M 1.1. iii. TTO Pictures

AFRICA CENTRE OF EXCELLENCE FOR SUSTAINABLE POWER AND ENERGY DEVELOPMENT

(ACE-SPED)

UNIVERSITY OF NIGERIA, NSUKKA

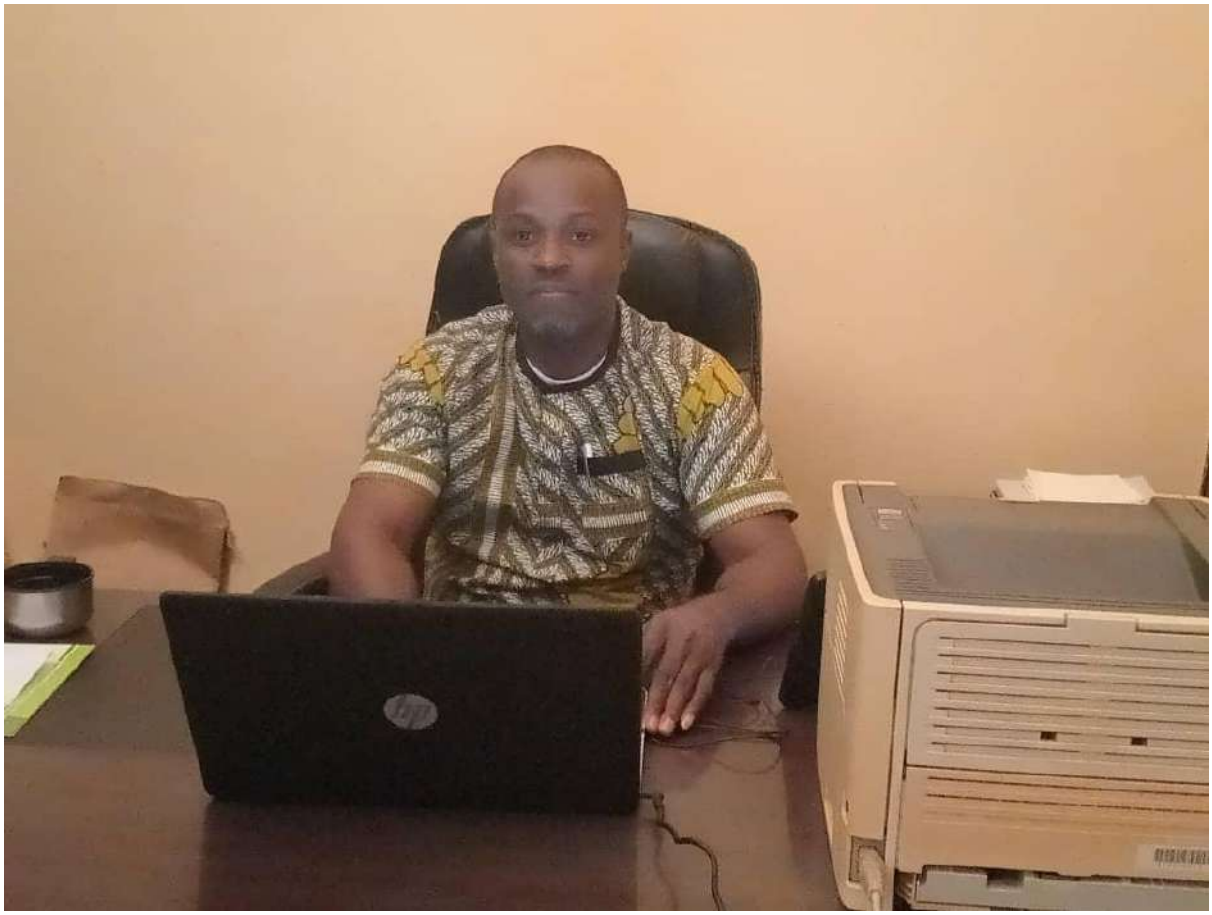
Establish University innovation/entrepreneurship ecosystem through the strengthening of the Technology Transfer Office (TTO).

Procurement records/Pictures

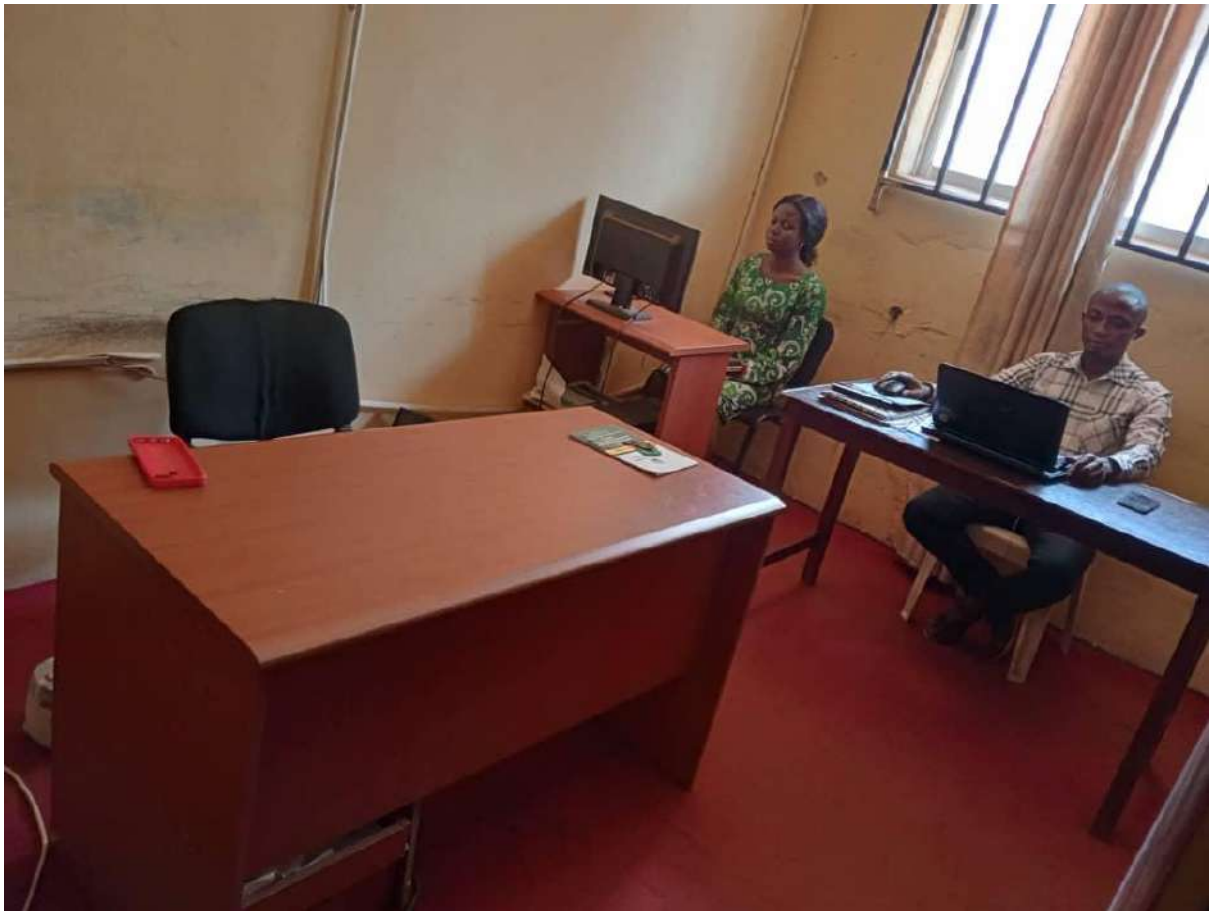
The pictures below show the office allocation for TTO and the director and some of the staff with pictures of the office equipment and furniture already in place


INTELLECTUAL PROPERTY
TECHNOLOGY TRANSFER OFFICE
(IPTTO)
UNIVERSITY OF NIGERIA, NSUKKA
PATENTS, COPYRIGHTS, IPs, TECHNOLOGY TRANSFER
AND RESEARCH COMMERCIALIZATION


INTELLECTUAL PROPERTY AND TECHNOLOGY
TRANSFER OFFICE (IPTTO)
OFFICE OF THE VICE-CHANCELLOR
UNIVERSITY OF NIGERIA NSUKKA
IPTTO



Professor Damian Odimegwu, director of the TT seated in his office



Some of the staff members of TTO in their office


INTELLECTUAL PROPERTY & TECHNOLOGY TRANSFER OFFICE
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INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER OFFICE (IPTTO) UNIVERSITY OF NIGERIA, NSUKKA
Office of the Vice-Chancellor University of Nigeria, Nsukka, Nigeria
INTRODUCING THE INTELLECTUAL PROPERTY AND TECHNOLOGY TRANSFER OFFICE (IPTTO)
The IPTTO of the University of Nigeria, Nsukka exist to promote and manage the University Intellectual Property Portfolio, which includes patents, copyrights designs and trademarks, and to promote technology transfe
WHAT WE DO
Carrying out sensitization campaign aimed at stimulating interest in original research geared towards promoting innovations within the University
Link and match Industries, SMEs, and Private sector players with University Innovators/Investors for mutually rewarding benefits
Provide adequate assistance and facilitate the process of patents acquisition on products of original research and creative activities emanating from the University
Formulate and promote an effective Intellectual Property Policy for the University
Promote the commercialization of research and development (R&D) results and products in the University
Midwife a seamless Technology transfer from the University/Innovators to suitable development industry partners for mutual economic benefit
YOUR RESPONSE
CONTACT
Ada - 08033132473

M 1.1. v. Report of Gap assessment

AFRICA CENTRE OF EXCELLENCE FOR SUSTAINABLE POWER AND ENERGY DEVELOPMENT

(ACE-SPED)

UNIVERSITY OF NIGERIA, NSUKKA

Establish University innovation/entrepreneurship ecosystem through the strengthening of the Technology Transfer Office (TTO)

REPORT OF GAP ASSESSMENT

Identify Current State

The University of Nigeria Nsukka has an innovation ecosystem with a well-established Intellectual Property and Technology Transfer Office (IPTTO) with the mandate to protect the intellectual property of the university and enhance the ease of technology transfer and localization of technologies. Please see http://iptto.unn.edu.ng/ The IPPTO Director is Prof. Damian C. Odimegwu (damian.odimegwu@unn.edu.ng) The innovation ecosystem also comprises the Roar Nigeria Hub (https://www.roarnigeriahub.com/) and a Science Park (Lion Science Park), which is the first of its kind in Nigerian Universities. The University also has over 250 independent research groups that cut across all disciples. In addition, the University has a Centre of Entrepreneurial Development and Research (CEDR) as well as Consultancy firm, the UNN Consult.

Define future State

i. It is the expectation of the University/ ACE-SPED that the institution/Centre will become a global reference point for innovation and entrepreneurship development**;**
ii. That the graduates of the institution/Centre become entrepreneurs (job creators) instead of job seekers;
iii. To avoid the appropriation of the innovation by a third party without compensation to the institution/centre;

iv. That the innovations emanating from staff and students of the institution/centre will have far reaching accessibility globally;
v. Contribute to the implementation of national research programs;
vi. Enhanced financial management of research projects.

Identify the gaps

i. Poor knowledge of intellectual patency among staff and students;
ii. Insufficient research funding for staff and students
iii. Weak private sector participation in R & I (cum Poor knowledge of industry and research);
iv. Weak links between research structures and the socio-economic environment.

Evaluate solutions

i. Sensitization, training, consultancy in IP;
ii. Sensitization, training in grant and proposal writing and applications;
iii. Enhanced networking with the private sector to improve participation in R & I through the Industrial Partners;
iv. Improved community engagement to identify the needs of the community for impactful Research and Innovation.

Implement Change

- Quarterly organization of workshops, invited lectures, webinars on Technology transfer and commercialization in addition to grant and proposal writing and applications for example, workshop on Intellectual Property, Technology Transfer, and Innovation (IPTTI) held on 27th to 30th February, 2024;
- Compulsory one month Students industrial internship programme preferably in a private sector industry very relevant to their research;
- Participation of Private sector and industry partners during students' seminars and final oral examinations, to interrogate the research outcomes and make genuine contributions;
- Through the Applied Research Coordinator and the Industrial Liaison Officer of the Centre, the results of the research outputs are further discussed with the partners for possible prototyping and commercialization. Workshops/exhibitions are organized periodically to market these research output.

Examples of collaboration with private sectors are but not limited to

Collaboration with A1 Tronics Nig. Ltd Port Harcourt

A company in Port-Harcourt named A1 Tronics Ltd specializes in providing consultancy services in R & D and design and development of industrial electronic devices. It is one of the industrial partners of ACE-SPED. In 2021 the company provided internship placement for one of our students, who was working on development of Smart Electricity meter. In the

course of technical interaction and subsequent supervision visits by faculty members of ACE-SPED, the CEO of the company (Engr. Emmanuel Ayegba) took great interest in our approach to academic training and hence, enrolled as an MEng student of the Centre. He is currently preparing for External Examination having completed his research project.

Collaboration with Mirai Denchi Nigeria Ltd, Ikeja, Lagos

ACE-SPED, since inception, has been in collaboration with two strong sectoral partners in the development of renewable energy systems. Those partners are Mirai Denchi Nigeria Ltd, Ikeja, Lagos and the Laboratory of Industrial Electronics, Power Devices and New Energy Systems (LIEPNES). The focus is the development of a distributed generation mini/micro grid power supply system based on refuse-derived-fuel (RDF) gasification technology. Two plants, 100KVA and 500KVA have been demonstrated and research is continuing.

Development of Sustainable Self-Spraying Surface Sanitizer and Surveillance System

ACE-SPED, in collaboration with her strategic partner, the Laboratory of Industrial Electronics, Power Devices and New Energy Systems (LIEPNES) has developed a Sustainable Self-Spraying Surface Sanitizer and Surveillance System. The developed device was used in combating the COVID-19 pandemic in the University of Nigeria Nsukka and environs.

Monitor Changes

SWOT analysis - Sensitization, training

STRENGTHS	WEAKNESSES
-the robust method of monitoring the level of attractiveness of the trainings and workshops etc through assessement of enrollment status of different audiences. -training/workshop materials and contents, are internationally accessible via the centre's website -The training/workshop materials, contents and structure are such that meet the needs of industries and communities, and life-long learning goals of the staff and students. -The training/workshop materials, contents and structure are periodically developed and diversified to enhance the ease of technology transfer and localization of technologies. -Established Monitoring and Evaluation Unit of the centre ensures that standards are kept. -emerging interests by a lot of international students to come and study in ACE-SPED	--Reluctance for some staff and students to participate due to tight academic calendar presently faced by many Nigerian universities as a result of lost time to incessant strike and closure of universities. -Poor time management during the trainings/workshop as a result participants always arriving late due to tight academic schedules. - Poor tracking of the impact of the trainings/workshops on the staff and students -Poor internet connections for seamless online participation during trainings/workshops -
OPPURTUNITIES	THREATS

--The training/workshop materials, contents and structure are easily adaptable by different audiences cutting across gender, age and socio-cultural background leading to renewed interest to participate in the programmes by many. -Being hosted by one of the oldest indigenous universities in Nigeria, we have access to large number of staff and students -Increased awareness to intellectual property ownership and technology transfer strategies empowers the participant for enhanced means of income and motivation for research. - Certificate of participation bearing the name "University of Nigeria" gives a sense of pride and fulfilment being a prestigious institution in the country giving opportunity for large number of enrolment.	--High level of insecurity in the country restricting movement leading to poor physical attendance especially by those coming from outside the campus town - Lack of willingness for participants to register if money is attached to registration due to low income status of citizens occasioned by economic harsh-ship presently in the country. - Negative attitude to trainings/workshop by most students and staff especially when it is not linked to promotion in staff appraisals. - Low student and staff financial aids

SWOT analysis - Enhanced networking with the private sector

STRENGTHS	WEAKNESSES
- The Centre has been actively involved in forming partnerships and international linkages to achieve the goals of capacity building and collaborative research across the sub-region. - The centre has trained more than 200 students and staff (using internships programmes) from 2021 to 2024 in more than 50 private energy-related films leading to capacity building for both our staff and students in relevant technology. - The Centre and partners have held quarterly meetings. The purpose of the meetings was to assess the challenges in the power and energy sector, generate ideas, establish goals, and strategize to achieve those goals. - The collaboration with partners has facilitated the pooling of limited resources, aligned our students' research and educational efforts towards industrial needs, provided opportunities for our students to relate the theories and skills acquired in the center to the practical realities of society, industry, and organizations, and deepened their understanding and experience of the power and energy needs of society, industry, and organizations.	Some of the partnerships are only at the level of provision of internship placement and review of curriculum, but yet to culminate in contract research activities

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OPPURTUNITIES	THREATS
-Research studies are relevant to the needs of the immediate society -improved synergy between the institution/centre and the private sectors	Lack of trust on the local institutions leading to over dependence on imported products

SWOT analysis - Improved community engagement to identify the needs of the community for impactful R & I

STRENGTHS	WEAKNESSES
-The centre extended seed grants award to non ACE-SPED students of the host university thereby assisting its host institution of meeting its mandate in innovation and equally helping these students with financial challenge to achieve their dreams -The centre workshops and professional short courses participants goes beyond the centre's staff and students to others from host institution, private sectors, artisans, market and rural populace etc -The centre partners with host institution to host workshop/exhibitions -Through the centre's consulting business development office (IVET-HUB) many young school leavers and youths have been trained in various skills, thereby transferring technology for economic empowerment to these ones.	- poor evaluation of the seed grant proposal budgets leading to under estimation of the approved grants as a result of inflation in the national economy
OPPURTUNITIES	THREATS
-Improved synergy between the institution/centre and the host community - Increased awareness of the existence of the centre and its activities to the larger society leading to increased student enrollment	-Inflation and harsh economic situation presently in the country have led to delay in completion of some of the seed grant projects as the project financial estimations have been overtaken by inflation