**Parinya Punpongsanon**

http://punpongsanon.info/

parinya@mit.edu  
+1 (617) 874 0711

**EMPLOYMENT**

POSTDOCTORAL ASSOCIATE

(January 2017 – Present)

Massachusetts Institute of Technology, United State

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 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**

PROGRAMMING

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

**CLASSES**

INTRODUCTION TO COMPUTER VISION

Teaching Assistant (Osaka University)

Class of undergraduate Students (30 participations)

BASIC COMPUTER GRAPHICS

Teaching Assistant (Osaka University)

Class of undergraduate Students (30 participations)

IAP: BUILD YOUR OWN MULTI-TOUCH PAD

Teaching Assistant (MIT CSAIL)

MIT Independent Activities Period (20 participations)

**SELECTED PUBLICATION**

JOURNALS

1. Parinya Punpongsanon, 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. Parinya Punpongsanon, 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. Parinya Punpongsanon, 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, Parinya Punpongsanon, 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. Parinya Punpongsanon, 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. Parinya Punpongsanon, 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. Parinya Punpongsanon, 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. Parinya Punpongsanon, 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. Parinya Punpongsanon, Daisuke Iwai, Kosuke Sato. “Infrared-based Tangential Deformation Estimation Technique”. Presented in The 6th *Thailand-Japan International Academic Conference* (TJIA), 2013.
7. Parinya Punpongsanon, 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, “SoftAR: Visually Manipulating Haptic Softness Perception in Spatial Augmented Reality”. The 19th Meeting on Image Recognition and Understanding (MIRU 2016), Shizuoka, Japan.
2. Parinya Punpongsanon, “SoftAR: Visually Manipulating Haptic Softness Perception in Spatial Augmented Reality”. IEEE TVCG VR/AR Special Session, ACM SIGGRAPH 2016, Anaheim, USA.
3. 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**

|  |  |  |
| --- | --- | --- |
| 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. 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. TAMY BOUBEKEUR

Visiting Scholar Research Advisor

Professor, Computer Graphics Group at Telecom ParisTech

tamy.boubekeur@telecom-paristrch.fr | (+33) 1 45 81 77 58

PROF. STEFANIE MUELLER

Postdoctoral Associate Advisor

Assistant Professor, HCI Engineering Group at MIT CSAIL

stefanie.mueller@mit.edu | (+1) 857 253 1096