

# **PROFILE**

Experienced educator and researcher who taught in several universities in Greece, Oman and United Arab Emirates.

Passionate to develop new research ideas and to convey knowledge in the young generation researchers.

# CONTACT

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- Facebook pages: Daniel Moraetis
- <u>Facebook pages: Science of Lefka</u> Ori in Crete.
- Linkedin: Daniel Moraetis
- Research Gate: Daniel Moraetis
- <a href="https://igcp715.wordpress.com">https://igcp715.wordpress.com</a>
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### **Statistics**

### Google Scholar

Citations: 992 10-index:23 h-index:16

### Scopus

Documents:40 h-index 16

# DANIEL MORAETIS

# ASSOCIATE PROFESSOR

### **EDUCATION**

# **Technical University of Crete-Greece**

2000 - 2006

**Ph. D.** in Geochemistry with scholarship from the Greek National Foundation of Scholarships

### **Brunel University London-UK**

1998 - 2000

M. Sc. in Environmental Sciences with Management and Legislation

### National Kapodistrian University in Athens-Greece

1992 - 1997

**B. Sc.** in Geology. Sixth position in entry exams.

### **WORK EXPERIENCE**

# University of Sharjah-Associate Professor

2022-Today

2019–2022 as Assistant Professor

Petroleum Geoscience and Remote Sensing Program in the Department of Applied Physics and Astronomy

# Sorbonne University in Abu Dhabi-Invited Professor

2017-Today

Invited in the Master "Environment: Dynamics on Territories and Societies"

# Sultan Qaboos University-Oman-Assistant Professor

2013-2019

Department of Earth Science

# **Technical University of Crete- Researcher**

2008-2013

School of Chemical and Environmental Engineering

# **SPECIALIZED SKILLS**

SOFTWARE: Mineql, Phreeqc, EVA, TOPAS, Swiss Institute of Speleology and Karst Studies-Visual KARSYS-3D hydrogeology modeling.

ORGANIZING FIELDTRIPS: Hydrogeology, Igneous Rocks, Regional Geology, Structure Geology, Sedimentology.

MEMBER ON COMMITTIES: Accreditation, Curriculum Development, Research

### **COURSES TAUGHT**

- **2019-2023: 1460402-Graduation Project.** Place of teaching: <u>University of Sharjah.</u> The scheduling and managing of midterm and final reports and final presentation of graduation projects.
- **2019-2023: 1460324-Hydrogeology.** Place of teaching: <u>University of Sharjah.</u> The elective course is offering fundamentals of hydrological cycle, types and properties of aquifers, Darcy law, Thiem equation, Theis equation, Pumping test and Recovery test.
- **2019-2023: 1460311-Petroleum Geology.** Place of teaching: <u>University of Sharjah.</u> The core course is offering the definition and properties of petroleum and natural gas. The origin, migration and accumulation of hydrocarbons as related to source, reservoir and seal rocks.
- **2019-2023: 1460225-Igneous and Metamorphic Rocks.** Place of teaching: <u>University of Sharjah.</u> The elective course is demonstrating nature, origin, differentiation and crystallization of magma. Phase relations in silicate melts. Mode of occurrence, textures, petrography and minerals of igneous rocks and metamorphic rocks.
- 2019-2023: 1460224-Regional Geology of the Arabian Peninsula. Place of teaching: <u>University of Sharjah.</u> The core course gives the basic stratigraphy units and tectonic events from Infra-Cambrian to Cenozoic rocks in the broader area of Arabian Continent.
- 2019-2023: 1460221-Stratigraphy and Structure Geology. Place of teaching: <u>University of Sharjah</u>. The core course demonstrates the basic tectonic structures in rocks and discusses stress and strain along the processes related to rock strain creation.
- **2019-2023: 1460220-Sedimentology and Sedimentary Rocks.** Place of teaching: <u>University of Sharjah.</u> The core course demonstrates the basic sedimentation processes and demostrates all the types (chemistry and texture) of sedimentary rocks including clastic, chemical and biochemical rocks.
- **2019-2023: 1460401-Seminar.** Place of teaching: <u>University of Sharjah.</u> The core course is open to instructor to create material capable to offer skills related to the industry demand.
- 2017-2023: Master course: ENV528: Water & Soil Resources. Place of teaching: Sorbonne University in Abu Dhabi. Master in Environment: Dynamics of Territories and Societies. Master course in environmental hazards in the urban and industrial environment. Intensive course teaching the basic science and case studies regarding environmental impacts and assessments in society.
- **2017-2018: ERSC3003-<u>Landscape and Geo-Heritage in Oman.</u>** Place of teaching: <u>Sultan Qaboos University, Earth Science Department.</u> The elective course demonstrates

- characteristic landscapes and the relative geomorphology processes which shape the landscape with case studies from Oman and use of computer tools (ArcGis).
- 2013-2018: ERSC3002- Environmental Site Assessment and Remediation. Place of teaching: Sultan Qaboos University, Earth Science Department Elective course in environmental hazards and the important hydrogeological and geochemical aspects which regulate contaminant transport with ultimate target the monitoring and decontamination. Computer tools used included Mingel software.
- 2013-2018 ERSC2101- Introduction to Geology (Coordinator). Place: Sultan Qaboos University, Earth Science Department. Introductory course hosting 180-220 students per semester (2013-2018). The course is teaching the basic concepts of physical and historical geology

# **FUNDED PROJECT**

- **2021-2024 UNESCO-IGCP 715:** A new karst modeling approach along different tectonic contacts (Budget 30 k USD) (<u>Principal Investigator</u>) <a href="https://igcp715.wordpress.com">https://igcp715.wordpress.com</a>
- 2022-2023 Dubai Electricity Water Authority (DEWA). Characterization of dust on PV panels and possibility of using agricultural driven urease enzyme for dust mitigation (Budget 5 k USD) (Principal Investigator)
- **2021-2022 Dubai Electricity Water Authority (DEWA).** Identifying Wetting Front in Soil Below Solar Panels: a Mutli-Discipline Approach of Geophysical and Hydrogeology Method. (**Budget 5 k USD**) (Co-Investigator)
- **2020-2022 University Seed Grant, Project on Martian artificial (simulant) soils. Title:** Searching for Martian soil analogues in UAE and Oman. The project is searching on the soil lithology in UAE and Oman to identify possible soils which can be used as analogues to Martian soil. (Budget 10 k USD) (<u>Principal Investigator</u>).
- **2016-2019 ERANETMED\_WATER-13-051 CRITERIA European project, Title:** Cr(VI) Impacted water bodies in the Mediterranean: Transposing management options for efficient water eesources use through an Interdisciplinary approach (**Budget 900 k EURO**) (<u>Co-Investigator</u>).
- **2018-2020. University Internal Grant, Title:**Is boron in Oman groundwater, an inherited characteristic of Tethyan Sea. (**budget:5 k USD**) (**Principal Investigator**)
- 2017-2018 Project funded by BAUER Nimr LLC, Title: The investigation of boron accumulation in soils of artificial wetlands. (budget:12 k USD) (Principal Investigator)
- **2017-2019. University Internal Grant, Title:** Microbial chromium remediation. This is a join project with the Biology Department in Sultan Qaboos University. (**budget:6 k USD**)(**Coinvestigator**)
- 2014-2016 Project funded by Petroleum Development Oman (PDO), Title: Investigation of boron origin in Neogene Aquifers (budget:32 k USD) (Principal Investigator)
- 2014-2016 Project funded by BAUER Nimr LLC, Title: The investigation of boron geochemical cycle in artificial wetlands with three different native plants in Oman. (budget:36 k USD) (Principal Investigator)
- 2014-2016 University Internal Grant, Title: Scanning Surface Water Quality Variability Over An Urban Developing Environment In Oman And Associated Potential Impacts. (budget:12 k USD) (<u>Principal Investigator</u>)
- **2012-2013: Latsis Foundation Project, Title:** "Is the Spili fault, Crete, responsible for the double destruction of the Minoan palace at Phaistos?" (http://www.latsis-

- foundation.org/default.asp?pid=104&la=2) (budget:10k EURO) (<u>Co-Principal</u> Investigator).
- **2012-Private sector, Title:** Koryfi Mine Exploration Soil Survey in Northern Greece (**budget:50k EURO**) (**Principal Investigator**)
- **2010-2014: SoilTrec project European project, Title:** "Soil Transformation at European Catchment"-http://www.soiltrec.eu Contr. No 244118. (**Postdoc Researcher**)
- **2007-2009 European project 'Life' Title**:, "EnviFriendly", LIFE05ENV/Gr/000245. Title: Demonstration of a "toolbox" of environmental friendly technologies for the minimization of non-point source pollution from agricultural lands and integration in the watershed management plan for the Evrotas river basin and its coastal zone (**Research Assistant**).
- **2008-2010 Oropos Municipality, Title:** "Sustainable Management of Oropos Water Resources- Control of Water and Soil Quality with emphasis in Chromium contamination" (**Research Assistant**).
- 2007-2008 General Secretary of Research and Technology (GGET) Title: "Water Resources Cyber Management". The program included the continuous water timeseries measurements of geochemical parameters in a river basin with telemetric transmission. (Research Assistant).
- **2005-2007 General Secretary of Research and Technology** (GGET) Title: "Mineralogical, geochemical and pedological study of soils in Crete-Greece derived from different parent material" (**Research Assistant**).
- 6/2002-1/2004 Military Service (17 months), Officer in navy artillery.
- **2000-2004 European Union, INCO-Copernicus, Title**: "Modification and application study of zeolites for nuclear wastewater treatment" (**Research Assistant and PhD** candidate).
- **1999-2000 European program Tilte:** "RITTS" for the Regional Innovation and Technology Transfer

### **REFEREES**

Name	Specialty	University	Email
	Watershed scale hydrology and water soil remediation		ninikolaidis@isc.tuc .ar
Kosmas Pavlopoulos- Professor		Sorbonne University in Abu Dhabi	Kosmas.Pavlopoulos@so rbonne.ae
Xuan Yu- Associate Professor	Hydrology	Sun Yat-sen University	yuxuan7@mail.sysu.edu .cn
Mouslopoulou Vasiliki -Assistant Professor	Tectonic Landscape Evolution	National Observatory, Athens, Greece and GFZ- Germany	vasiliki.mouslopoulou@ noa.gr
Zoe Dokou-Assistant Professor	Hydrology modelling	Sacramento State Faculty-USA	zdokou@gmail.com