Research Grants for PhD students from the China Scholarship Council

Information Form (please read the guidelines carefully on the website www-csc.utt.fr)

Supervisor's name : Yazan | Given names : Mualla

Status (prof., assistant prof., ...) : Associate Prof.

Laboratory :	Connaissance et Intelligence Artificielle Distribuées - CIAD	Website address : http://www.ciad-lab.fr
Institution :	Université de Technologie de Belfort-Montbéliard	Website address : www.utbm.fr

Scientific competence of the supervisor:

Multi-agent systems, Computer Science.

Two major publications in the field proposed for the PhD :

1. Hemmer P., Schemmer M., Vössing M. and Kühl N., 2021. Human-AI Complementarity in Hybrid Intelligence Systems: A Structured Literature Review. PACIS, p.78.
2. Hook, J., El-Sedky, S., De Silva, V. and Kondoz, A., 2021. Learning data-driven decision-making pol-icies in multi-agent environments for autonomous systems. Cognitive Systems Research, 65, pp.40-49.

Website address of the personal page : https://www.ciad-lab.fr/yazan_mualla/

Supervisor's email : yazan.mualla@utbm.fr

Description of the research work proposed for a PhD | ***Topic # (see list) :*** I-12

Title : Advancing Information Transparency in Human-Computer Interaction for Public Utility Accessibility

Subject :

Urban digital environments prioritize the delivery of public services such as public transit, sustainability reporting, and utility maintenance. These systems utilize data to provide residents and administrators with insights into city operations. The objective of these frameworks is "Inclusive Informatics," ensuring digital tools function as accessible resources for community engagement and service literacy.

Transparency in Human-Computer Interaction (HCI) is the mechanism for establishing public trust and ease of use. Clarifying how service recommendations are generated allows residents and local administrators to navigate digital interfaces effectively. Current challenges involve translating high-dimensional data into legible formats for diverse demographics and ensuring informational clarity does not impede system usability.

This research investigates the design of legible digital interfaces for public service applications. Focus areas include data-driven tools for community sustainability, public transit scheduling, and municipal utility feedback. The methodology integrates behavioral science and user interface (UI) design to develop notification and explanation models tailored to non-technical users and public stakeholders.

Keywords :

Information Accessibility, User Experience, Public Service Transparency, Urban Digital Inclusion

Expected collaborations :

Part of this PhD work is aligned with projects and collaborative research initiatives undertaken with teams from the following universities:

- University of Luxembourg, Luxembourg,
- Luxembourg Institute of Science and Technology, Luxembourg,
- University of Warwick, England.

Background required from the applicant :

Phyton/C++/Java programming (one of these programming languages)

Existence of a PDF file detailing the proposal ("yes" or "no") : yes

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