

# Dr. Evangelos G. Tsimopoulos

Athens, Greece • vtsimopoulos@gmail.com • +6977710415

---

## Chemical Engineer

*Talented educator and committed researcher driven to inspire students to achieve personal and academic success. Adept in creative teaching strategies that fully engage students in the learning process. Deeply invested in achieving excellence through innovative contributions to the scientific community and an accomplishment-oriented approach to teaching.*

### — Key Qualifications —

- 20 years corporate experience
  - Q1 Journal publications
  - Research in Energy Markets
  - Conference presentations
  - Student mentoring / PhD supervision
  - Committed to cultivating student leadership
  - Assessment and evaluation
  - Service on faculty committees
- 

## Educational Background

### **Doctor of Philosophy in Engineering - 2020**

ARISTOTLE UNIVERSITY OF THESSALONIKI (AUTH), SCHOOL OF ENGINEERING, GREECE

Thesis: Optimization of Energy Markets with High Penetration of Renewable Energy Resources.

### **Master of Science in Flow Assurance for Oil and Gas Production - 2016**

CRANFIELD UNIVERSITY, UNITED KINGDOM

Thesis: Critical deposition velocity of air-water-sand flow in horizontal and inclined pipeline systems.  
Individual project: Flow Assurance Issues and Operation Risk Analysis in an Oil Ring Field, Modeling in PIPESIM and HYSYS.

Selected Courses: Risk and Reliability Engineering | Process Plant Operation | Multiphase Flow.

### **Master of Science in Applied Economics and Finance - 2014**

ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS, GREECE

Thesis: Portfolio Management and Optimization under Stochastic Dominance Efficiency.

Selected Courses: Statistical and Econometric Methods | Game Theory and Strategic Decisions | Corporate Finance | Portfolio Management | Derivatives and Risk Management | Financial Accounting.

### **Diploma in Chemical Engineering (5-year curriculum, equivalent to MEng) - 1993**

UNIVERSITY OF PATRAS, SCHOOL OF ENGINEERING, GREECE

Thesis: Kinetics and Crystallization of Asteroid Copolymers.

Selected Courses: Fluid Mechanics | Thermodynamics | Heat and Mass Transfer | Chemical Process.

## Professional Certifications

### **Teaching Science and Engineering - 2020**

Education and teacher training, Ecole Polytechnique Federale de Lausanne (EPFL)

### **Management of Environmental Security and Quality Systems Advanced EMS Auditing - 2005**

Institute of Environmental Management and Assessments (IEMA), Lincoln, United Kingdom

### **Production Management -2004**

Hellenic Management Association (EEDE), Athens, Greece

### **Total Quality Management - 2003**

Advanced Management Consultants (AMACON), Athens, Greece

## IT Skills

**Programming Languages:** Gams, MatLab, Fortran.

**Software:** OLGA, PIPESIM, Aspen HYSYS, EViews, STATA, MS Office, LaTeX.

---

## Professional Experience

**Aristotle University of Thessaloniki (AUTH), School of Engineering, Greece, 2017 to present**

**Postdoc Researcher, 2020 to present**

The research interests lie in the intersection of multiple fields including optimization, game theory, and energy systems. Research area: Strategic management of power generation portfolios | Integration of renewable energy systems (RES) and energy storage systems (ESS) in electricity pool markets | Coupling of electricity and gas sector | Power to gas (P2G) | Uncertainty and risk management | Optimization in operational planning problems.

Task and responsibilities: Generating clear and timely records of research, reviewing literature and analyze data, communicating ideas and results with members, supervising PhD students.

### Additional Research Experience

**Petrofac, in collaboration with Cranfield University, UK, 2016**

Investigation of sand transport in horizontal and inclined pipeline systems by developing multiphase dynamic models using OLGA.

**Industry, Research & Energy, in collaboration with Cranfield University, EU, 2016**

Computational Fluid Dynamics for Wet Gas Metering Project: Pressure drop across Venturi meter and prevention of uncertainties under different flow conditions.

### Corporate Sector Experience

**TSIMOPOULOS and SFETSIOS LTD - Construction Company, Greece, 2005 - 2015**

**Project manager:** Monitoring of the project cost, forecasting expenditures and financing needs, providing comment on the project studies, designs and specifications on unusual engineering issues, liaising with contracting authorities and other involved professionals during constructions.

**TSITSELAS S.A. – Construction Company, Greece, 2000 - 2005**

**Construction engineer:** Planning construction project, estimating cost, checking suppliers, meeting subcontractors, supervising technical staff.

**PYRAMIS METALOURGIA SA, Greece, 1997 – 2000**

Stainless steel full welded and smooth sink unit manufacturing.

**Production engineer:** Reconstruction and development of production lines, improvement of process procedures, production schedule planning, quality control, biological and chemical waste treatment.

**UNILEVER HELLAS S.A. Athens, Greece, 1996 - 1997**

Algida food production subsidiary.

**Production engineer:** Inventory and manufacturing equipment maintenance.

### Professional Memberships

American Institute of Chemical Engineers (**AICHE**)

Technical Chamber of Greece (**TEE - TCG**)

---

### Publications

#### Peer-Reviewed Journals

---

**Tsimopoulos, E. G., & Georgiadis, M. C. (2020).** Withholding strategies for a conventional and wind generation portfolio in a joint energy and reserve pool market: A gaming-based approach. *Computers & Chemical Engineering*, 134, 106692.

<http://dx.doi.org/10.1016/j.compchemeng.2019.106692>

JCR Impact Factor (2020): 4.000, JCR Quartile: Q1

**Tsimopoulos, E. G., & Georgiadis, M. C. (2019).** Optimal strategic offerings for a conventional producer in jointly cleared energy and balancing markets under high penetration of wind power production. *Applied Energy*, 244, 16-35.

<http://dx.doi.org/10.1016/j.apenergy.2019.03.161>

JCR Impact Factor (2020): 8.848, JCR Quartile: Q1

**Tsimopoulos, E. G., & Georgiadis, M. C. (2019).** Strategic offers in day-ahead market co-optimizing energy and reserve under high penetration of wind power production: An MPEC approach. *AIChE Journal*, 65(7), e16495.

<http://dx.doi.org/10.1002/aic.16495>

JCR Impact Factor (2020): 3.519, JCR Quartile: Q1

#### Upcoming Publications (2020-2021)

---

**Tsimopoulos, E. G., & Georgiadis, M. C.** Nash equilibria in electricity pool markets with large-scale of wind power integration: An EPEC approach. *Energy* [Journal under blind review].

#### Peer-Reviewed Conference Publications

---

**Tsimopoulos, E. G., & Georgiadis, M. C. (2019).** An MPEC model for Strategic Offers in a Jointly Cleared Energy and Reserve Market under Stochastic Production. In *Computer Aided Chemical Engineering* (Vol. 46, pp. 1633-1638). Elsevier.

<http://dx.doi.org/10.1016/B978-0-12-818634-3.50273-3>

#### Upcoming Peer-Reviewed Conference Publications

---

**Tsimopoulos, E. G., & Georgiadis, M. C. (2020).** Wind and Thermal Generation Portfolio: Optimal strategies in Energy-only Pool Markets under Wind Production Uncertainty. In *Computer Aided Chemical Engineering*. Elsevier, [in press].

**Tsimopoulos, E. G., & Georgiadis, M. C. (2021).** Equilibria in oligopolistic energy-only markets with large scale of intermittent generation. In *Computer Aided Chemical Engineering*. Elsevier, [ESCAPE-31, 6<sup>th</sup>–9<sup>th</sup> June 2021, Istanbul].

