

Dr/Mrs Tone M. Muthanna

Associate Professor, Norwegian University of Science and Technology, Department of Civil and Environmental Engineering

Main areas of expertise: urban water systems, stormwater management, green infrastructure technology, urban hydrology, water quality and risk analysis including climate, water, environmental risk ; sustainable resource management, including innovative technologies for climate change adaptation

Date of Birth: 04 February 1975

Nationality: Norwegian

Education

Philosophiae Doctor (Ph.D), Environmental and Hydraulic Engineering, March 2007

Norwegian University of Science and Technology (NTNU), Trondheim, Norway

Masters of Science (MSc), Biological Systems Engineering, February 2001

Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA

Bachelor of Science (BSc) Biological Systems Engineering, December 1998

Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA

Professional Experience (previous 5 years)

June 2013-present: Associate Professor at NTNU, Trondheim, Norway Department of hydraulic and environmental engineering

March 2010 – June 2013: Post Doctoral Research Fellow at NTNU, Trondheim, Norway Department of hydraulic and environmental engineering

May 2007 – October 2012 Research Scientist: at Norwegian Institute for Water Research (NIVA)

Examples of Relevant Publications

Johannessen, Birgitte G.; Muthanna, Tone M.; Braskerud, B.C. (2018). [Detention and retention behavior of four extensive green roofs in three Nordic climate zones](#). *Water*. Vol 10(6).

Monrabal-Martinez, Carlos; Aberle, Jochen; Muthanna, Tone M., Orts-Zamorano. (2018) [Hydrological benefits of filtering swales for metal removal](#). *Water Research*. Vol. 145

Andenæs, Erlend; Kvande, Tore; **Muthanna**, Tone Merete; Lohne, Jardar. (2018) [Performance of Blue-Green Roofs in Cold Climates: A Scoping Review](#). *Buildings*. vol. 8 (4).

Hamouz, Vladimir; Lohne, Jardar; Wood, Jaran R.; **Muthanna**, Tone Merete. (2018). [Hydrological Performance of LECA-Based Roofs in Cold Climates](#). *Water*. vol. 10 (3).

Kristvik, Erle; Kleiven; Guro Heimstad; Lohne, Jardar; **Muthanna**, Tone Merete. (2018). *Assessing the robustness of raingardens under climate change using SDSM and temporal downscaling*. [Water Science and Technology](#), Vol. 7(6), March 2018, Pages 1640-1650

Kristvik, Erle; **Muthanna**, Tone Merete; Alfredsen, Knut. (2018). [Assessment of future water availability under climate change, considering scenarios for population growth and ageing infrastructure](#). *Journal of Water and Climate Change*, Vol. 9(1).

Johannessen, Birgitte Gisvold; Hanslin, Hans Martin; **Muthanna**, Tone Merete. (2017). [Green roof performance potential in cold and wet regions](#). *Ecological Engineering: The Journal of Ecotechnology*. Vol. 106.

Monrabal-Martinez, Carlos; Ilyas, Aamir; **Muthanna**, Tone Merete. (2017). [Pilot Scale Testing of Adsorbent Amended Filters under High Hydraulic Loads for Highway Runoff in Cold Climates](#). *Water* Vol. 9 (230).

Ilyas, Aamir; **Muthanna**, Tone Merete. (2017). [Assessment of upscaling potential of alternative adsorbent materials for highway stormwater treatment in cold climates](#). *Environmental technology*. Vol. 38 (6).

Ilyas, Aamir; **Muthanna**, Tone Merete. (2017). [Metal removal efficiency, operational life and secondary environmental impacts of a stormwater filter developed from iron-oxide-amended bottom ash](#). *Journal of Environmental Science and Health. Part A: Toxic/Hazardous Substances and Environmental Engineering*. vol. 52 (14).

Examples of Relevant Projects

ExndMinnow - Int. Partnerships for Excellence in Education, Research and Innovation (€ 560 000)

Collaboration in adaptation to climate change for the built environment. (2018-2020)

BINGO – H2020 (€8.600.000) Work package leader. "Bringing Innovation to OnGoing Water Management – a better future under climate change" (2015-2019).

Inxces – (€ 1.499.000) JPI Waterworks 2015 “Innovations for extreme climatic events” (2016-2019)

Veirens – (€ 620.000), Joint collaboration between National Road Authorities – and NTNU under the NORWAT program. (2016-2013)

UrbanWatch (NOK 5 200 000) Groundwater and stormwater management for cultural heritage protection (funded by national research council) (2012-2015)