

Turku University of Applied Sciences

Built environment

Research group leader



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[None](#)

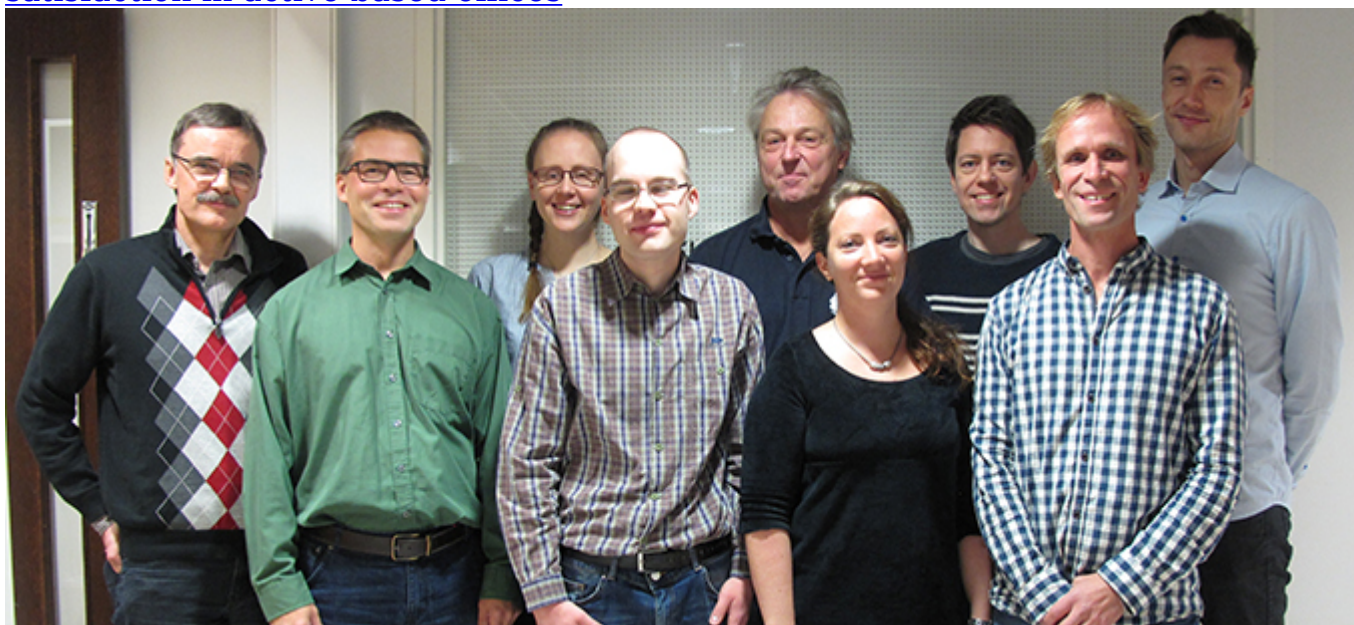
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[Unit: Engineering and Business, Construction, Environment and Energy](#)

Ongoing projects

[ANOJANSSI - Metrics of Noise Annoyance](#) [AIRBORNE - Spreading of Airborne Infections in Hospitals](#) [ActiveWorkSpace - Environmental satisfaction in active-based offices](#)



Built environment

General

The research group was founded in 1987 in Finnish Institute of Occupational Health. The group has belonged to Turku University of Applied Sciences since 2016. The main expert areas have been from the beginning acoustics and ventilation. Psychology has belonged to the expert areas since 2001.

The activities of the group are public research (55 %), services to companies (40 %), and teaching in the Applied University (5 %).

[Brochure \(pdf\)](#)

Public research

Public research aims to produce scientific knowledge that is available in public. The knowledge can be utilised in product development, development of national regulations and design guidelines regarding built environment, international standardization and university teaching. The long-term target is to improve the well-being of people in built environment. Public research projects can be partially funded by companies.

The permanent expert areas:

- building and environmental acoustics (e.g.. product testing, measurements, modeling, development),
- ventilation (e.g. product testing, measurements, modeling, development),
- environmental psychology and epidemiology (e.g. noise annoyance in apartments or perception of indoor environment in offices),
- experimental psychology in laboratory (e.g. effect of noise or temperature on work performance), and
- psychophysical experiments in laboratory (e.g. noise annoyance, thermal comfort).

Recent experiment involves also psychophysiological measurements.

The research objects:

- building products (e.g. walls, acoustic boards, machines, furniture, ventilation devices),
- buildings and their physical indoor environment conditions (e.g. offices and apartments),
- perceptions of occupants in built environment (e.g. surveys in offices and apartments), and
- behavior and experiences of humans (subjects voluntarily participating our laboratory experiments).

The public projects are listed on the right side of this page. Projects involve collaboration with national and international research institutes and universities.

The publications of the group since 2016 are listed [here](#).

Laboratory facilities

Approximately 50% of the research and service work is conducted in laboratories. The following laboratory spaces are available for the group:

1. FINAS-accredited acoustic test laboratory T293 (3 reverberation rooms in Turku),
2. laboratories of psychophysics and experimental psychology (3 rooms in Turku),

3. anechoic room (in Salo), and
4. ventilation laboratory (large hall and engine room in Turku).

Laboratories 1 and 2 move to a new campus building in 2020.

Services to companies

Customized services are offered to companies in the following areas:

- [FINAS -accredited acoustic laboratory tests,](#)
- acoustic and noise measurements in buildings and built environments,
- ventilation surveys in workplaces,
- questionnaire surveys in workplaces or residential environments,
- product development of building products,
- consultation services, and
- training services in English or Finnish.