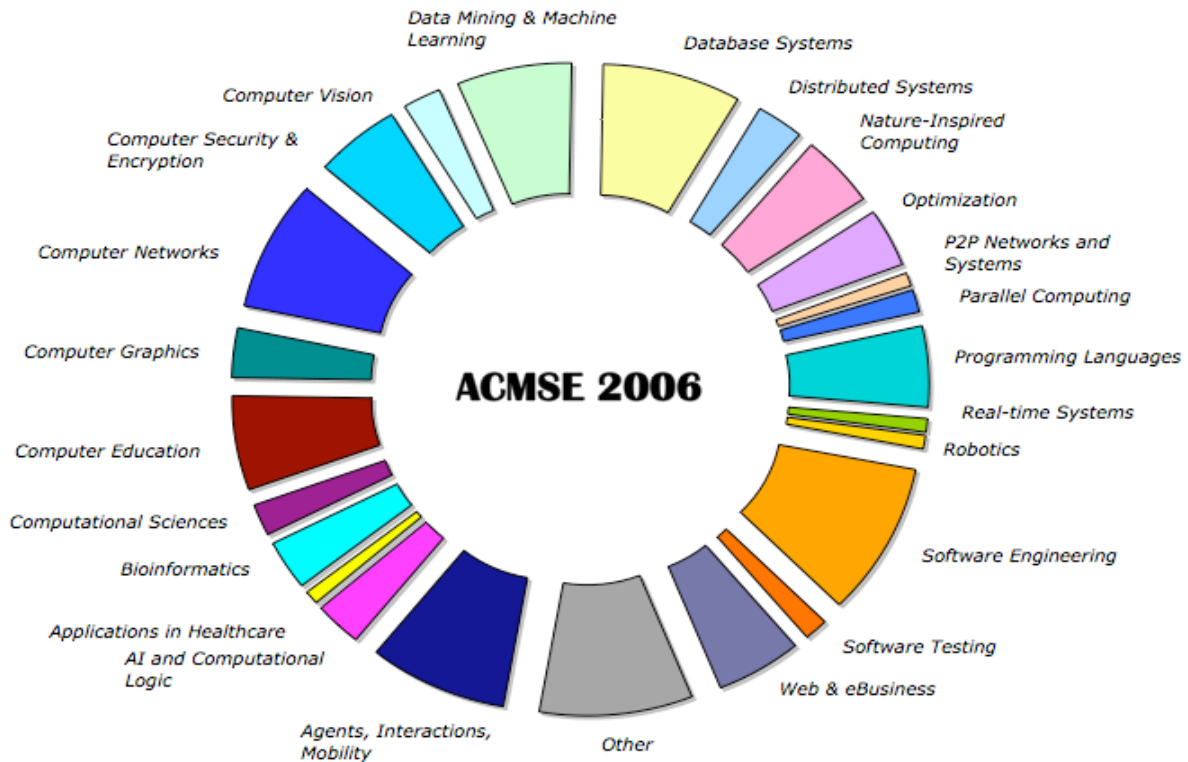


44th ACM Southeast Conference Melbourne, Florida, USA March 10-12, 2006

Hosted by the
Florida Institute of Technology



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SUMMARY OF THE SCHEDULE

ACMSE 2006: Presentation Schedule Melbourne, Florida, USA - March 10-12, 2006

DAY 1 (March 10)

Time	Room 1	Room 2	Room 3	Room 4	Room 5	Tutorials
8:00 AM	KEYNOTE Juan Vargas Microsoft	N/A				TUTORIAL 1 R. Fiedler et al. <i>Survival 101: Software Tools to Support...</i>
9:20 AM	POSTER SESSION & COFFEE BREAK					
10:00 AM	OPT: R#113	AI: R#31	GRAPHICS: R#100	SE: R#91	NETWORK: R#151	TUTORIAL 1 R. Fiedler et al. <i>Survival 101: Software Tools to Support...</i>
10:25 AM	OPT: R#122	AI: R#61	GRAPHICS: R#32	SE: R#20	NETWORK: R#183	
10:50 AM	OPT: S#127	AI: R#55	GRAPHICS: S#77	SE: S#21	NETWORK: R#104	
11:15 AM	OPT: S#45	AI: S#16	GRAPHICS: S#35	SE: S#48	NETWORK: R#77	
11:40 AM	N/A	OTHER: R#141	REAL TIME: S#51	N/A		
12:05 PM	LUNCHEON					
1:30 PM	P2P: R#33	COMP EDU: R#86	MINING: R#52	SE: R#2	OTHER: R#145	TUTORIAL 2 Jeniffer Burg <i>How to Teach...</i>
1:55 PM	ROBOTICS: R#94	COMP EDU: R#187	MINING: R#140	SE: R#63	OTHER: S#33	
2:20 PM	NAT: R#185	COMP EDU: R#60	MINING: R#28	SE: S#24	PARALLEL: R#48	
2:45 PM	TEST: R#64	COMP EDU: R#70	MINING: R#167	SE: S#37	PARALLEL: R#157	
3:10 PM	POSTER SESSION & COFFEE BREAK					
4:00 PM	NAT: S#29	APP HEALTH: R#184	MINING: R#171	SE: R#13	NETWORK: R#147	TUTORIAL 2 Jeniffer Burg <i>How to Teach...</i>
4:25 PM	NAT: S#12	OTHER: R#111	MINING: R#98	SE: R#36	NETWORK: R#41	
4:50 PM	NAT: S#7	OTHER: R#49	MINING: R#12	SE: R#170	NETWORK: R#168	
5:15 PM	PRESENTATION	OTHER: S#25	MINING: R#136	SE: R#173	NETWORK: S#6	
5:40 PM	Advus Corporation	OTHER: S#22	N/A	TEST: R#5	NETWORK: S#36	
6:05 AM	DINNER					

ACMSE 2006: Presentation Schedule Melbourne, Florida, USA - March 10-12, 2006

DAY 2 (March 11)

Time	Room 1	Room 2	Room 3	Room 4	Room 5	Tutorials
8:00 AM	KEYNOTE Erik Meijer Microsoft	N/A				TUTORIAL 3 Mihail L. Sichitiu <i>Wireless Mesh Networks</i>
9:20 AM	POSTER SESSION & COFFEE BREAK					
10:00 AM	AGENT: R#143	DB: R#15	BIO: R#37	WEB: R#125	COMP SCI: R#110	TUTORIAL 3 Mihail L. Sichitiu <i>Wireless Mesh Networks</i>
10:25 AM	AGENT: R#47	DB: R#128	BIO: R#42	WEB: R#132	COMP SCI: R#144	
10:50 AM	AGENT: R#134	DB: R#40	BIO: R#44	WEB: R#71	COMP SCI: S#53	
11:15 AM	AGENT: R#69	DB: R#164	BIO: S#71	WEB: R#179	OTHER: R#34	
11:40 AM	AGENT: R#7	N/A	OTHER: R#3	WEB: R#101	N/A	
12:05 PM	LUNCHEON					
1:30 PM	AGENT: R#137	DB: S#76	SEC: R#75	WEB: R#85	COMP EDU: R#146	TUTORIAL 4 Andrew J. Kormecki <i>Software/System Safety</i>
1:55 PM	AGENT: R#119	DB: S#4	SEC: R#159	WEB: S#28	COMP EDU: R#24	
2:20 PM	AGENT: R#149	DB: S#68	SEC: R#176	PROG LANG: R#59	COMP EDU: S#23	
2:45 PM	AGENT: R#117	DB: S#3	SEC: R#38	PROG LANG: R#84	COMP EDU: S#52	
3:10 PM	POSTER SESSION & COFFEE BREAK					
4:00 PM	AGENT: S#50	DB: S#5	SEC: R#29	PROG LANG: R#27	DIST SYS: R#26	TUTORIAL 4 Andrew J. Kormecki <i>Software/System Safety</i>
4:25 PM	OTHER: R#17	DB: S#34	SEC: R#182	PROG LANG: R#89	DIST SYS: R#155	
4:50 PM	OTHER: R#93	VISION: R#106	SEC: R#18	PROG LANG: S#31	DIST SYS: R#96	
5:15 PM	N/A	VISION: R#87	N/A	PROG LANG: S#9	DIST SYS: S#70	
5:40 PM	N/A	VISION: R#99	N/A	PROG LANG: S#63	OTHER: R#133	
6:05 AM	BANQUET & AWARDS CEREMONY					

FRIDAY, MARCH 10th, 2006

8:00 – 9:20

Room 1 (Keynote Address)

Title: An Overview of Data Mining Principles and the Data Mining Features of SQL Server 2005

Speaker: Dr. Juan E. Vargas, Microsoft

Abstract:

In recent years Microsoft has launched initiatives to strengthen relationships with the academic community. As an outreach of these initiatives, Dr. Juan Vargas, Academic Relations Manager at Microsoft, will talk about the new data mining features in SQL Server 2005. He will present a brief overview of data mining principles and common techniques, then discuss Microsoft SQL Server 2005 Data Mining Services, and will demonstrate some of the data mining features of SQL Server 2005.

Bio:

Dr. Juan E. Vargas is Academic Relations Manager for Microsoft Co. He has a Ph.D. from Vanderbilt University. He is a faculty of the Department of Computer Science & Engineering at the University of South Carolina, where he has taught data mining, Bayesian networks, embedded and distributed systems, data structures, algorithms, and OS. Dr. Vargas research interests include data mining, embedded systems, sensor networks and HPC. His research has attracted \$9M+ in funding, resulting in more than 60 publications, several book chapters, and many conferences.

9:20 – 10:00

Outside all Rooms

- Poster Session with Coffee Break

10:00 – 12:05

Room 1 (Optimization)

- Toward Efficient Flow-Sensitive Induction Variable Analysis and Dependence Testing for Loop Optimization (R#113)
Yixin Shou, Robert A. van Engelen, Johnnie Birch, Kyle A. Gallivan

- Tuning File System Block Addressing for Performance (R#122)
Harrison Caudill and Ada Gavrilovska
- Finding Optimal Weighted Bridges with Applications (R#127)
Ovidiu Daescu and James O. Palmer
- Hierarchical Decomposition Algorithm for Hardware/Software Partitioning (S#45)
Brennon Meals

Room 2 (Artificial Intelligence)

- The Averaged Mappings Problem: Statement, Applications, and Approximate Solution (R#31)
Xavier Hilaire and John Oommen
- A SAT-based Solver for Q-ALL SAT (R#61)
B. Browning and A. Remshagen
- Gene Intrusion on a Society of Hill-Climbers (R#55)
Lei Chen, Chung-Wei Lee, Wen-Chen Hu
- A Parsing Algorithm for Korean Implemented in Prolog (S#16)
Soyoung Kwon
- A Speech Recognition and Synthesis Tool (R#141)
Hala ElAarag and Laura Schindler

Room 3 (Graphics and Real-Time Systems)

- Optimizing Octree Motion Representation for 3D animation (R#100)
Jinghua Zhang, Jinsheng Xu
- HELLAS: A Specialized Architecture for Interactive Deformable Object Modeling (R#32)
Shrirang Yardi, Benjamin Bishop, Thomas Kelliher
- Chessboard Domination on Programmable Graphics Hardware (S#77)
Nathan Cournia
- RD Optimized compression of 3-D mesh sequences based on principal component analysis (S#35)
Junhee Heu, Jeong-Hyu Yang, Chang-Su Kim, and Sang-Uk Lee
- Using Hybrid Automata to Model Four Stroke Engines with Variable Valve Timing in Simulink/Stateflow (S#51)
Brian Wesley Williams

Room 4 (Software Engineering)

- Templates and Automation for Temporal Query Generation (R#91)
Hong Liu, David P. Gluch
- A Series of Choices - Variability in the Development Process (R#20)
John M. Hunt and John D. McGregor
- Metrics for Class Cohesion and Similarity Between Methods (S#21)
Bonja, Challa and Kidanmariam, Eyob
- Incremental Computation of Shortest Paths in Semi-Dynamic Graphs Using Software Components (S#48)
Nighat Yasmin

Room 5 (Computer Networks)

- Determining a Sequence of Stable Multicast Steiner Trees in Mobile Ad Hoc Networks (R#151)
Natarajan Meghanathan
- Density-based Multipath Secure Communication over Mobile Ad Hoc Networks (R#183)
Lei Chen, Chung-wei Lee, Jyh-haw Yeh
- Security Issues in Privacy and Key Management Protocols of IEEE 802.16 (R#104)
Sen Xu, Manton Matthews, Chin-Tser Huang
- LARS - A Locally Aware Reputation System for Mobile Ad-Hoc Networks (R#77)
Jiangyi Hu and Mike Burmester

12:05 – 13:30

Evan's Hall

- Lunch

13:30 – 15:10

Room 1 (P2P Systems, Robotics and Nature-Inspired Computing)

- Broadcast Updates with Local Look-up Search (BULLS): A New Peer-to-Peer Protocol (R#33)
G. Perera, K. Christensen

- Mostly C, Challenges in LEGO® RCX Code Generation (R#94)
Robert P. Cook
- An Evaluation of Negative Selection Algorithm with Constraint-based Detectors (R#185)
Haiyu Hou, Gerry Dozier
- Using Genetic Algorithms to Generate Test Plans for Functionality Testing (R#64)
Francisca Emanuelle Vieira, Francisco Martins, Rafael Silva, Ronaldo Menezes, Márcio Braga

Room 2 (Computer Education)

- Intelligent Tutoring System for CS-I and II Laboratory (R#86)
Jungsoon Yoo, Chrisila Pettey, Sung Yoo, Judy Hankins, Cen Li, Suk Seo
- Student Perspectives of ePortfolios in Computing Education (R#187)
Albert Dieter Ritzhaupt, Oma Singh
- Large Dataset Offers View of Math and Computer Self-efficacy Among Computer Science Undergraduates (R#60)
Antonio M Lopez Jr, Marguerite S. Giguette, and Lisa J Schulte
- Beyond Objects-First: A Project-Driven CS2 Course (R#70)
E. Frank Barry, Christopher C. Ellsworth, Barry L. Kurtz, James T. Wilkes

Room 3 (Data Mining)

- Support Vector Machines For Collaborative Filtering (R#52)
Zhonghang Xia, Yulin Dong, Guangming Xing
- Bootstrapping Methodology for the Session-Based Anomaly Notification Detector (SAND) (R#140)
Bruce D. Caulkins, Jooan Lee, Morgan C. Wang
- Mining Frequent Itemsets with Partial Enumeration (R#28)
Peiyi Tang and Markus P. Turkia
- Modeling Student Online Learning Using Clustering (R#167)
Cen Li and Jungsoon Yoo

Room 4 (Software Engineering)

- Introduction to Extended Common Coupling with an Application Study on Linux (R#2)
Liguo Yu and Srini Ramaswamy
- A Framework for the Effective Adoption of Software Development Methodologies (R#63)
Fleming Woo, Romas Mikusauskas, Dean Bartlett, Rob Law
- Crosscutting Score- An Indicator Metric for Aspect Orientation (S#24)
Subhajit Datta
- A Relational Database Model for Representation of Formal Specifications (S#37)
Robert Leithiser

Room 5 (Parallel Computing and Miscellaneous)

- Computer Generated Holograms Speed-Up on Generic Surfaces (R#145)
Luis E. Cuéllar, John M. Tyler, Richard Muffoletto
- Comprehensive Workflow Mining (S#33)
Aubrey J. Rembert
- Efficiently Unifying Parallel Simulation Techniques (R#48)
Jinsheng Xu, Jinghua Zhang
- Parallelization of Local Search for Euclidean Steiner Tree Problem (R#157)
Rashid Bin Muhmmad

15:10 – 16:00

Outside all Rooms

- Poster Session with Coffee Break

16:00 – 18:05

Room 1 (Nature-Inspired Computing)

- Revisiting a Limit on Efficient Quantum Computation (S#29)
Tarsem S. Purewal Jr.
- Morphological NNs with Orthonormal Basis Dendrites (S#12)
Angelos Barmpoutis
- Quantum Computing: A Survey (S#7)
Siddhartha Kasivajhula

- SPECIAL PRESENTATION
(see page 30 for full description)

Room 2 (Applications in Healthcare and Miscellaneous)

- Applying Multiresolution Methods to Medical Image Enhancement (R#184)
Monica A. Trifas, John M. Tyler, Oleg S. Pianykh
- Variability of User Interaction with multi-platform news feeds (R#111)
Chandresh Chhatpar, Manuel A. Pérez-Quiñones
- An Introduction to Proper-Coupled-Domination in Graphs (R#49)
Suk J. Seo and Peter J. Slater
- Agility Measurement Index – A Metric for the Crossroads of Software Development Methodologies (S#25)
Subhajit Datta
- Identifying Immediate Intention during Usability Evaluation (S#22)
Jonathan Howarth

Room 3 (Data Mining)

- Discovering Communities in Complex Networks (R#171)
Hemant Balakrishnan and Narsingh Deo
- Hybrid Intelligent Systems for Network Security (R#98)
J. Lane Thames, Randal Abler, Ashraf Saad
- Detecting Outliers in Interval Data (R#12)
Shuxin Li, Robert Lee, Sheau-Dong Lang
- A Machine Learning Method with Hybrid Neural Networks for Spectrum Analysis (R#136)
Zlatko Zografski, Gordana Bogoeva-Gaceva, Vladimir Petrusevski

Room 4 (Software Engineering and Testing)

- VTQuest: A Voice-based Multimodal Web-based Software System for Maps and Directions (R#13)
Thomas W. Schneider and Osman Balci
- A Model for the Software Engineering Capstone Sequence using the Rational Unified Process® (R#36)
Robert F. Roggio

- Framework Design Using Function Generalization: A Binary Tree Traversal Case Study (R#170)
H. Conrad Cunningham, Yi Liu, and Pallavi Tadepalli
- Middleware Specialization using Aspect Oriented Programming (R#173)
Dimple Kaul and Aniruddha Gokhale
- Automatic Support for Testing Web-Based Enterprise Applications (R#5)
Arturo Sanchez, Brandon Vega, Alexander Gonzalez, Gregory Jackson

Room 5 (Computer Networks)

- Stationary Queue-Size Distribution for Variable Complexity Sequential Decoders with Large Timeouts (R#147)
Khalid Darabkh, W. David Pan
- Assessing Denial of Service Vulnerabilities in DOCSIS (R#41)
Scott Moser, Jim Martin
- Efficient Route Establishment and Maintenance in Wireless Sensor Networks with Mobile Base Stations (R#168)
Ju Wang, Hongsik Choi, Esther A. Hughes
- Performance Comparison of BQM and Normal Queue Management Techniques (S#6)
Xiaoming Li
- 802.11g Wireless Range and the Army Shadow TUAV (S#36)
David Last

18:05 – 20:00

Evan's Hall

- Dinner

SATURDAY, MARCH 11th, 2006

8:00 – 9:20

Room 1 (Keynote Address)

Title: LINQ: Reconciling objects, relations and XML in the .NET framework (A Personal Perspective)

Speaker: Erik Meijer, Microsoft

Abstract:

Modern applications operate on data in several different forms: Relational tables, XML documents, and in-memory objects. Each of these domains can have profound differences in semantics, data types, and capabilities, and much of the complexity in today's applications is the result of these mismatches. The future release of Visual Studio aims to unify the programming models through integrated query capabilities in C# and Visual Basic, a strongly typed data access framework, and an innovative API for manipulating and querying XML. This talk explains the programming language theory roots (monads and monad comprehensions, lazy/co-inductive functional programming) behind language integrated queries (LINQ) and discusses the language enhancements behind them.

Bio:

Erik Meijer is an architect/language pimper in the SQL Server division where he collaborates with the Visual Basic and C# teams on making programming against data radically simpler. In the past, he has worked on languages such as Haskell, Mondrian, and Comega.

9:20 – 10:00

Outside all Rooms

- Poster Session with Coffee Break

10:00 – 12:05

Room 1 (Agents, Interactions & Mobility)

- Embodied Data Objects: Tangible Interfaces to Information Appliances (R#143)
Manas Tungare, Pardha S. Pyla, Pradyut Bafna, Vladimir Glina, Wenjie Zheng, Xiaoyan Yu, Umut Balli, Steve N. Harrison

- A Conceptual Model for Agent-based Simulation of Physical Security Systems (R#47)
Volkan Ustun, Levent Yilmaz, and Jeffrey S. Smith
- Intelligent Library Navigation using Location-aware Systems - The Newman Project (R#134)
Brian Sciacchitano, Chris Cerwinski, Ivan Brown, Miten Sampat, Jason Chong Lee, D. Scott McCrickard
- WARD: An Exploratory Study of an Effective Sociotechnical Framework for Addressing Medical Errors (R#69)
William Lee, Woodrow W. Winchester, III, and Tonya L. Smith-Jackson
- Agent-based Simulation Study of Behavioral Anticipation: Anticipatory Fault Management in Computer Networks (R#7)
Avdhoot Saple and Levent Yilmaz

Room 2 (Database Systems)

- Incorporating Object Relationship Notation (ORN) into SQL – Revisited (R#15)
Bryon K. Ehlmann
- Theoretical properties of two problems of distribution of interrelated data (R#128)
Jonathan M. Graham
- Specifying and Solving Boolean Constraint Problems in Relational Databases: A Case Study (R#40)
M. Jeremy Scoggins and James J. Lu
- VisIOn: An Interactive Visualization Ontology (R#164)
Philippa Rhodes, Eileen Kraemer, Bina Reed

Room 3 (Bioinformatics & Ethics)

- Automatic Quality Assessment of Affymetrix GeneChip Data (R#37)
Steffen Heber and Beate Sick
- Reconstructing networks using co-temporal functions (R#42)
Edward E. Allen, Jacquelyn S. Fetrow, David J. John, Anthony Pecorella, William Turkett
- 3D Face Authentication by Mutual Coupled 3D and 2D Feature Extraction (R#44)
T. H. Lin, W. C. Chen, W. Y. Ho and W. P. Shih

- An Efficient Hybrid Clustering Algorithm for Molecular Sequences Classification (S#71)
Wei-Bang Chen
- Computer Security and Ethics Awareness in University Environments: A Challenge for Management of Information Systems (R#3)
Max M. North, Roy George, and Sarah M. North

Room 4 (Web & e-Business)

- Evolution of Financial Online Trading Systems: Assessing Critical End-user Requirements (R#125)
Alexander Y. Yap
- NASA's Standards Advisor Pilot: Search Solutions for an Intranet (R#132)
Niveditha Thagarapu, Tilak Mulukalapally, Randy K. Smith
- Conceptual Modeling of Service Composition using Aggregation and Specialization Relationships (R#71)
Ricardo Quintero, Vicente Pelechano
- Composing Aggregate Web Services in BPEL (R#179)
Onyeka Ezenwoye and S. Masoud Sadjadi
- A Conceptual Modeling Approach for the Design of Web Applications based on Services (R#101)
Ricardo Quintero, Victoria Torres, Marta Ruiz, Vicente Pelechano

Room 5 (Computational Sciences)

- Inductive Bases and their Application to Searches for Minimal Unary NFAs (R#110)
Geoffrey Smith
- SHEPPACK: A Fortran 95 package for Interpolation using the Modified Shepard Algorithm (R#144)
Manjula A. Iyer, Layne T. Watson, Michael W. Berry
- Optimal Evolutionary Reconstructions with a Parsimony Graph (S#53)
Treena J. Larrew
- Pipelining of Double Precision Floating Point Division and Square Root Operations (R#34)
Anuja Jayraj Thakkar, Abdel Ejnoui

12:05 – 13:30

Evan's Hall

- Lunch

13:30 – 15:10

Room 1 (Agents, Interactions & Mobility)

- Evaluation of a Location-Linked Notes System (R#137)
Manas Tungare, Ingrid Burbey, Manuel A. Pérez-Quiñones, Ananth Raghavan
- Alumni Campus Tour: Capturing the Fourth Dimension in Location Based Notification Systems (R#119)
Sandeep Nair, Anupam Kumar, Miten Sampat, Jason Chong Lee, D. Scott McCrickard
- An Approach for Developing Real-Time Distributed Systems using an Agent Architecture Description Language (R#149)
Craig Eichelkraut and Letha Etzkorn
- VTAssist – A location-based feedback notification system for the disabled (R#117)
Sarav Bhatia, Curtis Dahn, Jason Chong Lee, Miten Sampat, D. Scott McCrickard

Room 2 (Database Systems)

- Real Time Self-Maintainable Data Warehouse (S#76)
Clemente Garcia
- The Determination of Synonyms for Fuzzy Modifiers in a Fuzzy Database based on User Community Consensus (S#4)
Debra M. Duke
- Application Layer Intrusion Detection for SQL Injection (S#68)
Frank S. Rietta
- Determining Membership Function Values to Optimize Retrieval in a Fuzzy Relational (S#3)
Shweta Sanghi

Room 3 (Computer Security & Encryption)

- Type Inference and Informative Error Reporting for Secure Information Flow (R#75)
Zhenyue Deng and Geoffrey Smith
- Achieving Efficient Polynomial Multiplication in Fermat Fields Using the Fast Fourier Transform (R#159)
Selçuk Baktir, Berk Sunar
- Mobile-driven Architecture for Managing Enterprise Security Policies (R#176)
William Claycomb and Dongwan Shin
- Static Analysis of Anomalies and Security Vulnerabilities in Executable Files (R#38)
Jay-Evan J. Tevis, John A. Hamilton, Jr.

Room 4 (Web, e-Business & Programming Languages)

- Application Performance Prediction in Autonomic Systems (R#85)
Shobhana Kirtane, Jim Martin
- Website Engineering in the Real World (S#28)
Chris Gibson
- Complete Inlining of Recursive Calls: Beyond Tail-Recursion Elimination (R#59)
Peiyi Tang
- An Algorithm for Computing Links (R#84)
Cong-Cong Xing

Room 5 (Computer Education)

- Aligning Learning Objectives with Service-Learning Outcomes in a Mobile Computing Application (R#146)
Rebecca Bruce and Susan Reiser
- Box English - Preparing for CS 1 (R#24)
James F. Wirth
- Computer Science Students' Difficulties with Proofs by Induction: An Exploratory Study. (S#23)
Irene Polycarpou
- Computer Tutoring for Programming Education (S#52)
Susan M. Eitelman

15:10 – 16:00

Outside all Rooms

- Poster Session with Coffee Break

16:00 – 18:05

Room 1 (Agents, Interactions & Mobility)

- Closet Buddy: Dressing the Visually Impaired (S#50)
Joseph Rose
- CPVM: Customizable Portable Virtual Machines (R#17)
Ralph Butler, Chrisila C. Pettey, Zach Lowry
- Vizability: A Tool for Usability Engineering Process Improvement through the Visualization of Usability Problem Data (R#93)
Pardha S. Pyla, Jonathan R. Howarth, Chris Catanzaro, Chris North

Room 2 (Database Systems & Computer Vision)

- Spatial Database Feasibility for Facial Characterization Using Fuzzy Logic Queries (S#5)
James L. Mastro
- Determining an Optimal Membership Function Based on Community Consensus in a Fuzzy Database System (S#34)
Joanne M. Cunningham
- Using visual attention to extract regions of interest in the context of image retrieval (R#106)
Oge Marques, Liam M. Mayron, Gustavo B. Borba, Humberto R. Gamba
- Real Time 2-D Face Detection Using Color Ratios and K-Mean Clustering (R#87)
Rob Byrd & RanjaniBalaji
- Edge Detection using Wavelets (R#99)
Evelyn Brannock and Michael Weeks

Room 3 (Computer Security & Encryption)

- Some New Approaches For Preventing Software Tampering (R#29)
Bin Fu, Golden Richard III, Yixin Cheni, Adbo Husseiny
- Scanning Workstation Memory for Malicious Codes using Dedicated Coprocessors (R#182)
Sirish A. Kondi and Yoginder S. Dandass

- Understanding the Intruder through Attacks on Cryptographic Protocols (R#18)
Shahabuddin Muhammad, Zeeshan Furqan, Ratan K. Guha

Room 4 (Programming Languages)

- Polymorphic Type Inference for the Relational Algebra in the Functional Database Programming Language Neon (R#27)
Lajos Nagy, Ryan Stansifer
- Phoenix-Based Clone Detection Using Suffix Trees (R#89)
Robert Tairas, Jeff Gray
- Yaccscript: A Platform for Intersecting High-Level Languages (S#31)
John Healey
- Modern Features for Systems Programming Languages (S#9)
Eric L. McCorkle
- The Future of Java Game Development (S#63)
Brian Ingles

Room 5 (Distributed Systems)

- Using an End-To-End Demonstration in an Undergraduate Grid Computing Course (R#26)
Mark A. Holliday, Barry Wilkinson, and James Ruff
- Performance Evaluation of the Reactor Pattern Using the OMNeT++ Simulator (R#155)
Arundhati Kogekar, Aniruddha Gokhale
- RepoMan: A Component Repository Manager for Enterprise Distributed Real-time and Embedded Systems (R#96)
Stoyan Paunov, Douglas C. Schmidt
- Poor Performance: Is it the Application or the Network (S#70)
Susan McGill
- TDX: a High-Performance Table-Driven XML Parser (R#133)
Wei Zhang and Robert A. van Engelen

18:05 – 20:00

Location TBA

- Banquet and Awards Ceremony

LIST OF POSTERS

Student Posters

- A Network Processor Implementation for Solving the ACK Implosion Problem (S#15)
Dharani Sankar Vijayakumar and S.Vijay Ram
- A Drawback of Current Anti-Virus Simulations - The Need for Background Traffic (S#17)
Attila Ondi
- On Merging User-supplied Topic Ontologies on the Semantic Web (S#39)
Stanislav Ustymenko
- Design, Development and Usage of a Generic Job Submission Grid Service (S#40)
Enis Afgan, William T. Jones
- A System for Investigating Characteristics That Make Effective Visualizations (S#43)
Bina Reed
- Extracting Knowledge in the Internet Age (S#54)
Preetha Annamalai
- Capturing Organizational Wisdom for Effective Software Development (S#56)
David Wright
- Mobility Models for Vehicular Ad Hoc Network Simulations
Niranjan Potnis (S#58)
- Reasoning Driven Blackboard System for Image Understanding (S#61)
Alicia Paul
- Facial Feature Extraction for Face Characterization (S#62)
Jeff McDermott
- Grid Based Distributed Search Structure (S#65)
Pallavi Tadepalli
- Segmentation of Color Images for Image Data Analysis (S#67)
Sanmati Kamath

Regular Posters (non-student)

- Newton's Method for Steady and Unsteady Reacting Flows (R#10)
Wensheng Shen, Jun Zhang, Fuqian Yang

- Unconstrained Separation of Handwriting for Form Classification Applications (R#16)
Dean Curtis, Evangelos Yfantis, Jae Adams, Carryn Bellomo
- Comparing CART with Backpropagation Neural Networks in Vegetation Greenness Classification (R#45)
Jiang Li
- Performance Analysis of Network Protocol Offload in a Simulation Environment (R#46)
Jacob Engel, Joseph Meneskie, Taskin Kocak
- Computation Core Binding in GTM Mapping on Reconfigurable Computers (R#79)
Xuejun Liang
- Distance- and Curvature-Constrained Shortest Paths and an Application in Mission Planning (R#81)
Andre Berger, Nader Razouk, Greg Angelides, Andy Bartlett, Amy Langville, Zhilin Li, Craig Lipkin, Nsoki Mavinga, Elizabeth Perez, Eamonn Tweedy, Erik Wheeler
- A Program for Proving that a Given Graph is not a Unit-Distance Graph (R#82)
Robert Hochberg
- Parameterized Objects and Inducements to Explore Functional Programming (R#83)
Karl Abrahamson
- What The Disorder Pattern Toolbox Can Do (R#103)
Kuo-pao Yang, Martha W. Evens, David Trace
- Controlling the entire path of a virtual camera (R#108)
Ross Ptacek and John K. Johnstone
- A Nearest Neighbor Approach to Letter Recognition (R#109)
Aiyuan Ji and Roy George
- Tic-Tac-LEGO: An Investigation into Coordinated Robotic Control (R#115)
Ruben Vuittonet and Jeff Gray
- Developing Efficient Character Pipeline Tools for Animation Production (R#126)
Siomacco, Edward, John Kundert-Gibbs, and Timothy Davis
- Extensions to and Optimization of a Mobile Computational System for Internet Programming (R#129)
Sarah M. Pulimood, Gregory Adkins, Elizabeth Carter, Amanda Micali

- Energy Efficient Topology Control in Wireless Sensor Networks (R#130)
Rashid Bin Muhammad
- Software Cultivation using The Artificial Intelligence Design Framework (R#154)
Varadraj Prabhu Gurupur, Urcun J Tanik
- Evaluating Web Page and Web Site Usability (R#161)
Christopher C. Whitehead
- Applying Role Based Access Control and Genetic Algorithms to Insider Threat Detection (R#169)
Ning Hu, Phillip G. Bradford, Jun Liu
- On the Channel Modeling and Transmission Power Control for Wireless Sensor Networks (R#172)
Ju Wang, Jeremy Cooper, Hongski Choi
- Web Sites Usability, Usability Requirements Specification & Usability Evaluation (R#177)
Guoqiang Hu and Kai H. Chang
- Test-Driven Specification: Paradigm and Automation (R#181)
Edward L. Jones

TUTORIAL 1

Survival 101: Software Tools to Support Your Scholarly Life

Rebecca Fiedler, Andy Tinkham and Penny Beile

Friday, March 11, 8:00 – 12:05

Abstract:

Research and publication are time-intensive. Productive scholars can take advantage of a variety of free or low-cost tools to facilitate collaboration and streamline tedious tasks. This tutorial will introduce attendees to two classes of tools:

- organizing tools (including project management, bookmark management, and a dissertation/assignment calculator)
- writing tools (including graphic organizers and bibliography management software)

A fully charged battery and wireless card are strongly recommended for this hands-on workshop focusing on software and tools for the Macintosh and Windows platforms.

Bios:

- Rebecca Fiedler is a doctoral candidate at the University of Central Florida's College of Education. She is interested in the using technology to support teaching and scholarship.
- Andy Tinkham is a doctoral candidate in the Computer Science department at the Florida Institute of Technology. His research involves examining various tools used for software testing to determine what biases they may create in their users.
- Dr. Penny Beile is a librarian at the University of Central Florida. Her areas of specialization are the use of the scholarly literature by doctoral students and information competence of education students.

TUTORIAL 2

How to Teach Digital Media as Science and Integrate it into the Computer Science Curriculum

Jennifer Burg

Friday, March 11, 13:30 – 18:05

Abstract:

Research Digital media courses are not standard in the computer science curriculum. The perception is that digital media courses are inherently application-driven, taken up with teaching students how to use tools like Photoshop, Freehand, Pro Tools, Premiere, and Flash. This need not be the case. The science, mathematics, and algorithms underlying digital media are perfectly suitable topics for the computer science curriculum. Teaching these topics via a digital media course is a good way to capture student interest, since it so clearly relates science to practice.

The tutorial will be based on curriculum material created by the presenter. The material includes eight text-based chapters on digital imaging, digital audio, digital video, and multimedia programming. The chapters are supplemented with interactive demos, worksheets, programming assignments, and MATLAB exercises. The interactive demos are written in Macromedia Director and posted as Shockwave files on the web. Fundamental concepts include sampling, quantization, the Nyquist theorem, aliasing, dynamic range, color models, transforms, filters, compression algorithms, digital data communication. The curriculum material is freely available on the web at <http://digitalmedia.wfu.edu>.

(See the section of the material marked "CS Module".)

In the tutorial, the presenter will:

- present an argument for integrating digital media into computer science as a way of interesting students in science and mathematics
- give an overview of the curriculum material and discuss the types of courses for which it is appropriate

- give a tutorial on representative topics in digital media and show how these topics can be taught to students via worksheets, exercises, programming assignments, and projects
- lay out a plan for integrating digital media into the computer science curriculum.

Bio:

- Jennifer Burg holds Master's degrees in French and English from the University of Florida and a PhD in Computer Science from the University of Central Florida. She has been a member of the Wake Forest Department of Computer Science since 1993, serving as Chair from 2000-2004. Burg has been working on digital media curriculum development under two NSF grants for the past three years. She has also collaborated with alban elved dance company on two productions that combined mathematics and computer science, digital images, sound, and contemporary dance.

TUTORIAL 3

Wireless Mesh Networks: Opportunities and Challenges

Mihail L. Sichitiu

Saturday, March 12, 8:00 – 12:05

Abstract:

In this tutorial we present a relatively new wireless technology, commonly called wireless mesh networking (WMN). These networks have the potential to deliver Internet broadband access, connectivity and wireless coverage for both stationary and mobile hosts at low costs both for the service providers and customers. The core technology involves a network of wireless routers relaying each others' packets in a multihop fashion. We will present an introduction to the core technology, applications, design options, a survey of the state of the art and major research problems that have to be solved for the technology to be successful.

Bio:

- Mihail L. Sichitiu was born in Bucharest, Romania. He received a B.E. and an M.S. in Electrical Engineering from the Polytechnic University of Bucharest in 1995 and 1996 respectively. In May 2001, he received a Ph.D. degree in Electrical Engineering from the University of Notre Dame. He is currently employed as an assistant professor in the Department of Electrical and Computer Engineering at North Carolina State University. His primary research interest is in Wireless Networking with emphasis on ad hoc networking and wireless local area networks.

TUTORIAL 4

Software/System Safety: Concepts and Implementation

Andrew J. Kornecki

Saturday, March 12, 13:30 – 18:05

Abstract:

This introductory half-day tutorial is designed to give the participants an additional perspective on the software component of a safety critical system in a regulated industry (aerospace, medical, nuclear, transportation, military). The objective of the presentation is to increase the awareness of concepts, principles, methods and techniques related to software safety as a part of the overall system safety. Safety critical systems and high integrity systems require additional activities to increase the level of safety assurance. The development of software intensive systems requires skills and knowledge often exceeding the material covered by colleges and universities in majority of computer science and engineering programs.

Safety affects all stages of the system lifecycle: requirements elicitation, selecting design options, applying implementation techniques, and providing guidance for the system operation. The tutorial will emphasize the lessons learned about the implication of the system safety on software development lifecycle; methods and tools used for assessment of dependability; role of formalisms in safety; approaches to improve fault tolerance. The participants will also learn how issues of safety may influence the development process and the product acceptance.

The tutorial will address the practical aspects of safety. The presented subjects include: (a) concepts and techniques, (b) practice of development, and (c) the implementation approaches. The tutorial is designed to provide basis for understanding the need for inclusion of safety practices into software development lifecycle and also into the computing curricula. The tutorial materials will be also available on-line via Internet.

Bio:

- Dr. Andrew J. Kornecki (<http://faculty.erau.edu/korn>) is full professor at the Department of Computing, Embry Riddle Aeronautical University, Daytona Beach, FL. He has over twenty years of research/teaching experience in computer simulation, real-time software, and aviation applications. He teaches graduate software engineering courses on real-time design, performance analysis, and software safety. He contributed to research on intelligent simulation training systems, software engineering education, safety critical aviation systems, served as a visiting researcher with the Federal Aviation Administration, and delivered industrial training on real-time safety critical software in medical and aviation industries. With NSF funding, he established a Real Time Laboratory at ERAU. He has been Dr. Kornecki received M.Sc. (1970) in control and computer engineering and Ph.D. (1974) in systems engineering from the Academy of Mining and Metallurgy, Krakow, Poland. He is a member of IEEE.

SPECIAL PRESENTATION

Governance and Financial Management of IT Projects: Key issues For IT to Really Matter

Marcelo Sant'Anna & Marcello Hazan, Advus Corporation

Friday, March 11, 17:15 – 18:05

Abstract:

Compliance and governance issues have been a daunting pressure for IT executives during the last years. But the good news is that what initially was seen as a regulatory burden now is being used as a leverage for productivity. This talk provides a framework and details how public companies are turning a big compliance challenge into an important opportunity for business maturity through Information Technology.

This presentation focus on best practices and tools that show how successful companies are dealing with governance issues these days. After all the buzz and efforts around Sarbannes-Oxley and Basel II, now IT execs are leveraging their operations so that business performance can benefit from all controls, processes and infra-structure that were put in place.

In particular, this presentation detail how financial management of IT projects and Enterprise Architecture can be key foundations for IT governance. Specific techniques and approaches are detailed and a short demo will show how automated tools can help IT executives make sound decisions when it comes to IT investments.

The audience will greatly benefit from this presentation by understanding that regulatory compliance does not necessarily represent a burden. The audience will leave this presentation very confident that with proper management, tools and integrated process it is possible to achieve better business performance as governance issues are addressed.