## Oil & Gas INNOVATION

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## Secure Your Future

OGI interviews the Technical University of Crete's (TUC) Mineral Resources Engineering Department, to learn more about how undergrad and post graduate students can utilize the school's training and education facilities to further their careers on the oil and gas industry.

**OGI:** Could you start by explaining the Technical University of Crete' credentials and experience in terms of your courses which relate to the Oil and Gas sector? Could you tell our readers the breadth of your experience, how long the school has been active, and its reach?

**TUC:** The Mineral Resources Engineering Department of TUC was established 30 years ago. In 1991 the PVT and Core Analysis Laboratory was founded with research interests in phase behavior and physical properties of petroleum reservoir fluids, PVT analysis, compositional characterization of oil and gas, Equation of State, gas hydrates, data mining, development of models for rapid predictions of the phase behavior, routine and special core analysis, core flooding, etc.

The "Hydrocarbons Chemistry & Technology" research unit operates since 2000 and collaborates with the industry by performing geochemical studies, providing detailed analyses of crude oils and potential source rocks. The main objectives of the research unit are analysis and interpretation of biomarkers in crude oils and sediments, Rock-Eval - total organic carbon analysis, characterization of the depositional environment, evaluation of petroleum generation potential, maturity, and modeling of the petroleum formation process. The experience which gained by the operation of these labs, cooperation with petroleum industry and industry experienced professors, led to the establishment of a petroleum engineering master course in Greece. Although our international program is very young; it is started in the academic year 2014-2015, is getting more popular every year.

**OGI:** What types of courses do you offer the oil and gas industry?

TUC: The courses we offer are oriented in

petroleum engineering and geosciences. For example, indicative courses are: Drilling Engineering, Reservoir Engineering, Production Engineering, Petroleum Geology, Petroleum Chemistry & Geochemistry, Seismic Imaging & Well Logging, Data Analysis & Modeling, Reservoir Simulation, and Petroleum Economics & Law. The courses are taught in English from professors of our department and associate professors with expertise in oil and gas from abroad. Professionals from the industry are visiting us regularly for seminars in all aspects of the industry from downstream to upstream. Special lectures/tutorials are implemented in the curriculum with the necessary petroleum software, the future skilled petroleum engineers need.

**OGI:** Could you go into detail about the Petroleum Engineering program at Crete? What career prospects does the course bestow on the students?

TUC: Petroleum Engineering postgraduate program of the Technical University of Crete is a one-year, full-time program, designed to provide students with a scientific background in hydrocarbon exploration and skills in the practical aspects of petroleum engineering. The program begins in October with morning lectures and afternoon tutorial from Monday to Friday. The students are obliged to elaborate a master thesis within 3 months after the end of the examination period. Our program leads to a Master of Science (MSc) degree and basically the aim of the program is to provide to the industry the necessary workforce in both exploration and production sectors. Our students have strong skills to join the industry immediately after their graduation. In this small period of 3 years many of our graduates carried out



internship in Greek companies in the area of exploration. We would like to see our graduates to staff these companies in the years to come.

**OGI:** Could you talk about the benefits of location for your potential students?

TUC: TUC is located in Chania in the island of Crete. A loved and popular destination for both Greek and foreign tourists; the island enjoys a beautiful weather with high temperatures and sunny days almost all year round. The visitors are fascinated by the rich history, interesting culture, beautiful beaches and nature, national parks, warm people and Cretan Cuisine which is based on products deriving from the motherland. Students who live in Chania have the luxury to enjoy all the experiences the island has to offer in their free time, with day excursions (since the distances are rather short) during weekends, holidays and summer. In terms of professional rehabilitation in oil gas industry, Greece is a potential producer in the very begging. We hope that opportunities will rise very soon and the demand for petroleum engineers to grow fast.

**OGI:** Do you have any industry collaboration and/or sponsors from the industry? And if so, could you elaborate about that?

**TUC:** Yes indeed. The industry has warmly embraced our effort and we are grateful for that. Our MSc program operates under the aegis of "Hellenic Petroleum" which holds a leading position in the Greek energy sector as well as in the greater area of Southeast Europe. The company supports the course in a constructive way; directly with funds and indirectly with the experience of the professionals of the exploration and exploitation department that enhance the quality of our seminars.

We also gratefully acknowledge the support from Schlumberger, Petroleum Experts and Rock Flow Dynamics, who have granted to the Technical University of Crete valuable academic licenses of their petroleum engineering software for the educational structure of our program. •

If you would like to know more about how the Technical University of Crete's programs please get in contact with the school by contacting:

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