

## SANEA/Doug Banks Renewable Energy Vision (DBREV) Joint Meeting

### Student Paper Evening

#### Programme:

- 1) **Introduction**
- 2) **Chantelle Janse van Vuuren**
  - The development of a time of use regional feed-in tariff design methodology to optimise grid support from Renewable Energy Sources
- 3) **Qin Chen**
  - Wind Power Forecasting
- 4) **Ndamulelo Mararakanye**
  - Constraining the intermittency of wind and photovoltaic systems through curtailment based on sub-hour forecasting
- 5) **Olivier Kasikala**
  - Production of Li-Ion Electrodes with Improved Conductivity for a 12V Automotive Battery
- 6) **John Williams**
  - Synthesis and characterisation of a nickel electrode for use in a bipolar nickel-iron (BiNiFe) battery.
- 7) **Table Topics** – a Q&A of a different format. An opportunity for the delegates to engage with the topics presented
- 8) **Closure**

## Brief CVs of the Speakers

### **Chantelle Janse van Vuuren**

- Electrical and Electronic Engineering Masters student at Stellenbosch University
  - Research focuses on solar PV and wind energy, with specific interest in the time of use scheduling and optimal geo-location of these farms
- BEng graduate from Stellenbosch University

### **Ndamulelo Mararakanye**

- Working towards his PhD in Electrical Engineering at Stellenbosch University
  - Research involves reducing the intermittency of wind and solar systems using reduced time forecasting
- MSc with distinction in Electrical Engineering from UCT
  - The research focus was on developing, modelling and simulation of control systems of hybrid power systems for rural electrification
- Registered as a PrEng
- Employed as a Research Engineer in the Centre for Renewable and Sustainable Energy Studies (CRSES) at Stellenbosch University
- BSc in Electrical Engineering from UCT

### **Qin Chen**

- MSc in Electrical Engineering at UCT
  - Research involves the study of Artificial Neural Networks in order to forecast short term horizon wind speed and power
- BSc Eng in Mechatronics from UCT

### **Olivier Kasikala**

- Prospective MSc student in Chemical Engineering at CPUT
  - Research to improve conductivity of LI-Ion electrodes for 12V battery
- Employed in the Energy Storage Innovation Lab at UWC
- BTech graduate from CPUT

### **John Williams**

- PhD student in Chemical Sciences at UWC
  - Research into Synthesis and characterisation of nickel for a nickel-iron battery
- MSc Chemical Sciences UWC
  - Long range transport of fine particulate matter & soot in Cape Town
- Employed at Koeberg Nuclear Power Station 2010 - 2017
- BSc(Hons) UWC