

Master's Thesis: Item Generation for Measuring Trust in Human-Robot Interaction in Healthcare

Are you interested in interdisciplinary research at the intersection of medical technology, psychology and human-robot interaction? Would you like to contribute to the future of intelligent assistance systems in healthcare by helping us understand how clinical staff builds trust in robotic technologies? Then apply for the master's thesis position and become part of our research on evaluating and improving trust and teaming between humans and robots in clinical environments.

Your work will focus on developing a new trust assessment scale for healthcare robotics. This includes a structured literature review to identify relevant constructs, analyzing existing trust frameworks from psychology and HRI, and generating a comprehensive pool of measurement items. You will synthesize insights from human factors, UX design, robotics and clinical workflows to create an instrument that captures how nurses and clinicians perceive and interact with assistive robotic systems.

Be part of our collaborative research project at the interface of medicine, psychology and engineering withing MITI research group at the TUM University Hospital and help to define how we will measure trust in future healthcare robots.

Requirements

- You are enrolled in a technical master's program at TUM with a focus on user-centered design, human-robot interaction, or applied psychology (e.g. Human Factors)
- You have strong interest in medical technology and the clinical environment
- Ideally, you already have some experience with scale development or psychometric methods
- You have good knowledge of English and/or German
- You work in a structured, independent, and detail-oriented manner

Start of work: as soon as possible

If you're interested and would like to join our team for your master's thesis, please apply by sending us your CV and your academic transcripts (bachelor's and master's). We would also appreciate a brief description of your research interests and any relevant experience.

Send to: nin.mueller@tum.de