CURRENT STATUS OF CEFOR AND KEY NEXT STEPS

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PRESENTATION OUTLINE

- OBJECTIVES FOR SETTING UP CEFOR
- TARGETS
- PROGRESS SO FAR
- REVENUE GENERATION EFFORTS
- CHALLENGES
- KEY NEXT STEPS
- Conclusion
MOTIVATION FOR ESTABLISHING CEFOR

- **OILFIELD CHEMICALS** are required for drilling, well completion, production to achieving optimum oil and gas recovery.

- Currently, several billions of dollars is spent annually in Gulf of Guinea importing these chemicals for petroleum exploitation.

- Yet, numerous natural resources that can be successfully processed and used for these operations are available locally.

- Nigeria and other African countries have abundant supplies of these resources.

- Developing technologies for in-country production of oilfield chemicals will improve profit margin, build human capacity and create jobs.
OBJECTIVES OF THE CENTRE

- Promote home grown and regional research networks that will develop human capital in Africa.

- Strengthen human capacity and serve as training hub for Oil and Gas industry workforce in Africa.

- Fill gaps in labor market demands for skills within these specialized areas.

- Increase capabilities of faculties and students in Africa through quality postgraduate education, knowledge transfer and internship programmes.

- Run short courses in Petroleum and related disciplines.

- Undertake consultancy services for Oil and Gas industry.
CEFOR TARGETS

- Graduate 60 PhD Students (30% regional, 30% female)
- Graduate 300 Masters Students (30% regional, 30% female)
- Run short term courses for 500 participants
- 200 internship for students and faculties (30% regional, 30% female)
- Publish 60 papers in internationally recognized journals
- Organise minimum of 3 conferences /workshops
- Sustainable Revenue Generation
- National and International Accreditation of the programmes
IPS MODEL AND PARTNERSHIP

IFP School France

Collaboration & Partnership

NNPC/ TOTAL JV
Pioneer partner

UNI PORT, Nigeria

IPS MODEL: UNIVERSITY-INDUSTRY PARTNERSHIP
STAKEHOLDERS MEETING WITH INDUSTRY-PARTNERS FOR BUY-IN
ORIENTATION EXERCISE (JUNE 10-12, 2014)

- Orientation exercise for students on 10th through 12th June, 2014.
- Aim of exercise to get students together and enlighten them on expectations, nature and modalities of programme.
- Opportunity for faculties and supervisors to interact with prospective students.
- First Lecture commenced from 30th June through 4th July, 2014.
LECTURE SESSIONS FOR ACE PHD STUDENTS
INTERNATIONAL OUTREACH

GHANA STUDENTS ENTREPRENEURSHIP LECTURES (FROM UNIV. OF MINES & TECH., Ghana)
STUDENT INFORMATION

- Total number of enrolled students at CEFOR = 359
- Number of PHD students = 55
- Number of MSC students = 208
- Number of Short Course students = 96
- Number of graduated students = 135 MSC Students
- New student intake = 73 MSC students (2015/2016 Session)
SEMINAR PRESENTATION BY OUR PhD STUDENTS

- Background of Study
- Extensive Literature Review
- Gaps Identified
- Statement of Problem
- Research Objectives
- Research Methodology/Plan
- Key Deliverables
- Contribution of Knowledge
CAPACITY DEVELOPMENT WORKSHOP

- To enhance the capabilities of faculties, three short courses were conducted in the months of September and October.

- Flow Assurance Challenges and Management(25)

- Thinking Skills for Conduct of Research and Proposal Writing (36)

- Laboratory Management and Protocols for Scientists and Laboratory Analysts(61)
NREP(USA) CERTIFICATION WORKSHOP FOR STUDENTS AND FACULTIES (1-5TH Feb, 2016)
LABORATORY MANAGEMENT AND PROTOCOLS FOR SCIENTISTS AND RESEARCHERS.
Revenue generation workshop (Feb 11\textsuperscript{th}- 12\textsuperscript{th}, 2016)
REVENUE GENERATION

• Presently the total External generated revenue (EGR) is: $4,490,552

• Funding from Industry Partners

• Research grants from grant-making agencies.

• Charges from short courses, consultancy services and capacity building

• Tuition fees from students and Scholarships.

• Endowment for Professorial chairs
REGIONAL CONTACTS

- Visited and made contacts with
- Makerere University, Uganda
- Kenyatta University, Kenya
- University of Mines and Technology, Tarkwa, Ghana
- Kumasi Polytechnic, Ghana
- Eduardo Mondlane University, Maputo-Mozambique
- Hopefully, will formalize the MoU and collaboration documents very soon for those not yet completed.
OilFlow - 2015

22 to 24 JUNE 2015

Theme: Oilfield chemistry and flow Assurance

HIGHLIGHTS

• 6 Keynote Addresses
  Mr. Denzil Amagbe Kentebe (NCDMB)
  Engr. Chikezie Nwosu (ADDAX)
  Dr. Jude Amaefule (EMERALD)
  Prof. A. P. Onwualu, FAS (NUC)
  Prof. G. A. Chukwu (TONCIA ENERGY)
  Prof. S. E. Iyuke (WITS, SA)
  Prof. Mike Onyekonwu (IPS, UNIPORT)

• 49 Technical Papers
• Panel discussions
• Awards and recognitions.

PARTNERS

University of Witwatersrand, Johannesburg (Wits), South Africa.
NCDMB
PTDF
ADDAX PETROLEUM
SOME OF OUR ACE STUDENTS ON THEIR PROJECTS
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A PHD student of ACE-CEFOR Uniport, Mr. Ituen, Ekemini Bassey got a research grant from McNamara to carry out a six months research in Shangai China. He is presently in China running his experiment on **5-HYDROXYTRYPTOPHAN: A NOVEL ECO-FRIENDLY CORROSION AND OILFIELD MICROBIAL INHIBITOR**
CEFOR Doctoral STUDENT IKORO DISCOVERS NEW RESERVES IN DEEPER DEPTHS.
CEFOR Doctoral Student in Petroleum Economics, Joseph Chukwuemeke Echendu builds robust Economic Model.

Hybrid Petroleum Economic Model

\[ \log \dot{Y}_1 = \beta_1 + k\beta_2 x_2 + k\beta_3 x_3 + \beta_4 \log x_4 + u \]

\( \dot{Y}_{1t} = \text{rate of change of explained variable} \)
\( u_t = \text{composite disturbance term} \)
\( x_{2t} = \text{cumulative drilling effort} \)

\[ \dot{Y}_{1t} = f(x_{2t}, x_{3t}, x_{4t}, u_t) \]

\( x_{3t} = \text{fiscal policy} \)

\( x_{4t} = \text{economics and market conditions} \)

\( k = \text{modified growth rate} \)
MAJOR MILESTONES

• Through University/industry-partnership efforts, we have completed the laboratory facilities.

• Moreover, through University/Industry-partnership efforts, we have completed about 75% of the building to house the ACE-CEFOR.

• The Centre has advertised for bids to tender for lab equipment, books and language laboratory.

• In the Next few months more than 80% of the 1st Set of ACE-CEFOR PhD students will be completing their final defense.

• Presently we have published more than 100 papers in internationally recognized journals.

• Commissioning of a two-storey NLNG Centre/mini-modular refinery.

• Have made progress with International Accreditation with ABET.
CHALLENGES

- Inadequate funding by WB to develop to full potentials
- Getting Regional Students
- Delays in disbursement of money by the WB
- Getting experts to teach/supervise in the Centre without appropriate remuneration
KEY NEXT STEPS

Ensure the laboratory equipment are set-up and the lab up and running on or before the 1st quarter of 2017

Increase the number of Regional Students in the program

Ensure that at least 80% of the 1st Set of the PhD students graduate on or before the 1st quarter of 2017

Complete the Gap analysis with ABET 1st quarter of 2017 and get set for accreditation 2017

Increase activities for fund raising and aggressive drive for collaboration with the industry and other stakeholders

Admit another set of PhD Students 1st quarter of 2017

Complete the building for ACE-CEFOR and occupy 2nd Quarter 2017
Entrepreneurial University: Finding creative and innovative solutions for the Oil and Gas Industry in Africa!