



# IEEE SOUTH AFRICA SECTION

## Communications and Signal Proc.

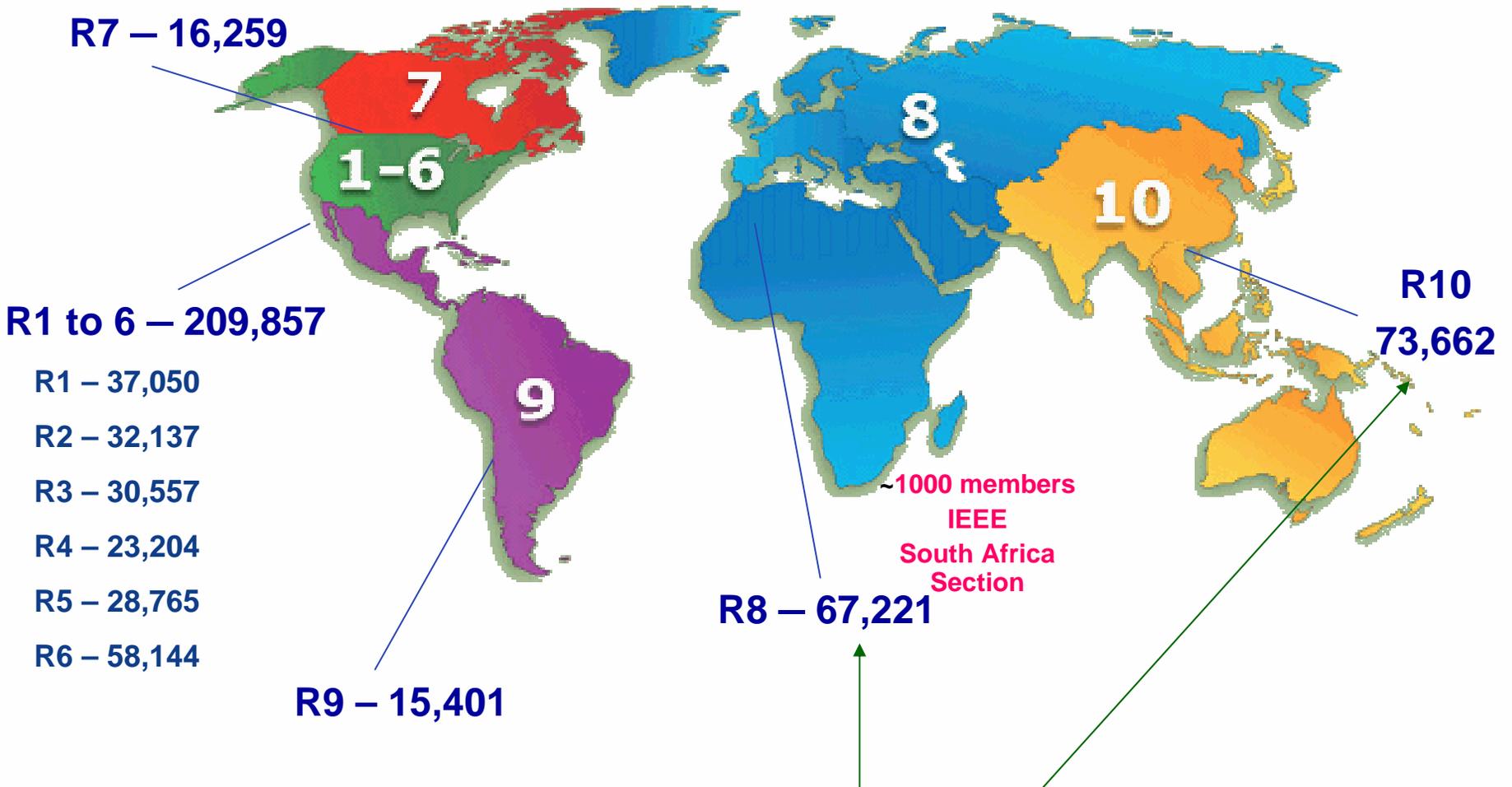
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University of Pretoria  
SENTECH Chair in Broadband Wireless Multimedia Communications (BWMC)  
SOUTH AFRICA

# SOUTH AFRICA

- South Africa has 23 Universities and Univ. of Technology
- Africa is the fastest growing telecommunications industry in the world:
  - Grown more than 49% in 5 years to 2007 (Ernst and Young Feb. 2009 survey)
- Hosting after 45 years ICC2010 for the first time on African soil

# Membership by Region



Reflecting the global nature of IEEE, R8 and R10 are now the two largest IEEE Regions

## Membership - SA

- IEEE SA – approx. 1000
- IEEE: ComSig Chapter – approx. 171
  - 12 VTC
  - 34 Sig. Proc.
  - 125 ComSoc
- Sister Society: SAIEE (5000 membership)

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## IEEE South Africa Section

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### Welcome To IEEE South Africa Section



A non-profit organization, IEEE is the world's leading professional association for the advancement of technology.

The IEEE name was originally an acronym for the Institute of Electrical and Electronics Engineers, Inc. Today, the organization's scope of interest has expanded into so many related fields, that it is simply referred to by the letters I-E-E-E (pronounced Eye-triple-E).

#### Mission Statement

IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity.

#### Vision Statement

IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

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**Celebrating 125 Years  
of Engineering the Future**  
South Africa Section

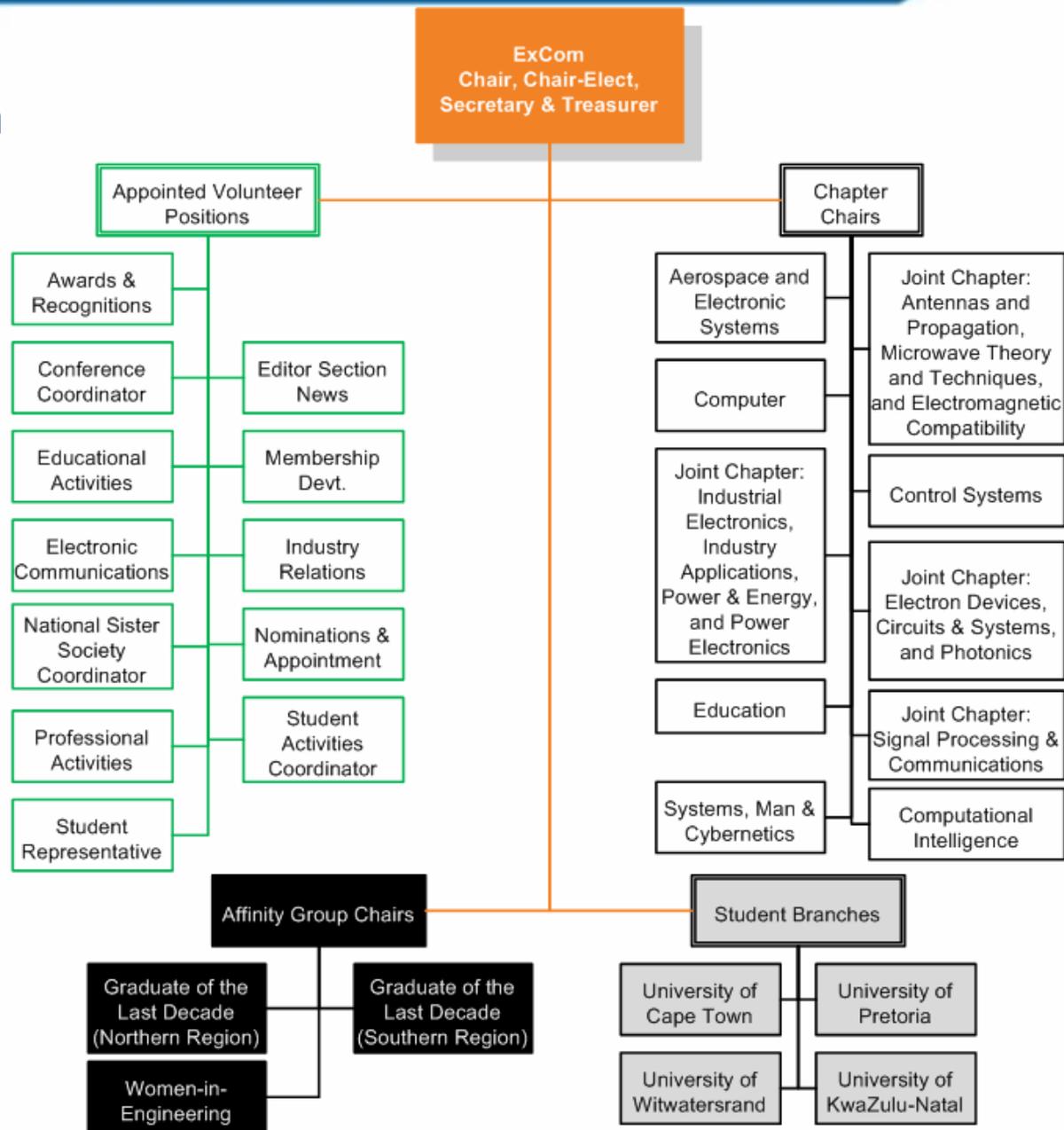
# SA ComSig Proc. Chapter

- Technical Seminars (about 8 planned for 2009)
- Visiting Lecturer in 2006
- Visiting Lecturer in 2007
- Planning Visiting Lecturer 2009
- IEEE AFRICON Conference (every 2 years)
- SATNAC Conference – SA Telecomms
- Arranging Student Chapters ongoing
- Lead writer in bid for ICC2010



# Organogram

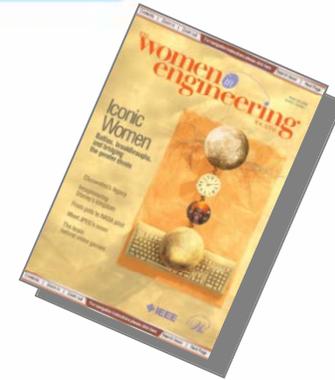
## IEEE South Africa Section



**Celebrating 125 Years**  
*of Engineering the Future*

**South Africa Section**

# Key IEEE Member Activities in South Africa



## Key conferences (past):

- **IEEE South Africa Section Antennas, Propagation and Microwave Theory and Techniques (AP/MTT) conference**  
<http://research.ee.sun.ac.za/apmtt2009> (30-31 March 2009)
- **South African Conference on Semi- and Superconductor Technology (SACSST)**,  
<http://research.ee.sun.ac.za/SACSST09> (08-09 April 2009)
- **Domestic Use of Energy (DUE) conference**  
<http://active.cput.ac.za/energy/public/index.asp?pageid=512> (14-15 April 2009)

## Upcoming IEEE lecture:

- Help to Improve Your Bottom Line - in fact your "Triple Bottom line!" - Scott Rouse, **IEEE distinguished lecturer**, IEEE PES  
(11 June - Cape Town; 18 June - Johannesburg)

## Upcoming conferences:

- **Industrial & Commercial Use of Energy (ICUE)**  
<http://active.cput.ac.za/energy/public/index.asp?pageid=513>  
(10-11 June 2009)
- **IEEE International Geoscience & Remote Sensing Symposium (IGRSS 2009)**  
<http://www.igarss09.org> (13-17 July 2009)
- **IEEE Africon 2009**  
<http://www.africon2009.co.za> (23-25 Sept. 2009)
- **IEEE Technology Education Conference**  
[http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/493](http://meetings.vtools.ieee.org/meeting_view/list_meeting/493)  
(25-28 Nov. 2009)
- **IEEE International Conference on Communications**  
<http://www.ieee-icc.org/2010> (23-27 May 2010)





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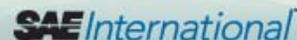
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# Key IEEE Educational Activities in South Africa

## Engineering Projects in Community Service

- ❑ **Joint initiative with IEEE Philadelphia Section**
- ❑ **Funding from IEEE: USD 25,000**
- ❑ Drexel and Philadelphia Clean Air Council project series:
  - ❑ Modelling and simulation of port operations
  - ❑ Sensor field for monitoring air/water quality
  - ❑ Residential air quality sensor network
- ❑ Champion identified at **University of Cape Town**
- ❑ Champion to still be identified at **University of Pretoria**



## Teacher in-service Programme

- ❑ **Joint initiative with the Dept. of Education**
- ❑ **Funding from IEEE: USD 25,000**
- ❑ A program that trains IEEE volunteers to work with pre-university teachers
- ❑ Based on approved Lesson Plans
  - ❑ Prepared/reviewed by IEEE volunteers
  - ❑ Tested in classrooms
  - ❑ Designed to highlight engineering design principles



# CHALLENGES

- Large developing country with large population spread
- Need to increase awareness
- Need to increase membership through student branches
- ICT fraternity need to see visibility of ComSoc and benefits for joining through activities
- Need ComSoc strategic intervention and commitment to Africa through SA

# Thank You