# [CURRICULUM VITAE for COLIN MURPHY]

# **PERSONAL:**

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**DATE OF BIRTH:** 24<sup>TH</sup> June 1962

**NATIONALITY:** New Zealander

**DRIVERS LICENCE:** AZ353997 for Classes 1, 2 & 4

# **WORK HISTORY:**

2015	Technical Safety Advisor for Industrial Controls South Canterbury	
2008 - 2014	Technical Safety Advisor, The Core Safety Group	
	1993 Senior Inspector (Wiring)	
	1993-1999 Safety Inspector Office of the Chief Electrical Engineer,	
1990 - 2008	Energy Inspection Group, Ministry of Commerce,	
1990 - 2006	1999-Dec 2001 Technical Advisor	
	Dec 2001 - March 2008 Senior Technical Advisor – Southern	
	Region, Energy Safety Service, Ministry of Economic Development	
1988 - 1990	Station Electrical Supervisor at Matahina Hydro Electric Power	
	Station under Electricorp.	
1984 - 1988	Electrical Fitter at Roxburgh Hydro Electric Power Station under	
1704 - 1700	NZ Electricity then Electricorp.	
1980 - 1984	Electrical/Fitter Apprentice under NZ Electricity.	

# **OVERALL SUMMARY OF EXPERTISE:**



- Qualified Electrical Fitter (New Zealand);
- Registered Electrician (New Zealand);
- Licensed Electrical Inspector (New Zealand);
- Licensed Electrical Inspector (Victoria, Australia);
- Technical representative for New Zealand on various Joint Australian and New Zealand plus IEC Standards committees including:
  - IEC TC 31 committee and Sub Committees dealing with hazardous area equipment, installation, maintenance and repair and their Joint Australian/New Zealand Committees EL/14;
  - IEC TC 64 and the Joint AS/NZS equivalent Committees of EL/1;
- New Zealand representative on the APEC Hazardous Area information interchange forum;
- Chaired the New Zealand Standards Committee that developed the world's first Standard dealing with the electrical safety of Electric Animal Stunning and Conditioning Installation NZS 6116.
- Was the New Zealand Electrical Safety Regulators Expert for Hazardous Areas, Installations, Animal Stunning and Conditioning and Switchgear and Control gear;
- Able to build networks to address issues that arise. These networks could be from a simple site level to a high level, complex, international cooperative;
- Have excellent communications skills. I am able to speak to audiences of 1 to 600 people, whether they are non-technical or experts in their fields, on various technical issues. I am able to utilise various presentation tools (i.e. Whiteboards, PowerPoint projectors) to convey messages;
- I have a strong personal interest in IT. I have used a wide variety of both hardware and software.
- I work with and have a good understanding with respect to the technical development of Industry Standards and Codes of Practice.
- Able to reference and understand Legislation from various Regulatory and Legislative bodies outside the electrical industry.

### **CURRENT STRENGTHS:**

- Problem Solving able to identify problems and work with those effected to develop a practical solution that meets safety requirements in a commercial manner;
- Developing Professional Relationships able to develop effective networks of both people and resources to address specific problems;
- Going the extra mile able to look outside the confines of Legislation I currently work with and identify other issues that the client needs to consider as part of the solution to the problem they have.
- Acceptance able to deal with bureaucracy if it is put up front to deal with rather than coming after the fact;
- Results Orientated I like to take on a project and see it through to the end.
- Work Unsupervised I am -self-motivated and able to work for extended periods of time on my own with no outside supervision.

## **TECHNICAL EXPERIENCE:**

#### 2008 – 2014 The Core Safety Group

Setup and run a consultancy business based on safety, training and inspections that looks at the client's needs including processes and develops a practical solution based on their requirements and abilities. These solutions will be able to be verified as meeting any legislative requirements.

- 2008/2009 carried out safety audits of 14 Marae in the area looked after by Turanga Health along with their Offices then and following this returned to begin rectifying issues found and implementing solutions that the clients could in the main manage themselves without the need to involve trades persons;
- Carried out electrical testing training sessions and product promotions for AVO New Zealand Limited throughout New Zealand in 2008;
- Worked with TEGEL Stock Food at their plants throughout New Zealand to assess the hazardous areas created by dust created by the process of creating the stock food in 2008 through 2011;
- Carried out audit of Silver Fern Farms Animal Stunning and Conditioning equipment on all their facilities throughout New Zealand in 2008 and 2009;
- Assisted Envirolight International with various projects such as Gas
  Compressor Project and Bio Fuel Project for the Christchurch City
  Council along with carrying out a fire investigation for Meridian
  Energy and assisting with an international Development project for
  Arc Innovations in 2008-2009;
- Provide several electrical contracting companies with hazardous area seminars to assist with their staff's ongoing competency;

- Assisted Fonterra's Edgecombe Plant review a report on a hazardous area and provide them with feedback on that report. I also assisted them with a meeting with the company who wrote the report;
- Carried out Refresher Training Courses for electrical workers from May to June 2009 for ETCO;
- Carried out a pilot program reviewing hazardous areas at one of their South Island production facilities for Fonterra in 2009;
- Acted as Client Representative for the New York Power Authority during the testing program being carried out on Generate Control Units being built for them in Christchurch in 2009 and 2010;
- Carryout periodic inspections of animal stunning and conditioning equipment for various clients, 2008 -;
- Carryout periodic inspections of various clients hazardous area installations, 2008 -;
- Written various technical articles on safety issues for the Electrolink Magazine in 2008, 2009 and 2010;
- Worked with TPK, Turanga a Kiwa Iwi and ECA, in 2010, on the
  initial part of an alternative energy initiative which involves flats,
  marae, early childhood centre and church. This part of the project
  identified the issues that existed within the existing installations that
  needed to be addressed before any implementation of alternative
  energy should be applied.
- Worked with Fonterra's Southern Plants to start assessing there hazardous areas;
- Undertake hazardous area seminars in the North Island in 2010;
- Undertake hazardous area seminars for various organisations such as Fuelquip, Vector. NZ Gas Engineers Association and Shell Todd Oil Services in 2010;
- Participate in the development of electrical safety Standards and Legislation on behalf of various organisations.

# 1990 - 2008 Ministry of Commerce, Energy and Resources Division - Restructured with the Ministry of Economic Development, Business Services Branch, Energy Safety Service

Worked in Electrical Inspection Group (Technical) as Senior Inspector (Wiring) for the Office of the Chief Electrical Inspector until 1993, then as Safety Inspector for the Office of the Chief Electrical Engineer until December 1999, then as a Technical Advisor till the end of December 2001, then Senior Technical Advisor – Southern Region for the Energy Safety Service. My duties include, answer enquires regarding the:

- Electrical Wiring Regulations 1976, until 1993;
- Electricity Regulations 1993, until 1997;
- Electricity Regulations 1997;
- Electricity Act 1992.
- Issue Modifications and Permission's under the Electrical Wiring Regulations 1976.
- Act as last Secretary for the Electrical Wiring Regulations Committee, which dealt with issues raised under the Electrical Wiring Regulations 1976. This job went from 1990 to 1993.

- Act as Secretary for the HAZAC (Hazardous Area Advisory Committee). This committee passed over to Standards New Zealand in 1997;
- Organise and participate in Industry Contact meetings with organization such as various Electrical Inspector Groups, New Zealand Electrical Contractors Association, NZ Electrical Institute, various manufacturer and industry groups, distributors and Power Boards both within New Zealand and Internationally.
- Undertake Coordination work with other Government Departments such as OSH, BIA, ERMA and Fire Service;
- Undertake Coordination work with various Government Departments in other countries. This work included meeting with our counterparts in Hong Kong and working with Electrical Safety and OS & H Regulators throughout the various States of Australia;
- Carry out promotional work at trade shows such as the Canterbury and Westland Branch of ECANZ Trade Shows in Christchurch, in early July each year, and the Mastertrade Trade Shows in Hamilton, in August every two years;
- Set up, Advertise, Manage, and run in 1992 a Hazardous Area Inspection Training Seminar in Auckland, New Plymouth, Taupo, Wellington, Christchurch and Dunedin;
- Set up, Manage, and run in 1995 a Switchboard Seminar on AS 3439.1 in Auckland and Christchurch;
- Chair the Standards New Zealand Seminars in Auckland Wellington and Christchurch on AS/NZS 3800 and AS/NZS 2430.3 over the 12-14 May 1998;
- Participate in the 1993 & 1997 Electricity Regulations Road show carried out by the Energy Inspection Group of the Ministry of Commerce. The road show covered the whole of New Zealand preceding the introduction of the Electricity Regulations 1993 and Electricity Regulations 1997.
- Assist with various EDA/MOC Training courses including ones dealing with hazardous areas and switchgear/controlgear assemblies. This also includes the presentation of a paper on competency at a training course set up to train the trainers (Polytechnic tutors that trained electrical subjects)
- Coordinate with and attend various Joint Electro Technical Standards meetings as required with Standards New Zealand (SNZ) and Standards Australia (SA). Work undertaken included projects under the following committees and their associate sub committees, EL/1, EL/2, EL/3, EL/4, EL/6, EL/14, EL/24 and MS/11.
- Act as Working Group Chairman for the Working Group responsible for developing the new Joint AS/NZS 2381.1 hazardous area base electrical installation Standard.
- Act as New Zealand's IEC TC 31 (The International Electro technical Commissions committee on electrical safety in hazardous areas) and subcommittee representative. In this role I attend the IEC SC31H meeting in Brisbane in 1991 and TC 31 and sub-committee meetings in Durban, South Africa in 1995 and Sydney, Australia in 1999 as New Zealand's representative. In 1999 in Sydney, Australia I also attended the IEC Ex Certification Schemes MC (Management Committee) as a New Zealand Observer;

- Participate in the IEC SC 31H Working party that developed the 61241 Inspection and Maintenance document for dust 1995-1999;
- Participate in the IEC SC 31H Working Party that is developing the 61241 Installation document. This work commenced in 1999;
- Participate in IEC TC 31 Working party to look at the feasibility of combining the IEC 60079 series of standards relating to hazardous areas in the presents of gas and vapours with the 61241 series applying to hazardous areas in the presents of dust. This working party started in 1999;
- Participate in an IEC TC 31 Working Party to look at the marking requirements of hazardous area equipment. This work commenced in 1999:
- Participate in the New Zealand IEC working party developing an international standard for the construction of electrical stunning and stimulating equipment.
- Assist in developing legislation as required including assisting the meat industry to develop a Code of Practice (To be NZECP 38) for the Electrical Safety of Animal Stunning and Stimulating Equipment.
- Carry out inspection and audit work of low voltage installations as required by the OCEE, specifically in my specialist areas of hazardous area installations and installations containing Electrically Powered Animal Stunners and Stimulators.
- Assist with the training of Industry persons in respect to the inspection of animal stunning and stimulating equipment. This primarily revolves around the inspectors I work within the field.
- Audit the competency of inspectors who carry out work on behalf of the Office of the Chief Electrical Engineer in respect to Animal Stunning and Stimulating installations and Hazardous Area installations.
- Carry out investigations of electrically caused fires and electrical
  accidents on behalf of the Secretary of Commerce that have been
  reported under the Section 16 of the Electricity Act 1992. This
  required a close interaction with Fire Investigators working for the
  New Zealand Fire Service.
- Carry out electrical inspections of low voltage installations reported to the Secretary, as being an immediate hazard to life and property, under Regulation 43 of the Electricity Regulations 1993 and Regulation 50 of the Electricity Regulations 1997.
- Set up and manage the 24-hour 0800 number associated with the notification of electrical accidents and gas accidents. Also manage the updating of procedures for operation of OCEE accident response system. Develop the Office of the Chief Electrical Engineers computer and communications policy in addition to managing the coordination of its operation;
- Work with Clipsal Australia to produce a CD ROM for their New Zealand market that contained copies of the current Electricity Legislation along with their product catalogue;
- Work with Rinnai to produce a CD ROM for their New Zealand gas market that contained copies of the current Electricity and Gas Legislation along with their product catalogue;
- Develop with Hewlett Packard Australia a new Lotus Notes based Internet Site, on Hewlett Packard's external web server, for the Office

- of the Chief Electrical Engineer that will enable not only its documentation to be read online but also to enable persons wanting to pass data to the Office or notify the Office of Accidents or apply and be granted Product Approvals on line.
- This work has included the sites design, development and building.
  The site is being set up to work in with the new Regulatory
  Compliance Marking system of mutual recognition between the
  Australian and New Zealand Electrical and Communication
  Regulators;
- Develop with Hewlett Packard Australia a Lotus Notes based Internet Site, on Hewlett Packard's external web server, for the APEC SCSC (Standards Conformance Sub Committee) that will enable Regulators throughout the APEC Region to post there Electrical Safety Regulations for use by Industry and allow the free exchange of information with each other in relation to electrical safety issues. This work has included the sites design, development and building;
- Manage the development of Product Safety Site for the OECD that the Ministry of Consumer Affairs would operate.
- Attend the three New Zealand meetings of the APEC SCSC AdHoc Advisor Group on Electrical Appliances as a New Zealand Delegate. These meetings were held in Wellington, Christchurch and Rotorua lasting three days each in 1999;
- Participate in the APEC Hazardous Area Information Interchange Group as a New Zealand representative. The first meeting of this group was held in Sydney, Australia in conjunction with TC 31 in 1999. Most of this groups work will be done via the Internet.
- Act as the Energy Inspection Groups representative on the Ministry of Commerce's Intranet Development Group and Internet Redevelopment Team; IT
- Set up, Manage and carryout Energy Safety Services East Coast Project. This is where we worked with the Gisborne Regions Community to take in various electrical and gas safety messages. The project worked with Rural Maori Communities, Schools and their associated Communities, Tradespersons and Retailers. This work was carried out over the 2000/2001 financial year.
- Set up Energy Safety Services first Regional Office then develop networks throughout the Southern Region (The South Island, Chatham Islands, and Stewart Island) to enable the effective delivery of Electrical and Gas safety messages;
- Start working with NZ and Australian Industry and Defence Forces developing Electrical Safety Solutions for Explosive Storage and Handling facilities;
- In 2005-2006 Chair NZS Committee Developing NZS 6116 dealing with Animal Stunning and Conditioning Equipment and represent ES on development committee for NZS 6114 dealing with the safety of installations operating at nonstandard voltages and frequencies;
- Present Hazardous Area Seminar for IMC in New Plymouth in November 2006;
- Present Seminars throughout the South Island on NZS 6116 dealing with Animal Stunning and Conditioning Equipment 2006;

- Present Hazardous Area Seminars run by Delta Utilities in Dunedin, Energy Safety in Invercargill and ESO in Auckland, New Plymouth Wellington and Christchurch in 2007;
- Present Hazardous Area Seminar for Regulators (Energy Safety, ERMA, OSH and EWRB) Staff in Wellington in 2007;
- Present Hazardous Area Seminar to NZ Defence Force at Ohakia in 2007:
- Nominated by Industry and Awarded Meritorious Service Award in 2007 by Standards New Zealand for work carried out developing and promoting Standards for New Zealand in many areas but especially for the work in Hazardous Areas and Animal Stunning and Conditioning;

#### AVIATION SECTION

- Act as the contact person for New Zealand Aviation Industry for the Energy Inspection Group. This work involves coordinating with the Aviation Industry representatives and ensuring that they are fully aware of any developments within the legislation that may affect them. This work also involves assisting the Aviation Industry where possible build similar links with other regulators in both Australia and New Zealand;
- Spend 4 weeks in October 1999 working with the Aviation Industry, working under Mr Garry House, Chief Inspector, from Air New Zealand, to gain experience in respect to how they work and what their requirements are. It also allowed that industry to gain an insight as to how we our Office operates;
- Attend the Australasian Aviation Ground Safety Council Meeting in Sydney, Australia in August 1999;
- Work with Garry House, Chief Inspector Air New Zealand, and Kim Comben, Chief Advisor Explosives and Dangerous Goods, to do a heads up inspection of the RNZAF's Base at Whanuapi on the 1<sup>st</sup> August 2000;
- Work with Garry House, Chief Inspector Air New Zealand, to carry out a safety check of Palmerston North Airport on behalf of the Aviation Industry on the 14<sup>th</sup> September 2000;
- Work with Garry House, Chief Inspector Air New Zealand, to do a heads up inspection of the RNZAF's Base at Ohakea on the 15th September 2000;
- Carryout a safety check of Gisborne Airport on behalf of the Aviation Industry on the 9th October 2000;
- Attend an AEROSHA meeting in Melbourne on the 29th November 2000 and February 2002;
- Act as the ERAC (Electrical Regulators Advisory Council) contact person for the Australasian Aviation Industry;

1980-84 NZ Electricity and Electricorp

During Apprenticeship:

- Christchurch Technical Training Centre (6 months).
- Dunedin Depot. Switchpole overhaul, bushing repair and overhauls, earthing lead repair and construction, depot and office maintenance, Dunedin Winter A&P show display on danger of working near overhead lines and the lake weed problem.
- Waitaki and Aviemore Hydro Electric Power Stations. Dam and village services, generator servicing and overhaul, bulk oil circuit breaker (OCB) and air blast breaker (ABB) overhauls.
- *Manapouri Hydro Electric Power Station*. ABB overhauls, gate seal shutdown (1980 and 1985), hostel, radio hut, cable shaft and station maintenance, and 220 ky oil filled transformer cable re pressurisation.

#### Private Wiring:

- 10 Weeks with Hislop Electric. House wiring and maintenance. Wool shed and milking shed extensions and maintenance. Mosgiel tannery redevelopment.
- 14 Weeks with JN Wilson Ltd. Ravensdown Fertilizer Works expansions and renovations.
- South Dunedin Construction. Benmore Hydro Electric Station AC yard extensions to facilitate the new incoming Ohau C line. Also installing S.I.S.C. power supplies and alarms for station and yard monitoring.

#### 1984-90 As a Tradesman:

Roxburgh Hydro Electric Power Station. Generator and all associated
equipment maintenance and overhaul. All switchyard and associated
equipment maintenance and overhaul. Special projects such as generator
stator fault repairs, re wedging of stator's, and resin injection of stator's.
Also I worked on the oil treatment program that was set up to reduce the
acidity levels of the oil and to maintain that level by the use of oil additives.

The electrical staff at Roxburgh used to carry out our own switchyard earthing and setting up of authorised working areas.

From March to August 1988 when first arriving at Matahina Hydro Electric Power Station I acted as site electrician and only full time electrician for the Matahina Dam Repair Project. The earth dam structure had been damaged in the 1987 Edgecombe earthquake. Site duties included planning, where possible for lighting (Type, placement and acquisition), installations and inspection. 100 kW of lighting was used over the site as well as numerous hut and equipment feeds being supplied by 5 diesel generators, 1 petrol power Honda generator, and mains supply from station and Power Board sources.

Matahina Hydro Electric Power Station, Station Electrical Supervisor. Tendering for Transpower switchyard maintenance, planning, budgeting, ordering and purchasing of stores for all station and village electrical work. Scheduling of all generator and switchyard maintenance to fit in with existing line outages and availability requirements. Carry out any maintenance or overhaul of any electrical plant and equipment. Assist

other station staff where required e.g. station mechanical supervisor. Coordinated with Local Power Authority regarding the upgrade and handing over of the village electrical services.

# MANAGEMENT, POLICY & SUPERVISION EXPERIENCE:

- NZED Roxburgh Power Station. Carried out training of apprentices, supervised apprentices and labourers in maintenance work. Trained staff in CPR.
- *ECNZ Matahina Power Station*. Carried out apprentice training, supervised labourers and operator fitters in various work as required. Matahina representative for an Electricorp Productions Arapuni Area health and safety committee. Trained staff in CPR.
- Ministry of Commerce/Ministry of Economic Development. In 1992 hazardous area inspection-training seminars and 1995 Switchboard seminars. Also the 0800 number associated with the notification of electrical accidents and gas accidents. Updating of procedures for operation of OCEE accident response system. Develop the sections' computer and communications policy in addition to the coordination of its operation. Managed the development of the Offices and APEC SCSC new Internet sites with Hewlett Packard Australia and a CD ROM Project with Standards Australia and Clipsal. Managed the development of the OECD Product Safety Site. Managed Energy Safety Service's Interaction with the Aviation Industry. Managed Energy Safety Services East Coast Safety Project.

## **EDUCATION:**

1976 - 1979: THE TAIERI HIGH SCHOOL

School Certificate – Science, Geography, Woodwork, Mathematics Sixth Form Certificate – English, Chemistry, Mathematics, Physics



**2000:** Registered as an Electrical Inspector in Victoria, Australia for Classes

of Work L, G, H, V, S, F. Registration No. I 980380.

No Longer Hold a current Practicing Licence.

**1997**: Registered as an Electrical Inspector in New Zealand.

Certificate No. I 2840. Hold a current Practising License.

**1994:** Electrical Inspector exam results 85%

**1984:** Electrical Registration - No. E 14753.

Re registered in April 1993 No. E 7.

**1980:** Electrical/Fitter 4 year Apprenticeship,

First Qual. Paper A, Exempt

Paper B, 84%

**1981:** Second Qual. An Aegrotat Pass on Papers A and B.

**1983:** Trade Certificate,

Pass Mark Exam. Received 050 065 Theory 040 052 Regulations Part 1 Part 2 025 039 Practical 065 088

#### **FURTHER TRAINING:**

#### Technical:

2016	Undertake and obtain EEHA I&M – EEHA Installation and Maintenance and EEHA
	C&D – HA Classification & Design Competencies through training carried out by
	Competency Training of Australia.

2016	Carryout CCG Hazardous Area Gland Training carried out by staff from CCG in
	Australia.

2013	Carryout	Category 1	I Power I	vleter .	Installation	Training v	vith De	elta in L	unedin;
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2013 Carryout safe working practices training for working safely on point of connections on Orion's network held by Orion at Christchurch training centre.

2008 Attend Course on Earth Testing Training AVO NZ Ltd.

2007 Electrical Refresher Course as required by Regulation 26 of the Electricity Regulations 1997 Envirolight International

2007 Attend 2 Day First Aid Training Course St Johns

2005 Attended a 2 day training course covering electrical safety in Mines

National Personnel Group Ltd

2005 Gas Detection Training Course MSA

2003 Electrical Refresher Course as required by Regulation 26 of the Electricity

Regulations 1997 Air New Zealand

2001 Electrical Refresher Course as required by Regulation 26 of the Electricity Regulations 1997 Air New Zealand

2000 Attend a 1 day Gas Appliance Training Course

Rinnai International

2000 1st Prerequisite Training for the Hazardous Area Competencies

Marsden Point Refinery

1998 Electrical Refresher Course as required by Regulation 26 of the Electricity

<b>—</b>		-
1998	Regulations 1997 Accident Avoidance and Car Control Level 2	Air New Zealand
1770	Accident Avoidance and Car Control Level .	
1007		Ford Advanced Drivers School
1997	Electrical Refresher Course as required by R	•
	Regulations 1993	James Associates
1997	Level One Investigation Course	Inskill Investigation Training
1997	Gas Detection Training Course	MSA/Caltex Oil New Zealand Ltd
1996	Electrical Installations in Hazardous Locatio	ns
		Standards Australia
1996	Accident Avoidance and Car Control Level	1
		Ford Advanced Drivers School
1995-6	Hazardous Areas Seminars	EDA (Electrical Development
		Association)
1995	Surge Voltage Protection Seminar	Trabtech and Connector Systems
1995	Electrical Testing & Certification in Hazardo	•
	Assessment exam	Hutt Valley Polytechnic.
1994	Electrical Inspector Training	Hutt Valley Polytechnic
1994	Medical-Electrical Procedures Safety	EDA (Electrical Development
1// 1	Medical Electrical Frocedures Safety	Association)
1994	National Fire Cause Determination	Tasmanian Fire Service
1994	Dust Explosions, Prevention and Protection	
1994	Dust Explosions, Flevention and Flotection	8
1002	M. L. C.C. M C. L.	University;
1993	Modern Safety Management Course passed	
		LCMS (Loss Control Management
		Systems)
1992	Effective Presentation Workshop	Rogen New Zealand
1990	Instructors Certification Course in CPR	The National Heart Foundation
		of New Zealand
1988	Introduction to Computer Controllers (PLC	(2's)
		Electrical & Electronics Industry
		Training Board
1987	Instructors Certification Course in CPR	The National Heart Foundation
		of New Zealand
Manag	ement:	
1995	Stress Management Strategies Course	NZIM
1995	Team Building for Service Excellence	Academy of Training
1994	Competency Seminar	NSW Mines Department
1,,,,	Sompetiting Seminim	THE WILLIAM SEPARATION
Compu	te <b>r</b> ·	
1998	Corel Paradox 8.0	Southmark Solutions;
1998	Corel WordPerfect 8.0	Southmark Solutions;
		ŕ
1998	Corel Central	Southmark Solutions;
1999	Latria Nation 4 E System Administration 1	ACE Training
	Lotus Notes 4.5 System Administration 1	ACE Training
1999	Lotus Notes 4.6 Developing Interactive Inte	
4005	T 31 (5D 1 : T : T	ACE Training
1997	Lotus Notes 4.5 Developing Interactive Inte	
400=		ACE Training
1997	Lotus Notes 4.5 Application Development	ACE Training
1997	Lotus Notes 4.5 Beyond Basics User	ACE Training
1997	Lotus Notes 4.5 Basic User	ACE Training
1994	Microsoft Access Version 2 Stage 1	ACE Training

1997	Microsoft Outlook 97 Introductory	NZ Computer Training Solutions
1997	Microsoft Windows 95 Introductory	
1990	General CEO Training;	
1991	Advanced WordPerfect 5.1 for Dos Training;	
	Basic Microsoft, Windows 3.1, Windows 3.11	, and Word 6.0 Training;
	Basic WordPerfect 5.2 for Windows and Wor	rdPerfect Mail Training;

# **VOLUNTARY INVOLVEMENT:**

1986-87	President of the NZ Institute of Electricians Central Otago branch.
1988	Joined Central North Island Branch of the NZ Institute of Electricians.
1989	President of the NZ Institute of Electricians Central North Island Branch.
1990-92	National Councillor for the NZ Institute of Electricians (Now NZ
	Electrical Institute). Resigned due to conflict of interests between work and the Institute.
1989-90	Committee member for the Edgecombe Squash Club and Club electrician.
2005- 2006	Member of the Isleworth Primary School Board of Trustees
2008	Member of the Canterbury Employers Chamber of Commerce (CECC);
2008	Board member for the Electrical Safety Organisation (ESO);
2008	Member of the Canterbury and Westland Branch of ECANZ (Electrical Contractors Association of New Zealand)
2008	Member of the Institute of Measurement and Control (IMC)

# **PROFESSIONAL REFEREES:**

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