

**Simon G. Fabri,
B.Elec.Eng(Hons),
M.Sc.(Eng.), Ph.D**

(and colleagues Marvin Bugeja,
Tracy Cassar, Alexandra Bonnici
and Owen Falzon).

Senior Lecturer and Head of
Department
Department of Systems and Control
Engineering
Faculty of Engineering, University of
Malta
Speciality: Automation and Intelligent
Control



Personal Profile:

Simon was born in Malta on April 29, 1965 as the youngest of three brothers. He received his primary education at the Hamrun Government Primary School. His secondary education comprised 5 years at the Archbishop's Minor Seminary in Rabat, followed by 6th Form studies at the New Lyceum in Msida (same site as today's Junior College).

In 1984 Simon commenced studies in Electrical Engineering at the University of Malta, graduating with a Bachelor's Honours degree in 1989. This was followed by an almost three-year stint in industry with STMicroelectronics (Malta) as a Test and Product Engineer. In 1992 he was appointed academic staff member in the Faculty of Engineering at the University of Malta.

Simon pursued full-time postgraduate studies in the United Kingdom between 1993 -1994 and 1996-1999, graduating with M.Sc. and Ph.D. degrees in Automatic Control Systems from The University of Sheffield. He is currently Senior Lecturer in Automatic Control Systems, Head of the Department of Systems and Control Engineering and Deputy Dean of the Faculty of Engineering at the University of Malta.

Simon is married and has two kids aged 8 and 10. His hobbies include music, guitar and piano playing (very amateurish!), and reading.



Simon with his two children.

Research Profile:

Simon's research interests include adaptive and intelligent systems, automatic control, neural networks, nonlinear systems, robot control, stochastic systems and biomedical engineering. He has published numerous articles in journals and conference proceedings, is a member on the Editorial Board of the International Journal of Systems Science.

Simon's research pursuits, in collaboration with colleagues and students, have seen him venturing into the use of advanced computer and electronic technologies for the design of automated systems (machines) that exhibit artificial intelligence and autonomous behavior. These include robots which attempt to learn and adapt their behaviour in similar ways that humans respond to changing environments, machines that detect faults in a system and automatically control the system's behavior despite the presence of the fault, machines that are able to balance an upright stick not unlike the broom balancing games that we used to play as kids, and many other similar systems.

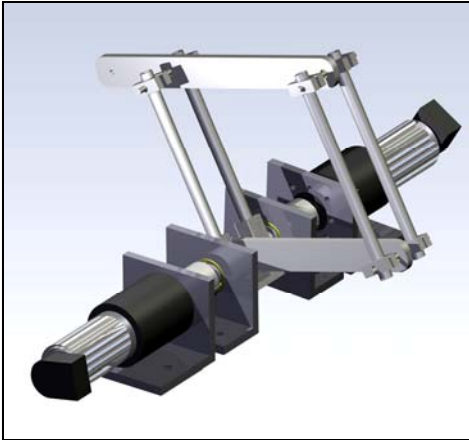


Simon (left) with Marvin, one of his colleagues, and their mobile robot *Neurobot* which they use for research on intelligent and adaptive behavior of roving robots.

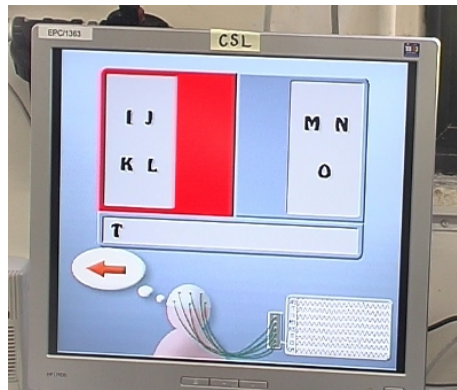


The stick-balancing system, technically known as the *Inverted Pendulum*.

A robotic arm, built and designed together with Simon's undergraduate students, for research on intelligent and adaptive behaviour.



A CAD drawing showing the initial stages during the design of a device, designed and implemented in the laboratory, which can physically interact with a user by exerting pushes or pulls so as to emulate a virtual physical environment. This is technically known as *Haptic Feedback* and finds use in virtual reality, computer games, and training for surgeons and dentists amongst many others.



Owen showing Presenter Theresia how to use the Brain-Computer Interface – working the computer with her thoughts.

Other Interests

Simon's hobbies include music, guitar and piano playing (very amateurish!), and reading.

Relevant Links or info

Further information about Dr Fabri's work can be viewed at

<http://www.eng.um.edu.mt/~sgfabr/>

Further information about his colleagues Dr Camilleri's work can be viewed at

<http://www.um.edu.mt/eng/sce/staff/kennethcamilleri>