GIZACHEW ABABU DEMISSIE

School of Engineering, University of British Columbia

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EDUCATION

January 2014 - Present, **PhD student in Civil Engineering**, at University of British Columbia, Kelowna, Canada

October 2008 - April 2010, M.Sc in Water Science and Engineering, Specialization in **Hydroinformatics**, UNESCO-IHE Institute for water education, Delft, The Netherlands

September 2000 – July 2004, B.Sc in **Hydraulic Engineering**, Arbaminch University, Arbaminch, Ethiopia

SHORT COURSES

- ✓ December 15/2014, Certificate in **Water201x: Blue is the New Green,** at UBCx, an online learning initiative of The University of British Columbia through edX, Vancouver BC, Canada.

- ✓ Fall 2014, Certificate in **Foundations Credential**: effective teaching strategies, micro teaching practices and different workshops and seminars, at Center for Teaching and Learning – University of British Columbia-Okanagan, Kelowna BC, Canada

- ✓ June 11 – 29, 2012, Certificate in **Environmental system modeling** at UNESCO-IHE Institute for Water Education, Delft, The Netherlands.

- ✓ October 26 – 28, 2006, Certificate in **Pedagogy and Adult Education** at Hawassa University, Hawassa, Ethiopia

- ✓ September 21 – October 14, 2005, Certificate in **GIS and Remote Sensing** at Japan International Cooperation Agency (JICA), Addis Ababa, Ethiopia.

COMPUTER AND MODELING SKILLS

- Basic computer skills, Modeling and optimization tools, SWAT, MOHID, ArcGIS, ERDAS, ILWIS, EPANET, SWIM, HEC-RAS, HEC-HMS, Delft3D, Delft3D-WAQ, AUTOCAD, WATERCAD, SWERCAD, MIKE11, MIKE21, AND MODFLOW, NETICA;

PROGRAMING LANGUAGES

- Borland Delphi (Pascal Environment); C++; C#; VB; Matlab; R-statistical software;

EMPLOYMENT AND EXPERIENCE

- **January 2014 - Present, Graduate research assistant (GRA) at School of Engineering, University of British Columbia, Kelowna, Canada**
  Duties and responsibilities:
  - ❖ Data preparation and analysis using GIS and Microsoft excel for Glenmore-Ellison Improvement District (GEID) and Regional District of North Okanagan (RDNO) pipe renewal and replacement project.
  - ❖ Writing of a project report on Risk analysis, life cycle cost analysis and performance assessment.
  - ❖ Risk based Life Cycle Asset Management of Pipes (RiLCAMP) tool development for Glenmore-Ellison Improvement District (GEID) and Regional District of North Okanagan (RDNO).
- **May 2010 – December 2013 (Full time), Lecturer at Hawassa University, Hawassa, Ethiopia**
  Duties and Responsibilities:
  - ❖ Teaching (Handling courses, practical classes, lab classes, tutorials and allied academic activities) courses like Hydraulics, Engineering Hydrology, Water Engineering (Water supply, quality, treatment, and sanitation), and Hydraulic structures.
  - ❖ Working as member of Department council and a member of Scholarships and Discipline committee in the department of Civil and Urban Engineering
- **September 2010 – December 2013 (Part time), Lecturer at Infolink College, Hawassa, Ethiopia**
  Duties and Responsibilities:
  - ❖ Teaching (Handling courses, practical classes, lab classes, tutorials and allied academic activities) courses like Engineering Hydrology, Water Engineering (Water supply, quality, treatment, and sanitation), and Hydraulic structures.
- **September 2006 – September 2008, Assistant lecturer at Hawassa University, Hawassa, Ethiopia**
  Duties and Responsibilities:
  - ❖ Teaching (Handling courses, practical classes, lab classes, tutorials and allied academic activities) for courses like Engineering Hydrology, Hydraulics I, Hydraulics II, Open channel hydraulics, Surveying, AutoCAD for Civil and Urban Engineers and Engineering mechanics
  - ❖ Worked as a member of Curriculum Committee and member of department council in the department of Civil and Urban Engineering
- **January 2005 – August 2006, Assistant Sanitary/Civil Engineer at Addis Ababa Water and Sewerage Authority; Addis Ababa, Ethiopia**
  Duties and Responsibilities:
  - ❖ Design of water supply and sewerage systems
  - ❖ Development of data-base for water supply and sewerage pipe systems.
  - ❖ Design of GIS database for water supply and sewerage systems in the GIS Unit

- ❖ Given training on GIS, Remote sensing and AutoCAD for Head office and ten branches' staffs professionally Engineers, Surveyors and Draftsmen.

AWARDS AND SCHOLASHIPS

- October 2014 (Award): *Mitacs-Accelerate Graduate Research Internship Program* (Partner organization – city of Calgary).
- February 2014 (Scholarship): University of British Columbia-University Graduate Fellowship (UGF)
- June 2008 (Scholarship): The Netherlands Government Fellowship Programme (NFP)

PROFESSIONAL AFFLIATIONS

- Canadian Society for Civil Engineering (CSCE) – member from Jan -2014 to present
- Canadian Network of Asset Managers (CNAM) – member from Jan - 2015 to present

ACCADEMIC INTERSTS

- Pursuing research activities in the area of infrastructure management, risk analysis and hydro informatics

PUBLICATIONS

1. **Demissie, G**., Tesfamariam, S., & Sadiq, R. (2015). Prediction of soil corrosivity index: a Bayesian belief network approach. *12th International Conference on Applications of Statistics and Probability in Civil Engineering*, ICASP12, July 12-15. Vancouver, Canada: ICASP12 (under review).
2. Kabir, G**., Demissie, G**., Tesfamariam, S., & Sadiq, R. (2015). Integrating Failure Prediction Models for Water Mains: Bayesian Belief Network Based Data Fusion. *Knowledge-Based Systems* (under review).
3. **Demissie, G**., Tesfamariam, S., Brander, R., & Sadiq, R. (2014). Modelling soil corrosivity using Bayesian belief network. *Journal of Infrastructure Systems*, (under review).
4. **Demissie, G**., Tesfamariam, S., & Sadiq, R. (2014). Considering soil parameters in prediction of remaining service life of metallic pipes: a Bayesian belief network model. *Journal of Pipeline Systems Engineering and Practice Pipeline Systems -Engineering and Practice* (under review).

ABSTRACT AND POSTER PRESENTATIONS

1. **Demissie**, G., Tesfamariam, S., & Sadiq, R. (2015). Soil corrosivity based prediction of remaining service life of metallic pipes using Bayesian belief network. *In 2015 2nd Annual CNAM Student Research Symposium*. Vancouver, Canada (Abstract submitted).

ASSOCIATED RESEARCH PROJECTS

1. Prioritization of water main replacement program: A risk-based decision support tool for Glenmore-Ellison Improvement District (GEID) (Final draft submitted in 2014).
2. Risk based Life Cycle Asset Management of Pipes (RiLCAMP) tool development for Regional District of North Okanagan (RDNO) (Final draft submitted in January 2015).

REFERENCES

1. Solomon Tesfamariam (PhD, PEng)
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3. Ann van Griensven (PhD, M.Sc.)
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