

A marriage of brilliant minds

The Faculty of Engineering, Built

Environment and Information

Technology at the University of

Pretoria is proud to have two

extremely talented and accomplished

professors who also happen to be

married.

Prof Andrie Garbers-Craig recently made history when she became the first female president of the Southern African Institute of Mining and Metallurgy (SAIMM) in August 2008. Prof Ian Craig was elected as president elect of the International Federation of Automatic Control (IFAC) for the triennium 2008 to 2011 by the Seoul IFAC World Congress in August 2008. Andrie is a professor in the Department of Materials Science and Metallurgical Engineering, while Ian is attached to the Department of Electrical, Electronic and Computer Engineering and is also Group Head: Control Systems. Both have degrees from the Massachusetts Institute of Technology (MIT).

Andrie completed BSc, BSc(Hons) (Chemistry) and MSc (Chemistry) degrees at the University of Pretoria, after which she joined the Mineral and Process Chemistry Division at Mintek in 1987. In that year Mintek gave her the opportunity to further her qualifications at MIT, where she completed an SM (Metallurgy) in 1989 in the Department of Materials Science and Engineering.

On her return to Mintek in 1989, she became a member of the Metallurgical Thermochemistry Group of the Mineralogy and Process Chemistry Division, where she was involved in fundamental and applied research in the field of pyrometallurgy. She also completed her PhD (Metallurgy) at the University of Pretoria from 1992 to 1995.

In 1995, she joined ITEC R&D (Iscor Ltd), first as a member of the Refractories Group and then as a member of the Steelmaking Group. In 1999, she was appointed in the Department of Materials Science and Metallurgical Engineering, where she teaches thermodynamics to undergraduate students and refractory materials at both undergraduate and postgraduate level.

Her research interests include studies of the relationship between the phase chemistry of iron sinters and their chemical and physical properties, Cr(VI) formation in the pyrometallurgical industry and the stabilisation of Cr(VI) in waste materials produced in this industry, and various topics related to refractory materials.

Andrie became a member of SAIMM in 1991, has been involved in the activities of the TPC Metallurgy since 1998, and has served on the council since 2000. She also holds memberships of the AIST and American Ceramic Society.

Ian holds a BEng (Electronics) (cum laude) from the University of Pretoria, an SM from MIT and a PhD (Electrical) and MBA from the University of the Witwatersrand. He is the editor-in-chief of Control Engineering Practice, a journal of the Institute for Electrical and Electronics Engineers (IEEE), for the period 2005 to 2010, and was also the Editor: Control of the Journal of the South African Institute of Electrical Engineers (SAIEE).

He is a member of various professional institutes, including SAIEE and IFAC. He was further president of the South African Council for Automation and Computation (SACAC) from 1997 to 1999, and is the founder and former president of the MIT Club of South Africa.

Ian has been extensively involved with IFAC, where he served as member of the Technical Committee on Mining, Metals and Minerals processing, member of the Technical Board (from 1999 to 2002) and council member for two consecutive terms from 2002 to 2008.

His research interests include economic performance assessment, HIV/AIDS modelling, identification and control, the modelling and control of autonomous vehicles in mining and the modelling and control of systems in mineral and metal processing. He teaches automation, control systems, circuits and electricity, and electronics to undergraduates, as well as multivariable control systems at postgraduate level.

Ian further received a number of awards and accolades, including an IFAC Outstanding Service Award in 2008, being elected as a fellow of the South African Academy of Engineering in 2006 and receiving an Excellent Academic Achiever Award from the University of Pretoria in 2002.

This academically accomplished couple does have a life outside academia. They have two daughters, Jana (6) and Jeanne (3), and family activities take up most of their free time. The two of them do try to fit in a game of squash regularly and Andrie likes to take photographs of the family, while Craig has a love for playing the cello. 🎻

→ Professors Ian and Andrie Craig

