

Αναλυτικό Βιογραφικό Σημείωμα  
Καθηγητής Βασίλειος Γεώργιος Αγγελίδης  
Τμήμα Ηλεκτρολόγων Μηχανικών Και Μηχανικών Υπολογιστών  
Δημοκρίτειο Πανεπιστήμιο Θράκης  
Ξάνθη, Ελλάς



Ξάνθη Μάρτιος 2025

## 1 ΠΡΟΣΩΠΙΚΑ ΔΕΔΟΜΕΝΑ

Ημερομηνία Γεννήσεως: 17 Οκτωβρίου 1965.  
Τόπος Γεννήσεως: Σέρρες, Ελλάς.  
Υπηκοότητα: Διπλή, Ελληνική και Αυστραλίας.

## 2 ΣΤΟΙΧΕΙΑ ΕΠΙΚΟΙΝΩΝΙΑΣ

Θέση Εργασίας: Καθηγητής  
Διεύθυνση: Τμήμα Ηλεκτρολόγων Μηχανικών και Μηχανικών Υπολογιστών  
Πολυτεχνική Σχολή Ξάνθης  
Δημοκρίτειο Πανεπιστήμιο Θράκης  
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ORCID: <https://orcid.org/0000-0002-8864-4016>  
YouTube channel: [www.youtube.com/@vagelidis](http://www.youtube.com/@vagelidis)

## 3 ΕΚΠΑΙΔΕΥΣΗ ΚΑΙ ΠΡΟΣΟΝΤΑ

- Πτυχίο Ηλεκτρολόγου Μηχανικού: Δημοκρίτειο Πανεπιστήμιο Θράκης, Ξάνθη, Ελλάς, 1988, ισοδύναμος βαθμός άριστα κατά την Αγγλική ορολογία με πέντε χρόνια σπουδές και μέσο όρο πτυχίου 8,49.  
Τίτλος Διπλωματικής Εργασίας: “Ανάλυση δυναμικών καταπονήσεων διάρκειας βραχυκυκλωμάτων σε καλώδια συνεχούς ρεύματος με την χρήση ισοδύναμων συναρτήσεων”.
- Master of Applied Science: Concordia University, Montreal, Quebec, Canada, 1992 (overall coursework average: 4 out of 4).  
Dissertation title: “Zero voltage switching pulse-width modulated inverter topologies”.
- PhD in Electrical Engineering: Curtin University, Perth, Australia, August 1997. Thesis title: “Optimum pulse-width modulation techniques for three-phase inverters”.
- Graduate Diploma in Business: First Class, Curtin Graduate School of Business, Perth, Western Australia, 2000.
- Graduate Diploma of reflective teaching practice in higher education: Curtin University, Perth, Western Australia, 1994 (a six-month full-time graduate training program for teaching in Universities and Higher Education sector).

## 4 ΕΡΓΑΣΙΑ

### 4.1 Ολικής Απασχόλησης

- Concordia University, Montreal, Quebec, Canada
  - May 1989 – Aug 1993, Laboratory demonstrator, teaching and research assistant.
- Curtin University, Perth, Western Australia  
Aug 1993 – Dec 1999, School of Electrical and Computer Engineering.
  - Associate Lecturer, fixed-term, full-time: Aug 1993 – Dec 1994.
  - Lecturer, fixed-term, full-time: Jan 1995 – Feb 1998.
  - Lecturer, continuing, full-time: Mar – Dec 1998.
  - Senior Lecturer, continuing, full-time (Promotion): Jan – Dec 1999.

1996–1999, Research Associate, Centre for Renewable Energy & Sustainable Technologies (CRESTA), Australia, (CRESTA was a node of the Cooperative Research Centre (CRC) for Renewable Energy).
- University of Glasgow, Scotland, UK

- Jan 2000 – Jan 2005, Department of Electronics and Electrical Engineering, Senior Lecturer.
- Jan 2000 – May 2004, Inter-University Glasgow-Strathclyde Centre for Economic Renewable Power Delivery (CERPD), Research & Centre Manager.
- Murdoch University, Perth, Western Australia
  - Jan 2005 – Dec 2006, School of Engineering Science, Professor and Chair of Power Engineering.
- The University of Sydney, NSW, Australia
  - Dec 2006 – Jun 2010, Professor and EnergyAustralia Chair of Power Engineering.
  - Jul 2007 - Mar 2010, Director: Electrical and Information Engineering Foundation.
  - Jul 2008 - Jun 2010, Research Associate: Institute for Sustainable Solutions, participation under the energy theme.
  - Apr 2009 - Mar 2010, Director: Centre of Excellence in Power Engineering.
- The University of New South Wales, UNSW (Australia) Sydney, NSW, Australia
  - Jul 2010 – Jul 2016, Professor of Power Engineering.
  - July 2010 - May 2011, Director, Centre for Energy Research and Policy Analysis.
  - May 2011 – Jul 2016, Director, Australian Energy Research Institute (AERI).
- Technical University of Denmark
  - Oct 2016 – Nov 2020, Professor, Centre for Electrical Power and Energy (CEE).
  - Apr 2017 – Nov 2020, Group Leader (management responsibilities).
- Freelance Consultant.
  - Dec 2020 – Jun 2024.
- Democritus University of Thrace, Department of Electrical and Computer Engineering.
  - Jun 2024 – to date. Professor.

## 4.2 Μερικής Απασχόλησης

- ABB Corporate Research Centre, Vasteras, Sweden
  - Jan 2015 – Jul 2015, Temporary full-time position (on a sabbatical leave from UNSW).
  - Sep 2017 – Feb 2018, partial appointment position.
- Beijing Jiaotong University, Beijing, China.
  - Oct 2012 – Oct 2017, Partial appointment as a visiting Research Professor.
- University Tenaga Nasional, Kuala Lumpur, Malaysia
  - Mar 2018 – Feb 2021, Partial appointment as a visiting Research Professor.
- Norwegian Institute of Science and Technology (NTNU), Trondheim, Norway.
  - Nov 2019 – Dec 2023 - Mentor to the Outstanding Academic Fellows Programme.
- The American College of Greece, Athens, Greece
  - Nov 2021 - Aug 2022 - Visiting Fellow.

## 5 ΜΕΛΟΣ ΕΠΑΓΓΕΛΜΑΤΙΚΩΝ ΣΥΛΛΟΓΩΝ

- Institute of Engineering and Technology, UK: Member (since 2006); Fellow (Since 2016).
- Institute of Electrical and Electronic Engineers (IEEE) Inc., (USA).
  - Student Member 1989–1993
  - Μέλος 1993–1999
  - Senior member 2000-2015
  - Fellow from 1 Jan 2016
  - Μέλος της Power Electronics Society

- Μέλος της Power and Energy Society
- Μέλος της Industrial Electronics Society
- Μέλος της Industry Applications Society.

## **6 ΒΡΑΒΕΙΑ ΚΑΙ ΥΠΟΤΡΟΦΙΕΣ**

- Hellenic State Scholarships Foundation (IKY), Athens, Greece: Meritorious Award –
  - highest class-average in the first year of studies achieving 8,488 out of 10 (1984)
  - highest class-average in the fourth year of studies achieving 8,833 out of 10 (1988).
- Hellenic Chamber of Engineers, Athens, Greece: Award of Excellence – highest class overall average achieving 8,495 out of 10 (1988).
- Concordia University, Montreal, Quebec, Canada: Μεταπτυχιακή Υποτροφία για Σπουδές σε διδακτορικό επίπεδο, 1991, 1992, 1993 (C\$15,000 p.a.).
- Concordia University, Montreal, Quebec, Canada Ομοσπονδιακή Κυβέρνηση του Κεμπέκ: International student fee remission, 1990, 1991, 1992, 1993 (C\$12,000 p.a.).
- Hellenic Scholarships Foundation, Montreal, Canada: Award of excellence, 1993 (C\$1,000).
- Curtin University, Australia: Incentive scheme for staff undertaking doctoral studies, 1996 (A\$50,000).
- Curtin University, Australia: Innovative Teaching Practice Award, 1999.
- Institute of Engineers, Australia: Co-recipient with Professor J.L. Hullett, Associate Professor W.B. Lawrance and Dr J. Goodell of the High Commendation Certificate, given to a team leading cultural change in an Engineering School in Australasia, 1999.
- Curtin University, Western Australia: Adjunct Senior Research Fellow: 2000–2001.
- Engineering and Physical Sciences Research Council (EPSRC) Advanced Research Fellowship, UK: a research fellowship to work on fuel cell power conditioning systems and their electricity grid interconnection (2004, £317,422).
- Department of Education, Science and Technology, Australia: Endeavour Executive Award 2007, A\$25k to visit Seoul National University of Technology, South Korea for three months.
- Best Paper Award at IEEE PEDS 2009, Taiwan, ROC for the work entitled: “Equalizing DC capacitor voltages in multimodule high voltage direct current using selective harmonic elimination pulse width modulation” (with N. Flourentzou).
- Electrica Awards First Prize Winner: by AREVA Transmission & Distribution, Paris, France, May 2010, €50,000. Electrica Awards was an international innovation contest organized by AREVA Transmission & Distribution.
- IBM Smarter Planet Innovation Faculty Award 2012 (US\$10,000).
- Best Paper Award at IEEE International Conference on Power and Energy (PECON 2012) in Malaysia for the paper: “Application of particle swarm optimisation in the design of large permanent magnet synchronous generators for wind turbines”, (with S. Alibashani and R. Dutta).
- ARC UNSW Student Council, PGC Supervisor Award 2013 awarded by the students’ council of UNSW for outstanding service supervising postgraduate students.
- Best Paper Award at the 2015 IEEE 11<sup>th</sup> International Conference on Power Electronics and Drive Systems, Sydney, Australia for the paper entitled: “Comparison and evaluation of sub-module configurations in modular multilevel converters”, (with G. Konstantinou, J. Zhang, S. Ceballos and J. Pou).
- IEEE Fellow (Class of 2016): citation: for contributions to power electronics, renewable energy conversion and integration with electricity grid.
- IET Fellow 2016.

- IEEE Power Electronics Society Distinguished Lecturer, initial term: 2017-2018, renewed for a second term 2019-2020.
- Stanford University World's Top 2% Scientists Λίστα 2024.

## **7 ΔΙΔΑΣΚΑΛΙΑ ΚΑΙ ΜΑΘΗΣΗ**

### **7.1 Επίβλεψη Φοιτητών**

- Undergraduate students as supervisor: 45.
- Undergraduate students as associate supervisor: 15.
- Master level students as supervisor: 11.
- Master level students as associate supervisor: 7.
- Master of engineering students (industrial placement) as internal supervisor: 3.
- Επίβλεψη Υποψήφιων Διδασκόντων PhD. Στην παρένθεση η χώρα καταγωγής τους και η χώρα που τους απένεμε το πτυχίο τους πριν την συνέχιση των σπουδών τους κάτω από την δική μου επίβλεψη.
  1. Dr M. Calais (Γερμανία)
  2. Dr C. Feng (Κίνα)
  3. Dr M. Dahidah (Λιβύη)
  4. Dr N. Flourentzou (Κύπρος)
  5. Dr R. Pulikanti (Ινδία)
  6. Dr H. Dalvand (Ιράν)
  7. Dr I. Sadinezhad (Ιράν)
  8. Dr G. Konstantinou (Ελλάς)
  9. Dr M. Jang (Νότια Κορέα)
  10. Dr A.M.Y.M. Ghias (Πακιστάν)
  11. Dr M.S. Reza (Μπαγκλαντές)
  12. Dr S. Alshibani (Κουβέιτ)
  13. Dr M. Mirhosseini (Ιράν)
  14. Dr A. Wang (Κίνα)
  15. Dr R. Darus (Μαλαισία)
  16. Dr M. Hasheminamin (Ιράν)
  17. Dr A. Heidari (Ιράν)
  18. Dr V. Lystianingrum (Ινδονησία)
  19. Dr T. Kim (Νότια Κορέα)
  20. Dr H. Choi (Νότια Κορέα)
  21. G. Farivar (Ιράν)
  22. Dr Y. Yu (Κίνα)
  23. Dr T. Morstyn (Αυστραλία).

### **7.2 Lecturing/teaching responsibilities**

#### **7.2.1 Concordia University, Canada**

- Electronics I – Tutoring and laboratory demonstration
- Electronics II – Tutoring and laboratory demonstration
- Control of electric power conversion systems – Lecturing, tutoring and laboratory demonstration.

### **7.2.2 Curtin University, Australia**

- Electrical laboratory 313
- Electrical engineering 203
- Electronic design 301
- Electronic design 302
- Engineering analysis 201
- Electrical laboratory 104
- Electrical engineering 105
- Power electronics 304
- Power electronics 403.

### **7.2.3 The University of Glasgow, UK**

- Individual project design and management 4
- Electric drives and power electronics 4
- Renewable energy systems and power electronics control 5
- Engineering mathematics EE1X
- Power electronics systems 2: service unit for Aerospace and Mechanical engineers.

### **7.2.4 Murdoch University, Australia**

- Industrial instrumentation and data communications
- Renewable energy engineering systems
- Circuits and systems I
- Engineering studio: power generation and distribution (ENG315)
- Engineering studio: power network analysis and design (ENG316)
- Engineering studio: power systems modelling and control (ENG423).

### **7.2.5 The University of Sydney, Australia**

- ENGG1803 Professional engineering 1 (2007), three two-hour lectures on ethics, project management and environmental sustainability.
- ENGG1805 Fundamentals of engineering and IT (2008-10), one two-hour lecture on electrical engineering as a discipline and prospects.
- ELEC5204 Power systems analysis and protection (2007-09), unit co-ordinator.
- ELEC5203 Topics in power engineering (2008-10), unit co-ordinator and lecturer.
- ELEC3204 Power electronics and applications, unit co-ordinator and lecturer (2009-10).
- ELEC5205 High voltage engineering, unit co-ordinator (2008-10).

### **7.2.6 The University of New South Wales**

- GSOE 9141 Smart grid and intelligent distribution networks (postgraduate) unit coordinator and lecturer, 2012, 2013.
- ELEC 1112 Electrical circuits (year 1) – lecturer for two-week material, 2012.
- ELEC 4614 Power electronics (year 4) – lecturer of five 1-hour lectures, 2014.
- ELEC 1111 Introduction to electrical engineering (year 1) – (3-hour lectures per week) with over 500 students from across the Faculty of Engineering, 2015.

### **7.2.7 Technical University of Denmark**

Introduced a new course for the Master of Engineering degree level entitled: Emerging and Disruptive Technologies for Electricity Grids. It was taught as a full-time intensive three-week course in January 2018 and 2019.

### **7.2.8 Δημοκρίτειο Πανεπιστήμιο Θράκης**

- Ανάλυση Σφαλμάτων Και Μεταβατικών Φαινομένων Στα Συστήματα Ηλεκτρικής Ενέργειας (9 εξάμηνο, υπεύθυνος μαθήματος και διδάσκων καθηγητής)
- Δομή και Λειτουργία Συστημάτων Ηλεκτρικής Ενέργειας (5 Εξάμηνο, διδάσκων καθηγητής, συνδιδασκαλία)
- Μεταφορά και Διανομή Ηλεκτρικής Ενέργειας (6 Εξάμηνο, υπεύθυνος μαθήματος και διδάσκων καθηγητής)

## **8 ΔΙΟΙΚΗΤΙΚΑ ΚΑΘΗΚΟΝΤΑ ΚΑΙ ΘΕΣΕΙΣ**

### **8.1 The University of Glasgow**

- Master of engineering management committee, 2000-2003.
- On-line technologies for teaching, working group leader, 2000-2003.
- Member of the student recruitment committee, 2003-2004.
- Member of the undergraduate and Master of Science admissions committee, 2002-2004.
- Member of the staff-student committee, 2002-2004.
- Allocating demonstrators and tutors for all Department's courses and laboratories and budget controller, 2003-2004.
- 3rd Year laboratory coordinator, 2003-2004.
- Research Assessment Exercise coordinator, 2001.

### **8.2 Murdoch University, Australia**

- Research co-ordinator, 2005.
- Curriculum re-structuring committee member, 2005-2006.

### **8.3 The University of Sydney, Australia**

- Director: Power engineering undergraduate and post-graduate degree.
- Member of the Engineering Sydney Board (Faculty level Board).
- Member, EIE school professorial committee.
- Member, Head of EIE school advisory committee.
- Member, EIE school academic policy and advisory committee.
- Responsible for professional management and development review of five academic staff within the EIE School (one lecturer, three senior lecturers and one associate professor).
- Introduced a new master's degree in Power Engineering (2007).
- Restructured the electrical engineering curriculum.
- Introduced a new unit in power engineering: Sustainable energy systems (2007).
- Planned, designed, and led the refurbishment of the old, contaminated power engineering laboratory which was unused for over 12 years and was replaced by the new state-of-the-art power engineering integrated facility named "The Sir William Tyree Power Engineering Laboratory" to acknowledge the generous funding received by Sir William Tyree for its establishment.
- Planned, designed, and led the development of the ABB Technology Centre, a system-based new state-of-the-art laboratory with equipment and services donated to the University of Sydney

by ABB Australia Pty Ltd. The equipment itself was valued approximately \$0.6m and the related services, commissioning, and project management about \$0.4m.

- Planned and led the second power engineering internal (May-June 2009) and industry/external (July 2009) curriculum review.
- Member of the Engineers Australia accreditation team 2009.

#### **8.4 The University of New South Wales, Australia**

- Reviewer of the Centre for Climate Change Research, UNSW, Νοεμβρίου 2011.
- Attracted funding and established the Solar Flagships Research Infrastructure (worth about A\$17 million, equipment only). Major infrastructure components included:
  - Vanadium Redox Battery Storage system, 120kWh.
  - Real Time Digital Simulator (18 racks system commissioned in Μαρτίου 2015, the most powerful one in a university or research organisation, other than industry, world-wide worth about A\$6 million).
  - Electric vehicles (three, one Tesla S Model and two i3 BMW).
  - Opal-RT Real Time Control System.
  - Battery characterisation hardware (Arbin).
  - Smart grid components, fuel cell, batteries, solar PV module emulators.
  - Power electronics controllers, DSPACE platforms and other support equipment such as oscilloscopes, harmonic spectrum analysers, electricity grid emulators etc.

#### **8.5 Centre for Electric Power and Energy (CEE), Technical University of Denmark**

- Member of the Centre's Management Committee.

#### **8.6 Lecturing in Overseas Universities**

- Seoul National University of Technology, South Korea: "Power electronics converters and systems", a series of 12 two-hour lectures to postgraduate students, September-October 2007.
- Beijing Jiaotong University, Beijing, China: "Electronic control of electrical power systems" a series of 7 two-hour lectures for postgraduate students (Electrical engineering), December 2012.
- Beijing Jiaotong University, Beijing, China: "Active electricity distribution networks - microgrids" a series of 12 four-hour lectures to postgraduate students (Electrical engineering), August 2013 (half) and December 2013 (second half); December 2014 (full course).

#### **8.7 IEEE Distinguished Lectures**

As a Distinguished Lecturer for the IEEE PELS, I have given the following lectures:

- 20 Νοεμβρίου 2017, NTNU, Trondheim, Norway.
- 22 Νοεμβρίου 2017, ABB, Vasteras, Sweden.
- 27 Μαΐου 2018, UNITEN, Malaysia
- 27 Αυγούστου 2018, UNITEN, Malaysia.
- 1 Νοεμβρίου 2018, IIT, Delhi, India.
- 2 Νοεμβρίου 2018, KIET, India.
- 7 Νοεμβρίου 2018, The University of Toronto, ON, Canada.
- 27 Φεβρουαρίου 2019, Vimal Jyothi Engineering College, Kannur, India.
- 28 Φεβρουαρίου 2019, Government Engineering College, Thrissur, India.
- 1 Μαρτίου 2019, College of Engineering, Chengannur, India.
- 2 Μαρτίου 2019, TKM College of Engineering, Kollam, India.
- 2 Μαρτίου 2019, SCT College of Engineering, Trivandrum, India.



- 3 Μαρτίου 2019, College of Engineering, Trivandrum, India.
- 7 and 8 Νοεμβρίου 2019, Distributed Power Europe, Rimini Fiera, Expo Centre, Italy.
- 6 Νοεμβρίου 2019, The University of Padova, Italy.

### **8.8 National and State appointments by invitation**

- 2009 CSIRO Energy Review Panel Member, CSIRO 2009 Energy Review Panel.
- 2009 Australian Senate: Energy and Fuels Inquiry Committee, Invited Expert Witness for HVDC Power Transmission Technologies and Transmission Grid Security.
- 2011 Australian Commonwealth Department of Innovation, Industry, Science and Research (DIISR): Strategic Roadmap for Australian Research Infrastructure: Expert Working Group Member: Environmentally Sustainable Australia.
- 2012 Melbourne Energy Institute, The University of Melbourne, external reviewer.
- 2014 NSW Government Task Force to generate a report for the NSW Government Minister for Energy regarding Energy Security (the final report was confidential).

### **8.9 Organising IEEE international conferences**

I have been involved with the organisation of IEEE international conferences as follows.

- 1995 IEEE International Conference on Neural Networks, Chair of the Publicity and Public Relations Committee and Member of the Executive Committee.
- 1995 IEEE International Conference on Evolutionary Computing, Chair of the Publicity and Public Relations Committee and Member of the Executive Committee.
- 1996 IEEE Region 10 Conference TENCON, Digital Signal Processing and Applications, Member of the Executive Committee.
- 1998 IEEE 2nd International Conference on Power Electronics, Drives and Energy Systems for Industrial Growth, Chair of the Publicity and Public Relations Committee and Member of the Executive Committee.
- 2002 IEEE 33rd Power Electronics Specialists Conference, Cairns, Australia, Tutorials Chair and Member of the Executive/Organising Committee.
- 2005 IEEE 36th Power Electronics Specialists Conference, Recife, Brazil Publicity Chair.
- 2007 IEEE 38th Power Electronics Specialists Conference, Orlando, Florida, USA Vice Chair, Organising Committee.
- 2008 IEEE 39th Power Electronics Specialists Conference, Rhodes, Greece Technical Chair and Member of the Executive/Organising Committee.
- 2012 IEEE IECON, Montreal, Canada, Publicity Committee Member.
- 2013 IEEE TENCON Spring, Sydney, Australia, Technical co-chair.

### **8.10 Consulting to government bodies, business and industry**

- Unitronics Pty. Ltd., Perth, Consultant and Technical Director, 1996-1997.
- Australis Technologies Pty. Ltd., Perth, Consultant and Managing Director, 1995-1996.
- IIDigital Technologies Ltd., Glasgow, Director and Secretary, May 2000-May 2005.
- Advanced Energy Technologies Ltd., Glasgow, Director and Secretary, July 2003-January 2005.
- ALCOA Alumina, Consultant, 2005-2006.
- ABB AB Sweden, Consultant, 2005-2010.
- I have acted as a consultant to numerous organisations in the Middle-East, Greece, the UK, Australia, and Canada, that included organisations such as large utility and power authorities, oil and gas companies as well as electronic and instrumentation companies.
- IIPower Pty Ltd, Sydney, Australia, Managing Director, July 2009 – July 2012.

### 8.11 Newspapers articles and interviews

- Interview on Saturday Herald on 19 Μαρτίου 2011 about the rekindled nuclear debate following the damage caused to nuclear power stations in the 11 Μαρτίου earthquake and tsunami, Saturday, 19 Μαρτίου 2011.
- Interview published on Kosmos, Daily Newspaper of Komotini, Greece, June 2011 (in Greek)
- "Collaboration sees business and University on the Smart Grid", by Alistair Jones, The Weekend Australian, 20 August 2011.
- Interview with "Kathimerini", Greek National Daily Newspaper, Greece, June 2013 (in Greek).
- Engineers Australia Cover Story on Energy Crisis in Australia, August 2014 (a six pages article on energy that highlighted the research work of the AERI and included numerous of my quotes).
- Interview to the Chinese Technical Magazine "Distribution and Utilisation" published by the State Grid Corporation of China, Issue 159, Φεβρουαρίου 2014. The Interview was recorded in December 2013.
- Interview to Peter Trute (Associated Press) published by The Australian with the title: "Think outside the nuclear square: expert", 3 Νοεμβρίου 2015 and many other media outlets online and in printed form.
- "Australia taking solar power to the next level", by Jonathan Pearlman, For The Straits Times, Singapore, 31 January 2016.

### 8.12 Radio interviews and contributions

- ABC National Radio Νοεμβρίου 2009 Bush Telegraph, The future of energy in regional Australia.
- ABC Radio July 2010 interview about "research into electric cars", Friday July 23, 2010.
- Contribution on ABC Radio National Breakfast 29 July 2011, "Clean energy developers see potential profits".
- Live interview on ABC program: Sunday with James O'Loughlin, on energy matters, 31 July 2011 (25 min interview plus time with listeners' participation and answering their questions).
- SBS interview on energy, 18 Μαρτίου 2016, (pre-recorded), in Greek.  
<http://www.sbs.com.au/yourlanguage/greek/el/content/miloyme-ellinika-ton-martio-energeia-me-ton-dr-vasileio-aggelidi?language=el>

### 8.13 Television interviews

- CNBC live interview on 1 April 2011.
- CNBC live interview on 14 April 2011.
- ABC News 24 live interview on 10 June 2011.
- CNBC live interview on 20 June 2011.
- ABC News at 7 pm Sydney, NSW, commentary on 15 August 2011 (pre-recorded).
- CNBC live interview on 19 September 2011.
- CNBC live interview on 15 Φεβρουαρίου 2013.
- Australia's Energy Future Symposium: pre-recorded panel discussion 16 September 2015. Policy certainty and stability was the key theme running through the symposium held in Sydney for participants by invitation only. The filmed event was moderated by SBS talk show host Jenny Brockie and co-hosted by The Australian Financial Review and General Electric (GE). I was one of a number of the nation's energy leaders who discussed whether Australia is heading in the right direction (<http://www.afr.com/news/special-reports/australia-energy-future/certainty-lacking-in-national-policy-20150916-gjnn5a#ixzz42B2GKJuC>)
- I was fortunate enough to be selected by Reuters of London and Toshiba of Japan after an international search of a leading authority and expert in the field, as the only person featured in the 2019 marketing video of Toshiba regarding power semiconductors and power electronics. The production was filmed at the Technical University of Denmark (DTU), was paid by Toshiba and was filmed and produced by Reuters on behalf of Toshiba.  
<https://www.reuters.com/brandfeatures/road-to-a-new-day/powering-up-electrification>

### 8.14 Opinion Editorials

- V.G. Agelidis, "Too late for nuclear?", UNIKEN, (a UNSW magazine), Νοεμβρίου/December 2010 issue.
- V.G. Agelidis, "Too late for nuclear", ABC News online: The Drum Unleashed: 7 December 2010.
- V.G. Agelidis and T. Dixon, "Embracing the change: Energy storage and the grid", Utility - Engineering, Construction and Maintenance, May 2015, p. 74-77.

### 8.15 Public speeches

- "Power Engineering: The keystone of our journey towards energy sustainability", The University of Sydney, 3 April 2007. The event was attended by approximately 100 people, was organised as part of the launching of the EnergyAustralia Chair at the University and celebrate my appointment. Approximately 70 industry leaders at Chief Executive Officer (CEO) and Managing Director (MD) level attended along with the University's Vice-Chancellor, 6 Pro-Vice Chancellors, the Dean of Engineering and the Heads of all Engineering Schools.
- School of Electrical and Information Engineering, Faculty of Engineering and Information Technologies, The University of Sydney, Graduation ceremony: Occasional Address, 30 Νοεμβρίου 2007.
- 39th IEEE PESC 2008, Rhodes, Greece, Opening address as the Technical Chair of the Conference and gala dinner address.
- Opening of Sir William Tyree Laboratory in Power Engineering at the University of Sydney, 31 August 2009, with Minister of Science and Medical Research of NSW Government Jodi MacKay.
- Invited to give a keynote address on "smart" grid developments in Australia at the Energy Futures in Regional Australia: A National Conference updating Regional Leaders on the Social, Economic and Environmental Issues for Creating a Sustainable Future, 8 - 10 Νοεμβρίου 2009, Bendigo, Victoria (video available online).
- Official opening of the ABB Technology Centre, The University of Sydney, 9 Φεβρουαρίου 2010.

## 9 OFFICIAL ENGAGEMENTS - UNSW

As Director of AERI, I regularly hosted Australian and international political leaders and representatives at UNSW. Some selected information includes:

- Delegation from Brunei Darussalam on 11 August 2014. His Excellency, Zakaria Ahmad, High Commissioner of Brunei Darussalam, and the High Commission's Academic Coordinator toured the Institute's research laboratories and were briefed about our research.

## 10 PROFESSIONAL DEVELOPMENT

- Two-day leadership workshop at Murdoch University, Φεβρουαρίου 2006.
- 27 Μαρτίου 2007, "Philanthropy and leadership", Training Program for Senior Executives organised by the Indiana Centre of Philanthropy, USA.
- 3 December 2007, "Major Gifts Masterclass: The Art of Asking", Council for Advancement & Support of Education, Asia-Pacific.
- 30 June 2009, "SF<sub>6</sub> handling: how to limit emissions by improving the equipment", organised by AREVA Transmission and Distribution.
- 27 July 2009, "Clean Power Today Roadshow Sydney", organised by ALSTOM Power.

# **1 ΥΠΟΜΝΗΜΑ ΕΡΓΑΣΙΩΝ ΚΑΙ ΕΡΕΥΝΑΣ**

## **1.1 ΔΗΜΟΣΙΕΥΣΕΙΣ**

### **1.1.1 ΒΙΒΛΙΟ**

- [1] E. Acha, V.G. Agelidis, O. Anaya-Lara, T.J.E. Miller, “Power electronic control in electric systems”, Butterworth-Heinemann, ISBN 0750651261, January 2002.

### **1.1.2 Invited International Conference Keynote Papers/Addresses**

- [1] V.G. Agelidis, “The future of power electronics/power engineering education: challenges and opportunities”, keynote paper presented at the 1st IEEE Power Electronics Education Workshop (PEEW) 2005, Recife, Brazil, 16 June 2005, p. 1-8.
- [2] V.G. Agelidis, G.D. Demetriades and N. Flourentzou, “Recent advances in high-voltage direct-current power transmission systems”, keynote paper presented at the Chinese Power Electronics Conference, 24 September 2006.
- [3] Invited Lecture contribution title: “Enabling increased integration of renewable energy generation in the electricity network with hybrid energy storage technologies”, International Symposium on the Future of Renewable Energy, Celebrating the 120th Anniversary of Beijing Jiaotong University (BJTU) and organised by the HANERGY School of Renewable Energy (HASRE) at BJTU, Beijing 6-8 April 2016.
- [4] Invited keynote speech: Power Electronics for the Digital Utility: PMU Enabled Inverters”, Third International conference on “Innovative Applications of Computational Intelligence on Power, Energy and Controls with their impact on Humanity (CIPECH-18), Krishna Institute of Engineering & Technology, Uttar Pradesh, India, 1 November 2018.
- [6] Invited keynote speech: “Utility power electronics: from energy converters to utility sensors”, 2019 International Symposium on Smart Energy and Sustainable Energy, Fuzhou, Fujian Province, P.R. China, June 2019.
- [7] Invited keynote speech: 8<sup>th</sup> International Conference on Renewable Power Generation (RPG), one of the IET's most successful international events, 24-25 October 2019 in Shanghai Jiaotong University, Shanghai, P.R. China.
- [8] Guest Editorial: L. Yang, W. Huang, V.G. Agelidis, D. Duan, Y. Cao, “Guest editorial special Issue on IoT for power grids”, IEEE Internet of Things Journal, 2023, 10(9), pp. 7426–7428.

### **1.1.3 Invited International Conference Papers**

- [1] L. Xu, O. Anaya-Lara, V.G. Agelidis, E. Acha, “Development of prototype custom power devices for power quality enhancement”, in Proc. of IEEE 9th International Conference on Harmonics and Quality of Power (ICHQP), Orlando, Florida, USA, Oct 2000, p. 775-783.
- [2] C. Feng, V.G. Agelidis, “Analysis of PWM control methods for a five-level flying capacitor multilevel converter”, in Proc. of the 7th International Conference on Modelling and Simulation of Electric Machines, Converters and Systems (Electrimacs 2002), Montreal.

#### 1.1.4 ΕΡΓΑΣΙΕΣ ΣΕ ΤΕΧΝΙΚΑ ΠΕΡΙΟΔΙΚΑ

- [1] V.G. Agelidis, P.D. Ziogas, G. Joos, "An optimum modulation strategy for a novel notch commutated 3-Phase PWM inverter", in IEEE Transactions on Industry Applications, Vol. 30, No. 1, Jan./Feb. 1994, p. 52-61.
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- [3] V.G. Agelidis, P.D. Ziogas, G. Joos, "Dead-band PWM switching patterns", in IEEE Transactions on Power Electronics, Vol. 11, No. 4, July 1996, p. 522-531.
- [4] V.G. Agelidis, "Incorporating instructional feedback in electrical engineering laboratory experiments – An example", in IEEE Transactions on Education, Vol. 40, No. 1, February 1997, p. 111-114.
- [5] V.G. Agelidis, H.C. Goh, "Low-distortion variable-level PWM technique", in IEE Proceedings-Electric Power Applications, Vol. 145, No. 2, March 1998, p. 73-78.
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### 1.1.5 ΕΡΓΑΣΙΕΣ ΣΕ ΔΙΕΘΝΗ ΣΥΝΕΔΡΙΑ ΜΕ ΚΡΙΤΗ

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- [263] A. Kapidou, V.G. Agelidis, G. Demetriades, H. Parra Da La Zelaya, "An AC reactive power compensator based on a nine-switch converter", in Proc. of 18th European Conference on Power Electronics and Applications, EPE'16 ECCE Europe, Karlsruhe, Germany, 5-9 September 2016.
- [264] M. Rana, I. Koprinska, V.G. Agelidis, "Solar power forecasting using weather type clustering and ensembles of neural networks" in Proc. of IEEE International Joint Conference on Neural Networks (IJCNN) 2016, Vancouver, Canada, July 2016.
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- [277] A. Drambrosio, E. Guest, N. Mijatovic, V.G. Agelidis, "Design of power peak shaving controller for single-phase AC railway systems", in Proc. of 53rd International Universities Power Engineering Conference, UPEC 2018, art. no. 8542032.
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- [281] S. Gong, V.G. Agelidis, "Ripple manipulator towards REG-integrated EV charging infrastructure system", in Conf. Proc. of IEEE IECON Proceedings (Industrial Electronics Conference), 2020, pp. 5203–5209.

#### **1.1.6 ΔΗΜΟΣΙΕΥΣΕΙΣ ΓΙΑ ΕΚΠΑΙΔΕΥΤΙΚΑ ΘΕΜΑΤΑ**

- [1] V.G. Agelidis, J.E. Goodell, W.B. Lawrance, "Enhancing the micro-level first-year experience: practical strategies utilised in a large, diverse, engineering class at Curtin University, Western Australia", in Proc. of 11th International Conference on First Year Experience, Dublin, Ireland, July 1998.
- [2] V.G. Agelidis, J.E. Goodell, W.B. Lawrance "Creating an inclusive learning environment in electrical engineering", in Proc. of 10th Australasian Association of Engineering Education (AAEE) Conference, Gladstone, Australia, September 1998.
- [3] J.E. Goodell, V.G. Agelidis, "Analysis of first-year engineering students' responses to invitational teaching", in Proc. of 2nd National First-Year Experience (FYE) Conference 1998, Mandurah, Australia, November 1998.
- [4] V.G. Agelidis, A. Whiteley, "Critical rethinking of the invitational education model in the light of technological advances: the PATOP analysis", in Proc. of 12th International Conference on First Year Experience, Edinburgh, Scotland, July 1999.
- [5] V.G. Agelidis, W.B. Lawrance, "Improving the quality of engineering students seminar presentations", in Proc. of 11th Annual Conference and Convention of the Australasian Association for Engineering Education (AAEE) 1999, Adelaide, Australia, September 1999.

#### **1.1.7 ΕΓΧΕΙΡΙΔΙΑ ΕΡΓΑΣΤΗΡΙΩΝ**

- [1] "Electronic circuit simulation using ORCAD and SPICE", Concordia University, 1991.
- [2] "Industrial electronics laboratory manual", Concordia University, 1992.
- [3] "Fundamentals in electrical engineering laboratory manual", Curtin University, 1998.
- [4] "Power electronics laboratory manual", The University of Glasgow, 2002.

## **2 ΧΡΗΜΑΤΟΔΟΤΗΣΗ**

### **2.1 ΕΡΕΥΝΗΤΙΚΑ ΕΡΓΑ**

- 1994 Curtin University New Researcher's Scheme: AUD 5,100.  
Project Title: "Dynamic analysis of a soft-switching boost converter".
- 1995 Curtin University New Researcher's Scheme: AUD 4,100.  
Project Title: "A low distortion multilevel pulse-width modulated inverter topology".
- 1996 Curtin University New Researcher's Scheme: AUD 4,600.  
Project Title: "An optimised multilevel pulse-width modulated single-phase inverter for photovoltaic applications".
- 1998 Australian Research Council (ARC) Small Grant: AUD 15,000.  
Project title: "Performance evaluation of various multilevel inverter topologies for single-phase photovoltaic applications".
- 1998 Alternative Energy Development Board, Western Australia: AUD 24,000.  
Project title: "Development and optimisation of a novel solar uninterruptible power supply", with C.V. Nayar and W. Keerthipala.
- 1999 Alternative Energy Development Board, Western Australia: AUD 35,000.  
Project title: "Design and experimental verification of a cascaded inverter for single-phase transformer-less grid-connected photovoltaic systems" with M. Calais.
- 1999 Curtin University, Centre for Educational Advancement: AUD 4,000.  
Project title: "Web site development for the unit electrical engineering 105".
- 1999 Curtin University, Centre for Educational Advancement: AUD 10,000.  
Project title: "New media technologies for teaching".
- 2000 The University of Glasgow Research Grant: £6,500.  
Project title: "Grid-connected photovoltaic systems".
- 2001 Engineering and Physical Sciences Research Council (EPSRC), U.K.: £60,000.  
Project title: "Switching frequency reduction in multilevel PWM converters and systems".
- 2002 The University of Glasgow Research Grant: £5,000.  
Project title: "WebCT feasibility for University of Glasgow- demonstration for power electronics 2".
- 2003 The University of Glasgow Research Grant: £4,500.  
Project title: "WebCT feasibility for University of Glasgow-demonstration for power electronics".
- 2004 The Royal Society, UK: Travel Grant: £1020, to attend the IEEE APEC 2004, Anaheim, USA.
- 2004 The University of Glasgow Research Grant: £5,500.  
Project title: "Fuel cell based power electronics conditioning converters".
- 2004 Engineering and Physical Sciences Research Council (EPSRC), UK: £317,422.  
Project title: "Design and optimisation of power electronic conditioners for fuel cells".
- 2005 Technological Education Institute of Serres, Greece: €1031.  
Project title: "DC-DC converter technology for photovoltaics".
- 2005 Murdoch University Start-Up Research Grant: AUD 20,000.

- 2006 Division of Science and Engineering, Murdoch University Research Grant: AUD 19k.  
Project title: "Optimal control of advanced FACTS controllers".
- 2006 ABB AB Sweden Research Support, AUD 100,000.  
Project title: "Increasing bandwidth of voltage-source converters in HVDC applications".
- 2006 R&D Board, Murdoch University Industry Funding Matching Scheme: AUD 100,000.  
Project title: "Novel topologies for STATCOM systems".
- 2007 Research Bridging Support Funding 2008, the University of Sydney: AUD 50,000.  
Project Title: "Multi-terminal direct current distribution system based on proton exchange membrane fuel cells".
- 2008 ABB AB Sweden Research Support, AUD 100,000.
- 2008 ARC Discovery Project, 2009-2011, DP0985867, AUD 175,000  
Project title: Hot-swappable and high-efficient grid-connected power electronics system for photovoltaic modules with direct power transfer technique, with Dr D.D.C. Lu.
- 2009 ABB AB Sweden Research Support, AUD 100,000.
- 2009 ARC Linkage Grant Project, 2009-2012, LP0991663, AUD 660k with extra AUD 300k cash contribution from the Collaborating organisation: Ausgrid (formerly EnergyAustralia).  
Project title: An intelligent integrated energy communication system, with Professor B. Vucetic and Dr Y. Li.
- 2009 Ausgrid Centre of Excellence in Power Engineering: a five-year research program with a cash contribution of total AUD 5 million.
- 2010 Ministry of Science, Technology and Innovation, Malaysia, Project number: 03-02-12-SF0092, External Collaborator, RM122k. Project Title: Improved power electronic reactive power compensator for the future transmission lines, with M.S.A. Dahidah, The University of Nottingham, Malaysia Campus, Duration: 24 months (April 2010 till March 2012).
- 2012 AGL Energy Ltd., Solar Flagships Research Infrastructure, Department of Innovation, Industry, Science, Research and Tertiary Education (DIISRTE), AUD 19 million (total grant awarded to the research consortium between UNSW and the University of Queensland (UQ) AUD 40.7 million) 2013-2015, sole investigator from UNSW with Professor Paul Meredith of UQ.
- 2013 USD 70k, ABB Research Grant Program: Project title: Advanced control methods and converter topologies for modular hybrid energy storage system", with Dr B. Hredzak.
- 2014 USD 70k, ABB Research Grant Program: Project title: Advanced control methods and converter topologies for modular hybrid energy storage system", with Dr B. Hredzak.
- 2015 USD 70k, ABB Research Grant Program: Project title: Advanced control methods and converter topologies for modular hybrid energy storage system", with Dr B. Hredzak.
- 2015 ARC Discovery Project 2015-2017, "Control of distributed energy storage system using vanadium batteries", AUD 340.7k, with Prof J. Bao and Prof M. Skyllas-Kazacos from the School of Chemical Engineering, UNSW
- 2015 ARC Linkage Project 2015-2018, LP150100719, "Advanced modular reconfigurable energy storage and conversion systems", AUD 328k from the ARC in cash, plus AUD 154k from ABB Cooperative Research Centre (CRC), Sweden in cash (Total cash component A\$482k), with Prof J. Pou (UNSW), Dr G. Demetriades (ABB CRC Sweden).
- 2016 ARC Linkage Project 2016-2019, LP160100342, "Compact reliable fault-tolerant modular high-power converters", AUD 280k from the ARC in cash, plus AUD 179k from ABB

Cooperative Research Centre (CRC), Sweden in cash (Total cash component AUD 459k), with Prof J. Pou (UNSW), Dr A. Nami; Dr F. Dijkhuizen; Dr G. Demetriades (ABB CRC Sweden).

- 2019 Government of India, Scheme for Promotion of Academic and Research Collaboration, stream: Theme: Convergence, Transportation and Smart Infrastructure, 1542, 2-year project, E-Mobility: An Electricity Grid Perspective: A.K. Singh, Motilal Nehru National Institute of Technology and V.G. Agelidis, Technical University of Denmark, Denmark, Budget: 63,38,3555 INR.

## **2.2 ΣΥΜΜΕΤΟΧΗ ΣΕ ΕΡΕΥΝΗΤΙΚΑ ΠΡΟΓΡΑΜΜΑΤΑ**

1997-1999 Australian Cooperative Research Centre (CRC) on Renewable Energy.

Power conditioning research program 4.1: Total funds for three years AUD 943k, Project title: "Development of power conditioning and control systems for high penetration medium scale wind diesel systems".

Power conditioning program 4.3: Total funds for three years AUD 787k, Project title: "Development of high efficiency and low-cost power conditioning systems for stand-alone solar home systems and utility grade PV/diesel/battery hybrid power systems".



# Υπόμνημα Άλλων Επαγγελματικών Δραστηριοτήτων

## 1 MEMBERSHIP IN EDITORIAL BOARDS OF TECHNICAL JOURNALS

- Associate Editor: IEEE Power Electronics Letters, 2002-2005.
- Associate Editor: IEEE Transactions on Power Electronics 2010-2012.

## 2 MEMBERSHIP IN INTERNATIONAL COMMITTEES

- Technical committee member of energy and power systems of the International Association of Science and Technology for Development (IASTED), Calgary, Alberta, Canada 2001-2005.
- IEEE Power Electronics Society
  - Elected administrative committee (Ad.Com.) member 2003-2008.
  - Elected Vice-President Operations, 2005-2006.
  - Appointed Chair of the Chapter Development Committee, 2003-2005.
- IEEE Power Electronics Specialists Conference Steering Committee member, 2003-2008.
- IEEE Industrial Applications Society, Fellow Evaluation Committee 2017.

## 3 LABORATORY AND INFRASTRUCTURE DEVELOPMENT FUNDS

### 3.1 Murdoch University

- 2006 University Discretionary Funds, A\$300k for the development of an integrated and highly modularised electrical power-engineering laboratory.
- 2006 University Discretionary Funds, A\$25k for upgrading the first-year circuits and systems laboratory.

### 3.2 The University of Sydney

- 2007 Faculty of Engineering and Information Technologies, A\$50k start-up fund
- 2007 Australian Power Institute (API – [www.api.edu.au](http://www.api.edu.au)), A\$50k
- 2007 University of Sydney, Major equipment scheme for research, A\$35k
- 2008 ABB Australia Pty Ltd, donation of equipment and technical services to set up a teaching laboratory worth of A\$1m.
- 2008 Australian Power Institute, A\$50k.
- 2008 The University of Sydney, A\$1,6m.
- 2009 Faculty of Engineering and Information Technologies, A\$200k.
- 2009 Major equipment scheme for research, A\$36k.

### 3.3 The University of New South Wales (UNSW)

- 2010 Deputy Vice-Chancellor Research, A\$2m start-up fund (strategic hire).
- 2010 School of Electrical Engineering & Telecommunications, A\$50k laboratory fund.
- 2011 Major Research Equipment Infrastructure Initiative (MREII) A\$150k.

## 4 PHILANTHROPIC INCOME

### 4.1 The University of Sydney

- 2007 Private donation from Mr John Rector, A\$30k

2007 Private donation from Sir William Tyree, A\$1million

2009 Private donation from Mr David Herrman, A\$4k

## **5 OTHER SCHOLARLY ACTIVITIES**

### **5.1 External/internal thesis examination**

#### **5.1.1 Master Thesis by coursework/research**

- 1998, Master thesis by research title: “Fuzzy logic control of a dq-domain vector mapped three-phase inverter”, by Mr Zhang Jianming, Queensland University of Tech., Australia.
- 2006, Master thesis by coursework title: “A general purpose development platform for hysteresis control strategies”, by Mr David Ronald Hodson, Monash University, Australia.

#### **5.1.2 Ph.D. Thesis**

- [1] 2003, thesis title: “Power quality improvement with battery supported voltage source converter”, by Mr A. Arulampalam, UMIST, Manchester, UK.
- [2] 2003, thesis title: “Parallel solutions of large-scale electric systems with FACTS and custom power controllers: harmonic and power quality-oriented analyses”, by Mr Norberto Garcia Barriga, The University of Glasgow.
- [3] 2004, thesis title: “Power electronics based applications for the increased penetration of wind power into electrical networks”, by Mr Philip Cartwright, UMIST, Manchester, UK.
- [4] 2005, thesis title: “Design and control of an inverter for photovoltaic applications”, by Mr Søren Bækthøj Kjær, Institute of Energy Technology, Ålborg University, Denmark.
- [5] 2005, thesis title: “High frequency transformer linked converters for photovoltaic applications”, by Mr Quan Li, Central Queensland University.
- [6] 2006, thesis title: “Single-phase transformerless unipolar switched inverters for utility-connected photovoltaic applications” by Mr R. Sharma, University of Southern Queensland.
- [7] 2007, thesis title: “Robust nonlinear stability control of electrical power systems”, by Mr Mark Gordon, The University of Sydney.
- [8] 2010, thesis title: “Power quality improvement using adaptive unified power quality conditioner”, by K. K. Hoong, Nanyang Technological University, Singapore.
- [9] 2014, thesis title: “Characterisation of the cascode gate drive of power MOSFETs in clamped inductive switching applications”, by M. Broadmeadow, Queensland University of Technology, Australia.
- [10] 2015, thesis title: “Stand-alone solar-PV hydrogen energy systems incorporating reverse osmosis”, by D Clarke, Edith Cowan University, Australia.
- [11] 2015, thesis title: “Modelling and analysis of new type of electrochemical components – Solid oxide fuel cell (SOFC) and Vanadium redox flow battery (VRB) for system level application”, by Zhang Yu, Nanyang Technological University, Singapore.
- [12] 2016, thesis title: “State-of-charge estimation of lithium-ion battery for a satellite power management system”, by Htet Aung, Nanyang Technological University, Singapore.
- [13] 2016, thesis title: “Performance studies and energy management of aggregated BESSs in frequency regulation”, by Zhang Tian, Nanyang Technological University, Singapore.
- [14] 2017, thesis title: “Advanced control and stability enhancement of grid-connected voltage-source inverter with LCL filter”, by Zhen Xin, Aalborg University, Denmark.

- [15] 2017 thesis title: "Control of superconducting DC transmission systems and solution of coupled electrothermal superconducting cable model", by Dimitrios I. Doukas, Aristotle University of Thessaloniki, Greece.
- [16] 2017, thesis title: "Holistic approach to fault diagnosis and prognosis in wind turbines", by Georgios Alexandros Skrimpas, Technical University of Denmark (DTU), Denmark.
- [17] 2017, thesis title: "Operation and control of cascaded H-bridge converter for STATCOM application", by Ehsan Behrouzian, Chalmers University of Technology, Gothenburg, Sweden.
- [18] 2018, thesis title: "Control strategies for hybrid energy storage systems in DC grid", by Ujjal Manandhar, Nanyang Technological University, Singapore.
- [19] 2019, thesis title: "Multi-functional power electronics tailored for energy conversion plants", by Philip Karl-Heinz Dost, Ruhr-Universität Bochum, Germany.

## **6 MEMBERSHIP IN NATIONAL COMMITTEES**

- IEEE Western Australian Section:
  - Executive Committee Member, 1993-1998.
  - Student Activities Coordinator 1994-1995.
  - Power Engineering Chapter, Member 1997-1999.
- Member of the Executive of the UK and Republic of Ireland IEEE Power Electronics Society Chapter and a Regional Representative for Scotland 2003-2004.
- IEEE New South Wales Section, member 2007-2012

## **7 REVIEWER FOR JOURNALS**

- IEEE Transactions on Power Electronics
- IEEE Transactions on Industrial Electronics
- IEEE Transactions on Industry Applications
- IEEE Transactions on Energy Conversion
- IEEE Transactions on Power Delivery
- EPE Power Electronics Journal
- International Journal of Electronics
- IEE Proceedings, Electrical Power Applications
- IEE Electronics Letters
- IET Power Electronics
- IEEE Power Electronics Letters
- IEEE Power Engineering Letters

## **8 MEMBER OF THE TECHNICAL PROGRAM COMMITTEE/PAPER REVIEWER:**

- IEEE Region 10 Conference, Digital Signal Processing and Applications 1996.
- IEEE Power Electronics Specialists Conference (PESC) 1997, 1998, 1999, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008.
- IEEE International Conference on Industrial Electronics 1997.
- IEEE International Conference on Power Electronics, Drives and Energy Systems for Industrial Growth 1998.

- International Power Electronics Conference, (IPEC) 2000, Tokyo, Japan.
- European Power Electronics Conference 2001, Graz, Austria.
- Australasian Universities Power Engineering Conference (AUPEC) 2001, Perth, Australia.
- 1st IASTED International Conference on Energy and Power Systems 2001 (EUROPES), Rhodes, Greece.
- 5th IASTED International Conf. on Intelligent Systems and Control 2002, Tsukuba, Japan.
- 2nd IASTED International Conference on Energy and Power Systems 2002 (EUROPES), June 25-28, Crete, Greece.
- 6th IASTED International Conference on Artificial Intelligence & Soft Computing, July 17-19, 2002, Banff, Canada.
- IASTED International Conference on Control and Applications 2002, Cancun, Mexico.
- IASTED International Conference on Modelling and Simulation 2002, Marina, USA.
- IASTED International Conference on Applied Modelling and Simulation 2002, Cambridge, MA, USA, November 4-6, 2002.
- IEEE Applied Power Electronics Conference (APEC) 2002, 2003, 2004, 2005, 2006, 2007.
- European Power Electronics Conference 2003, Toulouse, France.
- IEEE Power Electronics & Drives Systems (PEDS), Singapore, 17-20 November 2003.
- IASTED International Conference on Modelling and Simulation, Palm Springs, CA, USA, 24-26 February 2003.
- 3rd IASTED International Conference on Energy and Power Systems (EUROPES), 3-5 September 2003, Marbella, Spain.
- IASTED International Conference PowerCon 2003, Special Theme: Blackouts, 10-12 December 2003, New York, USA.
- IEEE 12th MELECON, 12-15 May 2004, Dubrovnik, Croatia.
- IEEE IECON, Busan, South Korea, 2-6 November 2004.
- 11th International Power Electronics and Motion Control Conference, EPE-PEMC, Riga, Latvia, 2-4 September 2004.
- 4th IASTED International Conference on Energy and Power Systems 2004 (EUROPES), Rhodes, Greece.
- 15th IASTED International Conference on Modelling and Simulation, 1-3 March 2004, Marina del Rey, CA, USA.
- IASTED International Conference on Circuits, Signals, and Systems, November 28 – December 1, 2004, Clearwater Beach, Florida, USA.
- 7th IASTED International Conference on Power and Energy Systems, (PES 2004), November 29-December 1 2004, Clearwater Beach, Florida, USA.
- IEEE IECON 2005, North Carolina, USA, November.
- IEEE Region 8 EUROCON 2005.
- 5th IASTED International Conf. on Power and Energy Systems, Benalmadena, Spain 15-17 June 2005.
- World Renewable Energy Congress, Aberdeen, UK, 22-27 May 2005.
- European Power Electronics Conference 2005, Dresden, Germany.

- 24th IASTED International Conference on Modelling, Identification and Control, 16-18 February 2005, Innsbruck, Austria.
- 15th Power Systems Computation Conference, 22-26 August 2005, Liège, Belgium.
- IEEE International Symposium on Industrial Electronics - ISIE, Dubrovnik, Croatia, 20-23 June 2005.
- 8th International Conf. AC and DC Power Transmission, Savoy Place, London, UK, 28-31 March 2006.
- European Power Electronics Association - 12th International Power Electronics and Motion Control Conference EPE-PEMC 2006, Portoroz, Slovenia, August 30 - September 1, 2006.
- IEEE 3rd Golf Countries Conference (GCC) 2006.
- IEEE International Symposium on Industrial Electronics (ISIE), Montreal, Canada, 9-13 July 2006.
- IEEE International Power Electronics Congress (CIEP), Cholula, Pue, México, 16-18 October 2006.
- 25th IASTED International Conference on Modelling, Identification, and Control, 6-8 February 2006, Lanzarote, Canary Islands, Spain.
- 6th IASTED International Conference on European Power and Energy Systems, 26-28 June 2006, Rhodes, Greece.
- IASTED International Conference on Power, Energy and Applications, 11-13 September 2006, Gaborone, Botswana.
- IEEE IECON, Paris, France, November 2006.
- IEEE MEPCON, El-Minia City, Egypt, 19-21 December 2006.
- IEEE Region 8 EUROCON, Warsaw, Poland, 9-12 September 2007.
- IPCC Nagoya Japan 2007.
- Australasian Universities Power Engineering Conference (AUPEC) 2007, Perth, Australia.
- Australasian Universities Power Engineering Conference (AUPEC) 2008, Sydney, Australia.
- IEEE IECON, Porto, Portugal, 2-6 November 2009.
- IEEE Energy Conversion Congress and Exhibition (ECCE) 2009.
- IEEE International Symposium on Circuits and Systems, Taipei, Taiwan, 24-27 May 2009.
- IEEE 6th International Power Electronics and Motion Control Conference - ECCE Asia, May 17-20, 2009, Wuhan, China.
- Australasian Universities Power Engineering Conference (AUPEC) 2009, Adelaide, Australia.
- 11th International Scientific Conference "Electric Power Engineering 2010" Brno, Czech Republic.
- 2010 IEEE International Symposium on Circuits and Systems (ISCAS 2010).
- IEEE ICIT Valparaiso, Chile 2010.
- IEEE PEDG 2010, 2nd International Symposium on Power Electronics for Distributed Generation Systems, 16-18 June 2010, Hefei, Anhui, China.
- 14th International Power Electronics and Motion Control Conference - EPE-PEMC 2010.
- IEEE ISIE 2010, Bari, Italy, 4-7 July 2010.

- Solar 2010, Canberra, ACT, Australia.
- IEEE ICPE-ECCE Asia 2011, Jeju, South Korea.
- IEEE IECON 2011, Melbourne, VIC, Australia.
- IEEE ECCE 2011, USA.
- Solar 2011, Sydney, NSW, Australia.
- IASTED International Conf. on Power and Energy Systems (AsiaPES), Phuket, Thailand 2-4 April 2012.
- 13th International Scientific Conference "Electric Power Engineering 2012" Brno, Czech Republic.
- IEEE ISIE 2012, Hangzhou, China.
- IEEE ECCE 2012.
- IEEE TENCON 2012.
- 2012 IEEE International Power and Energy Conference, Kota Kinabalu, City in East Malaysia.
- IASTED International Conference on Power and Energy Systems (AsiaPES 2013), Phuket, Thailand, April 10-12, 2013.
- 12th IEEE International Conf. on Environment and Electrical Engineering - Wroclaw, Poland, 5-8 May 2013.
- IEEE ISIE 2013, Taipei, Taiwan, 28-31 May 2013.
- 2013 IEEE PES General Meeting, 21 - 25 July 2012, Vancouver, BC, Canada.
- EEEIC 2012, Poland.
- IEEE ECCE 2013, Denver, Colorado, USA, 15-19 September 2013.
- IEEE 9th Asian Control Conference (ASCC 2013), June 23-26, 2013 at Istanbul, Turkey.
- IEEE ECCE Asia Downunder 2013, Melbourne, VIC, Australia.
- IEEE IECON 2013, Vienna, Austria, 10-13 November 2013.
- AUPEC 2013 Hobart, Tasmania, Australia 29 September – 3 October 2013.
- International Power Electronics Conference -ECCE Asia- (IPEC-Hiroshima 2014), 18-21 May 2014.
- 15th Intern. Scientific Conf. "Electric Power Engineering 2014" Brno, Czech Republic, May 12-14, 2014.
- 2014 IEEE PES General Meeting July 27 - 31, 2014, National Harbor, MD (Washington, DC Metro Area).
- 18th International Conference on Electrical drives and power electronics (7th Joint Slovak-Croatian Conference), 21 – 23 September 2015, The High Tatras, Slovak Republic.
- IEEE ECCE 2019, Baltimore, Maryland, USA.

## **9 TOPIC CHAIR FOR INTERNATIONAL CONFERENCES**

- 35th IEEE International Power Electronics Specialists Conference 2004, Aachen, Germany, Topic Chair for Inverter Control (including Pulse-Width Modulation), Drives and Motion Control (managed the review of 75 papers).
- World Renewable Energy Congress 2005, University of Aberdeen, UK, Topic Chair for Fuel Cell Technology (managed the review of 20 papers).

- IEEE ECCE 2012 Topic Chair: Multilevel Converters (managed 67 papers for their review).
- IEEE ECCE 2012 Topic Chair: Fuel cells (managed 4 papers for the review).

## **10 INTERNATIONAL CONFERENCE TUTORIALS**

I have organised tutorials in international conferences as follows:

- [1] “Power electronics control of de-regulated power systems”, IEEE Power Electronics Specialists Conference Tutorial, Acapulco, Mexico, 15 June 2003.
- [2] “State-of-the-art power electronics technologies for the de-regulated power systems”, IEEE Power Electronics and Drives Systems (PEDS), November 2005, Kuala Lumpur, Malaysia.
- [3] “Large-scale solar PV grid integration: technologies, system integration, issues and challenges”, IEEE PowerAfrica 2012, Johannesburg, South Africa, with Dr M. Ciobotaru.
- [4] “Multilevel and hybrid multilevel power converters: topologies, modulation, control and applications”, IEEE TENCON Spring 2013, Sydney, April 2013, with Professor J. Pou and Dr G. Konstantinou.
- [5] “Grid integration of large-scale photovoltaic power plants: challenges, research trends and grid codes”, IEEE ECCE-Asia Downunder 2013, Melbourne, Australia, with Dr. M. Ciobotaru.
- [6] “State-of-the-art in multilevel power electronic conversion”, AUPEC 2013, Hobart, Tasmania, September 2013, with Professor J. Pou and Dr G. Konstantinou.
- [7] “Grid-connected energy storage and conversion technologies”, AUPEC 2014 - Tutorial 2, Sunday 28 September 2014, with Dr G.D. Demetriades, Research and Development Manager, ABB Corporate Research, Vasteras, Sweden.

## **11 LECTURING IN OVERSEAS UNIVERSITIES**

- Seoul National University of Technology, South Korea: “Power electronics converters and systems”, a series of 12 two-hour lectures to postgraduate students, September-October 2007.
- Beijing Jiaotong University, Beijing, China: “Electronic control of electrical power systems” a series of 7 two-hour lectures for postgraduate students (Electrical engineering), December 2012.
- Beijing Jiaotong University, Beijing, China: “Active electricity distribution networks - microgrids” a series of 12 four-hour lectures to postgraduate students (Electrical engineering), August 2013 (half) and December 2013 (second half); December 2014 (full course).

## **12 IEEE DISTINGUISHED LECTURES**

As a Distinguished Lecturer for the IEEE PELS, I have given the following lectures:

- 20 November 2017, NTNU, Trondheim, Norway.
- 22 November 2017, ABB, Vasteras, Sweden.
- 27 May 2018, UNITEN, Malaysia
- 27 August 2018, UNITEN, Malaysia.
- 1 November 2018, IIT, Delhi, India.
- 2 November 2018, KIET, India.
- 7 November 2018, The University of Toronto, ON, Canada.
- 27 February 2019, Vimal Jyothi Engineering College, Kannur, India.
- 28 February 2019, Government Engineering College, Thrissur, India.
- 1 March 2019, College of Engineering, Chengannur, India.
- 2 March 2019, TKM College of Engineering, Kollam, India.

- 2 March 2019, SCT College of Engineering, Trivandrum, India.
- 3 March 2019, College of Engineering, Trivandrum, India.
- 7 and 8 November 2019, Distributed Power Europe, Rimini Fiera, Expo Centre, Italy.
- 6 November 2019, The University of Padova, Italy.

### **13 NATIONAL AND STATE APPOINTMENTS BY INVITATION**

- 2009 CSIRO Energy Review Panel Member, CSIRO 2009 Energy Review Panel.
- 2009 Australian Senate: Energy and Fuels Inquiry Committee, Invited Expert Witness for HVDC Power Transmission Technologies and Transmission Grid Security.
- 2011 Australian Commonwealth Department of Innovation, Industry, Science and Research (DIISR): Strategic Roadmap for Australian Research Infrastructure: Expert Working Group Member: Environmentally Sustainable Australia.
- 2012 Melbourne Energy Institute, The University of Melbourne, external reviewer.
- 2014 NSW Government Task Force to generate a report for the NSW Government Minister for Energy on Energy Security (the final report was confidential).

### **14 ORGANISING IEEE INTERNATIONAL CONFERENCES**

I have been involved with the organisation of IEEE international conferences as follows.

- 1995 IEEE International Conference on Neural Networks, Chair of the Publicity and Public Relations Committee and Member of the Executive Committee.
- 1995 IEEE International Conference on Evolutionary Computing, Chair of the Publicity and Public Relations Committee and Member of the Executive Committee.
- 1996 IEEE Region 10 Conference TENCON, Digital Signal Processing and Applications, Member of the Executive Committee.
- 1998 IEEE 2nd International Conference on Power Electronics, Drives and Energy Systems for Industrial Growth, Chair of the Publicity and Public Relations Committee and Member of the Executive Committee.
- 2002 IEEE 33rd Power Electronics Specialists Conference, Cairns, Australia, Tutorials Chair and Member of the Executive/Organising Committee.
- 2005 IEEE 36th Power Electronics Specialists Conference, Recife, Brazil Publicity Chair.
- 2007 IEEE 38th Power Electronics Specialists Conference, Orlando, Florida, USA Vice Chair, Organising Committee.
- 2008 IEEE 39th Power Electronics Specialists Conference, Rhodes, Greece Technical Chair and Member of the Executive/Organising Committee.
- 2012 IEEE IECON, Montreal, Canada, Publicity Committee Member.
- 2013 IEEE TENCON Spring, Sydney, Australia, Technical co-chair.

### **15 CONSULTING TO GOVERNMENT BODIES, BUSINESS AND INDUSTRY**

- Unitronics Pty. Ltd., Perth, Consultant and Technical Director, 1996-1997.
- Australis Technologies Pty. Ltd., Perth, Consultant and Managing Director, 1995-1996.
- IIDigital Technologies Ltd., Glasgow, Director and Secretary, May 2000-May 2005.
- Advanced Energy Technologies Ltd., Glasgow, Director and Secretary, July 2003-January 2005.
- ALCOA Alumina, Consultant, March 2005-2006.



- ABB AB Sweden, Consultant, July 2005-2010.
- I have acted as a consultant to numerous organisations in the Middle-East, Greece, the UK, Australia, and Canada, that included organisations such as large utility and power authorities, oil and gas companies as well as electronic and instrumentation companies.
- IIPower Pty Ltd, Sydney, Australia, Managing Director, July 2009 – July 2012.

## **16 NEWSPAPERS ARTICLES AND INTERVIEWS**

- Interview on Saturday Herald on 19 March 2011 about the rekindled nuclear debate following the damage caused to nuclear power stations in the 11 March earthquake and tsunami, Saturday, 19 March 2011.
- Interview published on Kosmos, Daily Newspaper of Komotini, Greece, June 2011 (in Greek)
- “Collaboration sees business and University on the Smart Grid”, by Alistair Jones, The Weekend Australian, 20 August 2011.
- Interview with “Kathimerini”, Greek National Daily Newspaper, Greece, June 2013 (in Greek).
- Engineers Australia Cover Story on Energy Crisis in Australia, August 2014 (a six pages article on energy that highlighted the research work of the AERI and included numerous of my quotes).
- Interview to the Chinese Technical Magazine "Distribution and Utilisation" published by the State Grid Corporation of China, Issue 159, February 2014. The Interview was recorded in December 2013.
- Interview to Peter Trute (Associated Press) published by The Australian with the title: “Think outside the nuclear square: expert”, 3 November 2015 and many other media outlets online and in printed form.
- “Australia taking solar power to the next level”, by Jonathan Pearlman, For The Straits Times, Singapore, 31 January 2016.

## **17 RADIO INTERVIEWS AND CONTRIBUTIONS**

- ABC National Radio November 2009 Bush Telegraph, The future of energy in regional Australia.
- ABC Radio July 2010 interview about “research into electric cars”, Friday July 23, 2010.
- Contribution on ABC Radio National Breakfast 29 July 2011, “Clean energy developers see potential profits”.
- Live interview on ABC program: Sunday with James O’Loghlin, on energy matters, 31 July 2011 (25 min interview plus time with listeners’ participation and answering their questions).
- SBS interview on energy, 18 March 2016, (pre-recorded), in Greek.  
<http://www.sbs.com.au/yourlanguage/greek/el/content/miloyme-ellinika-ton-martio-energeia-me-ton-dr-vasileio-aggelidi?language=el>

## **18 TELEVISION INTERVIEWS**

- CNBC live interview on 1 April 2011.
- CNBC live interview on 14 April 2011.
- ABC News 24 live interview on 10 June 2011.
- CNBC live interview on 20 June 2011.
- ABC News at 7 pm Sydney, NSW, commentary on 15 August 2011 (pre-recorded).
- CNBC live interview on 19 September 2011.
- CNBC live interview on 15 February 2013.
- Australia’s Energy Future Symposium: pre-recorded panel discussion 16 September 2015. Policy certainty and stability was the key theme running through the symposium held in Sydney for participants by invitation only. The filmed event was moderated by SBS talk show host Jenny

Brockie and co-hosted by The Australian Financial Review and General Electric (GE). I was one of a number of the nation's energy leaders who discussed whether Australia is heading in the right direction (<http://www.afr.com/news/special-reports/australia-energy-future/certainty-lacking-in-national-policy-20150916-gjnn5a#ixzz42B2GKJuC>)

- I was fortunate enough to be selected by Reuters of London and Toshiba of Japan after an international search of a leading authority and expert in the field, as the only person featured in the 2019 marketing video of Toshiba regarding power semiconductors and power electronics. The production was filmed at the Technical University of Denmark (DTU), was paid by Toshiba and was filmed and produced by Reuters on behalf of Toshiba  
<https://www.toshiba.com/foranewday/powering-up-electrification.jsp>

## **19 OPINION EDITORIALS**

- V.G. Agelidis, "Too late for nuclear?", UNIKEN, (a UNSW magazine), November/December 2010 issue.
- V.G. Agelidis, "Too late for nuclear", ABC News online: The Drum Unleashed: 7 Dec 2010.
- V.G. Agelidis and T. Dixon, "Embracing the change: Energy storage and the grid", Utility - Engineering, Construction and Maintenance, May 2015, p. 74-77.

## **20 PUBLIC SPEECHES**

- "Power Engineering: The keystone of our journey towards energy sustainability", The University of Sydney, 3 April 2007. The event was attended by approximately 100 people, was organised as part of the launching of the EnergyAustralia Chair at the University and celebrate my appointment. Approximately 70 industry leaders at Chief Executive Officer (CEO) and Managing Director (MD) level attended along with the University's Vice-Chancellor, 6 Pro-Vice Chancellors, the Dean of Engineering and the Heads of all Engineering Schools.
- School of Electrical and Information Engineering, Faculty of Engineering and Information Technologies, The University of Sydney, Graduation ceremony: Occasional Address, 30 November 2007.
- 39th IEEE PESC 2008, Rhodes, Greece, Opening address as the Technical Chair of the Conference and gala dinner address.
- Opening of Sir William Tyree Laboratory in Power Engineering at the University of Sydney, 31 August 2009, with Minister of Science and Medical Research of NSW Government Jodi MacKay.
- Invited to give a keynote address on "smart" grid developments in Australia at the Energy Futures in Regional Australia: A National Conference updating Regional Leaders on the Social, Economic and Environmental Issues for Creating a Sustainable Future, 8 - 10 November 2009, Bendigo, Victoria.
- Official opening of the ABB Technology Centre, The University of Sydney, 9 February 2010.

## **21 PROFESSIONAL DEVELOPMENT**

- Two-day leadership workshop at Murdoch University, February 2006.
- 27 March 2007, "Philanthropy and leadership", Training Program for Senior Executives organised by the Indiana Centre of Philanthropy, USA.
- 3 December 2007, "Major Gifts Masterclass: The Art of Asking", Council for Advancement & Support of Education, Asia-Pacific.
- 30 June 2009, "SF<sub>6</sub> handling: how to limit emissions by improving the equipment", organised by AREVA Transmission and Distribution.