中国电子学会电路与系统学会

第七届年会论文集

China
Seventh Conference
on
Circuits and Systems

Proceedings

(一)

1987. 中国深圳

中国电子学会
电子线路与系统学会

第七届年会

1987年11月16日—18日

中国　深圳

会议组织单位

中国电子学会电路与系统学会（CIE—CAS）
中国科学院电子学研究所　（IEAS）
电子与无线电工程师学会香港分会（IERE）
华南工学院（SCIT）
深圳大学（SZU）

中国第七届电路与系统学术年会

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前　　言

中国第七届电路与系统学术年会于１９８７年１１月１６－１８日在深圳大学举行．本届年会由中国电子学会电路与系统学会，中国科学院电子学研究所，电子与无线电工程师学会香港分会，华南工学院和深圳大学联合组办，来自全国各地近４００名代表出席会议，这是继前几届年会以来的又一次盛会，尤其令人高兴的是，香港地区代表首次和内地代表共聚一堂进行CAS学术交流．

本届年会共收到应征论文５５９篇，这众多的论文反映了近年来我国电路与系统学科研究工作的兴旺景象．但由于会议规模的限制，未能满足广大作者都参加本届年会的要求，其中可能包括一些有价值的论文．此次论文集共收编论文 308篇（宣读论文 [illegible]篇，交流论文５[illegible]篇），其中来自香港地区19篇．这些论文内容包括 [illegible] 应用，集成电路设计，网络理论，故障诊断，开关电容电路，滤波器，电路与系统的数学方法，电路设计 [illegible] 自动化，信号 [illegible] 处理，信号处理等方面，它们在一定程度上反映了我国电路与系统学科的新水平．值得一提的是，这些论文中不少是年轻的研究生在他们导师辛勤指导下的佳作，一支生气勃勃的新秀队伍正在成长．

我们在此向所有应征论文作者对本届年会的支持表示衷心感谢！同时，也向为本届年会筹备工作做出贡献的有关单位表示衷心感谢！

中国第七届ＣＡＳ年会
组织委员会

中国第七届电路与系统年会　会议程序表（1987.11.16 - 18）

16日 星期一	上午	开幕式　大会报告（会议厅：阶梯教室）					
	下午	S - 1 图论及其应用 I	S - 6 微波技术 I	S - 11 开关逻辑电路	S - 16 有源滤波器，模拟电路	S - 21 数字滤波器 I	S - 26 变换算法与实现
17日 星期二	上午	S - 2 图论及其应用 II	S - 7 微波技术 II，网络 I	S - 12 电路设计与分析 I	S - 17 非线性电路与系统 I	S - 22 数字滤波器 II	S - 27 信号处理 II
	下午	S - 3 图论及其应用 III	S - 8 网络 II	S - 13 电路设计与分析 II	S - 18 非线性电路与系统 II	S - 23 自适应滤波器时间滤波器	S - 28 语音处理，谱波分析
18日 星期三	上午	S - 4 布图与布线	S - 9 故障诊断 I	S - 14 开关电容网络 I	S - 19 通讯技术	S - 24 谱估计与谱分析	S - 29 图象处理 I
	下午	S - 5 集成电路设计与分析	S - 10 故障诊断 II	S - 15 开关电容网络 II	S - 20 广播，电视，系统优化设计	S - 25 信号处理 I	S - 30 图象处理 II
会议厅号		1	2	3	4	5	6

China Seventh Conference on Circuits and Systems , Program Schedule
(November 16-18, 1987, Shenzhen University, Shenzhen, P. R. China)

Monday Nov. 16	A.M.	Inaugural Session, Room: Steped Classroom					
	P.M.	S--1 Graphical Theory & Application I	S--6 Micorwave Techniques I	S--11 Switched & Logic Circuits	S--16 Active Filters & Analog Citcuits	S--21 Digital Filters I	S--26 Transform Algorithms & Implement
Tuesday Nov. 17	A.M.	S--2 Graphical Theory & Application II	S--7 Microwave Techniques II Networks I	S--12 Circuit Design & Analysis I	S--17 Nonlinear Circuits & Systems I	S--22 Digital Filters II	S--27 Signal Processing II
	P.M.	S--3 Graphical Theory & Application III	S--8 Networks II	S--13 Circuit Design & Analysis II	S--18 Nonlinear Circuits & Systems II	S--23 Adaptive Filters & Time Filters	S--28 Speech Processing & Harmonics Analysis
Wednesday Nov. 18	A.M.	S--4 Placement & Routing	S--9 Fault Diagnosis I	S--14 Switched Capacitor Networks I	S--19 Communications Techniques	S--24 Spectrum Estimation & Analysis	S--29 Image Processing I
	P.M.	S--5 LSI Design & Analysis	S--10 Fault Diagnosis II	S--15 Switched Capacitor Networks II	S--20 Broadcast, TV, System Optimization	S--25 Signal Processing I	S--30 Image Processing II
Room No.		1	2	3	4	5	6

China 7th Conference on Circuits and Systems

Technical Sessions

Part I

Session 1: Graphical Theory and Applications I

Chairmen: Li Yuzheng, Beijing Polytechnic University
Zhang Liangzhen, Anhui University

1.1 "An efficient algorithm for finding all possible graphical partitions from all possible incident sets of a network"
Zhao Wenjing
Zhengzhou Electronic Technological Institute

1.2 "An algorithm for generate the path set of a graph"
Cheng Zhengwu, Zhang Liangzhen
Anhui University

1.3 "Hamiltonian line graphs"
Yang Xiaofeng
National University of Defence Technology

1.4 "A new algorithm of imbedding graphs in the plane"
Wang Wansu, Luo Tao
Jilin University of Technology

1.5 "A method for finding the lower bound of maximum length of cyclic sequence and maximum length of linear sequence"
Cheng Chi, Zuo Kai
Graduate School, Academia Sinica

1.6 "Pseudo-random array and the (m,n) de Bruijn-Good graph"
Yang Yixian
Beijing Institute of Posts and Telecommunications

1.7 "Generation and state space tree of the directed K-tree polynomial of a composite graph"
Huang Ruji
Beijing University of Iron-Steel Technology

1.8 "An efficient algorithm finding the maximum clique of a graph"
Qiao Xiurang
Luoyang University
Li Lirong
Xi'an Institute of Oil Engineering

Session 2: Graphical Theory and Applications II

Chairmen: Xiong Deyan, Tongji University
Zuo Kai, Graduate School, Academia Sinica

2.1 "A heuristic algorithm for finding a minimum feedback arc set of a digraph"
Xiong Deyan
Tongji University

2.2 "A method for determining whether a given binary matroid is graphic"
Qian Jianping
East China Institute of Technology

2.3 "The vertex invariant and the distinction of isomorphism of graphs"
Hou Shuwen
North China Institute of Water Conservance and Hydro Power

2.4 "Isomorphic algorithm of directed graphs"
Gou Lianqi
Harbin Shipbuilding Engineering Institute

2.5 "The minimum augmentation of any undirected graph to a R-edge-connected graph"
Sun Lishan, Sun Yugeng, Yang Shan
Tianjin University

2.6 "The structure and an algorithm of the matching problem in a hypergraph"
Zhang Shujun
Beijing Institute of Technology

2.7 "On the realization of a graph from its fundamental loop (cut set) matrix"
Kang Taizao
East China Institute of Technology

2.8 "An enhanced branch-and-bound algorithm for seeking the P-median"
Xu Hua
Chengdu Institute of Computer Application
Academia Sinica
Zuo Kai
Graduate School, Academia Sinica

Session 3: Graphical Theory and Application III

Chairmen: Zuo Kai, Graduate School, Academia Sinica
Zhang Liangzhen, Anhui University

3.1 "Network Topological analysis of directed K-hypertree method: algorithm research and realization"
Guo Feng, Huang Ruji
Beijing University of Iron-Steel Technology

3.2 "A dynamic programming algorithm for finding the shortest path in a search tree"
Xue Xinjian, Ge Yirong
Shanghai University of Technology

3.3 "Method of exhaustion of state assignment ----- Tree of schemes for state assignment"
Zhang Duanyi
Zhenjiang Shipbuilding Institute

3.4 "A new graph coloring algotithm for railway construction problem"
Su Yanji, Wang Jianhua, Feng haijun
Harbin Institute of Electrical Technology

3.5 "On algorithm to get incidence matrix of dual graph"
Zheng Jingchuang, Lin Shuyue
Zhejiang University

3.6 "A general method of formulating state equations for linear active networks containing singular elements"
Wang Xianrong
South China Institude of Technology

3.7 "Topoloyical analysis of linear circuits by coates flowgraph"
Zhang Bailing, Chen Guorong
South China Institute of Technoloty

3.8 "Analysis of relational grade of grey systems and study on the importance of edge set of complete bipartite graph"
Yu Yanqiong, Zhao Haibin
Tianjin Insititute of Science and Technology
Deng Julong
Central China Institute of Technology

Session 4: Placement and Routing

Chairmen: Y. W. Lam, Hong Kong Chinese University
Zhuang Zhenquan, University of Science and Technology of China

4.1 "A via minimum for routing algorithm"
Cao Luyin, Zhang Liangzhen
Anhui University

4.2 "A novel method for gate matrix ------ Net distributing and column folding"
Song Junde
Beijing Institute of Posts and Telecommunications

4.3 "A bottom-up optimum placement and routing"
Cheng Guixin, Kang Jichang
Northwest Polytechnic University

4.4 "An optimal placement algorithm for printed circuit board"
Zhang Songlin, Dai Yimin, Zhuang Zhenquan
University of Science and Technology of China

4.5 "The application of AI technology in the PCB auto-routing system"
Wu Ping, Zhuang Zhenquan
University of Science and Technology of China

4.6 "A method of global routing for building block layout"
Chen Lidong, Zhang Liangzhen
Anhui University

4.7 "The constructive-growtth method for one-dimensional layout"
Huang Zhaogang, Gu Deren, Wang Zhaoming
Chengdu University of Telecommunication Engineering

4.8 "An algorithm for placing BBL in single line"
Lu Shenxun, Jiang Goujun
Hangzhou University

Session 5: LSI Design and Analysis

Chairmen: J. S. L. Wong, Hong Kong City Polytechnic
Li Jinlin, Institute of Semiconductor, Academia Sinica

5.1 "Maple, yet another VLSI graphics editor"
Xue Jingling, Joshua S. L. Wong, X. L. Hong
Hong Kong City Polytechnic

5.2 "Logic simulation system: TLOGICIAN"
Wu Miaochen, Liu Rensheng, Liu Baoqin
Qinghua University

5.3 "A new data model for VLSI design data management"
Wang Ying, Huang Junnai, Tong Jiarong
Fudan University

5.4 "An effective method of IC auto-layout"
Jie Mengtian, Liao Haifang, Wu Qiang, Lin Zhenghui
Shanghai Jiaotong University

5.5 "Dissection of bipolar analog IC chip by computer"
Ye Ming, Xu Xingchao, Liu Shuyue, Li Xuehong
Zhejiang University

5.6 "DPDN structure for power consumption optimization of VLSIC"
Gong Mingfu, Zheng Junli
Qinghua University
Zheng Lei
National Scientific Fundation Committee of China

5.7 "Distributed design of circuit parameters of analog LSIC"
Zheng Junli, Gong Mingfu
Qinghua University

5.8 "A new algorithm for PLA folding"
Wang Dongsheng, Dai Yinxia
University of Science and Technology of China

Session 6: Microwave Techniques I

Chairmen: Wu Yongshi, Tianjin University
K. M. Luk, Hong Kong City Polytechnic

6.1 "The CAD of the microwave circuits"
Zhou Genxiang
Nanjing Institute of Electronic Technology

6.2 "Computer aided design of plane circuit filter"
Jiang Zuenfu
Institute of Electronics, Academia Sinica

6.3 "The optimization design of microwave BPSK circuits"
Lin Deyun, Yang Lixin
Qinghua University

6.4 "Microstrip patch antennas on cylindrical surfaces"
K. M. Luk, K. F. Lee, J. S. Dahele
Hong Kong City Polytechnic

6.5 "Optimum design program for microstrip circuit"
Zhong Chengde
No. 153, P. O. Box 393, Chengdu

6.6 "Inverted strip dielectric guide for millimeter-wave integrated circuit"
Shi Meiqi, Jiang Dinghua
Beijing University

6.7 "Selecting topology of circuit for the expert CAD of microwave amplifiers"
Zhang Yuanjian
Nanjing Institute of Electronic Technology

6.8 "Microwave dual-gate gain controlled GaAs FET amplifier"
Zhu Jianping
The 51th Institute of Electronic Industry Ministry

Session 7: Microwave Techniques II

Chairmen: P. C. L. Yip, Hong Kong City Polytechnic
Zheng Junli, Qinghua University

7.1 "Synthesis of hybrid lump-distributed networks and their applications to microwave solid state amplifiers"
Wu Yongshi, Lu Ke
Tianjin University

7.2 "Theoretical results for use in measuring circuit parameters through synthetic TDR techniques"
P. C. L. Yip, K. M. Luk, P. S. Huen
Hong Kong City Polytechnic

7.3 "Analysis of passive multimode microwave networks"
Hong Jiasheng, Shi Junming
Fuzhou University

7.4 "A new algorithm for gain-network optimum maximum flow problems"
Lian Baowang
Northwest Polytechnic University

7.5 "The super-ellipsoid model of a large scale linear resistive network and its iterative algorithm"
Zhu Jie
Tongji University

7.6 "Structural analysis method of the network"
Dai Guosheng
Changjiang Institute of Shipping Science

7.7 "Numerical and symbolic hybrid analysis of network sensitivity"
Li Feng
Fudan University

7.8 "Analysis and computation of feedback matrices in linear multi-input multi-output feedback networks"
Tong Maode
University of Science and Technology of China

Session 8: Networks II

Chairmen: Lin Zhaixu, Dalian Institute of Shipping Technology
Lu Shengxun, Hangzhou University

8.1 "A new algorithm for diakoptics"
Hu Junke, Shu Xianlin
Beijing Institute of Posts and Telecommunications

8.2 "Using the composite tree set for producing complete symbolic network functions of active network"
Zhou Zhou, Chen Qi
Hefei Polytechnic University

8.3 "A new unimodular matrix formulation of symbolic network functions"
Zhao Yongchang, Ling Yaxueng
Shanghai Institute of Mechanical Engineering

8.4 "An exponential immittance approach to the analysis of linear time-varying networks"
Chen Dapei
Beijing Polytechnic University
Ma Yilin
Beijing Graduate School,
North China Institute of Electic Power

8.5 "An improved algorithm for finding maximal flow of some postoutage network configurations"
Jin Wangchun, Ding Wujiong, Liu Gequan
University of Science and Technology of China
Zou Kai
Graduate School, Academia Sinica

8.6 "A method for realizing fully symbolic network functions"
Yu Xiqing, Lu Shengxun
Hangzhou University

8.7 "Valuing formulae and applications of network functions and their derivatives"
Zhang Xiaojing
Nanjing Institute of Posts and Telecommunications

8.8 "A new analytical formula and a new method of calculating sensitivity for networks"
Yang Jingshu, Wei Zhiyuan, Gu Xuesong
Hefei Institute of Electronic Engineering

8.9 "On the imdependence of the Kirchhoff equations"
Gu Wei
Shanghai Maritime Institute

Session 9: Fault Diagnosis I

Chairmen: Wang Yuan, Beijing Institute of Technology
Xiong Bingkun, Tongji University

9.1 "Equal input/equal output k fault screen method in analog circuits"
Wang Hufu, Wu Yuansheng, Yang Shukong
Hunan University

9.2 "A fast algorithm for K-fault diagnosis and a fault dictionary method for isolating soft fault"
Wu Yao
Qinghua University

9.3 "The applications of state matrix dictionary method in the diagnosis of analog circuits"
Liao Guoning
Nanjing Institute of Technology
Shi He
Northwest Institute of Radio Engineering

9.4 "The study of dictionary approach in fault diagnosis of analog circuits"
Dong Weilin, Wang Yuan
Beijing Institute of Technology

9.5 "Fault diagnosis of analog circuit at subnetwork level"
Luo Xianjue, Fan Lijuan
Xi'an Jiaotong University

9.6 "A new approach to fault location for large analog network"
Wu Chengshi, Ma Wenyong
National University of Defence Technology

9.7 "An approach for fault subnetwork lacation in large networks"
Wang Sheng, Chen Guorong
South China Institute of Technology

9.8 "The weighted hamming distance method for decomposition diagnosis in actual circuits"
Wu Zhenyu
East China Institute of Technology
Xiong Bingkun
Tongji University

Session 10: Fault Diagnosis II

Chairmen: Lin Zhaixu, Dalian Institute of Shipping Technology
Wang Yuan, Beijing Institute of Technology

10.1 "A new method for analogue circuit fault diagnosis ——— The voltage locked method"
Shao Yuelin, Xong Binkueng
Tongji University

10.2 "A method of branch fault diagnosis in analog circuits"
Tao Liang, Chang Liangzhen
Anhui University

10.3 "A graph theory algorithm determining element values for fault in analog circuits"
Jiang Jianming, Liu Chen, Zhang Liangzhen
Anhui University

10.4 "Fault-incremental-circuit method of nonlinear circuit fault diagnosis"
Sun Yichuang
Dalian Maritime Institute

10.5 "A method for fault diagnosis of nonlinear circcuits"
Chen Jihe, Xiao Dachuan, Jiang Jiguang
Qinghua University

10.6 "Perameter identification of nonlinear circuits from node voltage measurements"
Zou Rui
Central China Institute of Technology

10.7 "Fuzzy theory in fault diagnosis of analog circuits"
Zhang Weiping
North China Polytechnic University
Wang Yuan
Beijing Institute of Technology

10.8 "A Mobius transformation and a Steniner circle net in analog fault analysis"
Li Yufan, Wei Kesheng
South China Institute of Technology

Session 11: Switched and Logic Circuits

Chairmen: Gu Deren, Chengdu Institute of Radio Engineering
Chi Huisheng, Beijing University

11.1 "Low-frequency analysis of analog switched circuits"
Kang Zhusheng, Gu Deren
Chengdu Institute of Radio Engineering

11.2 "MSLSIM: A switch-level simulator"
Li Wenyuan, Zhuang Zhenquan, Dai Yingxia
University of Science and Technology of China

11.3 "A switch-level logic simulation algorithm based on characteristic matrix for MOS circuit"
Yao Linsheng, Yang Zhengrong
Shanghai Institute of Metallurgy, Academia Sinica

11.4 "Calculation and application of Boolean integral"
Zheng Chongxun, Wang Jian
Xi'an Jiaotong University

11.5 "Logical probability function for analysis random testability"
Zhang Kenong, Zheng Chongxun
Xi'an Jiaotong University

11.6 "Mixed-valued logic and mixed-valued counter"
Wu Xunwei
Hangzhou University

11.7 "Improved model of mixed-mode sequential machine"
Wu Jinrong
University of Science and Technology of China

11.8 "The decomposition of logic networks"
Xu Xin
Zhejiang Institute o[illegible]ts and Tecommunication
Shen Naihan
Nanjing Institute of Posts and Tecommunication
Zhang Yanzhong
Beijing No.304 Institute of Aeronautic Industry Military

Session 12: Circuit Design and Analysis I

Chairmen: Ling Yiting, Fudan University
Y. C. Cheng, Hong Kong Polytechnic Institute

12.1 "SPICE simulation for networks containing time-varying elements"
Yu Juebang, Xu Jianping
Chengdu Institute of Radio Engineering
Yu Youying, Han Minxiao
North China Institute of Electric Power

12.2 "Design and evaluation of an integral-cycle-controlled AC mains voltage regulator"
K. K. Hau, S. K. Tso
Hong Kong University

12.3 "A new algorithm using micro-computer for large scale network analysis"
Ye Lurong, Hong Meizhi
Shanghai Jiaotong University

12.4 "Bode diagram approximation method for arbitrary frequency response characteristics"
Yang Hong
South China Institute of Technology

12.5 "SPICE simulation of switch-mode power supplies"
Y. S. Lee, Y. C. Cheng
Hong Kong Polytechnic

12.6 "A number of new algorithm of circuit and logic simulation"
Chen Bangyuan, Wu Zhonghai
Zhejiang University

12.7 "The present situation and future trends of circuit and logic simulation"
He Xiaoting, Ren Tianren
Zhejiang University

12.8 "Index mutator: A new element realizing mutual transformation among different types of network elements"
Yuan He, Ling Shide
Shanghai Institute of Machinary
Liu Leshan
Shanghai Polytechnic University

12.9 "The non-reciprocal multiplexer configuration with multi-port circulator"
Wang Zhaoming
Chengdu Institute of Radio Engineering

Session 13: Circuit Design and Analysis II

Chairmen: Yu Daoheng, Beijing University
Lu Zhigang, Center of Space Science, Academia Sinica

13.1 "Interval iterative algorithm of circuit tolerance analysis"
Ling Yiting, Pan Mingde
Fudan University

13.2 "A new method for tolerance design of circuits"
Yu Daoheng, Liu Wanru
Beijing University

13.3 "A new modified modal approach to network analysis"
Wang Yousheng
China Software Technology Company
Sun Wenhui
Shanghai Jiaotong University

13.4 "The WR-Chebyshev polynomials method for nonlinear time-domain transient analysis of VLSI"
Ning Yuanzhong
Chengdu University of Science and Technology

13.5 "Development of a fractional-N frequency synthesizer"
Qian Xuerong
Nanjing Institute of Posts and Telecommunications
Xie Jiakui, Wu Linru
Nanjing Institute of Technology

13.6 "A investigation of the scheme of frequency to voltage conversion"
Han Wenzhao, Wang Peiyi
Shandong University

13.7 "Canonical models of flip-flops"
Yan Xiuqun, Song Yamin
Beijing Institute of Posts and Telecommunications

13.8 "The fast-exact computation for linearity error of D/A and A/D converters by staggering of maximum error points"
Li Zhuying
Central China Institute of Technology

13.9 "A further research on designing pulsed asynchronous sequential circuits"
Zeng Guangtong
Qingdao Ocean Shopping Mariners College

Session 14: Switched Capacitor Networks I

Chairmen: Siu Wan-Chi, Hong Kong Polytechnic
Ma Weizheng, South China Institute of Technology

14.1 "An efficient method for analyzing non-ideal SCN"
Lu Yuei, Shen Yongchao
Nanjing Institute of Technology

14.2 "On the analysis fo non-ideal SCN"
Huang Jing, Xu Daozhan
Beijing Polytechnic University

14.3 "Symbolic analysis of m-phase SCN via multidimensional discrete fourier transform"
Shan Chaolong, Wu Zhengguo
Wuhan College of Naval Engineering

14.4 "Computer aided analysis of SCN with the effects of the nonidealicies of op-amps"
Zhao Luhuai, Qiu Guanyuan
Xi'an Jiaotong University

14.5 "Switched-capacitor V/Q converter and its applications in grounded inpedance simulations"
Li Wenzhe
Beijing Institute of Posts and Telecommunications

14.6 "Computer-aided analysis for non-ideal SCN"
Chu Ming, Wang Haoxing
Shanghai Jiaotong University

14.7 "CAD for SCN containing non-ideal Op-Amp"
Wang Yuhong, Liu Yinhua, Wu Ruiheng
Tianjin University

14.8 "A new approach to analysis the effects of finite DC gain and gain-bandwidth products in SCN"
Qiu Xin
Nanjing Institute of Technology
Yang Shukong
Hunan University

Session 15: Switched Capacitor Networks II

Chairmen: Yiao Qingdong, Zhejiang University
Zhuang Zhenquan, University of Science and Technology of China

15.1 "High frequency high selectivity precision SCF realization using low gain amplifiers"
Wang Weimin, Hu Yun
Beijing Institute of Posts ans Telecommunications

15.2 "A design of integrated narrow-band SCF"
Ren Junyan, Hong Zhiliang, Bao Hueijiun
Fudna University

15.3 "Exact design of switched-capacitor bandpass filter using linear transformation method"
Gao Yan, Wang Wenxuan
Northern Jiaotong University

15.4 "Frequency spectrum analysis of the output of a switched-capacitor sinsiodal oscillator"
Jia Xingdong
Xi'an Jiaotong University

15.5 "Improved variable impedance scaling method for design of SCNs"
Shen Shihu, Bi Weihong
Yanshan University

15.6 "Switched-capacitor biquadratic allpass filters with low sensitivity"
Wu Jie, Yang Shukong
Hunan University
Gong Zhengyi
Jangnan University

15.7 "Realization of stray-insensitive switched-capacitor three-phase oscillator"
Yang Yongmin, Zhou Baowei, Tang Zhide
Chongqing University

15.3 "A novel stray-insensitive switched-capacitor three-phase oscillator"
Yang Yongmin, Zhou Baowei, Tang Zhida
Chongqing University

Session 16: Active Filters and Analog Circuits

Chairmen: Wu Zekun, Shenzhen University
Cheng Chihang, Shanghai Jiaotong University

16.1 "The design and realization of linear tuning universal active CC filter"
Du Puxuan
Northern Jiaotong University

16.2 "A new kind of inductor simulation active filter using negative immittance converters (NIC)"
Li Yuanwei, Lin Feng, Hu Yun, Liu Yue
Beijing Institute of Posts and Telecommunications

16.3 "A novel simulating inductance using operational transconductance amplifier (OTA)"
Zhao Pingying
Institute of Data Communication Technology, Ministry of Posts and Telecommunications
Hu Yun
Beijing Institute of Posts and Telecommunications

16.4 "On the exploration of controlled sources"
Chen Yuling
Northwest Institute of Telecommunication Engineering

16.5 "High-speed CMOS operational amplifiers"
Ding Weixi, Li Lian, Ling Xieting
Fudan University

16.6 "An efficient algorithm for analysing slew-induced distortion of Op-Amp"
Li Min, Wang Yunong
Nanjing University

16.7 "A program for computation and analysis of high frequency power amplifier by computer"
Zhang Xiangsheng
Nanjing Aeronautical Institute

16.8 "The application of secondary breakdown phase amplification circuit"
Jiang Yixing
Jiangsu Institute of Chemistry Technology

Session 17: Nonlinear circuits and systems I

Chairmen: Hu Jiandong, Beijing Institute of Posts and Telecommunications
C. K. Chan, Hong Kong City Polytechnic

17.1 "Approximative synthesis for nonlinear network"
Wang Baiyong
Yunnan Institute of Technology
Yang Shan
Tianjing University

17.2 "An approach for analysing higher order strongly nonlinear autonomous systems"
Qiu Shuisheng
South China Institute of Technology

17.3 "Sampliclal Interpolation analysis of nonlinear electrical circuits"
Hu Jiandong, Yao Hua
Beijing Institute of Posts and Telecommunications

17.4 "The volterra functional series for the analysis of the nonlinear behavior of phase-locked loops"
Lou Mingshen
Guilin Institute of Electronic Technology

17.5 "A method and system for measuring the volterra frequency kernels of nonlinear networks"
Ran Feng, Chen Qikang, Liu Leshan, Lin Yixin
Shanghai Polytechnic University

17.6 "A fixed-point algorithm for analysis of nonlinear resistive networks"
Wang Ai
Shanghai Jiaotong University
Chen Mang
Suzhou Institute of Silk Textile Technology

17.7 "Operational rules and applications of one-dimensional canonical piecewise-linear functions"
Yan Xiuqun, Song Yamin
Beijing Institute of Posts and Telecommunications

17.8 "Canonical piecewise-linear time series model of smooth dynamic nonlinear system"
Zhang Yan, Shen Zhigiang
Shanghai Jiaotong University

Session 18: Nonlinear Circuits and Systems II

Chairmen: Yu Juebang, Chengdu Institute of Radio Engineering
Li Jinlin, Institute of Semiconductor, Academia Sinica

18.1 "On the NDR device realization theorems in multi-transistor configuration"
Yu Youying, Liang Guishu
North China Institute of Electric Power
Yu Juebang
Chengdu Institute of Radio Engineering

18.2 "A new semiconductor negative resistance device ------ Bidirectional negative resistance transistor"
Zhou Xiun, Bao Bingqian, Li Jinlin
Institute of Semiconductor, Academia Sinica
Li Fengyin, Cao Tilun
Liaoning Chaoyang Radio Device Factory

18.3 "Frectional phase-locking of BNRT relaxation oscillator"
Yu Daoheng, Zhu Zhaoxuan
Beijing University
Li Fengyin, Cao Tilun
Liaoning Chaoyang Radio Device Factory

18.4 "Nature periodic sequence and chaos"
Pei Liuqing, Guo Fen
Beijing Normal University
Xie Jianguang
Beijing Broadcast Institute

18.5 "On chaotic phenomena in the 3rd order circuit"
Wang Chizhi
Beijing Institute of Posts and Telecommunications

18.6 "Subharmonic bifurcation and chaos in a third order nonlinear circuit"
Wu Jingtang, Yang Yongyi
Northern Jiaotong University

18.7 "A new algorithm analysing the period doubling bifurcation phenomena in two-port dynamic nonlinear circuits"
Yang Zhiwei
Suzhou Institute of Technology

18.8 "Chaotic oscillations in a forced second order circuit containing a piecewise-linear capacitor"
Xie Chengquan, Cao Junfeng
Qi'an Jiaotong University

Session 19: Communication Techniques

Chairmen: T. S. Yum, Chinese University of Hong Kong
Wang Dejun, Beijing Institute of Posts and Telecommunications

19.1 "A new protocol for multihop packet radio networks with multiple directional antenna stations"
P. P. Chen, T. S. Yum
Chinese University of Hong Kong

19.2 "Protocol conversion through packet switching"
Kwong Wai Hung
P. O. Box 479, Hong Kong

19.3 "The hardware implementation of 60 channels TDM/FDM TMUX digital signal processor"
Ma Jian, Zhou Zhenguo, Wang Dejun
Beijing Institute of Posts and Telecommunications

19.4 "The frequency switching time of digital phase-locked loops"
Qin Shi, Luo Xiangyang
Qinghua University

19.5 "Fast and fine ADDLL realization"
Tang Qingfeng, Tang Qingje
Northern Jiaotong University

19.6 "A digital frequency synthesizer with quasi-period acoustic frequency"
Zhang Guozhen, Huang Wentai
Beijing Institute of Information Technology

19.7 "Optimum symbolic design of digital signals"
Shou Wenchang, Zhou Jian
Institute of Electronics, Academia Sinica

19.8 "Clipped-chirp signal matched filtering for data communications"
S. W. Wong
New Services Department, London

19.9 "Anti-interference coding in digital communications ----- BCH code"
Tao Pangsheng
Nanjing Automation Institute of Hydrology

Session 20: Broadcast, TV and System Optimization

Chairmen: Chai Zhenming, Institute of Electronics, Academia Sinica
Guo Tiyun, Northwest Institute of Radio Engineering

20.1 "Analysis of polyphase width modulation"
Huang Guanguan
South China Institute of Technology
Shui Longhua
Hunan Institute of Electronics

20.2 "The Viterbi receiver for tamed frequency modulation"
Li Ying, Guo Tiyun, Jiang Jinxing
Northwest Institute of Radio Engineering

20.3 "The research of frame synchronous circuit"
Cao Hanfang
Central China Institute of Technology

20.4 "On the bi-parametric adaptivity of HDTV system"
Chai Zhenming, He Gen
Institute of Electronics, Academia Sinica

20.5 "Semi-blind deconvolution of finite length sequence (III) : Nonlinear programming problem"
Zu Lei, Yan Pingfan, Chang Tong
Qinghua University

20.6 "A new method for global optimization ------ Combination orthogonality with cluster"
Zhang Dongfeng
Institute of Acoustics, Academia Sinica
Yu Daoheng
Weijing University
Zhang Lijiao
Institute of System Science, Academia Sinica

20.7 "The parameter estimation and the self-tuning control for modeling microbial metabolism process"
Zhang Zuomin
Wuxi Institute of Light Industry

20.8 "Computer aided design of medicine"
Zhu Minhui, Zhang Fugui
Institute of Electronics, Academia Sinica
Fu Hen, Fang Yiwei
Institute of Chemistry, Academia Sinica

Session 21: Digital Filter I

Chairmen: Hon Keung Kwan, Hong Kong Universisty
Liu Zheming, Beijing Institute of Posts and Telecommunicetions

21.1 "Word-level and bit-level systolic array implementation of recursive digital filters"
H. K. Kwan
Hong Kong University

21.2 "Systolic implementation of delayed multipath IIR digital filters"
Hon Keung Kwan, T. S. Okullo-Oballa
Hong Kong University

21.3 "Recursive digital filter design using systolic array"
Wu Xiaohui, Lu Yue, He Zhengya
Nanjing Institute of Technology

21.4 "On the sensitivities of a generalized wave digital filter"
Du Yuzeng
Beijing Institute of Aeronautics

21.5 "A new adaptor used to complex wave digital filter"
Huang Dawei, Hu Ji
Shanghai Institute of Railway Technology

21.6 "Low sensitivities and roundoff noise digital lattice filter design for narrow band and/or sharp cut-off filtering applications"
Hon Keung Kwan, Wah Ching Lee
Hong Kong University

21.7 "The orthogonal optimization procedure for the design of the finite wordlength IIR digital filters"
Wu Wenqi, He Yan
Shanghai Institute of Railway Technology

21.8 "Word length optimization of recursive digital filter"
Huang Jianyun
East China Institute of Chemical Industry
Wu wenqi
Shanghai Institute of Railway Technology

21.9 "Realization for programable digital filter of FIR"
Cai Weihong
South China Institute of Technology
Han Chuanjiu
Guilin Institute of Electronic Industry

Session 22: Digital Filters II

Chairmen: Hon Keung Kwan, Hong Kong University
Xiong Tongzhou, Tongji University

22.1 "Efficient method for the high speed realization of delayed multipath FIR digital filters"
Hon Keung Kwan, Man Tat Tsim
Hong Kong University

22.2 "Efficient high speed architecture for delayed multipath two-dimensional recursive digital filtering"
H. K. Kwan, M. T. Tsim
Hong Kong University

22.3 "The design of two-dimensional low sensitivity digital filters"
Zou Liguang, Liu Zemin
Beijing Institute of Posts and Telecommunications

22.4 "Design of stable two-dimensional IIR digital filter"
Wang Lizhi
Northern Jiaotong University
Pan Weihan
Beijing Institute of Aeronautics

22.5 "Lattice implementation of 2-D IIR digital filters"
H. K. Kwan, Y. C. Lui
Hong Kong University

22.6 "CAD and software simulation of LBR low sensitivity digital filters"
Qin Xiuying, Zhou Haibin
Beijing Institute of Posts and Telecommunications

22.7 "Pipelined FBPT for 2-D filtering"
Gong Yaming
National University of Defence Technology

22.8 "Narrow transition width two-dimensional digital filter design"
H. K. Kwan, C. L. Chan
Hong Kong University

22.9 "A design and implement method of digital multi-dimensional filters"
Liu Xiaojian, Zou Muoyian, Bao Hong

Session 23: Adaptive Filters and Time Filters

Chairmen: He Zhenya, Nanjing Institute of Technology
Chen Shengqin, Chengdu Institute of Radio Engineering

23.1 "Adaptive IIR digital filters: Algorithm deduction and performance analysis"
He Zhenya, Miao Yiming, Zou Xiaoliang
Nanjing Institute of Technology

23.2 "The stable quasi-cascade adaptive IIR filter: SQCAF"
Luo Shengqin, Lu Mingde
Tongji University

23.3 "System modelling using adaptive IIR filters"
P. C. Ching, Y. H. Tam
Chinese University of Hong Kong

23.4 "A new adaptive IIR algorithm"
Wang Jiluo, Gu Deren
Chengdu Institute of Radio Engineering

23.5 "A fast algorithm of least square adaptive digital filter with order-variable character"
Yu Xiaohu, He Zhenya
Nanjing Institute of Technology

23.6 "Advances in MOSFET-C continuous-time filter researches"
Shi Bingxue
Qinghua University

23.7 "A fully integrated continuous-time filter design"
Liu Jun, Gu Deren, Lan Jialong
Chengdu Institute of Radio Engineering

23.8 "The deviation of phase of second-order discrete-time filters"
Chen Junliang
Zhongshan University

Session 24: Spectrum Estimation and Spectrum Analysis

Chairmen: Zhang Tong, Qinghua University
Zou Lihe, Xi'an Jiaotong University

24.1 "Correlation function estimators of spectrum limited signals"
Zhou Xingwei, Xie Xianggen
Nankai University

24.2 "A new method for robust autoregressive parameter estimation"
Fan Jing, Li Yenda, Chang Tong
Qinghua University

24.3 "An eigenstructure method for estimating 2-D sinusoidal parameters separately in each dimension"
Zou Lihe, Yin Qinye
Xi'an Jiaotong University

24.4 "A simple noise-compensating approach for LP spectral estimation"
Huang Dengshan
Northwest Polytechnic University

24.5 "An improved Burg algorithm for spectral estimation"
Lin Huawu, Wang Jingling
Shandong Polytechnic University

24.6 "Multi-dimensional Markov chain and its applications in spectrum analysis"
Qiou Shulin, He Sizu, Nie Tao
Northern Jiaotong University

24.7 "Applications of functional analysis in signal and system"
Zhang Rongbao
Northwest Institute of Radio Engineering

24.8 "Gram-Schmidt orthogonal harmonics analysis method"
Yiou Xiaohu, He Zhenya
Nanjing Institute of Technology

Session 25: Signal Processing I

Chairmen: He Zhenya, Nanjing Institute of Technology
Li Yianda, Qinghua University

25.1 "Adaptive filter for noises smoothing and edge preserving"
Ding Runtao
Tianjing University

25.2 "Rejection of narrow-band interference in communication system using complex IIR filters"
Li Lemin, Liu Fei
Chengdu Institute of Radio Engineering

25.3 "Silencing echo by means of LMS block algorithm"
Yang Dachen, Wang Dejun
Beijing Institute of Posts and Telecommunications

25.4 "Study about LMS adaptive filter with variable step"
Wang Shuguang, He Zhenya
Nanjing Institute of Technology

25.5 "Sparsity theorem of digital inverse-filtering and its applications"
Li Bingcheng, Zhu Yisoting, Wan Feguan
Central China Institute of Technology

25.6 "2-D wave digital filter and its application in image diviation and reconstruction
Gu Qunshan, Du Xiyu
Northern Jiaotong University

25.7 "Filter's processing with robust method"
Wan Jianwei, Shi Chun
National University of Defence Technology

Session 26: Transform Algorithms and Implementation

Chairmen: Ma Weizhen, South China Institute of Technology
Yang Xingjun, Qinghua University

26.1 "Algebraic foundation of finite discrete orthogonal transforms"
Zhang Gongli
Northwest Institute of Radio Engineering

26.2 "Asynchronous Fourier transform processor"
F. K. Lam, C. K. Leung
Hong Kong University

26.3 "An algorithm for computing the discrete cosine transforms"
Wang Zhongde
Kunming Institute of Physics

26.4 "A new fast Hartley transform algorithm"
Mao Yimin
Nanjing Institute of Technology

26.5 "Subgroup circle method ----- A new method for computing one dimensional DFT"
Liu Yongjian, Shen Naiban, Gu Ji, Zhen Weiwei
Nanjing Institute of Posts and Telecommunications

26.6 "New recursive factorization algorithms to compute DFT(2) and DCT(2)
Ma Weizhen
South China Institute of Technology
Ying Baixiang
Jiangsu Television Broadcast University

26.7 "Research for realization of T point C DST hardware"
Zhang Hang, Zhang Jin
Beijing Institute of Posts and Telecommunications

26.8 "A polynomial transform method for computing 2-D convolution and DFTs"
Hu Guangrui
Shanghai Jiaotong University

Session 27: Signal Processing II

Chairmen: S. K. Tso, Hong Kong University
Li Yianda, Qinghua University

27.1 "A linear transform algorithm for slowly changed data"

Li Wanhong
Northwest Institute of Radio Engineering
Wang Ben
Beijing Institute of Electronic Engineering
Wang Ge
Graduate School, Academia Sinica

27.2 "Representing periodic signal with nonorthogonal series"
Zhang Yanping, Tong Qinmo
Beijing Institute of Posts and Telecommunications

27.3 "Two theorems about the correlativity effect of nonlinear memoryless time-invariant system on a stationary process"
Wu Lenan, Cheng Yu
Nanjing Institute of Aeronautics

27.4 "VLSI real-time signal processing : algorithms and structures"
Jiang Zhongnong, Shao Xiangyi
Fudan University

27.5 "Applications of digital signal processing to automatic recognition of moving target"
Zeng Yuicun
Beijing Institute of Technology

27.6 "The implementation of a small system for signal processing in real-time"
Wang Ruifeng, Li Zhezheng, Wu Xiangqi
Northern Jiaotong University

27.7 "A method of underwater signal normalizaed processing"
Zhao Junwei
Northwest Polytechnic University

27.8 "Three-dimensional statistical analysis and testing methods about the granular noise of delta modulation system"
Feng Yumin
Northern Jiaotong University

Session 28: Speech Processing and Harmonics Analysis

Chairmen: Xu Bingzheng, South China Institute of Engineering
F. K. Lam, Hong Kong University

28.1 "A new dynamic programming method and distance selection used in speech recognition"
Zheng Shiping, Lu Daxin, Wang Zouying
Qinghua University

28.2 "An effective method of speaker feature extraction from speech"
Li Lin, Ma Hengjian, Bi Yifen
Northwest Polytechnic University

28.3 "The real-time speech recognition using the DP dynamic matching algorithm"
He Weifang
Zhejiang College of Silk Engineering

28.4 "Application of adaptive filter for seperation of mixed speech signals"
Wang Souping, Ma Xinjia
Nanjing Institute of Posts and Telecommunications

28.5 "Spectrum analysis of respiratory sound"
Wang Wenyuan, Wu Kenong
Qinghua Univeristy
Zhou Minwu, Cong Yufang
The Third Hospital attached to Beijing Medical College

28.6 "A microcomputer-based brainstem auditory evoked response measurement system"
F. K. Lam, P. W. F. Poon, F. H. Y. Chan, S. F. Chan
Hong Kong University

28.7 "A microcomputer-based harmonics analyser for local or dostributed monitoring"
S. K. Tso, P. F. Chan
Hong Kong University

28.8 "A new algorithm of improving accuracy of harmonics analysis"
Zhou Shumei, Chen Jian
Central China Institute of Technology

Session 29: Image Processing I

Chairmen: Wei Yu, Nanjing Institute of Technology
Yang Longsheng, Institute of Electronics, Academia Sinica

29.1 "A vectorial algorithm to recover the surface orientation from a single view"
Fu Yuwing, Gu Haisong
Nanjing Institute of Technology

29.2 "A system of image vector quantization coding using rectangular transform"
Wang Kai, Song Guowen
Information Engineering Institute of PLA

29.3 "Data compression of SAR image"
Lin Bin
Institute of Electronics, Academia Sinica

29.4 "Depth perception via binocular techniques"
Dong Yuning, He Zhenya
Nanjing Institute of Technology
Bi Hojie, Chen Tingbiao
Nanjing Institute of Posts and Telecommunications

29.5 "3-D shape coding reappearance of plane image"
Huang Duanxu, Huang Xiangao
Anhui University

29.6 "Three-dimensional display of CT images by using look-up techniques"
Ke Danqun
Institute of Electronics, Academia Sinica

29.7 "Adaptive block truncation coding based on edge orientation"
Xiao Zimei
Zhongshan University
He Ziqiang
Wuhan University

29.8 "The improvement for the image of diffraction tomography by using zeropadding techniques"
Zhang Ming, Chai Zhenming
Institute of Electronics, Academia Sinica

Session 30: Image Processing II

Chairmen: Chen Hongbin, Shanghai Jiaotong University
David Tin, Hong Kong Division, IRIE

30.1 "Implementation and discussion on MPG stereo model"
Ding Xiaohong
Institute of Electronics, Academia Sinica
Yao Guozheng, Zheng Zhuying
Institute of Biophysics, Academia Sinica

30.2 "Edge detection ---- Analysis and algorithms"
Li Jincheng, Yuan Baozong
Northern Jiaotong University

30.3 "A new imaging technique in nondestructive testing: Flaw plane identification"
Zhang Jiaping, Wei Yu, Jiang Wenchuan
Nanjing Institute of Technology

30.4 "A method for grey-level still image transmission and data compression and its applications"
Wu Haishan, Chen Hongbin
Shanghai Jiaotong University

30.5 "Computer aided auto-segmentation of overlayed cells"
Ding Yian
Institute of Electronics, Academia Sinica
Chen Cuanjuan
Institute of Biophysics, Academia Sinica

30.6 "The applications of signal processing in still picture transmitting"
Wang Zhaohua, Guo Chengmin, Chen Xiang
Tianjin University

30.7 "An vector coding algorithm for automatic inputting of graphics in CAD"
Ding Jianhua, Shi Zesheng
University of Science and Technolgy of China

30.8 "A new algorithm for automatic focusing of optical microscope"
He Liang, Chai Zhenming
Institute of Electronics, Academia Sinica

Part II

P.1 "Design and implementation of a graph theory languange GTL"
Chi Zhongxian, Lu Chang Sun, Ding Zhaoqien
Dalian Institute of Technology
Zuo Kai
Science and Technique University of China, Graduate Institute

P.2 "Maximally and minimally distant tree pairs in the equal parameter graphs"
Mu Zhen
University of Iron and Steel Technology, Beijing

P.3 "The Totally Numeral Algorithm For Signal-flow Graphs"
Xu Jing-bo
Shanghai University of Engineering Science

P.4 "Another shortest path algorithm for grid graphs"
Rong Jian Gang, Liu Run, Li Xiu Jiao
Harbin Institute of Technology

P.5 "On wheel-cycle ramsey numbers"
Zhou Huai Lu
The First Shanghai Inctrument Electronic Industrial Institute

P.6 "Admittance matrix conversion and its application in network synthesise"
Jeng Guang Han, Wang Ai
Shanghai Jiao Tong University

P.7 "Computer Aided Verification"
Ny Bin, Yuan Xiao Jun
Shanghai Jiao Tong University

P.8 "Fault diagnosis of large scale networks"
Zhang Yung Hua, Wang Yuan
Beijing Institute of Technology

P.9 "Test point selection method for the equipotential diagnosis q analog circuits"
Wu Zhen Yu
East China Institute q Technology
Xiong Bing Kun
Tongji University

P.10 "Application of Teaning Method to the Single-Branch -Fault Testability"
Yang Zu Ying, Huang Dong Quan, Zheng Chong Su, Chen Xiu Xiang
Fuzhou University

P.11 "Volteree series for fault diagnosis in analog circuits"
Xu Xiao Le, Shen Yong Chao, Bao Shun Guang
Nanjing Institute of Technology

P.12 "a new method for analog circuits soft fault diagnosis based dictionary"
Wu Jun Kai, Chen Sheng Tan, Shi He
Northwest Telecommunication Engineering Institute, Xian

P.13 "A method for locating node-faults in linear analog circuits"
Zheng Yung Hung, Wang Yuan
Beijing Institute of Technology

P.14 "Topological condition for multiple-branch-faults"
Shi Wen Fu
Xian Mining Institute

P.15 "The on-line decomposition approach for analog Multi-port network fault diagnosis"
Wu Jing Tang, Yang Xiao Hai
Research Institute of Information Science, Northern Jiaotong University

P.16 "Fault location in analog circuits considering the effect of element tolerances"
Lu Yuan Yuan
Xiang Tan Mining Institute

P.17 "Simulation Method Before Measuring For Tolerance circuits"
Liang Si Yen
National University of Defense Technology

P.18 "Real frequency direct design technique for broad-band multistage microwave amplifiers"
Lin Jinan, Liu Yueqiu, Wu Yungshi
Tianjin University

P.19 "Design of switched-capacitor amplitude equalizer"
Xi Bai Ching
Nanking Post Telecommunication College

P.20 "The efficiency demostration of designing bi-order SCF by squarematching method"
Zhou Bao Wei, Zeng Xiao Ping
Chung Qing University

P.21 "On the analysis of swetched capacitor networks"
Tang Xiang
Light Industry College of Qiqihar

P.22 "A CAD approach for active parasitic-insensitive switched-capacitor networks"
Zheng Li Ping
Shan Xi Machinery Institute
Wu Ning
Chung Qing University

P.23 "A global optimization method for transfer functior design"
Huang Liang-qi, Le Ping
South China Institute of Technology

P.24 "Calculation of S parameters of microstrip discontinuities and its application"
Zhang Ling
The First Institute of Ministry of Posts and Telecommunications
Shun Shi Yin
Shanghai Jiao Tung University

P.25 "Iterated Design Method for the transfer function of Cauer Filter
Lu Ming-de, Chen Yan-qiu
Electrical Engineering Dept. Tong-ji University Shanghai

P.26 "The improvement of REMEZ algorithm for the design of optimum weighted-chebyshev equiripple FIR digital filter"
Xia yun
National University of Defense Technology

P.27 "Narrow Transitionband Linear-phase FIR Digital Filter Design"
Bao Feng , Shao Xiang Yi
Fudan University

P.28 "Studying active RC filters by applying cascade method of operational amplifiers
Ye Hangwei
Chengdu Institute of Radio Engineering

P.29 "RNS filter and its implementation using full adders"
Wu Wei, Feng JiXian, Tu Zhongsui
Radio Imformation Engineering Dept. of Wuhan University

P.30 "Interval representation of piece-wise linearized resistor"
Liu Jian
Beijing Institute of Posts and Telecommunications

P.31 "Analysing two-terminal nonlinear LC networks via volterra series"
Zhong Guo-qun
Guangzhou Institute of Electronic Technology, Academia Sinica

P.32 "Step-by-step approximation method in compute of electronic circuit"
Wang Yuan Jun
"Shuguang" Institute of Engineering

P.33 "Simulation of mixed analod-digital circuit by PWL approach
Wang Xiaojun, Hu jiandong
Beijing University of Posts and Telecommunication

P.34 "Chaotic generation of binary sequences and their applications"
Liu Zhong, Tang Jun, Yu Juebang
Chengdu Institute of Radio Engineering

P.35 "A high performance/cost A/D converter"
Zhou Liwen,Mao Peifa
Zhejiang Institute of Technology
Ji Weining
Ning Bo Dong Feng Radio Factory

P.36 "The shift phase frequency multiplication"
Shao Qiaxfen
Wuhan Institute of Physics,Academia Sinica

P.37 "The passive compensations for voltage controlled voltage sources"
Wang Pei-yi, Han Wen-zhao
Electronics Department Shandong University,Jinan

P.38 "A new oscillator using operational transconductance amplifiers
Peng Shui-zhen
Chengdu Institute of Radio Engineering

P.39 "Active realization and application of the memristors"
Yan Qing-ming
The Northwest Telecommunication Engineering Institute

P.40 "Feedback analysis of advantages of common base amplifier"
Tong Da Ying
Sichuan University

P.41 "An improved CAA method for determining transient response of dynamic time-varying systems"
Tang Xiao-ci, Lee Wang-chao
Hebei Institute of Technology

P.42 "The general program for transient optimum design of analogue circuits"
Hu Mao-hong
Tianjin Communication and Broadcasting Corporation

P.43 "Yield and Reliability Analysis for TMR Circuit with Compensuting Faults"
He Chen
Nanjing Institute of Technology

P.44 "A new argorithm for nonlinear circuits"
Kung Jun Bao
Nanjing Institute of Posts and Communications

P.45 "A new calculating method of cascade nonlinear system"
Lin Yi Xia, Chen Qi Kang
Shanghai University of Techology

P.46 "Survey of tolerance design"
Zheng Huan-qun, Wang Yu Hong
Tianjin University

P.47 "A favored feedback cortrol system of intelligent drawing instrument"
Liang Hung
Institute of Electronics,Academia Sinica

P.48 "A new sampling method in de-Qing technique"
Wei zhi
Nanjing Research Institute of Electronic Technology

P.49 "The convolution for LTI systems with zero initial conditions by the method of defining the limits of the integrals"
Chen Yuan-Qi
Fujian Teachers University

P.50 "Purification of clock synchronized signal by means of an injetion-locked surface acoustic wave(SAW) oscillator"
Lin Jing-bo
Acoustic Institute,Nanjing University Nanjing

P.51 "The analysis of nonlinear correlators"
Yang Yi Xian
Beijing University of Posts and Telecommunications

P.52 "Maximum entropy spectral analysis method of removing partial noise"
He Zhen-ya
Nanjing Institute of technology
Ji Pei-rong
Gezhouba Institute of Hydroelectric Engineering

P.53 "A new algorithm for lattice adaptive linear phase predictor "
Liu-longhe,Xu Jungang
Naval Aeronautical Engineering Academy

P.54 "Digitized transmission technique of TV pictures"
Cai De Fu, Wang De Wei
Institute of Electronics,Academia Sinica

P.55 "Proving of the AM stereo broacasting systems "
Huang Guan-guang, He Xiaosui
Sonth China Institute of Technology

P.56 "A method for designing DPCM system optimal quantizer"
Wang Qun Sheng
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