# **Table of Contents**

# International Journal of Embedded and Real-Time Communication Systems

Volume 11 • Issue 4 • October-December-2020 • ISSN: 1947-3176 • eISSN: 1947-3184

### **Research Articles**

# 1 Al-Based Cyberbullying Prevention in 5G Networks

Sara Ramezanian, University of Helsinki, Finland Tommi Meskanen, University of Helsinki, Finland Valtteri Niemi, University of Helsinki, Finland

#### 21 Hardware/Software Co-Design of a Vision System for Automatic Classification of Date Fruits

Lazhar Khriji, Sultan Qaboos University, Oman Ahmed Chiheb Ammari, Sultan Qaboos University, Oman Medhat Awadalla, Sultan Qaboos University, Oman

# 41 Multistage Spectrum Sensing for Cognitive Radio Using Energy and Maximum Eigenvalues Detection

Faten Mashta, Higher Institute of Applied Sciences and Technology, Syria Mohieddin Wainakh, Higher Institute of Applied Sciences and Technology, Syria Wissam Altabban, Higher Institute of Applied Sciences and Technology, Syria

# 60 Synchronization-Aware Task Allocation Techniques for Preemption Control to Reduce Blocking Time in Multiprocessor Real-Time System

Ajitesh Kumar, AKTU, Lucknow, India & GLA University Mathura, India Sanjai Kumar Gupta, B.I.E.T., Jhansi, India

#### 80 Comparative Study of Neural Network-Based Approaches for QRS Segmentation

George Kolokolnikov, Bauman Moscow State Technical University, Russia Anna Borde, Medicom LLC, Russia & Bauman Moscow State Technical University, Russia Victor Skuratov, All-Russian Research Institute of Radio Engineering, Russia Roman Gaponov, Medicom LLC, Russia Anastasiya Rumyantseva, Bauman Moscow State Technical University, Russia

# 104 Conversational Frames: Improving Conversation Context in Smart Personal Assistants

Omar Saad Almousa, Jordan University of Science and Technology, Jordan Hazem Migdady, Oman College of Management and Technology, Muscat, Oman Mohammad Al-Talib, Yarmouk University, Jordan

# 134 Hierarchical Interpretable Topical Embeddings for Exploratory Search and Real-Time Document Tracking

Anastasia Ianina, Moscow Institute of Physics and Technology, Russia Konstantin Vorontsov, Moscow Institute of Physics and Technology, Russia

# **COPYRIGHT**

The International Journal of Embedded and Real-Time Communication Systems (IJERTCS) (ISSN 1947-3176; eISSN 1947-3184), Copyright © 2020 IGI Global. All rights, including translation into other languages reserved by the publisher. No part of this journal may be reproduced or used in any form or by any means without written permission from the publisher, except for noncommercial, educational use including classroom teaching purposes. Product or company names used in this journal are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark. The views expressed in this journal are those of the authors but not necessarily of IGI Global.

The International Journal of Embedded and Real-Time Communication Systems is indexed or listed in the following: ACM Digital Library; Bacon's Media Directory; Cabell's Directories; DBLP; Google Scholar; INSPEC; JournalTOCs; Library & Information Science Abstracts (LISA); MediaFinder; SCOPUS; The Standard Periodical Directory; Ulrich's Periodicals Directory