

Center Title and Acronym: Center of Studies for Oil and Gas Engineering and Tecnology (CS-OGET)

Host University and Country: Universidade Eduardo Mondlane (Mozambique)

Center Website Address: www.csoget.uem.mz

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Primary Thematic Discipline of Center: Engineering and Technology of O&G

Brief Description of Center:

The latest round of petroleum exploration in East Africa has seen huge oil discoveries onshore in Uganda and Kenya and enormous gas accumulations offshore in Tanzania and Mozambique. The size of expected investments in the Oil & Gas sector is unprecedented for the region and a remarkable opportunity to provide a full set of new regional job opportunities. This scenario represents a huge challenge to the local training institutions not yet sufficiently endowed with the needed means to train and deliver skilled and competent labor. The regional Centre in Oil and Gas Engineering and Technology (CS-OGET), based in Mozambique, constitutes an opportunity to filling this gap. CS-OGET will assist the region in building local and regional capacity in O&G through scholarships, students and lecturer exchange and joint research programs throughout the Eastern and Southern Africa region. University Eduardo Mondlane (UEM) will host CS-OGET and implement progressively MSc and PhD programs and research in Petroleum Engineering (upstream), Hydrocarbons Processing Engineering (downstream), Safety and Environmental Engineering, related to O&G, and Petroleum Geology. Aiming at achieving Excellence, CS-OGET will partner with other renowned Centres in research and training as the University of Pretoria, University of Cape Town, NTNU, TU Delft as well as public (INP, ENH) and private (AMA1, Sasol, Exxon.Mobil, Eni-ea, Technip, NABC) among other entities.

Key Objectives and Expected Outcomes:

The General Objective of the Centre is to be a training Center of Excellence and Reference at National, Regional and International levels in O&G engineering that assists the country and the region to fill the gap in building national skills in the field of O&G. In order to achieve this main objective, specific objectives have to be fulfilled, such as:

(i) Build an internal solid education capacity excellence in quality and productivity to train engineers in O&G (MSc and PhD) sustainably; (ii) Support the training of engineers (MSc and PhD levels) with high competence following international standards, in the field of O&G engineering and technology as well as geology and safety and environmental engineering related to the considered field; (iii) Strengthen research capacity excellence in quality and productivity; (iv) Develop competent and referential R&D, disseminate and share its results and use it to assist the Society (Communities, Industry, Government) by addressing their needs; (v) Develop measures and undertake actions towards sustainability of the Centre's activities; (vi) Provide specialized, updated and relevant training, by means of short courses, winter schools and seminars to professionals, particularly, and the public, in general; (vii) Develop curricula and seek for their accreditation; (viii) Secure equity and gender balance as well as transparency, accountability and fair sharing of resources and opportunities nationwide and in the region; and, (ix) Secure monitoring and verification as well as regular academic audit and evaluation procedures by relevant authorities within and outside the Centre and University.

The centre intends to train 150-200 MSc in Petroleum Engineering, Hydrocarbons Processing Engineering as well as O&G related Geology, and Safety and Environmental Engineering, in 5 years. Additionally, 8-12 PhD students are expected to have been enrolled within this period in the aforementioned fields of knowledge. In parallel, 180-200 short

trained professionals are to be targeted during the ACE project lifetime. For the academic degree awarded courses, efforts will be put in place to secure at least 20-30% female and 20-25% regional students.

Major Accomplishments to Date:

1. Approval of the Center as a formal organic unit inside UEM in charge of supporting the teaching and research initiatives regarding the training of Post Graduate students in the field of Engineering and Technology of O&G, as well as its internal regulation.
2. Eight regional students enrolled in MSc programs: (Uganda (3), Rwanda (2), Malawi (2), and Zimbabwe (1).
3. Based on current MoU with several O&G companies, UEM is in the process of establishing new addendas to address specific and effective activities regarding the development of the O&G training sector (e.g. agreement with Technip for the development and implementation of new curricula; understanding with Schlumberger for a new 3 years agreement to the supply of licenses for 8 workstations (Petrel, Eclipse and other modeling and simulation software); agreement with SASOL to reinforce the support to the MSc in Hydrocarbon Processing Engineering and develop new integrated strategies to enhance the O&G training capabilities of UEM).

Primary Regional and Global Partners:

Makerere University
 University of Cape Town
 University of Pretoria
 NTNU
 SASOL
 ANADARKO
 TECKNIP
 SCHLUMBERGER

Senior Faculty

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