

SoutheastCon 2000

Schedule for the Technical Sessions

Presentations are to be conducted in the same order as in the schedule. The time allocated for each presentation is 15 minutes.

Session-1 Communication

Saturday Morning 8:30-10:00 a.m.

Adaptive Rate Delta Modulation for Non-Synchronous, Full Duplex, Wireless Digital Communications.
Bruce A. Harvey, FAMU-FSU.

Noise Induced from Power Lines in Voice-Frequency Communications
G. Thomas Bellarmine, Austin Asgill, Florida A&M University, and Mickey Lee, Bell South, Jackson, MS.

Using Low Earth Orbit Satellite system and DS-CDMA Scheme for mobile Voice and Data Communication.
AbdulRahman AlSamman, and Harold P. Stern, The University of Alabama.

A Comparison of Time-Domain Finite Difference (TDFD) and Transmission-Line Modeling (TLM) methods.
Mathew O. Sadiku, Temple University and Clarence N. Obiozor, University of North Florida.

Undedicated HAAP based Mobile Architecture for Cellular Data Transfers.
Vijay Pandiarajan and Laurie L. Joiner, The University of Alabama in Huntsville.

Adaptive Reed-Solomon Coding for Wireless ATM Communication.
S.J.Li, K. F. Pan, J.S. Yuan, University of Central Florida,
A.J. Vigil and Al. Berg, RSI Basedband Technologies.

Session-2 Robotics-I

Saturday Morning 8:30-10:00 a.m.

Dynamic Behavior of a Translating Flexible Beam with a Prismatic Joint.
A. M. Hasanul Basher, South Carolina State University.

“AGGIE ROVER” Mobile Robot – Design and Test.
Y. D. Song and Jiangtao Hou, North Carolina AT&T State University.

Comparison of Neural Network Architectures for the Modeling of Robot Inverse Kinematics.
Joseph A. Driscoll, Vanderbilt University.

A Fuzzy Integrated Robotic behavioral Architecture.

Vadiraj K. Hombal, Ali Safak Sekmen and Saleh Zein-Sabatto, Tennessee State University

Fuzzy Logic in Motion Planning Using the Takagi-Sugeno Method.

Kamilah Walker and Albert C. Esterline, North Carolina A&T State University.

Hierarchical Multi-Agent Motion Planning in a Static Environment.

Edgar Johnson, Albert C. Esterline, North Carolina A&T State University.

Session-3 Intelligent and Control Systems -I

Saturday Morning 8:30-10:00 a.m.

Agent Based Transaction Processing.

Hayward Little, Albert C. Esterline, North Carolina A&T State University.

Fuzzy BDI Architecture for Social Agents.

Stephen A. Long and Albert C. Esterline, North Carolina A&T State University.

Modeling Societies of Agents Using Modal Logics.

Jamica D.Burge and Albert C.Esterline, North Carolina A&T State University.

A Genetic Algorithm Perspective to Distributed Systems Design.

Sanjay P. Ahuja, University of North Florida.

Strategies in Multi-Agent Systems.

Ronald Johnson and Albert C. Esterline, North Carolina A&T State University.

Genetic Algorithm Applied to Real Time Multiobjective
Optimization Problems.

Z. Bingul, A. S. Sekmen, S. Palaniappan and
Saleh Zein-Sabatto, Tennessee State University.

Session-4 Signal Processing-I

Saturday Morning 10:30-12:00 noon

Pitch Determination of Music Signals using the Generalized Spectrum.

Tim R. Black and Kevin D. Donohue, University of Kentucky.

Speech Spectrogram Based Model Adaptation for
Speaker Identification.

Sabri Gurbuz, John N.Gowdy and Zekeriya Tufekci, Clemson University.

Feature Extraction Using Discrete Wavelet Transform for
Speech Recognition.

Z. Tufekci, and J. N. Gowdy, Clemson University.

An Investigation into Unsupervised Clustering Techniques.

H.S. Lee and N.H. Younan, Mississippi State University.

Frequency Correlation Analysis for Periodic Echoes.
Lexuan Huang and Kevin D. Donohue, University of Kentucky.

Session-5 Power Systems -I

Saturday Morning 10:30-12:00 noon

Load Management Techniques.
G. Thomas Bellarmine, Florida A&M University.

Electrical Aging Methods for Fine Gauge Magnet Wire of
Flyback Transformer.
E.A. Feliat, S.Grzybowski, Mississippi State University and
P.Knight, Thomson Consumer Electronics.

Phase Shift of the Electromagnetic Waves Due to Dry Snow.
M.A Fares, S.C Fares, Valdosta State University, and
C.A Ventrice, Tennessee Technological University.

Power Disturbance Identification through Pattern Recognition System.
Soon-Kin Chai and Sekar Rajan, Tennessee Technological University.

An Interactive Real-Time Electromagnetic Field analysis
System for Educational Purposes.
O. Mohammed, D. Minev, J. Castro and G. Roig, Florida International University.

Selection of Varistor for Surge Protection Purposes
Based on Their Voltage-Current Characteristics.
R. Siegert, O. Mohammed, Florida International University.

Session-6 Systems and Devices-I

Saturday Morning 10:30-12:00 noon

Automatic Input Voltage Sensing and Switching.
Jason Lyon, Adtran Inc. and Reza Adhami, University of Alabama.

Computer Aided Routing for Complex Programmable
Logic Device Manufacturing Test Development.
Nick J. Vocke, Charles E. Stroud, J. Robert Heath, University of Kentucky,
William R. Osro and Khushru S. Chhor, Cypress Semiconductor.

An Adaptive Higher-Order FDTD Scheme for Electromagnetic Problems.
N. Homsup, Kasetsart University.

Gain Improvement and Backlobe Reduction in Vee Dipoles with
Director Elements.
Stanislav Licul, Ahmad Safaai –Jazi, and Argyrios Chatzipetros,
Virginia Polytechnic Institute and State University.

Scope of Digital Systems Increase with in System Re-programability
Subbarao V. Wunnava and Alberto Rodriguez, Florida International University.

Session-7 Internet and Multimedia-I

Saturday afternoon 1:30-3:00 p.m.

Computer Organization Teaching- A Create-Your-Own-Workbook Approach

Ashesh Das, Pennsylvania College of Technology.

Java Based Graphical User Interface for Livingston

Weimin Zhang and S. S. Devgan, Tennessee State University.

Implementation of Embedded Streaming of Large Video Application Using Object-Relational Database and PHP

Ravneet S. Mann and S. S. Devgan, Tennessee State University.

Internet based Digital Government Model Development

Subbarao V. Wunnava, and Madhusudhan V. Reddy, Florida International University.

Videonet and Voicenet Concepts Help the realization of Interactive Video and Audio on the Internet

Subbarao V. Wunnava and Tim Willilams, Florida International University.

Session-8 Robotics-II

Saturday afternoon 1:30-3:00 p.m.

Construction of an Autonomous Robot

Clarence N. Obiozor, Guy Rowlands, Thomas Dinkins, Jesse Brian and Anthony Wilson, University of North Florida.

Sensor Based Terrain Guidance of Distributed Cooperative Mobile Robots

Samuel Aderogba and Amir Shirkhodaie, Tennessee State University.

Human-Robot Interaction Over the Internet

A. S. Sekmen, Z. Bingul, V. Hombal and Saleh Zein-Sabatto, Tennessee State University.

Tractical Mobility and Navigational Strategies for a Group of Mobile Robots Using Fuzzy Logic

Abhijit Partkar and Amir Shirkhodaie, Tennessee State University.

Navigation Task-Planning of Distributed Cooperative Robotics Vehicles

Mohammad Mansour and Amir Shirkhodaie, Tennessee State University.

Session-9 Theory and Algorithms

Saturday afternoon 1:30-3:00 p.m.

Design of a Composite Arithmetic Unit for Rational Numbers

Tomasz Pinkiewicz, Neville Holmes and Tariq Jamil, University of Tasmania.

A Relativistic Windowed Fourier Transform

M. R. Karim, Fisk University, S. T. Ali, Concordia University and

M. Bodruzzaman, Tennessee State University.

Subsystem's Influence on a System Eigenvalue

Yong Ye and Kamal Youcef – Toumi, Massachusetts Institute of Technology.

Towards Implementation of a Binary Number System for Complex Numbers

Tariq Jamil, Vecille Holmes and David Blest, University of Tasmania, Australia.

A Trust Region-Based Approach to the Solution of Nonlinear Circuits

W. Homsup, Royal Thai Air Force and N. Homsup, Kasetsart University, Bangkok.

Simple Computation of the Coupling Coefficient Due to a Rectangular Current Loop for Loaded Circular Cavities

Kodanda R. Engala, Ahmed A. Kishk and Darko Kajfez, University of Mississippi.

Session-10 Signal Processing-II

Saturday afternoon 3:30-5:00 p.m.

Infusion Adaptability, Autonomy and Cooperation into An Information Visualisation System

Zhongwei Zhang, University of Southern Queensland and Shan Suthaharan, Tennessee State University.

Analysis of Stripline and Waveguide Discontinuities as a 2D Problem Using Finite Difference Time Domain Method

A.A Kishk and A. Goumileski, University of Mississippi.

A Graphical User Interface for a Finite Difference Time Domain Simulation Tool

Atef Z. Elsherbeni, Chris L. Riley and Charles E. Smith, The University of Mississippi.

Absorbing Markov Chain Solution of Poisson's Equation

Keming Gu, Horizon Airspace LLC and Mathew N. O. Sadiku, Temple University.

Determining the Optimum Value of Number of Poles Under Stressful Talking Conditions

Ismail Shahin, University of Sharja and Nazeih Botros, Southern Illinois University.

Session-11 Computer Software and Hardware

Saturday afternoon 3:30-5:00 p.m.

JavaMonte: A New Programming Language for Montecarlo Simulation

Raymond C. Garcia, Richard J. LeBlanc, Georgia Institute of Technology and Mathew Sadiku, Temple University.

Applying the Calderbank-Mazo Algorithm to Space-Time Trellis Coding

Ran Gozali and Brian D. Woerner, Virginia Polytechnic Institute and State University.

Real-Time Virtual Circuit Management for the Integrated Service Architecture

Brian Barnes, Myung Choi, Bernd Koehler, Henry Owen, Georgia Institute of Technology, and Joachim Sokol, Siemens, Germany.

Z-Module Reasoning and Proving the Commutativity of

Rings of Exponent $n \geq 2$

Blackwell Sawyer and Albert C. Esterline, North Carolina A&T State University.

Extension of PCI Bus to 21 Slots using GTLP Transceivers

Chris Siegl, and Craig Klem, Fairchild Semiconductor.

A new Implementation Technique for Memory Management

Mehran Rezaei and Krishna M. Kavi, University of Alabama.

Session-12 Systems and Devices-II

Saturday afternoon 3:30-5:00 p.m.

Two-Dimensional Analytical Model for Drain Induced Barrier Lowering (DIBL) in Short Channel MOSEFETs

Ayhan A. Mutlu and Mahuman Rahman, Santa Clara University.

Optimal Design of Thermoelectric Generator

Hank Javan, University of Memphis.

A Non- Destructive Method of Testing for Radiation Hardness of Integrated Circuits

Mebenin Awipi and Steven Drews, Tennessee State University.

Analysis of Circular Waveguide with Strips Loaded Walls Using Asymptotic Boundary Conditions

Ahmed A. Kishk and Michael Morgan, University of Mississippi.

Multiple- Fault Detection for The Balanced and Unbalanced Conditional-Sum Adders

Chanyutt Arjhan, Florida Institute of technology and Raghvendra G. Deshkukh, Florida State University.

Modeling and Instrumentation for Fault Detection and Isolation of a Cooling System

Philippus J. Feenstra, Twente University, Eric J. Manders, Vanderbilt University, Pieter J. Mosterman, Institute of Robotics and Mechatronics, Gautam Biswas and Joel Barnett, Vanderbilt Univrsity.

Session-13 Internet and Multimedia-II

Sunday Morning 8:30-10:00 a.m.

Promoting Polynomial Predictive Filtering on the Internet
Jarno Martikainen and Seppo J. Ovaska, Helsinki University Of Technology.

Web Based Remote Security System Model Development
Subbarao V. Wunnava and Moises De La Cruz, Florida International University.

Enterprise Computing with Java
Sanjay P. Ahuja, University of North Florida.

Operating Systems: Visualization Technique for Teaching and Learning
Victor Sparks and Shan Suthaharan, Tennessee State University.

Customer Relationship Management in E-Commerce:
The Call Center Solution
Kalechi Ohaegbu and S. S. Devgan, Tennessee State University.

Development of Cross Platform User Interface to Support
Distance Learning
Abhijit Raje and S. S. Devgan, Tennessee State University.

Session-14 Image Processing

Sunday Morning 8:30-10:00 a.m.

Effects of Misalignment on Pixel Averaging when Scaling
Templates and Images Before Scanning
Gary O' Brien U.S Army and Gerald Cook, George Mason University.

Transform Domain Technique: Robust Watermarking for Digital Images
S. Suthaharan and S. Santhananathan, Tennessee State University.

Application of Enhance the Teaching and Understanding of
Basic Image Processing Techniques
Didar S. Sohi and S. S. Devgan, Tennessee State University.

Neural Network-Based Codebook Search for Image Compression
M. Bodruzzaman, Tennessee State University, M. R. Karim, Fisk University and
S. Bodruzzaman, Tennessee State University.

Multimedia Streaming on a Personal Computer for Virtual
Music Video Television Station
Henzil Browne and Shan Suthaharan, Tennessee State University.

Session-15 Intelligent and Control Systems -II

Sunday Morning 8:30-10:00 a.m.

Uniform Formal Modeling of Human and Non-Human Agents
Using CSP and VDM
Kevin Mosley and Albert Esterline , North Carolina A&T State University.

HPC Software Usability Enhancement through Evaluation and Training
Mingsheng Guo and S. S. Devgan, Tennessee State University.

Prima Facie Obligations and a Deontic Transaction Model for
Multiagent Systems

Yingli Liu and Albert C. Esterline, North Carolina A&T State University.

Adaptive Learning Expert System

Sakchai Wiriyagoonkasem and Albert Esterline, North Carolina A&T State University.

Comparison of Two Nonlinear Adaptive Control Strategies

Poolsak Koseeyaporn, George E. Cook and A.M. Strauss, Vanderbilt University.

The Logic of Action in the Deontic transaction Model

Yelena Tretyakova and Albert C. Esterlin, North Carolina A&T State University.

Session-16 Networking

Sunday Morning 10:30-12:00 Noon

Component-Based Distributed Network Management

Chanki Jeong and Mohammed M. Shahsavari, Florida Institute of technology.

Simulation of an ATM Network Using an On-Off Model

Ashish Bhadra, Price Waterhouse Coopers LLP and Mathew O. Sadiku, Temple University.

Adaptive Rate Coding for Wideband CDMA Wireless Networks

Vidhyacharan Bhaskar and Laurie L. Joiner, University of Alabama.

Soft Computing Tools to Detect and Characterize Anomalous
Network Behavior

Raymond C. Garcia and John A. Copeland, Georgia Institute of Technology.

A Priority Queue Based Approach to Service Subscribe Profile
Queries in Cellular Network

Sailendra Sinha, eCapital Solutions and S. Anand, Indian Institute of Science, India.

Novel Multidimensional Dynamic Super High Speed
Communication in Functional Media

Ashoka K. Gupta, SIGCOM Company.

Session-17 Power Systems -II

Sunday Morning 10:30-12:00 Noon

Performance of Estimation Techniques for Power System Dynamic
Stability Using Least Squares, Kalman Filtering and Genetic Algorithms

E. A. Feilat, Mississippi State University.

Pattern Recognition Techniques Applied to the Classification of Swing

Curves generated in a Power System Transient Stability Study
Ping Yan, A. Sekar and P. K. Rajan, Tennessee Technological University.

Broadband Communications over a Rural Power Distribution Circuit
Wayne Sanderson, Powercomm Technologies.

Simplified Analysis of PWM Converters Operating in Discontinuous
Conduction Mode Using Alternate Forms of the PWM Switch Models
June Chen and K. D. T. Ngo, University of Florida.

Session-18 Engineering Education

Sunday Morning 10:30-12:00 Noon

A Teaching Technique using SOCKET Model
A. M. Hasanul Basher and Saliman A. Isa, South Carolina State University.

Enhancing Engineering Education on the web: The use of
ActiveX Controls and Automation Server Technology
Raymond C. Garcia and Bonnie S. Heck, Georgia Institute of Technology.

Development of Distance learning Environment
Saoud A. Khan and S. S. Devgan, Tennessee State University.

Implementation of Streaming Audio and Video for Online Web Based
Courses Using MYSQL Database Server and PHP
Arpit Das and S. S. Devgan, Tennessee State University.

Method of Lines Solution of Axisymmetric Problems
Mathew O. Sadiku, Temple University and
Raymond C. Garcia, Georgia Institute of Technology.

Verification of Portable Intellectual Property Blocks for FPGAs.
Mark E. Kelly and Donald W. Bouldin, University of Tennessee at Knoxville.