



CURRICULUM VITAE 2.6.2022

Personal details

Karjalainen Markku Antero (ORCID 0000-0003-4374-3122)

- Gender: Male
- Date and place of birth: 4.12.1961 in Oulujoki, Finland (60 yr.)
- Citizenship: Finnish
- Family: Married (1982–); 3 children (born 1983, 1986, 1996); 4 grandchildren (born 2010, 2011, 2013, 2013)
- Military rank: 1st lieutenant
- Current residence and contact details:

Kaakkuritie 1 B 17, 90150 OULU (home), markku.karjalainen@tuni.fi Phone: +358-40-583 2127.

Education and degrees awarded

- Associate professor (Building Processes, Architectural Construction, Building Materials), Tampere University (TAU), School of Architecture, 1.10.2015—
- Head of School of Architecture, Tampere University of Technology 1.1.2017 31.12.2018.
- Title of Docent: Timber construction and wood architecture, University of Oulu, 1.3.2008—
- **Doctor of Science (Technology)**, University of Oulu, Department of Architecture, **22.2.2002**. Doctoral thesis topic: "Finnish multistory apartment building at the forefront of development of timber construction."
- Master of Science (Architecture) University of Oulu, Department of Architecture, 21.11.1988. Studies completed "very well" in 5 yr 2 mo. Master's thesis topic: "Hiidenportti National Park utilization plan."
- Matriculation examination, Laanila Upper Secondary School in Oulu, 1980.

Linguistic skills

- Finnish: Mother tongue
- English: Understanding: C1; Speaking: B1; Writing: B2.
- Swedish: Understanding: B2; Speaking: A2; Writing: A2.

Current position

Associate professor (Building Processes, Architectural Construction, Building Materials), Tampere University (TAU), School of Architecture; 1.10.2015– (permanent position)

Previous work experience

- Ministry of Employment and the Economy (TEM): Head of development of the national timber construction program (job description: leader of the government's timber construction program and top national specialist in timber construction); 1.1.2012–30.9.2015
- Project manager of the national Modern Wooden Town project and the Wood Studio at the University of Oulu, Department of Architecture; 1.1.1999–31.12.2011 (funded by: Ministries: MMM, SM, YM, TEM + Suomen Metsäteollisuus ry. / Finnish Forest Industries, Puuinfo Oy / Finnish Timber Council)
- Project manager of Oulu's Puu-Linnanmaa multistory timber apartment building experimental construction area, Wood Studio's project manager, and project coordinator of the national Modern Wooden Town project funded by TEKES; 1.3.1997–31.12.1998
- Lecturer and assistant in the architectural design laboratory of the University of Oulu, Department of Architecture; 1.12.1992–28.2.1997
- Architects' office Jouni Koiso-Kanttila Oy, Oulu; 1.9.1987–30.9.1997
- Architects' office Laatio Oy, Oulu; 6.6.1984-31.8.1987
- Own design work as an architectural designer (30 projects); 1984–2022; mainly private houses, summer cottages, renovation of raw houses and block of flats.

Research merits – Research funding, leadership and supervision experience

- As an Associate professor in TAU; 1.10.2015 2.6.2022: Experienced in applying for research and project funding € 1,369,231 for own projects:
- TAU's Graduate School of Industrial Timber construction (2021) awarded with the Finnish mechanical wood sector development Rantasalmi award, the so-called "Puu-Finlandia" award, together professors Markku Karjalainen and Sami Pajunen, 10.5.2022: € 20,000 €.
- Dovetail board test set; Marjatta and Eino Kolli Foundation (2021 2022): € 60,000.
- Science Center Heureka Outdoor Exhibition Area Galileo Wood Structure Idea Competition (Autumn 2021): € 10,000 + 2nd phase (Spring 2022): € 5,000.
- Facade Association's apartment building renovation idea competition (autumn 2021): € 8,500
- Southwest Finland is built of wood (LSpuu) (2021 2023) for TAU: € 32,240
- For the Building Technology Research of the Graduate School of Industrial Wood Construction (2021 2022) Funding € 25,000 from the Vocational Training Foundation for Woodworkers.
- Dovetail board Marie Curie Funding (Emre Ilgin) (2021 2023) € 202,680
- tPUUr (2021 2022) CM funding for TAU \in 47,050 Wood expertise for Pirkanmaa (2021 2022) ESF funding for TAU \in 230,354
- Graduate School of Industrial Wood Construction (2021 2026) YM funding for TAU € 194,907
- New forms of housing Consolidating living suburbs (AsuMut) ARA funding for TAU; € 120,000.

- Productivity jump projects in the construction of wooden apartment buildings (2020 2022) CM funding for TAU; "Forging of Sampo" and "Trinity"; tot. € 40,000
- Facade Association's apartment building renovation idea competition (autumn 2020): € 8,500
- "Santalahti Bird Tower, Tampere" student idea competition (2020); € 2,000
- "KORPUT Research of tall wooden apartment buildings" project (2019 2020, ARA funding); € 25,000
- Facade Association's apartment building renovation idea competition (autumn 2019); € 8,500
- Student housing idea competition (autumn 2019, YM funding); € 16,100
- CASE VERMO project (summer 2019, funding from YM and Vermon Ravirata Oy); € 35,000
- The share of the TAU / BEN / ARK unit in the PIRSSI project (Transition to fragmented working life) (2019 2020); € 37,800
- Vantaa Multipurpose Ice Arena student competition (spring 2019); € 10,000
- Construction of wooden apartment buildings for growth in Pirkanmaa, PKRKP (2019 2021); € 111,000
- Future Stable project / YM (Johanna Anttila's diploma thesis, spring 2018); € 29,000
- Facade Association's apartment building renovation idea competition (autumn 2018); € 8,500
- Finnish Transport Agency's level crossing control stall idea competition (autumn 2018); € 8,000
- Renovation project for apartment buildings in the Amur area of Tampere (autumn 2018); € 8,000
- RT card order work (Tokset Oy) (spring 2018); € 2,000
- Authentic Training Center Functions Student Idea Competition (Spring 2018); € 5,000
- Tampere Amuri blocks student competition (spring 2018); € 8,000
- Vaasa's Wooden Tower of Innovation student competition (spring 2018); € 7,000
- Partnership zoning development project (Pohjola Rakennus Oy), diploma thesis (2018 2020); € 10,000
- Tampere Lake Nature Center (spring 2017); € 10,000
- Kindergarten and school concept with space element technology, diploma thesis (autumn 2016); € 10,000
- Resident survey of wooden apartment buildings (YM), (autumn 2016); € 5,000
- Rääkkylä's grandmother student competition (spring 2016); € 10,000
- Youth Center Marttinen Beach Sauna Student Competition (Spring 2016); € 20,000
- Klingendahl's Balcony Student Competition (Fall 2015); € 5,000
- In charge of various research projects / member of the steering and evaluation team in approx. 70 projects in 1995–2015. Experienced in applying for research and project funding. Applied for and obtained approx. € 2.5 million in funding for own projects in 1997–2011 in the University of Oulu, Department of Architecture.
- As an Associate professor in TAU; 1.10.2015 2.6.2022: In charge of various research projects / member of the steering / evaluation / research project management teams (approx. 24 projects):

- Member of the preparatory working group for the position of Tenure Track Professor in Sustainable Building Construction (11/2021 4/2022) nominated by the Department of Architecture at Aalto University.
- "Expert Member of the Scientific Support Group for Public Wood Construction" (1.1. 1.12.2021) appointed by the Ministry of the Environment to support projects funded by the Ministry of the Environment's wood construction program.
- Southwest Finland is built of wood (LSpuu) (1.8.2021 31.12.2023), ELY Center for Southwest Finland, € 382,202, TAU's share € 32,240, TAU / ARK unit's director.
- Marie Curie Research Project; Dovetailed Massive Wood Board Elements for Multi-Story Buildings (1.8.2021 31.7.2023), € 202,680. Responsible director of the research project.
- "Research on Competitiveness in the Wood Products Sector TutKi project (1.3.2016 30.9.2019), € 601,245; Finnish Forest Center / Luke; member of the steering group.
- tPUUr (15.1.2021 31.8.2022), € 327,500, TAU's share € 68,050, TAU / ARK unit's director. Wood expertise for Pirkanmaa (1.2.2021 31.12.2022), ESF; € 799,493, the share of the Tampere University is € 230,354. Responsible director in the work package TP2 of the ARK unit.
- Graduate School of Industrial Wood Construction € 278,439, Director of Responsibilities for the TAU / ARK unit.
- Forging of Sampo (1.9.2020 31.8.2022), € 440,000, TAU's share € 70,000, TAU / ARK unit manager. Triple jump (1.9.2020 31.8.2022), € 440,000, TAU share € 70,000, TAU / ARK unit manager
- AsuMut project, YM / ARA suburban program (1.8.2020 31.12.2022), € 360,000, TAU / ARK unit share € 120,000, ARK unit share manager.
- Member and vice chairman of the steering group for the vision and strategy for wood construction in Kanta-Häme 2021 2030 (2021).
- PUKKI Member of the steering group of the project for the construction of wooden apartment buildings in sustainable real estate development and circular economy networks (2020 2022).
- KORPUT Survey of tall wooden apartment buildings (1.12.2019 31.7.2020), € 33,000; project manager.
- PIRSSI project, ESF (1.9.2019 31.12.2021), € 445,223, TAU / ARK unit contribution € 37,800, responsible director of the project's ARK unit contribution.
- CASE VERMO wood construction alliance for user-oriented planning of the renovation of a large public building (1.6.2019 31.12.2020), € 50,000; project manager.
- Expert evaluator member of the project applications for the second application round (spring 2019) of the Ministry of the Environment's Wood Construction Program for Growth and Development from Wood (2016 2021) 20.5. 7.6.2019
- Construction of wooden apartment buildings for growth in Pirkanmaa project PKRKP (1.1.2019 31.12.2021), € 413,439; Responsible director of the Tampere University share (€ 111,600) in the project.
- New Winds in Wood Construction project (September 1, 2018 August 30, 2020), € 210,103; Finnish Forest Center, member of the steering group.
- Member of the Taskforce design team for the renewal of the entrance tests for the DIA co-selection

architecture from 1 January 2018 to 25 September 2018 (representative of TUT).

- PRT-Pro, Member of the Board (4/2017 12/2017). As the second expert reviewer of the applicants for the position of Lecturer in Civil Engineering at Aalto University (8/2017).
- Tampere Wood Construction Promotion Program 2016 2020; City of Tampere, Finnish Forest Center, TAU, TAMK, Luke; member of the steering group.
- "PUUNET" project (September 1, 2015 June 31, 2018), € 552,970; TTS Työtehoseura, Northeast Finland Adult Education (KSAK), Lapland; member of the steering group.

In the awards committees of the architectural competitions / awards (28 cases):

- Oulu Housing Affair 2025: Architectural Competition (April 29, 2022 October 17, 2022) of the Tallest Multi-Story Timber Frame Building (16-story) in Finland; member of the award committee.
- Wood Award 2021; member of the award committee, award ceremony on November 4, 2021 at the Wood Day webinar at the Helsinki Fair Center.
- Science Center Heureka outdoor exhibition area Galileo wood structure idea competition for Master's degree students of Aalto University, TAU and the University of Oulu (September 17, 2021 June 30, 2022); member of the award committee.
- Idea competition for the renovation of an apartment building funded by the Public Association, for students of architecture at Aalto University, the Tampere University and the University of Oulu, as well as Metropolia, Savonia, TAMK and OAMK (6.9.2021 10.12.2021); member and chairman of the award committee.
- Wood Award 2020; Chairman of the award committee, award ceremony on 5 November 2020 at the Wood Day webinar at the Helsinki Fair Center.
- Seinäjoki Locomotive Hall idea change competition for students of the Building Heritage Transformation course at the Department of Architecture, Tampere University (10.9.2020 25.2.2021), member and chairman of the award committee.
- Karviaistentie 12 Peeling renovation and elevation of an apartment building block with two wooden floors. Architectural competition (31.8. 4.12.2020); as an expert in wood construction.
- Idea competition for the renovation of an apartment building funded by the Facade Association for students at Architecture School at Aalto University, the Tampere University and the University of Oulu (2.9.2020 9.12.2020); member and chairman of the award committee.
- Santalahti Bird Tower; Tampere Idea Competition (January 22 March 14, 2020) For students of the Department of Architecture at the Tampere University, member and chairman of the award committee.
- TAU / TOAS student housing idea competition based on wood construction (24.10.2019 31.12.2019); member and chairman of the award committee.
- Idea competition for the renovation of an apartment building funded by the Facade Association for students of architecture schools at Aalto University, the Tampere University and the University of Oulu (4 September 2019 11 December 2019; member and chairman of the award committee).
- House of the Millennium Log House Competition for students (May 8, 2019 September 20, 2019); member of the award committee.
- Performance stage for Tampere Vuolteentori idea competition for students (20.5.2019 19.6.2019);

member and chairman of the award committee.

- Vantaa Multipurpose Ice Arena architecture student idea competition (16.1.2019 27.3.2019); member and chairman of the award committee.
- Member of the prize committee of the Amur Quarter Architecture Ideas Competition (April 25, 2018 September 21, 2018).
- Idea competition for the renovation of an apartment building funded by the Public Works Association for students at Architecture School at Aalto University, Tampere University of Technology and the University of Oulu (22.10.2018 31.12.2018; member and chairman of the award committee).
- Ideation of the TRL equipment room (level crossing warning facility) Architecture idea competition for students of the 2018 Professional Course in Architecture at the TUT Architecture Laboratory (September 4, 2018 October 10, 2018), member and chairman of the award committee.
- Housing reform Helsinki Housing 2020 architectural competition (September 3, 2018 December 14, 2018); member of the award committee.
- Member and chairman of the award committee of the Aitoo Training Centre's Ideas Competition (March 22, 2018 May 29, 2018).
- Vantaa Puu-Kivistö's start-up block design and plot handover competition (February 14 May 31, 2018); invited Expert in Wood Construction Expert to evaluate competition entries.
- Vaasa's Wooden Tower of Innovation architecture student idea competition (17.1.2018 20.3.2018); member and chairman of the award committee.
- Idea competition for the renovation of a block of flats funded by the Facade Association for students of architecture schools at Aalto University, Tampere University of Technology and the University of Oulu (June 1, 2017 September 29, 2017; member and chairman of the award committee).
- Log-built townhome idea competition for students (April 19, 2017 September 29, 2017); member of the award committee.
- AEL Malminkartano block Architectural competition for new residential blocks (June 2, 2017 October 6, 2017); member of the award committee.
- Member of the award committee of the Tampere Lake Nature Center architecture idea competition (18 January 2017 27 March 2017).
- Rääkkylä 's grandmother residential area for returnees, student idea competition, TUT, Department of Architecture (February 24 May 31, 2016), member of the award committee.
- Rantasauna Youth Center Marttinen, member and chairman of the prize committee of the Virrat student idea competition (8.10.2015 25.11.2015).
- Klingendahl balcony idea competition for TUT architecture students (September 1 October 2, 2015), member and chairman of the award committee.

Merits in teaching and pedagogical competence

<u>During 1.10.2015 – 2.6.2022</u> at the Tampere University (TAU), School of Architecture as an Associate professor (Building Processes, Architectural Construction, Building Materials):

- Thesis supervisor: Dissertation 30.8.2019, Architect Juha Eskolin; "Suurten puurakenteiden arkkitehtoniset ominaisuudet". TAU, School of Architecture.

- Nowadays under supervision 6 doctoral thesis.
- 1^{st} Examiner / Supervisor of Master thesis of architecture; 47 MSc diploma works (average grade = 3,6 in scale 0-5) + nowadays as an 1^{st} Examiner under supervision 10 MSc diploma works.
- 1st Examiner / Supervisor of Bachelor's thesis; 33 BSs thesis (average grade 4,5 in scale 0-5).
- University's pedagogical studies: 5 + 5 cr (2018).

Awards, prizes and honors

- TAU's Graduate School of Industrial Timber Construction (2021) awarded with the Finnish mechanical wood sector development Rantasalmi award, the so-called "Puu-Finlandia" award (€20,000) together with Professor Sami Pajunen, 10.5.2022.
- Awarded with Puumies magazine's 14th Wood Sector Communication award, 2.9.2015.
- Awarded as the University of Oulu, Department of Architecture's Wood Studio's project manager with Rakennustietosäätiö RTS's Oulun Rakennustieto award, 9.12.2009.
- Awarded with the national Puupalkinto 2003 award for participation as a Project manager in the realization of Oulu's Puu-Linnanmaa, 26.9.2003.
- Doctoral thesis was awarded with the University of Oulu, Department of Architecture's post-graduate degree award, 25.2.2003.
- Awarded with the Finnish mechanical wood sector development Rantasalmi award, the so-called "Puu-Finlandia" award together with Professor Jouni Koiso-Kanttila, 26.10.2000.
- Master's thesis was awarded with STS / KAL's national Master's thesis award, 19.4.1989.

Scientific and social impact of research / Position of trust in society and other societal merits

A. Specialist tasks

- Organizer of Timber Construction RoadShow2015 seminar events in ten university of applied sciences localities
- Member of the steering team of the City of Tampere TEM TAU TAMK Luke (Metla) timber construction collaboration project 2014-2020
- Organizer of Timber Construction RoadShow2014 seminar events in seven university of applied sciences localities
- Organizer of timber construction RoadShow2013 seminars in 16 universities of applied science localities across Finland
- Member of the steering team the City of Espoo Aalto University TEM joint project in timber construction 2012–2015
- Organizer of RoadShow2011 seminars for dissemination of timber construction information in 11 cities across Finland
- Specialist and member of the finalizing team in the compilation of the RT card, "PLANNING A DENSE WOODEN HOUSE AREA Modern Wooden Town (RT 99-10779)
- Specialist in multistory timber apartment building construction and compiler of exam questions in RIL's timber construction qualification training (= determining 1st class designers of timber structures)
- Statement about the Wood Building's Wet Rooms RT card for Rakennustietosäätiö

- Specialist witness in the Market Court in Helsinki; statement concerning the breathability and hygroscopicity of wood fiber and flax insulation
- Specialist's statement in the Use of Tall Oil as a Protective Agent for Wood research project coordinated by the University of Oulu's Process Engineering Laboratory
- Member of the steering team for the "Timber and area construction demonstration center" preliminary study project 2009–2010 administered by Lappeenranta Innovation Oy
- Asumisen Osaamisklusteri (2007–2013) Advisory Board's specialist member
- Council of State-appointed member of the work committee and specialist secretary for the Timber Construction Promotion Program 2004–2010 preparatory work group
- Member of the board of the Kärsämäki Shingle Church Fund
- Specialist member of the Northern Ostrobothnia Climate Strategy work group, appointed by the University of Oulu

B. International wood construction specialist presentations

As an associate professor 1.10.2015 – 2.6.2022 (10 presentations):

- Video presentation: "A statistical Study on Multis-Story Timber Residential Buildings (1995 2021) in Finland, International Congress Livenarch VII 2021; Trabzon, Turkey, 28 30 September 2021.
- Video presentation: "Possibilities of wood construction"; Lunawood International wood construction webinar, 22 September 2021.
- "Finnish Multi-Story Timber Frame Buildings"; Smart City Mindtrek 2020 -seminar Carbon neutral building & energy; session: Toward carbon-neutral building through carbon calculating; 28th January 2020, Tampere, Finland.
- "Timber apartment building resident and builder surveys support timber construction in Finland", 11th Annual Symposium of Architectural Research in Finland, 3rd October 2019, Tampere, Finland.
- "A study of the Finnish multi-story timber frame apartment buildings 1995 2018", Conference S.ARCH 2019, 5 7 March 2019, Havana, Cuba.
- "A study of the frame designs of Finnish timber residential apartment buildings and forms of ownership of apartments", 10th Annual Architectural Research Symposium in Finland 2018, 26.10.2018, Aalto University, Otaniemi, Espoo.
- "Results of large survey of residents and developers of multistory timber apartment buildings in Finland", Infrastructure 2018 Conference, April 19 21, 2018, Dubai, Arab Emirates.
- "Survey of inhabitants of Finnish multi story-timber frame houses in Finland", 6th International Alvar Aalto meeting on contemporary architecture Technology and humanism, 14.9.2017, Seinäjoki City Hall, Seinäjoki.
- "Multistrory apartment buildings are becoming common in forested Finland Results of resident surveys point the way to the future of multistory timber apartment buildings", ACE 2017 Conference (5^{th} Annual International Conference on Architecture and Civil Engineering), May 8-9, 2017, Singapore.

- "Multi-Story Timber Frame Buildings in Finland", International Conference on Sustainable Civil Engineering, June 20 – 21, 2016, Cape Town, South Africa.

Years 2002 – 2015 (37 presentations):

- "Wood Construction in Finland" presentation at the EU's bio-economy network's official representation's visit to Porvoo, 30.1.2015
- "Wood Construction in Finland" presentation at the Finnish-Russian Wooden Construction seminar at the Trade Representation of the Russian Federation in Helsinki, 11.11.2014
- "Statement of wood construction in Finland" lecture in Espoo 19.9.2012 for members of the French Abi-Bois network on a timber construction excursion in Finland
- Presentation: "The status of wood construction in Finland" at the 1st International Hozbau-Forum Nordic in Växjö, Sweden, 30.–31.8.2012
- Opening of a timber construction and ecological construction exhibit in Hamburg, Germany, 22.9.—24.9.2011 and lecture on the topic: "Actual Wood Architecture in Finland"
- Producer of the content of an international Ecological Timber Construction exhibit and specialist lecturer at a Finnish-French timber construction seminar arranged in connection with the exhibit in Paris, 1.–2.12.2010
- Specialist lecturer at timber construction seminars arranged in St. Petersburg 15.4.–17.4.2010 and 22.–23.9.2010 and Vyborg 20.–21.10.2010
- Participation in the WCTE 2010 (World Congress of Timber Engineering), Garda Lake, Trentino, Italy, 20.–24.6.2010. Congress presentation on a fire test of a wooden exterior wall and a hollow-core floor slab. Additionally, a small exhibit was erected in the congress facilities for international marketing of the Finnish PUU publication.
- "Wood architecture and timber construction in Finland" presentation for a Russian construction sector delegation in Helsinki, 17.7.2007, + specialist guide on a Helsinki area timber construction excursion arranged for the delegation
- "Towards wooden residential areas" presentation at an international seminar of the Modern Wooden Town graduate school at TKK in Otaniemi, 28.6.2007
- "Opportunities for the wood product sector and timber construction" presentation at a meeting of the Nordic Council of Ministers at the NordFram seminar in Pori, 27.6.2007
- "Modern Wooden Town project (1997–2013) in Finland" presentation for Russian construction experts in St. Petersburg, Russia, 19.6.2007
- "Finnish timber construction and the Modern Wooden Town project" presentation for a Polish construction sector delegation in Kokkola, 30.5.2007
- "Finnish fire code" presentation for Russian wood and fire experts in Kotka, 17.4.2007
- Participation in the XXXIV IAHS World Congress on Housing in Napoli, Italy, 20.–23.9.2006 + excursion to Rome. Congress presentation in Napoli on the topic: "Old wooden milieus serve as models for modern wooden towns in Finland" together with architect Risto Suikkari
- Arranger of a Scottish timber builders' excursion to Finland and specialist in timber construction in Helsinki 12.6.2006, Porvoo 13.6.2006, and Oulu 15.6.2006; lecture on the topic: "Wood architecture and timber construction in Finland the standpoint of fire safety" 12.6.2006 in Helsinki
- "Modern Wooden Town Project in Finland" presentation at a Finnish-Russian timber construction seminar in Syktyvkar, Kom Republic, Russia, 28.3.–31.3.2006
- "Wood architecture and timber construction in Finland" lecture for foreign exchange students at the University of Oulu, Department of Architecture, 1.12.2005
- Participation in the XXIII IAHS World Congress on Housing, Pretoria, South Africa, 27.9.—30.9.2005. Presentation on the topic: "The Modern Wooden Town Project (1997–2006) in Finland"
- "Modern Wooden Town project and experiences of regional construction sites in Finland" lecture at the Architect and Building Fair in Nizhniy Novgorod, Russia, 18.–19.5.2005

- "Regional construction experiences in Finland" lecture in St. Petersburg, Russia, at a seminar for specialists in regional construction of wooden small-scale houses, 3.2.2005
- "Wood in architecture and construction" presentation at the WOOD NOW seminar in Radomin Jedlina, Poland, 24.11.2004
- "Multistory houses in wood" lecture at TKK in Otaniemi for foreign exchange students, 19.11.2004
- Participation in ICA2004 The 18th International Congress on Acoustics in Kyoto, Japan, 2.–8.4.2004. Presentation on the topic: "Pan-Scandinavian experiences in controlling the sound insulation of multistory timber apartment buildings"
- "National Modern Wooden Town Project in Finland" presentation in Essen, Germany, 19.3.2004
- Participation in the 9th International Timber Construction Conference in Garmisch-Partenkirchen, Germany, 10.–12.12.2003. Presentation on the topic: "The modern wooden town building project the standpoint of fire safety"
- Participation in the Fifth International Forestry Forum Russian Forestry Complex in the XXI Century congress in St. Petersburg, Russia, 14.–15.10.2003. Lecture on the topic: "Use of wood in housing construction; North America, Central Europe and Finland"
- "Modern wooden towns in Finland" and "Competitiveness of timber construction" lectures at a Russian-Finnish timber construction seminar in St. Petersburg, Russia, 1.10.2003
- "The modern wooden town building project in Finland" lecture in Essen, Germany, 8.9.2003
- Participation in the IAWPS2003 International Conference on Forest Products in Daejeon, South Korea, 21.–24.4.2003. Presentation on the topic: "The new future of wood construction in Finland"
- "Modern Wooden Town Project in Finland" lecture at a seminar arranged by the Finnish Consulate in Viljand, Estonia, 9.5.2003
- "Modern Wooden Town in Finland" lecture in Vyborg, Russia, 28.4.2003
- Participation in WESPAC8 the 8th Western Pacific Acoustics Conference in Melbourne, Australia, 7.–9.4.2003. Presentation on the topic: "Sound insulation in Finnish multistory timber apartment buildings on the basis of a survey of residents"
- "Wood architecture and timber construction in Finland" lecture for foreign exchange students at the University of Oulu, Department of Architecture, 21.2.2003
- "Modern Wooden Town Project in Finland" lecture and seminar in Kuldiga, Latvia, 10.2.2003
- Participation in the 7th World Conference on Timber Engineering in Shah Alam, Malaysia, 12.–15.8.2002. Presentation on the topic: "New Wooden Town Areas in Finland"
- "The wooden multistory buildings in Finland" lecture for an excursion group of Swedish architects in Oulu, 20.4.2002

C. National specialist presentations

<u>During 1.10.2015 – 2.6.2022</u> as an Associate professor (Building Processes, Architectural Construction, Building Materials): 78 national specialist presentations (invited lectures) in various parts of Finland related to timber construction:

- Presentation: "Experiences of Modern wooden town project (1997 2011), Urban Studies Conference, Tampere 28.4.2022.
- Presentation: "The current state and possibilities of Finnish wood construction", Wood construction seminar in Rauma, 10.3.2022.
- Presentation: "Possibilities of wood in facade repairs of concrete apartment buildings and construction of additional floors + Long-term sustainability of wood construction", Wood expertise for Pirkanmaa area, in-service training in industrial wood construction for professionals, 25.2.2022.

- Presentation: "Solutions and statistics for wooden apartment buildings + Zoning of wooden construction", Wood expertise for Pirkanmaa area, in-service training in industrial wood construction for professionals, 18.2.2022.
- Presentation: "Wood as a building material", Wood expertise for Pirkanmaa area, in-service training in industrial wood construction for professionals, 11.2.2022.
- Presentation: "The current state and future of Finnish wood construction", Porvoo and wood construction now and in the future webinar, Porvoo, 7.2.2022.
- Presentation: "The position and opportunities of wood construction in Finland + Research and development projects in wood construction at the University of Tampere", Wood expertise for Pirkanmaa area, in-service training in industrial wood construction for professionals, 4.2.2022.
- Presentation: "Review of the state of wood construction in Finland", LSPuu wood construction webinar, Pori, 3.2.2022.
- Presentation: "Productivity Leap Project in Industrial Wood Construction: Builder's Experiences and Checklist in Wooden Apartment Building Projects", Puupäivä, Helsinki Fair Center, 4 November 2021.
- Presentation: "Fire safety, sound issues and long-term durability of wooden apartment buildings"; XXXVIII PIRA Day, Finnkino Plevna, Tampere, 2.11.2021.
- Presentation: "Possibilities and future of wood construction in Finland", Kanta-Hämeen wood construction webinar + workshop, 29.9.2021.
- Presentation: "The wooden city is on fire! Why is it worth building from wood in cities?", How to Make a Sustainable City For Researched Media Meeting, Tampere University, Zoom Webinar, March 18, 2021.
- Presentation: Current Review of Wood Construction in Finland Wooden Apartment Buildings ", Workshop of the Program for the Promotion of Wood Construction, Lempäälä, Teams Webinar, 18.12.2020.
- Presentation: "Industrial wood construction", Export prospects for wood construction; Nivala Technology Center, Nitek, Teams webinar, 10.12.2020.
- Presentations: "The Status, Challenges, Opportunities and Trends of Wood Construction in Finland" and "The Future of Wood Construction", Continuing Education in Construction Supervision, Metropolia / Helsinki, 8.12.2020.
- Presentation: "The position and opportunities of wood construction in Finland", Lapland 58th Forestry Days, 28-29 January 2016, Lappia House, Rovaniemi.
- Presentation: "Energy renovation and additional floor construction" in Ekokumppanit Oy's Sorvaamo project's "Increasing the use of wood in renovation construction" webinar on 25 November 2020.
- Presentations: "The Status, Challenges, Opportunities and Trends of Wood Construction in Finland" and "The Future of Wood Construction", Continuing Education in Construction Supervision, OAMK / Oulu, 17.11.2020.
- Presentation: "Construction of wooden apartment buildings in Finland", in the student housing webinar 28.10.2020.
- Presentation: "The position of wood construction, opportunities, and the latest projects in Finland", ByggSMART online fair, Wood Construction Theme Day 27.10.2020.
- Presentation: "Prospects and Challenges of Wood Construction in Finland" at the Industrial Wood Construction Theme Day Thu 22.10.2020 in Kauhajoki (Technology Center Logistics, Technology Park 1).
- Presentations: "The Status, Challenges, Opportunities and Trends of Wood Construction in Finland" and "The Future of Wood Construction", Continuing Education in Construction Supervision, TAMK / Tampere, 20.10.2020.
- Presentation: "Challenges and opportunities of wood construction in Finland", Wood construction in Tampere and Pirkanmaa situation review; press conference, Teams remote lecture, 29.9.2020.

- Presentation: "Market and implementation methods of wooden apartment buildings", PKRKP project 2019 2021; Partnership Business Event, Teams Distance Lecture, June 8, 2020.
- Presentation: "Results of the student idea competition for the renovation of an apartment building (September 4 December 11, 2019)", at the seminar of the Puu-Finland network on January 29, 2020, Scandic Hotel, Tampere.
- Presentation: "Architecture student idea competitions as a basis for further project planning and decision-making", at the business meeting of the Wood Construction for Growth project in Pirkanmaa on 10 December 2019, Frenckell, Tampere.
- Presentation: "The Status, Opportunities and Challenges of Wood Construction in Finland", Prospects and Opportunities for Wood Construction in Ostrobothnia and Southern Ostrobothnia, 14 November 2019, Yrkeshögskolan Novia, Vaasa.
- Presentation: "Methods of implementation of wooden apartment buildings built in Finland", PKRKP project (2019 2021) Expert seminar on technical systems and possibilities of wood construction 10.10.2019, Tampere University, Tietotalo auditorium.
- Presentation: "Additional floor construction from wood, technical possibilities, and preconditions" 28.8.2019, Amur Future Workshop, Galleria Nottbeck, Finlayson, Tampere.
- Presentation: "Apartment building renovation idea competition in Finnish schools of architecture 4.9. 6 December 2019" at the meeting of Hämeenkyrö Municipal Board, 26 August 2019, Hämeenkyrö Municipal House, Hämeenkyrö.
- Presentation: "Possibilities of wood construction" 23.5.2019, Construction of wooden apartment buildings for growth in Pirkanmaa municipal information, Mahnala Environmental School, Hämeenkyrö.
- Presentation: "Possibilities of wood construction" on 9 May 2019, at the seminar on the effects of wood construction, Southeast Finland University of Applied Sciences, Mikkeli.
- Presentation: "Possibilities of wood construction" 25 April 2019, Construction of wooden apartment buildings for growth in Pirkanmaa, Suomen Metsäkeskus, Tampere.
- Presentation: "Current situation and opportunities in Finnish wood construction" 15 March 2019, Lahti Raksa Fair, Exhibition Center, Lahti.
- New winds for wood construction seminar, Survo Manor, Jyväskylä.
- Presentation: "The current state of Finnish wood construction" + presidency of the day and conduct of the workshop, 13 March 2019, Are we trying together
- Presentation: "Research to promote the competitiveness of wood construction", 30 January 2019, Wood Meeting of Kuutoskaupunki, City Hall Council Hall, Vantaa.
- Presentation: "Hunters of future student housing", 15 January 2019, ARA Day 2019, Scandic Marina Congress Center, Helsinki.
- Presentation: "Current situation and opportunities of wood construction in Finland", 12 December 2018, Lempäälä Kulju Manor area development seminar, Kulju Manor, Lempäälä.
- Presentation: "Current situation and opportunities in wood construction in Finland", 4 December 2018, Kotka Hamina region decision-makers' meeting, Hotelli Leikari, Kotka.
- Presentation: "Architecture student competitions as a basis for further project planning and decision-making", at the ARA and CORELAB Housing and Real Estate Development Platform event at TUT's Campus Arena on 21 November 2018, Tampere.
- Presentation: "Technical possibilities of wood construction", 13.11.2018, Eagle House auditorium, Kotka.
- Presentation: "Harvest of the Vaasa's Wooden Tower of Innovation student competition", PUU Day, 2 November 2018, Exhibition Center, Pasila, Helsinki.
- Presentation: "Possibilities of wood construction & technical review of wood construction methods", 4.10.2018, Restaurant Meriniemi, Kotka.

- Presentations: "Why do you want wood construction?" and "Wood construction here and elsewhere" at the Wood Quarter Seminar on the West Bank of Porvoo on September 20, 201, City Hall Council Hall, Porvoo.
- Presentation: "The present-day of wood construction", open discussion on wood construction organized by the Ministry of the Environment in Heinola, 31 August 2018, WPK House, Heinola.
- Presentation: "Resident satisfaction in wooden apartment buildings", Only good reasons 2 Log construction seminar, 28.8.2018, Hirsikampus, Pudasjärvi.
- Presentation: "The Status, Opportunities and Challenges of Finnish Wood Construction", Consultation on the National Forest Strategy 2025 and Talking about the Forest event, 27 August 2018, POHTO, Oulu.
- Presentation: "Changes incompetence needs in the future", Future Wood Construction seminar, 30 May 2018; Kierikkikeskus, Yli-Ii.
- Presentation: "The position, opportunities and latest examples of Finnish wood construction", Theme seminar of the future, 15 May 2018, Turku.
- Radio interview + online article; YLE Ostrobothnia; Expert interview on the pitfalls of renovation, March 23, 2018.
- Presentation: "The position, possibilities and latest examples of Finnish wood construction", Master Builders and Engineers at the University of Applied Sciences, RKL and the University of Applied Sciences TALK Day, 16 March 2018, TAMK, Tampere.
- Presentation: "The position, possibilities and latest examples of Finnish wood construction", Theme seminar on wood construction, 8.3.2018, Virta Campus, Lempäälä.
- Presentation: "Results of the Residents and Builders Surveys of Wooden Apartment Buildings 2000 and 2017", Vantaa Ylästö Wood Seminar, 31 January 2018, Laurea University of Applied Sciences, Tikkurila.
- TV interview; TV1; YLE / Western Finland news; Construction of wooden apartment buildings in Finland, 17 January 2018, renovated by TV1; 1/18/2018
- Presentation: "Sources of growth in large-scale industrial wood construction", Talking about the forest event Western Finland, 10 January 2018, Turku Christian College, Turku.
- Presentation: "Sources of growth in large-scale industrial wood construction", Talking about the forest event Pirkanmaa, 9.1.2018, Tampere Hall, Tampere.
- Presentation: "Wood construction as part of the bioeconomy and the fight against climate change", Bio- and circular economy matchmaking event: From Vaste to Valuables, Sokos Hotel Torni, Tampere.
- Presentation: "Results of the 2000 and 2017 surveys of residents and builders of wooden apartment buildings", 30.11.2017 Puupäivä, Wanha Satama, Helsinki.
- Radio interview (1 hour); Radio Moreeni (Tampere Local Radio); Art point/subject wood architecture. The interview came out three times; 11/2/2017; 5/11/2017 and 7/11/2017
- Juhlapuhe at Profin Oy's 40th-anniversary ceremony, September 21, 2017, Profin Oy's factory, Pudasjärvi.
- Presentation: "Survey of residents and builders of wooden apartment buildings", PUUNET project training event, 1.6.2017, Intiö Barracks, Oulu.
- Presentation: "The position and possibilities of wood construction in the future of Finland", Wood Information Seminar, June 1, 2017, Spa Hotel Sani, Kalajoki.
- Presentation: "Wood construction in Finland", 18 April 2017, Technical Agency, Iisalmi.
- Presentations: "Possibilities of wood construction", National Forest Days 2017, March 18, 2017, Mikaeli, Mikkeli and March 19, 2017, Savonlinna Hall, Savonlinna.
- Presentation: "Prospects for wood construction", 12th National Days of the Finnish Sawmill and Planing Industry, 18 February 2017, Kylpylä-Hotelli Aulanko, Hämeenlinna.
- Presentations: "Wooden apartment buildings and wooden construction in Finland and the general outlook for wooden construction / Fire safety and fire regulations in wooden houses / Sound issues in

wooden houses", Training in wooden construction and frame structures for Kainuu building control and fire authorities and companies, 1.12.2016, Kainuu Vocational School

- Presentation: "Prospects of wood construction", PUUNET thematic training: Utilization of solid wood structures in public and apartment building construction, 23 September 2016, Environmental House, Oulu.
- Presentation: "Possibilities and negatives of Finnish wood construction", Spring Meeting of Finnish Municipal Rental House Companies 2016, 17 August 2016, M / Y Famnen ship seminar, Turku.
- Presentation: "Opportunities and negativities of Finnish wood construction", Innovation 2016 seminar of the Finnish Public Association, 12 13 May 2016, M / S Baltic Queen, Helsinki Tallinn.
- Presentation: "The position and opportunities of wood construction in Finland", Metsähallitus Pilke Cafe 3600 event, April 7, 2016, Malmitalo, Helsinki.
- Presentation: The position and opportunities of wood construction in Finland ", Building Supervision Days 2016, March 17, 2016, Sokos Hotel Torni, Tampere.
- Presentation: "Apartment building construction in Finland", PUUIDEA 2016; Seminar on wooden apartment building construction, March 17-18, 2016, Sokos Hotel Vantaa, Tikkurila.
- Presentation: "Finnish competitive wood construction more ecological, faster, higher", Expert seminar: More than 8-story apartment buildings the possibilities of wood, 12 February 2016, Karelia University of Applied Sciences, Joensuu.

Years 2002 - 2015:

- Approx. 120 national specialist presentations in various parts of Finland related to timber construction in 2002–2015.

D. International specialist visits and study trips

<u>During 1.10.2015 – 2.6.2022 as an Associate professor (Building Processes, Architectural Construction, Building Materials):</u>

- Participation in the study tour of wood construction in Austria organized by Puuinfo Oy on 13-16 May 2019.
- Participation in the study tour of wood construction in Central Europe (Switzerland and Germany) from 3 to 6 May 2018. Organized by Puuinfo Oy.
- Study trip to wood construction in Austria on April 21-24, 2016, organized by Puuinfo Oy.

Years 2007 – 2015:

- Participation in a multistory timber apartment building space element construction study trip arranged by Puuinfo Oy to Estonia (Tallinn and Tarto) (2.–3.7.2015)
- Participation in a wooden bridge construction study trip arranged by Puuinfo Oy to Norway (26.5.–27.4.2014)
- Participation in a multistory timber apartment building construction study trip arranged by Puuinfo Oy to the USA and Canada (7.–15.12.2013)
- Participation in a wooden bridge construction study trip arranged by Puuinfo Oy to Skellefteå, Sweden (23.10.–24.10.2013)
- Participation in a timber construction study trip to Germany and Austria (4.10.–7.10.2012)
- Participation as a specialist in a Multistory Timber Apartment Building and Low-energy Construction study trip to Sweden (Växjö–Gothenburg–Stockholm) 26.9.–1.10.2009

- Participation in the Facade Association's study trip to Vienna, Austria, 23.4.–26.4.2009
- Participation in the II Congress of the Association of Wood Housing in St. Petersburg, Russia, 26.11.–28.11.2008; "Modern Wooden Town" lecture and presentation of the Russian-English version of the "Wooden urban villages" book project
- Presentation: "Modern Wooden Town Project in Finland 1997–2013" + guide with a timber construction excursion in the Helsinki area connected to the Nordiska Träbyer meeting in Helsinki, 9.10.2008
- Study trip to St. Petersburg's Luppolov housing fair area and YIT's housing construction sites in St. Petersburg, Russia, 23.9.–25.9.2008
- Lecture for German construction sector professionals about the "Modern Wooden Town" project at Espoo's Innopolis, 23.9.2008
- Timber construction architecture excursion and congress trip to Japan- 27.5.–6.6.2008 (Tokyo Osaka Miyazaki); participation in the WCTE2008 congress in Miyazaki 2.–5.6.2008
- Participation in a Central European Low-energy Construction study trip to Switzerland and Austria arranged by Puuinfo Oy, 17.4.–20.4.2008
- "Modern Wooden Towns in Finland" presentation for Swedish wood sector developers at Metsäteollisuus ry + specialists' meeting at the Swedish Consulate in Helsinki, 28.2.2008
- Specialist in timber construction on a trip to Wroclaw, Poland, arranged by the Council of Central Ostrobothnia (4.2.–6.2.2008); three lectures at Poland's Science Academy, Lower Silesia Chamber of Commerce, and Opole on the topics: "Wood Architecture and Timber Construction in Finland" and "The National Modern Wooden Town Project in Finland 1997–2013"
- Participation in the GLEE 2007 Yard and Milieu Construction international fair + specialist excursion, Birmingham, England, 15.9.–19.9.2007.

Oulu, Finland 2.6.2022

Marshen Louja lain

Markku Karjalainen