Sunday

9:00-5:00 Doctoral Consortium & Pervasive Workshops
Break 10:00-10:30, Lunch 12:00-1:00, Break 2:30-3:00

Doctoral Consortium
- Designing for Meaningful Public Interactive Environments
- Wearable Computing In Factory Environment
- Instrumented Tools as Ubiquitous Interfaces
- Combining Unsupervised Learning and Generative Models for Activity Recognition with Wearable Sensors
- Goal Oriented Opportunistic Sensing
- Sensors meet Social: Data in a Connected World
- Auditory Scene Analysis for Activity-Aware Computing Using Audio Features as Text Cues
- A Sustainable Model for Smart Clothing Design

Pervasive Workshops
- Third International Workshop on Security and Privacy in Spontaneous Interaction and Mobile Phone Use
- First International Workshop on Frontiers in Activity Recognition using Pervasive Sensing
- First Workshop on Pervasive Urban Applications (PURBA)
- First Workshop on Hybrid Pervasive/Digital Inference
- Second International Workshop on the Web of Things
- First Workshop on Emerging Mobile Sensing Technology, System, and Application
- First International Workshop on Smart Mobile Applications
- Pervasive Intelligibility - Workshop on Intelligibility and Control in Pervasive Computing
- 4th Workshop on Pervasive Advertising

Pervasive Sponsors

Platinum   **Gold**

(intel)   Microsoft Research

NOKIA Connecting People

ISWC Sponsors

Platinum   **Silver**

Google   NOKIA Connecting People

Monday

9:00 Conference Opening
9:30 Keynote: Sebastian Thrun, Google

11:00 Break

11:30 *Pervasive* Practices with Smartphones
Session Chair: Rene Mayrhofe
- *(Video)* GymSkill: Mobile Exercise Skill Assessment to Support Personal Health and Fitness
- *(Video)* Activity Recognition on Mobile Phones - Why do we need it and how can it be done?
- Planning, Apps, and the High-end Smartphone: Exploring the Landscape of Modern Cross-device Reaccess
- Understanding Human-Smartphone Concerns: A Study of Battery Life

12:50 Poster Madness

1:10 Lunch (on your own)

2:30 *Pervasive* Sensing at Home, Sensing at Work
Session Chair: Judy Kay
- *(Video)* A Framework for Opportunistic Context and Activity Recognition
- *(Video)* Cooperative Situation Awareness for a Railway Collision Avoidance System (RCAS)
- Monitoring Residential Noise for Prospective Home Owners and Renters
- A Longitudinal Study of Pressure Sensing to Infer Real-World Water Usage Events in the Home
- Exploring the Design Space for Situated Glyphs to Support Dynamic Work Environments

2:30 *ISWC* Users
Session Chair: Bruce Thomas
- AirTouch: Synchronizing in-air hand gesture and on-body tactile feedback to augment mobile gesture interaction
- A Method of Measuring Garment Movement for Wearable Sensing
- How should a Wearable Rowing Trainer look like? A User Study

4:10 Break

Monday cont.

4:30 *Pervasive* Predicting the Future:
Session Chair: Marc Langheinrich
- *(Video)* SmartFactory - Towards a Factory-of-Things
- *(Video)* MobiDics - Improving University Education With A Mobile Didactics Toolbox
- Learning Time-Based Presence Probabilities *(Best Paper Nominee)*
- n-gram Geo-Trace Modeling

4:30 *ISWC* Smartphones as Wearables
Session Chair: Thad Starner
- GroupUs: Smartphone Proximity Data and Human Interaction Type Mining
- Who's Who with Big-Five: Analyzing and Classifying Personality Traits with Smartphones
- Collaborative PDR Localisation with Mobile Phones

5:50 Posters & Reception
Pervasive Posters
- Digifieds: Evaluating Suitable Interaction Techniques for Shared Public Notice Areas
- Particle filtering on GPU for indoor pedestrian localisation
- AwareHanger: Context-aware hanger for detecting the status of laundry
- HeatProbe: a Thermal-based Power Meter System for Tracking Per-user Power Consumption
- Cheers!: Sharing Social TV Experiences and Interactions Using Mobile Phones
- Automatic poster evaluation
- Chasing the Holy Grail of Mobile Advertising: An Interaction Framework for a User-Centered Mobile Marketing

ISWC Posters
- Toward Record of Scores and Stats: Count of the Stroke Number Using a Mobile Phone Accelerometer
- Glove-Based Sensor Support for Dynamic Tangible Buttons in Spatial Augmented Reality Design Environments
- Interfacing Mobile Devices with Electronic Textiles using Spatial Information
- GSR Sock: A New e-Textile Sensor Prototype
- Foot Menu: using heel rotation information for menu selection
- Fabrics Capable of Capacitive Energy Storage
- Detecting Posture Mirroring in Social Interactions with Wearable Sensors
- Evaluating Effect of Concreteness in Instructions for Gesture Recognition
- Indoor-Outdoor Navigation System for Visually-Impaired Pedestrians: Preliminary Evaluation of Position Measurement and Obstacle

Tuesday

9:00 *Pervasive* **Location Sensing**
Session Chair: John Krumm
- (Video) Mobile Context-based Ride Sharing
- Autonomous Construction of a WiFi Access Point Map Using Multidimensional Scaling
- Identifying Important Places in Peoples Lives from Cellular Network Data
- NextPlace: A Spatio-Temporal Prediction Framework for Pervasive Systems

9:00 *ISWC* **Keynote: Babak Parviz, University of Washington**

10:40 Break

11:00 *Pervasive* **Augmenting Mobile Phone Use**
Session Chair : Tico Ballagas
- Using Decision-Theoretic Experience Sampling to Build Personalized Mobile Phone Interruption Models
- SpeakerSense: Energy Efficient Unobtrusive Speaker Identification on MobilePhones *(Best Paper Nominee)*
- Text Text Revolution: A Game that Improves Text Entry on Mobile Touchscreen Keyboards
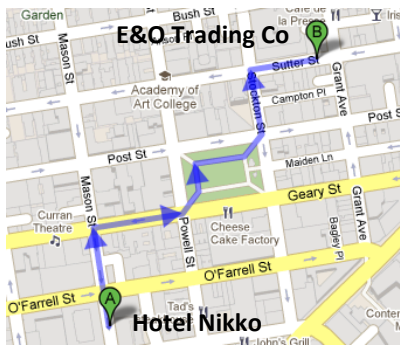
11:00 *ISWC* **Novel Sensing**
Session Chair: Tom Martin
- South by South-East or sitting at the desk. Can orientation be a place?
- A Context Aware System Based on Scent
- Sensing Dance Engagement for Collaborative Music Control
- Evaluating Gesture Recognition by Multiple-Sensor-Containing Mobile Devices
- (Video) PowerSaver - Activity-Based Implicit Energy Management

12:30 Lunch (on your own)

2:00 Gadget Show & Demo Madness

Conference Dinner
Tuesday, 6:30pm
314 Sutter St

Tuesday cont.

2:30 *Pervasive* **Demos**
- Paraimpu: a Social Tool for the Web of Things
- LunchCommunicator: Communication Support System using a Lunchbox
- Clever Shopper: Supporting In-Store Decision-making
- PowerFlower: a low-level electrical energy consumption
- feedback ambient display
- Cookmark Collaborative Cooking Tool
- Program Your Reality with dinam-mite
- A Miniaturized Display Network for Situated Glyphs
- Participatory noise mapping
- GuideCam: A Digital Camera with Picture Spot Finder
- Pervasive Cameras: Making Sense of Many Angles using Radial Basis Function Interpolation and Salients Analysis
- Mobile NFC Games: New Techniques and Applications
- Place Sticker: Energy Harvesting Approach for Low Cost Wi-Fi AP Positioning Infrastructure

2:30 *ISWC* **Design Exhibition & Demos**
- Photonic Bike Clothing I - For Urban Biker
- Photonic Bike Clothing II - For Lux Biker
- The Printing Dress: You are what you Tweet
- Talk to the Hand
- To Answer or Not to Answer Scarf
- Color It Your Dress with Touch-sensitive Fiber-Optics and Remote-Controlled LEDs : The Coloring Dress I and II
- CHAT: Cetacean Hearing Augmentation & Telemetry
- MP3 Fedora
- Ping: A Social Networking Garment
- Zip: Control Your Music
- Soft Glow
- Combining Opposites: Wood Dress with Light Up Shawl
- SENSOREE Therapeutic Bio.media
- Textile Interface: Embroidered Jog-Wheel *(Demo)*
- An RFID-Based Smart Wardrobe Reminder System *(Demo)*

4:00 *Pervasive* **Pervasive Computing in The Public Arena**
Session Chair : Anind Dey
- (Video) Wearable MC System
- Pervasive Sensing to Model Political Opinions in Face-to-Face Networks
- Lessons from Touring a Location-Based Experience *(Best Paper Nominee)*

4:00 *ISWC* **Education**
Session Chair: Oliver Amft
- An interdisciplinary undergraduate design course for wearable and pervasive computing products
- Panel Discussion

6:30 Conference Dinner @ E & O Trading Company

Wednesday

9:00 *Pervasive* **Public Displays**
Session Chair : Trevor Pering
- (Video) A Performer Support System for Interactive Performances Using Projector
- Hybrid prototyping by using virtual and miniature simulation for designing spatial interactive information systems
- Designing Shared Public Display Networks Implications from Todays Paper-Based Notice Areas

9:00 *ISWC* **Activity**
Session Chair: Dan Siewiorek
- Unsupervised Activity Recognition with User's Physical Characteristics Data
- A Large Scale Gathering System for Activity Data with Mobile Sensors
- What do sensors know about your running performance?

10:10 Break

10:40 *Pervasive* **Hands on with Sensing**
Session Chair : A.J. Brush
- (Video) SenseWaves: Radiowaves for context recognition
- (Video) Towards a Rowing Technique Evaluation Based on Oar Orientation
- Recognizing the Use of Portable Electrical Devices with Hand-worn Magnetic Sensors
- 3D Gesture Recognition: An Evaluation of User and System Performance

10:40 *ISWC* **Recognition**
Session Chair: Paul Lukowitz
- Unsupervised adaptation to on-body sensor displacement in acceleration-based activity recognition
- What can an arm holster worn smart phone do for activity recognition?
- Self-taught learning for activity spotting in on-body motion sensor data

12:00 Lunch (on your own)

1:30 *Pervasive* **Sensing on the Body**
Session Chair : Kurt Partridge
- (Video) The emotional computer
- Recognition of Hearing Needs from Body and Eye Movements to Improve Hearing Instruments
- Recognizing whether sensors are on the same body
- Sensing and Classifying Impairments of GPS Reception on Mobile Devices

3:10 Closing & Business meeting