# Lim, Patrick, ME, SMIEE

Callaghan Innovation Research and Technical Services 24 Balfour Road, Parnell, Auckland 1140

## Principal Research Engineer

Team Leader of Robotics and Automation

Email: Patrick.lim@callaghaninnovation.govt.nz Web: http://www.callaghaninnovation.govt.nz

Phone: +64 9 920 3688

Born on 13 January 1964 in Kuala Lumpur, Malaysia



### Scientific Career

2014	Principal Research Engineer and Team Leader, Callaghan Innovation
2012 - 2013	Senior Research Engineer and Team Leader, Callaghan Innovation
2008 - 2012	Senior Research Engineer, Industrial Research Limited
1996 - 2007	Research Engineer, Industrial Research Limited
1992 - 1996	Research Assistant, Industrial Research Limited
1993 - 1995	ME in Electrical and Electronic Engineering, University of Auckland, New Zealand
1988 - 1992	BE in Electrical and Electronic Engineering, University of Auckland, New Zealand

## Scholarships, Awards and Faculty Functions

2014	Secretary of New Zealand Robotics, Automation and Sensing network
2014, 2004	Technical Program Committee of the International Conference on Automation, Robotics and Applications (ICARA)
2013	Recipient of the KiwiNet Commercialisation Collaboration Award for outstanding new collaborations; the Ovine Automation Consortium
Since 2012	IEEE Senior Member #92432152 (NZ North Section)
2012 - 2014	Technical ProgramCommittee of Robot Intelligence Technology and Applications (RiTA)
2012	Technical Program Committee of Mechatronics & Machine Vision in Practice (M2VIP)
2010	Panel speaker for the Robotics and Automation Workshop Session, TechNZ Innovation Forum
Since 2009	Active member of the Ovine Consortium Science and Commercialisation Advisory Group (SCAG)
2002	Co-editor and Program committee of the Australasian Conference of Robotics and Automation (ACRA2002)

2001	IPENZ Accreditation review panel
1998	Recipient of the Royal Society Medal for Contributions to NZ Robotics Industry, medal awarded to IRL Robotics Team
1998	Recipient of the Innovation award, NZ Inst. Food Science and technology
1997	Recipient of the Best paper award at the NZ Electronics Conference (Enzcon97)

#### Ten most important publications

#### A) Published in publication outlets with scientific quality assurance and book publications:

- 1. Kadmiry, B.; Wong, C.K.; <u>Lim, P.K.</u>: Vision-based approach for the localisation and manipulation of ground-based crop. Int. Journal of Computer Applications in Technolo-gy 50(1-2), p. 61-74, 2014.
- Friedrich, W.E.; Ziegler, T.; <u>Lim, P.K.</u>: Experimental robotic gripper control for handling of soft objects. Proceedings of SPIE – The International Society for Optical Engineering, 2904, p. 264-270, 1996.
- 3. Friedrich, W.E.; Spooner, N.R.; <u>Lim, P.K.</u>: Fish deboning requires knowledge of anatomy. Industrial Robot: An International Journal, 22(5), p. 18-21, 1995.
- 4. Friedrich, W.E.; <u>Lim, P.K.</u>: Robotic hardness evaluation of natural materials. International Agrophysics Journal, 8(4), p. 559-563, 1994.
- 5. \*Stommel, M.; Xu, W.L.; <u>Lim, P.K.</u>: Robotic sorting of animal offal discussion of a soft peristaltic approach. Soft Robotics, 1(4), p. 246-254, 2014.
- 6. Wong C.K.; <u>Lim, P.K.</u>: Processing of Point Cloud Data from ToF Camera for the Localisation of Ground-based Crop. Proceedings of the 19th International Conference on Mechatronics and Machine Vision in Practice, p. 184-189, 2012.

#### B) B) Other publications

7. Wong, C.K. and Lim, P.K.: Experimental VGR for 3D Object Tracking and Contour Following. Australasian Conference on Robotics and Automation (ACRA), 7 pages, 2011

#### C) C) Patents

- 1. \* Xu, W.L.; Stommel, M.; <u>Lim, P.K.</u>: Peristaltic XY Table for Sorting of Animal Offal, New Zealand Provisional Patent, #627425, 2014.
- 2. Cook, B.B.; McEwan, J.; <u>Lim, P.K.</u>; Friedrich, W.E.: Portioning of flowable products, United States Patent, US6213174, April 10 2001.

<sup>\*</sup> Publications jointly together with UoA-researchers involved within this IRTG

<sup>§</sup> Publications jointly together with USTUTT-researchers involved within this IRTG

# Supervised graduate students since graduation year 2011

No.	Last Name, First Name	Degree	Title of the dissertation	Duration of thesis

# Most important research grants since 2011

No.	Research Project	Funding Period	Name(s) of the principal investigator(s)	Funding source and reference number
1	Ovine Automation	2009 - 2015	Lim, P.K. Bates, G.	Ministry of Business, Innovation and Employment
2	Modular platform for vegetables	2011- 2013	Lim, P.K	Ministry of Business, Innovation and Employment
3	Mussel Barnacle Removal	2011- 2014	Lim, P.K.	Seafood Innovation Limited, New Zealand