Technical Session I   1:00 – 2:00 PM   Friday, April 22

ITTC 28	Security	Session Chair: Terry Letsche
1:00	A Novel Multi-touch Authentication Scheme for Mobile Devices	Dicheng Wu and Mengyu Qiao
1:30	Developing a Mobile App that Uses the Routing Cache Table to Detect Brute Force Secure Shell Attacks Not Detected by the Intruder Detection System	Laura Lebentritt, Raqeeb Abdul and Dennis Guster

ITTC 29	Algorithm Complexity	Session Chair: Andrew Anda
1:00	Developing a Memory Efficient Heuristic Algorithm for Playing m, n, k Games	Nathaniel Hayes and Teig Loge
1:30	Comparison of (0,1)-Matrix-Vector Product Difference-Based Algorithms	Jeffrey Witthuhn and Andrew Anda

ITTC 134/136	Faculty Birds-of-Feather	Session Chair: Mark Hall
1:00 – 2:00	Suggested Topics: 1) Pedagogy: Lecture, Flipped-classroom, On-line instruction, etc. 2) Enrollment, Retention, Faculty Hiring in Computer Science 3) Future of MICS	

ITTC 322	Mobile Interfaces	Session Chair: Mao Zheng
1:00	User Interface Adaption in Android Device for Orientation Change	Qian Xu, Sihan Cheng and Mao Zheng
1:30	Use of a Decision Tree to Represent Context Information	Sihan Cheng, Qian Xu and Mao Zheng

ITTC 328	Robotics Contest Practice Board
1:00 - 3:30	A practice board and map are available to share.

Break, Career Fair, and Posters/Demonstrations in Lounge Area on 100 Level of ITTC

Demonstration ITTC 146A (N. Balcony)	OnRamp to Parallel and Distributed Computing	Samantha S. Foley, Dan Koepke, Christa Brehm, Justin Ragatz and Jason Regina
Poster	Reinforcement Learning for Advanced Board Game AI	Derek Stotz and Larry Pyeatt
Poster	Meteorological Visualization using MATLAB and a Gaming Engine	Joseph Kelzenberg and Mark Petzold
Poster	Recommender Systems Using Cluster Analysis on Semantic Tag Data	Hope Haugstad
Poster	Digital Notes for Students with Disabilities	Bennett Carson

Technical Session II 2:30 – 3:30 PM Friday, April 22

ITTC 28	Stochastic and Quantum Computing	Session Chair: Dennis Guster
2:30	Application of Heston's Stochastic Volatility Approach in Numerical Computation of the European Options: Preliminary Design	Paul Ryan, Shivam Soni, Renat Sultanov and Dennis Guster
3:00	A Hybrid Quantum Encryption Algorithm that Uses Photon Rotation to Insure Secure Transmission of Data	Karthik Paidi, Anthony Kunkel, Dennis Guster, Renat Sultanov and Erich Rice

ITTC 29	Image Processing	Session Chair: Noel Petit
2:30	Novel Feature Based Outlier Rejection	Daniel Nix and Jeff McGough
3:00	Apparent Depth in a 3 Dimensional Model Using Techniques in Stereoscopic Rendering and Depth of Field Effect	Mason Stilwell, Jack Hamby and Conrad Parker

ITTC 134/136	Computer Science Education	Session Chair: Thomas O'Neil
2:30	Towards Math Integration in the Computer Science and Technology Curriculum	Donald Heier, Mary Reed, Erik Sand and Kathryn Lemm
3:00	0/1-Knapsack vs. Subset Sum: A Comparison using *Algolab*	Thomas O'Neil

ITTC 322	Miscellaneous Algorithms	Session Chair: Derek Riley
2:30	0-1 Knapsack Optimization with Branch-and-Bound Algorithm	Christopher Hanson and Salem Hildebrandt
3:00	Using Data Mining in Combination with Machine Learning to Enhance Crowdsourcing of a Formal Model of Biodiesel Production	Michael Fischer and Derek Riley

ITTC 328	Robotics Contest Practice Board
1:00 - 3:30	A practice board and map are available to share.

4:00-5:30 PM MICS Robotics Contest and Pizza Party in SWT
5:45 – 6:15 PM Programming Contest Instructions in SWT
6:30 – 9:30 PM MICS Programming Contest in Wright Hall

Technical Session III   8:30 – 9:30 AM   Saturday, April 23

ITTC 28	Machine Learning	Session Chair: Timothy Urness
8:30	Identifying Splice Sites Of Messenger RNA Using Support Vector Machines	Paige Diamond, Zachary Elkins, Kayla Huff, Lauren Naylor, Sarah Schoeberle, Shannon White, Timothy Urness and Matthew Zwier
9:00	Creating a Difficulty Metric for A Sudoku Variation	Emily Alfs

ITTC 29	Image Processing	Session Chair: Stuart Hansen
8:30	Invisible Display: Reverting Color Distortion in a Camera-Display System Using Color Mapping and Barycentric Interpolation	Abdel-Rahman Madkour, Margaret Connell and John Stone
9:00	Specularity Replacement in a Contour in a Single Image	Stephen Akers, Nadia El Mouldi and Thomas Weihe

ITTC 134/136	Web App	Session Chair: Derek Riley
8:30	Web-Based Mobile Display of 3D Models	Elijah Verdoorn, Joe Peterson and Austin Pejovich
9:00	Development of a Multi-Tenant Web Application into a Software Product Line for Transit System Schedule Management	Michael Carey and Derek Riley

ITTC 322	Networking	Session Chair: Shaun Lynch
8:30	Making Progress on IPv6: New Insights after an IPv4-IPv6 Dual-Stack Deployment	Shaun Lynch
9:00	Deploying a Virtualized Network Infrastructure in an Academic Computing Environment	Shaun Lynch

ITTC 328	Programming Languages	Session Chair: Elena Machkasova
8:30	Designing a Comparative Usability Study of Error Messages	Henry Fellows, Sean Stockholm, Thomas Hagen and Elena Machkasova
9:00	Examining The Prevalence and The Historical Trends of Indirect Function Calls in Open Source Systems: A Case Study, gcc 2001-2011	Saleh Alnaeli and Melissa Sarnowski

9:30 – 10:00 Break in Lounge Area on 100 Level of ITTC

Technical Session IV   10:00 – 11:00 AM   Saturday, April 23

ITTC 28	Miscellaneous	Session Chair: Sean Stahly
10:00	Educational Experiences in Building a Custom UAV	Sean Stahly and John Hastings
10:30	Camera Calibration and Optimization for Indoor Location	Tianyu Pang, Nathan Maveus and Soren Bjornstad

ITTC 29	Neural Networks	Session Chair: Scott Kerlin
10:00	Performing Semantic Segmentation on an Extremely Small Dataset	Rodney Lalonde, Hao Du, Ryan van Mechelen and Skylar Zhang
10:30	Using Neural Networks to Detect Examples of Ad Hominim in Politics and Microblogging Platforms	Jordan Goetze

ITTC 134/136	Image Processing & Computer Vision	Session Chair: Jeff McGough
10:00	Using Computer Vision to Assist the Scoring of Modern Fencing	Stephanie Athow and Jeff McGough
10:30	Refining 3D Reconstruction Of Stereo Camera Images With Least Squares	Jacob Forster, Joseph Jung and Andrew Turnblad

ITTC 328	Computer Science Education Pedagogy	Session Chair: Sherri Harms
10:00	ARM Cluster: A Research Tool	Christine Sorensen, Andrew Hoover and Christer Karlsson
10:30	Enabling Student Innovation through Virtual Reality Development	Sherri Harms

11:15-1 PM Keynote, Awards, and Lunch, and in MSH
Keynote 11:15 in McCollum Science Hall (MSH on map) Lantz Auditorium

Keynote: Dr. Sarah Diesburg

Dr. Sarah Diesburg is an Assistant Professor at the University of Northern Iowa. Her research interests address security and privacy on electronic storage, where she is published in multiple conferences and journals. She received her Ph.D. in Computer Science in 2012 from Florida State University, her M.S. degree in Information Assurance in 2008 from Florida State University, and her B.S. degree in Computer Science in 2004 from the University of Northern Iowa.

Title: Ghosts of Deletions Past: New Research and Challenges in Securely Deleting Your Data

Before leaving, please turn in your conference evaluation in the boxes by the Auditorium doors!