



ASSOCIATE PROFESSOR – HUMAN COMPUTER INTERACTION

DEPARTMENT/UNIT HCI and Creative Technologies

FACULTY/DIVISION Faculty of Information Technology

CLASSIFICATION Level D

WORK LOCATION Caulfield campus

ORGANISATIONAL CONTEXT

The **Faculty of Information Technology** conducts a wide range of multidisciplinary research in Human-Computer Interaction and Creative Technologies, Artificial Intelligence and Dialogue Technologies, Data Science and Machine Learning, Cybersecurity, and Organisational and Social Informatics. Monash University is a multi-campus and multi-national university, with locations in Melbourne, Asia and around the world. Our research priorities in FIT are technically ambitious, expanding into new areas, and embedded in everyday life; see www.infotech.monash.edu.au/.

The **Human-Centred AI** 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. 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-centred, mobile, and multimodal interfaces.

POSITION PURPOSE

The Faculty of Information Technology at Monash University is establishing a new group in Human Computer Interaction (HCI) and Human-Centred AI. The faculty position will be part of the rapid expansion of a multidisciplinary group with expertise in areas such as mobile, wearable and multimodal-multisensor interfaces, conversational dialogue interfaces, brain-computer and adaptive interfaces, education and health interfaces, data analytics for predicting user cognition and health status, adaptive interfaces, and other topics. Level D academics are expected to make contributions to teaching, research, and professional activities relevant to the profession and discipline. An academic at this level also plays a major leadership role in organizing and mentoring high-quality research and scholarship within the group, playing key leadership roles within the faculty and university, catalysing cross-faculty and international collaborations, and playing major leadership roles within the international professional community.

Reporting Line: The position reports to the HCI area director

Supervisory Responsibilities: This position would supervises 2-6 undergraduate students, graduate students, and postdoctoral fellows

Financial Delegation: Yes, in accordance with the University delegations schedule

Budget Responsibilities: Not applicable

KEY RESPONSIBILITIES

Specific duties required of a Level D academic may include:

1. Play a significant role in leading research projects and research teams
2. Conduct original research leading to publications in high-quality conferences, journals, and books
3. Supervise undergraduate, graduate, and honours students, as well as postdoctoral fellows
4. Provide leadership in developing new curricula and teaching (e.g., lectures, tutorials, demonstrations, studio classes, workshops), including implementing criteria for assessment
5. Mentoring and team teaching with junior faculty and postdoctoral fellows to promote teaching excellence and HCI group coherence
6. Actively attract external government and corporate funding for their research area and team
7. Facilitate multidisciplinary research across different Monash faculties and research centres, including planning of larger joint research proposals
8. Promote collaborative approaches to research, including linking with other universities, national research groups (e.g., Data61/CSIRO), and international centres/laboratories in related fields
9. Establish corporate and/or international partnership opportunities (e.g., joint ventures, contract research, student traineeship exchanges) that expand the HCI group, its research and teaching activities, diversification of funding, and overall impact
10. Engage in strategic planning for the HCI group (e.g., laboratory development, new centre formation, hiring personnel), and ensuring its directions are well aligned with the IT Faculty, University and Research Dean's long-term strategic vision
11. Contribute service and leadership for the IT Faculty, Monash, and national and international computing community and make a significant contribution to the profession and/or discipline nationally and internationally

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:
 - PhD in computer science, information sciences, cognitive or linguistic sciences, brain sciences, or related field
 - eight or more 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; Successful leadership and management experience

Knowledge and Skills

2. Demonstrated ability, commitment, and passion for engaging in research and scholarly activities, including a strong record of research leadership and 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, including the ability to teach them to others and to invent new methods

4. Experience collecting and analyzing data in one or more key modality (e.g. speech, handwriting, images, gaze, activity patterns, etc.), bio-sensors, or combination
5. Strong technical, leadership, and team-building 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. Multidisciplinary profile of interests and collaborative team-oriented research
7. Strong motivational, mentorship, and teaching abilities when working with students, and highly effective teaching and supervision experience in a university setting with the ability to develop and implement innovative new curriculum, for student educational programs
8. Outstanding interpersonal and communication skills, and the ability to organize and manage high-level research teamwork
9. Successful at strategising and procuring diverse sources of external grants and contracts, including with industry partners and international colleagues
10. 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
11. Demonstrated senior leadership on university and international professional committees, and in key administrative leadership roles

OTHER JOB RELATED INFORMATION

- Travel required (e.g., to conferences, professional meetings, sponsors, 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.