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Qualifications

Doctoral degree, Engineering and Technology, Aalto University
Award Date: 20 Jun 2013

Licentiate degree, Engineering and Technology, Helsinki University of Technology
Award Date: 17 Dec 2007

Master's degree, Engineering and Technology, Helsinki University of Technology
Award Date: 16 Dec 1996

Employment

Staff Scientist

Staff Scientist
Department of Civil Engineering
Aalto University
1 Jun 2016 → present

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Mineral Based Materials and Mechanics
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1 Jan 2019 → present

Research output

Effect of Slag Content and Carbonation/Ageing on Freeze-Thaw Resistance of Concrete

Iqbal, A., Ojala, T., Al-Neshawy, F. & Punkki, J., 1 Dec 2024, In: Nordic Concrete Research. 71, 1, p. 47-67 21 p., 3.

Determining the Location of Steel Reinforcement in Thick Concrete Walls by Non-Destructive Inspection

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Investigation of the Internal Structure of Hardened 3D-Printed Concrete by X-CT Scanning and Its Influence on the Mechanical Performance

Chen, Y., Kuva, J., Mohite, A., Li, Z., Rahier, H., Al-Neshawy, F. & Shu, J., Mar 2023, In: Materials. 16, 6, 26 p., 2534.

Assessment procedure of determining compressive strength of hardened reinforced concrete structures

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Proceedings of the International Conference on Non-destructive Evaluation of Concrete in Nuclear Applications - NDE NucCon 2023

Al-Neshawy, F. (Editor), Ferreira, M. (Editor), Bohner, E. (Editor), Kekäläinen, P. (Editor), Oey, T. (Editor), Lay, V. (Editor) & Niederleithinger, E. (Editor), 2023, Aalto-yliopisto. 393 p. (Aalto University publication series SCIENCE + TECHNOLOGY; vol. 2023, no. 3)

Reduction of CO₂ Emission by Using Low Carbon Concretes with Accelerating Admixtures

Illarionova, E., Antonova, A., Al-Neshawy, F. & Punkki, J., 2023, *International RILEM Conference on Synergising Expertise towards Sustainability and Robustness of Cement-based Materials and Concrete Structures. SynerCrete 2023*. Springer, p. 65-75 11 p. (RILEM Bookseries; vol. 44).

The Effect of Heat Curing on the Early-Strength Development of Low-Carbon Concrete

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Using non-destructive testing methods for locating the steel reinforcement in reinforced concrete structures

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Ferreira, M., Al-Neshawy, F., Bohner, E., Sistonen, E. & Huttunen-Saarivirta, E., 2021, *SAFIR2022 - The Finnish Research Programme on Nuclear Power Plant Safety 2019-2022*. VTT Technical Research Centre of Finland, p. 330-349 (VTT Technology; no. 383).

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Ojala, T., Ahmed, H., Vehmas, T., Chen, Y., Tauqir, A., Oey, T., Al-Neshawy, F., Leivo, M. & Punkki, J., 2021, Aalto-yliopisto. 126 p. (Aalto University publication series SCIENCE + TECHNOLOGY; vol. 2021, no. 5)

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Mock-up wall for NDT&E of NPP thick-walled reinforced concrete structures

Al-Neshawy, F., Ojala, T., Ferreira, M. & Puttonen, J., 1 Aug 2018, *12th European Conference on Non-Destructive Testing (ECNDT 2018)*. NDT.net, 10 p. (The e-Journal of Nondestructive Testing; vol. 23, no. 8).

Increase of Air Content of Concrete After Mixing

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Influence of PCE-Superplasticizers on the Stability of Concrete Air Content

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Implementation of a Contour Crafting System to a 3-Dimensional Concrete Printer

Nylund, J., Järf, A., Kekäle, K., Rönnskog, J., Al-Neshawy, F., Kiviluoma, P. & Kuosmanen, P., 2015, *10th International DAAAM Baltic Conference "INDUSTRIAL ENGINEERING", 12 - 13th May 2015, Tallinn, ESTONIA*. Otto, T. (ed.). Tallinn: Tallinn University of Technology, p. 168-173

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Developing a Computerized Aging Management System for Concrete Structures in Finnish Nuclear Power Plants

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Development of database for the in-service inspection of the concrete structures of the Finnish Nuclear Power Plants

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Penttala, V., Al-Neshawy, F., Lehtinen, T. & Räsänen, V., 2003, 15. *Internationale baustofftagung, Weimar, Germany 2003*. Fisher, H. B. (ed.). Weimar, Germany: Bauhaus-Universität Weimar, p. 2-0601

Ice Formation and Pore Water Redistribution During 2-Cycle Freezing and Thawing of Concrete Mortars

Penttala, V. & Al-Neshawy, F., 2002, *Frost Damage in Concrete, Minneapolis, USA 28-30 June 1999*. Janssen, D. J., Setzer, M. J. & Snyder, M. B. (eds.). France: RILEM - International Union of Laboratories and Experts in Construction Materials, Systems and Structures, p. 115-126 (RILEM Proceedings; no. PRO 25).

Stress and strain state of concrete during freezing and thawing cycles

Penttala, V. & Al-Neshawy, F., 2002, In: *Cement and Concrete Research*. 32, 9, p. 1407-1420

Sementtimäärällä ja vesisementtisuhteella merkittävä vaikutus betonin kuivumisnopeuteen

Al-Neshawy, F., 1997, In: *Rnet*. 1, p. 51

Activities

Ernst Niederleithinger

Al-Neshawy, F. (Host)

24 Oct 2018 → 26 Oct 2018

NDT&E Advanced Training Workshop

Al-Neshawy, F. (Member)

27 Jun 2018 → 3 Jul 2018

Stability of air-entrainment with PCE-superplasticizers

Al-Neshawy, F. (Contributor) & Punkki, J. (Speaker)

25 Aug 2017

Mapei AS

Al-Neshawy, F. (Visiting researcher) & Punkki, J. (Visiting researcher)

2017

IABSE Workshop, Helsinki, Finland, February 11-12, 2015, Finland

Al-Neshawy, F. (Contributor)

2015

SAFIR2014 FINAL SEMINAR, Hanasaari, Helsinki, Finland, 19.-20.3.2015, Finland

Al-Neshawy, F. (Contributor)

2015

SMIRT-23 2015, 23rd International Conference on Structural Mechanics in Reactor Technology, SMIRT-23, Manchester, United Kingdom - August 10-14, 2015, United Kingdom

Al-Neshawy, F. (Contributor)

2015

David Lange

Al-Neshawy, F. (Host)

1 Jan 2014

1st International Conference on Ageing of Materials & Structures, AMS'14, Delft, Netherlands, 26 – 28 May 2014
Al-Neshawy, F. (Contributor)
2014

University (External organisation)
Al-Neshawy, F. (Chair)
2014

Vagelis Papadakis
Al-Neshawy, F. (Host)
1 Jan 2013

IABSE Workshop, Helsinki, Finland, February 14-15, 2013, Finland
Al-Neshawy, F. (Contributor)
2013

OECD-NEA, CSNI Working Group on the Integrity and Ageing of Components and Structures Workshop, Prague, Czech Republic 17-19.9.2013, Czech Republic
Al-Neshawy, F. (Contributor)
2013

SAFIR2014 - Interim Seminar, Hanasaari, Swedish-Finnish Cultural Centre, 21.-22.3.2013, Finland
Al-Neshawy, F. (Contributor)
2013

University (External organisation)
Al-Neshawy, F. (Chair)
2013

Vagelis Papadakis
Al-Neshawy, F. (Host)
1 Jan 2012

IABSE Conference on Global Thinking in Structural Engineering: Recent Achievements, Sharm El Sheikh, Egypt, 7-9 May 2012, Egypt
Al-Neshawy, F. (Contributor)
2012

NUCPERF 2012 RILEM Event TC 226-CNM EFC Event 351, Cadarache, France 12-15 November 2012, France
Al-Neshawy, F. (Contributor)
2012

Concrete Solutions 2011, 4th International Conference on Concrete Repair 26-28. Sept. 2011, Dresden, Germany, Germany
Al-Neshawy, F. (Contributor)
2011

CIB W78 2010, 27th International Conference Applications of IT in the AEC Industry. Cairo, Egypt 16-18 November 2010., Egypt
Al-Neshawy, F. (Contributor)
2010

20th International Conference on Structural Mechanics in Reactor Technology, Dipoli Congress Center, Espoo, Finland, August 9-14, 2009

Al-Neshawy, F. (Contributor)
2009

3rd International Conference on Concrete Repair (Concrete Solutions 2009), Venice/Padova, Italy 29 June-2 July 2009, Italy

Al-Neshawy, F. (Contributor)
2009

Duralnt-Project Workshop: Effect of interacted deterioration parameters on service life of concrete structures in cold environments" March 2-4, 2009, VTT and TKK, Espoo, Finland, Finland

Al-Neshawy, F. (Contributor)
2009

Euroinfra 2009, International ECCE Conference, October 15-16, 2009, Helsinki, Finland

Al-Neshawy, F. (Contributor)
2009

Foreign Organisation

Al-Neshawy, F. (Visiting researcher)
2009

Foreign Organisation

Al-Neshawy, F. (Visiting researcher)
2007

Foreign Organisation

Al-Neshawy, F. (Visiting researcher)
2007

Foundit Nordic/Salford Workshop 8-9 October 2007, Iso-Britannia

Al-Neshawy, F. (Contributor)
2007

Foundit Nordic/Salford Workshop 8 - 9 October 2007, University of Salford, U.K., 2007., Iso-Britannia

Al-Neshawy, F. (Contributor)
2007

Foundit Seminar, 12.-13.12.2007, Helsinki University of Technology, Finland, Finland

Al-Neshawy, F. (Contributor)
2007

FOUNDIT SEMINAR, 3rd TWO-DAY SPRING WORKSHOP: MAPS, MODELS AND METHODS, Finland

Al-Neshawy, F. (Contributor)
2007

Found Seminar, Helsinki University of Technology, 12 - 13.12.2007,, Finland

Al-Neshawy, F. (Contributor)
2007

Concrete Solutions, 2nd International Conference on Concrete Repair, 27 – 29, June 2006, St-Malo, Brittan, France

Al-Neshawy, F. (Contributor)
2006

European Symposium on Service Life and Serviceability of Concrete Structures, 12. - 14. June 2006, Helsinki, Finland
Al-Neshawy, F. (Contributor)
2006

Foreign Organisation

Al-Neshawy, F. (Visiting researcher)
2006

Foreign Organisation

Al-Neshawy, F. (Visiting researcher)
2006

Nordic construction IT seminar, 29. - 30.3.2006, Espoo, Finland

Al-Neshawy, F. (Contributor)
2006

The Nordic Graduate School for the Construction Sector, Lynby, DTU 12.12.2006

Al-Neshawy, F. (Contributor)
2006

The Nordic Graduate School for the Construction Sector ,Tukholma, KTH 22.09.2006

Al-Neshawy, F. (Contributor)
2006

XIX Symposium on Nordic Concrete Research & Development – A Meeting Place for Research and Practice, 12.-15.June, Sandefjord, Norway

Al-Neshawy, F. (Contributor)
2005

Prizes

Student prize: Oskari Vilamon rahaston väitöskirjapalkinto 2014 Oskari Vilamon rahasto, Finland

Al-Neshawy, F. (Student prize recipient), 2014

Projects

LOIKKA: Betonin CO2-päästöjen puolittaminen

Punkki, J. (Principal investigator), Antonova, A. (Project Member), Saranya, R. (Project Member), Alapieti, T. (Project Member), Al-Neshawy, F. (Project Member), Illarionova, D. (Project Member), Repo, V. (Project Member), Iqbal, A. (Project Member) & Piironen, J. (Project Member)

EU The Recovery and Resilience Facility (RRF)

01/03/2022 → 28/02/2024

CONAGE: Critical studies in support of the Ageing Management of NPP concrete infrastructure

Puttonen, J. (Principal investigator), Ahmed, H. (Project Member), Ojala, T. (Project Member), Al-Neshawy, F. (Project Member) & Sistonen, E. (Project Member)

01/02/2019 → 31/01/2020

SAFIR_CONAGE_2020: Critical studies in support of the Ageing Management of NPP concrete infrastructure

Puttonen, J. (Principal investigator), Ahmed, H. (Project Member), Sistonen, E. (Project Member), Al-Neshawy, F. (Project Member) & Piironen, J. (Project Member)

01/01/2020 → 31/01/2021

CONAGE2021 (VYR/SAFIR2022): Critical studies in support of the Ageing Management of NPP concrete infrastructure
Puttonen, J. (Principal investigator), Piironen, J. (Project Member), Al-Neshawy, F. (Project Member) & Sistonen, E. (Project Member)
01/02/2021 → 31/01/2022

CONAGE2022 (VYR/SAFIR2022): Critical Studies in support of the Ageing Management of NPP Concrete Infrastructure
Puttonen, J. (Principal investigator), Al-Neshawy, F. (Project Member) & Ba Ragaa, A. (Project Member)
01/01/2022 → 31/01/2023

ConLoT (VYR/KYT2022): Durability Testing of Concrete in Long-Term Simulated Groundwater Conditions
Punkki, J. (Principal investigator), Al-Neshawy, F. (Project Member), Piironen, J. (Project Member) & Ba Ragaa, A. (Project Member)
01/01/2022 → 31/01/2023

Duralnt (vtt)
Al-Neshawy, F. (Project Member), Piironen, J. (Project Member), Sillanpää, M. (Project Member), Kari, O.-P. (Project Member) & Sistonen, E. (Project Member)
01/01/2010 → 31/12/2011

KYT2010 (VYR)
Sistonen, E. (Project Member), Piironen, J. (Project Member), Al-Neshawy, F. (Project Member) & Kari, O.-P. (Project Member)
01/01/2010 → 31/12/2011

PERCO2_2023 (VYR/SAFER2028): Long-term Performance Modelling of Concrete in Final Repositories of LILW Nuclear Waste
Puttonen, J. (Principal investigator), Ba Ragaa, A. (Project Member), Piironen, J. (Project Member) & Al-Neshawy, F. (Project Member)
01/01/2023 → 31/01/2024

PERCO2_2024 (VYR/SAFER2028): Long-term Performance Modelling of Concrete in Final Repositories of LILW Nuclear Waste
Punkki, J. (Principal investigator) & Al-Neshawy, F. (Project Member)
01/01/2024 → 31/01/2025

Lämmöneristettyjen kuorimuuriseinien emissiot
Piironen, J. (Project Member), Al-Neshawy, F. (Project Member), Kari, O.-P. (Project Member) & Peltola, S. (Project Member)
01/01/2010 → 31/12/2011

WANDA: NDE of NPP primary circuit components and concrete infrastructure
Puttonen, J. (Principal investigator) & Al-Neshawy, F. (Project Member)
01/01/2016 → 31/01/2017

Non destructive examination of NPP primary circuit components and concrete infrastructure
Puttonen, J. (Principal investigator), Ojala, T. (Project Member), Al-Neshawy, F. (Project Member) & Huuskonen-Snicker, E. (Project Member)
01/01/2017 → 31/01/2018

RAILO
Al-Neshawy, F. (Project Member)
01/01/2010 → 31/12/2012

SAFIR2014-MANAGE (VYR)
Puttonen, J. (Principal investigator), Sistonen, E. (Project Member), Al-Neshawy, F. (Project Member), Piironen, J. (Project Member) & Kari, O.-P. (Project Member)

01/01/2011 → 31/01/2015

Thorborg von Konowin aineisto

Al-Neshawy, F. (Project Member)

01/11/2013 → 31/12/2014

WANDA (VYR)

Puttonen, J. (Principal investigator), Sistonen, E. (Project Member) & Al-Neshawy, F. (Project Member)

01/01/2015 → 31/01/2016

WANDA (VYR) 2018 - T21400

Puttonen, J. (Principal investigator), Al-Neshawy, F. (Project Member) & Ojala, T. (Project Member)

01/02/2018 → 31/01/2019