



Ioannis Tsitroulis

GIS & HYDROTECHNICAL ENGINEER

A highly motivated GIS & Hydrotechnical Engineer with 8 years overall international experience in Europe, Asia and Middle East. After BSc, he spent 4 years in academia gaining GIS and water related research knowledge and 4 years as a project-based GIS & Hydrotechnical Engineer, developing proven engineering and consulting skills. He has successfully operated as a GIS, hydrology and hydraulics engineer performing flood modeling, simulation, analyses and optimization in a range of research and professional challenging projects. He is experienced in storm water management and flood protection planning, optioneering and strategy development for decision making.

Areas of Expertise

- High level of expertise in preparing reports, plans and specifications for client and governmental approvals and construction.
- Extensive GIS (Tutor), CAD, hydrology and hydraulic software knowledge using a variety of tools.
- Possess solid technical and problem-solving skills, ability to make engineering case and defend at various levels of stakeholder engagement.

Relevant Project Experience

Experience with JACOBS Engineering Group, Kingdom of Saudi Arabia & Dubai UAE

Wadi Safar Masterplan, Riyadh KSA

Client: Several Saudi Ministries
Title: Hydrologic/Hydraulic Modeler
Start/End Dates: 01st Dec 2021 to present

The project includes drainage operations to flood proof the road network and the surrounding area in order to secure the future development of the catchment. **Responsible** for developing the hydrologic and hydraulic model and provide consulting services to the client and other stakeholders.

KSA Eastern Region Masterplan, Dammam KSA

Client: Ministry of Environment, Water and Agriculture
Title: Mid-Level Hydraulic Modeler
Start/End Dates: 22nd Sept 2019 to 30-12-2021 (Completed)

The project included among several tasks the water and wastewater current evaluation, planning and design of 11 governorates in KSA. **Responsible** for creating all GIS geodatabases and maps, WW hydraulic models and consulting services to the client.

Shees Village Dams Project. Hydrology and Hydraulics Report, Feasibility Proposal Report, Sharjah UAE

Client: Directorate of Town Planning and Survey, Government of Sharjah UAE
Title: Water Engineer
Start/End Dates: 24th June 2019 to 01th Sept

The project included design of several dams for flood control, water supply and recreational purposes. **Responsible** for developing GIS maps, hydrologic and 1D/2D hydraulic model, performing dam breach analysis, design culverts and proposing dam type, size and location.

EDUCATION/QUALIFICATIONS

MSc in Hydroinformatics and Water Management, Polytech Nice Sophia, France/ Newcastle University, UK/ Warsaw University of Technology, Poland

MSc in Applied and Environmental Geology, Aristotle University of Thessaloniki, Greece

BSc–MSc (Integrated) in Forestry and Management of the Environment and Natural Resources, Democritus University of Thrace, Greece

PROFESSIONAL REGISTRATIONS

GCG- Geotechnical Chamber of Greece Professional License (No. 2-03916 - 2011), Greece

LANGUAGES

English - Fluent

Greek - Mother tongue

OTHER

- Length of service in the profession: 8 years
- Year joined Jacobs: 2019
- Office location: Dammam, KSA
- Nationality: Greek
- Date of birth: 28 March 1986
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Arabian Explosives Project. Storm Water Drainage Concept Design, Ras al Khaimah UAE

Client: Arabian Explosives Company LLC, UAE

Title: Water Engineer

Start/End Dates: 02nd April 2019 to 02nd July 2019

The project included the design of storm water drainage system for flood mitigation purposes. **Responsible** for developing GIS maps, hydrologic and 1D/2D hydraulic model, riprap and culvert design. Additionally, supervision and technical support to the client and contractor during the construction.

Dubai Hills Estate–MBR Project, Dubai UAE Client:

Client: EMMAR Properties/MERAAS Holdings, UAE

Title: Water Engineer

Start/End Dates: 27th May 2019 to present

Dubai Hills is a masterplan development in Mohammad bin Rashid City. The project, as one of the most popular investment options in Dubai today, consists of various communities with different components (villas, townhouses, plots and apartments). **Responsible** for developing GIS/CAD drawings, part of the hydraulic model and technical report for sewage and storm water network management in the area.

Experience with TMSI – NUS, Singapore

Stream Restoration at the National Parks Project, Singapore

Client: Public Utilities Board (PUB), Singapore

Title: Hydrologist Research Intern

Start/End Dates: 26th June 2018 to 03rd September 2018

The project included the assessment of water quantity and quality based on climate change in Singapore's selected streams. **Responsible** for supporting field work and data collection, lab work, GIS scripting and surface hydrodynamic modeling.

Experience with AUTH, Greece

AUTH Geo LAB Intern, Greece

Client: -

Title: Geo Lab Intern

Start/End Dates: 27th February 2014 to 03rd November 2014

The internship included the maintenance of GEO Lab equipment and the provision of assistance to students in GIS, MATLAB and other software.

Experience with Division of Environment and Spatial Planning of Larissa, Greece

Water Resources Management Plan for Prefecture of Larissa, Greece

Client: Ministry of the Environment and Energy, Greece

Title: Forester/Hydrologist

Start/End Dates: 10th October 2012 to 13th February 2013

The project included the assessment of water resources availability in the area and the development of a sustainable management plan under EU directions. **Responsible** for data collection, GIS and in-situ observation of hydrometers installation in farmland pump stations.

Experience with Land Data Ltd. Engineering Consulting Services, Greece

LUCAS 2012 Land Use/Cover Area Frame Statistical Survey, Greece

Client: European Commission - EU Environmental Agency

Title: Survey/Forest Engineer/Geoscientist

Start/End Dates: 04th June 2012 to 09th October 2012

The project included the remote sensing, topographical and land cover field survey to monitor the socioeconomic changes of land use in Greece, Italy and Slovenia. **Responsible** for topographical survey and GIS mapping, land cover field survey and remote sensing for the entire prefecture of Larissa.

Experience with Forest Service of Larissa, Greece

Road Widening in Ossa Mountain, Greece

Client: -

Title: Forest Engineer Intern

Start/End Dates: 01th August 2008 to 31st August 2008

Responsible for the development of CAD drawings and drainage studies, under the supervision of senior staff.

Honors & Awards

- Robert Bosch Stiftung Scholarship, 2014: EUR 1,000
- AUTH Grant for Interns, 2014: EUR 2,400
- EU Excellence Scholarship, 2017: EUR 35,000
- University of Singapore (NUS-TMSI) Grant, 2018: 1200 SGD

Specialized Computer Skills

- Applications: MS-Office (Word, Excel, PowerPoint, Outlook, Access).
- Hydrology: HEC-HMS, WINFAP, HYDROGNOMON.
- Hydraulics: HEC-RAS, Flood Modeller Pro, iRIC-NAYS2D, Mike 11 & 21, InfoWorks ICM, FlowMasters, HY-8, WaterGems. SewerGEMS, MODFLOW, Visual MODFLOW.
- Visualization/CAD: ArcGis, ArcGis PRO, AutoCAD Civil 3D.
- Programming Languages: R, Python.

Research MSc Thesis

- MSc: Benchmarking of Flood Modeller and HEC-RAS Solvers in Dam Breach Analysis. A Case Study of Shees Village Dams in Sharjah UAE. France, 2019.
- MSc: Flood Risk Assessment in Gallikos River Basin Using HEC-RAS Code. Greece, 2016.
- BSc/MSc: Management of Network of Paths in Suburban Forest. Greece, 2011.

Publications and Presentations

- **Tsitroulis I., Voudouris K., Vasileiou A., Mattas Ch., Sapountzis M., Maris F. (2016).** 'Flood Hazard Assessment and Delimitation of the Likely Flood Hazard Zones of the Upper Part in Gallikos River Basin'. Bulletin of the Geological Society of Greece, vol. XLVIII, 2016, proceedings of the 14th International Conference, Thessaloniki, 25-27 May 2016. 995 – 1005 p.
- **Ioannis Tsitroulis, Apostolos Vasileiou.** Examining the Influence of DEM Resolution in Flood Hazard Assessment using Flood Modeller Pro 2D Solver. *Journal of Water Resource Engineering and Management*. 2017; 4(1): 14 - 24p.

References - Available upon request