

CPET 565/499 Mobile Computing Systems

Topics on SmartPhone Sensing, Sensor Networks, M2M, and Internet of Things

Dec. 3, 2014

Topics

- Wired/Wireless Sensor Network Projects
 - Wired and Wireless Sensor Networks for Bridge Health Monitoring, Paul Lin, MengWei Li, Robert Tilbury, Max Yen, and Dong, Chen, April 22, 2014, <http://www.etc.s.ipfw.edu/~lin/IEEE-FortWayneSection/TechMeeting/2014-4-22-SANBridgeHealthMonitoring.pdf>
 - Modula Biometric Monitoring System, Eric Kinzie and Amnah Allboani, May 2013
 - Auto Dialing Sump Pump Alarm System, Fahad Nader, Dec. 2013
 - Remote Reporting of Freezer Temperature Status, Steve Bienz, Dec. 2013
 - Integrated Hydrometer System for Fermentation Testing and Control, James Schurger, Dec. 2013
- SmartPhone Sensors and Control Apps
 - Android Golf Statistics Tracker, Brad Sorensen and Kory Martin, Dec. 2012
 - Auto Link OBD-II Scanner, Chris Frey, May 2013
 - Design of a Web-based Services for Supporting AVL System, Brent Clark, May 2013
 - Mobile Comfort Control, Michael McNair and Nathan Schaefer, Dec. 2013
- CPET 565/499 Mobile App for Enterprise Application Projects, 2012
 - Inventory Control with RFID Readers, Robert Tilbury and Luis D. Morales
 - Mobile App: Sales Executive Dashboard, James Fracica and Chris Frey
 - Mobile Business Intelligent for Pharmaceuticals , Heidi Prussing and Sayed Nayab Hassan
 - Mobile Customer Support System, MengWei and Stephen C. Obioma
 - Just-in-Time Inventory Tracking , Samson Amede and Michael McNair
 - Mobile Inventory System, Muhammad Mansur and Joel Bauer
- Wireless sensor networks for healthcare applications
- Sensor networks with cloud services
- Smart camera networks
- Smartphone-based sensor systems
 - Community Sense & Response System (Earth quake)
 - Body sensor networks
 - Vehicle Safety
 - Home Control & Monitoring
- Smart-phone-based IoT

References

- Community Sense and Response Systems: Your Phone as Quake Detector, M. Faulkner, et. al., Communications of the ACM, July 2014, pp. 66-75.
- ParkSense: A Smartphone Based Sensing system for On-Street Parking, <https://www.cl.cam.ac.uk/~cm542/papers/mobicom2013.pdf>

- PBN: Towards Practical Activity Recognition Using Smartphone-Based Body Sensor Networks, M. Keally, G. Zhou, G. Xing, Jianxin Wu, and A. Pyles, ACM 978-1-4503-0718-5/11/11, www.cs.odu.edu/~cs441/Papaers/app-001.pdf
- Optimizing Sensor Data Acquisition for Energy-Efficient Smartphone-based Continuous Event Processing, <http://www2.hawaii.edu/~lipyeow/pub/mdm11-eecep.pdf>
- Smartphone-based sensor fusion for improved vehicular navigation, by O. Walter, J. Schmalenstroer, A. Engler, R. Haeb-Umbach, 2013 10th Workshop on Positioning Navigation and Communication, IEEE <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?reload=true&arnumber=6533261>
- Design and Implementation of Smartphone Systems as Networking, Dong Xuan, Dept. of Computer Science and Engineering, The Ohio State University, USA, 2010, web.cse.ohio-state.edu/
- Building Mobile Sensor Networks Using Smartphones and Web Services: Ramifications and Development Challenges, <https://www.dre.vanderbilt.edu/~schmidt/PDF/hamilton-book-chapter.pdf>
- Internet of Things: Ubiquitous Home Control and Monitoring Android Based Smartphone, Rajeev Piyare, 2013, http://www.academia.edu/4598529/Internet_of_Things_Ubiquitous_Home_Control_and_Monitoring_System_using_Android_based_Smart_Phone
- Smart Home Control and Monitoring System Using Smartphone, http://onlinepresent.org/proceedings/vol24_2013/23.pdf