2008 China-Korea-Japan Graduates Workshop on Electronic Information (GWEI'08)

Advance Program

University of Electronic Science and Technology of China

Chengdu, China

October 29 – November 1, 2008

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Advance Program

CONTENTS

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Keyu Chen, UESTC, China

WORKSHOP OVERVIEW

October 29, 2008   Registration

October 30, 2008
    10:30-12:00   Committee Meeting
                  Campus Tour

    12:30-13:30   Lunch

    14:00-14:30   Opening Ceremony
    14:30-16:30   Invited Speeches
                  Millimeter-wave Radar Imaging and Bistatic SAR Imaging (Prof. Jianyu Yang UESTC, China)
                  Embeded System and Future Technology (Prof. Byoung-Chul Ahn, Yeungnam University, Korea):
                  Wireless Challenge (Prof. Fumiyuki Adachi,Tohoku University, Japan):
    16:30-18:00   Poster Session

    18:30-20:00   Welcome Banquet

October 31, 2008
    8:30-10:30   Oral Session A
    10:30-10:45   Coffee Break
    10:45-12:45   Oral Session B

    12:45-13:45   Lunch

    14:00-16:00   Oral Session C
    16:00-16:15   Coffee Break
    16:15-18:30   Oral Session D

    18:30-20:00   Closing Ceremony & Dinner

November 01, 2008
    8:30-10:00   Professor Meeting
    10:30-17:00   City Tour

SESSION SCHEDULE

Poster Session
October 30, 2008   16:30-18:00   International Conference Center, UESTC

P01: A 35-W High-Efficiency Envelope Tracking Power Amplifier for WCMA Base-station
    Gan Lu, Song-Bai HE (UESTC)

P02: Gesture Recognition for Human Computer Interaction
    Sung Yong Chun, Gi Hoon Park, Chan-Su Lee (Yeungnam Univeristy)

P03: An adaptive analog predistortion PA for WCDMA repeater systems
    Tan Lizhong, Bao Jingfu, and He Jun, Niu Jilin (UESTC)

P04: Image Mosaicing with Feature Points
    Daisuke Miyachi, Shinichiro Omachi, and Hirotomo Aso (Tohoku University)

P05: Design of A Ka-Band Substrate Integrated Waveguide Bandpass Filter
    Yi Zhao, Ling Wang, Xiao-Hong Tang (UESTC)

P06: Vision system technical for intelligent car
    Donghwan Park, Jinha Park, Yongwan Park (Yeungnam Univeristy)

P07: Design of High Temperature Superconducting (HTSC) Filter for Communication
    FAN Shao-dong, YANG Kai, BU Shi-rong (UESTC)

P08: Effect of Block Interleaved Channel Coding in a Time-selective Rayleigh Fading Channel
    Kei Ogihara, Hiroki Matsuda, Kazuki Takeda, and Fumiyuki Adachi (Tohoku University)

P09: Design of linear phase coaxial-cavity filter
    Ma Yunxuan, Yang Kai (UESTC)

P10: LED equivalent circuits for lateral and vertical LEDs
    Jae-Hoon Kim and Ja-Soon Jang (Yeungnam Univeristy)

P11: 1.1GHz Class-A Wideband LDMOS Power Amplifier
    Haifeng Wu, Jie Lin (UESTC)

P12: Thickness Dependence of Damping Constant for Ni-Fe Films
    Yoshio Mitsuzuka, Yasushi Endo, Yutaka Shimada, Masahiro Yamaguchi (Tohoku University)

P13: The Design of Millimeter Wave Radiometer Display and Control Terminal Module based on Arm9
    Jiang Yu, Xiong Jintao, Yang Jianyu (UESTC)

P14: A CNN-based Edge Detection Algorithm for Rock Image
    Chang -Tao He, Wei -Xing Wang (UESTC)

P15: Design Of Bandpass Filter With Finite Transmission Zero Using LTCC Technology
    Guang-Long Huang, Ling Wang ,Xiao-Hong Tang (UESTC)

P16: Implementation of a Pitch Shifter on the TMS320C50DSK
    Keita MIYOSHI, Masahide ABE and Masayuki KAWAMATA (Tohoku University)

P17: Non-dispersion X-band Six-bit Digital Phase Shifter
    Fuping Lin, Zhengde Wu (UESTC)

P18: Design rules for the realization of low-resistance and highly thermal stability in GaN-based ohmic contacts

Jun Jin, Sei-Min Kim , and Ja-Soon Jang (Yeungnam Univeristy)

P19: Performance analysis of analog quadrature modulator in digital-predistortion system

Yu Xiangqi, He Songbai (UESTC)

P20: Antenna Diversity for Improving BER Performance in A Rayleigh Fading Channel

Masashi ITAGAKI, Tetsuya YAMAMOTO, Kazuki TAKEDA, and Fumiyuki ADACHI (Tohoku University)

P21: Adjustable Filter-and-Sum Beamformer with Post Wiener Filter for Speech Enhancement

Xiao Yan, Zhiming He (UESTC)

P22: Adoptive Mono-Vision and Fuzzy Control System for Autonomous Vehicle

Hyun-Koo Kim, Jung-Eun Joung and Ho-Youl Jung (Yeungnam Univeristy)

P23: An Analog Predistortion Power Amplifier in WCDMA Applications

Jun He, Jing-Fu Bao, Li-Zhong Tan (UESTC)

P24: Study on STT Noise of TMR Read Heads in the GHz range

Tetsuya Abe, Yasushi Endo, Mitsuru Suzuki, Masahiro Yamaguchi (Tohoku University)

P25: Research on Plank's Law and Radiometer Front-End Modeling in W-Band

Jiao Yuanbo, Zhang Yonghong (UESTC)

P26: Enhanced Resource Utilization for QoS-guaranteed DiffServ-over-MPLS Traffic Engineering

Kwang-Tae Jeong, Jeong-Ki Park, Young-Tak Kim (Yeungnam Univeristy)

P27: Design of a Dual-Circular Polarized Omnidirectional Array

Dakui Wu, Yong Fan, Minghua Zhao, Jian Gu (UESTC)

P28: BER Performance of Maximal Likelihood Sequence Estimation in a Frequency-selective Channel

Suguru OKUYAMA, Tatsunori OBARA, Kazuki TAKEDA and Fumiyuki ADACHI (Tohoku University)

P29: A Ka-band 2 Watt MMIC Power Amplifier Using 0.15 um GaAs DH-PHEMT Technology

Wen Huang, Yunchuan Guo and Ruimin Xu (UESTC)

P30: Parking Management System using Video WSNs

Eung-Sang Lee, Byung-Keun Jang, Byoungchul Ahn (Yeungnam Univeristy)

P31: A Systematic Approach to the Reliability Analysis of an n-unit Warm Standby System with k-repair facility

Yu Pang (UESTC)

P32: A Query-by-Humming System using Tone Interval Features

Kazumasa Takahashi, Takuto Ichikawa, Motoyuki suzuki, Akinori Ito and Shozo makino (Tohoku University)

P33: A Novel Algorithm of High-Speed Target Detection

Wang Shan, Kong Lingjiang, Yang Jianyu (UESTC)

P34: Investigation of Design factors for enhancing light-extraction from the LED

Mi-Ran Koo and Ja-Soon Jang (Yeungnam Univeristy)

P35: An effective algorithm for dim PMMW targets detection using dynamic programming

Wang Junli, Xiong Jintao, Li Liangchao, and Yang Jianyu (UESTC)

P36: Systematic Design and Verification of Binary/Multiple-Valued Fused Logic Circuits

Takashi Arimitsu, Masanori Natsui, Tasuku Nagai, and Takahiro Hanyu (Tohoku University)

P37: Full Time-Domain Experiment on Time Reversed Transmission for UWB Wireless Communication in Sparse Multipath Environment

Xinxing Liang, Deshuang Zhao, and Bingzhong Wang (UESTC)

P38: Text Index Algorithms based on Flash Memory

Joono Noh, Woosik Lee, Haengrae Cho (Yeungnam Univeristy)

P39: SAR Image Segmentation Method with Multiple Regions Based on the Partial Differential Equations

Yang Xin, Huang Shunji (UESTC)

P40: Asynchronous Multiple-Valued Data Transfer and Its Application

Tomoyoshi Funazaki, Naoya Onizawa, Atsushi Matsumoto, and Takahiro Hanyu (Tohoku University)

P41: Pol-SAR Image Classification Based on Subaperture Analysis and Polarimetric Target Decomposition

Haijiang Wang, Wanlan Wu, Yiming Pi (UESTC)

P42: Aperture Coupled Fed LTCC Microstrip Patch Antenna

Jing Fei, Bo Yan (UESTC)

P43: Extended Ellipse-Cross-Localization of Through-the-Wall Radar

Jia Shigong, Kong Lingjiang, and Liu Bin (UESTC)

P44: MTJ-Based Nonvolatile Logic-in-Memory Circuit and Its Application

Toshiki Taketani, Shoun Matsunaga, and Takahiro Hanyu (Tohoku University)

P45: TBD Based on DPA for Radar Early Detection of Weak Targets

Fu Heshan, Kong Lingjiang, Yang Jianyu, and Yi Wei (UESTC)

P46: Capacitance Simulation of touch sensor

Young Ill Roh, Ji Hoon Woo, Chang Hoi Ahn (Yeungnam Univeristy)

P47: A Tracking Algorithm Based on Dynamic Programming Algorithm

Yi Wei, Kong Lingjiang, Yang Jiangyu, Deng Xiaobo, Fu Heshan (UESTC)

P48: An Overview of Remote Sensing Image Segmentation Based On Level Sets

Wenhao Zhang (UESTC)

P49: Ultra Wideband Beamforming Based on Multi-Frequency Distortionless Restriction

Lu Zhou, Qun Wan, Yipeng Liu, Chenggang Jiang (UESTC)

P50: The Design of Presion Frequency Synthesizer for Television System

Shi Hairan, Bao Jingfu (UESTC)

P51: A Compact UWB Bandpass Filter

Shanshan Gao, Shaoqiu Xiao, and Bing-Zhong Wang (UESTC)

P52: A Domain Decomposition Method for 3-D FDFD

Gang Zheng, Bing-Zhong Wang, and Wei Shao (UESTC)

P53: A broad-band waveguide-to-microstrip transition using finline for W-band applications

Deng Wentian, Zhang Yonghong, and Shu Liang (UESTC)

P54: Vehicle Emergency Management System

Seunguk Lee, Junho Lee, Jinwoo Song, Yongwan Park (Yeungnam Univeristy)

P55: Home/Office Network Management System for QoS-guaranteed Multimedia Service Provisioning

 Jin-Wook Kim, Bong-Kyun Lee, Young-Tak Kim (Yeungnam Univeristy)

P56: Call Processing Location Determination Algorithm

 Liu Fang , Liu Wei, Guo Wei (UESTC)

P57: The Design of A Vehicle Broadband Sleeve Antenna

 Deqiang Yang, Jin Pan (UESTC)

Oral Session

Session A:

October 31, 2008   8:30-10:30   International Conference Center, UESTC

 Chair: Prof. Shiwen Yang, UESTC, China

 Co-chair: Prof. Ja-Soon Jang, Yeungnam Univeristy, Korea

 Co-chair: Prof. Yasushi Endo, Tohoku University, Japan

 Co-chair: Prof. Ki-Dong Lee, Yeungnam Univeristy, Korea

08:30-08:45   A1: Bistatic Synthetic Aperture Radar: A Brief Survey

 Junjie Wu, Jianyu Yang, Yulin Huang, Haiguang Yang, Jintao Xiong (UESTC)

08:45-09:00   A2: Multiple Description Coding of Flash Video based on Motion Vector Replication

 Takuya Kuraishi, Masashi Ito, Akinori Ito and Shozo Makino (Tohoku University)

09:00-09:15   A3: Device-Performance Characteristics of GaN-based Vertical LED grown on Si Substrate

 In-Ki Kang, Ji-Hyun Kim, and Ja-Soon Jang (Yeungnam Univeristy)

09:15-09:30   A4: Sparse Multi-path Channel Estimation using Regularized Orthogonal Matching Pursuit Algorithm

 Guan Gui, Qun Wan, Anmin Huang (UESTC)

09:30-09:45   A5: Development of an Autonomous Navigation System for Unmanned Ground Vehicle

 Eun-Young Jeong, Jeong-Hwan Kwak, Dae-Han Hong, Yoon-Gu Kim, Ki-Dong Lee (Yeungnam Univeristy)

09:45-10:00   A6: Design of Planar Power Inductor for mobile IT devices

 Yan Lu, Sho Muroga, Masahiro Yamaguchi (Tohoku University)

10:00-10:15   A7: An Improved Design of Omnidirectional Microstrip Antenna

 Jianbiao QIU, Jin PAN (UESTC)

10:15-10:30   A8: 32Bit Microcontroller Design for Embedded System

 Mu-Jin Lee, Kwang-Su Seong (Yeungnam Univeristy)

10:30-10:45   Coffee Break

Session B:

October 31, 2008   10:45-12:30   International Conference Center, UESTC

 Chair: Prof. Byoung-Chul Ahn, Yeungnam Univeristy,Korea

Co-chair: Prof. Masanori Natsui, Tohoku University, Japan
Co-chair: Prof. Yiming Pi, UESTC, China
Co-chair: Prof. Xiaoling Zhang, UESTC, China

10:45-11:00   B1: Distributed Antenna Network using Maximal Ratio Transmission

Hiroki Matsuda, Hiromichi Tomeba and Fumiyuki Adachi (Tohoku University)

11:00-11:15   B2: An Ultra-wideband and Low Phase Noise Frequency Synthesizer Based on YIG Oscillator

Jin-Jie Wang, Rui He, Xiao-Hong Tang (UESTC)

11:15-11:30   B3: User Data Stream Allocation for Maximum Sum Capacity with Data Rate Fairness in Block Diagonalized Multiuser MIMO Systems

Dongho Lim, Kwonhue Choi (Yeungnam Univeristy)

11:30-11:45   B4: Improved Convergence Rate Using an Inverse Filter for Active Noise Control Systems

Kiyoe Kurihara, Masahide Abe, and Masayuki Kawamata (Tohoku University)

11:45-12:00   B5: Color Edge Detection Using Density Value

Jiangyan Xu, Weixing Wang, Changtao He and Wang Luo (UESTC)

12:00-12:15   B6: A Multi-Reply Extension to AODV based on Path Energy

Chen Ni and Chonggun Kim (Yeungnam Univeristy)

12:15-12:30   B7: Two-dimensional Scan by Linear Phased Array with Pattern Reconfigurable Elements

Yanying Bai, Shaoqiu Xiao, Bingzhong Wang and Shanshan Gao (UESTC)

12:30-12:45   B8: Implementation of tiny bootloader for ARM920T based system

Ji-Hye O, Young-Ho Sohn (Tohoku University)

Session C:

October 31, 2008   14:00-16:00   International Conference Center, UESTC

Chair: Prof. Yasuo Ohtera, Tohoku University, Japan
Co-chair: Prof. Hee-Don Seo, Yeungnam Univeristy, Korea
Co-chair: Prof. Hyun-Yeol Chung, Yeungnam Univeristy, Korea
Co-chair: Prof. Songbai He, UESTC, China

14:00-14:15   C1: FMM for the electromagnetic analysis of PCB

Se-Jun Oh , Jae-Hyun Oh , Chang Hoi Ahn (Yeungnam Univeristy)

14:15-14:30   C2: Extraction of Structure of Shapes Using Weighted Minimum Common Supergraph

Tomo Miyazaki, Shinichiro Omachi and Hirotomo Aso (Tohoku University)

14:30-14:45   C3: New Lumped Double-Pi Model for Silicon Spiral Inductors

Mingfeng Gu (UESTC)

14:45-15:00   C4: Moving Target Identification using HRRPs

Jong-Il Park, Sang-Won Jung, Kyung-Tae Kim (Yeungnam Univeristy)

15:00-15:15   C5: Automatic Detection of Abnormal Sound in an Office Environment

Akihito Aiba, Masashi Ito, Akinori Ito, and Shozo Makino (Tohoku University)

15:15-15:30   C6: Time-Variant Polar Format Algorithm for Time-Variant Bistatic SAR Imaging

Zhongqing Qian, Xiaoling Zhang, and Yun Han (UESTC)

15:30-15:45   C7: Comparison of Reliability Characteristics of GaN-based LED with/without Strain-released Patterned Sapphire Substrates

Sei-Min Kim, Young-Boo Moon, and Ja-Soon Jang (Yeungnam Univeristy)

15:45-16:00   C8: Measurement of the Optical Bias Point of the Integrated Optical Electric Field Sensor

Bao Sun, Fu-Shen Chen (UESTC)

16:00-16:15   Coffee Break

Session D:

October 31, 2008   16:15-18:00   International Conference Center, UESTC

Chair: Prof. Jingfu Bao, UESTC, China

Co-chair: Prof. Chan-Su Lee, Yeungnam Univeristy, Korea

Co-chair: Prof. Tao Yang, UESTC, China

Co-chair: Prof. Masashi Ito, Tohoku University, Japan

16:15-16:30   D1: A Ka-Band Bandpass Filter with Narrow Band Using LTCC Technology

Jian Gu, Yong Fan, Yonghong Zhang, Dakui Wu (UESTC)

16:30-16:45   D2: Design of Integrated Magnetic Field Probe to Evaluate Radiated Emission from LSI Chip

Shiori Namba, Hideki Torizuka, Masahiro Yamaguchi, and Shoji Kawahito (Tohoku University)

16:45-17:00   D3: Adaptive Modulation and Power allocation for Multiuser MIMO Systems with Partial Feedback

Youxiang Wang and Yeongwan Park (Yeungnam Univeristy)

17:00-17:15   D4: BER Performance of Joint Frequency-Domain Equalization and Despreading for DS-CDMA Using Cyclic Delay Transmit Diversity

Tetsuya Yamamoto, Kazuki Takeda, Fumiyuki Adachi (Tohoku University)

17:15-17:30   D5: UWB High resolution location system for NLOS environments

Yeong-Hwan Ju, Yong-Wan Park (Yeungnam Univeristy)

17:30-17:45   D6: Data Acquisition and Experimental System for 16-channel MMW focal-plane Radiometer

Jin Wan, Jintao Xiong, Liangchao Li, Jianyu Yang (UESTC)

17:45-18:00   D7: Design and Implementation of High-speed and High-tap FIR Filter Based on Distributed Arithmetic

Yun Zhang, Songbai He, Xiaofei Wu (UESTC)

18:00-18:15   D8: The Investigation of an Innovative Nonlinear Circuit Model for Gunn Diode in Oscillator

Li Liang, Zhang Bo (UESTC)

18:15-18:30   D9: Optimum Design of A WCDMA Selective Band RF Repeater

Jun Ji, Jing-Fu Bao, and Li-Zhong Tan (UESTC)