

**Polyanthy Maria Trimi**  
**Mining and Metallurgical Engineer | Petroleum Engineer**  
**Chania, Greece, +30 6997049092, polyatri@gmail.com**

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## **Education**

### **M.Sc. in Petroleum Engineering**

Technical University of Crete  
(2015-2017)

Master Thesis: "The effect of the reservoir fluid phase behavior treatment on the reservoir simulation predictions output."

- CMG suite was used, specifically the Winprop, Builder, IMEX simulator, and GEM simulator programs.

### **Mining and Metallurgical Engineer**

National Technical University of Athens  
(2008-2015)

Diploma Thesis: "Investigation of pelletizing parameters of fine particles."

- Recycling in agriculture for this specific material (industrial waste) was proposed.
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## **Work Experience**

### **Reservoir Engineer**

Institute of Geoenergy (I.G.), Foundation for Research and Technology (F.O.R.T.H.)  
Chania

1/2025-present

- Investigation of potential geological formations in Greece that are suitable for the underground storage of energy, with emphasis on gases such as CO<sub>2</sub>, H<sub>2</sub>, etc.
- Study, categorization, and ranking (based on the significance of relevant parameters) related to underground storage in salt caverns and deep saline aquifers, with the objective of developing a decision-making tool that ranks candidate areas according to their suitability
- Conducting research on the properties of porous media and the ability of rocks to act effectively as sealing cap rocks in cases of underground storage of energy raw materials in gaseous phase
- Investigation of Greece's prospects regarding the presence of natural hydrogen (white hydrogen)
- Creation of thematic maps using open-source geospatial data visualization software (QGIS) and their application in the above-mentioned tasks

### **Strategic Planning Assistant**

University of Thessaly-Special Account for Research Grants  
Volos

12/2024-12/2024(1month)

- Support of the unit of strategic planning
- Gathering data from the technical department of the University of Thessaly and recording good practices that were used
- Update of the information system by entering the gathered data

- Creation of presentations for one day events focusing on informing the attendees about the strategy that is followed and what has already been implemented

### **Geothermal Reservoir Engineer**

Hellenic Survey of Geological and Mineral Exploration (H.S.G.M.E., formerly I.G.M.E.)

Athens

6/2020-12/2023

- Creation of dynamic models of geothermal reservoirs and their calibration according to available measurements using FEFLOW
- Creation and evaluation of different management scenarios for geothermal reservoirs
- Management and presentation of field measurement data (water level depth and temperature vs depth measurements) and data from telemetric monitoring stations (pressure and temperature) for wells and volcanoes in the form of time-series graphs and maps using QGIS
- Updating the relevant databases with the above data
- Conducting on-site measurements of pressure, temperature, and physicochemical parameters (pH, conductivity, sampling) in wells
- Assisting with the project cost estimates

### **Civil Engineering Project Work**

Technical Office

Volos

7/2019 – 5/2020

- Design and drafting of buildings (AutoCAD 2D) for licensing or inclusion under Law 4495/2017 within traditional settlements in Pelion and other areas
- Design of topographical plans
- Collection of necessary documents and submission of statements and objections to the land registry
- Collection and preparation of required documents for the classification of guesthouses and Special Tourist Facilities into key categories

### **Procurement and Training Coordinator**

Antoniou Group of Companies Single-member P.C.C.

Larisa

1/2019-7/2019

- Assisted in the ongoing collaboration and training of representatives on new products, contributing to their understanding and ability to effectively communicate product benefits to clients
- Gained experience in procuring raw materials, working with suppliers to ensure quality and cost-effectiveness in purchasing

### **Internship Trainee**

Grecian Magnesite S.A.

Gerakini Facilities

7/2012-8/2012

- Manual ore sampling from the separation sorter output line

- Use of a representative sample to determine the separation efficiency (product purity) of the camera and magnetic sorters as well as their sieving efficiency
- Determination of kiln feed characteristics (ore purity and size)

#### Other Qualifications

- English level: Professional working proficiency
- French level: Limited working proficiency
- Greek level: Native speaker
- Building energy inspector (A class)
- Certified engineer for guest houses and rooms to let classification
- Valid EU driving license (B vehicles)

#### Publications

- Bellas, Spyridon; Trimi, Polyanthi; Vakalas, Ioannis; Gontikaki, Evina; Stamatakis, Emmanouel. (2025). Natural Hydrogen Perspectives in Greece. H-Nat Summit 2025 (Poster Session).
- Trimi, Polyanthi-Maria; Bellas, Spyridon; Vakalas, Ioannis; Gholami, Raof; Gaganis, Vassilis; Gontikaki, Evina; Stamatakis, Emmanouel; Yentekakis, Ioannis V. (2025). A Review of Caprock Integrity in Underground Hydrogen Storage Sites: Implication of Wettability, Interfacial Tension, and Diffusion. *Hydrogen*, 6(4), 91. <https://doi.org/10.3390/hydrogen6040091>
- Arvanitis, Apostolos; Xenakis, Markos; Mylonas, Christos; Amvrazis, Marios; Trimi, Polyanthi. (2022). Monitoring of Key Parameters of the Neo Erasmio-Magana Geothermal Field. *Bulletin of the Geological Society of Greece, Special Publication 10: Proceedings of the 16th International Congress of the Geological Society of Greece*. Patras, Greece, 17-19 October 2022, 367p. <https://ejournals.epublishing.ekt.gr/index.php/geosociety/issue/view/1830/599>
- Arvanitis, Apostolos; Xenakis, Markos; Amvrazis, Marios-Dimitrios; Trimi, Polyanthi; Karvouni, Konstantina. (2022). A 3D geological model of the Neo Erasmio-Magana low-enthalpy geothermal field (Thrace, Greece). *Proceedings, European Geothermal Congress 2022*, Berlin, Germany, 17-21 October 2022, 12p. [https://www.egec.org/wp-content/uploads/2023/02/Arvanitis-A-3D-geological-model-of-the-Neo-Erasmio-Magana-low-enthalpy-geothermal-field-248\\_ExtAbstract.pdf](https://www.egec.org/wp-content/uploads/2023/02/Arvanitis-A-3D-geological-model-of-the-Neo-Erasmio-Magana-low-enthalpy-geothermal-field-248_ExtAbstract.pdf)
- Trimi, Polyanthi; Gaganis, Vasilis; Stamatakis, Sophia. (2021). Numerical Reservoir Modeling of High Enthalpy Geothermal Fields in Greece. *Mater. Proc.* 2021, 5, 120. DOI: 10.3390/materproc2021005120