

Personal information

First name / Surname **Georgios Paterakis**
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Education and training

Dates November 2012 - Today
Capacity **Ph.D. Student**
Ph.D. field of study "Investigation of mechanisms for extending the combustion stability in multi-fueled burner stabilizers through micro-mixing techniques and inlet fuel-air mixture stratification."
Name of organisation Laboratory of Applied Thermodynamics, Department of Mechanical Engineering and Aeronautics, University of Patras
Dates October 2006 - April 2012
Title of qualification awarded **Diploma in Mechanical Engineering and Aeronautics, University of Patras (Course duration 5years – 300 ECTS)**
Name of organisation Department of Mechanical Engineering and Aeronautics, University of Patras
Grade 7.22 / 10

Work Experience

Dates December 2017 – Today
Occupation or position held Mechanical researcher in "Forest Monitoring System for Early Fire Detection and Assessment in the Balkan-Med Area-SFEDA" project
Main activities and responsibilities Fire risk assessment, Conceptual design of the system (stationary camera, rotary UAV)
Name and address of employer Laboratory of Applied Thermodynamics, Department of Mechanical Engineering and Aeronautics, University of Patras
Dates April 2017 – July 2017
Dates December 2018 - May 2019
Occupation or position held Co-author
Main activities and responsibilities Co-author of chapter «From Pillars to AI Technology Based Forest Fire Protection Systems », for open access book "Artificial Intelligence- Applications in Agriculture and Bio-system Engineering", ISBN 978-1-78985-454-1
Name and address of employer IntechOpen, (Open Access books)
Occupation or position held Erasmus+ traineeship student
Main activities and responsibilities Turbulent premixed and stratified flames: velocity field measurements and analysis
Name and address of employer Professor Jens Klingmann, Division of Thermal Power Engineering, Department of Energy Sciences, University of Lund, Sweden
Dates December 2016 – April 2017
Occupation or position held Translation supervision and editing
Main activities and responsibilities Translation supervision and editing (English to Greek) of the book "An Introduction to Combustion: Concepts and Applications 3rd Edition", of Stephen Turns by Willard W. Pulkrabek, ISBN: 978-960-418-619-8
Name and address of employer Tziolas Scientific Publications
Dates December 2015– April 2016
Occupation or position held Translation supervision and editing
Main activities and responsibilities Translation supervision and editing (English to Greek) of the book "Engineering Fundamentals of the Internal Combustion Engine" by Willard W. Pulkrabek, ISBN: 978-960-418-646-4

Name and address of employer	Tziolas Scientific Publications
Dates	November 2014 – December 2015
Occupation or position held	Co-author
Main activities and responsibilities	Co-Author of the Greek e-book “Εισαγωγή στις Βασικές Αρχές της Θεωρίας και της Τεχνολογίας της Καύσης”- “Introduction to the Theory and Technology of Combustion: Basic Principles”, 2015, ISBN 978-960-603-288-2, (site: https://repository.kallipos.gr/handle/11419/1160)
Name and address of employer	Hellenic Academic Ebooks
Dates	January 2013 – Today
Occupation or position held	Laboratory and Research Assistant
Main activities and responsibilities	Co-supervision of project thesis, laboratory exercises and term exams in Gas Turbines, I.C. Engines and Combustion classes
Name and address of employer	Laboratory of Applied Thermodynamics, Department of Mechanical Engineering and Aeronautics, University of Patras

Papers

- Paterakis, G.**, Politi, E., Koutmos, P., “Experimental investigation of isothermal scalar mixing fields downstream of axisymmetric baffles under fully premixed or stratified inlet mixture conditions”, απόδεκτό από το περιοδικό «Experimental Thermal and Fluid Science», Volume 108, November 2019, Pages 1-15, <https://doi.org/10.1016/j.expthermflusci.2019.05.018>
- **Paterakis G.** and Koutmos P., “Effect of Modulation of the Inlet Velocity and Equivalence Ratio Gradients on the Stabilization of Stratified Axisymmetric Bluff-Body Flames,” Journal of Combustion, vol. 2018, Article ID 6581345, 10 pages, 2018. <https://doi.org/10.1155/2018/6581345> .
- Banyon, C., Rodriguez Henriquez, J.J., **Paterakis, G.**, Malliotakis, Z., Souflas, K., Keramiotis, C., Vourliotakis, G., Mauss, F., Curran, H., Skevis, G., Koutmos, P., Founti, M., “A comparative study of varied in-cylinder reaction environments on swirl flame geometry and luminescence intensity”, απόδεκτό από το περιοδικό Fuel, Volume 216, 03/2018, Pages 826–834 <https://doi.org/10.1016/j.fuel.2017.09.105>.
- Souflas, K., **Paterakis G.**, and Koutmos P., (2015), “Investigation of disk stabilized propane flames operated under stratified and vitiated inlet mixture conditions”, Journal of Energy Engineering (JEE), to appear.
- Karagiannaki Ch., **Paterakis G.**, Souflas, K., Dogkas E., Koutmos P., (2014), “Performance evaluation of a model swirl burner under premixed or stratified inlet mixture conditions”, Journal of Energy Engineering (JEE), 10/2014; doi: 10.1061/(ASCE)EY.1943-7897.0000242.
- Karagiannaki Ch., Dogkas E., **Paterakis G.**, Souflas, K., Psarakis E. Z., Vasiliou, P. and Koutmos P., (2014), “A comparison of the characteristics of ultra-lean disk stabilized propane flames operated under premixed or stratified inlet mixture conditions”, Experimental Thermal and Fluid Science, Volume 59, p. 264–274, doi:10.1016/j.expthermflusci.2014.04.002.
- Paterakis G.**, Souflas K., Dogkas E., and Koutmos P. ,(2013), “A Comparison of the Characteristics of Planar and Axisymmetric Bluff-Body Combustors Operated under Stratified Inlet Mixture Conditions”, Journal of Combustion, Volume 13, Article ID 860508, doi: 10.1155/2013/860508.
- Koutmos P., **Paterakis G.**, Dogkas E. and Karagiannaki Ch., (2012), “The impact of variable inlet mixture stratification on flame topology and emissions performance of a premixer/swirl burner configuration”, Journal of Combustion, Volume 12, Article ID 374089, doi:10.1155/2012/374089.

Conferences

- THEASIS System for Early Detection of Wildfires in Greece: Preliminary Results from its Laboratory and Small Scale Tests, 29th Annual Conference of the European Association for Education in Electrical and Information Engineering (EAEEIE) 2019, Sept. 4-6, University of Ruse, Bulgaria, <https://eaeeie2019.academy-bg.eu/>.
- G. Paterakis**, J. Klingmann, P. Koutmos, (2017), “Experimental Investigation of Isothermal and Reacting Flow Topologies Downstream of Axisymmetric Baffle Stabilizers under Different Inlet Mixture Conditions”, 3rd Γενική συνάντηση και Workshop on Smart Energy Carriers in Industry, J. Heyrovský Institute of Physical Chemistry, Praga, Czech, Oct 25 - 27. (oral presentation).

- Z. Malliotakis, C.Keramiotis, G. Vourliotakis, **G. Paterakis**, K. Souflas, P. Koutmos, M. Founti, (2016), "Experimental Investigation on the oxidation of Gaseous and Liquid fuels in a swirl-stabilized flame via chemiluminescence measurements and other analytical methods", Flow 2016–10th Panhellenic Conference on "Fluid Flow Phenomena", Patras, Greece, Dec. 2-3, (oral presentation)
- Paterakis G.**, Naxakis A., Partheniou A., Koutmos P., (2016), "Experimental Investigation of Isothermal Turbulent Flow and Scalar Mixing Fields Downstream of Axisymmetric Baffles", Flow 2016, 10th Panhellenic Conference on "Fluid Flow Phenomena", Patras, Greece, Dec. 2-3, (poster presentation).
- C. Banyon, H.J. Curran, M. Founti, C.Keramiotis, P. Koutmos, Z. Malliotakis, F. Mauss, **G. Paterakis**, J.J Rodriguez, G. Skevis, K. Souflas, G. Vourliotakis, (2016), "A comparative study on the oxidation of Gaseous and Liquid fuels in a swirl-stabilized flame via chemiluminescence measurements", 2^η Γενική συνάντηση και 2^ο Workshop on Smart Energy Carriers in Industry, Instituto Superior Técnico, Técnico, Lisbon, Portugal, Nov. 14 - 16. (poster presentation).
- G. Paterakis**, K. Souflas, E. Dogkas, P. Koutmos (2016), "Flame Stabilization Aerodynamics and Emissions Performance at Stratified or Fully Premixed Inlet Mixture Conditions", 2nd Συνέδριο ECATS, "Making Aviation Environmentally Sustainable", Nov. 7-9 2016, Athens, Greece, (oral presentation)
- Z. Malliotakis, C.Keramiotis, G. Vourliotakis, **G. Paterakis**, K. Souflas, P. Koutmos, M. Founti, (2016), "Experimental Investigation on the oxidation of Gaseous and Liquid fuels in a swirl-stabilized flame via chemiluminescence measurements and other analytical methods", 2nd General Meeting 2nd Workshop on Smart Energy Carriers in Industry, Instituto Superior Técnico, Lisbon, Portugal, Nov. 14 - 16. (poster presentation).
- Souflas K., Menon S., **Paterakis G.**, Dogkas E., Koutmos P., Gururajan V., Egolfopoulos F. N., (2015), "Determination of laminar flame speeds using axisymmetric bunsen flames: intricacies and accuracy", presented in the 9th Mediterranean Combustion Symposium, Rhodes, Greece, 7-11 June, (oral presentation).
- Paterakis G.**, Souflas K., Dogkas E., Koutmos P., (2015), "Characteristics of Lean Axisymmetric Bluff-Body Stabilized Propane Flames Under Premixed or Stratified Inlet Mixture Conditions", presented in the 9th Mediterranean Combustion Symposium, Rhodes, Greece, 7-11 June, (poster presentation).
- Paterakis G.**, Souflas K., Dogkas E., Koutmos P., (2014), "Combustion Features and Emission Levels of Axisymmetric Bluff Body Stabilized Propane Flames Under Stratified and Fully-Premixed Inlet Conditions", presented in 9th Panhellenic Conference on "Fluid Flow Phenomena", Athens, Greece, December 12-13, (oral presentation).
- Paterakis G.**, Dogkas E., Souflas K. and Koutmos P., (2013), "The effect of modulation of the inlet velocity and equivalence ratio gradients on the stabilization of stratified axisymmetric bluff-body flames", presented in the 6th European Combustion Meeting, ECM2013, Lund, Sweden, June 25-28, (poster presentation).
- Karagiannaki Ch., Dogkas E., **Paterakis G.**, Souflas K., Psarakis E. Z., Vasileiou P. and Koutmos P., (2013), "A comparison of the characteristics of ultra-lean disk stabilized propane flames operated under premixed or stratified inlet mixture conditions", presented in the 8th World Conference on Experimental Heat Transfer, Fluid Mechanics, and Thermodynamics, Lisbon, Portugal, June 16-20, (oral presentation).
- Karavasilis Ch., **Paterakis G.**, Dogas L., Karagiannaki Ch., Othonaios N. and Koutmos P., (2012), "Evaluation of a stratified disk burner in swirl co-flow through measurements and simulations of the OH* and CH* chemiluminescence fields", presented in 8th Panhellenic Conference on "Fluid Flow Phenomena", Volos, Greece, November 16-17, p. 110, (poster presentation).
- Karagiannaki Ch., Dogkas E., **Paterakis G.** and Koutmos, P., (2012), "An investigation of turbulent axisymmetric bluff-body propane flames: premixed versus stratified stabilization", presented in 8th Panhellenic Conference on "Fluid Flow Phenomena" Volos, Greece, November 16-17, p. 41, (oral presentation).
- Paterakis G.** and Koutmos P., (2012), "An investigation of the characteristics of planar and axisymmetric bluff body stabilized turbulent stratified flames close to lean blow off", presented in 9th Ercoftac Engineering Turbulence Modelling and Experiments Conference, Thessaloniki, Greece, 6-9 June, N0026, (oral presentation).