



Senior Lecturer – Human Computer Interaction

Department/Unit	Information Technology
Faculty/Division	Caulfield School of Information Technology
Classification	Level C
Work location	Caulfield campus
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Organisational and metropolitan context

Everyone needs a platform to launch a satisfying career. At Monash, we give you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers. Discover more at www.monash.edu

The **Faculty of Information Technology** aims to lead global IT research and education. Our strong reputation and international profile attracts the best students worldwide, and we offer a program and range of courses that transforms our graduates into highly skilled and sought after IT professionals, equipped to work globally. Our research is multi-disciplinary, multi-campus and multi-national, giving us a unique capacity to reach out further and deeper than any other institution in Australia. Our research priorities are both technically ambitious and embedded in everyday life. To learn more about the Faculty and the exciting work we do, please visit www.infotech.monash.edu.au/

The **HCI group** designs, builds, and evaluates state-of-the-art interface technologies. Our multidisciplinary interests span computer science and engineering, cognitive and learning sciences, communications, medicine and health, media design, and other topics. Our work is based on empirical science, statistics, deep learning and data analytics, and diverse HCI methods. We are interested in applications in many areas, such as health, education, communications, personal assistance, robotics, automotive, and digital arts. The HCI group has partnerships with CSIRO-Data61, and an expanding collection of industry partners. The HCI area director is Professor Sharon Oviatt, an ACM Fellow and international pioneer in human-centered, mobile, and multimodal interfaces.

Experimental Labs & Design Spaces: The university has made recent strategic investments in facilities for prototyping innovative concepts, collecting and analyzing data, and displaying digital installations and interactive media—including sensiLab (supporting tangible, wearable, augmented and virtual reality, multimodal-multimedia, maker-space), Immersive Visualization platform and Analytics lab, the MADA Design building and space, Centre for Data Science, and ARC Centre of Excellence on Integrative Brain function (pioneering new multimodal imaging techniques for data exploration). The university currently is investing in HCI group facilities for prototyping and developing new mobile, multimodal and multisensory interfaces,

capturing and analyzing human multimodal interaction (e.g., whole-body activity, speech), and predicting users' cognitive and health status.

Position purpose

The Faculty of Information Technology at Monash University is establishing a new group in HCI and Creative Technologies. The position will be part of the rapid expansion of a multidisciplinary group with expertise in areas such as mobile and multimodal-multisensor interfaces, agent-based conversational interfaces, brain-computer and adaptive interfaces, wearable and contextually-aware personalized interfaces, education and health interfaces, data analytics for predicting user cognition and health status, and other topics.

Level C academics are responsible for conducting and fostering excellence in research, teaching and mentoring, and professional activities in their field. An academic at this level plays a major leadership role in establishing and fostering high quality research, teaching, and scholarship.

Reporting Line: The position reports to the HCI area director

Supervisory responsibilities: This position would supervise undergraduate students, graduate students, and postdoctoral fellows

Financial delegation and/or budget responsibilities: Manages grant funding, may assist with HCI Center budgeting

Key responsibilities

Specific duties required of a Level C academic may include:

1. Conducting high-quality research appropriate to the discipline, including publications in world-leading conferences and journals
2. Establishing and participating in successful research teams, research units, or centres, and fostering interdisciplinary research
3. Preparation and delivery of lectures and seminars, including the setting and marking of assessment material
4. Coordination of teaching material, overseeing and/or delivery of tutorials, practical classes, demonstrations, workshops, and studio sessions
5. Supervision and mentoring of undergraduate and postgraduate students engaged in coursework and research projects
6. Preparation of research proposals to obtain competitive external funding from governmental and non-governmental sources
7. Active engagement in professional activities, both internally and externally, including program committees, engagement with industry, and international partnerships
8. Contributing to building the IT Faculty's reputation and recognition for research excellence
9. Participating in administrative functions that contribute to the successful operation of the IT Faculty
10. Attendance at departmental, school and/or faculty meetings and/or membership of a number of committees

Key selection criteria

Qualifications/Education

1. The selected candidate will have:
 - PhD in computer science, information sciences, cognitive or linguistic sciences, brain sciences, or related field

- Several years of post-PhD teaching and research experience, and/or professional experience in the corporate world or outside of academics that demonstrates unique technical achievements or creative accomplishments

Knowledge and skills

2. Demonstrated ability, commitment, and passion for engaging in research and scholarly activities, including a strong record of research accomplishment that includes publishing in top conferences and journals
3. Strong methodological skills such as empirical/statistical, machine learning/deep learning, HCI design and analysis methods
4. Experience collecting and analyzing data in one or more key modality (e.g., speech, handwriting, images, gaze, activity patterns, etc.), sensor, or combination
5. Strong technical skills relevant to the candidate's specific area of expertise (of those listed above), such as signal analysis (e.g., speech, brain waves), linguistic analysis, predictive data analytics, language and conversational dialogue processing, adaptive and personalized interface development, or multimodal fusion-based architectures and system development
6. Strong motivational, mentorship, and teaching abilities when working with students, and successful teaching experience in a university setting
7. High level of interpersonal and communication skills, and an ability to work independently as well as engage in teamwork
8. Successful at procuring grants and contracts, preferably including industry partnerships and diverse sources
9. Successful at working with diverse groups of people, including corporate and federal sponsors, international partners, faculty from other disciplines, fieldwork partners (e.g., medical personnel, teachers), and students and university staff at all levels

Other job related information

- Travel required (e.g., to conferences, professional meetings, other universities or partner sites)
- There may be peak periods of work during which taking leave could be discouraged or restricted

Legal compliance

Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness Occupational Health and Safety, supporting a safe workplace Conflict of Interest (including Conflict of Interest in Research) Paid Outside Work Privacy Research Conduct and Staff/Student Relationships.