

2014 Twentieth National Conference on Communications (NCC 2014)

**Kanpur, Uttar Pradesh, India
28 February – 2 March 2014**



**IEEE Catalog Number: CFP1442J-POD
ISBN: 978-1-4799-2363-2**

1

128 Gbit/s \times 80 Ch Signal Transmission Over 1840 Km of Standard G652.D Fiber""346

3

3-D Mobile Node Localization Using Constrained Volume Optimization Over Ad-Hoc Sensor Networks""625

A

A Bayesian Approach to Speaker Normalization Using Vowel Formant Frequency""9; 2

A Broadband Cavity-backed Slot Antenna Design with Small Cavity Height and Analysis on Large Ground Plane""55

A Generic Real-Time Traffic Scheduler for OFDMA based Cellular Networks"" :

A Geometrical Approach for Power Optimization in Relay-Based Cellular Networks""637

A Modified Rough Longest Common Subsequence Algorithm for Motif Spotting in an Alapana of Carnatic Music""8; 4

A New Algorithm for Nonparametric Sequential Detection""434

A New Multilead ECG Data Compression Method Using Higher-Order Singular Value Decomposition""872

A Novel Compact Tri-Band Antenna Design for WiMAX, WLAN and Bluetooth Applications""994

A Novel Cubic-Phase Linear Chirp for Time Delay and Doppler Stretch Estimation""982

A Novel Method for Redundant Feature Rejection in Correspondence Problem""943

A Polymatroid Approach to Separable Convex Optimization with Linear Ascending Constraints""4; 6

A Probabilistic Approach to Selecting Units for Speech Synthesis Based on Acoustic Similarity""755

A Range-Free Tracking Algorithm in Vehicular Ad-Hoc Networks""62;

A Secure and Energy-Efficient Stochastic Routing Protocol for Wireless Mobile Ad-hoc Network""887

A Secure Transmission Scheme for Textual Data with Least Overhead""468

A Sliding-band Dynamic Range Compression for Use in Hearing Aids""572

A Spatio-Temporal Model for Estimation and Efficient Tracking of Dynamic Boundaries""767

A Strip Fed Wideband Rectangular Dielectric Resonator Antenna Using Perforations""596

An Approach to Building Language-Independent Text-to-Speech Synthesis for Indian Languages""876

An Enhanced Algorithm for the Quantification of Human Chorionic Gonadotropin (hCG) Level in Commercially Available Home Pregnancy Test Kits""4; ;

An Improved Puncturing Method for Rate-compatible LDPC Codes""823

An Integrated Framework for Optimizing Power Consumption of Smart Antennas""79:

An Object Recognition Algorithm Using Maximum Margin Correlation Filter and Support Vector Machine""3; 6

Analysis of Fricatives, Stop Consonants and Nasals in the Automatic Segmentation of Speech Using the Group Delay Algorithm""8; :

Analysis of SAW Correlator Based Communication Systems Employing Binary Encoded Orthogonal Frequency Coding""584

Analysis of Scattering Parameters of a Stepped Cylindrical Horn Containing Inner Posts Using MM and 2-D FEM ""659

Analysis of Weights for Optimal Positioning of Base Station in a Wireless Sensor Network""964

Application Resource and Activity Footprinting to Influence Management in Next Generation Clouds""835

Automatic Phonetic Transcription for Read, Extempore and Conversation Speech for an Indian Language: Bengali""829

B

Balancing Energy Consumption Using Cluster Based Approach in Wireless Sensor Network""773

BER Performance of Switched Diversity Receivers over κ - μ and η - μ Fading Channels""5;

Better Phone Alignment for Confidence Measures in Voice Based Querying""452

Burstiness Minimized Rate Control for High Resolution H.264 Video Conferencing""749

C

Characterization of Wireless Accelerometer Sensor and Its Industrial Applications""968

Class Based Priority Scheduling to Support Machine to Machine Communications in LTE Systems""9: 6

Compact Fractal Shaped, Unequal Length Branch-line Coupler for Dual-band Applications""458

Comparative Study of Spectral Mapping Techniques for Enhancement of Throat Microphone Speech""67

Construction of Singer Subgroup Orbit Codes Based on Cyclic Difference Sets""556

Construction of Singer Subgroup Orbit Codes Based on Cyclic Difference Sets""556

D

Decentralized Cooperative Spectrum Sensing in Cognitive Radio without Fusion Centre""68;

Design of a Novel Dual Band Patch Antenna Loaded with CELC Resonator for WLAN/WiMAX Applications""3: :

Dual Antenna Array for Radiolocation of RCIED Trigger""978

Dynamic Routing Framework for OMNET++ Based Hardware-in-the-Loop (HITL) Network Simulation""; 6

E

Effect of Frequency Granularity and Link Margin At 100G and Beyond Flexgrid Optical Networks ""496

Effect of Multipoles in Resolution with Linear Sampling Method""859

Effective Approach to Reduce Complexity for HEVC Intra Prediction in Inter Frames""778

Energy Efficient Outsider Attacks on IEEE 802.15.4 Beacon Enabled Wireless Sensor Networks""578

Energy Optimized Caching Decision and Size for IP-TV Services Based on Estimated Arrival Rate""545
ePAB: Energy-Efficient, User-Preference Based Adaptive Multimedia Broadcast""7: ;
Epochs Based Compression of LP Residual for Source Modeling in Text-to-Speech Synthesis ""665
Equality Conditions for Quantum Quasi-Entropies Under Monotonicity and Joint-Convexity""446
Estimation of Allpass Transfer Functions by Introducing Sparsity Constraints to Particle Swarm Optimization""72
Experiments on Front-End Techniques and Segmentation Model for Robust Indian Language Speech Recognizer""484

F

Fast and Robust Real Time Digital Video Stabilization with Smear Removal Using Integral Projection Curve Warping Technique""43:
FPGA Based Implementation of High Speed Tunable Notch Filter Using Pipelining and Unfolding""533
Frequency Planning for Cellular Network Employing Carrier Aggregation""864
Frequency Reconfigurable Antenna Using PIN Diodes""66:
FTTx Link Design Using Bend-Insensitive Fibers""388

G

Group Delay Based Phone Segmentation for HTS""422

H

I

Illuminant Colour Based Image Forensics Using Mismatch in Human Skin Highlights""83;
Implementation of Multi-hop Time Synchronization on Miniature Test-bed Setup of Underwater Acoustic Sensor Network""7: 5
Improved PSK Classification Using Spectral Correlation Functions""75;
Improving Mobile Phone Based Query Recognition with a Microphone Array""566
In-Network Online Asynchronous Regression Over a Wireless Network""4; ;
Instrument Identification Using PLCA Over Stretched Manifolds""3: 5
InternetHDR: Enhancing an LDR Image Using Visually Similar Internet Images""5; 3
Investigation on Crosspolar Performance of a Coaxial Fed Dual Mode Matched Rectangular Feed Horn with Step Discontinuity ""788

J

Joint Channel Estimation and Data Detection in MIMO-OFDM Systems Using Sparse Bayesian Learning""696

K

L

Load-aware Routing for Non-Persistent Small-World Wireless Mesh Networks""34
Local Binary Pattern for Automatic Detection of Acute Lymphoblastic Leukemia""355
Localized Image Enhancement""399
Low Complexity Spectrum Sensing Algorithm Robust to Noise Uncertainty""725

M

MAC Channel with States for Pulse-based Communication Systems""55:
Maximizing Utility Among Selfish Users in Social Groups"": 4
MIMO Decode-and-Forward Relay Beamforming for Secrecy with Cooperative Jamming""328
Modified Greedy Pursuits for Improving Sparse Recovery""954
Monaural Speaker Segregation Using Group Delay Spectral Matrix Factorization""674
Multi Channel Speech Dereverberation Using LP Residual Cepstrum in an Adaptive Beamforming Framework""6: 2

N

New Encoding Schemes for Efficient Multilingual Text Messaging""6; 4
No-Sense: Sense with Dormant Sensors""58:
Node-splitting Constructions for Large Girth Irregular and Protograph LDPC Codes""4: 6
Novel Approach Limiting Non-Square Prediction Unit (PU) Estimation in HEVC""6; :
Novel RSSI Evaluation Models for Accurate Indoor Localization with Sensor Networks""743

O

On Bounds and Capacity of Cognitive Multiple Access Z-Interference Channel""959
On Segmentation of MR Images Using Curvelet and Fuzzy C-Means Under Compressed Sensing""349
On the Capacity of Full and Partial CSI Based Transmission Link Selection in Decode-and-Forward Cooperative System""973
On the Performance of Underwater Communication System in Noise with Gaussian Mixture Statistics""948
On Using Complex Homotopy for Impulse Noise Cancellation in Images""654
On White-Space Detection, Localization and Coverage""59;
Optimal Channel Stopping Rule Under Constrained Conditions for CRNs""479
Optimal Communication Scheduling for Iterative Decoding of Irregular Codes""3:
Optimal Packet Size for Energy Efficient WBAN Under M-periodic Scheduled Access Mode""99:
Optimal Power Allocation Policies for Low Powered Wireless Communication Systems""686
Optimization of All Optical AND Gate for OOK Data At 10 Gbps""54;
Optimized Codes for Bidirectional Relaying""372

Outage Analysis of Full Duplex Coded Cooperation""49;
Outage Performance of Cognitive Relay Network with Imperfect Channel Estimation Under Proactive DF Relaying""334
Outage Performance of Regenerative Cooperative Relay Network in KG Fading Channel""45
Outer Bounds on the Secrecy Rate of the 2-User Symmetric Deterministic Interference Channel with Transmitter Cooperation""6: 8

P

Path Loss Modeling for Indian Cities - Some Observations""648
Performance Analysis of Co-channel Deployment of Femtocells with Power Control in 4G Networks""988
Performance Analysis of Discrete Rate Adaptation in OFDM under Transceiver Impairments""77
Performance Analysis of SIP Signaling Network Using Hierarchical Modeling""783
Performance Analysis of Sub-optimal Transmit and Receive Antenna Selection Strategies in Single Relay Based DF Cooperative MIMO Networks""937
Power Analysis of LTE System for Uplink Scenario""899
Printed Multiband Minkowski Fractal Curved Antenna""463
Priority Based Pixel Domain Wyner-Ziv Video Coding using Key frames""92;

Q

Quality of Experience Aware Video Scheduling in LTE Networks""8
Quantitative Assessment of TV White Space in India""5: 7

R

Radial Basis Function Cascade Network for Sparse Signal Recovery (RASR)""99
Reconfigurable Dual-Band Notch UWB Antenna""869
Reduced Look Ahead Orthogonal Matching Pursuit""72;
Reduced-State Soft-Output Equalization for MIMO-ISI Systems Employing HOM""847
Reducing Resource Consumption in WSN in the Event of a Node Failure""926
Replication-based Distributed Storage Systems with Variable Repetition Degrees""3""
RF Pulse Shaping for Higher-Order Optical Modulation""95
Robust Floor Determination for Indoor Positioning""48:
ROSALNet: A Spectrum Aware TDMA Mesh Network for Rural Internet Connectivity""642

S

Script Separation in Machine Printed Bilingual (Devnagari and Gurumukhi) Documents Using Morphological Approach""8: 3
Significance of Dictionary for Sparse Coding Based Pose Invariant Face Recognition""377
Silicon Micro-ring Assisted WDM Modulator for Flexible Modulation Format""33:
Soft Real Time Implementation of a Cognitive Radio Testbed for Frequency Hopping Primary Satisfying QoS Requirements""83

Sparsity Based Face Modelling and Detection with Small Sample Problem ""394
Spectrum Sensing with Censoring of Double Threshold Based Cognitive Radios in Rayleigh Fading""322
Speech Biometric Based Attendance System""7; 7
SRS-based User Proximity Detection in LTE Small Cells""382
Study of Dual-Hop Urban Optical Wireless Communication (UOWC) Systems with Amplify and Forward Relay""67:
Study on Ultra-thin Dual Frequency Metamaterial Absorber with Retrieval of Electromagnetic Parameters""89
Subcarrier Based Resource Allocation""893

T

The Jamming Capacity of the Fading Multiple Access Channel""539
Throughput Analysis of Best-m Feedback in OFDM Systems with Uniformly Correlated Subchannels""737
Throughput Enhancement Using Network Modulation in Cooperative Communication""35:

U

URL Classification Using Non Negative Matrix Factorization""428
User-Based Integrated Offloading Approach for 3GPP LTE-WLAN Network""853
Utilizing Graph Sampling and Connected Dominating Set for Backbone Construction in Wireless Multimedia Sensor Networks""8: 8

V

Video Codec Framework (VCF): Novel Firmware Architecture for Video Hardware""4:
Vision-based Detection of Power Distribution Lines in Complex Remote Surroundings""87;

W

Wavelet Based Spectrum Sensing in a Multipath Rayleigh Fading Channel""527
Wireless Sensor Network Based Advisory System for Apple Scab Prevention""366

Z

Zero-Crossings Based Spectrum Sensing Under Noise Uncertainties ""5; 9