Tone Merete Muthanna

Associate Professor

Department of Civil and Environmental Engineering, NTNU

Email: tone.muthanna@ntnu.no Date of birth: 04 February, 1975



Education: Ph.D Environmental and Hydraulic Engineering, NTNU(2007); MSc and BSc Biological Systems Engineering, Virginia Polytechnic Institute and State University (Virginia Tech), (2001, 1998)

Work Experience:

Jun 2013-present Associate Professor, Department of civil and environmental engineering, NTNU

Mar 2010 – Jun2013 Post Doc. Research Fellow at Department of civil and environmental engineering, NTNU

May 2007 – Oct2012 Research Scientist at Norwegian Institute for Water Research (NIVA),

Jan 2003- Oct 2006 PhD candidate Department of hydraulic and environmental engineering, NTNU.

Feb. 2001- Jan 2003 Water resources engineer at CH2M Hill, Washington D.C, USA

Selection of project portfolio:

- BINGO H2020 (€8.600.000) Work package leader and member of management team of the H2020 project BINGO "Bringing Innovation to OnGoing Water Management a better future under climate change" (2015-2019).
- Inxcess (NOK 1.499.000) JPI Waterworks "Innovations for extreme climatic events" (2016-2018)
- Veirens (NOK 4.200.000), 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)

International Committees and Professional affiliations:

- Joint Committee on Urban Drainage (IWA/IAHR) committee member 2015-present
- IWA National committee member
- Member of International Panel of Experts for evaluation of study programmes in the field of Civil engineering at the Vilnius Gediminas Technical University appointed by The Centre for Quality Assessment in Higher Education (SKVC), Lithuania, December 2016.
- PhD assessment committee (2. Opponent) NMBU 2017
- Liceate thesis opponent University of Technology Luelå, (LTU), 2013, Candidate Matthias Borris

Selected Publications:

Author of more than 30 international peer reviewed journal articles

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

Kristvik, Erle; **Muthanna**, Tone Merete; Alfredsen, Knut. (2018) <u>Assessment of future water availability under climate change</u>, considering scenarios for population growth and ageing infrastructure. *Journal of Water and Climate Change*.

Ilyas, Aamir; **Muthanna**, Tone Merete. (2017) <u>Assessment of upscaling potential of alternative adsorbent materials for highway stormwater treatment in cold climates. *Environmental technology*. vol. 38 (6).</u>

Ilyas, Aamir; **Muthanna**, Tone Merete. (2017) <u>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).</u>

Monrabal-Martinez, C.; Ilyas, A., **Muthanna, T.M.**, (2017) <u>Pilot Scale Testing of Adsorbent Amended Filters under High Hydraulic Loads for Highway Runoff in Cold Climates.</u> <u>Water</u>,vol. 9 (3).

Johanessen, B.G., Hanslin, H.M., **Muthanna**, **TM**.(2017) Green roof performance potential in cold and wet regions Ecological Engineering vol. 106, p. 436-447.

Ilyas, A., and **Muthanna**, **T.M.**, (2016). "Assessment of upscaling potential of alternative adsorbent materials for highway stormwater treatment in cold climates." Environmental Technology. http://dx.doi.org/10.1080/09593330.2016.1209567

Moghadas, Shahab; Gustavsson, A.M.; **Muthanna, Tone Merete**; Marsalek, Jiri; Viklander, Maria. (2016) Review of models and procedures for modelling urban snowmelt. *Urban Water Journal*. vol. 13 (4).

Paus, K.A.H.; **Muthanna, T.M.**; Braskerud, B.C. (2016) The hydrological performance of bioretention cells in regions with cold climates: Seasonal variation and implications for design. *Hydrology Research*. vol. 47 (2).

Moghadas, S.; Paus, K.H.; **Muthanna, T.M.**; Herrmann, I.; Marsalek, J.; Viklander, M. (2015) Accumulation of Traffic-Related Trace Metals in Urban Winter-Long Roadside Snowbanks. *Water, Air and Soil Pollution*. vol. 226 (12).

Hovik, S.; Naustdalslid, J.; Reitan, M.; **Muthanna**, T.M. (2015) Adaptation to Climate Change – Professional Networks and Reinforcing Institutional Environments. *Environment and Planning. C, Government and Policy*, volume 33 (1).

Muthanna, **T.M.**, Viklander M., Thorolfsson, S.T. (2008). Seasonal climatic effects on the hydrology of a cold climate rain garden. Hydrological Processes 22 (1640-1649).

Muthanna, T.M., Viklander M., Blecken, G, and Thorolfsson, S.T. (2007). Snowmelt pollutant removal in bioretention areas. Water Research 41(18) 4061-4072.

Muthanna, T.M., Gjesdahl, N., Viklander, M., Thorolfsson, S.T. (2007). Heavy metal removal in cold climate bioretention. Water, Air & Soil Pollution 183 (391-402).