

# INAUGURAL ADDRESS

### **PROFESSOR NDEKE MUSEE**

Department of Chemical Engineering

VIRTUAL LECTURE 1 December 2021

CLICK TO REGISTER

## ANTHROPOGENIC ACTIVITIES, IMPLICATIONS TO AQUATIC ECOSYSTEMS, AND INTEGRATED RESPONSE

#### PROGRAMME

- **18:00** Welcome by Prof Jan Eloff, Acting Dean: Faculty of Engineering, Built Environment and IT (EBIT), and invites Prof Themba Mosia to introduce Professor Ndeke Musee
- **18:03** Introduction of Professor Musee by Prof Themba Mosia, Vice-Principal: Student Life
- **18:10** Inaugural address delivered by Professor Ndeke Musee
- **18:50** Acknowledgment by Prof Jan Eloff
- 19:00 Close of Ceremony

#### SUMMARY

Anthropogenic activities are by nature Janus-faced. The societal benefits of such activities include providing water, food, health care, and ease of communication. On the other hand, these activities have for decades been recognised as impacting negatively on aquatic ecosystems. This is the result of a sharp increase in pollution related to industrial activities and domestic toxic chemicals over recent decades. Deleterious impacts include biodiversity loss in freshwater and marine environments, rapidly diminishing potable water supplies, and high costs related to health-care and restoration of damaged ecosystems. Thus, the purpose of the lecture is to detail the implications of selected pollutants to the aquatic systems, their occurrence on local and global scales, and the risk assessment approach based on experimental and modelling techniques. Furthermore, the lecture will seek to address the consequences based on the data, information, and knowledge arising from my research activities in pursuit of sustainable development goals (SDGs). The emphasis will be on SDGs 3, 6, and 12 with reference to achieving specific targets aimed at improving human and ecological health through proper management of hazardous chemicals. The lecture will conclude by providing lessons learned and recommendations targeted at addressing chemical pollution through a multi-faceted approach.



#### Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo