

Fotis Stergiopoulos, Ph.D.

Personal Information

- Marital Status: Married with 2 children
- Nationality: Greek
- Date of Birth: April 10, 1972
- Place of Birth: Veria, Greece

Fields of Interest

Electrical Engineer: Power Electronics, Electrical Power Systems, Analogue – Digital Electronics, Automatic Control Systems, Industrial Applications

Current Employment

From 30/10/2025-today: **Professor, Department of Industrial Engineering and Management, International Hellenic University**

- Specialisation in “Power Systems Electronics”
- Teaching Subjects: “Power Electronics”, “Electrical Machines”, Drive Systems”, “Classical Automation Installations”, “Electric Technology”, “Renewable Energy Sources”
- Participation in the research project “Design Optimization & Control of an Integrated Fuel Cell System with Application on Vehicular Power Systems (OPT-VIP)” in the framework of the programme “Archimedes- III – Support of Research Teams of TEIs”
- Research Associate of the Centre for Research and Technology Hellas (CERTH) in the area of electrical power engineering.
- Administration responsible for the local (ATEITH) node of the European Network “EURAXESS-Researchers in Motion” regarding Researchers’ Mobility and Career Development.
- Peer Reviewer in Scientific Journals (Elsevier)

Work Experience

From September 2004-today: **Electrical Energy Technical Consultant**

- Consultancy Services in the Electrical Power sector – Cooperation with Research Organisations and Companies: Current activities:
 - Centre for Research and Technology Hellas (CERTH) / Chemical Process Engineering Research Institute (CPERI). – Consultant in the area of Power Conditioning of Fuel Cells.
 - National Bank of Greece: Associate as regards technoeconomic evaluation of RES systems, evaluation of electromechanical equipment in all kinds of investments in industry.
 - SUNLIGHT Systems S.A. (former GERMANOS S.A.) – Consultant in Renewable Energy Sources Applications.

- Atlantis Research Organisation SA – External Assistant in the Study of Grid-Connected Photovoltaic Energy Systems. Compilation of more than 20 applications for PV stations rated from 20kW to 6,2MW, with a total installed capacity of more than 12MW. Preparation of subsidy applications with a total budget of more than 5m Euro.
- ELVITYL SA: Research consultant regarding the development of new electronic products.
- KLT SA: Supervisor Engineer in the installation of 2 PV stations, rated at 100kW each, in Kastoria, Greece.
- KLT SA: Supervisor Engineer in the installation of 2 PV stations, rated at 100kW each, in Kilkis, Greece
- Sol Energy Hellas SA – External Assistant in the Installation of Grid-Connected Photovoltaic Energy Systems.
- Q-PLAN NG (Consulting Company): External Assistant in the Preparation of EU Proposals in the Field of Energy and Environment.

Research Programmes

- “Study of a Fully Automated Electrical Power System with Renewable Energy Sources, Hydrogen Production and Utilisation in Fuel Cells”, funded by the General Secretariat for Research and Technology (GSRT). Budget: 994,599.10 Euros. Also, active participation in the preparation of the proposal.
- “Design and Development of a Control and Supervision System for an Autonomous Power Supply System”, funded by GSRT. Budget: 499,516.28 Euros. Also, active participation in the preparation of the proposal.
- “Design and Implementation of an Automatic Control System for a PEM Fuel Cell Maximum Power Tracking and Utilisation”, funded by GSRT. Budget: 499,927.53 Euros. Also, active participation in the preparation of the proposal.
- “Study of Photovoltaic Systems for Domestic Users with Integrated Power Electronics Converters and Implementation of Maximum Power Tracking Algorithms”, funded by GSRT. Budget: 262.600 Euros. Also, active participation in the preparation of the proposal.

March 26, 2002 – January 2010 Technological Educational Institution (T.E.I.) of Thessaloniki, Greece

Scientific Associate in the Department of Electronics

- Teaching of the courses **Control Theory I & II**.
- Participation in the Research project “**Visual Inspection and Qualitative Selection of Olive Fruit for the Production of Excellent Quality Olive Oil**”, funded by the Ministry of Education. Budget: 54.000 Euros

October 15, 2004 - January 2010 Technological Educational Institution (T.E.I.) of Thessaloniki, Greece

Scientific Associate in the Department of Automation

- Teaching of the course **Power Electronics Theory**.

Vocational Training Instructor

2008

- External Assistant in the Greek “Institute for Industrial and professional Training” for the training programme “Regulation and Maintenance Techniques of Automated Machinery”: (20 hours)

2007

- External Assistant in the Greek “Management and information Technology Company” for the training programme “Electricians in the Building Sector”: (50 hours)
 - “Operation and Systems Maintenance Craftsmen» - Presentation of electromechanical equipment (33 hours)
 - “Staff in the Operation and Monitoring of Waste Treatment Units” – electromechanical equipment (6 hours)

2005,2006

- External Assistant in the “Greek Company for Local Development and Governance SA” for the following training programmes:
 - “Operation and Systems Maintenance Craftsmen» - Presentation of electromechanical equipment (33 hours)
 - “Staff in the Operation and Monitoring of Waste Treatment Units” – electromechanical equipment (6 hours)

2005: Technoeconomic preparation of proposals for funding by programmes of the Greek Ministries of Economy and Development

- Cooperation with “ATLANTIS CONSULTING S.A.”.
- Cooperation with “TECHNOEKDOTIKI S.A.” (technical publications).

October 2004-September 2006 Academy of Merchant Marine, Thessaloniki, Greece

Scientific Associate in the School of Marine Engineers

- Teaching of the courses “**Electronics**”, “**Electrotechnology**”, “**Computer Theory**”, “**Automatic Control Systems**”.

Sep. 1, 2001 – August 31st 2004: Centre for Research and Technology Hellas (CE.R.T.H.) / Hellenic Institute of Transport (H.I.T.), Thessaloniki, Greece

Researcher Grade D’ (since 01/05/2003) in the area of “Electrical Power Engineering, analogue/digital electronics and automatic control for applications in telematics for vehicles and electrical machines, power electronics, power systems for clean vehicle applications”

Research Associate (01/09/2001 – 30/04/2003) in the area of Vehicle Technologies

Active Participation as a Researcher and a Research Associate in numerous EU and National Research Projects:

- Technical Manager of the “LIFE-Environment” project **IMMACULATE – “Improvement of Urban Quality of Air and Noise Levels by an Integrated, Cost Effective and Multi-Level Application of Clean Vehicle Technologies**. HIT coordinated this project that introduced clean vehicle technologies in the city of Thessaloniki, Greece.
- Technical Responsible for HIT in the ESTO study on “**State-of-the-Art Review of Hybrid Vehicle Technologies**”.
- Participation in the EU Thematic Network **ELEDRIE – “Thematic Network on Fuel Cells and Their Applications for Electric and Hybrid Vehicles”**.
- Technical Manager of HIT in the EU FP6 Project **HyWays – “The Development and Detailed Evaluation of a Harmonised “European Hydrogen Energy Roadmap”**. HIT participates as an expert of Greece.
- Technical Manager of HIT in the EU FP6 Project **PREMIA – “R&D, Demonstration and Incentive Programmes Effectiveness to Facilitate and Secure Market**

Introduction of Alternative Motor Fuels". JRC/IPTS also participates in the project (Ref. Dr. Panos Christidis).

- Participation in the National Research Project on "**The Development of a Center of Excellence on Driver Behaviour Issues at CETH/HIT**".
- Participation in the Leonardo da Vinci project **INFORMED** – "**Integrated System for an Advanced and Life-Long Training Methodology of Dangerous Goods Drivers and Trainers**". HIT is the coordinator.
- Participation in the EU FP6 project **SENSATION** – "**Advanced Sensor Development for Attention, Stress, Vigilance & Sleep/Wakefulness Monitoring**". HIT is the coordinator.
- Participation in the EU FP6 project **IM@GINE-IT** - "**Intelligent Mobility Agents, Advanced Positioning and Mapping Technologies, Integrated, Interoperable Multimodal Location Based Services**". HIT is the coordinator.
- Participation in the EU FP5 project **AWAKE** – "**System for Effective Assessment of Driver Vigilance and Warning According to Traffic Risk Estimation**". HIT is the coordinator.
- Participation in the EU FP5 project **IMAGE** – "**Intelligent Mobility Agents for Complex Geographic Environments**". HIT was the coordinator.
- Participation in the DG TREN project **BOB Campaign** – (Campaign against alcohol while driving). HIT is the coordinator for Greece.
- Participation in the EU FP5 project **RURAL WINS** – "**Roadmap for ICT solutions for Rural Areas and Maritime Regions**".

2004, Technological Educational Institute of Thessaloniki (TEI), Department of Electronics

- Participation in the research project "**Creation of an Electronic Library in the Department of Electronics**", funded by the Research Committee of TEI. Budget: 7.000 Euros.

**Dec. 1,1998 - Dec. 1,1999: ABB Corporate Research Center, Västerås, Sweden
Development Engineer, Power Electronics Group, Department of Electrical Power Engineering**

- Analysis, Design, Simulation and Control of Present and Future Power Electronic Converters up to the MW level
- Involvement in "key" ABB technologies including:
 - Present and Future Technology of HVDC Transmission (HVDC Light)
 - Future AC/DC, DC/AC Converter Topologies
- Four (4) Invention Disclosures within ABB in Power Electronic Converters (Ref. No.: KN 3-19806, KN 3-20332, KN 3-20501, KN 3-20741)

1996-1997: University of Birmingham, School of Electronic & Electrical Engineering, Birmingham, UK

Graduate Teaching Assistant

- Conducted Undergraduate Labs for the School of Electronic & Electrical Engineering Course: Electrical Power Systems, Automatic Control

**1992-1993 (Summers): Hellenic Sugar Industry, Plati, Imathia, Greece
Assistant Power Engineer**

- Internship in the Electrical Energy Generation Division.

Education

1995-1999: University of Birmingham, School of Electronic & Electrical Engineering, Birmingham, UK

Doctor of Philosophy (Ph.D.) (Graduation December 1999)

- Project title: "Analysis and Control Design of the Three-Phase Voltage-Sourced AC/DC PWM Converter"
- Main Areas of Research:
 - Theoretical - Power Electronics, Power Systems, Harmonics, Power Factor Correction, Mathematics, Modelling and Simulation of Converters, Control Theory, Theory of Modulation and Fuzzy Logic
 - Practical: Construction of a Power electronics Test-Rig (up to 4kW), Analogue and Digital Electronics, Computer Programming, PCB Design, Real-Time Control and Digital Signal Processors.

1990-1995: Aristotle University of Thessaloniki, Thessaloniki, Greece

M.Eng. - Electrical Engineering Degree (5-year course)

- Grade Point Average - 9.0/10.0
- Rank - 2nd
 - Specialisation - Electrical Power Engineering
 - Thesis: "Calculation of Losses of an Induction Motor Supplied By an Inverter".
 - Main Areas of Study:
 - General - Mathematics, Physics, Electrical Materials, Technical Drawing, Electrical Circuits, Electromagnetic Fields, Electronics, Theory of Systems, Automatic Control and Telecommunication Systems.
 - Specialisation - Electrical Machines (DC and AC, Three-Phase, Single-Phase), Electrical Power Systems (Generation, Transmission, Distribution and Protection), Analysis of Power Systems (Load Forecasting, Hydroelectric Stations), Electrical Economy, Power Electronics, Electrical Installations (up to 150kV), High Voltage Engineering, Reliability, Aspects of Nuclear Engineering, Heat Transfer and Transient Analysis of Power Systems.

Patents

- Bo Bijlenga, Tomas Jonsson, Johan Lindberg, **Fotis Stergiopoulos**, Kjell Svensson, "A converter device and a method for the control thereof", European Patent (EP 1282934 B1). Proprietor ABB Ab
- Bo Bijlenga, **Fotis Stergiopoulos** Gunnar Asplund "A method for controlling a VSC-converter and a VSC-converter", European Patent (EP 1325550 B1), World Patent (WO2002031956 A9). Proprietor ABB Ab.

Awards Received

- Scholarship Award for Ph.D. Studies - University of Birmingham, School of Electronic & Electrical Engineering, Birmingham, UK, 1995-1998
- Awards for Excellent Performance -Greek State Scholarship Foundation -1990, 1991, 1992, 1993, 1994 and 1995
- Awards for Excellent Performance of Engineering Students -Technical Chamber of Greece -1993, 1994 and 1995

Books

1. S. Voutetakis., P.Seferlis, **F. Stergiopoulos.**, S. Papadopoulou, A. Papadopoulos, D. Ipsakis., C. Ziogou, and C. Elmasides, "Design, Optimization and Control of Power Systems based on Renewable Energy Sources with Hydrogen Production, Storage and Utilization", **Nova Publishers, 2011, 186 pp, ISBN: 978-1-61122-979-0**

Chapters in Books

1. S. Voutetakis., **F. Stergiopoulos.**, P Seferlis., S. Papadopoulou., D. Ipsakis , C. Ziogou, A. Papadopoulos and C. Elmasides, "Design of a Stand-Alone Power System using Renewable Energy Sources and Long-Term Hydrogen Storage", in **"Handbook of Sustainable Energy", W. H. Lee and V. G. Cho Eds, pp. 1-88, Nova Publishers, 2011, ISBN: 978-1-60876-263-7.**

Publications in International Journals

1. Stefanos Keskinis, Costas Elmasides, Iasonas Kouveliotis-Lysikatos, Panagiotis K. Marhavilas, Nikos D. Hatziaargyriou, **Fotis Stergiopoulos**, Evangelos Pompodakis, Jacob G. Fantidis, George Makrides and Nick Delianidis "Integrating Safety into Microgrid Sizing: A Systematic Review", *Energies* 2026, 19, 2098, <https://doi.org/10.3390/en19092098>
2. Evangelos Syrmos, Vasileios Sidiropoulos, Dimitrios Bechtsis, **Fotis Stergiopoulos**, Eirini Aivazidou, Dimitris Vrakas, Prodromos Vezinias and Ioannis Vlahavas "An Intelligent Modular Water Monitoring IoT System for Real-Time Quantitative and Qualitative Measurements", *Sustainability* 2023, 15, 2127, <https://doi.org/10.3390/su15032127>
3. David Cervero, Maria Fotopoulou, Jesus Munoz-Cruzado, Dimitrios Rakopoulos, **Fotis Stergiopoulos**, Nikolaos Nikolopoulos, Spyros Voutetakis and Jose Francisco Sanz "Solid State Transformers: A Critical Review of Projects with Relevant Prototypes and Demonstrators", *Electronics* 2023, 12, 931, <https://doi.org/10.3390/electronics12040931> (**Electronics Best Paper Award 2025**)
4. M. Fotopoulou, D. Rakopoulos, **F. Stergiopoulos** and S. Voutetakis "A Review on the Driving forces, Challenges and Applications of AC/DC Hybrid Smart Grids", *IntechOpen*, January 2022, DOI: <http://dx.doi.org/10.5772/intechopen.101973>
5. M. Fotopoulou, D. Rakopoulos, D. Trigkas, **F. Stergiopoulos**, O. Blanas and S. Voutetakis: "State of the Art of Low and Medium Voltage Direct Current (DC) Microgrids", *Energies* 2021, 14, 5595, <https://doi.org/10.3390/en14185595>
6. M.C. Fotopoulou, P. Drosatos, S. Petridis, D. Rakopoulos, **F. Stergiopoulos** and N. Nikolopoulos: "Model Predictive Control for the Energy Management in a District of Buildings Equipped with Building Integrated Photovoltaic Systems and Batteries", *Energies* 2021,14,3369, <https://doi.org/10.3390/en14123369>
7. S. Petridis, O. Blanas, D. Rakopoulos, **F. Stergiopoulos**, N. Nikolopoulos and S. Voutetakis: "An Efficient Backward/Forward Sweep Algorithm for Power Flow Analysis through a Novel Tree-Like Structure for Unbalanced Distribution Networks" *Energies* 2021, 14(4), 897; <https://doi.org/10.3390/en14040897>
8. G.Gkizas, C. Yfoulis, C. Amanatidis, , **F. Stergiopoulos**, , D. Giaouris, , C.Ziogou, S. Voutetakis, S. Papadopoulou: " Digital State-Feedback of an Interleaved DC-DC Boost Converter with Bifurcation Analysis", *Control Engineering Practice*, 73 (2018), pp. 100-111.

9. C. Yfoulis, D. Giaouris, C. Ziogou, **F. Stergiopoulos**, S. Voutatakis and S. Papadopoulou: "Optimal Switching Lyapunov-based Control of Power Electronic Converters", *International Journal of Circuit Theory and Applications*, 45 (2017), pp. 354-375.
10. P. Chatziagorakis, C. Ziogou, C. Elmasides, G.Ch. Sirakoulis, I. Karafyllidis, I. Andreadis, N. Georgoulas, D. Giaouris, A.I. Papadopoulos, D. Ipsakis, S. Papadopoulou, P. Seferlis, **F. Stergiopoulos** and S. Voutetakis: "Enhancement of Hybrid Renewable Energy Systems Control with Neural Networks Computational Techniques applied to Weather Forecasting: The case of Olvio", *Neural Computing and Applications* 27 (2016), pp. 1093-1118.
11. C. Yfoulis, D. Giaouris, **F. Stergiopoulos**, C. Ziogou, S. Voutetakis and S. Papadopoulou: "Robust Constrained Stabilization of Boost DC-DC Converters Through Bifurcation Analysis", *Control Engineering Practice Journal*, 35 (2015), pp. 67-82
12. D. Giaouris, S. Banerjee, **F. Stergiopoulos**, S. Papadopoulou, S. Voutetakis, B.Zahawi, V. Pickert, A. Absurrah, M. Al Hindawi, Y. Al Turki,: "Folders and Grazings of Tori in Current Controlled Interleaved Boost Converters" , *International Journal of Circuit Theory and Applications*, 42 (2014), pp. 1080-1091.
13. P. Chatziagorakis, C. Elmasides, G. Sirakoulis, I. Karafyllidis, I. Andreadis, N. Georgoulas, D. Giaouris, A. Papadopoulos, C. Ziogou, D. Ipsakis, S. Papadopoulou, P. Seferlis, **F. Stergiopoulos**, P. Voutetakis" Cellular automata model with game theory for power management of hybrid renewable energy smart grids", *Lecture Notes on Computer Science*, 8751 (2014), pp. 248-257.
14. D. Giaouris, A.I. Papadopoulos, C. Ziogou, D. Ipsakis, S. Voutetakis, S. Papadopoulou, P. Seferlis, **F. Stergiopoulos** and C. Elmasides: Performance Investigation of a Hybrid Renewable Power Generation and Storage System Using Systemic Power Management Models", *International Journal of Energy*, 61 (2013), pp. 621-635.
15. D. Giaouris, **F. Stergiopoulos**, C. Ziogou, D. Ipsakis, S. Banerjee, B. Zahawi, V. Pickert, S. Voutetakis, S. Papadopoulou: " Non Linear Stability Analysis and a New Design Methodology for a PEM fuel cell fed DC-DC Boost Converter", *International Journal of Hydrogen Energy*, 37 (2012), pp.18205-18215.
16. C. Ziogou, D. Ipsakis, **F. Stergiopoulos**, S. Papadopoulou, S. Bezergianni, S. Voutetakis: "Infrastructure, Automation and Model-Based Operation Strategy in a Stand-Alone Hydrolytic Solar Hydrogen Production Unit", *International Journal of Hydrogen Energy*, 37 (2012), pp.16591-16603.
17. C. Ziogou, D. Ipsakis, C. Elmasides, **F. Stergiopoulos**, S. Papadopoulou, P. Seferlis and S. Voutetakis: "Automation Infrastructure and Operation Control Strategy in a Stand-Alone Power System Based on Renewable Energy Sources", *Journal of Power Sources*, 196 (2011), pp. 9488-9499.
18. D. Ipsakis, S. Voutetakis, P. Seferlis, **F. Stergiopoulos**, C. Elmasides: "Power Management Strategies for a Stand-Alone Power System Using Renewable Energy Sources and Hydrogen Storage", *International Journal of Hydrogen Energy*, Volume 34, 2009, 7081–7095.
19. D. Ipsakis, S. Voutetakis, P. Seferlis, **F. Stergiopoulos**, S. Papadopoulou, C. Elmasides: "The effect of the Hysteresis band on Power Management Strategies in a Stand-Alone Power System", *Energy*, Volume 33, Issue 10, October 2008, 1537-1550.

Publications in International Conferences

1. Panagiotis Mallioris, Georgios Kokkas, Alexandros Styliadis-Heinz, Ioannis Margaritis, **Fotios Stergiopoulos**, & Dimitrios Bechtsis, "Development of a Decision Support System in a Canning Industry", Intelligent Systems Conference 2023 (IntelliSys 2023), September 7-8, Amsterdam, The Netherlands, also DOI: 10.1007/978-3-031-47715-7_25 In book: Intelligent Systems and Applications
2. Vasileios Sidiropoulos, Athanasios Sidiropoulos, Dimitrios Bechtsis, **Fotios Stergiopoulos**, "AR-Enabled Interface for IoT Water Management Systems in Smart Cities", 11th International Conference, DAPI 2023, Held as Part of the 25th HCI International Conference, HCII 2023, Copenhagen, Denmark, July 23–28, 2023, Proceedings, Part II, **also** Lecture Notes in Computer Science", DOI: 10.1007/978-3-031-34609-5_10 In book: Distributed, Ambient and Pervasive Interactions
3. P. Mallioris, G. Kokkas, A. Styliadis-Heinz, I. Margaritis, **F. Stergiopoulos** and D. Bechtsis: Conceptual framework of predictive maintenance in a Canning Industry, 10th International Conference on ICT in Agriculture, Food & Environment September 22-25, 2022, Athens, Greece
4. K. Theodoridis, **F. Stergiopoulos**, D. Bechtsis, N. Nikolaidis, D. Triantafyllidis, A. Tsagaris, A. Filelis, A. Papaikonomou: An innovative and fully automated system for gel electrophoresis, 30th European Symposium on Computer Aided Process Engineering, 2020, Elsevier, Volume 47, ISBN 9780128233771, pp. 852-858.
5. A. Tsagaris, K. Theodoridis, **F. Stergiopoulos**, D. Bechtsis, N. Nikolaidis, D. Triantafyllidis, A. Papaikonomou and A. Filelis: "The design of mechatronic system for gel electrophoresis", 7th International Conference on Manufacturing and Materials Engineering, July 2-3, 2020 (virtually) - MATEC Web of Conferences Τόμος Vol 318, page 01042
6. Nikolaidis, N., Evgenidis, N., Bechtsis, D., **Stergiopoulos, F.**, Tsagaris, A., Triantafyllidis, D., Papaikonomou, A., and Filelis, A., 2020. A microcontroller-based software framework for controlling a mechatronic system, 7th ICMMEN International Conference, July 2-3, Thessaloniki, Greece, ICMMEN 2020, MATEC Web of Conferences Τόμος Vol 318, page 01052
7. N. Koukovinos, **F. Stergiopoulos**, C. Ziogou, S. Voutetakis, I. Metaxa, M. Padula, F. Picenni, R. Malvezzi, I. Dourou: "Towards a Foresight Methodology for Adriatic-Ionian Port Areas Focusing on the Energy Sector", PRES 2019, 20-23 Oct. 2019, Ag. Nikolaos, Greece and accepted for publication in "Chemical Engineering Transactions".
8. N. Koukovinos, R. Malvezzi, I. Metaxa, M. Padula, F. Picenni, **F. Stergiopoulos**, S. Voutetakis, C. Ziogou: "The Evolution of Ports into Innovation Hubs: A Proposal for the Adriatic Ionian Area", PRES 2019, 20-23 Oct. 2019, Ag. Nikolaos, Greece and accepted for publication in "Chemical Engineering Transactions".
9. E.P. Kalogianni, Pavlos Salvaras, D. Bechtsis and **F. Stergiopoulos**: "A Monitoring and Control Software Tool to Assess Process and Production Data in Olive Oil Production Units", 8th International Conference on Information and Communication Technologies in Agriculture, Food & Environment, Sep. 21-24 2017, Chania, Greece.
10. G. Gkizas, C. Amanatidis, C. Yfoulis, D. Giaouris, **F. Stergiopoulos**, C. Ziogou, S. Voutetakis and S. Papadopoulou: "Stability Analysis of Digital State-Feedback Controlled Interleaved DC-DC Boost Converters", 42nd Annual Conference of the IEEE Industrial Electronics Society, Oct. 23-27, 2016, Florence, Italy.
11. G. Gkizas, C. Amanatidis, C. Yfoulis, **F. Stergiopoulos**, D. Giaouris, C. Ziogou, S. Voutetakis and S. Papadopoulou: "State-Feedback Control of an Interleaved DC-DC

Boost Converter”, 24th Mediterranean Conference on Control and Automation (MED 2016), June 21-24, Athens, Greece.

12. C. Yfoulis, D. Giaouris, C. Ziogou, **F. Stergiopoulos**, S. Voutetakis and S. Papadopoulou: “Optimal-energy based stabilizing controllers for DC-DC converters”, 24th Mediterranean Conference on Control and Automation (MED 2016), June 21-24, Athens, Greece.
13. C. Ziogou, D. Giaouris, C. Yfoulis, **F. Stergiopoulos**, P. Seferlis, S. Voutetakis, S. Papadopoulou: “Energy Decision Making Based on a Hybrid Power Sharing Strategy – Application to a Fuel Cell Electric Vehicle”, 2015 AIChE Annual Meeting, November 8-13, Salt Lake City, USA
14. C. Yfoulis, D. Giaouris, **F. Stergiopoulos**, C. Ziogou, S. Voutetakis and S. Papadopoulou: “Optimal Switching Lyapunov-based control of a boost DC-DC converter”, 23rd Mediterranean Conference on Control and Automation (MED 2015), June 16-19, 2015, Torremolinos, Spain.
15. C. Ziogou, D. Giaouris, C. Yfoulis, **F. Stergiopoulos**, S. Voutetakis, S. Papadopoulou: “Behaviour Assessment of a Fuel Cell - Battery System Using a Supervisory Control Methodology Empowered by a Hybrid Timed Automaton (HTA)” 12th International Symposium on Process Systems Engineering and 25th European Symposium on Computer Aided Process Engineering, 31 May – 4 June 2015, Copenhagen, Denmark.
16. C. Ziogou, D. Giaouris, C. Yfoulis, **F. Stergiopoulos**, P. Seferlis, S. Voutetakis, S. Papadopoulou: “Supervisory Energy Management of an Integrated Fuel Cell / Battery System for Vehicular Applications”, 2014 AIChE Annual Meeting, November 16-21, Atlanta, USA.
17. D. Giaouris, C. Yfoulis, **F. Stergiopoulos**, C. Ziogou, S. Voutetakis and S. Papadopoulou: “Border Collisions and Chattering in State Feedback Controlled Boost Converters”, 2014 International Symposium on Nonlinear Theory and its Applications, Luzern, Switzerland, September 14-18, 2014.
18. P. Chatziagorakis, C. Elmasides, G.Ch. Sirakoulis, I. Karafyllidis, I. Andreadis, N. Georgoulas, D. Giaouris, A.I. Papadopoulos, C. Ziogou, D. Ipsakis, S. Papadopoulou, P. Seferlis, **F. Stergiopoulos** and S. Voutetakis : “Application of Neural Networks Solar Radiation Prediction for Hybrid Renewable Energy Systems”, Proceedings of the 15th International Conference on Engineering Applications of Neural Networks (EANN), Sofia, Bulgaria, September 5-7, 2014.
19. D. Giaouris, A.I. Papadopoulos, P. Seferlis, S. Papadopoulou, S. Voutetakis, **F. Stergiopoulos**, C. Elmasides: “Optimum Energy Management in Smart Grids Based on Power Pinch Analysis”, 17th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, Prague, Czech Republic, August 23-27, 2014.
20. C. Yfoulis, D. Giaouris, **F. Stergiopoulos**, C. Ziogou, S. Voutetakis and S. Papadopoulou: “Flexible Polyhedral Lyapunov Functions for the Robust Constrained Stabilization of Bilinear Boost DC-DC Converters ”, 22nd Mediterranean Conference on Control and Automation, University of Palermo, Italy, June 16-19, 2014.
21. S. Voutetakis, C. Elmasides, C. Ziogou, D. Giaouris, **F. Stergiopoulos**, S. Papadopoulou: “ Integrated Supervisory and Control System for Backup Power and Traction Batteries”, 9th International Conference on Lead – Acid Batteries (LABAT’ 2014), Albena, Bulgaria, 10-13 June 2014.
22. C. Yfoulis, D. Giaouris, **F. Stergiopoulos**, C. Ziogou, S. Voutetakis and S. Papadopoulou: “Robust Constrained Stabilization of a Boost DC-DC Converter with

Lyapunov-Based Control and Piecewise-Linear Lyapunov Functions”, 13th European Control Conference, Strasburg, France, June 24-27, 2014.

23. D. Giaouris, S. Banerjee, S. Voutetakis, S. Papadopoulou, P. Seferlis, **F. Stergiopoulos**, D. Ipsakis, C. Ziogou, A. Papadopoulos, C. Elmasides: “Nonlinear Behaviour of Interleaved Boost Converters Used in Renewable Energy Applications”, 2012 International Symposium on Nonlinear Theory and its Applications (NOLTA 2012), October 22-26, Palma, Majorca, Spain.
24. S.Voutetakis, C.Ziogou, D. Ipsakis, **F. Stergiopoulos**, S. Papadopoulou, C. Elmasides: “On Line Energy Management Strategy of an Off-Grid Hybrid Power Generation System”, 6th European Conference on PV-Hybrids and Mini-Grids, April 26-27, 2012, Chambéry, France.
25. D. Ipsakis, E. Vakouftsi, M. Ouzounidou, G. Marnellos, S. Papadopoulou, **F. Stergiopoulos**, S. Voutetakis: “CFD and Dynamic Simulation Studies in a H2S-Fed Proton Conducting Solid Oxide Fuel Cell”, Proceedings of EFC 2011, European Fuel Cell – Piero Lunghi Conference and Exhibition, Dec. 14-16, 2011, Rome Italy.
26. D. Giaouris, **F. Stergiopoulos**, C Ziogou, S. Papadopoulou and S. Voutetakis: “Efficient Design of Boost Converters for Fuel Cells”, 33rd International Telecommunications Energy Conference (INTELEC 2011), 9-13 Oct. 2011, Amsterdam, The Netherlands.
27. C. Ziogou, D. Ipsakis, **F. Stergiopoulos**, S. Papadopoulou, S. Bezergianni and S. Voutetakis, “ Automation Design and Simulated Operation of Solar-Hydrogen Integrated System Located at CERTH/CPERI”, International Conference on Hydrogen Production (ICH2P-2011), June 19-22, 2011, Thessaloniki, Greece.
28. C. Ziogou, D. Ipsakis, **F. Stergiopoulos**, S. Papadopoulou, S. Bezergianni and S. Voutetakis, “ Evaluation of Design Issues and Automation Infrastructure in a Solar-Hydrogen Production Unit at CERTH in Thessaloniki”, 21st European Symposium on Computer Aided Process Engineering – ESCAPE 21, May 29 – June 1, 2011, Chalkidiki, Greece.
29. C. Ziogou, D. Ipsakis, C. Elmasides, **F. Stergiopoulos**, S. Papadopoulou, P. Seferlis and S. Voutetakis: “ Automation and Operation Strategies in a Stand-Alone Power System that Uses Solar and Wind Energy in Conjunction with Hydrogen Long-Term Storage”, IFAC Symposium on Power Plants and Power Systems Control, 5-8 July 2009, Tampere, Finland.
30. K. Kontonikolas, C. Ziogou, **F. Stergiopoulos**, S. Papadopoulou and S. Voutetakis: “ Design and Development of an Embedded Control System of a DC/DC Power Converter for a Fuel Cell”, 17th Mediterranean Conference on Control and Automation (MED 09), 24-26 June 2009, Thessaloniki, Greece.
31. I.Nalmpantis, **F. Stergiopoulos**, C. Elmasides and S. Voutetakis: “Study and Construction of a 5kWp DC/DC Converter for Fuel Cell Interconnection and Battery Charging”, 3rd International Conference “ENERTECH 08”, 20-23 November 2008, Athens, Greece.
32. P. Panagis, **F. Stergiopoulos**, P. Marabeas and S. Manias: “Comparison of State of the Art Multilevel Inverters”, IEEE 39th International Power Electronics Specialists Conference (PESC’08), June 15-19 2008, Rhodes, Greece.
33. C. Elmasides, **F. Stergiopoulos**, Th. Karakosta, P. Sifniadis, N. Hatzargyriou and A. Dimeas: “Remote Monitoring and Control of a PV-Hybrid System”, 4th European PV-Hybrid and Mini-Grid Conference, May 29-30 2008, Glyfada, Greece.
34. D. Ipsakis, S. Voutetakis, P. Seferlis, **F. Stergiopoulos**, S. Papadopoulou and C. Elmasides: “Design and Operation Optimization for a Stand-Alone Power System

Using Renewable Energy Sources and Hydrogen Storage”, Workshop on Early-Stage Energy Technologies for Sustainable Future: Assessment, Development, Application-EMINENT 2, 5-6 May 2008, Veszprem, Hungary.

35. D. Ipsakis, **F. Stergiopoulos**, S. Voutetakis, P. Seferlis, S. Papadopoulou and C. Elmasides: “Analysis of a Stand-Alone Power System Based on Solar and Wind Energy with Hydrogen Long-Term Storage: Operational Experience and Control Studies”, 6th Mediterranean Conference and Exhibition on Power Generation, Transmission and Distribution, 2-5 November 2008, Thessaloniki, Greece.
36. D. Ipsakis, S. Voutetakis, P. Seferlis, **F. Stergiopoulos**, S. Papadopoulou, C. Elmasides, C. Keivanidis: “Energy Management in a Stand-Alone Power System for the Production of Electrical Energy with Long term Hydrogen Storage”, 18th European Symposium – Computer Aided Process Engineering – ESCAPE 18, June 1-4 2008, Lyon, France.
37. D. Ipsakis, C. Elmasides, **F. Stergiopoulos**, S. Voutetakis, P. Seferlis: “Simulation of a stand-alone power system using renewable energy sources and hydrogen storage”, 10th Conference on process Integration, Modeling and Optimisation for Energy Saving and Pollution Reduction, 24-27 June 2007, Ischia, Italy
38. D. Ipsakis, **F. Stergiopoulos**, S. Voutetakis, C. Elmasides, P. Seferlis, S. Papadopoulou: “Study of an autonomous power system based on solar and wind energy with hydrogen as the intermittent energy source for future use”, 4th Dubrovnik Conference on Sustainable Development of Energy, Water and Environment Systems, 4-8 June 2007, Dubrovnik, Croatia. **Session Chairman** (Energy Policy and Planning)
39. D. Ipsakis, P. Kechagiopoulos, C. Martavaltzi, S. Voutetakis, P. Seferlis, P. Daoutidis, **F. Stergiopoulos**: “Study of an Integrated System for the Production of Hydrogen by Autothermal Reforming of Methanol”, 17th European Symposium on Computer Aided Process Engineering – ESCAPE17, 27-30 May 2007, Romania
40. D. Ipsakis, S. Voutetakis, P. Seferlis, **F. Stergiopoulos**, S. Papadopoulou, C. Elmasides, C. Keivanidis: “Analysis and Modeling of a Stand-Alone Power System for the Production of Electrical Energy with Hydrogen Long-Term Storage”, “, 20 International Conference “Renewable Energy Sources and Energy Efficiency”, 18-21 October 2007, Greece. Also published in the Greek Technical Magazine “Anemologia”, February 2008.
41. P.G. Marambeas, **Ph. Stergiopoulos**, S. Papathanasiou, P. Bauer, S. N. Manias: “Interactive Multimedia Material for an Electrical Power Quality Course”, 37th IEEE Power Electronics Specialists Conference (PESC) Conf. Rec., June 18-22 2006, Korea.
42. S.N. Efstratiadis, A. Kiritsakis, A. Mpizopoulos, **F. Stergiopoulos**, D. Bechtsis, V. Kilintzis, A. Antoniadis, K. Kiritsakis, K. Kokonas: “Optical Inspection for Quality Separation of Olive Fruit”, 1st International Seminar on Biotechnology and Quality of Olive Tree Products around the Mediterranean Basin, Morocco, 2004.
43. L. Pelkmans, L. Govaerts, P. Christidis, **F. Stergiopoulos**, J. Laurikko: “The PREMIA Project – Assessment of Initiatives to Facilitate and Secure the Introduction of Alternative Motor Fuels in the European Union”, International Conference on Vehicle Alternative Fuel Systems & Environmental Protection, July 6-9, 2004, Dublin, Ireland.
44. **F. Stergiopoulos**, E. Bekiaris, D. Negkas, S. Voutetakis and A. Tsioutras: “Combining Driving Behaviour with Environmental Parameters: Preliminary Results of Pilot Assessment of Toyota Prius in the Urban Environment of Thessaloniki, Greece”, 2004 European ELE-DRIVE Transportation Conference and Exhibition, 17-20 Μαΐου 2004, Πορτογαλία.

45. E. Bekiaris, A. Tsioutras, **F. Stergiopoulos**, M. Panou: "Development of a Novel Centre of Excellence on Driver Behaviour Issues in South East Europe", 2nd International Conference on Transport Research in Greece, Athens, February 2004..
46. **F. Stergiopoulos**, E. Bekiaris, S. Voutetakis, A. Tsioutras: "Pilot Application of Clean Vehicles in the city of Thessaloniki: The 'IMMACULATE' project", 2nd International Conference on Transport Research in Greece, Athens, February 2004..
47. **F. Stergiopoulos**, E. Bekiaris, D. Negkas: "Environmentally Friendly Vehicle and Training: A New Field for Driving Instructors and Car Mechanics?", Electric Vehicle Symposium (EVS 20), Long Beach, California Usa, Nov. 15-19, 2003. Also co-chaired the session 6B – Public Policy/Environmental Impacts".
48. **F. Stergiopoulos** and E. Bekiaris: "A New Advanced and Life-Long Training Methodology for Dangerous Goods Drivers and Trainers of the Petrochemical Industry:", 3rd International Conference on *New Horizons in Industry and Education*, Santorini, 28-29 August 2003.
49. **F. Stergiopoulos**, D. Negkas, E. Bekiaris: "Improvement of Urban Environment Quality of Air and Noise Levels by an Integrated, Cost-Effective and Multi-Level Applications of Clean Vehicle Technologies", 4th International Exhibition and Conference, HELECO '03, Athens January 30 – February 2, 2003 (in greek)
50. **F.S. Stergiopoulos** and S.N. Manias: "Four-Level Inverter for Power Transmission Applications", 3ο Μεσογειακό Συνέδριο για την Παραγωγή, Μεταφορά, Διανομή Ισχύος και Μετατροπή Ενέργειας, Αθήνα, 4-6 Νοεμβρίου 2002.
51. **F. Stergiopoulos**, D. Negkas, A. Safacas, E. Bekiaris: "Application of Clean Vehicle Technologies in Greece: Solutions and Prospects", in greek, 1st International Congress on Transportation Research in Greece, Athens, Greece, 21-22 February 2002
52. **F. Stergiopoulos**, H. Zelaya de la Parra, A.J. Forsyth: "A New Fuzzy Logic Control Scheme for Three-Phase AC/DC PWM Converters Implemented in a DSP", 8ο Ευρωπαϊκό Συνέδριο Ηλεκτρονικών Ισχύος και Εφαρμογών (EPE '99), 7-9 Σεπτεμβρίου 1999, Λωζάνη, Ελβετία

Publications in National Conferences

1. C. Ziogou, D. Ipsakis, **F. Stergiopoulos**, S. Bezergianni, S. Papadopoulou, S. Voutetakis: "Integrated Design and Study of a Hydrogen Production Unit using Solar Energy and Electrolysis at CERTH" 8th National Chemical Engineering Conference, 26-28 May 2011, Thessaloniki, Greece (in Greek)
2. D. Ipsakis, S. Voutetakis, P. Seferlis, **F. Stergiopoulos**, S. Papadopoulou, C. Elmasides, C. Keivanidis: "Study of the Energy Management in an Stand-Alone Power System with Renewable Energy Sources and Hydrogen Storage", 3rd National Hydrogen Technologies Conference, 19-20 November 2007, Patra, Greece (in Greek)
3. D. Ipsakis, S. Voutetakis, P. Seferlis, **F. Stergiopoulos**, K. Elmasidis.: "Design of an Autonomous Energy System with Hydrogen Storage", 6th National Chemical Engineering Conference, 31 May – 2 June 2007, Athens, Greece (in Greek).
4. D. Ipsakis, P. Kehagiopoulos, X. Maltavatzis, **F. Stergiopoulos**, Th. Ioannides and S. Voutetakis: "Study of a Hydrogen Production Unit by Methanol Reforming" (in Greek), 9th National Catalysis Symposium, Lefkada, October 6-7, 2006.
5. **F. Stergiopoulos** and S. Voutetakis: "Interfacing Fuel Cells with an Electrical Network: Electrical Energy Converter Topologies and Energy Management", in

greek, 2nd National Conference for Hydrogen, CERTH, Thermi, Greece, 20-22 October 2005, also appeared as an article in the greek technical journal **“Modern Technical Inspection”**.

6. S.N. Efstratiadis, A. Kiritsakis, A. Mpizopoulos, **F. Stergiopoulos**, D. Bechtsis, V. Kilintzis, A. Antoniadis, K. Kiritsakis, K. Kokonas: “Qualitative Assessment and Olive Fruit Separation using Optical Inspection for the Production of Extra Virgin Olive Oil”, 1st Pan-Hellenic Conference on Biotechnology and Food Technology, Athens 31/3 – 2/4/2005 (in greek)

Studies

1. M. Damianidis, G. Katsaros, M. Tolis, F. Stergiopoulos, “Guide for the Study and Implementation of Photovoltaic Systems”, Work Group of the Technical Chamber of Greece / Division of Central Macedonia (in Greek), April 2011. Available at http://portal.tee.gr/portal/page/portal/teetkm/DRASTHRIOTHTES/OMADESERGAS/IAS/fwtovoltaika_ergwn.pdf
2. S. Voutetakis, F. Stergiopoulos, D. Ipsakis, P. Seferlis, Ch. Ziogou, C. Elmasides and Ch. Keivanidis: “Use of Renewable Energy Sources and Hydrogen for the Development of an Autonomous Electrical Power Production System (HYRES)”, “Contemporary Technical Review (electrical), issue 196, September 2008, pp. 20-26 (in Greek).

Professional Accreditations

“Valuer in Machinery, Plant & Equipment” Accreditation Authority PEOPLECERT, Greece October 2014

Computer Skills

Windows

Programming Languages: C, Assembly (TMS320C25, TMS320C30), Fortran, Pascal

Specialised Software: MATLAB-SIMULINK, PSCAD-EMTDC (Power System Simulator), CorelDraw, Microsoft Office, Mathcad, ISIS-ARES (PCB Design)

Design using Complex Programmable Logic Devices (CPLD) and Field Programmable Gate Arrays (FPGA)

Design and Programming of electrical installations using KNX/EIB.

Courses & Seminars Attended

“Valuation of Electromechanical Installations and Equipment”, Seminar organised by the Association of Valuers of Greece (16 hours), Thessaloniki, Greece, April 2014.

“Analysis of Valuation Standards”, Seminar organised by the Hellenic Valuation Institute (4 hours), Thessaloniki, Greece, March 2014

Ph.D./Industrial Course on “Power Electronics for Renewable Energy Systems-PERES”, November 15-17, 2006, Aalborg University, Denmark.

Saber Designer Introductory Course Stockholm, Sweden 08-09/03/1999

“KNX/EIB Kompaktkurs”, Athens, 6-7/11/2004, 13-14/11/2004.

Languages

Greek (native), English (excellent)

**Member of
Professional
Organisations**

Member of the Association of Valuers of Greece

Member of the Hellenic Valuation Institute

Technical Chamber of Greece (TEE)

Konnex/EIBA Certified Partner.

Certified Vocational Trainer (Electrical Engineers, Electronic and Telecommunications Engineers) in Greece.

Other Information

24/1/2000 – 24/7/2001: Military Service as a Private of Computer and Information Systems at the Headquarters of the 2nd Mechanised Infantry Division and the 31st Mechanised Infantry Brigade, Greece.

User of Computer Systems and Specialised Information Systems of the Greek Army