

RESUME

Peter Seebacher

FIEAust, FAIP, MIEEEE, PE, PhD (Sydney),
MEngSc (Sydney), BAppSc(H1), JP

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Name	Peter John Seebacher
DOB	21-4-57
Marital Status	Married with three children.
Qualifications	<ul style="list-style-type: none"><input type="checkbox"/> Tertiary (all part time)<ul style="list-style-type: none">▪ Bachelor of Applied Science (NSWIT, Honours 1).▪ Master of Engineering Science (Sydney, by research).▪ Doctor of Philosophy (Sydney).<input type="checkbox"/> Trade<ul style="list-style-type: none">▪ Electrical Supervisors Certificate (TAFE).<input type="checkbox"/> Courses<ul style="list-style-type: none">▪ Management course: phase 1 – self management (Sydney).
Awards	Australian Institute of Physics 1983 for top student in final year.
Professional membership	<ul style="list-style-type: none"><input type="checkbox"/> Fellow of the Australia Institute of Physics.<input type="checkbox"/> Fellow of the Institution of Engineers, Australia.<input type="checkbox"/> Member of the Institute of Electrical and Electronics Engineers, INC (USA).<input type="checkbox"/> Member IEEE Biomedical Engineering Society (USA).<input type="checkbox"/> Member Society of Petroleum Engineers (USA)<input type="checkbox"/> Member International Society for Optical Engineering (USA)
Employment	<p>From Feb 2003 to Present: Consultant. My consulting business, AusEng, provides a range of technical services focussing on thermal measurements using distributed temperature sensor systems and thermoelectric sensors. AusEng provides technical services related to sensor deployment, sensor connectivity and communication to supervisory systems and data analysis.</p> <p>From 1999 to Feb 2003: Chief Technology Officer of Tyree Optech. Tyree Optech was formed to commercialise a photon-counting distributed temperature sensor. I was responsible for developing core technologies and maintaining the company's technical competencies. I was the leader of a multi-site multi-disciplinary team of technicians, scientists and engineers and software developers. I was the project leader of a multi-site and multi-disciplinary CRC team with responsibilities for this projects research . This position exploited my strengths in applied photonics, digital and analogue electronics, software development, communications and personal computers.</p> <p>Specific details were:</p> <ul style="list-style-type: none">▪ Develop web-enabled, platform-independent data acquisition, analysis

- and presentation software (Java and wrapped C).
- Installed and commissioned systems for various applications in the electrical supply industry and process control industries. Also resolved application issues such as sensing-fibre deployment.
- Established and maintained an IP register for licensing arrangements and patents. Wrote and submitted patent application.
- Wrote documents such as user guides and user manuals.
- Conducted preliminary work on the development of a long range photon counting dts system

Prior to 1999: Extensive research and development experience in electrical engineering. .

- ❑ Operated consultancy to leading Australian and international companies.
- ❑ Director of business manufacturing and marketing consumer products.
- ❑ Tertiary education at leading university, including teaching in management and biomedical engineering.
- ❑ Manager and project leader- research and development.
- Consultant to **Optical-Fibres Sensor Project**, The University Of Sydney. Managed multi-disciplinary team of eight graduate mathematicians, engineers and scientists directing research into optical fibre sensors. Provided scientific leadership and support to various activities in an applied research environment. . Projects included the development of a **Bragg grating fibre sensor**, an **analogue distributed temperature sensor** and a **photon-counting distributed temperature sensor**.
- Managed the activities of the University's High-Power Testing Laboratory with responsibility for preparing innovation for commercialisation. Participated in strategic planning and coordination of research activities as well as project finances and technical resources. Lectured and arranged laboratories and tutorials for numerous engineering courses offered by the Department of Electrical Engineering.
- A one year secondment to a consortium of The University of Sydney, Powercor, Western Power and Integral Energy to develop high-current fuses involved five weeks of research in Poland, Germany and Italy.
- Early career was centred on applied R&D and teaching at the University of Sydney Electrical Engineering including lecturing, conducting laboratories and tutorials in most areas of electrical engineering..
- Until recently I assisted Dr Peter Nicholls with biomedical engineering courses at the University of Sydney: lecturing, running laboratories and conducting tutorials. Leader of several biomedical research projects including a collaborative study into developmental dyslexia with the Evelyn McCloughan Children's Centre that led to a computer based diagnostic system based on analysis of potentials evoked by pattern reversals . Developed system to aid in the placement of catheters using flux-gate magnetometers - a collaborative effort undertaken with the Royal Prince Alfred Hospital and the Department of Neurology (Sydney). Extensive digital and analogue electronics experience including the design and construction (from component/PCB level) of microprocessors has been of value in this respect.
- Supervisor to PhD, Masters and undergraduate students. Two biomedical students winning awards for their efforts.

Director of business manufacturing and marketing consumer products. Developed

prototype products, led in the design of production products, including the manufacture of dies etc required for injection moulding of components, assembly, packaging, marketing, promotion and sales.

Technical competencies

- Teaching and training
- Applied physics
- Thermography - optical fibre sensors (dts systems and applications).
- Applied photonics
- Biomedical engineering: instrumentation and physiology.
- High-voltage and circuit interruption
- Energy conversion
- Electronics (analogue and digital)
- Software design and analysis – management of development teams.
- Measurement and Instrumentation
- Personal computer's and PC based systems
- Connectivity including web enabled systems
- Networking

Consulting

Companies consulted for include: ABB, Allen Allen & Hemsley, Australia AMP, Channel Nine, Cummins Engine Company Limited, Design Edge, GEC-Plessy, Peaston Australia, The University Of Sydney, Tyree Group.

General

IEEE reviewer, examiner for Australian Design Awards and various research grant bodies.

Publications

- 3 journal, 12 conference