

Announcement for Architecture,
RNB, or Biomedical Engineering
Students*
Master Thesis or Study Project

SUPERVISION

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forschungslabore/senselab](http://arc.ed.tum.de/en/klima/forschung/forschungslabore/senselab)

* Students from other disciplines are still
encouraged to apply. Please make sure that
we can officially supervise your studies.

UNSOLICITED MASTER THESIS CALL FOR SENSELAB PROJECT

CONTEXT

Definition of "comfort" has long been a question for professionals of the built environment. Particularly the numerical definition of it, not only decides how we operate our buildings, therefore manage resources but also how the buildings impact our well-being in return. However, this reciprocal relationship still lacks clarity on certain aspects, as research shows that occupants are consistently dissatisfied with the indoor climate and that most buildings struggle with huge performance gaps between simulations and actual measurements.

As the majority of data acquired in the comfort literature comes from user feedbacks, there are concerns with bias, data resolution, or scalability. Furthermore, it is proven by the research that maybe comfort is not what we should be after, but rather health - and not always these two mean the same thing.

Therefore, research project SenseLab aims to tackle the comfort definition from a newly emerging point of view: Directly looking into the human body. By doing so, we believe that we might not only identify the link between perceived comfort and its physiological markers, but also collect long-term data to observe how the indoor environment impacts our health and well-being.

TASKS

Under this call, we are expecting your applications with fitting topic proposals or solely with general interest. In both cases, it would be useful if you already checked the following publications:

Bilge Kobas; Sebastian Clark Koth; Kizito Nkurikiyeyezu; Giorgos Giannakakis; Thomas Auer. 2021. "Effect of Exposure Time on Thermal Behaviour: A Psychophysiological Approach." *Signals* 2, no. 4: 863-885.

<https://sciprofiles.com/publication/view/07227a76dd9cc1557c17c40107ff2ce8>

Sandra G. L. Persiani; Bilge Kobas; Sebastian Clark Koth; Thomas Auer. 2021. "Biometric Data as Real-Time Measure of Physiological Reactions to Environmental Stimuli in the Built Environment." *Energies* 14, no. 1: 232.

<https://sciprofiles.com/publication/view/69640b377d8a33468494996112547ca4>

