

Name of Center	AFRICA CENTRE OF EXCELLENCE IN FUTURE ENERGIES AN							
Institution	FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI							
Country	NIGERIA							
Center Leader	PROFESSOR EMEKA E. OGUZIE							
Annual Workplan (Month XXX-Month XXX, Year)	JANUARY 2023-DECEMBER 2023							
Work Plan Activities	Description	Component	Milestone/Output	If NEW, Provide Justification	Estimated Budget(\$)	Estimated Revenue (\$)	Contribution from Partner (\$)	Person Responsible
Action 1: Action plan to recruit qualified students and faculty\ DLI 3: Quantity of Students								
Sub-Action 1a: Action plan to attract regional students and faculty								
Activity 1: Develop strategies to attract talented regional postgraduate students: Advertisement material that targets qualified female and regional students	Advertisement material that targets qualified female and regional students.	Operating Cost	Timely and targeted advertisement of short course programmes.		10,000.00	0.00	0	ACE-FUELS Centre Leader/International Students Affairs Officer, Communication officer/Training and Education Coordinator
			Timely and targeted advertisement of MSc and PhD programmes.		10,000.00	0.00	0	ACE-FUELS Centre Leader/International Students Affairs Officer, Communication officer/Training and Education Coordinator
Activity 2: Regional Outreach, Engagement and Education	Hold national and regional public engagement sessions and student fairs (Targeting women and regional students). Participation in regional workshops. Development of a meaningful university-wide regional strategy	Operating Cost	Regional Outreach. Participation in Regional workshops. Number of national and regional students enrolled. Endorsed University-wide regional strategy to achieve DLI 7.1.		60,000.00	200,000.00		ACE-FUELS Centre Leader, International Students Affairs Officer, Communication officer, Training and Education Coordinator
Sub-Action 1b: Action plan to facilitate broad regional student attendance and full participation.								
Activity 1: Maintenance of ACE-FUELS International Office	Maintenance and running of International Office to provide support for regional students	Operating Cost	Functional ACE-FUELS International Office, in line with DLI 7	Stationaries and consumables	15,000.00	0	0	ACE-FUELS Centre Leader/International Students Affairs Officer
Activity 2: Provide English language support	Complete setup and run English Language Support Programme (ELSP) for regional students who do not speak English as first language	Operating Cost	English language support programme running. Students enrolled for the programme	Travels	10,000.00	0		ACE-FUELS Centre Leader, International Students Affairs Officer, Coordinator, ELSP
Activity 3 :Provide French Language support for Faculty	Complete setup and run French Language Support Programme (FLSP) for Faculty and staff to ensure effective communication to Regional students	Operating Cost	French language support programme running. Faculty and centre staff enrolled for the programme		15,000.00			ACE-FUELS Centre Leader, Coordinator, ELSP
Sub-Action 1c: Action plan to facilitate full student integration with university and host communities								
Activity 1: Organize student orientation activities	Set up orientation committee. Organize orientation programmes for the new admitted students and excursion for the Students and ACE-FUELS Management Team	Operating Cost	Minutes of orientation committee meetings.Approved document(s) for the orientation programme and excursion. Feedback from students.		5,000.00	0	0	ACE-FUELS Management Team
Activity 2: Organize annual retreat	Organize annual retreat for all participating staff and students.	Operating Cost	Approved documents and receipts for annual retreat. Feedback from students		15,000.00	0.00	2,000.00	ACE-FUELS Management Team
Activity 3:Organize sport/cultural activities .	Organize sport/cultural activities for ACE-FUELS students, staff and host communities	Operating Cost			15,000.00			
Action 2:Action plan to achieve training/learning excellence\DLI 4: Quality of Education/Research								
Sub-Action 2a: Create efficient and effective learning environments								

Activity 1: Optimize learning Environment	1. Upgrade and maintenance of customized ACE-FUELS FUTO learning management System (LMS) and Online Result Management System (ORMS). 2. Ensure broadband internet access within and around ACE-FUELS facilities. 3. Subscribe to Zoom videoconferencing platform. 4. Deploy ICT services for innovation and participation in NgREN (as per DLI 7.6). 5. Subscribe to Web of Science/Science Direct/Scopus databases 1. Construction of Security house 2. Construction of Plant/Generator house	Operating Cost 1. 10,000 2. 140,000 3. 2,500 4. 150,000 5. 140,000 Works 1. 15,000 2. 15,000	Availability of modern teaching aids and materials; Availability of computer and simulation/modelling labs; Availability of constant/consistent unlimited internet access. Evidence that students and faculty are receiving improved access to the services (as formulated by each institution). Install facilities for efficient diesel-powered generators and solar power generation. Access to books, journals, e-books, e-journal subscriptions, bibliometric databases. Electronic library system. Access to international journal databases. Improved appearance of ACE-FUELS	A number of Covid 19 response interventions have been included, in response to the pandemic. These include paid subscription to Zoom video conferencing platform to facilitate online learning. Provision of non-pharmacological anti covid interventions like regular cleaning and disinfecting the environment, infrared temperature monitors, hand sanitizers, face masks etc within all ACE-FUELS facilities. There is also need to install wooden and sandcrete partitions to divide large halls into lecture rooms. Recent security issues on campus	472,500.00	900,000.00	ACE-FUELS Management Team/Physical Planning and Development Unit, FUTO
Activity 2:	(i) Procure teaching aids, teaching materials, (ii). 15 No. computer lab equipment and work stations. (iii) Procure 1 No. 100KVA diesel-powered generators and 20 kVA solar power units within the ACE-FUELS Complex and student dormitory. (iv) 5 Nos. 1.5Hp Air conditioners. (v) Acquire books, journals, e-books, e-journal subscriptions, bibliometric databases. Develop an electronic library system for researchers and establish full access to international journal databases. (i) Provide adequate security to protect all ACE-FUELS facilities, with armed security, security dogs, safety gadgets and communication facilities. (ii) Provision of non-pharmacological anti covid interventions like regular cleaning and disinfecting/fumigating the environment, first aid kits, infrared temperature monitors, hand sanitizers, face masks, etc within all ACE-FUELS facilities. (iii) Cleaning and maintenance of ACE-FUELS facilities (Wages for Cleaners, disinfectant and mowing machine).	GOODS 1. 30,000 II. 40,000 (28,000 +12,000) III. 120,000 IV. 4,200 V. 140,000 OPERATING COST I. 30,000 II. 9,500 III. 32,000			405,700.00		
Activity 3: Accreditation steps	Undertake International accreditation of the Institution.	OPERATING COST 1. 120,000	resource verification/accreditation/evaluation report and/or certification. GAP assessment		120,000.00	200,000.00	ACE-FUELS Management Team/University Librarian/University Director of Academic Planning
Sub-Action 2b: Optimize centre management and administration							
Activity 1: Setup administrative offices and student offices	Procure and install office equipment 1.4 Nos Desktops/6 Nos Laptops 2.1 Nos Colour Centralized Printer, 2 Nos Ordinary Printers	GOODS 1.15,000 2.20,000	Office equipment requirements assessed and identified. Call for tender following Nigerian procurement act guidelines. Tenders received and bidding process completed. Contracts awarded. Office equipment supplied and installed		35,000.00	0	ACE-FUELS Management Team

Activity 2: Ensure efficient Centre Administration	1. Hold project implementation meetings and academic board meetings to facilitate achievement of set objectives of the project timely. 2.Improve timeliness/quality of financial management (External Auditors Fees). 3.Purchase , registration, insurance and maintenance of mini bus to assist in the project implementation and mobility. 4. Attendance to international/regional /national workshops, conferences, seminars and capacity building activities for management team members, including ACE and AAU activities 5. Transport & Travelling (T&T). 6. Data/ Phone Calls for ACE-FUELS TEAM	OPERATING COST 1. 30,000 2. 15,000 3 125,000 4. 320,000 5. 22,500 6. 20,000 GOODS	Effective and efficient office administration and management. Enhanced productivity of Centre administration, Management Team and Students. Prompt achievement of implementation milestones. Timely fiduciary reporting. Functional institutional oversight of fiduciary management. Functioning internal audit unit and functioning audit committee. Transparency of ACE expenses, notably the approved budget, annual work plan. IFRs with an annex on detailed expenditures, project financial and procurement audit reports are visibly accessible on the ACE Impact Center's websites. Efficient Procurement planning. Minutes of statutory project implementation meetings. Number of Staff attending workshops/Conferences and trainings. DLI 6		532,500.00			
Activity 3: General Maintenance	1.Maintenance of ACE-FUELS Complex/Hostels 2.Maintenance of office Equipment 3.Maintenance of vehicles 4.Maintenance of Power Generating sets and Solar units . 5. Fueling of vehicles 6. Fueling/Diesel for power generating sets 7.Maintenance/upgrade of websites.	WORKS 1. 30,000 2. 2,000 3.12,500 4.7,000 5.8,000 6. 10,000 7.5,000			74,500.00	60,000.00		ACE-FUELS Management Team
Sub-Action 2c: Optimize student enrollment and commencement in ACE-FUELS programmes								
Activity 1: Student screening and recruitment	1.Screening, shortlisting and communication of successful national and regional students for admission and scholarships into ACE-FUELS novel MSc and 4 novel PhD programmes. 2. Recruitment of national/regional students for ACE-FUELS short courses.	OPERATING COST 10000	Selection criteria documents and documented screening guidelines. Issued student admission and scholarship award letters. Student registration documents.		10,000.00	25,000.00	0.00	ACE-FUELS Management Team/University Management
Activity 2: Running of ACE-FUELS 8 novel programmes	Enroll students and run 4 novel MSc and 4 novel PhD approved programmes: MSc and PhD in Corrosion Technology; MSc and PhD in Electrochemical Technology; MSc and PhD in Future Energies; MSc and PhD in Nanotechnology, as per ACE-FUELS approved curriculum guidelines. Enroll students and run short professional courses and skills support.	350,000	Running of MSc/PhD and short professional courses. Lecture materials. Programme timetables.		350,000.00	600,000.00		ACE-FUELS Management Team/ACE-FUELS Faculty/FUTO Bursary Unit
Action 3: ACE action plan to achieve teaching and applied research excellence DLI 4 Action: Quality of Education/Research								
Sub-Action 3a: Laboratory upgrade								

Activity 1: Maintain ACE-FUELS laboratories	Maintenance of laboratory furniture and fittings for ACE-FUELS general purpose laboratory	WORKS 4,000	Laboratory set up and functional. Laboratory commissioned and operational	The initial plan was to upgrade and equip laboratories in partner Departments, for general use by ACE-FUELS students and other students, pending setup of the proposed ACE-FUELS turnkey electrochemistry laboratory facility. However, following recent developments in line with Covid-19 guidelines, the Centre needs to set up and equip a general use laboratory within the ACE-FUELSComplex, to shield our students from overcrowding in general departmental laboratories and ensure optimal physical distancing laboratory instruction and experiments.					
					4,000.00				ACE-FUELS Management Team/Physical Planning and Development Unit, FUTO
Activity 2: Install research facilities/equipment	1.Procure and install relevant general use research equipment 2.Procure consumables and lab supplies. 3.Procure and install equipment for solar energy research laboratory 4. Procure and install software and workstations for computational modeling and simulation, upgrade existing software.	GOODS 1.50,000 2. 20,000 3. 80,000 4. 20,000	Functional laboratories with current research equipment, stocked with chemicals and reagents and various lab supplies. Up to date softwares. Component of DLI 4.3		170,000.00		0.00		
<i>Sub-Action 3b: Building capacity for research & development</i>									
Activity 1: Develop core research team	Develop core technical team with enhanced ability and competence to initiate, lead and successfully complete high level research projects in the Centre's focus areas. Respond to national, regional and international calls for research proposals.	OPERATING COST 10000	Researchers and students undertake advanced research in research projects in the Centre's focus areas. Research output disseminated in the form of publications, patents, conference papers, training programmes and workshops. 25 publications envisaged (national co-authored = 15/Regional/international co-authored = 10). Evidence of external research grants income (DLI 5)		10,000.00	350,000.00	0		Center-leader, Research Coordinator
Activity 2: Develop technical capacity	Training technologists, technicians, safety officers. Technologists/technicians with enhanced ability and competence of to operate and maintain existing and new research equipment and facilities to support high level research projects in the Centre's focus areas	OPERATING COST 7000	Technologists/technicians can effectively man and operate available equipment Laboratories are operated in an efficient and safe manner, with minimal accidents		7,000.00	0	0		
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Activity 1: Setup ACE-FUELS turnkey Electrochemistry laboratory	Layout and equip ACE-FUELS turnkey Electrochemistry laboratory	OPERATING COST 3000	Layout plan received and approved		3,000.00	0	0	ACE-FUELS Management Team/Bio-Logic Science Instruments
Activity 2: Contract award	Procure, Install and commission facilities for ACE-FUELS turnkey Electrochemistry laboratory	GOODS 1150000	Equipment installed, commissioned and in use		1,150,000.00	5,000.00	0	ACE-FUELS Management Team/Bio-Logic Science Instruments
Action 4: ACE action plan to generate revenue from education and research activities\DLI 5 Action: Relevance of Education & Research								
Sub-Action 4a: Building capacity for effective research translation								
Activity 1: Promoting entrepreneurship	On-site/online workshops and training sessions on intellectual property, entrepreneurship and commercialization strategy. Organize University innovation week and innovation prizes. Establish innovator support funding schemes (DLI 5.3)	OPERATING COST 20000	Workshops and training sessions scheduled and completed. Documentation and participants registration documents		20,000.00	100,000		ACE-FUELS Management Team/Centre for Entrepreneurship Studies (CES), FUTO
Activity 2: Stakeholder engagement	Initiate processes to promote technology transfer by forming linkages between ACE-FUELS investigators and stakeholders and collaborating with industry to jointly pursue start-up demonstrations and implementation. Undertake fund raising activities with partners	OPERATING COST 10000	Identified interested sectoral partners. Meetings and interactions with sectoral partners. Documented meeting records. Evidence of externally generated revenue from fund raising.		10,000.00		10,000	ACE-FUELS Management Team/Intellectual Property and Technology Transfer Office (IPTTO) FUTO
Sub-Action 4b: Stakeholder engagement								
Activity 1: Exchange programmes	Institutionalize faculty and student exchange programmes with sectoral partners to create student internship positions and faculty adjunctship positions	OPERATING COST 25000	Students/faculty placed on internships/adjunctships with sectoral partners. List of students/faculty that have participated in at least 1-month period internships/outreach in relevant sector-relevant institutions (up to 50 participants). Internship/adjunctship reports		25,000.00	50,000.00		ACE-FUELS Management Team/Sectoral Partners/WACEENET
Activity 2: Networking	Initiate partnerships with national, regional and international institutions and knowledge networks to evolve novel technologies and approaches, which optimally engage local and regional scientific talents, while linking global expertise. Joint research grants applications. Participation in the PASET Regional Benchmarking initiative. WACEENET network activities	OPERATING COST 50000	Records of affiliation with networks. Participation in network activities. Evidence of joint research grants application. Records of externally generated revenue from research grants income (up to \$50,000.00). Documented data on the required indicators for PASET Regional Benchmarking, with an intervention plan to improve performance		50,000.00	100,000.00	20,000.00	Centre Leader/National and regional Academic/Sectoral Partners
Sub-Action 4c: Business development								
Activity 1: Company Registration	Activity 1: Annual renewal of registration of outfit with Corporate Affairs Commission	OPERATING COST 20000	Evidence of payment of Annual renewal fee . Select management board and shareholders. Registration certificate. Evidence of externally generated revenue from research consultancies.		20,000.00	20,000.00	0	Centre Leader/Sectoral Liaison Officer/Legal Services Unit, FUTO.

Activity 2: Develop business plan	Initiate research translation and commercialization activities. Develop start-up business plans to promote translation of research breakthroughs and technological innovations into industrial and commercial products and processes	OPERATING COST 20000	Documented business plans.		20,000.00	0		ACE-FUELS Management Team.
Action 5: Communication								
Activity 1: Promote science communication and interaction with the public	Set up and support FUTO Science Communication Team (SciComm FUTO) to communicate activities and output of the Centre and entire university to the public, through newsletters, radio and tv shows. Train members of SciComm FUTO on science communication basics. Organize dissemination workshops.	OPERATING COST	SciComm FUTO Team established and formalized. Published SciComm FUTO newsletter.		5,000			
Activity 2: Branding and digital marketing	Engage digital marketing partners. Develop branding and digital marketing strategy, targeting researchers, students, public and private sector practitioners, government agencies and the general public, through in-person, online and social media platforms.	OPERATING COST	Increased online visibility and public perception of the Centre. Improved interaction and communication to the Centre. Improved stakeholder participation in Centre activities.		15,000			
					3,694,200.00	3,190,000.00	32,000.00	