

James Maati Ondari – CV

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Profile



James is a self-driven, co-operative, diligent and innovative fast learner with good leadership, communication and team-building skills. He has worked with leading Engineering Consultants in Kenya during which time he gained wide practical and theoretical experience in Structural, Public/Environmental Health and Water Resources Engineering on the general aspects of tendering, design, project implementation and construction supervision. James holds a Bachelor's degree in Civil & Construction Engineering from the University of Nairobi in Kenya and a Master's degree in Civil Engineering (Water option) from Vaal University of Technology (VUT) in South Africa.

Work Experience

April 2021 – Present

Lecturer, Civil Engineering Department, Kenyatta University.

- Mentoring and supervising student projects.
- Lecturing, tutoring and coordinating laboratory sessions for undergraduate students.
- Assessed students through continuous assessment tests (CATs) and end of semester examinations.
- Assist in departmental administrative duties.
- Conduct research.

May 2019 – April 2021

Chairperson, Civil and Environmental Engineering (CEEN) department, Egerton University

- Guide, mentor and coordinate departmental staff
- University Senate member
- Coordinate partnerships between CEEN department and outside organizations/institutions
- Facilitate skills development of departmental staff
- Water Resources Engineering & Management lecturer.

July 2018 – Present

Lecturer, Civil and Environmental Engineering Department, Egerton University.

- Lecturing, tutoring and coordinating laboratory sessions for undergraduate students in the Faculty of Engineering and Technology.
- Assessed students through continuous assessment tests (CATs) and end of semester examinations.
- Departmental Examination Officer.

May 2018 – July 2018

Part-time Lecturer, Civil and Environmental Engineering Department, Egerton University.

- Lectured, tutored and coordinated laboratory sessions for Ground Water and Water Resources Engineering courses.
- Set and marked Continuous Assessment Tests (CATs) and Semester Examinations.

Oct. 2017 – July 2018

Design Engineering Lead, Sanivation

- Conduct Feasibility studies, Projects Appraisals, Cost-Benefit Analysis and Design of wastewater treatment facilities
- Team and Project Management
 - Hire and vet consultants and contractors
 - Manage contractors, subcontractors and consultants
 - Lead construction management and inspection
 - Maintain engineering records and key lessons learned
 - Ensure compliance with relevant laws and standards
- Support the capacity development and training of Sanivation staff, through internal mentorship programs, one on one training, as well as identifying new talent.
- Creativity and ingenuity;
 - Identify and evaluate new faecal sludge treatment technologies for integrating into Sanivations's operations
 - Research FSM technologies
 - Support on testing, evaluating and communicating about new technologies and prototypes.
- Partnership Building
 - Build Sanivation's network in the civil and environmental industry as well as with local partners;
 - Network building: act as ambassador for Sanivation to find the right engineering and construction partners for current and future projects
 - Identify knowledge/capability gaps within a project, find outside consultants or companies to fill those gaps and manage Sanivation's relationship with consultants.

Aug. 2016 – Oct. 2017

Water and Sanitation Engineer, MIBP Consulting Engineers' Ltd., Kenya

- Conducted feasibility studies
- Designed potable water treatment systems and distribution networks
- Designed sewerage networks and wastewater treatment systems
- Drafted Technical Reports
- Prepared project cost estimates and Tender documents
- Supervised construction
- Prepared Master Plans of Potable Water supply and wastewater treatment systems for 20 and 30-year design horizons

Aug. 2011 – Dec. 2015

Lecturer, Vaal University of Technology, South Africa

- Lectured, Tutored, and Guided learners through academic, professional and extra-curricular platforms
- Set, moderated and marked semester tests and exams
- Registered learners for National Diploma and Bachelor's degree programs in Civil Engineering
- Planned, prepared and implemented practical/laboratory classes and research projects for undergraduate students in Civil and Chemical Engineering departments;
- Represented VUT's Civil Engineering Dept. in academic, social and extra-curricular activities such as Open Days, Sasol Techno-X, community outreach programs and sports;
- Acted as Patron for Building and Civil Engineering Student Society Organization (BCESSO);
- Organized academic site visits as well as community outreach programs for Civil Engineering students through BCESSO (Building and Civil Engineering Student Society Organization);
- Represented the Civil Engineering Dept. in VUT's HIV and AIDS awareness committee.

Sep. 2010 – Jul. 2011

Structural and Geotechnical Engineer, MIBP Consulting Engineers' Ltd., Kenya

- Conceptualized, designed and detailed Reinforced Concrete, Steel and Timber Structures.
- Assessed the properties and behavior of soil and rock formations necessary for the design of foundations and retaining walls.
- Conducted regular site visits for inspection, site meetings and work progress evaluation.
- Prepared reports describing assessment of geotechnical risks, options to mitigate the undue risks, and recommendations on design of validation tests provision during construction.

Jul. 2009 – Oct. 2009

Inspector of Works, MIBP Consulting Engineers' Ltd., Kenya

- Inspected, monitored and reported on the general progress of work on site
- Supervised and approved the construction of 2 nr. R.C tanks, Chlorination Units, pump houses, operation offices and staff units;
- Supervised and approved the drilling of 3 nr. Boreholes along with complete pumps and meter installation;
- Audited contractual bidding documents in an effort to award contract to the most eligible bidder;
- Familiarized with the FIDIC conditions of contract;
- Supervised sub-contractors
- Prepared and developed risk assessment methodologies

Education

Aug. 2011-April 2015

Master of Technology (MTech) in Civil Engineering – Water option, Vaal University of Technology – South Africa.

Oct. 2005-Sep. 2010

Bachelor of Science in Civil and Construction Engineering, Second Class Honours – Upper Division, University of Nairobi, Kenya.

Jan. 2001-Nov. 2003

Kenya Certificate of Secondary Education (KCSE); Aggregate Grade, A-; Kisii High School, Kenya.

Publication

a. Journal Papers

Ondari, J.M., Ndege, M., Aoyi, A. 2014. Anaerobic degradation of pre-treated abattoir wastewater in an UASB reactor. *SA Innovation Journal*. 27-38.

b. Thesis

Ondari, J.M. Anaerobic co-digestion of Abattoir and Textile industry wastewater in an UASB reactor. MTech. Thesis. *Vaal University of Technology, South Africa*. 2015.

<https://www.semanticscholar.org/paper/ANAEROBIC-CO-DIGESTION-OF-ABATTOIR-AND-TEXTILE-IN-A-MAATI-Ondari/d16d8261b608b93a730838a5724b0893569a490c>

Ondari, J.M. Possible use of Sugarcane Bagasse Ash as a cement replacement material. BSc. Thesis. *University of Nairobi, Kenya*. 2010.

Conferences, Short-courses and Seminars Attended

Conferences

- 16 – 18 September, 2014. 7th SA Innovation Conference in Cape Town Stadium, Cape Town.
- 19th November, 2013. Vaal University of Technology's Centre for Renewable Energy and Water (CREW) in Emerald Casino, Vanderbijlpark.

Short-courses and seminars

- 9th – 13th November, 2015. Abacus FEA (Simulia, South Africa). 3 CPD points.
- 29th – 30th July, 2014. Tutor training (VUT) in T-Block, Vanderbijlpark, South Africa.
- 17th – 19th April, 2014. Cost Engineering for Capital Projects Workshop (Global Prospectus), Randburg. 2 CPD Points.
- 8th – 9th April, 2014. FIDIC, NEC3, JBCC and GCC2010 Contracts Workshop (Global Prospectus), Randburg. 2 CPD Points.
- 16th November, 2012. Autodesk University Extension Johannesburg, The Forum in Sandton.
- May – July, 2013. PROKON, Civil3D and AutoCAD Training, VUT.
- 19th – 21st September, 2011. STATA 11 (Prof. Zeleke Worku), VUT.

Teaching Experience

Period	Employer	Nature of Work
April 2021 to Present	Kenyatta University	Lecturer, Supervisor and Researcher, <ul style="list-style-type: none">▪ Fluid Mechanics I▪ Irrigation Engineering I▪ Hydraulics I▪ Hydraulics II▪ Hydrology I▪ Hydrology II▪ Groundwater Abstraction
April 2018 to Present	Egerton University	Lecturer, Tutor and Examiner; <ul style="list-style-type: none">▪ Ground Water Engineering (WEEN 558)

		<ul style="list-style-type: none"> ▪ Water Resources Engineering I (WEEN 556) ▪ Water Resources Engineering II (WEEN 557) ▪ Fluid Mechanics I (WEEN 211) ▪ Fluid Mechanics II (WEEN 212)
August 2011 to December 2015.	Vaal University of Technology	Lecturer, Mentor, Tutor and Examiner; <ul style="list-style-type: none"> ▪ Applied Mechanics (ECAPM1B), ▪ Engineering Drawing I (ECDRW1B), ▪ Engineering Drawing II (AutoCAD) – ECDRW2B, ▪ Structural Analysis II and III (ECSTA2B & ECSTA3B), ▪ Water Engineering II (ECWEN2B).

Professional Membership

- Engineers' Board of Kenya (EBK)
- Institution of Engineers of Kenya (IEK) – Corporate Member
- Engineering Council of South Africa (ECSA)
- South African Institution of Civil Engineering (SAICE)
- Water Institute of South Africa (WISA)

Computer skills and competencies

- Finite Element Analysis package; Abacus FEA.
- Expertise in drawing and design packages; AutoCAD, ArchiCAD & CorelDraw.
- Competent in the following Civil Engineering packages; PROKON, STAAD, Civil 3D & WaterCAD.
- Competent with STATA 11 statistical software.
- Competent with Microsoft Office packages.

REFEREES.

1. Prof. Eng. Sylvester Ochieng' Abuodha
Department of Civil & Construction Engineering
The University of Nairobi.
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2. Prof. Peter Kuzvinetsa Dzvimbo
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4. Dr. Eng. Peter K. Ndiba
Senior Lecturer
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