hci
Human Computer
Interaction

HUMAN-COMPUTER INTERACTION

RESEARCH GROUP

SYNOPSIS

Human-Computer Interaction (HCI) focuses on the models, theories and practical insights of human-human interaction, human-computer interaction and system development that apply user-centered design approach. This area also addresses on issues and the interaction of technology and capacity to identify the needs of specific user groups such as elderly, the differently abled, children and children with special needs and other than general users.

The core areas include design methodologies; the design of intuitive and natural user interface and interaction; usability studies and usability evaluation; user experience; social interaction design; ubiquitous computing; innovative learning; multimodal interaction interactive technology; security in HCI and humane artificial intelligence.

MEMBERS

Dr. Noris Mohd Norowi, Head

Dr. Azrina Kamaruddin

Assoc. Prof. Dr. Azrul Hazri Jantan

Assoc. Prof. Dr. Ts. Dr. Lili Nurliyana Abdullah

Dr. Nuur Alifah Roslan
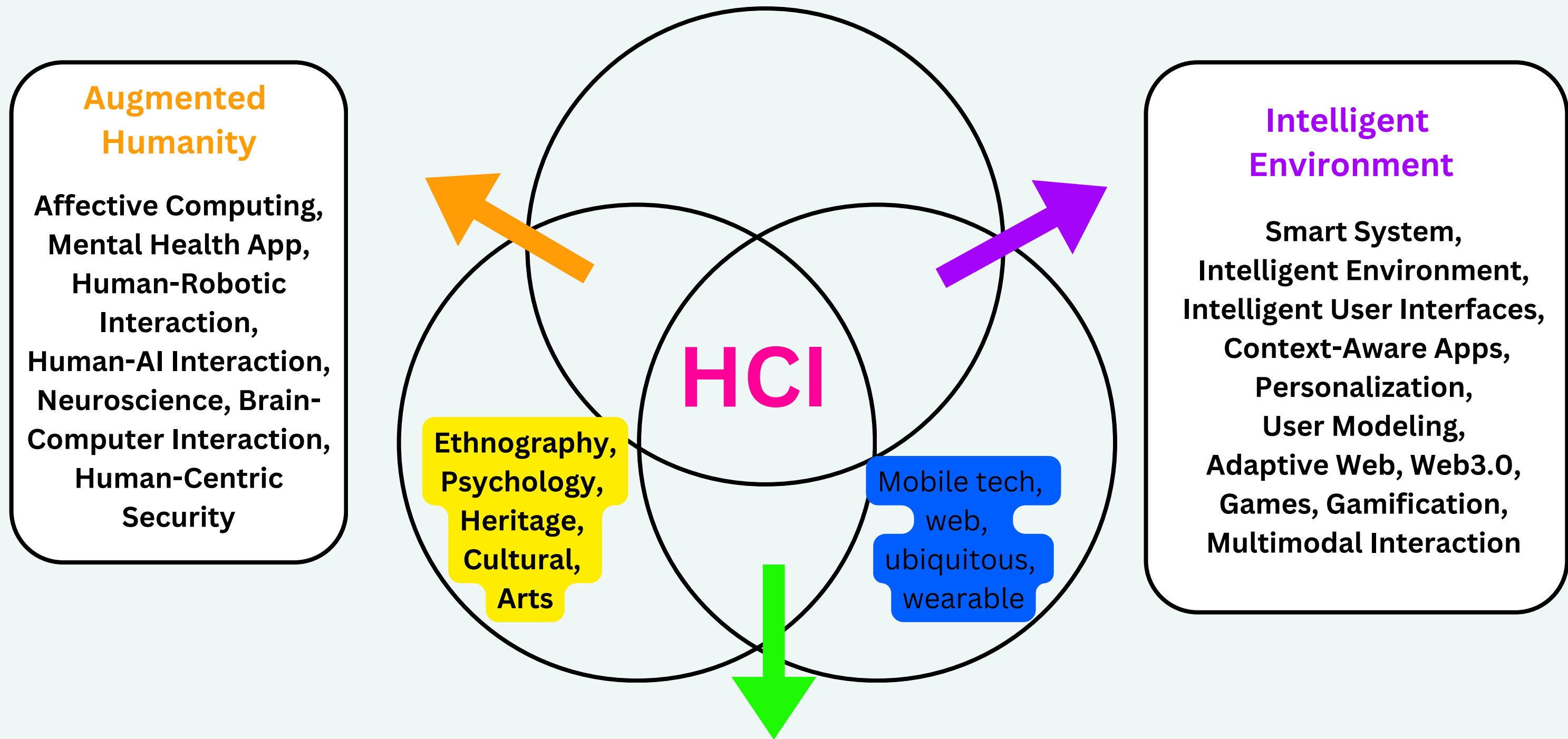
Assoc. Prof. Dr. Ts. Dr. Novia Indriaty Admodisastro

Ts. Dr. Muhamad Sufri Muhammad

CURRENT & FUTURE RESEARCH

HCI

Augmented Humanity

Affective Computing, Mental Health App, Human-Robotic Interaction, Human-AI Interaction, Neuroscience, Brain-Computer Interaction, Human-Centric Security

Intelligent Environment

Smart System, Intelligent Environment, Intelligent User Interfaces, Context-Aware Apps, Personalization, User Modeling, Adaptive Web, Web3.0, Games, Gamification, Multimodal Interaction

Ethnography, Psychology, Heritage, Cultural, Arts

Mobile tech, web, ubiquitous, wearable

Human-Centric Design

Interaction Design, Music Interaction, Child-Computer Interaction, UX Design, User-Centered Design, Participatory Design, Usability Engineering, Digital Well-being, Prototyping, Persuasive Technology, Accessibility, Inclusivity, e-Governance

HUMAN-CENTRIC DESIGN

- BURDLE: Bridging the Urban-Rural Divide on LEarning
- AVASHARE: Designing A Constructivist Web-based Collaborative Learning Tool to Encourage Group Learning Activities
- COLLOTAB: Seamless Multi-touch Interaction for Collocated Multi-mobile System
- Virtual Training for People with Disabilities Empowerment
- Mobile Augmented Reality Application for Improving Learning of Electronic Component Module in TVET
- Using Usability To Evaluate Player Experience in the Massively Multiplayer Online Game (MMO): Teamwork And Systems
- UI Design Guidelines for Games Interface and VIP Safe Mobility-Speech Interface
- HCI Methodology
- Outdoor Mobility Assistive Technologies for People with Vision Impairment or Blindness

HUMAN-CENTRIC DESIGN

- Children Involvement in Participatory Design Process
- DisleksiaBelajar: Mobile App (Fono-Eja-Baca-Tulis) Dyslexic Children to Learn the Malay Language
- Tangible User Interface Design Model to Embodies Learning Amongst Dyslexia Students
- MARI: Mobile-Based Augmented Reality Indoor Map Locator Application
- MARI: Mobile-Based Augmented Reality Indoor Map Locator Application
- AIR BONANG: Modeling affordances of mid-air gestures in traditional and explorative musical interaction for a virtual Bonang
- VirLeap Kompang Master: Gesture Manipulations of Musical Objects for Music Performance in Immersive Virtual Environments
- Designing a mobile, touch-enabled virtual musical Kompang for children based on artificial intelligence approaches in sound synthesis.
- Activating Musical Notes Classification as a Controller for an Interactive Racing Game
- Usability & UX Evaluation

INTELLIGENT ENVIRONMENT

- Mobile Exergame to increase Physical Activity (Domains: Elderly and Youth)
- Visually-Impaired Person Safe Mobility using YOLO, Exergames
- Jog2Gather: Remote Asynchronous, Socially Connected Virtual Running Application
- Try-Gonna Bee Apps: Ensuring Food Security through App-Guided Urban Beekeeping
- Content-based Audio Classification System for Bird Sounds
- Sound Analysis for Paddy Pests Control
- Design metaphor to improve usability of user interface for paddy farmers in Malaysia
- Tangible User Interface
- Pervasive Computing
- UI/UX Fundamental Design for Mobile Application Prototype to Support Web Accessibility and Usability Acceptance
- Elevated Novice Developer Productivity and Self-efficacy by Promoting UX Journey in Software Requirement Elicitation
- The adaptive model driven approach for enhancing usability of user interface design
- Validation Process for Web Design of UEWDM

AUGMENTED HUMANITY

- AVALANCHE: Avatar-based Learning in Affective-Challenged Environment
- Hybrid Biometric Multifactor Steganography for Mobile Authentication
- Enhancing Image-emoji Graphical Password Multifactor Authentication by Utilizing Single Touch and Multi-touch Gesture
- SecureEmoji: 2FA Using Image and Emojis in Graphical Password Application
- Blockchain Technology in Cybersecurity and Data Science
- Trust Affective Aspects among Software Designers Designing AI applications
- Inclusive Education Technology using various methods such as Machine Learning
- Brainwave Signal Analysis Framework for Manipulating a Mind-Controlled Drone using a Hybrid RBF-MLP Neural Network Based on Intended Motor Imagery of Human Organs

Contact Us

Noris Mohd Norowi (Head)
noris@upm.edu.my
Human-Computer Interaction Research Group
Faculty of Computer Science & Information Technology
Universiti Putra Malaysia
Serdang, Selangor
Darul Ehsan