Parinya Punpongsanon

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EMPLOYMENT
POSTDOCTORAL ASSOCIATE
January 2017 – Present
Massachusetts Institute of Technology, USA
HCI Engineering Group
Computer Science and Artificial Intelligence
Laboratory
Advisor: Prof. Stefanie Mueller

EDUCATION
PH.D. IN ENGINEERING
September 2016 – Osaka University, Japan
System Innovation, Graduate School of Engineering
Science
Advisor: Prof. Kosuke Sato and Prof. Daisuke Iwai

MASTER OF ENGINEERING
September 2013 – Osaka University, Japan
System Innovation, Graduate School of Engineering
Science
Advisor: Prof. Kosuke Sato and Prof. Daisuke Iwai

BACHELOR OF SCIENCE
April 2010 – King Mongkut's University of
Technology Thonburi, Thailand
Applied Computer Science and Multimedia,
Computer Science and Information Technology
Department
Major GPA: 3.63/ 4.00 (1st Class Honor)

EXPERIENCE
VISITING SCHOLAR
December 2013 – February 2014
Telecom ParisTech (Université Paris Saclay), France
Computer Graphics Group (TSI-CNSR)
Project: Lazy 3D Navigation using Non-Critical Body
Interaction
Advisor: Prof. Tamy Boubekeur

EXCHANGE STUDENT
October 2008 – September 2009
University of Fukui, Japan
Human and Computational Intelligence System
Laboratory
School of Engineering
Advisor: Prof. Yasuhiro Ogoshi

RESEARCH FOCUS
Spatial Augmented Reality, Human Perception,
Human-Computer Interaction, Digital Fabrication

ACADEMIC SERVICE
ORGANIZATION COMMITTEE
- ACM UIST 2017 Documentation Chair
- ACM CHI 2017 Session Chair
- ACM SUI 2016 Documentation Chair
- VRSJ 2016 Design Chair
- ICAT-EGVE 2015 Design Chair

PEER-REVIEWER
- IEEE ISMAR (2017, 2016)
- ACM SIGGRAPH Asia (2017, 2016)
- ACM SUI (2017, 2016)
- ACM UIST (2017, 2016, 2015)
- ACM VRST (2016, 2015)
- ACM HRI (2016, 2015)

STUDENT VOLUNTEER
- ACM UIST 2016
- ACM UbiComp 2015
- ACM SIGGRAPH Asia 2014
- ACM Multimedia 2012

SKILLS
SOFTWARE
Java/JavaScript, MATLAB, Python, C/C++, CSS, PHP,
PL/SQL, OpenGL, OpenCV, CUDA, SPSS

HARDWARE
Projector-Camera System, Laser Cutter, 3D Printer

CLASSES
Teaching Assistant at Osaka University
- Introduction to Computer Vision
- Basic Computer Graphics

Teaching Assistant at MIT CSAIL
- IAP: Build Your Own Multi-Touch Pad
- User Interface Design and Implementation
- Engineering Interactive Technologies

SELECTED PUBLICATION
JOURNALS

1. <u>Parinya Punpongsanon</u>, Emilie Guy, Daisuke Iwai, Kosuke Sato, Tamy Boubekeur, "Extended LazyNav: Virtual 3D Ground Navigation for Large Displays and Head-Mounted Displays". *IEEE Transactions on Visualization and Computer Graphics*, 2016. (In press)
2. <u>Parinya Punpongsanon</u>, Daisuke Iwai, Kosuke Sato, "SoftAR: Visually Manipulating Haptic Softness Perception in Spatial Augmented Reality". *IEEE Transactions on Visualization and Computer Graphics*, vol.21(11), pp. 1279–1288, November, 2016.
3. <u>Parinya Punpongsanon</u>, Daisuke Iwai, Kosuke Sato, "Projection-based Visualization of Tangential Deformation of Nonrigid Surface by Deformation Estimation Using Infrared Texture". *Springer: Virtual Reality*, vol.19(1), pp. 45–56, March, 2015.

CONFERENCE PAPERS AND TECHNICAL NOTES

1. Emilie Guy, <u>Parinya Punpongsanon</u>, Daisuke Iwai, Kosuke Sato, Tamy Boubekeur. "LazyNav: 3D Ground Navigation with Non-Critical Body Parts". In Proceedings of *IEEE Symposium on 3D User Interfaces* (3DUI), pp. 43–50, 2015. [**Best Paper**]
2. <u>Parinya Punpongsanon</u>, Emilie Guy, Tamy Boubekeur, Daisuke Iwai, Kosuke Sato. "Ground Navigation in 3D Scene using Simple Body Motions". In Proceedings of *International Conference on Artificial Reality and Telexistence and Eurographics Symposium on Virtual Environments* (ICAT-EGVE), pp. 19–20, 2014.
3. <u>Parinya Punpongsanon</u>, Daisuke Iwai, Kosuke Sato, "SoftAR: Visually Manipulating Haptic Softness Perception in Spatial Augmented Reality". In Proceedings of IEEE *Symposium on Mixed and Augmented Reality* (ISMAR), pp. 1279-1288, 2016.
4. <u>Parinya Punpongsanon</u>, Daisuke Iwai, Kosuke Sato. "A Preliminary Study on Altering Surface Softness Perception using Augmented Color and Deformation". In Proceedings of *IEEE Symposium on Mixed and Augmented Reality* (ISMAR), pp. 301–302, 2014.
5. <u>Parinya Punpongsanon</u>, Daisuke Iwai, Kosuke Sato. "DeforMe: Projection-based Visualization of Deformable Surfaces using Invisible Textures". In Proceedings of *ACM SIGGRAPH Asia* (Emerging Technologies), Article 8, 2013.
6. <u>Parinya Punpongsanon</u>, Daisuke Iwai, Kosuke Sato. "Infrared-based Tangential Deformation Estimation Technique". Presented in The 6th *Thailand-Japan International Academic Conference* (TJIA), 2013.
7. <u>Parinya Punpongsanon</u>, Daisuke Iwai, Kosuke Sato. "Projection-based Mixed Reality for Deformable Surfaces". Presented in The 6th *Korea-Japan Workshop on Mixed Reality* (KJMR), 2013. [**Best Presentation**]

INVITED TALKS

1. Parinya Punpongsanon, "Projection-based Mixed Reality for Deformable Objects". University of Tokyo, 2016, Japan.
2. Parinya Punpongsanon, "SoftAR: Visually Manipulating Haptic Softness Perception in Spatial Augmented Reality". The 19th Meeting on Image Recognition and Understanding (MIRU 2016), Shizuoka, Japan.
3. Parinya Punpongsanon, "SoftAR: Visually Manipulating Haptic Softness Perception in Spatial Augmented Reality". IEEE TVCG VR/AR Special Session, ACM SIGGRAPH 2016, Anaheim, USA.
4. Parinya Punpongsanon and Daisuke Iwai, "LazyNav: 3D Ground Navigation with Non-Critical Body Parts". 3DUI Top Conference Presentation, The 18th Annual Meeting on Virtual Reality in Japan (VRSJ 2015), Tokyo, Japan.

GRANTS AND AWARDS

2017	Best Student Paper	IEEE Kansai Section
2016	Best Student Volunteer	ACM UIST 2016
2016	Grants	JSPS Research Fellow (Apr. 2016 – Mar. 2018)
2015	Best Paper	IEEE 3DUI 2015
2014	Best Student Volunteer	ACM SIGGRAPH Asia 2014
2013	Best Presentation	Korea-Japan Workshop on Mixed Reality 2013
2011	Grant	MEXT Scholarship (Oct. 2011 – Sep. 2016)
2010	1st Class Honor	King Mongkut's University of Technology Thonburi

REFERENCES

PROF. TAMY BOUBEKEUR
Visiting Scholar Research Advisor
Professor, Computer Graphics Group at Telecom ParisTech
tamy.boubekeur@telecom-paristech.fr | (+33) 1 45 81 77 58

PROF. DAISUKE IWAI
M.Eng and Ph.D. Co-Advisor
Associate Professor, SENS Laboratory at Osaka University
daisuke.iwai@sys.es.osaka-u.ac.jp | (+81) 6 68 50 63 73

PROF. STEFANIE MUELLER
Postdoctoral Associate Advisor
Assistant Professor, HCI Engineering Group at MIT CSAIL
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