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SCHOOL OF COMPUTER SCIENCE

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December 3, 2023

PARTICIPANT INFORMATION SHEET

Parallel drafting of building regulations as human and machine-readable rules

Name of Principal Investigator/Supervisor (PI): Prof. Robert Amor
Name of Co-investigator(s): Dr.-Ing. Judith Fauth and Prof. Dr.-Ing. Jürgen Melzner
Name of Student Researcher(s): Stefan Fuchs

Researcher Introduction
Stefan Fuchs and Judith Fauth are both early career researchers. Stefan is a PhD student at the University of Auckland, School of Computer Science, New Zealand. Judith obtained her PhD in 2021 at Bauhaus University Weimar, Germany, and is now Postdoc Researcher at TU Wien, Austria, and Lecturer at the Bauhaus-Universität Weimar. The project is supervised by Prof. Robert Amor, The University of Auckland, and Prof. Dr.-Ing. Jürgen Melzner, Bauhaus-Universität Weimar.

This Project
Rationale: We investigate how to check if building design automatically meets all necessary regulatory requirements. To achieve transparent automation, we are focusing on approaches to translate regulatory requirements into a formal representation, which is understandable by a computer and can be automatically evaluated against the building design. To guarantee the correctness of the formal representation, the regulator should be involved in the translation process.
Aims: The interviews shall help us understand the regulatory drafting process and how formal languages could be integrated into that process.
Project Duration: The project duration is one year and will contribute to the student researcher's PhD Thesis.
Benefits: Having a quality-assured formal representation of building requirements would enhance the integrity of those requirements and establish a reliable foundation for automated compliance checks.
Risks: While we do our best to keep your and your organisation's identity confidential, since we are interviewing a small pool of domain experts, there is a small risk that colleagues might identify you based on your responses.

Invitation to Participate
Why: You are invited to participate in this research because you have at least three years of experience in drafting, authoring, or contributing to building regulations, acceptable solutions, or standards within your professional capacity.
Voluntary participation: Your participation is voluntary and can be declined without giving a reason. Your participation or non-participation will not be disclosed to anyone.

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Project Procedures
If you choose to participate, you will attend an online meeting scheduled for 90 minutes, with the interview itself expected to take 60 minutes. The additional time is allocated to account for any potential technical difficulties or extended discussions. The interviews will be recorded and transcribed. The recording cannot be stopped since the interview transcript is necessary for data analysis. The resulting transcript will be provided to you for review after the session. You will have two weeks after receiving the transcripts to edit the transcript or withdraw your data without giving a reason. During the interview, we will ask you questions about regulatory drafting processes, your understanding of formal representations (if any), and the potential to draft building regulations and their formal representation in parallel. Additionally, we will show you examples of formal representations of regulatory requirements and ask you to provide feedback on their legal accuracy.

Right to Withdraw from Participation
You can withdraw from the interview at any time without giving a reason. You can withdraw by notifying either researcher.

Confidentiality
The preservation of confidentiality is paramount. All personal identifiers, such as your and your organisation's names, will remain confidential to the named researchers. Transcription and translation services may be used, but those third parties will sign a confidentiality agreement before commencing the task.
Your responses will be analysed separately from your contact information to keep your identity confidential. However, information regarding your profession, technological and educational background, as well as your country of employment, will be retained. These specific details are relevant to the study and will be used to contextualise the research findings. You will receive the interview transcript with all personal information removed for review, so you can increase the level of anonymity if you want.

Data Storage, Retention, Destruction and Future Use
How: We will record the interview, which will be transcribed and translated into English (if required).
Where: All data will be stored on secure University of Auckland-managed Dropbox for Researchers and Research Drive.
How Long: De-identified interview transcripts will be stored indefinitely to guarantee reproducible research.
Destruction: Recordings are deleted as soon as the transcripts are produced. All personal identifiers (including your organisation's name) will be deleted from the transcripts.
Future Use: The information you provide will be reported in a PhD Thesis and may be published in an academic research conference and/or journal. This report and publication(s) will not identify you as its source. A copy of the research findings will be made available to you if you wish. Provide a contact email address in the consent form if you wish to receive a summary of findings.
Consent Forms: Access to consent forms will be restricted to the researchers. Consent forms will be stored separately from the research data and deleted after six years.

CONTACT DETAILS AND APPROVAL

Researcher name and contact details	**Supervisor name and contact details**	**Head of Department name and contact details**
Stefan Fuchs (Student Researcher) School of Computer Science The University of Auckland New Zealand sffc348@aucklanduni.ac.nz Dr.-Ing. Judith Fauth Department of Construction Engineering and Management Bauhaus-Universität Weimar Germany judith.fauth@tuwien.ac.at	Prof. Robert Amor School of Computer Science The University of Auckland New Zealand r.amor@auckland.ac.nz +64-9-373-7599 Prof. Dr.-Ing. Jürgen Melzner Department of Construction Engineering and Management Bauhaus-Universität Weimar Germany juergen.melzner@uni-weimar.de	Prof. Giovanni Russello School of Computer Science The University of Auckland New Zealand g.russello@auckland.ac.nz +6493737599 Ext.86137

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For any concerns regarding ethical issues, you may contact the Chair, the University of Auckland Human Participants Ethics Committee, Office of Strategy Research and Integrity, University of Auckland, Private Bag 92019, Auckland 1142, New Zealand. Telephone +64 9 373-7599 ext. 83711.
Email: humanethics@auckland.ac.nz

Approved by the University of Auckland Human Participants Ethics Committee on 24/11/2023 for three years. Reference Number: UAHPEC26239