

**PERSONAL DETAILS**

**Citizenship** Finnish

**Contact details** tapio.kaasalainen@tuni.fi  
+358 50 301 5525  
Tampere University, School of  
Architecture, P.O.Box 600, 33101  
Tampere, Finland

[TUTCRIS researcher profile](#)  
[ORCID](#)  
[LinkedIn](#)  
[ASUTUT - Sustainable Housing Design](#)

**PRESENT ROLES**

**Doctoral student and teacher in housing design**  
Tampere University School of Architecture.

**Researcher and co-lead** in the research project Asuminen muutoksessa (Housing in transition), Tampere University School of Architecture.

**RESEARCH FOCUS**

**Ageing and housing:** current and future needs and solutions for independent and assisted living for the ageing population.

**Typological housing stock study:** statistically defined representative type models for examining large building stocks.

**Generalizable renovation solutions:** analysis of refurbishment and repurposing potentials for widely applicable design principles.

**DEGREES**

**Master of Science (Architecture), with distinction**  
Tampere University of Technology, School of Architecture, 2015.

**Bachelor of Science (Architecture)**  
Tampere University of Technology, School of Architecture, 2015.

**Doctor of Science in Technology (ongoing)**  
Tampere University, Doctoral Programme in Built Environment, from 2015. Select extracts from completed studies:

- **The Effect of Housing Quality on the Well-being of the Elderly**, 2020, 2 cr.
- **Research Perspectives on Mass Housing**, 2020, 2 cr.
- **Prefabrication Housing Technologies**, 2019, 2 cr.
- **Life Cycle Impacts of Structural Systems in Housing**, 2019, 3 cr.
- **Spatial Design and Its Contributing Factors in Assisted Living for the Elderly**, 2017, 12 cr.
- **Determinants of Design in the Finnish Multi-Storey Apartment Building Stock**, 2017, 4 cr.
- **Authoring and Peer-Reviewing Scientific Articles 1-3**, 2016-2017, 5 cr total.

**OTHER EDUCATION**

**OHO! - Yhdenvertainen toimintaympäristö**, 9.9.2019-30.11.2019, 5 cr. Tampere University of Applied Sciences, University of Turku.

**How to Teach Multicultural Groups?** 4.11.2019-12.12.2019), 1 cr. UNIPS, University of Turku.

**Competency-Based Teaching and Curriculum**, 2.9.2019-25.11.2019, 1 cr. UNIPS, University of Turku.

**Lecturing and expertise**, 10.9.2019-28.10.2019, 1 cr. UNIPS, University of Turku.

**How to plan my teaching**, 10.9.2019-28.10.2019, 1 cr. UNIPS, University of Turku.

**Becoming a teacher**, 10.9.2019-28.10.2019, 1 cr. UNIPS, University of Turku.

**Ida Indoor Climate and Energy training**, 15.8.2019. Tampere University, EQUA Simulation AB.

**PREVIOUS EMPLOYMENT**

**Project manager** in the project *Comprehensive development of nearly zero energy municipal service buildings (COMBI)*, for the School of Architecture subproject *The effect of architectural design on energy efficiency*, Tampere University of Technology, 2015-2018. **Responsible leader for the subproject 2017-2018.**

**Researcher** in the project *Repetitive Utilization of Structural Elements (ReUSE)*, Tampere University of Technology, 2015.

**Research assistant** in the project *Modification Models for Mass Housing Blocks and Flats (MuutosMallit)*, Tampere University of Technology, 2013-2015.

**SELECT PUBLICATIONS**

**Kaasalainen, T. & Huuhka, S.** 2020. *Existing apartment buildings as a spatial reserve for assisted living*. International Journal of Building Pathology and Adaptation, ahead-of-print. doi: 10.1108/IJBPA-02-2020-0015

**Kaasalainen, T., Lehtinen, T., Mäkinen, A., Moisio, M., Hedman, M. & Vinha, J.** 2020. *Architectural window design and energy efficiency: Impacts on heating, cooling and lighting needs in Finnish climates*. Journal of Building Engineering 27. doi: 10.1016/j.jobe.2019.100996

**Lindberg, T., Kaasalainen, T., Moisio, M., Mäkinen, A., Hedman, M. & Vinha, J.** 2018. *Potential of space zoning for energy efficiency through utilization efficiency*. Advances in Building Energy Research. doi:10.1080/17512549.2018.1488619

**Kaasalainen, T. & Huuhka, S.** 2016. *Homogenous homes of Finland: 'standard' flats in non-standardized blocks*. Building Research & Information, 44(3), 229-247. doi: 10.1080/09613218.2015.1055168

**Kaasalainen, T. & Huuhka, S.** 2016. *Accessibility improvement models for typical flats: mass-customizable design for individual circumstances*. Journal of Housing for the Elderly, 30(3), 271-294. doi: 10.1080/02763893.2016.1198739

Huuhka, S., **Kaasalainen, T.**, Hakanen, J. H. & Lahdensivu, J. 2015. *Reusing concrete panels from buildings for building: Potential in Finnish 1970s mass housing*. Resources Conservation and Recycling, 101, 105–121. doi: 10.1016/j.resconrec.2015.05.017

Vinha, J., Laukkarinen, A., **Kaasalainen, T.**, Pihlajamaa, P., Teriö, O., Jokisalo, J., Annala, P., Harsia, P., Hedman, M., Heljo, J., Kallioharju, K., Kauppinen, A., Kero, P., Kivioja, H., Lehtinen, T., Marttila, T., Moisio, M., Mäkinen, A., Paatero, J., Raunima, T., Ruusala, A., Sankelo, P., Sekki, P., Sirén, K., Tuominen, E., Tuominen, O., Uotila, U. & Uusitalo, S. 2019. *Comprehensive development of nearly zero-energy municipal service buildings (COMBI). Tutkimushankkeen johdanto- ja yhteenvetoraportti*. [Introductory and summarizing report for the research project.] Tampere: Tampere University of Technology, Laboratory of Civil Engineering, Structural Engineering, research report 168. 45 p.

**Kaasalainen, T.**, Lehtinen, T., Moisio, M. & Hedman, M. 2018. *Ikääntyneiden tehostettu palveluasuminen – Tilallisten ratkaisujen tehokkuudesta ja toimivuudesta*. [Assisted living for the elderly – On the efficiency and functionality of spatial design solutions.] Tampere: Tampere University of Technology, Housing Design, publication 33. 70 p.

Lehtinen, T., Papinsaari, A., **Kaasalainen, T.**, Moisio, M. & Hedman, M. 2018. *Peruskoulu ja energiatehokkuus – Tilallisista ja toiminnallisista suunnitteluperiaatteista*. [Comprehensive schools and energy efficiency – On spatial and functional design principles.] Tampere: Tampere University of Technology, Housing Design, publication 34. 98 p.

Moisio, M., **Kaasalainen, T.**, Lehtinen, T. & Hedman, M. 2018. *Energiatehokkaan arkkitehtisuunnittelun ohjekortisto*. [Instruction card file for energy efficient architectural design.] Tampere: Tampere University of Technology, Housing Design, publication 32. 148 p.

**Kaasalainen, T.** 2015. *Ikääntyvät asukkaat ja asunnot – Vaiheittaiset esteettömyysparannukset lähiökerrostaloissa*. [Aging residents and residents – Multi-phased accessibility improvements in multi-storey apartment buildings.] Tampere: Tampere University of Technology, Built Environment in Transition, publication 1. 278 p.

## AWARDS AND RECOGNITION

**Encouragement grant of the Finnish Foundation for Technology Promotion 2020**. Granted for the research topic 'The spatial refurbishment and repurposing needs and potential in the Finnish apartment building stock to facilitate sustainable, inclusive, and efficient housing solutions for the ageing population'.

**Scholarship of the Support Foundation for Research in Tampere 2016**. Personal grant awarded for talented researchers conducting postgraduate studies in Tampere University of Technology or Tampere University.

**Casa Humana award 2015 of the Housing Fair Finland Co-op, First Prize**. Granted for notable work towards advancing quality of living, for the master's thesis in architecture *Ikääntyvät asukkaat ja asunnot – Vaiheittaiset esteettömyysparannukset lähiökerrostaloissa*.

**Accessible Finland prize 2015 of the Finnish Association of People with Physical Disabilities and the Building Information Foundation RTS, Honorary Mention**. Granted for carrying out work with a broad vision on accessibility and the Design for All principle, for the master's thesis in architecture *Ikääntyvät asukkaat ja asunnot – Vaiheittaiset esteettömyysparannukset lähiökerrostaloissa*.

## POSITIONS OF TRUST

**Vice member of the Degree Programmes' Planning Committee in Architecture**, School of Architecture, Tampere University, 4/2019–present.

**Vice member of the Science Council of Tampere University**, Tampere University, 2/2020–present.

## SELECT PRESENTATIONS

**Arkkitehtonisten ratkaisujen vaikutus palvelurakennusten energiatehokkuuteen**. [The effect of architectural design decisions on the energy efficiency of service buildings.] The final seminar of the project Comprehensive development of nearly zero energy municipal service buildings (COMBI) in Tampere, aimed at professionals in various construction related fields, 1/2019.

**Ikunasuunnittelun vaikutus rakennuksen energiankulutukseen**. [The effect of window design on the energy consumption of a building.] The final seminar of the project COMBI (see above) in Tampere, 1/2019.

**Kerrostalojen korjausrakentaminen ikääntyneiden näkökulmasta**. [Apartment building renovations from the perspective of the elderly.] A meeting of the Older people's council of the city of Tampere, 3/2016.

**Ikääntyvät asukkaat ja asunnot – kotona asuminen ja korjausrakentaminen lähiökerrostaloissa**. [Aging residents and residences – living at home and renovations in multi-storey apartment buildings.] A professional invitational seminar titled Hyvä koti ja asuinympäristö ikääntyville [Good home and living environment for the aging] organized by the City of Turku, Lounais-Suomen Loma ja Virkistys ry, and Turun Lähimmäis- ja palveluyhdistys ry, 4/2016.

## TEACHING EXPERIENCE

**Housing Design 1 / Architectural Design IV, 10–12 cr, TAU School of Architecture, 2015–present**. A mandatory third year course, where students design an apartment block in an urban environment. Full course implementation in cooperation with colleagues, including planning, coordination, lecturing, tutoring and grading.

**Housing Design Professional Course / Architectural Design V, 10–12 cr, TAU School of Architecture, 2015–present.** A mandatory fourth year design task based course with a focus on a changing type of specialized housing such as assisted living, affordable apartments or intergenerational housing. The course is held together for both Finnish and international students. Full course implementation in cooperation with colleagues, including planning, coordination, lecturing, tutoring and grading.

**Housing Design Advanced Course (A+B) / Experimental Architectural Design, 10–15 cr, TAU School of Architecture, 2015–present.** A mandatory fifth year primarily design based course that focuses on changing specialized design topics such as energy efficiency or flexible housing solutions and requires the students to take a more research based approach than the professional course. The course is one of a series of advanced courses from which students have to choose to complete their master's studies in architecture. Full course implementation in cooperation with colleagues, including planning, coordination, lecturing, tutoring and grading.

**Housing Design from the 1860s to present, Aalto University Department of Architecture, 2019.** Guest lecture on Finnish mass housing development and construction.

**Basics of Building Renovation / Architectural Construction IV, TAU School of Architecture, 2015 & 2019.** Guest lectures on the possibilities of accessibility improvements in typical Finnish multi-storey apartment blocks from the 1960s to 1980s.

**Advanced Building Renovation, TAU School of Architecture, 2018.** Guest lecture on the development of the Finnish elderly care system and the typical spatial design models of assisted living for the elderly in Finland today. Guidance sessions to assist in the students' design task which was focused on repurposing an abandoned industrial property.

## THESIS SUPERVISION AND EVALUATION

**Master's thesis supervision or evaluation:** Heidi Sukanen. 2020. *Housing Architecture in a Time of Climate Emergency – Climate change and overheating in buildings*; Aleksi Haho. 2020. *Erillistaloyhtön kehittäminen – omakotisuus tiiviissä pientalokorttelissa*; Miia Ollila. 2019. *Kalastajatie 6 - ryhmäkoti Heinolaan*; Verna Isomursu. 2019. *Erityisryhmien erilaiset asuinratkaisut ja niiden toteuttaminen käytännössä*; Mimmi Koriseva. 2018. *Asuntorakentamisen mahdollisuudet Vaskiluodossa*; Samu Pitkänen. 2018. *Narali Purnima - Ideakilpailu yhdistetystä asumisesta Mumbaihin*; Tuula Tuomi. 2018. *Kohtuuhintainen asuminen - Case Martinlaakso*; Annina Ruuhilahti. 2017. *Lupu & Timi - Asuinkortteli Vartiosaareen*; Outi Pirhonen. 2016. *Elämäntapa ja yksilöllisyys asumisessa - 10 konseptia Intiankadulle*; Kalle Tuomola. 2016. *Esteettömyysmääraysten soveltaminen opiskelija-asuntorakentamisessa*.

**Bachelor's thesis supervision and evaluation:** 95 theses completed in connection to the course Housing Design 1, 2016–2019; 5 written theses year 2000 onwards.