

**AFRICA CENTRES OF EXCELLENCE (ACE II)**  
**CENTRE OF STUDIES IN ENGINEERING AND TECHNOLOGY OF OIL, GAS AND GAS (CS-OEGE) WORK PLAN (JULY - DECEMBER 2017)**  
**GRF 2X**

Activity No	COMPONENT	SUB-COMPONENT	ACTIVITIES	OBJECTIVE	JUSTIFICATION	OUTPUT	ESTIMATED COST (\$)	RESPONSIBLE UNIT	Year 2017													
									January	February	March	April	May	June	July	August	September	October	November	December		
<b>Component 1: Strengthening Africa Centers of Excellence</b>																						
1	Achieving Learning Excellence	Activity 1.1 Implementation of Master programs	Review of already implemented MSc in Petroleum Engineering and MSc in Hydrocarbon Processing Engineering	To strengthen capacity to provide relevant quality training in key areas of oil & gas at MSc level.	There is a need to detect and eliminate gaps in the current curricula being implemented, keeping them aligned to current and future needs of the O&G professional market in the country	2 MSc (MPE and MHPF) fully approved Master programs are implemented. Need for review is evaluated.	\$300,00	CS-OGET + MPE and MHPF Coordinators	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Activity 1.2 Development and implementation of short training courses	Development of new curricula (MSc in Safety and Environmental Engineering and MSc in Petroleum Geology)	To give professionals from O&G companies and other institutions opportunities to have a chance to gain more knowledge in a topic of interest for the field.	Safety, environment and geology of Petroleum are other important technological disciplines needed to address the current and future needs for professionals in the O&G sector	1 short training course developed to be delivered in 2017	\$6,000,00	CS-OGET + Unilink + NTNU + TUDelft	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Activity 1.3 Development and implementation of short training courses	Conception and design of short training courses	To improve the visual and hands-on exposure to practical demonstration activities in order to enhance the quality of the teaching and learning experience	Needs assessment for topics, contents, and resources are required to provide a basis to a better design of a short training course	All MSc programmes being implemented have a complete and comprehensive set of teaching/learning materials	\$9,000,00	CS-OGET + Unilink + ENPC	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Activity 1.4 Development and continuous update of teaching materials	Development and update of teaching materials for all subjects of the MSc programs currently being implemented	To qualitatively improve the teaching and learning environment	Teaching materials well structured to all subjects are essential to ensure a qualitative teaching/learning environment	Teaching and learning materials are posted and available to all researchers in ad hoc academic electronic platform	\$1,600,00	CS-OGET + MPE and MHPF Coordinators	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Activity 1.5 Acquisition of consistent teaching demonstration kits	Needs assessment, procurement and acquisition of teaching demonstration kits	To improve the visual and hands-on exposure to practical demonstration activities in order to enhance the quality of the teaching and learning experience	There is a need to increase the quantitative and qualitative exposure to practical activities in order to balance and complement the learning and teaching experience	2 subjects of each MSc program (MPE, MHPF) have at least 1 demo-kit for practical activities in class in 2017	\$10,000,00	CS-OGET + MPE and MHPF Coordinators	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Activity 1.6 Library upgrade, acquisition of relevant O&G literature	Developing list, procurement, acquisition, reception and organizing new relevant literature	To equip the library with relevant O&G reference books in order to enhance the teaching, learning and research experience	The learning and teaching experience will be highly benefited by the existence of a modern and well equipped library room for O&G teachers, students and researchers	5 courses of each of the MSc programmes being implemented (MPE and MHPF) have at least 1 reference book and at least 10 units of each title	\$10,000,00	CS-OGET + MPE and MHPF Coordinators	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Activity 1.7 Acquisition of adequate computing hardware and software licenses	Acquisition of Hardware licenses, installation, and training	To increase the hardware and software capability to support the educational structure (management/teaching and research)	Availability of modern computing hardware and educational software produces positive impact on the quality of the work being done by students and researchers	Expected hardware acquisitions in 2017: 3 desktops, 2 laptops, 2 network scanner/printers.	\$21,000,00	CS-OGET	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Activity 1.8 Development and implementation of an e-learning platform	IT staff works on producing the space for the hard and software needed. Procurement is developed and strategies for training are considered	To develop and implement a multi-purpose e-learning platform	The availability of an online alternative for teaching and research will enhance the academic environment quality.	Procurement on expected hardware and software acquisitions: 1 server, 1 license for educational e-learning platform, 1 technician trained as administrator of the system.	\$5,000,00	CS-OGET + MPE and MHPF Coordinators	X	X	X	X	X	X	X	X	X	X	X	X	X	



ARLIDA CENTRES OF EXCELLENCE (ACE II)  
 CENTER OF STUDIES IN ENGINEERING AND TECHNOLOGY OF OIL AND GAS (CS-OGET) WORK PLAN QUA.Y. - DECEMBER 2017

Activity No	COMPONENT	SUB-COMPONENT	ACTIVITIES	OBJECTIVE	JUSTIFICATION	OUTPUT	ESTIMATED BUDGET (\$)	RESPONSIBLE UNIT	Year 2017																								
									January	February	March	April	May	June	July	August	September	October	November	December													
2	Adhering Research Excellence	Activity 2.1	Building effective research teams and interdisciplinary O&G research topics	Stabilization of effective research teams, discussion on stabilization of research topics relevant to the O&G areas:	To stabilize O&G research teams and topics	Vertical and robust research environment will be established and conditions will be created to produce sound research results	\$6,000.00	CS-OGET + MPE and MPE Coordinators + Uniluno + ENPCT + Uniak + NTNU + TUDelft	X	X	X	X	X	X	X	X	X	X	X	X													
									Activity 2.2	Organizing research seminars	Partnership, preparation and implementation of a research seminar: (printing, publicity, documentation (printing, copies))	To expose the students and researchers to presentation and discussion environments	The research environment is improved by exposing researchers to presentation and discussion of their scientific work	\$3,500.00	CS-OGET + MPE and MPE Coordinators + Uniluno + ENPCT	X	X	X	X	X	X	X	X	X	X	X	X						
																Activity 2.3	Participation in national, regional and international O&G conferences	Enrollment in 2018 conferences, preparation of materials to be presented	Researchers from the Centre and key academic partners to participate in national, regional and international O&G conferences	The exposure of researchers from the Centre and key academic partners to presentors and key academic partners in national, regional and international O&G conferences will enhance their capability and enhance the quality of their work	\$9,000.00	CS-OGET + Uniluno + ENPCT + Uniak + NTNU + TUDelft	X	X	X	X	X	X	X	X	X	X	X
																							Activity 2.4	Secure membership to the Society of Petroleum Engineers	Payment of subscription of SPE	To subscribe SPE and benefit from their services and offers	Professors, students, and researchers benefit from the SPE multitude of resources and joint a global network of engineers, researchers, and specialists in the O&G field	\$3,000.00	CS-OGET + Uniluno + ENPCT	X	X	X	X
Activity 2.5	Subscription of O&G scientific magazines and Journals	Payment of annual subscription to a relevant scientific Journal	To subscribe a reputable Journal and Scientific magazines provider to create a better scientific environment	Access to convenient O&G scientific magazines and journals will enhance the quality of the research environment and allow Students to utilize those resources to produce scientific work based on updated state-of-art knowledge.	Access to convenient O&G scientific magazines and journals will enhance the quality of the research environment and allow Students to utilize those resources to produce scientific work based on updated state-of-art knowledge.	\$30,000.00	CS-OGET + Coordinators of MPE and MPE	X	X	X	X	X	X	X	X	X	X	X	X														
								Activity 2.6	Procurement, purchase and installation of furniture, equipment and consumables	Online procurement of lab furniture, equipment and consumables; decision orders to be acquired based on a list of items, acquisition, installation and training	To have well equipped laboratories in order to enhance the capability for practical research (learning activities and research)	Laboratory living experience will enhance the practical skills of students and consolidate their knowledge. In the next few years, researchers will have more ground to carry experiences which will be extremely valuable to their scientific work	\$300,000.00	CS-OGET + Coordinators of MPE and MPE	X	X	X	X	X	X	X	X	X	X	X								
															Activity 3.1	Arranging for national and international accreditation of programs	Stabilization of an accreditation committee; Planning the national and international accreditation routes; working toward national accreditation criteria (operates related to any goods or services required to achieve accreditation); Reviewing the relevant national authority (payment of fees, accreditation fees)	To seek for national and international accreditation of the MSc programmes	Accredited programs guarantee a good reputation for the institution and graduates	\$5,000.00	CS-OGET + Coordinators of MPE and MPE	X	X	X	X	X	X	X	X	X	X	X	





AFRICA CENTRES OF EXCELLENCE (AGE 11)																					
CENTER OF STUDIES IN ENGINEERING AND TECHNOLOGY OF OIL AND GAS (CS-OGET) WORK PLAN (JULY - DECEMBER 2017)																					
Activity No	COMPONENT	SUB-COMPONENT	ACTIVITIES	OBJECTIVE	JUSTIFICATION	OUTPUT	ESTIMATED BUDGET (€)	RESPONSIBLE UNIT	Year 2017												
									January	February	March	April	May	June	July	August	September	October	November	December	
Activity 2.2		Activity 2.2	Design of an external examiner scheme; to arrange for an external examiner scheme and resulting external examination of MSc and PhD theses	To arrange for an external examiner scheme to take over the implemented MSc programmes	MSc Theses are externally examined to ensure a better reputation of the programs	External examinations to be implemented for at least 50% of all these departments	\$9,500,00	CS-OGET + Coordinators of MPE and MPEE + Urnak + NTNU + TUDelft	X	X											
Activity 2.3		Activity 2.3	Internal and external evaluation and monitoring; academic audit (payment of needed advisory consultancy and adding verification and academic audit)	To create an academic auditing scheme to ensure a qualitative academic performance	Systematic monitoring and assessment of the academic performance will guarantee will a permanent improvement of all functional quality of all elements	Academic activity will be systematically scrutinised with the aim of providing guidance for a permanent improvement of all academic processes and mechanisms (teaching and research)	\$4,500,00	CS-OGET + Coordinators of MPE and MPEE + Urnak + NTNU + TUDelft	X	X											
Activity 2.4		Activity 2.4	Establishment of a supervision, peer review and approval scheme (remuneration of selected supervisors)	To implement a scheme for research being continuously supervised, publications approved and peer reviewed	The supervision scheme will guarantee a better quality of all supervision studies and research activities	50% of publications produced are peer reviewed	\$4,500,00	CS-OGET + Coordinators of MPE and MPEE + Urnak + NTNU + TUDelft	X	X											



AFRICA CENTRES OF EXCELLENCE (ACE II)  
CENTRE OF STUDIES IN ENGINEERING AND TECHNOLOGY OF OIL AND GAS (CS-OGET WORK PLAN JULY - DECEMBER 2017)  
CMP XX

Activity No	COMPONENT	SUB-COMPONENT	ACTIVITIES	OBJECTIVE	JUSTIFICATION	OUTPUT	ESTIMATED BUDGET (€)	RESPONSIBLE UNIT	Year 2017															
									January	February	March	April	May	June	July	August	September	October	November	December				
4	Equality Dimensions	Activity 4.1 Gender and academic career awareness creation initiative for national and regional representatives  Activity 4.2 Engagement of people with disabilities and marginalised rural communities  Activity 4.3 Establishment of a scholarship scheme for national for MSc and PhD to discover talented students	Discussion and decision about the gender and academic awareness scheme and strategies; Implementation of the gender and academic awareness scheme (logistics for high school visits, publicity means, travel to selected provinces)  Establishment and implementation of a strategy for engagement of people with disabilities and from marginalised communities (logistics and travel to secondary and high schools in selected provinces)  Establishment and implementation of a scholarship scheme for national students (advertisement and award of selected types of scholarships)	To design and implement a national and regional strategy for awareness creation initiative gender OIG academic awareness regional level will increase the female student population in the MSc programmes	Gender and academic career awareness creation initiative implemented at national and regional level will increase the female student population in the MSc programmes  Disable and marginalised communities people should have equal opportunity to join the CS-OGET training programmes.	The percentage of female students in the OIG training will jump from the typical 10% of the overall student population to about 20%  At least 10% of the student population come from marginalised communities or suffer from any form of disability	\$3,750,00	CS-OGET - Coordinators of MPE and MPE + Unlu - + EMFCT + Unlu	X						X									
5	Attracting Academic Staff and Students from the Region	Activity 5.1 Building a strong advertisement program to attract non-national students and staff  Activity 5.2 Language course (remuneration for lecturers) participation in local social and cultural events (logistics and organization of a dedicated help desk)  Activity 5.3 Bridge programs are established and implemented (remuneration of lecturers involved and administrative costs)  Activity 5.4 Stabilization and implementation of a scholarship scheme for selected students (advertisement and award of selected types of scholarships) to attract and incentivize regional young talented	Design and implementation of advertisement campaigning strategy to attract regional students and staff (production and dissemination of advertising material)  Language course (remuneration for lecturers) participation in local social and cultural events (logistics and organization of a dedicated help desk)  Bridge programs are established and implemented (remuneration of lecturers involved and administrative costs)  Stabilization and implementation of a scholarship scheme for selected students (advertisement and award of selected types of scholarships)	To have regional students enrolled in the MSc programmes and Regional staff being actively involved in the Centre activities  To establish and implement special support services for non-national students  To establish and implement a bridge course scheme to support regional students in need to overcome specific gaps  To establish and implement a regional scholarship scheme to attract and benefit young talented students	Regional students and staff will need support to overcome barriers to social inclusion (language) and/or other specific needs  Regional students without a specific background in OIG will have a need for support to overcome their knowledge gaps  Regional young talented students will be attracted and benefit from scholarships provided by the Centre, with special regard for talented young women, disable and marginalised communities people	Regional students are 10% of the student population in 2017. Staff start to become interested and look for information. A database starts to be developed  Regional students benefit of bridge courses to overcome difficulties and facilitate their integration in the respective programme  Full MSc scholarships are awarded (tuition fees, living expenses)	\$45,000,00  \$10,000,00  \$4,000,00	CS-OGET + Coordinator of MPE and MPE + EMFCT  CS-OGET + Unlu - + Unlu + EMFCT  CS-OGET + Coordinators of MPE and MPE	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
6	Collaborative Activities	Activity 6.1 Needs assessment, academic and public/private institutional agreements for implementation of actions towards capacity building  Activity 6.2 Definition of needs/opportunities for exchange; Selection of potential beneficiaries; Implementation of the exchange program (travel and related costs)	Needs assessment, academic and public/private institutional agreements for implementation of actions towards capacity building  Definition of needs/opportunities for exchange; Selection of potential beneficiaries; Implementation of the exchange program (travel and related costs)	To establish and implement a national capacity building strategy in order to share the knowledge produced at the Center  Statement and implementation of a student, professor and researchers exchange	Knowledge produced at the Center shall be shared among other national relevant institutions, benefiting, in that way, national faculty, researchers and other experts in oil and gas.	At least 1 agreement with an oil partner institution.  2 Faculty, 1 researchers and 1 student will have visited and worked in a partner or non-partner institution.	\$37,500,00	CS-OGET  CS-OGET + Coordinators of MPE and MPE + Unlu + MNU + TUOdit	X						X									

Eduardo



**AFRICA CENTRES OF EXCELLENCE (ACE II)**  
**CENTER OF STUDIES IN ENGINEERING AND TECHNOLOGY OF OIL AND GAS (CS-OGET) WORK PLAN (JULY - DECEMBER 2017)**

Activity No	COMPONENT	SUB-COMPONENT	ACTIVITIES	OBJECTIVE	JUSTIFICATION	OUTPUT	ESTIMATED BUDGET (\$)	RESPONSIBLE UNIT	Year 2017													
									January - December 2017													
									January	February	March	April	May	June	July	August	September	October	November	December		
Activity 6.3		Internship and field visits	Definition of needs/opportunities for internships and field visits; contact to relevant institutions; implementation of the internship and field visits programs (Travel and related costs)	To establish a internship and field visit scheme	Exposure to a live industrial environment enhances the teaching and learning experience	5 internships and 2 field visits will have been completed	\$10,000.00	CS-OGET + Coordinators of MPE and MPEE														
Activity 6.4 Joint		Supervision, research and publications	Definition of needs/opportunities for supervision, research and publications for year 1; selection of scientists to be supervised; identification of relevant institutions and faculty; researchers and experts to be involved; Students supervision and publications (remunerations of supervisors and payment of incentives for research)	To design and implement a joint supervision, research and publication scheme	The success of this activity will improve research quality and increase number of publications.	15 students (MPE) supervised by	\$12,500.00	CS-OGET + Coordinators of MPE and MPEE + Uniluno + ENPECT + Unimk + INMU + ILOdelc						X								
Activity 6.5		Research engagement (R&D)	R&D to establish a program for research (logistics for meetings); Interaction with stakeholders for inputs and commitment (visits and meetings); Refining and final design of the R&D program to 2018	To engage the Center in R&D aiming to meet industry needs in specific challenges	Increased number and quality of research programs will be met to satisfy the specific needs of the industry at all levels.	Strengthened capacity and quality of research topics in Oil and Gas field.	\$2,500.00	CS-OGET + Coordinators of MPE and MPEE + Uniluno + ENPECT						X								





AFRICA CENTRES OF EXCELLENCE (AGE II)  
CENTRE OF EXCELLENCE IN ENGINEERING AND TECHNOLOGY OF OIL AND GAS (CS-OGET) WORK PLAN QUARTY - DECEMBER 2017

Activity No	COMPONENT	SUB-COMPONENT	ACTIVITIES	OBJECTIVE	JUSTIFICATION	OUTPUT	ESTIMATED BUDGET (\$)	RESPONSIBLE UNIT	Year 2017														
									January - December 2017														
									January	February	March	April	May	June	July	August	September	October	November	December			
7	Infrastructure Development	Activity 7.1 Civil works (upgrading and rehabilitation) for the building housing the Center	Planning/design; Schematic design; Design development; Construction documents; Bidding; Construction; Inspection and audit	To design and build (or renovate) facilities for the Center	The Center needs to build or renovate an adequate building where its activities will take over	3 rooms for laboratories, one meeting room, 4 working offices for the faculty, 2 administrative working rooms, 2 director and deputy director working rooms, 1 classroom, 4 PhD working rooms, 1 computer room and 1 storage room and 1 vehicle scanned and full warranted	\$562,500.00	CS-OGET	X	X	X	X	X	X	X	X	X	X	X	X	X		
		Activity 7.2 Acquisition of transport means, fuel and repairs	Acquisition of a 4WD vehicle; fuel and maintenance	To provide the Center with a vehicle	The Center needs to have vehicles for various purposes starting with the Director transportation in 2017 and progressing in 2018 to acquire transport for small (courier), transport of small (courier), staff transportation, etc.		\$60,000.00	CS-OGET	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
8	Management and Governance	Activity 8.1 Recruit staff and faculty	TOR 5; Recruitment of staff and faculty (contracts for more specialized positions such as administrative, academic and business sectors)	To enhance academic and administrative performance by recruiting skilled and competent staff in administrative and academic positions	Aware of the lack of expertise for O&G related, the Center will recruit one Principal Investigator (PI) and three research assistants in the research environment in the Center and will help in creating a dynamic networking environment. In Year 1, TOR 5 for this position will be developed and advertisement will be made by quarter 4 of 2017. Advertisement of research fellows will be made to recruit key administrative staff internally (QEP), the Centre is aware of the limited pool of skilled people to fulfill positions such as	One senior Scientist recruited as principal Investigator; two senior administrative officers recruited, one as Administrator and one as secretary; one academic secretary is recruited	\$29,700.00	CS-OGET	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Activity 8.2 Participate in national, regional, and international coordination and benchmarking activities and events	NOC meetings (local travel for selected participants); Travel for O&G related regional meetings (travel for CI and international coordination and benchmarking activities and events); Travel to national, regional and international partner institutions for benchmarking and signature of MOU 5	To participate in national, regional and international coordination and benchmarking activities and events	In this activity, efforts will be made to the leaders of the Centre to participate in national, regional and international coordination events. The Centre will also be responsible for the logistic aspects of the NOC meetings, including the travel of members living in locations different of that where the event is held. The Centre will support the travel of its partners, and travels are expected to allow a more intimate discussion and share of ideas regarding the MOU and the	Participation of the Leaders is all ACE II technical advisory meetings; Centre share of the logistic aspects of NOC biannual meetings; 5 MOU are signed by September 2017 with key partners (ENHCT, Uniluno, Uniak, Tu-Delft and MITNU).	\$50,000.00	CS-OGET + Uniluno + ENHCT	X	X	X	X	X	X	X	X	X	X	X	X	X		
		Activity 8.4 Periodic performance reviews	Establishment of a performance review system; Implementation of the periodic performance review (consulting services)	To establish and implement a performance review system	This activity entails a semestral review of the academic and administrative functions by the Centre leadership members, followed by an annual Centre performance review presentation to the faculty and the management of the institution and the	Semestral review is made on the progress of the program prior to the planning of the following stage	\$3,000.00	CS-OGET; Coordinators of MPE and MPPE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
9	Monitoring and Evaluation	Activity 9.2 Internal and External Auditing	Internal and external audit	To establish and implement internal and external audit	There is a need to get audited and approve all Center activities and Financial Reports	Statement of Approval of the CS-OGET Reports	\$15,000.00	CS-OGET	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
		<b>Total</b>					<b>\$1,332,200.00</b>																

