Applied Physics Forum Chairperson's Report: 6 July 2016, SAIP 2016

- 1. Applied Physics Forum activities during the past year.
 - Planning of 6th South African Conference on Photonic Materials (Mar 2017)
 This conference is being jointly organized by the DPCMM and the Applied Physics Forum.
 - Planning of 4th Southern African Solar Energy Conference (October 2016)
 APF committee members Prof Ernest van Dyk and Dr Vorster are on the organising committee of SASEC and also serve on the technical review committee.

2. Applied Physics Forum status.

Ongoing discussions on the purpose and status of the Applied Physics Forum, and the structure of different interest groupings within the Forum continues. These groupings include; Renewable Energy, Biophysics, Nuclear and Radiation Physics, Quantum applications etc. We are currently preparing a proposal to present to the SAIP Council for a change from a Forum to a Division.

3. Biophysics Initiative.

At the moment the status of the Biophysics Initiative's association with the Applied Physics Forum remains unchanged. However, Biophysics has expressed the opinion that their presentations are more aligned with other Divisions, viz. Photonics and Theoretical. A Winter School entitled "The Biophysics of Cells and Macromolecules" with 8 presentations was held on 4 July 2016.

4. Plenary speakers for Applied Physics.

The original speaker for 2016, Prof Norman Fitz-Coy, had to cancel due to personal reasons and we were fortunate to secure Dr Wynand Louw (NMISA) at short notice. This will fit well with the Metrology track that is running parallel with the regular Applied Physics presentations on Wednesday 6 July.

5. 61st SAIP Annual Conference.

<u>Contributions and attendance</u>: In 2016 there are 47 Applied Physics orals and 41 posters, a record 33% up from 2015. Attendance at first 3 Applied Physics Forum sessions (5 July) was good – 25, 35, and 51.

| | 2016 | 2015 | 2014 | 2013 |
|--------|--|-----------------------------|--------------------------|------|
| Oral | 36 Regular 11 Metrology 8 Biophysics (WS) 6 Biophysics | 40 (excl. Biophysics) | 32 (incl. Biophysics) | 26 |
| Poster | 41 1 Biophysics | 26 | 32 | 31 |
| Total | 95 (including Biophysics) | 66 | 64 | 57 |

- <u>Plenary Lecture</u>: "The SI redefined: Counting atoms, single-electron tunnelling and atomic clocks" by Dr Wynand Louw from the National Metrology Institute of South Africa (NMISA).
- <u>Non-specialist lectures</u>: "Photonics prototyping" by Dr Darryl Naidoo from the National Laser Centre.

6. The current APF committee (2014-2016) is:

Prof Ernest van Dyk (NMMU) Chair

Manuscript Review

Dr Phil Ferrer (Wits) Vice-Chair

Abstract Review

Dr Freddie Vorster (NMMU) Immediate Past Chair and Treasurer

Dr Jacqui Crozier (NMMU)

Frikkie de Beer (NECSA)

Prof Mmantsae Diale (UP)

Dr Tjaart Kruger (UP)

Prof Trevor Derry (Wits)

Prof Sampson Mamphweli (UFH)

Secretary

Industry Liaison

SAIP Council Liaison

Biophysics Liaison

Student Awards

Poster Adjudication

Dr Joe Asante (TUT) Oral Adjudication

Submitted by:

Prof Ernest van Dyk

Chair: Applied Physics Forum