

Partnerships through POLYMERS

A painted personalised coffee mug awaits all new recruits to the UNESCO Associated Centre for Macromolecules and Materials of the Department of Chemistry and Polymer Science.

Similar personal touches help students feel at home in a Centre where the 10:30 tea breaks can be a cacophony of languages, with the Afrikaans, English, Xhosa and Sotho of the South African students sprinkled with a bit of Arabic, German and French, amongst others.

With full-time or visiting students from South Africa, Libya, Germany, France, the Netherlands, Belgium, Bangladesh, Zimbabwe, the USA, Lithuania, Eritrea, Gabon, Uganda, Bulgaria, Italy and Zambia, the Centre is probably the most multicultural place on the Matie campus. In the past, training has been provided to Namibians, Australians, Russians and Turkish on research ranging from membranes, paper and paints to nanotechnology.

Prof Ron Sanderson, director of the Centre and the Institute for Polymer Science, initiated the Centre in 1996. It provides training on graduate and postgraduate levels in theoretical and experimental research and also teaching of macromolecules and materials under the UNESCO principle to ensure capacity building and the exchange of information across country borders.

It has an admirable track record to attract industry partners such as Mondi, Plascon and Sasol Polymers to co-fund practical research products that more often than not have patentable results.



There is great interest to study here, but as it is, with its current complement of staff (25), full-time students (63) and staff of in-house companies (15), it's bursting at the seams. The Centre aims to train students from developing countries in Africa and Eastern



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Seated: Prof Ron D Sanderson, South Africa; Desi Ganeva, Bulgaria; Prof Bert Klumperman, The Netherlands; Dr Peter Mallon, South Africa; Dr Martina Meincken, Germany. Standing: Achille Bivigou-Koumba, Gabon; Nyambeni Luruli, South Africa; Omar Soltan, Libya; Howard Matahwa, Zimbabwe; Andrew de Vries, South Africa; Hussein Etmimi, Libya; Nadine Pretorius, South Africa; Gareth Bayley, South Africa; Austin Samakande, Zimbabwe; Werner Crous, South Africa; Estella Salamula, Uganda.

Europe where opportunities in this field are limited. For instance, after completing her doctoral degree, Zimbabwean Lilian Tichagwa, will return to the University of Harare to strengthen the polymer section within its chemistry department.

"We assist foreign scientists and students to obtain funds from international and individual member government agencies to be able to work here," explains Prof Sanderson, whose expertise helps to network with international contacts.

There were more than the typical adjustments to campus life for 19 Libyan students who joined the Centre last year in an initiative to ensure scientific training and research in a country that is still feeling the effects of sanctions. With valuable help from the SU international office, they spent much of last year learning English and writing with the Western alphabet, and are now, after attending several polymer courses, slowly finding their feet in the various research groups.

Despite initial scepticism about aspects like crime, the Libyan students have overcome many of the prejudices about a country they only

saw negative television coverage about.

"First-hand experience through these initiatives is the best possible marketing tool for our country," believes lecturer Mrs Elna McLeary. "Word-of-mouth about the 'Stellenbosch experience' attracts a lot of students to us."

Take German researcher Dr Martina Meincken for instance, who found her studies at the Centre so stimulating that she now holds a research position in the Scanning Probe Microscope laboratory. Her work on the advanced Multimode SPM Digital Instrument, used for high-resolution topographical images of surfaces, is only possible due to the Centre's focus on training students from other countries. It is the property of the Centre for Macromolecular Chemistry and Technology in Tripoli, Libya, but is on loan while the Libyan students study here.

To assist developing communities in macromolecular training, the Centre has also developed affordable educational packages (including multi-media, Internet-based and paper-based sets), laboratory demonstration kits and a free virtual teaching encyclopaedia. Leading polymer scientists also give tutorials at the annual conferences and workshops arranged by the Centre.

All this to ensure the Centre's vision to "be a national and an internationally renowned Centre for Polymer Science education and research!"