Development and Generation of Next Generation User Interfaces

Project Leader
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Keywords: Human computer interaction (HCI), User interface design, Human performance models, Pen-based interaction, Eye-based interaction, Multimodal input and output interfaces, Multi-touch interaction, Haptics interface

Objective
This project aims to carry out human computer interaction research in topics including User Interface Design, Natural User Interface (NUI), Mobile User Interface, including, game user interface, gesture/touch (pen and/or finger) input, and the modeling of human performance, with consideration not only to normal people but also age and disability issues.

Project Outline
Human-Computer interaction is a new, essential crucial branch of computer science requiring the knowledge of topics and mastery of techniques from a large number of scientific fields, including physiology, psychology, motor control and ergonomics. HCI entails the study of physical, cognitive and engineering aspects of the design of information technology for ease of use.

Our group has worked in the field of HCI for more than fifteen years, and has a great deal of experience in this research field, particularly in user interface design, input interaction techniques and the modeling of human performance. Cooperating with domestic and international researchers, we have achieved excellent academic results. Our research emphasizes the understanding of human interaction capabilities and the modeling of human performance. Research outcomes will not only contribute to the understanding of human behavior, but will also support the design of systems suitable for different interaction conditions.

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The successful SSP students will have opportunities to be involved in collaborative research projects, e.g. with Microsoft Research, Google Research, and other institutions or oversea universities. All SSP students who want to obtain Ph.D. degrees must pass a preliminary examination (at the end of the second academic year) and a final doctoral examination in a public hearing (at the end of the third academic year). To pass these examinations, SSP students must publish excellent research papers in top-tier class international conferences (ACM CHI, ACM UIST) and international journals or transactions in the field of HCI.

Publications can be found at http://www.info.kochi-tech.ac.jp/ren/pdf/Xiangshi-REN-CV.pdf

See our admission guidelines:
https://www.kochi-tech.ac.jp/english/admission/ssp_aft19oct/ssp_application_guideline.html

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