

CURRICULUM VITAE

NAME: RAYMOND LINDSAY HOPE

DATE OF BIRTH: 29 August 1973

ACADEMIC QUALIFICATIONS:

Bachelor of Engineering 1994 The University of Queensland
(Mechanical -1st Class Hons.)

Doctor of Philosophy 1999 The University of Queensland

PROFESSIONAL QUALIFICATIONS:

Member, The Institution of Engineers Australia
Chartered Professional Engineer
Registered Professional Engineer of Queensland

AWARDS:

Award for excellence, most outstanding paper Rapid Prototyping Journal 1997

CAREER APPOINTMENTS:

2005 - Vice President Engineering, Gilmore Engineers – e3k
2003 - 2005 Manager, New Product Division, Gilmore Engineers Pty Ltd
1998 - 2003 Research and Development Engineer, Gilmore Engineers Pty Ltd
1995 – 1998 Postgraduate Research Scholar, The University of Queensland
1995 - 1997 Tutor, Mechanical Engineering Department, The University of Queensland.
1992 - 1994 Tutor in Mechanical Engineering, Cromwell College, The University of Queensland.

PUBLICATIONS:

Hope, R.L., Roth, R.N., Riek, A.T. (1995) “Rapid generation of large objects”, *Proc. First Asia/ Pacific Conference on Rapid Product Development*, QMI, Brisbane.

Hope, R.L., Roth, R.N., Riek, A.T. (1996) “Layer Building With Sloping Edges For Rapid Prototyping Of Large Objects”, *Proc. 5th European Conference on Rapid Prototyping and Manufacturing*, June 4-6, Helsinki, Finland, pp 47-57.

Hope, R.L., Jacobs, P.A., Roth, R.N. (1997) “Rapid prototyping with sloping surfaces”, *Rapid Prototyping Journal*, vol 3, no.1, pp 12-19.

Hope, R.L., Roth, R.N., Jacobs, P.A. (1997) “Adaptive slicing with sloping layer surfaces”, *Rapid Prototyping Journal*, vol 3, no.3, pp 89-98.

BIOGRAPHICAL NOTES

Dr Raymond L Hope is the Vice President Engineering, e3k Global, the New Product Division of Gilmore Engineers Pty Ltd, Research, Development and Commercialisation Specialists.

He received his Bachelor of Mechanical Engineering degree in 1994, with First Class Honours from The University of Queensland, Australia. He completed a Ph.D. degree in the field of Mechanical Engineering in 1998, also from The University of Queensland. His postgraduate research examined layered manufacturing of large objects, and in particular techniques to improve speed and accuracy such as five-axis profiling of layer surfaces and adaptive slicing. The work was mainly computational, with particular emphasis on developing software to slice computer solid models and produce numerical code to control five axis machines to cut layers from sheet material.

Through his research, Raymond developed an interest in Rapid Prototyping and Layered Manufacturing. He has developed contacts around the world and continues to keep up with the latest developments through the Rapid Prototyping Mailing List. He has published 4 papers in journals and engineering conferences at the International level, and received an award for excellence for the most outstanding paper in the 1997 Rapid Prototyping Journal published by MCB University Press, UK, as main author.

In 1998, Raymond Hope joined Gilmore Engineers Pty Ltd as a specialist Research and Development Engineer. He has worked on numerous design projects and developed expertise in concept generation and refinement, three dimensional computer modelling, prototype construction and testing, and Finite Element Analysis (FEA).

E3k Global specialises in Industrial Research and Development, particularly New Product Development and Commercialisation for Global Products. This activity requires a broad knowledge of Engineering, from which ideas and fresh approaches to problem-solving can be drawn. Complete products which satisfy an identified market and consumer demand are created from initial concepts, or partially developed devices. This requires a highly creative and experienced approach, together with cross-fertilisation of ideas from other disciplines to enable them to be world competitive and suitable for export. A complete idea-generation, design, prototype development and testing service is provided. Commercialisation and manufacture of the product is considered constantly with assistance being given in protecting Intellectual Property, conducting market research, liaison with regulatory authorities, and importantly interacting with sources of finance.

As part of the Gilmore Engineers team, Raymond has investigated over 220 incidents and prepared expert engineering evidence for the legal profession of Australia. This evidence, provided by Gilmore Engineers, has ranged from detailed failure analysis of major industrial accidents, through patent and copyright actions, to motor vehicle accident re-construction and personal injury. Personal injury reports particularly include ergonomic analysis and a risk assessment of the system of work, with traumatic injury in industrial workplaces being an area of speciality. A noteworthy case was Parliament House, Canberra, where in 2004 he inspected and analysed the cause of approximately one million dollars worth of accidental water damage to the Cabinet Room and the Prime Minister's office.