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Personal Information

Name	Sami Osman Eltoum Hamad
Occupation	Water Resources Engineer / Researcher
Date of Birth	03/04/1987
Place of Birth	Greater Wad Medani, Gezira State, Sudan
Nationality	Sudanese
Language	Arabic as mother tongue English fluently (IELTS Overall Band 7.5) French read & write (novice speaker)
Place of Residence	Khartoum, Sudan
Status	Married
Driving license	yes
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Certificates

- Sudanese National Elementary school Certificate, Ministry of Education, April 2001 (Sudan). Grade 272 / 280
- Sudanese National Secondary school Certificate, Federal Ministry of General Education, April 2004 (Sudan). Grade 88.7%
- B.Sc in Civil Engineering (Honours), University of Khartoum, August 2009. Grade 6.19 Second degree division II.
- M.Sc in Hydroinformatics, Water Science and Engineering, UNESCO-IHE Institute for Water Education, April 2014. Grade 8.4

Education

- Elementary Education: 1991-1993 Westgate Hill School, Newcastle, U.K
1993-2001 Abdelmonim (1) School, Khartoum, Sudan
- Secondary Education: 2001-2004 Elshakih Mustafa Elamin, Khartoum, Sudan
- University Education (B.Sc): 2004-2009, Civil Engineering Department, Faculty of Engineering, University of Khartoum, P.O Box 123, Khartoum ,Sudan.
- Postgraduate Education (M.Sc): 2012-2014, Hydroinformatics: modelling and information systems for water management ,Water Science and Engineering Department, UNESCO-IHE Institute for Water Education , Delft, The Netherlands.

Computer Skills

- Operating System: Windows
- Microsoft Office Productions
- GIS and RS (ArcGIS, QGIS, WFlow)
- Deltares Water Models (RIBASIM, SOBEK and Delft3D)
- HEC Family Models (HEC-RAS, HEC-HMS, HEC-GeoRAS, HEC-GeoDozer, HEC-GeoHMS, HEC-ResSim)
- DHI MIKE Family Models (MIKE-Basin, MIKE 11, MIKE-SHE, NAM)
- Decision Support Systems (mDSS4: MULINO)
- Land Surface Process Models (PCRaster)
- MATLAB
- Delphi XE3
- Data Driven Models (ANN, WEKA tool, M5 Model tree)
- Optimization Tools (GLOBE, GANetXL, LINGO, Neural Machines)
- SWAT Model (Soil and Water Assessment Tool)
- Programming Languages (Pascal, C+, Python, Object-oriented Programming, FORTRAN).
- Groundwater Models (MODFLOW)
- Primavera P6 Project Management
- AutoCAD
- 3D Surface Mapping Software (Surfer 9)

Research & Project Activities

- Assessment of the impacts of the GERD on the downstream hydrology and water resources (Project at the Hydraulic Research Center – Sudan) 2015
- Optimal Operation of the Blue Nile System in Sudan before and after the Grand Ethiopian Renaissance Dam (M.Sc Thesis) 2014
- Optimum Management of the Blue Nile During the Recession Period (B.Sc Thesis) 2009
- Prepare Bill of Quantities 2009
- Concrete Design of Multi-Storey Building 2008
- Steel Work Design of Building 2008
- Topographical study of Alsabaloga area 2007
- Steel Work Design of Truss 2007 & 2009

Professional Experience

- **May 2014 and ongoing: working as a Researcher at the Hydraulics Research Center ([HRC-Sudan](#)) in a project with the title: "Assessment of the impacts of the GERD on the downstream hydrology and water resources". My duties are:**
 - Acquiring and validating the Hydro-meteorological data of the Blue Nile and writing a report about it.
 - Developing a “river basin simulation model” via DELTARES’s [RIBASIM](#).
 - developing a filling criteria for the filling of Roseires reservoir after heightening.
 - Validation and calibration of the Blue Nile Ribasim model.
 - Scenarios Analysis.
 - Writing the main report of the assessment of the impacts of the GERD on the downstream hydrology and water resources.
- **October 2012 up to April 2014: doing a Master of Science Degree in [Hydroinformatics](#): modelling and information systems for water management, Delft, The Netherlands.**
- **From 9 to 21 October 2011: selected from among 70 applicants to attend a workshop held in The Eastern Nile Technical Regional Office (ENTRO) – Addis Ababa, Ethiopia, titled by: Eastern Nile Planning Model (ENPM), Planning, Information, and Knowledge Development for Eastern Nile Capacities. It included:**

- Reviewing and enhancing two World Bank reports on State of the Eastern Nile and Eastern Nile in a Changing Climate.
 - Enriching the knowledge base with public domain datasets and presenting it in a user-friendly manner (e.g. animation)
 - Practicing on modelling using SWAT and spreadsheet technique.
 - Creating a link between universities in Egypt, Ethiopia and Sudan to work on the ENPM.
 - Presented my experience on modelling the Blue Nile system during the recession period. It was well received by those who attended the workshop from the World Bank, ENTRO and the heads of departments from the three linked universities.
- **December 2010 up to September 2012: Working with AKSAD for Engineering & Consultancy on the following duties and responsibilities:**
 - Collecting hydrological data and analyzing it by spreadsheet excel and GIS.
 - Preparing technical and financial tenders submitted by AKSAD.
 - Follow up and analysis the information related to soil and water at the sites where water harvesting structures are to be built.
 - Plan for and supervise all constructional and rehabilitation projects for the implementation of water harvesting structures
 - Monitor and decide on the supply materials to any constructional or rehabilitation site and ensure their adherence to requested specifications.
 - Ensure that the work done by contractors and sub-contractors is performed promptly and according to specifications and scope of work.
 - Supervise and check scheduled maintenance, service and work activities in the rehabilitation projects.
 - Supervise workers and ensure that time schedules are followed.
 - Evaluate the quality of construction work upon completion and prepare recommendation for the payments to be made to contractors.
 - Submit weekly/monthly plan activities and progress reports.
- **September and October 2010: Training at Dam Implementation Unit (D.I.U), Roseires Dam Heightening Project with:**
 - SMEC Concrete lab (main lab)
 - Concrete site (Roseires crest dam)
 - CCMD JV Soil lab (main lab)
 - Bathymetric and Land Surveying
 - Embankments (Right Bank)

- **October 2009 to September 2010: Training at Ministry of Irrigation and Water Resources on :**
 - Dam & Reservoir Operation via Computer Modeling.
 - Flood Forecasting.
 - Hydrological Data Analysis.

Participation in Committees & Boards

- UNESCO-IHE Alumni
- Membership of Sudanese Engineering Society
- Membership of Engineering Sudanese Council
- Supervisor of the Highway lab during the **13th** Engineering week, Faculty of Engineering, University of Khartoum, 2009
- Member of “Khartoum 2027” show room during the **12th** Engineering week, Faculty of Engineering, University of Khartoum, 2007
- Member of the Hydraulics lab during the **11th** Engineering week, Faculty of Engineering, University of Khartoum, 2005
- Done the National Service at the Ministry of Irrigation & Water Resources

References:

1. Dr. Andreja Jonoski, Associate Professor of Hydroinformatics, Department of Integrated Water Systems and Governance, UNESCO - IHE Institute for water education, Delft, The Netherlands, Phone: +31 (0)15 2151813, e-mail: a.jonoski@unesco-ihe.org
2. Dr. Ioana Popescu, Associate Professor of Hydroinformatics, Department of Integrated Water Systems and Governance, UNESCO - IHE Institute for water education, Delft, The Netherlands, Phone: +31 15 2151895, e-mail: i.popescu@unesco-ihe.org
3. Prof. Yasir Abbas Mohamed, The Director General of the Hydraulics Research Center ([HRS-Sudan](#)), Ministry of Water Resources and Electricity (MWRE) , Wad Medani, Sudan, e-mail: y.mohamed@hrs-sudan.sd
and

Associate Professor of Water Resources Management, UNESCO - IHE Institute for water education, Delft, The Netherlands, Phone: +31 (0)15 2151813, e-mail: y.mohamed@unesco-ihe.org

4. Prof. Seifeldin Hamad Abdalla, The Director General of the Water Resources Technical Organ (WRTO), Ministry of Water Resources and Electricity (MWRE) , Khartoum, Sudan, Tel (+249912152563), e-mail: seif_eltwaim@hotmail.com
5. Eng. Mohammed Elhassan Eltayeb Elhag, General Manager of AKSAD for Engineering & Consultancy, Chairman of (IHP) committee, Khartoum, Sudan Tel. (+249912135970), e-mail: hasanaltayeb@yahoo.com
6. Dr. Osman Eltom Hamad, Consultant in The Permanent Joint Technical Commission for Nile Waters (PJTC), Ministry of Water Resources and Electricity (MWRE) , Khartoum, Sudan Tel. (+249912549751), e-mail: oehamad@hotmail.com