

Circular renovation of an apartment building with prefabricated additional insulation elements to nearly zero energy building

Nigumann, Eero; Kalamees, Targo; Kuusk, Kalle; Pihelo, Peep Journal of sustainable architecture and civil engineering 2024 / p. 22-34 <https://doi.org/10.5755/j01.sace.34.1.35674>

Circular renovation of an apartment building with prefabricated insulation elements

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Circularity concepts for offsite prefabricated energy renovation of apartment buildings

Kuusk, Kalle; Kullerkupp, Kristel; Pihelo, Peep; Ritzen, Michiel; Tisov, Ana; Kalamees, Targo Journal of physics : conference series 2021 / art. 012074 <https://doi.org/10.1088/1742-6596/2069/1/012074> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Commissioning of moisture safety of nZEB renovation with prefabricated timber frame insulation wall elements

Pihelo, Peep; Kalamees, Targo Wood material science and engineering 2021 / p. 110-117 <https://doi.org/10.1080/17480272.2019.1635206> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Commissioning of thermal performance of prefabricated timber frame insulation elements for nZEB renovation

Pihelo, Peep; Kalamees, Targo 4th Central European Symposium on Building Physics (CESBP 2019) MATEC web of conferences 2019 / art. 02004, 6 p. : ill <https://doi.org/10.1051/mateconf/201928202004>

Commissioning the design and construction of prefabricated renovation

Jürgenson, Alari; Pihelo, Peep 5th International Conference Forum Wood Building Baltic : 26-28 February 2024, Tallinn, Estonia : proceedings 2024 / p. 102-109 : ill <https://digikogu.taltech.ee/et/Item/22318c67-e0ef-42f1-88c7-34c9d9677b17> https://www.ester.ee/record=b5668645*est

Deep energy renovation of old concrete apartment building to nZEB by using wooden modular element

Kalamees, Targo; Pihelo, Peep; Kuusk, Kalle II Miedzynarodowa Konferencja : Forum Holzbau Polska 2018 2018 / 10 p. : ill <http://forum-holzbau.pl/category/filmy-i-zdjecia/> <https://www.etis.ee/File/DownloadPublic/b9656a11-ef9e-4b34-9033-83254134f617?name=Deep%20energy%20renovation%20of%20old%20concrete%20apartment%20building%20to%20nZEB%20by%20using%20wooden%20modular%20elements.pdf&type=application%2Fpdf>

Deep energy renovation of old concrete apartment building to nZEB by using wooden modular elements

Kalamees, Targo; Pihelo, Peep; Kuusk, Kalle Forum Holz Bau Garmisch 17 : 23. Internationales Holzbau-Forum (IHF 2017) : aus der Praxis - für die Praxis : Kongresszentrum, Garmisch-Partenkirchen ; B. 2 2017 / p. 317-325 : ill <http://www.gbv.de/dms/tib-ub-hannover/1014402786.pdf>

Development and performance assessment of prefabricated insulation elements for deep energy renovation of apartment buildings

Pihelo, Peep; Kuusk, Kalle; Kalamees, Targo Energies 2020 / art. 1709, 20 p. : ill <https://doi.org/10.3390/en13071709> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of prefabricated additional insulation elements for the renovation of high-rise apartment buildings

Pihelo, Peep; Kalamees, Targo Journal of sustainable architecture and civil engineering 2024 / p. 8-22 <https://doi.org/10.5755/j01.sace.35.2.35422>

Development of prefabricated additional insulation elements for the renovation of high-rise apartment buildings

Pihelo, Peep; Kalamees, Targo 5th International Conference Forum Wood Building Baltic : 26-28 February 2024, Tallinn, Estonia : proceedings 2024 / p. 98-99 : ill <https://digikogu.taltech.ee/et/Item/22318c67-e0ef-42f1-88c7-34c9d9677b17> https://www.ester.ee/record=b5668645*est

Development of prefabricated insulation elements for buildings with aerated autoclaved concrete walls

Pihelo, Peep; Kalamees, Targo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 / art. 18001, 8 p. : ill <https://doi.org/10.1051/e3sconf/202017218001> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Doktoritöö aitab anda Eesti paneelmajade uuendamisele tööstusliku mõõtme [Võrguväljaanne]

Oldermäe, Jaan-Juhan novaator.err.ee 2020 / fot [Doktoritöö aitab anda Eesti paneelmajade uuendamisele tööstusliku mõõtme](#)

Driving decarbonisation of the EU building stock by enhancing a consumer centred and locally based circular renovation process

Tisov, Ana; Kuusk, Kalle; Navarro Escudero, Miriam; Pihelo, Peep; Kalamees, Targo E3S Web of Conferences : 12th Nordic Symposium on Building Physics (NSB 2020) : Tallinn, Estonia, September 6-9, 2020 2020 <https://doi.org/10.1051/e3sconf/202017218006> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

The effect of thermal transmittance of building envelope and material selection of wind barrier on moisture safety of

timber frame exterior wall

Pihelo, Peep; Kalamees, Targo Journal of building engineering 2016 / p. 29-38 : ill <https://doi.org/10.1016/j.jobbe.2016.02.002> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Estonia : [the More-Connect approach]

Kalamees, Targo; Pihelo, Peep; Kuusk, Kalle A Guide into Renovation Package Concepts for Mass Retrofit of Different Types of Buildings with Prefabricated Elements for (N)Zeb Performance 2018 / p. 50-55 : ill [Guide into renovation...](#)

Experiences from design process of renovation of existing apartment building to nZEB

Kuusk, Kalle; Kalamees, Targo; Pihelo, Peep CLIMA 2016 - proceedings of the 12th REHVA World Congress. Vol. 1 2016 / [10] p. : ill http://vbn.aau.dk/files/233707163/paper_591.pdf

Field study on hygrothermal performance of highly insulated exterior wall in Estonia

Pihelo, Peep; Kalamees, Targo; Kikkas, Henri; Mauring, Tõnu; Valge, Margus; Valler, Raimond CLIMA 2016 - proceedings of the 12th REHVA World Congress. Vol. 2 2016 / [10] p. : ill http://vbn.aau.dk/files/233715342/paper_188.pdf

A Guide into Renovation Package Concepts for Mass Retrofit of Different Types of Buildings with Prefabricated Elements for (N)Zeb Performance [Online resource]

Rovers, Ronald; Kuusk, Kalle; Pihelo, Peep; Kalamees, Targo 2018 [A Guide into Renovation Package Concepts for Mass Retrofit of Different Types of Buildings with Prefabricated Elements for \(N\)Zeb Performance](#)

Hygrothermal performance of AAC exterior wall after additional insulation with prefabricated elements in Estonia

Pihelo, Peep; Kalamees, Targo 5th Central European Symposium On Building Physics (CESBP) 2023 / p. 020049-1-020049-8 <https://doi.org/10.1063/5.0170884> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Hygrothermal performance of highly insulated timber-frame external wall

Pihelo, Peep; Kikkas, Henri; Kalamees, Targo Energy procedia 2016 / p. 685-695 : ill <https://doi.org/10.1016/j.egypro.2016.09.128> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Hygrothermal performance of prefabricated insulation elements for serial renovation of apartment buildings in a moderately continental German climate

Pihelo, Peep; Kalamees, Targo Journal of Physics: Conference Series 2023 / art. 012001 <https://doi.org/10.1088/1742-6596/2654/1/012001> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Hygrothermal performance of prefabricated timber frame insulation elements for deep energy renovation of apartment buildings = Puitkarkass-lisasoojustuselementide niiskustehniline toimivus suurpaneelalamute tervikrenoveerimisel

Pihelo, Peep 2020 <https://digikogu.taltech.ee/et/Item/d748fbd8-83e0-4377-a8d3-5e7e327e102e>

Influence of moisture dry-out on hygrothermal performance of prefabricated modular renovation elements

Pihelo, Peep; Lelumees, Magnus; Kalamees, Targo Energy procedia 2016 / p. 745-755 : ill <https://doi.org/10.1016/j.egypro.2016.09.137> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Madal- ja liginullenergiahoonete piirdetarindite niiskusturvalisuse tagamine

Pihelo, Peep Liginullenergiahooned täna ja homme : artiklite kogumik 2015 / lk. 59-62 : ill

Moisture safety in prefabricated roof renovations : causes and strategies

Kodi, Georg-Mihkel; Kalbe, Kristo; Pihelo, Peep; Kalamees, Targo Journal of sustainable architecture and civil engineering 2024 / p. 68-83 <https://doi.org/10.5755/j01.sace.35.2.35825> [Journal metrics at Scopus](#) [Article at Scopus](#)

Moisture safety strategies for renovations of a roof with prefabricated additional insulation elements: A whole building heat, air, and moisture simulation approach

Kalamees, Targo; Kalbe, Kristo; Kodi, Georg-Mihkel; Pihelo, Peep; Simson, Raimo; Arumägi, Endrik Multiphysics and Multiscale Building Physics : Proceedings of the 9th International Building Physics Conference (IBPC 2024) ; Volume 1: Moisture and Materials 2025 / p. 262-269 https://doi.org/10.1007/978-981-97-8305-2_36

Moisture safety strategies for roof renovation with prefabricated additional insulation elements

Kodi, Georg-Mihkel; Kalbe, Kristo; Pihelo, Peep; Kalamees, Targo 5th International Conference Forum Wood Building Baltic : 26-28 February 2024, Tallinn, Estonia : proceedings 2024 / p. 154-155 : ill <https://digikogu.taltech.ee/et/Item/22318c67-e0ef-42f1-88c7-34c9d9677b17> https://www.ester.ee/record=b5668645*est

nZEB renovation of multi-storey building with prefabricated modular panels

Pihelo, Peep; Kalamees, Targo; Kuusk, Kalle IOP conference series : materials science and engineering 2017 / art. 012056, 8 p. : ill <https://doi.org/10.1088/1757-899X/251/1/012056> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

nZEB renovation of multi-storey building with prefabricated modular panels

Pihelo, Peep; Kalamees, Targo; Kuusk, Kalle 3rd International Conference "Innovative Materials, Structures and Technologies" :

nZEB renovation with prefabricated modular panels

Pihelo, Peep; Kalamees, Targo; Kuusk, Kalle Energy procedia 2017 / p. 1006-1011 : ill <https://doi.org/10.1016/j.egypro.2017.09.708>
[Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Performance evaluation and development of prefabricated insulation elements for renovation of apartment buildings with autoclaved aerated concrete external walls

Pihelo, Peep; Kalamees, Targo Energy and buildings 2025 / art. 115439 <https://doi.org/10.1016/j.enbuild.2025.115439>

Potential of moisture dry-out from concrete wall in Estonian climate

Pihelo, Peep; Lelumees, Magnus; Kalamees, Targo International RILEM Conference on Materials, Systems and Structures in Civil Engineering 2016 : segment on Moisture in Materials and Structures : Lyngby, Denmark, August 22-24, 2016 2016 / p. 289-298 : ill https://files.conferencemanager.dk/medialibrary/2A179311-431D-479F-9B86-AC05B769477E/images/Moisture_conf_proceedings.pdf

Prefabricated wooden modular elements for nZEB renovation

Pihelo, Peep; Kalamees, Targo; Kuusk, Kalle Advanced Building Skins : 13th Conference on Advanced Building Skins, 1-2 October, 2018, Bern, Switzerland 2018 / p. 591–598 : ill <https://abs.green/files/pdf/content-2018.pdf> <https://abs.green/conference-proceedings/>

Renovation of apartment buildings with prefabricated modular panels

Kuusk, Kalle; Pihelo, Peep; Kalamees, Targo E3S Web of Conferences : CLIMA 2019 Congress, Bucharest, Romania, May 26-29, 2019 2019 / art. 03023, 6 p <https://doi.org/10.1051/e3sconf/201911103023> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Teadlane: renoveerimise tempo peaks olema vähemalt kaks-kolm korda kiirem = Ученый: скорость реноваций должна быть в 2-3 раза выше

Pihelo, Peep Elamu 2020 / lk. 15, 36 https://www.ester.ee/record=b1072137*est https://www.ester.ee/record=b5342136*est

Tehaseline renoveerimine on korteriomanike otsustada

Liias, Roode; Pihelo, Peep maaleht.delfi.ee 2024 [Tehaseline renoveerimine on korteriomanike otsustada](#)

Tehases toodetud valmiselemendid annavad renoveerimisele kiirema käigu

Vilk, Urve Äripäev 2020 / Lk. 8, 10-11 <https://dea.digar.ee/publication/aripaev>

Tehases toodetud valmiselemendid kiirendavad renoveerimist

Pihelo, Peep Ehitaja 2020 / lk. 26-29 : fot http://www.ester.ee/record=b1072123*est
<https://www.ehitusuudised.ee/uudised/2020/07/29/tehas-toodetud-valmiselemendid-annavad-renoveerimisele-kiirema-kaigu>

Testing of moisture safety and energy performance quality commission process of nZEB renovation

Pihelo, Peep; Kalamees, Targo Proceedings of the I Forum Wood Building Baltic, 2019 : [27.02-1.03.2019, Tallinn] 2019 / p. 66-67 : ill https://www.ester.ee/record=b5197207*est

Энергетическая реновация типового бетонного жилого дома в Эстонии с использованием деревянного модульного элемента

Kalamees, Targo; Pihelo, Peep; Kuusk, Kalle Строительные материалы 2018 / с. 13–17 : илл <https://doi.org/10.31659/0585-430X-2018-764-10-13-17>