

2019 Index

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This index covers all technical items—papers, correspondence, reviews, etc.—that appeared in this periodical during 2019, and items from previous years that were commented upon or corrected in 2019. Departments and other items may also be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

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Computerized instrumentation

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URS: User-Based Resource Scheduling for Multi-User Surface Computing Systems. *Park, J., +, T-CE Aug. 2019 426-433*

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Control engineering computing

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Cryptographic protocols

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D**Data analysis**

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Data communication

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Decoding

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Digital arithmetic

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Digital audio broadcasting

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Digital video broadcasting

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Digital-analog conversion

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Discrete wavelet transforms

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Diseases

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Disk drives

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Display devices

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Distortion

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Domestic appliances

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Driver circuits

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E

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Electrocardiography

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Energy conservation

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A Robust and Efficient Video Anti-Shaking Algorithm for Low-End Smartphone Platforms. *Xie, Q.*, +, *T-CE Feb. 2019 1-10*

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Feedforward neural networks

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Field programmable gate arrays

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Flash memories

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Fuzzy control

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Fuzzy set theory

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G

Galois fields

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Gaussian processes

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Gesture recognition

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Hidden Markov models

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High definition video

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Home automation

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Image capture

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Microphones

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Microprocessor chips

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Minimization

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Mobile computing

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Motion estimation

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Motion measurement

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Motion sensors

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Multimedia communication

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Music

Music Recommendation System Using Human Activity Recognition From Accelerometer Data. *Kim, H.*, +, *T-CE Aug. 2019 349-358*

N**NAND circuits**

An Efficient and Non-Time-Sensitive File-Aware Garbage Collection Algorithm for NAND Flash-Based Consumer Electronics. *Yan, H.*, +, *T-CE Feb. 2019 73-79*

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Network servers

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Neural networks

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Neurophysiology

eSeiz: An Edge-Device for Accurate Seizure Detection for Smart Healthcare. *Sayed, M.A.*, +, *T-CE Aug. 2019 379-387*

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O**Object detection**

Watch & Do: A Smart IoT Interaction System with Object Detection and Gaze Estimation. *Kim, J.*, +, *T-CE May 2019 195-204*

Open systems

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Optimization

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P**Parallel algorithms**

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Patient monitoring

Stress-Lysis: A DNN-Integrated Edge Device for Stress Level Detection in the IoMT. *Rachakonda, L.*, +, *T-CE Nov. 2019 474-483*

Pattern classification

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Pattern clustering

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Pattern recognition

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Phase detectors

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Physiology

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Power aware computing

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Power consumption

An Area and Power Efficient Interpolation Scheme Using Variable Current Control for 10-Bit Data Drivers in Mobile Active-Matrix LCDs. *Lee, H.*, +, *T-CE May 2019 253-262*

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Power control

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Power engineering computing

Low-Complexity Non-Intrusive Load Monitoring Using Unsupervised Learning and Generalized Appliance Models. *Liu, Q.*, +, *T-CE Feb. 2019 28-37*

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Power system measurement

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Pricing

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Printed circuits

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Probability

Embedding Digital Signature Using Encrypted-Hashing for Protection of DSP Cores in CE. *Sengupta, A.*, +, *T-CE Aug. 2019 398-407*

Program testing

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Proportional control

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Protocols

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Psychology

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Public key cryptography

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Q

Quality of experience

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Quantization (signal)

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R

Radial basis function networks

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Radio transmitters

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Radiofrequency identification

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Random-access storage

VBBMS: A Novel Buffer Management Strategy for NAND Flash Storage Devices. *Du, C.*, +, *T-CE May 2019 134-141*

Rate distortion theory

A Novel Algorithmic Approach for Efficient Realization of 2-D-DCT Architecture for HEVC. *Singhadia, A.*, +, *T-CE Aug. 2019 264-273*

Receivers

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Recommender systems

Music Recommendation System Using Human Activity Recognition From Accelerometer Data. *Kim, H.*, +, *T-CE Aug. 2019 349-358*

Recurrent neural networks

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Reduced instruction set computing

Defeating Silicon Reverse Engineering Using a Layout-Level Standard Cell Camouflage. *Gomez, H.*, +, *T-CE Feb. 2019 109-118*

Redundancy

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Rendering (computer graphics)

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Renewable energy sources

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Resistors

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Resource allocation

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URS: User-Based Resource Scheduling for Multi-User Surface Computing Systems. *Park, J.*, +, *T-CE Aug. 2019 426-433*

Reverse engineering

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Protecting DSP Kernels Using Robust Hologram-Based Obfuscation. *Sengupta, A.*, +, *T-CE Feb. 2019 99-108*

Routing protocols

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Runlength codes

A New DC-Free Runlength Limited Coding Method for Data Transmission and Recording. *Immink, K.A.S.*, *T-CE Nov. 2019 502-505*

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Scheduling

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Screens (display)

Emergency Warning and Bidirectional Communication via Digital Audio Broadcast. *Zhang, H.*, +, *T-CE May 2019 150-159*

Security of data

Communal Acts of IoT Consumers: A Potential Threat to Security and Privacy. *Khan, W.Z.*, +, *T-CE Feb. 2019 64-72*

Semantic Web

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Sentiment analysis

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Set-top boxes

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Signal classification

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Skin

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Smart meters

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Smart phones

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Software agents

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Software architecture

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Software tools

GazeVisual: A Practical Software Tool and Web Application for Performance Evaluation of Eye Tracking Systems. *Kar, A.*, +, *T-CE Aug. 2019 293-302*

Speech recognition

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Steganography

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Storage management

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Support vector machines

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Synchronization

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Systolic arrays

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T**Tactile sensors**

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Telecommunication computing

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Telecommunication power management

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Telecommunication security

An Efficient Authenticated Key Agreement Scheme for Consumer USB MSDs Resilient to Unauthorized File Decryption. *ul Haq, I.*, +, *T-CE Feb. 2019 80-89*

Television

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Timing jitter

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Travel industry

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U**Ubiquitous computing**

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Unsupervised learning

Low-Complexity Non-Intrusive Load Monitoring Using Unsupervised Learning and Generalized Appliance Models. *Liu, Q.*, +, *T-CE Feb. 2019 28-37*

User interfaces

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V**Vibrations**

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Video codecs

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Video coding

A 2-D Multiple Transform Processor for the Versatile Video Coding Standard. *Garrido, M.J.*, +, *T-CE Aug. 2019 274-283*

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Visual communication

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VLSI

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W**Wavelet transforms**

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Wearable computers

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Wireless LAN

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