Table of Contents

Concatenated Turbo/LDPC codes for deep space communications: performance and implementation 1
Carlo Condo

Capacity Saving Analysis of Lp-problem based Allocation with Packet Loss and Power Metrics in GEO-Satellite Communications Channels 7
Igor Bisio, Stefano Delucchi, Fabio Lavagetto, and Mario Marchese

New Optical Communication Capabilities Using Nanosatellites 13
Francesco Sansone, Lorenzo Olivieri, and Alessandro Francesconi

Toward Self-Reconfiguration of Switched Ethernet Architectures in the Next Generation of Space Launchers 17
Robert Jeremy, Georges Jean-Philippe, and Divoux Thierry

Development of Wideband Dual Polarized of Microstrip Antennas for Microwave Remote Sensing 23
Akbar Eslami, Manohar Deshpande, James Lee, Henry Mishoe, Jamiiru Luttamaguzi, and Ehsan Sheybani

Hybrid Beamformer for TPMS Interference Suppression 28
Suk-seung Hwang, Cheol Park, and Seong-min Kim

Multi-millisecond GNSS Maximum Likelihood Bit Synchronization Method 34
Gerardo Ludovico Puga, Pedro Agustin Roncagliolo, and Javier Gonzalo Garcia

Turbo Decoder VLSI Architecture with Non-Recursive max* Operator for 3GPP LTE Standard 40
Ashfaq Ahmed, Maurizio Martina, and Guido Masera

A Novel Range-spread Target Detection Algorithm Based on Waveform Entropy for Missile-borne Radar 46
Bo Liu, Wenge Chang, and Xiangyang Li

A Brief Analysis of the Motion Compensation for FMCW SAR 52
Gaowei Jia, Wenge Chang, Xiangyang Li, and Zhiyong Zhao

A Novel DDS-PLL Hybrid Structure to Generate the LFM Signal 58
Zhiyong Zhao, Xiangyang Li, Wenge Chang, and Gaowei Jia

Research of Current Movements of the Earth's crust in the Territory of Almaty City 63
Zhumabek Zhantayev, Baurzhan Kurmanov, Assylkhan Bibossinov, and Kairat Sadykov

Cloud top height estimation from the Meteosat water vapor imagery using computational intelligence techniques: Preliminary results 66
Stavros Kolios, Petros Karvelis, Chrysostomos Stylios, and Periklis Tagkas

The Two-Loop Tracking Strategy for Real-Time Multi-Antenna GNSS Receivers 72
Pedro A. Roncagliolo, Jorge Cogo, and Javier G. Garcia