

# 2020 Index

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This index covers all technical items—papers, correspondence, reviews, etc.—that appeared in this periodical during 2020, and items from previous years that were commented upon or corrected in 2020. 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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#### Cryptographic protocols

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#### Cryptography

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## D

#### Data analysis

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#### Data compression

A Client-Based Fast Channel Change Technique Using Multiple Decoder Clocks. *Akgul, T.*, *T-CE Feb. 2020 61-68*

Multiple Quantization Parameter Optimization in Versatile Video Coding for 360° Videos. *Adhuran, J.*, +, *T-CE Aug. 2020 213-222*

#### Data processing

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#### Decision trees

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#### Decoding

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#### Deep learning

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#### Digital signal processing chips

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#### Discrete cosine transforms

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#### Discrete wavelet transforms

An Efficient IoT-Based Platform for Remote Real-Time Cardiac Activity Monitoring. *Raj, S., T-CE May 2020 106-114*

#### Diseases

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#### Displays

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#### Domestic appliances

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### E

#### Ecosystems

Specification and Unattended Deployment of Home Networks at the Edge of the Network. *Bernabe-Sanchez, I., +, T-CE Nov. 2020 279-288*

#### Edge computing

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#### Edge detection

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#### Electrocardiography

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#### Electromyography

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#### Energy conservation

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#### Energy consumption

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Energy- and Quality-Aware Video Request Policy for Wireless Adaptive Streaming Clients. *Diaz, C., +, T-CE Nov. 2020 366-375*

#### Energy efficiency

Low-Noise Energy Efficient Readout Front-End for Wearable Continuous Blood Pressure Monitoring Systems. *Singh, W., +, T-CE Nov. 2020 318-326*

#### Energy management systems

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#### Entropy

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#### Error correction codes

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#### Event detection

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### F

#### Fall detection

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#### Fast Fourier transforms

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#### Feature extraction

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#### Field programmable gate arrays

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#### Flash memories

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WPA: Write Pattern Aware Hybrid Disk Buffer Management for Improving Lifespan of NAND Flash Memory. *Choi, J., +, T-CE May 2020 193-202*

### G

#### Genetic algorithms

Speech Enhancement Parameter Adjustment to Maximize Accuracy of Automatic Speech Recognition. *Kawase, T., +, T-CE May 2020 125-133*

#### Geriatrics

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#### Gesture recognition

An Incremental Learning Based Gesture Recognition System for Consumer Devices Using Edge-Fog Computing. *Saraswat, S., +, T-CE Feb. 2020 51-60*

Mobile Match on Card Active Authentication Using Touchscreen Biometric. *Keykhah, S., +, T-CE Nov. 2020 376-385*

#### Glucose

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#### Gradient methods

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#### Gray-scale

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## H

**Hardware acceleration**

Obfuscated Hardware Accelerators for Image Processing Filters—Application Specific and Functionally Reconfigurable Processors. *Sengupta, A.*, +, *T-CE Nov. 2020 386-395*

**Hash functions**

A Provably Secure Two-Factor Authentication Scheme for USB Storage Devices. *Ayub, M.F.*, +, *T-CE Nov. 2020 396-405*

**Headphones**

Design and Implementation of an Active Noise Control Headphone With Directional Hear-Through Capability. *Patel, V.*, +, *T-CE Feb. 2020 32-40*

**Health care**

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**Helmet mounted displays**

Video Multimethod Assessment Fusion (VMAF) on 360VR Contents. *Orduna, M.*, +, *T-CE Feb. 2020 22-31*

**Hidden Markov models**

An Energy Prediction Approach for a Nonintrusive Load Monitoring in Home Appliances. *Buddhahai, B.*, +, *T-CE Feb. 2020 96-105*

Anomaly Detection in Smart Home Operation From User Behaviors and Home Conditions. *Yamauchi, M.*, +, *T-CE May 2020 183-192*

**Home automation**

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## I

**Image color analysis**

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**Image processing**

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**Image recognition**

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**Image segmentation**

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**Image texture**

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**Industrial property**

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**Information filters**

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**Injuries**

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**Integrated circuit design**

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**Integrated circuit reliability**

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**Integrated circuit yield**

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**Interactive television**

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**Internet**

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**Internet of Things**

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**Invasive software**

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**IP TV**

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## K

**Kernel**

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## L

**Learning (artificial intelligence)**

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**Load management**

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**M****Machine learning**

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**Matrix algebra**

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**Medical computing**

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**Medical services**

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**Medical signal detection**

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**Minimization**

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**Mobile applications**

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**Monitoring**

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**N****NAND circuits**

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**Network interfaces**

Virtual Connection: Selective Connection System for Energy-Efficient Wearable Consumer Electronics. *Hong, G., +, T-CE Nov. 2020 299-307*

**Neural network architecture**

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**Neurophysiology**

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**O****Operating systems**

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**Optimization**

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**P****Pain**

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**Parallel processing**

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**Particle swarm optimization**

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**Password**

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**Patient diagnosis**

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**Pattern clustering**

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**Peer-to-peer computing**

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**Performance evaluation**

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**Photoplethysmography**

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**Power measurement**

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**Power system measurement**

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**Predictive models**

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**Private key cryptography**

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**Probability**

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**Program testing**

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**Q****Quality of experience**

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**Quantization (signal)**

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**Queueing theory**

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**R****Radio transceivers**

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**Radiofrequency identification**

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**Random-access storage**

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**Regression analysis**

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**Resource management**

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**Reverse engineering**

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**S****Security**

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**Security of data**

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**Semisupervised learning**

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**Sensors**

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**Simulated annealing**

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**Smart cards**

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**Smart healthcare**

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**Smart phones**

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#### **Z**

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