

HEPSSA WORKSHOP ON 15TH -16TH JULY 2021

**SUBJECT : EXPERIENCE ON ENGINEERING DEVELOPMENT AND
POLITICS**

BY

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KIGGUNDU

ZOOM CONFERENCE STARTING ON 15TH JULY, 2021

PARTNERS : LEED UNIVERSITY (LEAD)

MAKERERE UNIVERSITY (Mak)

NDEJJE UNIVERSITY

KYAMBOGO UNIVERSITY &

MBARARA UNIVERSITY (MUST)

#1. EXPERIENCE ON ENGINEERING

Definition:

ENGINEERING IS THE PROFESSIONAL ART OF APPLYING SCIENCE TO OPTIMUM CONVERSION OF NATURAL RESOURCES FOR THE BENEFIT OF MAN.

- RESEARCH
- ACADEMICS
- ADMINISTRATION
- FIELD WORK

#2. RESEARCH

- GEOTEXTILES
- PAVEMENT PROBLEMS
 - WATER DAMAGE/STRIPPING
 - RECYCLING OF AGED PAVEMENT MATERIALS
 - CHEMISTRY OF PAVEMENT BINDERS
 - GEOTECHNICAL MATERIALS
 - ETC

#3. ACADEMICS

- UNIVERSITY OF NEW MEXICO, USA 1978 – 81
- AUBURN UNIVERSITY, AUBURN, USA
- MAKERERE UNIVERSITY, UGANDA 1989 – 2002
- SUPERVISED POSTGRADUATE STUDENTS 1993-2002
- ADMINISTRATION
 - MANAGER OF RESEARCH PROGRAM – AUBURN UNIVERSITY, USA 1987-1988
 - HEAD OF CIVIL ENGINEERING DEPT, MAKERERE UNIVERSITY 1993 – 1999
 - DEAN OF FACULTY OF TECHNOLOGY, MAKERERE UNIVERSITY, 1999 – 2002

#4. FIELD WORK

- ROADS REHABILITATION, NHCC, UGANDA 1971 -1977
- GEOTECHNICAL EXPLORATION, NY, DPW JAN 1971 – JULY 1971
- SUPERVISION ON DEVELOPMENT OF ISIMBA & KARUMA HPPs 2016 -
DATE :
 - ISIMBA - 183 MW: OPERATIONAL
 - KARUMA – 600 MW (UNDERGROUND) UNDER CONSTRUCTION
 - NUMEROUS INVESTIGATIVE PROJECTS
 - DEVELOPMENT OF KATOSI, WATER TREATMENT PLANT TOGETHER
WITH DISTRUCTION TO GREATER KAMPALA (NWSC).

#5. EXPERIENCE ON DEVELOPMENT

DEFINITION:

DEVELOPMENT IS A PROCESS THAT CREATES GROWTH, PROGRESS, POSITIVE CHANGE OR THE ADDITION OF PHYSICAL, ECONOMIC, SOCIAL, ENVIRONMENTAL AND DEMOGRAPHIC COMPONENTS

DEVELOPMENT GROUPINGS:

- COMPLYING
- MERIT AND
- NON-COMPLYING

#5.Con. EXPERIENCE ON DEVELOPMENT

COMPLYING – IS DEVELOPMENT WHICH IS LISTED IN THE DEVELOPMENT PLAN OR DEVELOPMENT REGULATIONS.

EXAMPLES :

KAYUNGA –KAMULI BRIDGE

ISIMBA HPP – 183MW

KARUMA HPP-600MW

MEASURES OF DEVELOPMENT

HDI – UN INDEX BASED ON CAPABILITY

ABILITIES APPROACH – GENDER BASED

POVERTY TRAPS

#6. EXPERIENCE ON POLITICS

ENGINEERS ARE CONSTANTLY CALLED UPON TO IMPROVE THE NATION'S INFRASTRUCTURE.

- ROADS
- BRIDGES
- AIRPORTS
- TUNNELS
- BUILDINGS
- WASTE DISPOSAL OR
- WATER SUPPLY
- ETC

#6. Con. **EXPERIENCE ON POLITICS**

- ENGINEERS ARE CALLED UPON FOR SOLUTIONS. WITH ALL ABOVE RESPONSIBILITIES, IT'S POSSIBLE FOR CITIZENS TO FORGET THE ROLE OF GOVERNMENT.
- HOWEVER, TO FULFIL OUR MISSION TO PROTECT THE PUBLIC HEALTH AND SAFETY, ENGINEERS MUST BE INVOLVED IN THE POLICY-MAKING PROCESS AT ALL LEVELS OF GOVERNMENT.
- THUS AN ABSOLUTE NEED TO WORK WITH ELECTED LEADERS.

#6. Con. EXPERIENCE ON POLITICS

Why?

- THEIR SUPPORT IS VITAL TO OUR INDUSTRY
 - MAKE DECISIONS WHICH IMPACT OUR LICENSE REGULATIONS;
- MONEY SPENT ON EACH FACET OF INFRASTRUCTURE; STANDARDS THAT GOVERN LAW SUITS AGAINST ENGINEERS.
- ENGINEERING IS A TANGIBLE PROCESS WHERE IN ENGINEERS USE THEIR SKILLS TO DESIGN, CONSTRUCT AND OPERATE ENTITIES THAT HAVE A DIRECT BEARING ON THE PUBLIC'S QUALITY OF LIFE.
- ENGINEERS CAN ACTUALLY SEE THE RESULTS OF THEIR WORK

#6. Con. EXPERIENCE ON POLITICS

- EFFORTS IN GOVERNMENT RELATIONS ARE NOT SO CLEAR-CUT; NOT SO EASILY MEASUREABLE.

BUT BOTH SIDES MUST CO-EXIST.

ENGINEERS CAN BE BETTER MANAGERS DUE TO INTUITIVE CULTURING IN THEIR RESPECTIVE EDUCATION BACKGROUND.

ENGINEERS CAN BE BETTER ADMINISTRATORS OF PROCESSES LIKE ELECTION MANAGEMENT BECAUSE IT'S A PROCESS.

CONCLUSION

- EXPERIENCE ON ENGINEERING IS MULTIVARIATE
- EXPERIENCE ON DEVELOPMENT IS UNENDING
- EXPERIENCE ON POLITICS – CAN'T AVOID
 - POLITICIANS MAKE DECISIONS THAT AFFECT ALL ASPECTS OF LIFE
- ENGINEERS CAN BE GOOD POLITICIANS
 - I AM CONFIDENT ABOUT THIS.