

CONSULTANT PROFILE

Abraham Yoseph Duki



*Senior Dam, Geotechnical and Hydraulic Engineer /
Project Manager | Team Leader*

Senior civil and hydraulic engineer with more than 17 years of professional experience in dam engineering, geotechnical engineering, irrigation development, hydropower studies, construction supervision, contract administration, and multidisciplinary project leadership. His work spans Ethiopia, Rwanda, and Tanzania, with direct experience on large and medium-scale projects financed by the World Bank and the African Development Bank.

MSc in Construction Technology & Management

MSc in Geotechnical Engineering

MBA in Management

BSc in Hydraulic & Water Resources Engineering

Executive Summary

Abraham Yoseph Duki is a senior hydraulic, dam, and geotechnical engineer with strong professional experience in the planning, design, review, and supervision of major water infrastructure projects. His background combines engineering design, dam and irrigation development, geotechnical investigations, construction supervision, project management, and contract administration across public-sector and consulting assignments.

His experience is directly relevant to dam engineering, hydraulic structures, irrigation systems, hydropower pre-feasibility work, foundation design, project coordination, and technical oversight of complex civil works. He has worked on dams, irrigation schemes, bridges, water supply systems, hydropower projects, and major construction assignments in Ethiopia, Rwanda, and Tanzania.

Strong dam and hydraulic consultancy requires not only technical design capacity, but also practical field judgment, geotechnical understanding, multidisciplinary coordination, and disciplined construction and contract follow-up.

Areas of Professional Strength

Abraham's professional profile reflects broad experience in dam design, geotechnical investigations, irrigation engineering, contract administration, construction supervision, project management, hydraulic review, and technical reporting. His assignments include dam and irrigation feasibility studies, detailed design, geotechnical assessment, construction-stage engineering support, and project leadership on nationally significant water and infrastructure projects.

Core Areas of Expertise

- Dam engineering and hydraulic structures
- Geotechnical investigation and foundation design
- Irrigation engineering and water infrastructure development
- Hydropower pre-feasibility and conceptual design support
- Construction supervision and contract administration
- Project management and team leadership
- Engineering reporting, BoQs, drawings, and tender documents
- Survey, geotechnical, and construction quality review

Professional Roles

- Senior Hydraulic / Dam Engineer
- Geotechnical Engineer
- Project Manager
- Resident Engineer
- Contract Administration Engineer
- Team Leader
- Design Engineer
- Construction Supervision Engineer

Core Technical and Leadership Strengths

Dam Engineering | Geotechnical Engineering | Irrigation Design | Hydraulic Structures | Hydropower Studies | Project Management | Contract Administration | Construction Supervision | Foundation Design | Spillway Design | Intake Structures | Site Investigations | BoQs & Tender Documents | Engineering Reporting | FIDIC / PPA Experience

Professional Profile

FULL NAME

Abraham Yoseph Duki

CURRENT STATUS

Senior Hydraulic / Dam Engineer, Resident Engineer, Geotechnical Engineer, Project Manager

PHONE

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CURRENT BASE

Addis Ababa, Ethiopia

EMAIL

abrahamy4@gmail.com

PROFESSIONAL LICENSES

PPECM/2610 • PRHWRE/293

Education

Addis Ababa University, Ethiopia

February 2025

Master of Business Administration (MBA) in Management

Hawassa University, Ethiopia

April 2019

Master of Science in Civil Engineering (Geotechnical Engineering)

Arba Minch University, Ethiopia

May 2017

Master Degree in Civil Engineering (Construction Technology and Management)

Arba Minch Water Technology Institute, Ethiopia

July 2009

BSc in Hydraulic and Water Resource Engineering

Selected Career Highlights

17+ Years of Progressive Experience

Extensive professional experience in Ethiopia, Rwanda, and Tanzania, with involvement in 33 medium and large-scale projects across design, supervision, geotechnical investigation, and design-build assignments.

Broad Multidisciplinary Capability

Brings integrated experience in dam, irrigation, hydropower, water supply, bridge, and building foundation assignments, combining technical design and implementation understanding.

Strong International Development Exposure

Worked on projects financed by the World Bank and the African Development Bank, with practical experience using FIDIC and PPA-based contracting approaches.

Leadership and Delivery

Has served as project manager, team leader, geotechnical engineer, resident engineer, and senior design engineer in both institutional and project-based consulting environments.

Employment Record

Ethiopian Engineering Corporation

April 2017 - Present

Senior Engineer engaged in dam and headworks processes, including senior hydraulic / dam engineering, resident engineering, geotechnical engineering, and project management responsibilities.

SABA Engineering PLC

February 2023 - Present

Senior Design Engineer Expert supporting dam and irrigation design work, including assignments for the National Irrigation Commission of Tanzania.

YTG Engineering Private Limited Company

October 2023 - April 2025

Geotechnical Engineer on project-based engineering assignments.

Adamso Serbessa General Contractor

August 2019 - May 2023

Geotechnical / Materials Engineer and Project Team Leader.

Ethiopian Design and Construction Supervision Corporation

November 2014 - April 2017

Engineer IV with experience in construction supervision and engineering delivery.

Water Works Design and Supervision Works Enterprise

March 2011 - November 2014

Engineer I contributing to water and infrastructure design and supervision assignments.

China International Water and Energy Corporation

January 2010 - 2011

Consultant's Engineer in early professional assignments.

Experience Relevant to Dam, Geotechnical, and Water Infrastructure Projects

Dam and Hydraulic Design

Participated in feasibility studies, detailed design, preliminary engineering, and design review for earthfill, rockfill, and irrigation dam projects, including spillways, intake towers, diversion works, and appurtenant hydraulic structures.

Geotechnical Engineering and Foundation Design

Led and supported geotechnical investigations, slope stability assessment, borehole logging, drilling supervision, laboratory testing, groundwater review, and foundation recommendations for dams, bridges, and buildings.

Construction Supervision and Contract Administration

Served in site and office-based roles involving measurement certification, payment review, progress reporting, contractor supervision, document review, design modifications, and quality compliance for major infrastructure projects.

Project Leadership and Coordination

Managed multidisciplinary engineering teams, coordinated resources and technical workflows, communicated with clients and stakeholders, and supported procurement, TOR preparation, and tender documentation.

Representative Responsibilities

- Dam site selection, reconnaissance, and preliminary design support
- Spillway, diversion, intake, and outlet structure design
- Geotechnical investigation planning and supervision
- Engineering drawings, BoQs, tender documents, and reports
- Hydraulic and water infrastructure technical review
- Construction monitoring and quality-focused site engineering
- Project management and engineering coordination
- Contract administration and progress certification
- Technical proposal and TOR preparation
- Client communication and stakeholder meetings
- Resource planning and QMS-oriented project delivery
- Software-enabled design, modelling, and reporting support

Selected Project Exposure

Nyarubogo Dam Rehabilitation and Improvement Project, Rwanda

Dam - Geotechnical Design Engineer on a World Bank-financed project involving design revision, geotechnical validation, and hydraulic structure review.

Bezo Dam and Irrigation Feasibility Study and Detailed Design, Ethiopia

Project Manager on a major large-scale irrigation and dam development assignment covering 13,000 ha.

Rift Valley RV-3A Hydropower Project, Ethiopia

Dam Design Engineer supporting hydropower site evaluation, conceptual design, geological assessment, and technical risk review.

Churazo and Muhazi Dam and Irrigation Projects, Tanzania

Hydraulic / Dam Design Engineer on African Development Bank-financed projects including dam structures, spillways, intake towers, and irrigation systems.

Dabus, Tendaho, Rib, Kessem, Gidabo, Kuraz, and Koga Projects, Ethiopia

Progressive roles in design, contract administration, supervision, and technical support on major dam and irrigation programs.

Representative Project Experience

Project	Role	Client / Financier	Relevant Experience
Design Study for Rehabilitation and Improvements of Nyarubogo Dam, Rwanda	Dam - Geotechnical Design Engineer	RAB / World Bank	Assessed dam heightening feasibility, revised hydraulic structures, conducted geotechnical validation, and prepared revised reports, drawings, and BoQs.
Bezo Dam and Irrigation Feasibility Study and Detailed Design, Ethiopia	Project Manager	Irrigation Schemes Development Administration Agency / Ministry of Finance	Led engineering teams, reviewed TORs and proposals, managed design activities, and coordinated large-scale dam and irrigation studies.
Churazo Dam and Irrigation Project, Tanzania	Hydraulic / Dam Design Engineer	National Irrigation Commission / African Development Bank	Worked on site selection, spillway and diversion design, design reporting, geotechnical investigation supervision, and second-stage construction design.
Muhazi Dam and Irrigation Project, Tanzania	Dam Design Engineer	National Irrigation Commission / African Development Bank	Supported design of dam, spillway, intake towers, diversion works, reports, drawings, and application of design criteria.
Dabus Dam Design Project, Ethiopia	Hydraulic / Dam - Irrigation Design Engineer	Ministry of Water, Irrigation & Electricity / World Bank	Managed geotechnical and geophysical investigations, supervised site works, and prepared design reports, drawings, and BoQs.
Tendaho and Rib Dam Construction Projects, Ethiopia	Contract Administration Engineer	Water Sector Institutions / MoFED / AfDB	Handled contract administration, construction progress supervision, design review, quantity take-offs, measurement certificates, and reporting.

Software and Technical Tools

Abraham's software background includes Autodesk Civil 3D, MiDAS GTS NX, Revit, CADDAM, Staad Pro, AutoCAD, ArchiCAD, SAP 2000, WaterCAD, GeoStudio, Bentley Inroads, Surfer, ArcGIS, Global Mapper, Shake 1-D, MIDAS

Soil Works, Plaxis 3D, Primavera, MS Project, SQL, BIM applications, SPSS, Matlab, and general engineering productivity tools.

Training, Membership, and Professional Development

His professional development includes project management, geotechnical laboratory practice, soil testing and foundation engineering, AutoCAD, contract law and administration, geohazard and landslide protection, earthquake engineering, building information modelling, and advanced geotechnical and structural analysis training. He is also associated with relevant professional bodies including ISSMGE, EEGA, EACE, ASCE, EOS, and construction technology and management professional associations.

Professional Value in Water Infrastructure Consultancy

Abraham Yoseph Duki offers a valuable combination of dam engineering, geotechnical expertise, hydraulic design capability, field supervision experience, project management discipline, and practical contract administration knowledge. His background is especially well suited to dam and irrigation consultancy assignments that require strong technical design judgment together with implementation awareness and multidisciplinary coordination.

Contact

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Location: Addis Ababa, Ethiopia

Consultancy Role: Senior Dam, Geotechnical and Hydraulic Engineer / Project Manager / Team Leader