



ENTERTAINMENT COMPUTING LABORATORY

2014 - 2015

筑波大学 エンタテイメントコンピューティング研究室

ECL

University of Tsukuba

When using Tsukuba Express Line (TX)

45 minutes from Akihabara Station to Tsukuba Station by rapid train. After getting off at Tsukuba Station, you can take a bus. University Loop-line On-campus Bus [Tsukuba Daigaku Junkan Bus (筑波大学循環バス)] (clockwise) is available. It takes 10-15 minutes from Tsukuba Center to Dai-San Area Mae (第三エリア前).

Location

3M306: Professor Hoshino's room 3M309: The laboratory Graduate School of Systems and Information Engineering University of Tsukuba 1-1-1 Tennoudai, Tsukuba, Ibaraki, 305-8573, JAPAN +81-29-853-6555

http://www.entcomp.esys.tsukuba.ac.jp





bubble cosmos

bubble cosmos is a system that creates new enjoyment by expanding soap bubble play with video and audio media. The location and size of soap bubbles floating in the air is detected, and video is projected onto white smoke injected into the soap bubbles. When it judges that in a tree structure; the linked episodes give rise to the a bubble has popped, changes are made to the video and sound

L'Oreal Art & Science Prize (2006) Winning 2006 ASIA DIGITAL ART AWARD Won the International collegiate Virtual Reality Contest 2005 Japan Media Arts Festival Jury Recommended Works (2006) SIGGRAPH Energing Technologies (2006) ACE(2006)



Spilant World

Spilant World is an entertainment system where you can watch the lives of characters from the world of animation, and enjoy changing their stories by working on them in real time. The episodes are expressed as the flow of events production of creative stories.

Award of the journal of the Society For Art and Science Volume.6 Award of excellence of digital cinema sector of the Societ For Art and Science Exhibition Volume 5



VR Trampoline

This is an entertainment system that amplifies the enjoyment of the trampoline, which has proven highly effective for exercise. Through images from the user's perspective that are connected to the exercise, and a virtual reality environment drawn with computer graphics, you can have experiences looking out into wide spaces that would be difficult to experience in reality.

The journal of the Virtual Reality Society of Japan (2010) SIGGRAPH Energing Technologies (2009)

deepens exchange, by displaying personal hobbies and tastes graphically. Similarities with other users' interests, and their degree, as well as the relevancy of the span of knowledge centered on the objects of the user's interest are displayed graphically.

The journal of Japan Society of Kansei Engineering (2014)

The journal of the Internation Processing Society of Japan (2013)



PUYO-CON

PUYO-CON is a body-sensation type game controller made of flexible soft materials that can create input based on movements such as gripping and throwing. With 40 bending sensors that sense shape changes, it sends continuous signals to the console via Bluetooth, and it is possible to have input based on the strength of the shape change, as well as tactile operations.

IEEE International Symposium of Virtual Reality Innovation (2011) SIGGRAPH Energing Technologies (2009)



Disaster Experience Game

SONAR is a social media that supports the acquisition Using the GPS and accelerometer in a smartphone, this system allows the user to experience various disaster events as game elements while actually walking through an area. You can have fun while learning about the ways to ameliorate disaster risks unique to an area.



Animacy Motion Engine

Based on cognitive psychology's animacy perception and ecophysiology, lifelike computer generated animation with This system can analyze the movement patterns of the randomness and variety actually seen in the movements of living organisms is created in real time. By modeling virtual organisms based on this system, tropical fish or fireflies move autonomously, and you can create a virtual aquarium where you can feed and interact with them.

This system visualizes the recipe search process as a graph

and recipes (search results). You can conduct the entire

individual ingredients (user-input search elements)

search process leading to a satisfying recipe without

The journal of the Society For Art and Science (2008)

The journal of the Virtual Reality Society of Japan (2013) ICEC (2013) IASDR (2013)

Graphical Recipes

with nodes that are

switching screens.



computer operated characters in fighting action games, and by partially imitating them it can create computer characters that grow with each match.

The journal of the Internation Processing Society of Japan (2008)



Cyber Chamber

Cyber Chamber is a system that allows multiple people to conduct online shopping through the interaction between projections on a wall from a projector and a tablet. By searching for products on the tablet and projecting them on the wall, you can smoothly conduct activities such as sharing information, consulting with collaborative buyers, and considering combining products with each other.



MACS (Massive Action Control System)

MACS is a character control system that allows you to continue to operate even if there is interference in real time, by setting the character's own internal characteristics such as motivation for actions and emotions, as well as external characteristics such as objects around the character as starting conditions, and by continuously selecting fragmented behavior control modules.

SIGGRAPH Posters (2009) SIGGRAPH Energing Technologies (2008) ICEC (2010) Entertainment Computing Journal (2010) Award of excellence of the International CG Award of the Society For Art and Science (2009)



ShakeGuitar

ICMC (2011)

ShakeGuitar is an interface that allows you to adjust the intensity of a melody guitar solo to your own tastes. The morphing level is changed in accordance with the acceleration of the iPhone's shaking. It is publicly available on the App Store, so please download and play with it for free.



Hanasui is a virtual handheld firework system. A fog screen is created by fog from the device, and an image is projected onto it. By using markers, near infra-red, and multi-projections, a fog screen is created that can move and be viewed from multiple viewpoints.

Award of Meywa Denki President of the International collegiate Virtual Reality Contest Volume 21 (2013)



NESynth

This is a synthesizer app that faithfully replays the nostalgic tone quality of old video games. It supports very free playing, such as sweeps, by using the accelerometer. We have received such positive comments as "those who like retro games and music won't be able to get enough," and "even those who are not very good at music can easily play." You can see it in action on YouTube.

What is the Entertainment Computing Laboratory (ECL)?

Our mission is to develop a user adaptive entertainment platform and high impact applications for the enrichment of our daily life. Research topics include analysis and modeling technologies for games, storytelling, animation and device entertainment, CSCW for content creation, evaluation methods for entertainment.

We are also collaborating with our industry partners to develop games for health and learning and e-commerce support systems.

experience a new way to find music.

Bandnavi We have created an iPhone app that searches for songs using a band's network. Using connections such as the band name, members, and instruments, you can more guickly and smartly look for new bands and songs, and

of conversational niche hobby-related information and