

Engineering Education Capacities and Employability of Engineering Graduates in Southern Africa through **EEEP, HEP SSA and SAE²Net**

Dr. Eng. Wilson R. Nyemba

University of Zimbabwe

HEP SSA Project Manager

Hosted by



UNIVERSITY OF ZIMBABWE

Supported by



Royal Academy
of Engineering



**Jinja, Uganda
March 2005**



**London, England
Nov. 2014**



**Vic. Falls, Zimbabwe
July 2015**

Challenges:

Old Equipment, Inappropriate Skills, Theoretical Research

Implementation

EEEP: Enriching Engineering Education Program (2013-2015)

Royal Academy of Engineering Grant: £140,000

UZ Hub in Partnership with 6 Regional Spoke Institutions

Main Activities

Knowledge Sharing

Industrial Exposure

Professional Training





**ROYAL
ACADEMY OF
ENGINEERING**

IN SUPPORT OF

**Enriching Engineering Education
in Southern Africa**

HOSTED BY



**UNIVERSITY OF ZIMBABWE
Faculty of Engineering**

IN PARTNERSHIP WITH



FOR

**Professional Training
Knowledge Sharing
Industrial Exposure**



EEEP ACHIEVEMENTS



Zimplats Professorial Chair in Mining Engineering

EMPOWERING PARTNERSHIPS FOR A SUSTAINABLE FUTURE

Whether its sponsoring Professorial Chairs at the University of Zimbabwe in order to help them effectively equip the workforce and professionals of the future or any other initiatives we undertake to raise and sustain Zimbabwe's skills base, we at Zimplats believe in partnerships that further develop Zimbabwe.

Because at the heart of Zimplats lie the people of Zimbabwe.



Mining for a sustainable future



UZ Groundwater Project



Acquisition of Modern Equipment



Challenges Encountered after EEEP

Academia

Graduate



Industry

Confidence in Teaching??
Flight of Staff



Skills shortage or
skills mismatch?

High Staff Turnover
Motivation Low
Research and Publications Low

COVID-19
High Expectations
Seemingly Impossible
Situations

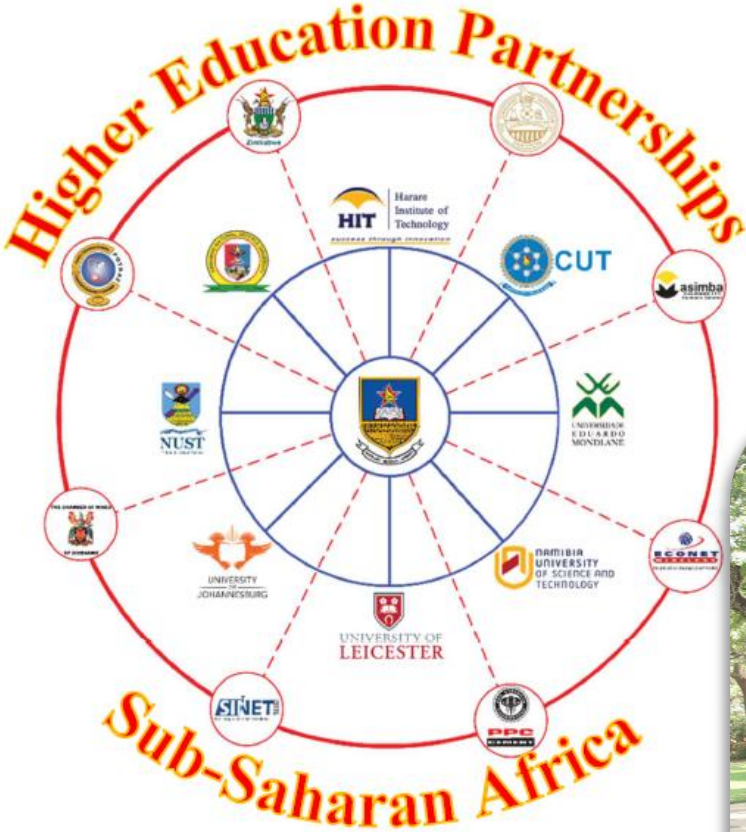
But..... Together we can




HEP SSA: Higher Education Partnerships in Sub-Saharan Africa (2019-21)


Royal Academy of Engineering Grants: £100,000 (2019), £50,000 (2020)

UZ Hub, 7 Regional Spokes, 1 UK Partner







Southern Africa Engineering Education Network
BRINGING INDUSTRY CLOSER TO ACADEMIA
USING SYSTEMS ENGINEERING UNDER THE
**Higher Education Partnerships
for Sub-Saharan Africa
(HEP SSA)**

HOSTED BY

UNIVERSITY OF ZIMBABWE
Faculty of Engineering

IN PARTNERSHIP WITH AND ANCHORED BY



FOR
Continuous Professional Development
Centres of Excellence & Doctoral Training Centres
Industrial Secondments & Exposure
Regional Biennial Conference & Journal
Entrepreneurships, Innovations & Industrialisation

PROUDLY SUPPORTED BY

ROYAL ACADEMY OF ENGINEERING
2019 - 2021



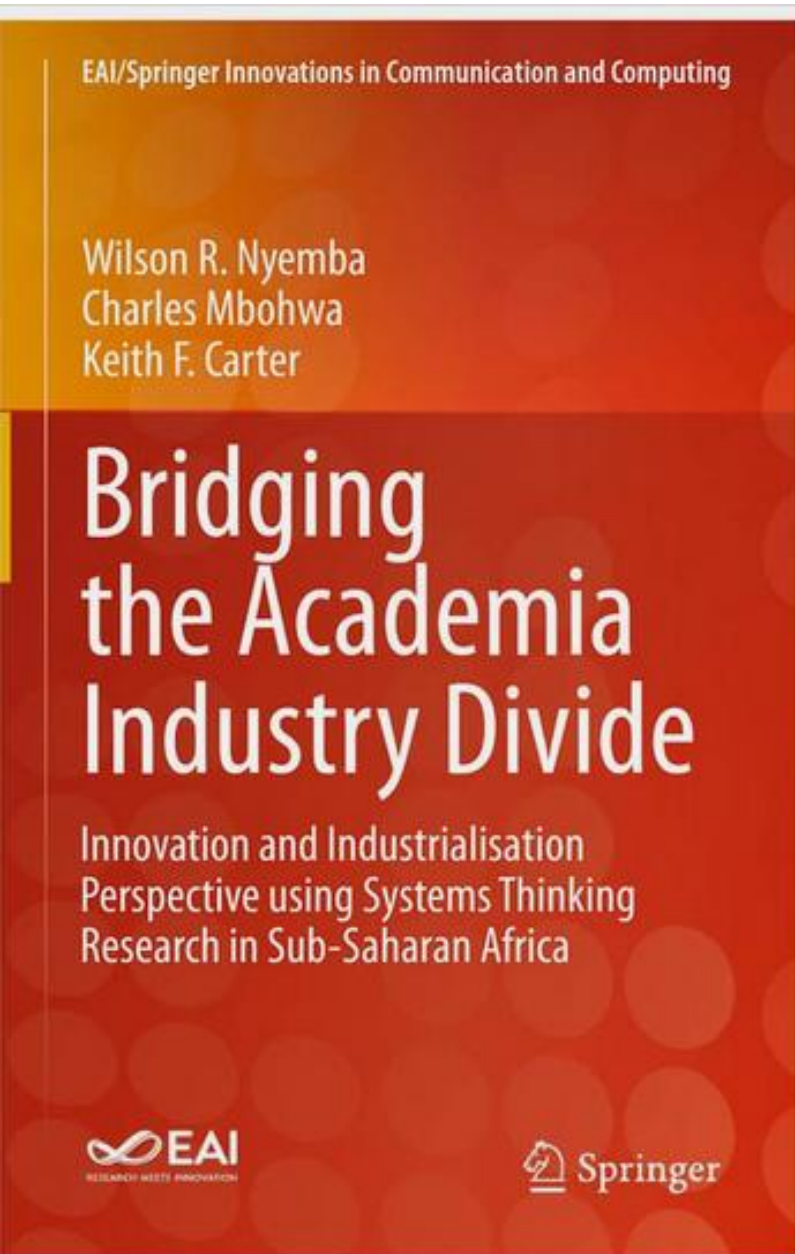
Virtual Conferences and Meetings

Activities under the
New normal
Secondments
CPDs
Innovations
Sustainability
Research and
Publications



Masking Up

ACHIEVEMENTS UNDER COVID ERA



Book Published by Springer

7 Journal papers (Elsevier)

13 Conference Papers (Scopus)

Book on DTCs and CoEs in Progress

23 Secondments (Plan 11)

130 engineers and technicians trained – CPDs

Reasonable Income Generated for Self-Sustenance

**Developing a whole
academics for tenure**



**Employable Engineering
Graduate**

Future Projections

MoA Signed by VCs of 8 Regional Universities in 2020

Centres of Excellence
(Professional Training)

Regional Collaborations
(Research and Expertise Exchange)

Industrial Secondments
(Exposure to Modern Technology)



CPDs
(Practicing
Certificates)

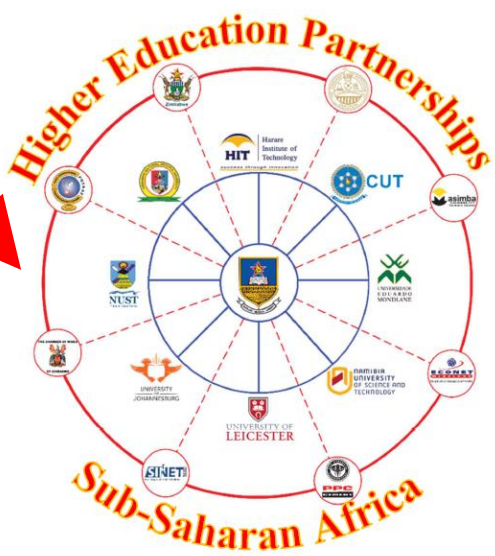
SAJET
(Publications)

Annual Engineering Conference
(Knowledge Sharing)

Promotion of Innovations
(Incubation and Commercialisation)

Doctoral Training Centres (DTCs)
(Industry Professorial Chairs)

EEEP



SAE Net

Southern Africa Engineering Education Network
Bringing Industry Closer to Academia

Thank You!!



HEP SSA A'Zambezi River Lodge, Victoria Falls, 2021