

Uncertainty in the early phase of a municipal building refurbishment project-A case study in Finland

Uotila, U., Saari, A. & Junnonen, J. M., 1 Aug 2020, In : Buildings. 10, 8, 18 p., 137.

Research output: Contribution to journal > Article > Scientific > peer-review

Hot-box measurements to investigate the internal convection of highly insulated loose-fill insulation roof structures

Kivioja, H. & Vinha, J., 1 Jun 2020, In : Energy and Buildings. 216, 10 p., 109934.

Research output: Contribution to journal > Article > Scientific > peer-review

People's current mobility costs and willingness to pay for Mobility as a Service offerings

Liljamo, T., Liimatainen, H., Pöllänen, M. & Utriainen, R., 1 Jun 2020, In : Transportation Research Part A: Policy and Practice. 136, p. 99-119 21 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Heat protective properties of enclosure structure from thin-wall profiles with foamed concrete

Rybakov, V. A., Ananeva, I. A., Pichugin, E. D. & Garifullin, M., 1 Mar 2020, In : Magazine of Civil Engineering. 94, 2, p. 11-20 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Utilizing mixed-mineralogy ferroan magnesite tailings as the source of magnesium oxide in magnesium potassium phosphate cement

Ismailov, A., Merilaita, N., Solismaa, S., Karhu, M. & Levänen, E., 20 Jan 2020, In : Construction and building materials. 231, 117098.

Research output: Contribution to journal > Article > Scientific > peer-review

Modeling of hygrothermal behavior for green facade's concrete wall exposed to nordic climate using artificial intelligence and global sensitivity analysis

May Tzuc, O., Rodríguez Gamboa, O., Aguilar Rosel, R., Che Poot, M., Edelman, H., Jiménez Torres, M. & Bassam, A., 2020, In : Journal of Building Engineering. 33, 101625.

Research output: Contribution to journal > Article > Scientific > peer-review

Reply to the discussion by koutsoftas on "evaluation of sample quality from different sampling methods in finnish soft sensitive clays"¹

Di Buò, B., Selänpää, J., Länsivaara, T. T. & D'ignazio, M., 2020, In : Canadian Geotechnical Journal. 57, 8, p. 1261-1262 2 p.

Research output: Contribution to journal > Comment/debate > Scientific

Impacts of multiple refurbishment strategies on hygrothermal behaviour of basement walls

Fedorik, F., Heiskanen, R., Laukkarinen, A. & Vinha, J., Nov 2019, In : Journal of Building Engineering. 26, 9 p., 100902.

Research output: Contribution to journal > Article > Scientific > peer-review

Recycling lithium mine tailings in the production of low temperature (700–900°C) ceramics: Effect of ladle slag and sodium compounds on the processing and final properties

Lemougna, P. N., Yliniemi, J., Ismailov, A., Levänen, E., Tanskanen, P., Kinnunen, P., Roning, J. & Illikainen, M., 10 Oct 2019, In : Construction and building materials. 221, p. 332-344 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Variation of CPTu-based transformation models for undrained shear strength of Finnish clays

Knuuti, M. & Länsivaara, T., 2 Oct 2019, In : Georisk. 13, 4, p. 262-270 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Behaviour of riveted stringer-to-floorbeam connections in cyclic load tests to failure

Tulonen, J., Siitonen, T. & Laaksonen, A., 1 Sep 2019, In : Journal of Constructional Steel Research. 160, p. 101-109 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Parametric study on temperature distribution of square hollow section joints

Bączkiewicz, J., Pajunen, S., Malaska, M. & Heinisuo, M., 1 Sep 2019, In : Journal of Constructional Steel Research. 160, p. 490-498 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Societal impact as Cost-Benefit Analysis: Comparative analysis of two research infrastructures

Magazinik, A., Bedolla, J. S., Lasheras, N. C. & Mäkinen, S., 1 Jun 2019, *2019 IEEE International Conference on Engineering, Technology and Innovation, ICE/ITMC 2019*. IEEE

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Assessing population vulnerability towards summer energy poverty: Case studies of Madrid and London

Sanchez-Guevara, C., Núñez Peiró, M., Taylor, J., Mavrogianni, A. & Neila González, J., 1 May 2019, In : *Energy and Buildings*. 190, p. 132-143 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Initial axial stiffness of welded RHS T joints

Garifullin, M., Bronzova, M., Pajunen, S., Mela, K. & Heinisuo, M., 1 Feb 2019, In : *Journal of Constructional Steel Research*. 153, p. 459-472 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

A life cycle assessment of two residential buildings using two different LCA database-software combinations: Recognizing uniformities and inconsistencies

Emami, N., Heinonen, J., Marteinsson, B., Säynäjoki, A., Junnonen, J. M., Laine, J. & Junnila, S., 14 Jan 2019, In : *Buildings*. 9, 1, 20 p., 20.

Research output: Contribution to journal › Article › Scientific › peer-review

Evaluating retrofit options in a historical city center: Relevance of bio-based insulation and the need to consider complex urban form in decision-making

Claude, S., Ginestet, S., Bonhomme, M., Escadeillas, G., Taylor, J., Marincioni, V., Korolija, I. & Altamirano, H., 1 Jan 2019, In : *Energy and Buildings*. 182, p. 196-204 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Alkali-silica reaction in Finnish swimming pools

Lahdensivu, J. & Kekäläinen, P., 2019, *Proceedings of the fib Symposium 2019: Concrete - Innovations in Materials, Design and Structures*. Derkowski, W., Krajewski, P., Gwozdziwicz, P., Pantak, M. & Hojdis, L. (eds.). International Federation for Structural Concrete, p. 2006-2013 8 p. (fib Symposium Proceedings).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Behavior of capacitive humidity sensors in monitoring the drying of concrete walls

Tuominen, E., Vinha, J. & Raunima, T., 2019, In : *MATEC Web of Conferences*. 282, 6 p., 02053.

Research output: Contribution to journal › Conference article › Scientific › peer-review

Betonin kosteustekniset materiaaliominaisuudet ja mittausmenetelmän kehittäminen

Tuominen, E., Vinha, J., Tuominen, O., Vääntinen, K. & Vainio, M., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 111-116 6 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Professional

Buckling length assessment with finite element approach

Tiainen, T., Mela, K. & Heinisuo, M., 2019, *Stability and Ductility of Steel Structures - Proceedings of the International Colloquia on Stability and Ductility of Steel Structures, 2019*. Wald, F. & Jandera, M. (eds.). CRC Press/Balkema, p. 1145-1150 6 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Calculation method to determine capillary properties of building materials with automatic free water intake test

Tuominen, E. & Vinha, J., 2019, In : *MATEC Web of Conferences*. 282, 6 p., 02037.

Research output: Contribution to journal › Conference article › Scientific › peer-review

COMBI-hankkeen paine-eromittausten yhteenveto

Tuominen, E., Laukkarinen, A., Kauppinen, A., Raunima, T. & Vinha, J., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 139-144

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

COMBI-hankkeen suositukset korkeatasoisten ja kosteusturvallisten palvelurakennusten toteuttamiseksi - COMBI 8

Vinha, J. & Laukkarinen, A., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 217-222

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

Comparison between calculated and billed building energy consumption values of schools and daycare centers

Ruusala, A., Laukkarinen, A. & Vinha, J., 2019, In : *MATEC Web of Conferences*. 282, 6 p., 02085.

Research output: Contribution to journal > Conference article > Scientific > peer-review

Huokoisten puukuitu- ja kipsilevytuulensuojalevyjen homehtumisherkyys

Tuominen, E., Ruusala, A., Laukkarinen, A., Pätsi, S., Pessi, A-M. & Vinha, J., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 517-524

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

Ilmakehän pitkäaaltoinen säteily rakennusfysikaalisissa laskentatarkasteluissa

Jokela, T., Laukkarinen, A. & Vinha, J., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 55-60

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

Kapasiivisten kosteusantureiden käyttäytyminen betoniseinien ja kipsivalulattioiden kuivumisen seurannassa

Tuominen, E., Raunima, T., Vinha, J. & Sekki, P., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 103-110

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

Kipsilevytuulensuojallisten puurunkoisten ulkoseinärakenteiden rakennusfysikaalinen toiminta

Jokela, T., Laukkarinen, A. & Vinha, J., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 61-66

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

Koulujen ja päiväkotien sisäilman lämpötilan, suhteellisen kosteuden ja hiilidioksidipitoisuuden mittaukset COMBI-hankkeessa

Laukkarinen, A., Kauppinen, A., Tuominen, E., Raunima, T. & Vinha, J., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 133-138

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

Modelling the stressed skin effect by using shell elements with meta-material model

Pajunen, S., Hautala, J. & Heinisuo, M., 2019, In : *Magazine of Civil Engineering*. 86, 2, p. 20-29 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Nano-structured optical fibers made of glass-ceramics, and phase separated and metallic particle-containing glasses

Veber, A., Lu, Z., Vermillac, M., Pigeonneau, F., Blanc, W. & Petit, L., 2019, In : *Fibers*. 7, 12, 29 p.

Research output: Contribution to journal > Review Article > Scientific > peer-review

Performance of Variable Partial Factor approach in a slope design

Knuuti, M. & Länsivaara, T., 2019, *13th International Conference on Applications of Statistics and Probability in Civil Engineering(ICASP13), Seoul, South Korea, May 26-30, 2019*.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Puuelementtien välisen sauman tiivistys kumitiivisteellä

Tuominen, E., Vinha, J. & Naskali, J., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 125-129

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Professional

Puurunkoisten ulkoseinien liitosten lämpö- ja kosteustekninen toiminta

Moisio, T., Laukkarinen, A. & Vinha, J., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 67-74

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Professional

Rakennuksen ulkovaipan yli vaikuttavien paine-erojen määrittäminen rakennusfysikaalisia laskentatarkasteluja varten

Moisio, T., Laukkarinen, A. & Vinha, J., 2019, *Rakennusfysiikka 2019: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 28.-30.10.2019, Tampere*. Vinha, J. & Raunima, T. (eds.). Tampere: Tampereen yliopisto, Rakennustekniikka, Vol. Seminaarijulkaisu 6. p. 49-54

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Professional

Remote diagnostics application software for remote handling equipment

Alanen, J., Ruiz Morales, E., Muhammad, A., Saarinen, H. & Minkkinen, J., 2019, In : *Fusion Engineering and Design*.

Research output: Contribution to journal › Article › Scientific › peer-review

Second-order analysis of prestressed concrete columns

Haavisto, J., Kerokoski, O. & Laaksonen, A., 2019, *Proceedings of the fib Symposium 2019: Concrete - Innovations in Materials, Design and Structures*. Derkowski, W., Krajewski, P., Gwozdziwicz, P., Pantak, M. & Hojdys, L. (eds.). International Federation for Structural Concrete, p. 1068-1074 7 p. (FIB symposium proceedings).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Thermal and moisture properties of calcium silicate insulation boards

Tuominen, E., Tuominen, O., Vainio, M., Ruuska, T. & Vinha, J., 2019, In : *MATEC Web of Conferences*. 282, 7 p., 02065.

Research output: Contribution to journal › Conference article › Scientific › peer-review

Moment-rotation behavior of welded tubular high strength steel T joint

Havula, J., Garifullin, M., Heinisuo, M., Mela, K. & Pajunen, S., 1 Oct 2018, In : *Engineering Structures*. 172, p. 523-537 15 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Condensation at the exterior surface of windows

Laukkarinen, A., Kero, P. & Vinha, J., 1 Sep 2018, In : *Journal of Building Engineering*. 19, p. 592-601 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Radon, fungal spores and MVOCs reduction in crawl space house: A case study and crawl space development by hygrothermal modelling

Keskikuru, T., Salo, J., Huttunen, P., Kokotti, H., Hyttinen, M., Halonen, R. & Vinha, J., 15 Jun 2018, In : *Building and Environment*. 138, p. 1-10 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Investigating the kinetics and biofuel properties of *Alstonia congestis* and *Ceiba pentandra* via torrefaction

Oluoti, K., Doddapaneni, T. R. K. C. & Richards, T., 1 May 2018, In : *Energy*. 150, p. 134-141 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

An approach to combining related notifications in large-scale building management systems with a rehabilitation facility case study

Evchina, Y. & Martinez Lastra, J. L., 31 Mar 2018, In : *Automation in Construction*. 87, p. 106-116 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Characterization of elastic constants of anisotropic composites in compression using digital image correlation

Orell, O., Vuorinen, J., Jokinen, J., Kettunen, H., Hytönen, P., Turunen, J. & Kanerva, M., 2018, In : *Composite Structures*. 185, p. 176-185 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Cold-formed RHS T joints with initial geometrical imperfections

Garifullin, M., Bronzova, M. K., Heinisuo, M., Mela, K. & Pajunen, S., 2018, In : *Magazine of Civil Engineering*. 80, 4, p. 81-94 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Core Project Team As a Management Entity for Construction Projects

Keinänen, M. & Kähkönen, K., 2018, In : *In_bo: Ricerche e progetti per il territorio, la città e l'architettura. Construction Management*. 9, 13, p. 208-217 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Fatigue loading tests of concrete railway sleepers

Rantala, T., Kerokoski, O., Nurmikolu, A. & Laaksonen, A., 2018, *High Tech Concrete: Where Technology and Engineering Meet - Proceedings of the 2017 fib Symposium*. Springer International Publishing, p. 1445-1452 8 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Julkisivujen ja parvekkeiden talvikorjaus 2018

Pakkala, T., Lahdensivu, J., Köliö, A. & Annala, P., 2018, Vaasa: Suomen Betoniyhdistys r.y. (BY Tekniset ohjeet ; no. 70)

Research output: Book/Report › Book › Professional

Techno-economic evaluation of integrating torrefaction with anaerobic digestion

Doddapaneni, T. R. K. C., Praveenkumar, R., Tolvanen, H., Rintala, J. & Kontinen, J., 2018, In : *Applied Energy*. 213, p. 272-284 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Utilizing the innovation potential of suppliers in construction projects

Sariola, R., 2018, In : *Construction Innovation*. 18, 2

Research output: Contribution to journal › Article › Scientific › peer-review

Initial in-plane rotational stiffness of welded RHS T joints with axial force in main member

Garifullin, M., Pajunen, S., Mela, K., Heinisuo, M. & Havula, J., 1 Dec 2017, In : *Journal of Constructional Steel Research*. 139, p. 353-362 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

The effect of steel grade on weight and cost of warren-type welded tubular trusses

Tiainen, T., Mela, K., Jokinen, T. & Heinisuo, M., 1 Nov 2017, In : *Proceedings of the Institution of Civil Engineers: Structures and Buildings*. 170, 11, p. 855-873 19 p., 1600112.

Research output: Contribution to journal › Article › Scientific › peer-review

Kosteusvaurioiden vakavuus kuntien rakennuksissa

Annala, P., Lahdensivu, J., Suonketo, J., Pentti, M., Laukkarinen, A. & Vinha, J., 24 Oct 2017, *Rakennusfysiikka 2017. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut: 24.-26.10.2017, Tampere*. Vinha, J. & Kivioja, H. (eds.). Tampere: Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, Vol. 1. p. 135-140 6 p. (Tampereen teknillinen yliopisto. Rakennustekniikka. Rakennusfysiikka.).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Maanvastaisten seinien lämpö- ja kosteustekninen toiminta

Laukkarinen, A., Heiskanen, R. & Vinha, J., 24 Oct 2017, *Rakennusfysiikka 2017. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut: 24.-26.10.2017, Tampere*. Vinha, J. & Kivioja, H. (eds.). Tampere: Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, Vol. 1. p. 71-76 6 p. (Tampereen teknillinen yliopisto. Rakennustekniikka. Rakennusfysiikka.).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Paine-erot Pirkanmaan ja Helsingin julkisissa palvelurakennuksissa

Kauppinen, A., Kiviste, M., Pirhonen, J. & Vinha, J., 24 Oct 2017, *Rakennusfysiikka 2017. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut: 24-26.10.2017, Tampere*. Vinha, J. & Kivioja, H. (eds.). Tampere: Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, Vol. 1. p. 215-221 7 p. (Tampereen teknillinen yliopisto. Rakennustekniikka. Rakennusfysiikka.).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Puukerrostalon työmaavaiheen lämpö- ja kosteusolosuhteiden mittaukset

Laukkarinen, A., Musakka, S., Penttilä, O., Teriö, O. & Vinha, J., 24 Oct 2017, *Rakennusfysiikka 2017. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut: 24.-26.10.2017, Tampere*. Vinha, J. & Kivioja, H. (eds.). Tampere: Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, Vol. 1. p. 167-172 6 p. (Tampereen teknillinen yliopisto. Rakennustekniikka. Rakennusfysiikka.).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Puukerrostalorakentamisen kosteudenhallinta

Teriö, O., Penttilä, O., Laukkarinen, A., Musakka, S. & Vinha, J., 24 Oct 2017, *Rakennusfysiikka 2017. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut: 24.-26.10.2017, Tampere*. Vinha, J. & Kivioja, H. (eds.). Tampere: Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, Vol. 1. p. 173-178 6 p. (Tampereen teknillinen yliopisto. Rakennustekniikka. Rakennusfysiikka.).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Relationships among Civil Engineering Students' Approaches to Learning, Perceptions of the Teaching-Learning Environment, and Study Success

Salmisto, A., Postareff, L. & Nokelainen, P., 1 Oct 2017, In : *Journal of Professional Issues in Engineering Education and Practice*. 143, 4, 04017010.

Research output: Contribution to journal › Article › Scientific › peer-review

Julkisivujen ja parvekkeiden talvikorjausohje

Pakkala, T., Lahdensivu, J., Köliö, A. & Annala, P., Oct 2017, *Rakennusfysiikka 2017: Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut, 24-26.10.2017, Tampere*. Vinha, J. & Kivioja, H. (eds.). Tampere: Tampereen teknillinen yliopisto, Rakennustekniikka, Rakennusfysiikka, p. 179-184 6 p. (Tampereen teknillinen yliopisto. Rakennustekniikka. Rakennusfysiikka.).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

A generic method to optimize a redundant serial robotic manipulator's structure

Kivelä, T., Mattila, J. & Puura, J., 1 Sep 2017, In : *Automation in Construction*. 81, p. 172-179 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Carbon dioxide permeability of building materials and their impact on bedroom ventilation need

Niemelä, T., Vinha, J., Lindberg, R., Ruuska, T. & Laukkarinen, A., 1 Jul 2017, In : *Journal of Building Engineering*. 12, p. 99-108 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

The effect of matrix type on ageing of thick vinyl ester glass-fibre-reinforced laminates

Sarlin, E., Sironen, R., Pärnänen, T., Lindgren, M., Kanerva, M. & Vuorinen, J., 15 May 2017, In : *Composite Structures*. 168, p. 840-850

Research output: Contribution to journal › Article › Scientific › peer-review

Effect of energy measures on the values of energy efficiency indicators in Finnish daycare and school buildings

Sekki, T., Airaksinen, M. & Saari, A., 15 Mar 2017, In : *Energy and Buildings*. 139, p. 124-132 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Output power variation of different PV array configurations during irradiance transitions caused by moving clouds

Lappalainen, K. & Valkealahti, S., 15 Mar 2017, In : *Applied Energy*. 190, p. 902-910 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Overheating in English dwellings: comparing modelled and monitored large-scale datasets

Symonds, P., Taylor, J., Mavrogianni, A., Davies, M., Shrubsole, C., Hamilton, I. & Chalabi, Z., 17 Feb 2017, In : Building Research and Information. 45, 1-2, p. 195-208 14 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The corrosion rate in reinforced concrete facades exposed to outdoor environment

Köliö, A., Pakkala, T. A., Hohti, H., Laukkanen, A., Lahdensivu, J., Mattila, J. & Pentti, M., Feb 2017, In : Materials and Structures. 50, 23

Research output: Contribution to journal > Article > Scientific > peer-review

Designers' performance evaluation in construction projects

Kärnä, S. & Junnonen, J. M., 1 Jan 2017, In : ENGINEERING, CONSTRUCTION AND ARCHITECTURAL MANAGEMENT. 24, 1, p. 154-169 16 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Multicriteria selection in concept design of a divertor remote maintenance port in the EU DEMO reactor using an AHP participative approach

Carfora, D., Gironimo, G. D., Esposito, G., Huhtala, K., Määttä, T., Mäkinen, H., Micciché, G. & Mozzillo, R., 15 Nov 2016, In : Fusion Engineering and Design. 112, p. 324-331 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Instrumentation and fe analysis of a large-span culvert built under a railway, in Finland

Asp, O. & Laaksonen, A., 3 Nov 2016, In : Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering. 26, 4, p. 357-364 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Editorial to "The best papers from the 32nd International Symposium on Automation and Robotics in Construction and Mining (ISARC 2015)"

Malaska, M. & Heikkilä, R., 1 Nov 2016, In : Automation in Construction. 71, p. 1 1 p.

Research output: Contribution to journal > Editorial > Scientific

Consideration of energy consumption, energy costs, and space occupancy in Finnish daycare centres and school buildings

Sekki, T., Andelin, M., Airaksinen, M. & Saari, A., 1 Oct 2016, In : Energy and Buildings. 129, p. 199-206 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Solar Panel Breakage During Heavy Rain Caused by Thermal Stress

Mikkonen, A. & Karvinen, R., Oct 2016, *Engineered Transparency 2016: Glass in Architecture and Structural Engineering*. Wiley

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Energy saving and indoor climate effects of an added glazed facade to a brick wall building: Case study

Hilliaho, K., Nordquist, B., Wallentèn, P., Hamid, A. A. & Lahdensivu, J., 1 Sep 2016, In : Journal of Building Engineering. 7, p. 246-262 17 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Stress relaxation in tempered glass caused by heat soak testing

Schneider, J., Hilcken, J., Aronen, A., Karvinen, R., Olesen, J. F. & Nielsen, J., 1 Sep 2016, In : Engineering Structures. 122, p. 42-49 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Eriste- ja levyrappaus 2016, by 57

Lahdensivu, J., Annila, P. & Pikkuvirta, J., Jun 2016, Helsinki: Suomen Betoniyhdistys r.y. 145 p. (BY. Tekniset ohjeet; no. 57)

Research output: Book/Report > Book > Professional

The effect of climate change on freeze-thaw durability of concrete structures in Finland

Pakkala, T., Lemberg, A-M. & Lahdensivu, J., Jun 2016, p. 53. 1 p.

Research output: Other conference contribution > Paper, poster or abstract > Scientific

Effects of strain rate and confining pressure on the compressive behavior of Kuru granite

Hokka, M., Black, J., Tkalich, D., Fourmeau, M., Kane, A., Hoang, N. H., Li, C. C., Chen, W. W. & Kuokkala, V-T., 1 May 2016, In : *International Journal of Impact Engineering*. 91, p. 183-193 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Energy saving in working hydraulics of long booms in heavy working vehicles

Immonen, P., Ponomarev, P., Åman, R., Ahola, V., Uusi-Heikkilä, J., Laurila, L., Handroos, H., Niemelä, M., Pyrhönen, J. & Huhtala, K., 1 May 2016, In : *Automation in Construction*. 65, p. 125-132 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The effect of climate change on the amount of wind driven rain on concrete facades

Pakkala, T., Lemberg, A-M. & Lahdensivu, J., May 2016, *Proceedings of the CIB World Building Congress 2016: Vol 2 : Environmental opportunities and challenges, Constructing commitment and acknowledging human experiences*. Prins, M., Wamelink, H., Giddings, B., Ku, K. & Feenstra, M. (eds.). Tampere: Tampere University of Technology. Department of Civil Engineering, Vol. 2. p. 153-165 13 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Mapping indoor overheating and air pollution risk modification across Great Britain: A modelling study

Taylor, J., Davies, M., Mavrogianni, A., Shrubsole, C., Hamilton, I., Das, P., Jones, B., Oikonomou, E. & Biddulph, P., 1 Apr 2016, In : *Building and Environment*. 99, p. 1-12 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Tuulettuvat julkisivut 2016, by 64

Annala, P., Lahdensivu, J., Lemberg, A-M., Pikkuvirta, J. & Pakkala, T., Apr 2016, Helsinki: Suomen Betoniyhdistys r.y. 121 p.

Research output: Book/Report > Book > Professional

Pre-use phase LCA of a multi-story residential building: Can greenhouse gas emissions be used as a more general environmental performance indicator?

Heinonen, J., Säynäjoki, A., Junnonen, J. M., Pöyry, A. & Junnila, S., 1 Jan 2016, In : *Building and Environment*. 95, p. 116-125 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Bus Transportation Accessibility - Does It Impact Housing Values?

Kurvinen, A. & Sorri, J., 2016, *Proceedings of the CIB World Building Congress 2016: Understanding impacts and functioning of different solutions*. Nenonen, S. & Junnonen, J-M. (eds.). Tampere: Tampere University of Technology. Department of Civil Engineering, Vol. IV. p. 321-331 11 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Effects of added glazing on Balcony indoor temperatures: Field measurements

Hilliaho, K., Köliö, A., Pakkala, T., Lahdensivu, J. & Vinha, J., 2016, In : *Energy and Buildings*. 128, p. 458-472 15 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Practical experiences from several moisture performance assessments

Annala, P. J., Lahdensivu, J., Suonketo, J. & Pentti, M., 2016, *Recent developments in building diagnosis techniques*. Delgado, J. (ed.). Porto, Portugal: Springer Science+Business Media, Vol. 5. p. 1-20 20 p. (Building Pathology and Rehabilitation; vol. 5).

Research output: Chapter in Book/Report/Conference proceeding > Chapter > Scientific > peer-review

Surrogate modeling for initial rotational stiffness of welded tubular joints

Garifullin, M. R., Barabash, A. V., Naumova, E. A., Zhuvak, O. V., Jokinen, T. & Heinisuo, M., 2016, In : *Magazine of Civil Engineering*. 63, 3, p. 53-76 24 p.

Two models for hydraulic cylinders in flexible multibody simulations

Ylinen, A., Mäkinen, J. & Kouhia, R., 2016, *Computational Methods for Solids and Fluids: Multiscale Analysis, Probability Aspects and Model Reduction*. Springer, p. 463-493 31 p. (Computational Methods in Applied Sciences; vol. 41).

Research output: Chapter in Book/Report/Conference proceeding › Chapter › Scientific › peer-review

Validation of the method to evaluate the corrosion propagation stage by hygrothermal simulation

Ilomets, S., Kalamees, T. & Lahdensivu, J., 2016, *CESB 2016 - Central Europe Towards Sustainable Building 2016: Innovations for Sustainable Future*. Czech Technical University in Prague, p. 1113-1120 8 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Improving the thermal performance of concrete-sandwich envelopes in relation to the moisture behaviour of building structures in boreal conditions

Fedorik, F., Malaska, M., Hannila, R. & Haapala, A., 15 Nov 2015, In : *Energy and Buildings*. 107, p. 226-233 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Airtightness of residential buildings in Finland

Vinha, J., Manelius, E., Korpi, M., Salminen, K., Kurnitski, J., Kiviste, M. & Laukkarinen, A., 1 Nov 2015, In : *Building and Environment*. 93, P2, p. 128-140 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

ÄKK-hankkeen suosituksien tulevaisuuden ääneneristysmääräyksiä koskien

Hongisto, V., Kylliäinen, M. & Hyönä, J., 22 Oct 2015, *Rakennusfysiikka 2015*. Tampere: Tampereen teknillinen yliopisto, rakennustekniikan laitos, rakennetekniikka, p. 561-566 6 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Menetelmä parvekelasien ääneneristävyyden mittaamiseksi liikennemelualueilla

Kovalainen, V. & Kylliäinen, M., 22 Oct 2015, *Rakennusfysiikka 2015*. Tampereen teknillinen yliopisto, rakennustekniikan laitos, rakennetekniikka, p. 617-622 6 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Puurunkoisten tuuletettujen yläpohjien kosteustekninen toiminta

Junttila, H., Laukkarinen, A. & Vinha, J., 22 Oct 2015, *Rakennusfysiikka 2015. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 20.-22.10.2015, Tampere.* Vinha, J. & Ruuska, T. (eds.). Tampere: Tampereen teknillinen yliopisto, rakennustekniikan laitos, rakennetekniikka, p. 77-82 6 p. (Rakennustekniikan laitos. Rakennetekniikka. Seminaarijulkaisu; no. 4).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Puuvälipohjien akustiset ominaisuudet

Latvanne, P. & Kylliäinen, M., 22 Oct 2015, *Rakennusfysiikka 2015*. Tampereen teknillinen yliopisto, rakennustekniikan laitos, rakennetekniikka, p. 567-572 6 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Koko Julkisivua peittävän lasijulkisivun vaikutus Etelä-Ruotsissa sijaitsevan rakennuksen energiatehokkuuteen

Translated title of the contribution: : The impact of the added façade glazing on the building energy consumption in the southern Sweden

Hilliaho, K., Nordquist, B. & Wallentén, P., 20 Oct 2015, *Rakennusfysiikka 2015. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 20.-22.10.2015, Tampere.* Vinha, J. & Ruuska, T. (eds.). Tampere: Tampereen teknillinen yliopisto, rakennustekniikan laitos, rakennetekniikka, p. 509-516 8 p. (Rakennustekniikan laitos. Rakennetekniikka. Seminaarijulkaisu 4; no. 4).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Lasitetun parvekkeen lämpötilan ja lämpöhäviöiden laskenta

Laukkarinen, A. & Hilliaho, K., 20 Oct 2015, *Rakennusfysiikka 2015. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 20.-22.10.2015, Tampere.* Vinha, J. & Ruuska, T. (eds.). Tampereen teknillinen yliopisto, rakennustekniikan laitos, rakennetekniikka, p. 181-186 6 p. (Rakennustekniikan laitos. Rakennetekniikka. Seminaarijulkaisu; no. 4).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Raudoitteiden korroosionopeuden määrittäminen betonijulkisivussa korkean aikaresoluution säädätan avulla

Köliö, A., Hohti, H., Pakkala, T., Laukkarinen, A., Lahdensivu, J. & Mattila, J., 20 Oct 2015, *Rakennusfysiikka 2015. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 20.-22.10.2015, Tampere.* Tampereen teknillinen yliopisto, rakennustekniikan laitos, rakennetekniikka, p. 195-202 8 p. (Rakennustekniikan laitos. Rakennetekniikka. Seminaarijulkaisu; no. 4).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Uudessa COMBI-hankkeessa tutkitaan energiatehokkaan palvelurakentamisen haasteita ja ratkaisuja

Vinha, J., Hedman, M., Sirén, K., Harsia, P., Pentti, M., Teriö, O., Heljo, J., Laukkarinen, A., Annala, P., Kaasalainen, H., Jokisalo, J. & Pihlajamaa, P., 20 Oct 2015, *Rakennusfysiikka 2015. Uusimmat tutkimustulokset ja hyvät käytännön ratkaisut. 20.-22.10.2015, Tampere.* Vinha, J. & Ruuska, T. (eds.). Tampereen teknillinen yliopisto, rakennustekniikan laitos, rakennetekniikka, p. 487-496 10 p. (Rakennustekniikan laitos. Rakennetekniikka. Seminaarijulkaisu; no. 4).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Assessing uncertainty in housing stock infiltration rates and associated heat loss: English and UK case studies

Jones, B., Das, P., Chalabi, Z., Davies, M., Hamilton, I., Lowe, R., Mavrogianni, A., Robinson, D. & Taylor, J., 1 Oct 2015, In : *Building and Environment*. 92, p. 644-656 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Acoustics of vanished 19th century concert halls in Helsinki

Niemi, H., Kylliäinen, M., Jäppinen, J. & Lindqvist, M., Oct 2015, *9th International conference on Auditorium Acoustics 2015*. Institute of Acoustics, Vol. 37. p. 182-189 8 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Auralization of vanished 19th century concert halls in Helsinki

Niemi, H., Kylliäinen, M., Jäppinen, J. & Lindqvist, M., Oct 2015, *9th International Conference on Auditorium Acoustics 2015*. Institute of Acoustics, Vol. 37. p. 470-477 8 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific

Tuulettuvien yläpohjien lämpö- ja kosteustekninen toiminta nykyisessä ja tulevaisuuden ilmastossa

Laukkarinen, A., Oct 2015, Tampereen teknillinen yliopisto, rakennustekniikan laitos, rakennetekniikka. 107 p.

Research output: Book/Report › Master's Thesis › Scientific

Impact of building usage and occupancy on energy consumption in Finnish daycare and school buildings

Sekki, T., Airaksinen, M. & Saari, A., 18 Aug 2015, In : *Energy and Buildings*. 105, p. 247-257 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Analysis of thermo-active pile structures and their performance under groundwater flow conditions

Gashti, E. H. N., Malaska, M. & Kujala, K., 11 Aug 2015, In : *Energy and Buildings*. 105, p. 1-8 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Divertor remote handling for DEMO: Concept design and preliminary FMECA studies

Carfora, D., Di Gironimo, G., Järvenpää, J., Huhtala, K., Määttä, T. & Siuko, M., 9 Jul 2015, In : *Fusion Engineering and Design*. 98-99, p. 1437-1441 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Urban social housing resilience to excess summer heat

Mavrogianni, A., Taylor, J., Davies, M., Thoua, C. & Kolm-Murray, J., 4 May 2015, In : *Building Research and Information*. 43, 3, p. 316-333 18 p.

Research output: Contribution to journal › Review Article › Scientific › peer-review

Role and nature of systemic innovations in construction and real estate sector

Kähkönen, K., 7 Apr 2015, In : *Construction Innovation: Information, Process, Management*. 15, 2, p. 130-133 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Understanding fundamental and practical ingredients of construction project data management

Kähkönen, K. & Rannisto, J., 5 Jan 2015, In : *Construction Innovation: Information, Process, Management*. 15, 1, p. 7-23 17 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Measured energy consumption of educational buildings in a Finnish city

Sekki, T., Airaksinen, M. & Saari, A., 1 Jan 2015, In : *Energy and Buildings*. 87, p. 105-115 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

The assessment of constructability: BIM cases

Tauriainen, M. K., Puttonen, J. A. & Saari, A. J., 1 Jan 2015, In : *Journal of Information Technology in Construction*. 20, p. 51-67 17 p.

Research output: Contribution to journal › Article › Scientific › peer-review

ÄKK Loppuraportti: rakennusten ääniolosuhteiden käyttäjälähtöinen kehittäminen

Hongisto, V. & Kylliäinen, M., 2015, Helsinki: Finnish Institute of Occupational Health. 40 p.

Research output: Book/Report › Commissioned report › Professional

Debonding and impact damage in stainless steel fibre metal laminates prior to metal fracture

Pärnänen, T., Kanerva, M., Sarlin, E. & Saarela, O., 2015, In : *Composite Structures*. 119, p. 777-786 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Experimental study on the behavior of wear resistant steels under high velocity single particle impacts

Lindroos, M., Apostol, M., Kuokkala, V. T., Laukkanen, A., Valtonen, K., Holmberg, K. & Oja, O., 2015, In : *International Journal of Impact Engineering*. 78, p. 114-127 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Pyöräväylien tiedot ja laatutaso

Laitinen, K., Mattila, K., Metsäpuro, P. & Nykänen, L., 2015, 2015 ed. Helsinki: Liikennevirasto. 72 p.

Research output: Book/Report › Commissioned report › Professional

Structural analysis of tubular truss in fire

Diez Albero, J. A., Tiainen, T., Mela, K. & Heinisuo, M., 2015, *ISTS15, 15th International Symposium on Tubular Structures, : 27-29 May 2015*. CRC Press/Balkema, p. 181-187 7 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The target reliability of the eurocodes

Poutanen, T., 2015, *Safety, Robustness and Condition Assessment of Structures*. International Association for Bridge and Structural Engineering (IABSE), p. 202-208 7 p. (IABSE Symposium Report).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

WIN-WINTER - Nordic winter road maintenance research program. Preliminary study: Project report

Karhula, K., Pöllänen, M., Mäntynen, J., Rauhamäki, H., Leppäniemi, M. & Luukkonen, T., 2015, Tampere University of Technology. 15 p.

Research output: Book/Report › Commissioned report › Professional

WIN-WINTER - Tie- ja katuverkon talvihoidon tutkimusohjelma. Esiselvitys: Raportti tuloksista

Karhula, K., Pöllänen, M., Mäntynen, J., Rauhamäki, H., Leppäniemi, M. & Luukkonen, T., 2015, Tampereen teknillinen yliopisto. Liikenteen tutkimuskeskus Verne. 15 p.

Research output: Book/Report › Commissioned report › Professional

Evaluation of thermo-mechanical behaviour of composite energy piles during heating/cooling operations

Hassani Nezhad Gashti, E., Malaska, M. & Kujala, K., 15 Sep 2014, In : *Engineering Structures*. 75, p. 363-373 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Commissioning for nearly zero-energy building projects

Kantola, M. & Saari, A., 1 Jul 2014, In : Construction Innovation: Information, Process, Management. 14, 3, p. 370-382 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Stretching risk management standards: Multi-organizational perspectives

Lehtiranta, L. & Junnonen, J. M., 1 Jan 2014, In : BUILT ENVIRONMENT PROJECT AND ASSET MANAGEMENT. 4, 2, p. 128-145 18 p.

Research output: Contribution to journal › Article › Scientific › peer-review

The impact of occupancy patterns, occupant-controlled ventilation and shading on indoor overheating risk in domestic environments

Mavrogianni, A., Davies, M., Taylor, J., Chalabi, Z., Biddulph, P., Oikonomou, E., Das, P. & Jones, B., 1 Jan 2014, In : Building and Environment. 78, p. 183-198 16 p.

Research output: Contribution to journal › Article › Scientific › peer-review

The relative importance of input weather data for indoor overheating risk assessment in dwellings

Taylor, J., Davies, M., Mavrogianni, A., Chalabi, Z., Biddulph, P., Oikonomou, E., Das, P. & Jones, B., 1 Jan 2014, In : Building and Environment. 76, p. 81-91 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Using probabilistic sampling-based sensitivity analyses for indoor air quality modelling

Das, P., Shrubsole, C., Jones, B., Hamilton, I., Chalabi, Z., Davies, M., Mavrogianni, A. & Taylor, J., 1 Jan 2014, In : Building and Environment. 78, p. 171-182 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

A slotted patch antenna for wireless strain sensing

Yi, X., Cho, C., Cook, B., Wang, Y., Tentzeris, M. M. & Leon, R. T., 2014, *Structures Congress 2014 - Proceedings of the 2014 Structures Congress*. American Society of Civil Engineers ASCE, p. 2734-2743 10 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

BIM based schedule control for precast concrete supply chain

Nissilä, J., Heikkilä, R., Romo, I., Malaska, M. & Aho, T., 2014, *31st International Symposium on Automation and Robotics in Construction and Mining, ISARC 2014 - Proceedings*. University of Technology Sydney, p. 667-671 5 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Crack propagation measurement using a battery-free slotted patch antenna sensor

Yi, X., Cho, C., Wang, Y., Cook, B., Tentzeris, M. M. & Leon, R. T., 2014, *7th European Workshop on Structural Health Monitoring, EWSHM 2014 - 2nd European Conference of the Prognostics and Health Management (PHM) Society*. INRIA, p. 1040-1047 8 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Passive wireless antenna sensor for strain and crack sensing - Electromagnetic modeling, simulation, and testing

Yi, X., Cho, C., Cooper, J., Wang, Y., Tentzeris, M. M. & Leon, R. T., Aug 2013, In : Smart Materials and Structures. 22, 8, 085009.

Research output: Contribution to journal › Article › Scientific › peer-review

Integration of BIM and automation in high-rise building construction

Heikkilä, R., Malaska, M., Törmänen, P. & Keyack, C., 2013, *ISARC 2013 - 30th International Symposium on Automation and Robotics in Construction and Mining, Held in Conjunction with the 23rd World Mining Congress*. p. 1171-1176 6 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Implementation of a direct procedure for critical point computations using preconditioned iterative solvers

Kouhia, R., Tüma, M., Mäkinen, J., Fedoroff, A. & Marjamäki, H., Oct 2012, In : Computers & Structures. 108-109, p. 110-117 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Financial viability of energy-efficiency measures in a new detached house design in Finland

Saari, A., Kalamees, T., Jokisalo, J., Michelsson, R., Alanne, K. & Kurnitski, J., Apr 2012, In : *Applied Energy*. 92, p. 76-83 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Liikennetekniikan perusteet: Opetusmoniste

Mäntynen, J., Kallberg, H., Kalenoja, H., Rauhamäki, H., Pöllänen, M. M., Luukkonen, T. & Karhula, K., 2012, Tampere: Tampereen teknillinen yliopisto. Liikenteen tutkimuskeskus Verne. 216 p.

Research output: Book/Report › Book › Professional

Passive frequency doubling antenna sensor for wireless strain sensing

Yi, X., Cho, C., Wang, Y., Cook, B. S., Cooper, J., Vyas, R., Tentzeris, M. M. & Leon, R. T., 2012, *ASME 2012 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, SMASIS 2012*. Vol. 1. p. 625-632 8 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Structural behaviour of long integral abutment bridges

Laaksonen, A., 2012, *Global Thinking in Structural Engineering: Recent Achievements*. International Association for Bridge and Structural Engineering (IABSE)

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Wireless crack sensing using an RFID-based folded patch antenna

Yi, X., Wang, Y., Leon, R. T., Cooper, J. & Tentzeris, M. M., 2012, *Bridge Maintenance, Safety, Management, Resilience and Sustainability - Proceedings of the Sixth International Conference on Bridge Maintenance, Safety and Management*. p. 824-830 7 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Cost optimal and nearly zero (nZEB) energy performance calculations for residential buildings with REHVA definition for nZEB national implementation

Kurnitski, J., Saari, A., Kalamees, T., Vuolle, M., Niemelä, J. & Tark, T., Nov 2011, In : *Energy and Buildings*. 43, 11, p. 3279-3288 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Briefing: Initial findings from the urba project

Krokfors, K., Ilmonen, M., Kangasoja, J., Lehtonen, H., Mälkki, M., Mäntysalo, R., Norvasuo, M., Nupponen, T. & Puustinen, S., Mar 2011, In : *PROCEEDINGS OF THE ICE: URBAN DESIGN AND PLANNING*. 164, 1, p. 15-17 3 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Sensing resolution and measurement range of a passive wireless strain sensor

Yi, X., Wu, T., Lantz, G., Cooper, J., Cho, C., Wang, Y., Tentzeris, M. M. & Leon, R. T., 2011, *Structural Health Monitoring 2011: Condition-Based Maintenance and Intelligent Structures - Proceedings of the 8th International Workshop on Structural Health Monitoring*. Vol. 1. p. 759-766 8 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Shear buckling and resistance of thin-walled steel plate at non-uniform elevated temperatures

Salminen, M. & Heinisuo, M., 2011, *10th International Conference on Steel Space and Composite Structures*. CI-Premier Pte Ltd, p. 267-276 10 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Computational design concept analysis: A Nordic comparison of four apartment buildings

Saari, A., 2008, In : *STRUCTURAL SURVEY*. 26, 1, p. 29-37 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Precision refurbishment of buildings: A façade refurbishment case study

Saari, A., 2008, In : *STRUCTURAL SURVEY*. 26, 2, p. 108-119 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Project feedback as a tool for learning

Kärnä, S. & Junnonen, J. M., 2005, *Proceedings of the 13th Annual Conference of the International Group for Lean Construction (IGLC 2005)*. p. 47-55 9 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Lähtökohtia tie- ja rataverkon peruspalvelutason määrittämiselle

Translated title of the contribution: : Basis for defining the basic service level of road and rail network

Mäntynen, J., Pöllänen, M., Eskelinen, H., Lehtola, I., Perrels, A. & Johanna, K., 1 Dec 2002, Helsinki: Liikenne- ja viestintäministeriö. 134 p. (Liikenne- ja viestintäministeriön julkaisuja; no. 48/2002)

Research output: Book/Report › Commissioned report › Professional

Strategy formation in construction firms

Junnonen, J. M., 1 Feb 1998, In : ENGINEERING, CONSTRUCTION AND ARCHITECTURAL MANAGEMENT. 5, 2, p. 107-114 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review