Using Low-Intensity Direct Current

Double-side pumped membrane external-cavity surface-emitting laser (MECSEL) with increased efficiency emitting > 3 W  
in the 780 nm region

Error analysis of NOMA-based user cooperation with SWIPT

Frequency Comb Generation in a Continuous-Wave Pumped Second-Order Nonlinear Waveguide Resonator

High-Q resonance train in a plasmonic metasurface

Optical Frequency Comb Photoacoustic Spectroscopy

Alpha radiation-induced luminescence by am-241 in aqueous nitric acid solution

Automatic detection of water inside concrete slabs using ground penetrating radar

Positioning information privacy in intelligent transportation systems  
An overview and future perspective

Circularly Polarized Textile Tag Antenna for Wearable Passive UHF RFID Systems

Comparison of Human Head Phantoms with Different Complexities for Implantable Antenna Development

Advancements in Solution Processable Devices using Metal Oxides For Printed Internet-of-Things Objects

Charge Storage Level Sensor RFID Tag  
Impedance Matching and Experimental Characterisation

Optimization of RFID-Based Tunnel Access Monitoring System Antenna Reading Areas

Path Loss Characterization for Intra-Vehicle Wearable Deployments at 60 GHz

Strain Reliability of Embroidered Passive UHF RFID Tags on 3D-printed Substrates

Energy Detection-Based Spectrum Sensing over Fisher-Snedecor F Fading Channels

Improved Session Continuity in 5G NR with Joint Use of Multi-Connectivity and Guard Bandwidth

A Framework for Using Radar Measurements of Unknown Targets in Hierarchical Classification

Tuning plasmon induced reflectance with hybrid metasurfaces

M2M Communication Assessment in Energy-Harvesting and Wake-Up Radio Assisted Scenarios Using Practical Components

Inertial Odometry on Handheld Smartphones

User Positioning in mmW 5G Networks Using Beam-RSRP Measurements and Kalman Filtering

Inertial Sensor-Based State Estimation of Flexible Links Subject to Bending and Torsion

Real-time and Robust Collaborative Robot Motion Control with Microsoft Kinect ® v2

Role-based visualization of industrial IoT-based systems

Fabrication and reliability evaluation of passive UHF RFID T-shirts

Acquiring respiration rate from photoplethysmographic signal by recursive bayesian tracking of intrinsic modes in time-frequency spectra

Evaluation of dry electrodes in canine heart rate monitoring

Restoration of low-dose digital breast tomosynthesis

A novel technique for analysis of postural information with wearable devices

An activity recognition framework deploying the random forest classifier and a single optical heart rate monitoring and triaxial accelerometer wrist-band

Detection and Classification of Acoustic Scenes and Events  
Outcome of the DCASE 2016 Challenge

Screen-printed curvature sensors for soft robots

Separation of Moving Sound Sources Using Multichannel NMF and Acoustic Tracking

Designing, Manufacturing and Testing of a Piezoelectric Polymer Film In-Sole Sensor for Plantar Pressure Distribution Measurements

Adaptive and nonlinear control of discharge pressure for variable displacement axial piston pumps

Fluorimetric oxygen sensor with an efficient optical read-out for in vitro cell models

Chipless graphene tag and dual-CP reader for Internet of Things

New Evidence for the Mechanism of Action of a Type-2 Diabetes Drug Using a Magnetic Bead-Based Automated Biosensing Platform

Binary Non-Negative Matrix Deconvolution for Audio Dictionary Learning

Monitoring pH, temperature and humidity in long-term stem cell culture in CO<sub>2</sub> incubator

Developing curiosity and multimedia skills with programming experiments

Open data based value networks  
Finnish examples of public events and agriculture

The educators' telescope to the future of technology

Today is the future of yesterday; What is the future of today?

Introduction to the Special Section on Sound Scene and Event Analysis

Secure and connected wearable intelligence for content delivery at a mass event  
A case study

The variation of air and surface temperatures in London within a 1km grid using vehicle-transect and ASTER data

Joint-Space Kinematic Model for Gravity-Referenced Joint Angle Estimation of Heavy-Duty Manipulators

Non-destructive and wireless monitoring of biodegradable polymers

Structural characterization, spectroscopic, thermal, AC conductivity and dielectric properties and antimicrobial studies of (C<sub>8</sub>H<sub>12</sub>N)<sub>2</sub>[SnCl<sub>6</sub>]

Blind Separation of Audio Mixtures Through Nonnegative Tensor Factorization of Modulation Spectrograms

Adaptive multiresolution method for MAP reconstruction in electron tomography

Measurement of sensitivity distribution map of a ferroelectret polymer film

Electromagnetism and cross-disciplinary problems

Texture region detection by trained neural network

Frequency domain penetration loss in the terahertz band

On prediction of DCT-based denoising efficiency under spatially correlated noise conditions

Microwave assisted laser-induced breakdown spectroscopy at ambient conditions

Amplifier similariton laser with extra-broad bandwidth output pulse

Piezoresistive natural rubber-multiwall carbon nanotube nanocomposite for sensor applications

High performance corrosion resistant coatings by novel coaxial cold- and hot-wire laser cladding methods

Metrics for polyphonic sound event detection

Evaluating transparent liquid screen overlay as a haptic conductor

Method of enhancing touchscreen based user interaction by a transparent deformable liquid screen overlay

Inkjet-printed dual microfluidic-based sensor integrated system

Rapid and sensitive detection of norovirus antibodies in human serum with a bilayer interferometry biosensor

RFID-Based Wireless Passive Sensors Utilizing Cork Materials

Coupled dictionaries for exemplar-based speech enhancement and automatic speech recognition

Sensitivity modeling of an RFID-based strain-sensing antenna with dielectric constant change

Noncontact Respiration Monitoring during Sleep with Microwave Doppler Radar

Circularly polarized shorted ring slot rectenna with a mesh design for optimized inkjet printing on paper substrate

Humidity passive sensors based on UHF RFID using cork dielectric slabs

Low-cost microfluidics-enabled tunable loop antenna using inkjet-printing technologies

Improving reliability for classification of metallic objects using a WTMD portal

Optimal emission enhancement in orthogonal double-pulse laser-induced breakdown spectroscopy

Passive resonance sensor based method for monitoring particle suspensions

Development of Low Cost, Wireless, Inkjet Printed Microfluidic RF Systems and Devices for Sensing or Tunable Electronics

Low-cost inkjet-printed fully passive RFID tags for calibration-free capacitive/haptic sensor applications

Dilute nitride SOAs for high-speed data processing in variable temperature conditions

Light beam hysteresis in liquid crystals

RFID-based sensors for zero-power autonomous wireless sensor networks

Development of a constant dilution sampling system for particulate and gaseous pollutant measurements

Polarization control of the bound state of a vector soliton

160W single-frequency laser based on active tapered double-clad fiber amplifier

Ambient rf energy harvesting sensor device with capacitor-leakage-aware duty cycle control

Detection of KC1 and KOH using collinear photofragmentation and atomic absorption spectroscopy

Cysteine-tagged chimeric avidin forms high binding capacity layers directly on gold

Design and development of a novel passive wireless ultrasensitive RF temperature transducer for remote sensing

Third order nonlinear optical response of TTF-based molecular corners

Detection of 3,4-methylenedioxymethamphetamine (MDMA, ecstasy) by displacement of antibodies

Measurement of the refractive index dispersion of  $\text{As}_2\text{Se}_3$  bulk glass and thin films prior to and after laser irradiation and annealing using prism coupling in the near- and mid-infrared spectral range

Dark solitons in nematic liquid crystals

Directional selectivity through the subwavelength slit in metallic gratings

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Inkjet printed, self powered, wireless sensors for environmental, gas, and authentication-based sensing

Multimode waveguides in nematic liquid crystals

Self-assembled monolayers (SAMs) of porphyrin deposited inside solid-core photonic crystal fibre (SCPCF)

Spatial solitons carrying phase singularities in nematic liquid crystals

Spatial solitons in a self-focusing medium with tunable nonlinearity

Theory of near-IR metatronic nanocircuits using transparent conducting oxides (TCO)

Third harmonic generation enhancement in nematic liquid crystals via nonlocal solitons propagation

Nematicon routing in liquid crystal light valve

Soliton self-deflection via power-dependent walk-off

Routing light with nematicons

Light localization and steering in liquid crystals

Single KTiOPO<sub>4</sub> nanocrystals for nonlinear probing of local optical fields and interaction with a metallic nanostructure

Observation of defect formation in metamaterials

High power fiber lasers

Highly directive radiation and negative refraction using photonic crystals

Fluid Transmission Line Modeling Using a Variational Method

Round Robin computer simulation of ejection probability in sputtering

Ranges and stopping power of KeV electrons in the solid hydrogens

Molecular dynamics simulation of the damage production in Al (110) surface with slow argon ions