

Curriculum Vitae

Willis Awandu, MSc.

Date of Birth: 10th January 1989
Sex: Male
Place of Birth: Kisumu, Kenya
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Languages: English, Swahili, German (Independent user)

RESEARCH INTEREST

My research interests are water and sanitation, Urban water management, Hydraulic structures, River Engineering and integrated flood protection, water resources management with special interest in ground water protection and contaminated sites remediation.

EDUCATION

10/2016 – 01/2019 MSc. Water Resources Engineering and Management.
Subject: **Determination of mass transfer rates of contaminants during Enhanced Steam-air in-situ remediation processes.**
Grade: **1,9**
University of Stuttgart, Germany-BW

05/2010 – 12/2014 BSc. Civil Engineering.
Subject of BSc thesis: **Seismic Analysis and Design of Reinforced Concrete Five Storey school building.**
Jomo Kenyatta University of Agriculture and Technology
Honors: Second class Upper Division.
Nairobi, Kenya

01/2005 – 11/2008 St. Stephen's Menara Secondary School Muhoroni Kenya
Kenya Certificate of Secondary Education (KCSE)

RESEARCH EXPERIENCE

- 03/2018 – 12/2018 Master Thesis in Research Facility for subsurface Remediation (VEGAS), University of Stuttgart.
- Conducted an experimental investigation of mass transfer rates of contaminants during enhanced Steam – Air in – situ remediation processes. The data I obtained were used for the validation of the DLI software developed by VEGAS research facility and its improvement for the remedial design. The software output has an improved accuracy in the estimation of the required time frame for a designed remediation system.
- Research advisors: Dipl.-Ing. (FH) Oliver Trötschler.
Florian Boscher, MEng.

WORK EXPERIENCE

- 04/2020 – to date **Tutorial Fellow.**
Masinde Muliro University of Science and Technology
Duties and responsibilities:
- ❖ Teaching undergraduates
 - ❖ Setting and administering examinations
 - ❖ Conducting research
 - ❖ Advisor to the second years students of Building and Technology
 - ❖ Department's ICT and Website liaison officer.
- 11/2019 – 06/2020 **Site Engineer.**
Octagon Builders and General Suppliers Ltd
Construction of Nairobi City Regeneration Projects – Dagoretti and Mathare Sewer lines.
- ❖ I am in-charge of the daily site construction activities.
 - ❖ I organized and coordinated site meetings
 - ❖ I prepared the works program, progress reports, Interim payment certificates.
- 06/2019 – 10/2019 **Engineering Intern**
Athi Water Development Authority / Mangat Consultants /CES
I was involved in the supervision of the modifications of the Nairobi City Eastern By – pass distribution network from Kiambu – Embakasi.
- ❖ I supervised the construction works of the pipe laying.

Curriculum Vitae

03/2015 - 09/2016

Assistant Engineer

Moti Consultants Ltd, Kenya

I was involved in the supervision of the Sotik – Ndanai – Gorgor C15 road improvement to Bitumen standards.

- ❖ I supervised the road construction activities – earthworks, road pavements, structures, drainages.

02/2014 – 05/2014

Professional Membership

- ❖ Engineers Board of Kenya – Registered Graduate Engineer **B10231**

Publication

1. Oliver Trötschler, Willis Awandu, Hans-Peter Koschitzky, Claus Haslauer. Thermally Enhanced In-Situ Remediation Using Steam-Air Injection – Background and Improvements of the “DLI-DESIGN-TOOL” Software for Remedial Design. Advances in remediation technologies, thermal techniques Physical, thermal and stabilization techniques. Conference proceedings presentation during the AquaConsoil 2019 in Antwerp - Belgium.
2. Awandu, W and Trötschler, O. (2021). Effects of Organic Carbon Content on In-situ Remediation Time using Steam – air Injection. WATER RESEARCH AND INNOVATIONS IN DIGITAL ERA. Conference proceedings presentation during the 12th Eastern European Young Water Professionals Conference – IWA YWP in Riga – Latvia. 31st March – 2nd April 2021: <https://iwa-ywp.eu/> ISBN: 978-9934-22-618-2 (pdf) - (pp 208 – 209).

Scholarships

- Awarded the Katholischer Akademischer Ausländer Dienst (KAAD) scholarship for MSc. Water Resources Engineering and Management at the University of Stuttgart (Oct 2016 - Dec 2018)

Leadership roles

- I am the academic secretary to KASEA – Kenya chapter (alumni group of KAAD) since Jan 2020 – to date.
- I became the ambassador of KASEA- a charitable action by a group of Kenyan scholars through KAAD scholarship, I mobilized members to continuously engage in their charitable donations (2015- to date).
- Interim treasurer for the Catholic Community in the academic year 2013/2014 – JKUAT.
- Successfully organized a fund drive for the Catholic Community through talent show at JKUAT.
- Awarded Certificate of recognition for being the chairperson of the students’ small Christian community for the academic years 2012/2013 and 2013/2014 at JKUAT.
- Organized mentorship programs for secondary schools in my home area in Kisumu county.

- Chairperson of the alumni of my former high school from 2013 – 2016.

Referee

1. Dr. Eddy Odari,
Lecturer College of Health Science,
Jomo Kenyatta University,
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2. Dr. Benard Omondi
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Masinde Muliro University of Science and Technology,
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3. Dr.- Ing. Patrick Murigi,
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