

# CHULHONG MIN

MEMBER OF TECHNICAL STAFF · APSS LAB · NOKIA BELL LABS, CAMBRIDGE, UK

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## Research Interests

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MOBILE SENSING SYSTEMS AND SERVICES  
HUMAN-COMPUTER INTERACTIONS  
INTERNET OF THINGS

## Employment

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### Pervasive Systems Team, APSS Lab, Nokia Bell Labs

RESEARCH SCIENTIST

Cambridge, UK

Feb. 2019 - PRESENT

### Pervasive Systems Team, APSS Lab, Nokia Bell Labs

MEMBER OF TECHNICAL STAFF

Cambridge, UK

Mar. 2017 - Jan. 2019

### School of Computing, KAIST

POSTDOCTORAL RESEARCHER

Daejeon, South Korea

Mar. 2016 - Dec. 2016

## Education

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### KAIST (Korea Advanced Institute of Science and Technology)

PH.D. IN COMPUTER SCIENCE

Daejeon, South Korea

Feb. 2016

- Advisor: Junehwa Song
- Dissertation: "User Support for Battery Management of Continuous Sensing Applications"
- **Outstanding Ph.D Thesis Award** in School of Computing at KAIST

### KAIST (Korea Advanced Institute of Science and Technology)

M.S. IN COMPUTER SCIENCE

Daejeon, South Korea

Aug. 2009

- Advisor: Junehwa Song
- Thesis: "bOM: System Orchestration Framework in Sensor-rich Mobile Environment"

### KAIST (Korea Advanced Institute of Science and Technology)

B.S. IN COMPUTER SCIENCE

Daejeon, South Korea

Aug. 2007

## Publication

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### PEER-REVIEWED PUBLICATIONS (CONFERENCES AND JOURNALS)

#### [C.12] An Early Resource Characterisation of Wi-Fi Sensing on Residential Gateways

*Paper*

Chulhong Min, Mohammed Alloulah, Fahim Kawsar

ACM International Conference on Systems for Energy-Efficient Built Environments, Shenzhen, China, Nov. 2018

ACM BuildSys 2018

#### [J.05] Earables for Personal-Scale Behavior Analytics

*Paper*

Fahim Kawsar, Chulhong Min, Akhil Mathur, Alessandro Montanari

IEEE Pervasive Computing (Volume: 17, Issue: 3, Jul.-Sep. 2018)

IEEE Pervasive Computing

#### [C.11] Zaturi: We Put Together the 25th Hour for You. Create a Book for Your Baby

*Paper, Video*

Bumsoo Kang, Chulhong Min, Wonjung Kim, Inseok Hwang, Chunjong Park, Seungchul Lee, Sung-Ju Lee, Junehwa Song

ACM Conference on Computer-Supported Cooperative Work and Social Computing, Portland, Oregon, USA, Feb. 2017

ACM CSCW 2017

- [C.10] PADA: Power-aware Development Assistant for Mobile Sensing Applications** *Paper, Slide, Video*  
**Chulhong Min**, Seungchul Lee, Changhun Lee, Youngki Lee, Seungwoo Kang, Seungpyo Choi, Wonjung Kim, Junehwa Song  
*ACM International Joint Conference on Pervasive and Ubiquitous Computing, Heidelberg, Germany, Sep. 2016* *ACM UbiComp 2016*
- [J. 04] CoMon+: A Cooperative Context Monitoring System for Multi-Device Personal Sensing Environments** *Paper*  
 Youngki Lee, Seungwoo Kang, **Chulhong Min**, Younghyun Ju, Inseok Hwang, Junehwa Song  
*IEEE Transactions on Mobile Computing, Volume 15, Issue 8, pp. 1908-1924, Aug. 2016* *IEEE TMC 2016*  
 • This paper is an extended version of CoMon paper published in MobiSys 2012.
- [J. 03] PowerForecaster: Predicting Power Impact of Mobile Sensing Applications at Pre-installation Time** *Paper*  
 Chulhong Min, Youngki Lee, Chungkuk Yoo, Seungwoo Kang, Inseok Hwang, Junehwa Song  
*GetMobile: Mobile Comp. and Comm. Volume 20, Issue 1 (July 2016), pp. 30-33* *GetMobile 2016*  
 • This is an overview article of PowerForecaster paper published in SenSys 2015.
- [C.09] PowerForecaster: Predicting Smartphone Power Impact of Continuous Sensing Applications at Pre-installation Time** *Paper, Slide, Talk*  
**Chulhong Min**, Youngki Lee, Chungkuk Yoo, Seungwoo Kang, Sangwon Choi, Pillsoon Park, Inseok Hwang, Younghyun Ju, Seungpyo Choi, Junehwa Song  
*ACM Conference on Embedded Networked Sensor Systems, Seoul, Korea, Nov. 2015* *ACM SenSys 2015*
- [C.08] Sandra Helps You Learn: the More You Walk, the More Battery Your Phone Drains** *Paper, Slide*  
**Chulhong Min**, Chungkuk Yoo, Inseok Hwang, Seungwoo Kang, Youngki Lee, Seungchul Lee, Pillsoon Park, Changhun Lee, Seungpyo Choi, Junehwa Song  
*ACM International Joint Conference on Pervasive and Ubiquitous Computing, Osaka, Japan, Sep. 2015* *ACM UbiComp 2015*
- [C.07] Exploring Current Practices for Battery Use and Management of Smartwatches** *Paper, Slide, Dataset*  
**Chulhong Min**, Seungwoo Kang, Chungkuk Yoo, Jeehoon Cha, Sangwon Choi, Younghun Oh, Junehwa Song  
*International Symposium on Wearable Computers, Osaka, Japan, Sep. 2015* *ISWC 2015*
- [J. 02] An Active Resource Orchestration Framework for PAN-Scale, Sensor-Rich Environments** *Paper*  
 Youngki Lee, **Chulhong Min**, Younghyun Ju, Seungwoo Kang, Yunseok Rhee, Junehwa Song  
*IEEE Transactions on Mobile Computing, Vol. 13, Issue 3, Mar. 2014* *IEEE TMC 2014*  
 • This paper is an extended version of Orchestrator paper published in PerCom 2010.
- [C. 06] TalkBetter: family-driven mobile intervention care for children with language delay** *Paper*  
 Inseok Hwang, Chungkuk Yoo, Chanyou Hwang, Dongsun Yim, Youngki Lee, **Chulhong Min**, John Kim, Junehwa Song  
*ACM Conference on Computer-Supported Cooperative Work and Social Computing, Baltimore, USA, Feb. 2014* *ACM CSCW 2014*  
 • **Best Paper Award**  
 • **Media Coverage:** NewScientist, Feb. 1 2014. Click [here](#) to see the article.
- [C.05] SocioPhone: Everyday Face-to-Face Interaction Monitoring Platform using Multi-phone Sensor Fusion** *Paper*  
 Youngki Lee, **Chulhong Min**, Chanyou Hwang, Jaeung Lee, Inseok Hwang, Younghyun Ju, Chungkuk Yoo, Miri Moon, Uichin Lee, Junehwa Song  
*ACM International Conference on Mobile Systems, Applications, and Services, Taipei, Taiwan, Jun. 2013* *ACM MobiSys 2013*
- [C.04] SymPhoney: A Coordinated Sensing Flow Execution Engine for Concurrent Mobile Sensing Applications** *Paper*  
 Younghyun Ju, Youngki Lee, Jihyun Yu, **Chulhong Min**, Insik Shin, Junehwa Song  
*ACM Conference on Embedded Network Sensor Systems, Toronto, Canada, Nov. 2012* *ACM SenSys 2012*

**[C.03] CoMon: Cooperative Ambience Monitoring Platform with Continuity and Benefit Awareness**

*Paper*

Youngki Lee, Younghyun Ju, **Chulhong Min**, Seungwoo Kang, Inseok Hwang, Junehwa Song  
*ACM Annual International Conference on Mobile Systems, Applications, and Services, Low Wood Bay, Lake District, United Kingdom, Jun. 2012*

*ACM MobiSys 2012*

**[J.01] MobiCon: Mobile Context Monitoring Platform for Sensor-Rich Dynamic Environments**

*Paper*

Youngki Lee, Sitharam S. Iyengar, **Chulhong Min**, Younghyun Ju, Seungwoo Kang, Taiwoo Park, Jinwon Lee, Yunseok Rhee, Junehwa Song  
*Communications of the ACM, Vol. 55, Issue 3, Mar. 2012*

*CACM 2012*

**[C.02] An Efficient Dataflow Execution Method for Mobile Context Monitoring Applications**

*Paper*

Younghyun Ju, **Chulhong Min**, Youngki Lee, Jihyun Yu, Junehwa Song  
*IEEE International Conference on Pervasive Computing and Communications, Lugano, Switzerland, Mar. 2012*

*IEEE PerCom 2012*

**[C.01] Orchestrator: An Active Resource Orchestration Framework for Mobile Context Monitoring in Sensor-rich Mobile Environments**

*Paper*

Seungwoo Kang, Youngki Lee, **Chulhong Min**, Younghyun Ju, Taiwoo Park, Jinwon Lee, Yunseok Rhee, Junehwa Song  
*IEEE International Conference on Pervasive Computing and Communications, Menheim, Germany, Mar. 2010*

*IEEE PerCom 2010*

THESES

**[T.02] User Support for Battery Management of Continuous Sensing Applications**  
**Chulhong Min**

*Ph.D. Thesis, School of Computing, KAIST, Korea, Feb. 2015*

- [Outstanding Ph.D. Thesis Award](#) in School of Computing at KAIST

**[T.01] bOM: System Orchestration Framework in Sensor-rich Mobile Environment**  
**Chulhong Min**

*M.S. Thesis, School of Computing, KAIST, Korea, Aug. 2009*

PEER-REVIEWED WORKSHOPS

**[W.05] Cross-Modal Approach for conversational Well-being Monitoring with Multi-Sensory Earables**

*Paper*

**Chulhong Min**, Alessandro Montanari, Akhil Mathur, Fahim Kawsar  
*ACM Workshop on Computing for Well-being, Singapore, Singapore, Oct. 2018*

*ACM WellComp 2018*

**[W.04] Exploring Audio and Kinetic Sensing on Eearable Devices**

*Paper*

**Chulhong Min**, Akhil Mathur, Fahim Kawsar  
*ACM Workshop on Wearable Systems and Applications, Munich, Germany, Jun. 2018*

*ACM WearSys 2018*

**[W.03] Embarrassing Interactions**

*Paper, Slide*

Sebastian Deterding, Andrés Lucero, Jussi Holopainen, **Chulhong Min**, Adrian Cheok, Annika Waern, Steffen Walz  
*ACM Conference Extended Abstracts on Human Factors in Computing Systems, Seoul, Korea, Apr. 2015*

*ACM CHI EA 2015*

**[W.02] Uncovering Embarrassing Moments in In-situ Exposure of Incoming Mobile Messages**

*Paper*

**Chulhong Min**, Saumay Pushp, Seungchul Lee, Inseok Hwang, Youngki Lee, Seungwoo Kang, Junehwa Song

*ACM Workshop on Mobile Systems for Computational Social Science, Seattle, USA, Sep. 2014*

*ACM MCSS 2014 (UbiComp Adjunct)*

**[W.01] Uncovering Embarrassing Moments in In-situ Exposure of Incoming Mobile Messages**

*Paper*

SangJeong Lee, **Chulhong Min**, Chungkuk Yoo, Junehwa Song

*ACM Workshop on Mobile Systems for Computational Social Science, Zurich, Switzerland, Sep. 2013*

*ACM MCSS 2013 (UbiComp Adjunct)*

**OTHER PUBLICATIONS (INVITED PAPERS, DEMOS, POSTERS, VIDEOS, AND PH.D FORUM)**

**[D.10] eSense - Open Earable Platform for Human Sensing**

*Demo*

Fahim Kawsar, **Chulhong Min**, Akhil Mathur, Alessandro Montanari, Marc Van den Broeck, Utku Gunay Acer

*ACM Conference on Embedded Networked Sensor Systems, Shenzhen, China, Nov. 2018*

*ACM SenSys 2018*

**[P.05] Exploring Situation-aware Dynamic Message Screening for Mobile Messengers**

*Poster*

Seungchul Lee, Saumay Pushp, **Chulhong Min**, Junehwa Song

*ACM International Joint Conference on Pervasive and Ubiquitous Computing, Singapore, Singapore, Oct. 2018*

*ACM UbiComp 2018*

**[P.04] Towards a Wearable Assistant to Prevent Computer Vision Syndrome**

*Poster*

Euiheok Lee, **Chulhong Min**, Seungwoo Kang

*ACM International Joint Conference on Pervasive and Ubiquitous Computing, Singapore, Singapore, Oct. 2018*

*ACM UbiComp 2018*

**[D.09] eSense - Open Earable Platform for Human Sensing**

*Demo*

Fahim Kawsar, **Chulhong Min**, Akhil Mathur, Alessandro Montanari, Marc Van den Broeck, Utku Gunay Acer

*ACM International Joint Conference on Pervasive and Ubiquitous Computing, Singapore, Singapore, Oct. 2018*

*ACM UbiComp 2018*

**[P.03] Audio-kinetic Model for Automatic Dietary Monitoring with Earable Devices**

*Poster*

**Chulhong Min**, Akhil Mathur, Fahim Kawsar

*ACM International Conference on Mobile Systems, Applications, and Services, Munich, Germany, Jun. 2018*

*ACM MobiSys 2018*

**[D.08] eSense: Earable Platform for Human Sensing**

*Demo*

Fahim Kawsar, **Chulhong Min**, Akhil Mathur, Marc Van den Broeck, Utku Gunay Acer, Claudio Forlivesi

*ACM International Conference on Mobile Systems, Applications, and Services, Munich, Germany, Jun. 2018*

*ACM MobiSys 2018*

**[D.07] Zaturi: Blending Hours Spent at Work and Hours Devoted to Children**

*Demo*

Bumsoo Kang, Wonjung Kim, Inseok Hwang, Chunjong Park, Seungchul Lee, **Chulhong Min**, Sung-Ju Lee, Junehwa Song

*ACM Conference on Computer-Supported Cooperative Work and Social Computing, Portland, Oregon, USA, Feb. 2017*

*ACM CSCW 2017*

**[D.06] User Support for Power Management of Continuous Sensing Applications**

*Demo*

**Chulhong Min**, Chungkuk Yoo, Sangwon Choi, Pillsoon Park, Seungchul Lee, Seungpyo Choi, Seungwoo Kang, Youngki Lee, Inseok Hwang, Younghyun Ju, Junehwa Song

*ACM Conference on Embedded Networked Sensor Systems, Seoul, Korea, Nov. 2015*

*ACM SenSys 2015*

**[V.01] TalkBetter: Smartphone-supported Intervention in Family Conversation for Children with Language Delay**

*Video*

Inseok Hwang, Chungkuk Yoo, Chanyou Hwang, Dongsun Yim, Youngki Lee, **Chulhong Min**, John Kim, Junehwa Song

*ACM conference on Computer supported cooperative work and social computing, Baltimore, USA, Feb. 2014*

*ACM CSCW 2014*

**[D.05] SocioPhone: Everyday Face-to-Face Interaction Monitoring Platform using Multi-phone Sensor Fusion**

*Demo*

Youngki Lee, **Chulhong Min**, Chanyou Hwang, Jaeung Lee, Inseok Hwang, Younghyun Ju, Chungkuk Yoo, Miri Moon, Uichin Lee, Junehwa Song

*ACM Annual International Conference on Mobile Systems, Applications, and Services, Taipei, Taiwan, Jun. 2013*

*ACM MobiSys 2013*

- [D.04] ACM HotMobile 2013 DemoBrining In-situ Social Awareness to Mobile Systems: Conversational Turn Monitoring and its Applications** **Demo**  
**Chulhong Min**, Inseok Hwang, Jaeung Lee, Chanyou Hwang, Chungkuk Yoo, Miri Moon, Taiwoo Park, Changhoon Lee, Haechan Lee, Yuhwan Kim, Younghyun Ju, Youngki Lee, Uichin Lee, Junehwa Song  
*ACM Mobile Computing and Communication Review*, vol. 17, no. 3 (2013) MC2R 2013  
 • In ACM Workshop on Mobile Computing Systems and Applications, Jekyll Island, USA, Feb. 2013  
 • **Best Demo Award**
- [P.02] Towards Crowd-aware Sensing Platform for Metropolitan Environments** **Poster**  
 Saumay Pushp, **Chulhong Min**, Youngki Lee, Chi Harold Lie, Junehwa Song  
*ACM Conference on Embedded Network Sensor Systems, Toronto, Canada, Nov. 2012* ACM SenSys 2012
- [D.03] MobiCon: Mobile context monitoring platform, Incorporating Context-awareness to Smartphone-centric Personal Sensor Networks**  
 Youngki Lee, Younghyun Ju, **Chulhong Min**, Jihyun Yu, Junehwa Song  
*IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks, Seoul, Korea, Jun. 2012* IEEE SECON 2012
- [P.01] Poster: Towards Mobile GPU-Accelerated Context Processing for Continuous Sensing Applications on Smartphones** **Poster**  
**Chulhong Min**, Wookhyun Han, Inseok Hwang, SangJeong Lee, Youngki Lee, Insik Shin, Junehwa Song  
*ACM International Conference on Mobile Systems, Applications, and Services, Low Wood Bay, Lake District, United Kingdom, Jun. 2012* ACM MobiSys 2012
- [D.02] Demo: SenseTogether- Cooperative Ambience Monitoring Platform with Continuity and Benefit Awareness** **Demo**  
 Youngki Lee, Younghyun Ju, **Chulhong Min**, Seungwoo Kang, Inseok Hwang, Junehwa Song  
*ACM International Conference on Mobile Systems, Applications, and Services, Low Wood Bay, Lake District, United Kingdom, Jun. 2012* ACM MobiSys 2012
- [F.01] SensorShader: Mobile GPU-Accelerated Context Processing Engine for Sensing Applications on Smartphones**  
**Chulhong Min**  
*MobiSys Ph.D. Forum, Low Wood Bay, Lake District, United Kingdom, Jun. 2012* MobiSys Ph.D. Forum 2012
- [I.02] Healthopia: Towards Your Well-Being in Everyday Life (Invited Paper)** **Paper**  
**Chulhong Min**, Chungkuk Yoo, Youngki Lee, Junehwa Song  
*International Symposium on Applied Sciences in Biomedical and Communication Technologies, Barcelona, Spain, Oct. 2011* ISABEL 2011
- [D.01] Demo: CoMon – Resource-aware Cooperative Context Monitoring System for Smartphone-centric Sensor-rich PANs** **Demo**  
 Youngki Lee, Younghyun Ju, **Chulhong Min**, Seungwoo Kang, Yunseok Rhee, Junehwa Song  
*ACM International Conference on Mobile Systems, Applications, and Services, Washington, DC, USA, Jun. 2011* ACM MobiSys 2011
- [I.01] A Mobile Context Monitoring Platform for Pervasive Computing Environments (Invited paper)**  
 Youngki Lee, **Chulhong Min**, Younghyun Ju, Saumay Pushp, Junehwa Song  
*IEEE International Conference on Digital Ecosystems and Technologies Conference, Daejeon, Korea, May 2011* IEEE DEST 2011

## Patent

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### ISSUED

- Language delay treatment system and control method for the same** USA  
 U.S. PATENT NO. 9875668 Jan. 23, 2018

<b>Mobile device executing face-to-face interaction monitoring, method of monitoring face-to-face interaction using the same, and interaction monitoring system including the same, and mobile interaction monitoring application executed on the same</b>	<a href="#">USA</a>
U.S. PATENT NO. 9813879	<i>Nov. 7, 2017</i>
<b>Mobile apparatus supporting cooperative context monitoring, method of cooperative context monitoring using the same and cooperative context monitoring system including the same</b>	<a href="#">USA</a>
U.S. PATENT NO. 9756095	<i>Sep. 5, 2017</i>
<b>Communication apparatus for predicting power consumption of mobile application, communication system having the same, method of predicting power consumption of mobile application</b>	<a href="#">South Korea</a>
KOREA PATENT NO. 10-1758267-0000	<i>Jul. 10, 2017</i>
<b>Mobile apparatus for executing sensing flow for mobile context monitoring, method of executing sensing flow using the same, method of context monitoring using the same and context monitoring system including the same</b>	<a href="#">USA</a>
U.S. PATENT NO. 9367664B2	<i>Jun. 14, 2016</i>
<b>Mobile device executing face-to-face interaction monitoring, method of monitoring face-to-face interaction using the same, and interaction monitoring system including the same, and mobile interaction monitoring application executed on the same</b>	<a href="#">South Korea</a>
KOREA PATENT NO. 10-1559364-0000	<i>Oct. 5, 2015</i>
<b>Mobile apparatus for executing sensing flow for mobile context monitoring, method of executing sensing flow using the same, method of context monitoring using the same and context monitoring system including the same</b>	<a href="#">South Korea</a>
KOREA PATENT NO. 10-1549002-0000	<i>Aug. 26, 2015</i>
<b>Mobile apparatus executing efficient dataflow execution for mobile context monitoring, method of executing dataflow using the same, method of context monitoring using the same and context monitoring system including the same</b>	<a href="#">USA</a>
U.S. PATENT NO. 9015729	<i>Apr. 21, 2015</i>
<b>Language delay treatment system and control method for the same</b>	<a href="#">South Korea</a>
KOREA PATENT NO. 10-1478459-0000	<i>Dec. 24, 2014</i>
<b>Mobile apparatus executing efficient dataflow execution for mobile context monitoring, method of executing dataflow using the same, method of context monitoring using the same and context monitoring system including the same</b>	<a href="#">South Korea</a>
KOREA PATENT NO. 10-1758267-0000	<i>May 29, 2014</i>
<b>Mobile apparatus supporting context monitoring, method of monitoring context using the same and context monitoring system having the same</b>	<a href="#">USA</a>
U.S. PATENT NO. 8599710	<i>Jan. 16, 2014</i>
<b>Mobile apparatus supporting cooperative context monitoring, method of cooperative context monitoring using the same and cooperative context monitoring system including the same</b>	<a href="#">South Korea</a>
KOREA PATENT NO. 10-1394966-0000	<i>Sep. 24, 2012</i>
<b>Mobile apparatus supporting context monitoring, method of monitoring context using the same and context monitoring system having the same</b>	<a href="#">South Korea</a>
KOREA PATENT NO. 10-1183124-0000	<i>Sep. 10, 2012</i>

<b>A system for providing group interactive contents</b> KOREA PATENT NO. 10-0959591-0000	South Korea May 17, 2010
<b>Multi-game supporting system using body-attached sensors and digital sport equipments</b> KOREA PATENT NO. 10-0943039-0000	South Korea Feb. 10, 2010
PENDING	
<b>A system and apparatus for asynchronous baby care by utilizing micro spare time</b> KOREA PATENT APPLICATION NO. 10-2018-0021763	South Korea Feb. 23, 2018
<b>Method and system of supporting power-aware mobile application development considering power consumption in real-life situations</b> KOREA PATENT APPLICATION NO. 10-2017-0116687	South Korea Sep. 12, 2017
<b>Communication apparatus for predicting power consumption of mobile application, communication system having the same, method of predicting power consumption of mobile application</b> PCT PATENT PENDING, PCT/KR2017/002548	PCT Mar. 9, 2017
<b>Method for displaying information for user terminal and control equipment for the same</b> KOREA PATENT NO. 10-1385195-0000	South Korea Apr. 8, 2014

## Honors & Awards

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2018	<b>Nokia Applaud Excellence</b> , Nokia Bell Labs	Cambridge, UK
2016	<b>Outstanding Ph.D. Thesis Award</b> , KAIST	South Korea
2014	<b>Best Paper Award</b> , ACM CSCW	Baltimore, MD, USA
2013	<b>Qualcomm Fellowship Award</b> , Qualcomm	South Korea
2013	<b>Best Demo Award</b> , ACM HotMobile	Georgia, USA
2013	<b>Participation Prize</b> , Samsung Human Tech Thesis Prize	South Korea
2008	<b>Best Teaching Assistant Award</b> , KAIST, Fall semester	South Korea
2008	<b>Best Teaching Assistant Award</b> , KAIST, Spring semester	South Korea

## Talks

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<b>An Early Resource Characterisation of Wi-Fi Sensing on Residential Gateways</b> ACM BUILD SYS	Shenzhen, China Nov. 2018
<b>Cross-Modal Approach for conversational Well-being Monitoring with Multi-Sensory Earables</b> ACM WELLCOMP	Singapore, Singapore Oct. 2018
<b>Exploring Audio and Kinetic Sensing on Earable Devices</b> ACM WEAR SYS	Munich, Germany Jun. 2018
<b>Resource Orchestration Platform for Life-immersive Sensing Applications</b> FUTURE INTERNET FORUM WORKSHOP	Seoul, South Korea Oct. 2016
<b>PADA: Power-aware Development Assistant for Mobile Sensing Applications</b> ACM UBI COMP	Heidelberg, Germany Sep. 2016
<b>Ecosystem-wide Support for Power Impact-Awareness for Mobile Sensing Applications</b> NOKIA BELL LABS	Antwerp, Belgium Sep. 2016

## Ecosystem-centric Power Management for Continuous Sensing Applications

NAVER LABS

*Sungnam, South Korea*

*Feb. 2016*

## PowerForecaster: Predicting Smartphone Power Impact of Continuous Sensing Applications at Pre-installation Time

ACM SENSYS

*Seoul, South Korea*

*Nov. 2015*

## Sandra: the More You Walk, the More Battery Your Phone Drains

ACM UBIComp

*Osaka, Japan*

*Sep. 2015*

## Exploring Current Practices for Battery Management of Smartwatches

ACM ISWC

*Osaka, Japan*

*Sep. 2015*

## An Active Resource Use Orchestration Framework for Mobile Context Monitoring in Sensor-rich Mobile Environments

RESEARCH CENTER FOR UX-ORIENTED MOBILE SOFTWARE PLATFORM

*Daejeon, South Korea*

*Feb. 2013*

## CoMon: Cooperative Ambience Monitoring Platform with Continuity and Benefit Awareness

POSTECH

*Pohang, South Korea*

*Aug. 2012*

## SensorShader: Mobile GPU-Accelerated Context Processing Engine for Sensing Applications on Smartphones

ACM MOBISYS PHD FORUM

*am*

*Aug. 2012*

## Scholarly Services

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### ORGANISING COMMITTEE

2019 **ACM MobiSys**, Demo and video session chair

*Seoul, South Korea*

2018 **ACM UbiComp**, Publication chair

*Singapore,*

*Singapore*

2017 **IEEE MDM**, Local organising chair

*Daejeon, South*

*Korea*

### EDITORSHIP

2017- **ACM IMWUT**,

### PROGRAM COMMITTEE MEMBERSHIP

2019 **PervasiveHealth**,

*Trento, Italy*

2019 **ACM MobiSys**,

*Seoul, South Korea*

2019 **MUSICAL**, co-located with IEEE PerCom

*Kyoto, Japan*

2017 **IEEE MDM**,

*Daejeon, South*

*Korea*

2015 **Embarrassing Interactions**, ACM CHI Workshop

*Seoul, South Korea*

2015 **MobiSys PhD Forum**,

*Florence, Italy*

### EXTERNAL REVIEWER



<b>IEEE Computer Society,</b>	2017
<b>IEEE Transactions on Mobile Computing (TMC),</b>	2015, 2017, 2018
<b>IEEE INFOCOM,</b>	2017
<b>ACM CHI,</b>	2015, 2017, 2018
<b>ACM CSCW,</b>	2017
<b>ACM UbiComp,</b>	2015, 2016
<b>ACM IMWUT,</b>	Nov. 2016, Feb. 2017
<b>ACM MobileHCI,</b>	2016, 2017
<b>ACM UIST,</b>	2017, 2018
<b>ACM ISWC,</b>	2015, 2016, 2017
<b>ACM CHI Play,</b>	2016
<b>ACM TVX,</b>	2015, 2016, 2017
<b>ACM EICS,</b>	2015
<b>ACM IDC,</b>	2015, 2017
<b>ACM SUI,</b>	2015, 2016
<b>ACM DIS,</b>	2016, 2017
<b>ACM ACI,</b>	2016
<b>ACM VRST,</b>	2016
<b>ACM ISS,</b>	2016
<b>MobiQuitous,</b>	2016
<b>ACM HRI,</b>	2017
<b>IEEE SECON,</b>	2017