

**Publications and Presentations (2008-2017)**  
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**Book Chapter:**

1. **Fan Wu**, Emmanuel Agu, Clifford Lindsay and Chung-han Chen, UbiWave: An Novel Energy-Efficient End-to-End Solution for Mobile 3D Graphics, Handheld Computing for Mobile Commerce: Applications, Concepts and Technologies, February, 2010. ISBN-13: 978-1615207619.

**Peer Review Publications:**

1. Asif Iqbal Baba, **Fan Wu**, “Energy-Accuracy Trade-off in Wireless Sensor Network Localization”, International Journal of Handheld Computing Research (IJHCR), Feb 2016, Vol 6(4), pp. 1-18.
2. Yonggao Yang, **Fan Wu**, and Yuan Liu, Design and Implementation of a Remote Resident Power Monitor and Control System, IEEE Potentials, Vol.: 34, No.: 4, July/August, 2015.
3. **Fan Wu**, Hira Narang, and Dwayne Clarke, An Overview of Mobile Malware and Solutions, the Journal of Computer and Communications, Volume 2, No. 12, October, 2014.
4. **Fan Wu**, Chung-han Chen, and Dwayne Clarke, Sensitive Data Protection on Mobile Devices, International Journal of Advanced Computer Science and Applications (IJACSA) Volume 5 Issue 9, October, 2014.
5. **Fan Wu**, Hira Narang, and Miguel Cabral, Design and Implementation of an Interpreter using Software Engineering Concepts, International Journal of Advanced Computer Science and Applications (IJACSA) Volume 5 Issue 7, July, 2014.
6. **Fan Wu**, Johnathan Williams, Design and Implementation of a Multi-Sensor Based Object Detecting and Removing Autonomous Robot Exploration System, the Journal of Computer and Communications, Volume 2, No. 7, May, 2014.
7. **Fan Wu**, Emmanuel Agu, Clifford Lindsay and Chung-han Chen, Imperceptible Simplification on Mobile Displays, International Journal of Handheld Computing Research, January, 2012.
8. **Fan Wu**, Emmanuel Agu, Clifford Lindsay and Chung-han Chen, On Balancing Energy Consumption, Rendering Speed, and Image Quality on Mobile Devices., International Journal of Handheld Computing Research, July, 2010.
9. Leo T. Upchurch, and **Fan Wu**, Assessing Profitability of Fortune 500 Firms using Moving Averages and Linear Models (Linear in the Parameters), the proceeding of the 2015 Joint Statistical Meetings, Seattle, WA, August, 2015.
10. Hira Narang, **Fan Wu** and Aswad Shakur, Numerical Solutions of Heat and Mass Transfer with the Second Kind Boundary and Initial Conditions in Capillary Porous Media Using Programmable Graphics Hardware, the proceeding of the 2012 International Conference on Parallel and Distributed Processing Techniques and Applications, Las Vegas, NV, July, 2012.

11. Hira Narang, **Fan Wu** and Aswad Shakur, Numerical Solutions of Heat and Mass Transfer with the Third Kind Boundary and Initial Conditions in Capillary Porous Media Using Programmable Graphics Hardware, the proceeding of the 2012 International Conference on Scientific Computing, Las Vegas, NV, July 2012.
12. Chung-han Chen and **Fan Wu**, An Efficient Acceleration of Digital Forensics Search Using GPGPU, Proceeding of the 11th International Conference on Security and Management, Las Vegas, NV, July, 2012.
13. Hira Narang, **Fan Wu** and Miguel Cabral, Numerical Solutions of Heat and Mass Transfer in Capillary Porous Media Using Programmable Graphics Hardware, the proceeding of the 2011 IEEE International Congress on Computer Science and Information Engineering, Changchun, China, June, 2011
14. **Fan Wu**, Miguel Cabral, and Jessica Brazelton, High Performance Matrix Multiplication on General Purpose Graphics Processing Units, the proceeding of International Conference on Computational Intelligence and Software Engineering, Wuhan, China, December 2010.
15. **Fan Wu**, Chuang-han Chen and Hira Narang, An Efficient Acceleration of Symmetric Key Cryptography Using General Purpose Graphics Processing Unit, the proceedings of The Fourth International Conference on Emerging Security Information, Systems and Technologies, Venice, Italy, July 2010.
16. **Fan Wu** and Miguel Cabral, 2RE: A Multi-Sensor Based Path Finding Autonomous Exploration Robot System, the proceeding of the 2010 International Conference on Artificial Intelligence, Las Vegas, NV, July 2010.
17. **Fan Wu**, Johnel Woods, C.H. Chen and Hira Narang, High Performance Symmetric Decryption Algorithm on General Purpose Graphics Processing Unit, in the proceeding of the 2010 International Conference on Parallel and Distributed Processing Techniques and Applications, Las Vegas, NV, July, 2010.
18. **Fan Wu**, Miguel Cabral, Chung-han Chen, Hira Narang and Li Jiang, Design and Implementation of a Sensor-Based Path Finding Autonomous Robot System, in the proceeding of the 2010 International Conference on Automation, Robotics and Control Systems, Orlando, FL, July, 2010.
19. Chialin Chen, Elijah Mike and **Fan Wu**, Investigating Forensic Software Solutions to Acquire Information from Mobile Device, the proceeding of 2010 International Conference on Security and Management, Las Vegas, NV, July 2010
20. **Fan Wu**, Emmanuel Agu, Clifford Lindsay and Chung-han Chen, Unequal Error Protection (UEP) for Wavelet-Based Wireless 3D Mesh Transmission, the proceeding of 8th IEEE International Symposium on Network Computing and Applications, Boston, MA, July 2009.
21. Chung-Han Chen, Saritha Akavaram, Hira Narang and **Fan Wu**, Yield and Reliability Enhancement for VLSI Design, the proceeding of the International Conference on Computer Design, Las Vegas, NV, July 2009
22. **Fan Wu**, Emmanuel Agu and Clifford Lindsay, Adaptive CPU Scheduling to Conserve Energy in Real-Time Mobile Graphics Applications, the proceeding of International Symposium on Visual Computing, Las Vegas, NV, December 2008.

### **Oral Presentation:**

1. Javed Khan, Marcia Rossi, **Fan Wu**, Christine Schnittka, Katherine Placek, Programs That Engage and Motivate Students to Pursue STEM Careers Through

- NSF-Funded ITEST Programs, ITEST Session, 2016 The American Educational Research Association (AERA) Annual Meeting, Washington, D.C. April 8-12, 2016.
2. Javed Khan, Marcia Rossi, **Fan Wu**, Christine Schnittka, Katherine Placek, George Turner, Team Website Design Fosters Learning of Science Concepts, ITEST Symposium, 2015 NARST Annual International Conference, Chicago, IL, April 11-14, 2015.
  3. Leo T. Upchurch, and **Fan Wu**, Characterizing Professors and Courses Based on Student Perceptions, the 2014 Joint Statistical Meetings, Boston, MA, August, 2014.
  4. **(Invited Talk)** GPGPU based High Performance Computing and Mobile Graphics, School of Computer Science and Technology, Nanjing University of Posts and Telecommunications, Nanjing, China, May 20, 2014.
  5. **Fan Wu**, Johnathan Williams, Design and Implementation of a Multi-Sensor Based Object Detecting and Removing Autonomous Robot Exploration System. The 2014 Conference on Sensors and Networks (CSN), Suzhou, China, May 16-18, 2014.
  6. **(Invited Talk)** On Balancing Energy Consumption, Rendering Speed, and Image Quality on Mobile Devices, School of Computer Science and Technology, Nanjing University of Posts and Telecommunications, Nanjing, China, May 22, 2013.
  7. **(Invited Talk)** On Balancing Energy Consumption, Rendering Speed, and Image Quality on Mobile Devices, Wireless Engineering Seminar, ECE Department, Auburn University, September 12, 2011.
  8. **(Invited Talk)** Design and Implementation of a Path Finding Autonomous Robot System using Multiple Sensors, The school of Physics and Electronic Engineering, Hubei University, Wuhan, China. May, 2011.
  9. **(Invited Talk)** Design and Implementation of a Path Finding Autonomous Robot System using Multiple Sensors, The school of Mechanical and Electronic Engineering, Wuhan University of Technology, Wuhan, China. December, 2010.
  10. **Fan Wu** and Miguel Cabral, 2RE: A Multi-Sensor Based Path Finding Autonomous Exploration Robot System, the 2010 International Conference on Artificial Intelligence (ICAI-10), Las Vegas, NV, July, 2010.
  11. **Fan Wu**, Johnel Woods, Chung-han Chen and Hira Narang, High Performance Symmetric Decryption Algorithm on General Purpose Graphics Processing Unit, the 2010 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA-10), Las Vegas, NV, July, 2010.
  12. **Fan Wu**, Emmanuel Agu, Clifford Lindsay and Chung-han Chen, Unequal Error Protection (UEP) for Wavelet-Based Wireless 3D Mesh Transmission, 8th IEEE International Symposium on Network Computing and Applications (IEEE NCA09), Cambridge, MA. July, 2009.

#### **Poster Presentation:**

1. Hira Narang, **Fan Wu** and Abisoye Ogunniyan, Numerical Solutions of Heat and Mass Transfer with the First Kind Boundary and Initial Conditions in Hollow Capillary Porous Cylinder Using Programmable Graphics Hardware, CCICADA Research Retreat, Rutgers University, Piscataway, NJ- April 28, 2016 – April 30, 2016.

2. Javed Khan, Marcia Rossi, **Fan Wu**, Christine Schnittka, Learning Science, Web Design and Eyetracking Technology in a Summer Enrichment Program, International Society for Technology in Education (ISTE) 2015 Conference and Expo, Philadelphia, PA, June 28 – July 1, 2015.
3. Hira Narang, **Fan Wu** and Abisoye Ogunniyan, High Performance Numerical Solutions of Heat and Mass Transfer Simulation in Capillary Porous Media Using GPGPU, CCICADA Research Retreat, Carnegie Mellon University, Pittsburgh, Pennsylvania- March 19, 2015 – March 21, 2015.
4. Dwayne Clarke, Chester McDowell, Qinfang Liu, **Fan Wu**, and Juergen A. Richt, Preparation of Viral Samples for Next Generation Sequencing and Tools to Allow for Confidential Data Sharing, ZADD Annual Meeting, Nashville, TN, September 8-10, 2014.
5. Microcontroller Interfacing and Software Programming Using the ARM MBED Microcontroller, Poster Session, NASA Goddard Space Flight Center, July 31, 2014.
6. Hira Narang, **Fan Wu** and Andrew Underwood, High Performance Numerical Solutions of Heat and Mass Transfer Simulation in Capillary Porous Media Using Programmable General Purpose Graphics Processing Units, CCICADA Research Retreat, Troy, NY, May 1-3, 2014.
7. Li Yang, Kai Qian, Prabir Bhattacharya, Joseph Kizza, Kathy Winter, **Fan Wu** , Capacity Building through Curriculum and Faculty Development on Mobile Security, NSF Showcase, ACM Special Interest Group on Computer Science Education (SIGCSE) 2014, Atlanta, GA, March 5-8, 2014.
8. VHDL-AMS-Based Modeling, Simulation, and Verification of GSFC Mixed-Signal ASICs:Thermopile Detector Processing Chip by ViaDesigner (Option One), Poster Session, NASA Goddard Space Flight Center, July 31, **2013**.
9. Hira Narang, **Fan Wu** and Andrew Underwood, High Performance Numerical Solutions of Heat and Mass Transfer in Capillary Porous Media Using Programmable General Purpose Graphics Processing Units, CCICADA Research Retreat, Houston, TX, April 18-20, 2013.
7. VHDL-AMS-Based Modeling, Simulation, and Verification of Triad Semiconductor Library Components for GSFC Mixed-Signal ASICs: Comparator, Pad Cell, and Operational Amplifier, Poster Session, NASA Goddard Space Flight Center, July 25, **2012**.
8. VHDL-AMS-Based Modeling, Simulation, and Verification of Triad Semiconductor Library Components for GSFC Mixed-Signal ASICs: Resistor, Capacitor, and Filter, Poster Session, NASA Goddard Space Flight Center, July 25, **2012**.
9. VHDL-AMS-Based Modeling, Simulation, and Verification of Triad Semiconductor Library Components for GSFC Mixed-Signal ASICs: Bias, DAC, and SAR ADC, Poster Session, NASA Goddard Space Flight Center, July 25, **2012**.
- 10.VHDL-AMS-Based Modeling, Simulation, and Verification of Triad Semiconductor Library Components for GSFC Mixed-Signal ASICs: POR, Analog Logic, and Analog Switch, Poster Session, NASA Goddard Space Flight Center, July 25, **2012**.
- 11.VHDL-AMS-Based Modeling, Simulation, and Verification of Triad Semiconductor Library Components for GSFC Mixed-Signal ASICs: Integrator and Sigma-Delta Modulator, Poster Session, NASA Goddard Space Flight Center, July 25, **2012**.

12. Hira Narang, **Fan Wu** and Miguel Cabral, High Performance Numerical Solutions of Heat and Mass Transfer in Capillary Porous Media Using Programmable Graphics Hardware, Tuskegee STEM Day - July 22, **2011**.
13. **Fan Wu** and Miguel Cabral, Design and Implementation of a Path Finding Autonomous Robot System using Multiple Sensors, Tuskegee STEM Day - July 22, **2011**.