

# CURRICULUM VITAE

## Vagelis G. Papadakis

Chemical Engineer, PhD  
Professor - University of Patras, Greece

- 2022 -

### PERSONAL

*Name* : Vagelis (Evangelos)  
*Surname* : Papadakis  
*Father Name* : George  
*Mother Name* : Garyfalia  
*Date of Birth* : January 5, 1964  
*Place of Birth* : Elika, Monemvassia, Laconia, Greece  
*Nationality* : Greek  
*Marital Status* : Married, 2 children  
*Home Address* : Arch. Makariou 14, GR-26441 Patras, Greece  
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<http://scholar.google.gr/citations?user=JwrvSEoAAAAJ&hl=el&oi=ao>

### EDUCATION – CAREER

*1975 - 1981* : Completion of a six-year high school program in the 1st High-school of Piraeus, Greece (grade: 18.6/20)  
*1981 - 1986* : Completion of a five-year program of study in the Department of Chemical Engineering, University of Patras-Greece  
*July 1986* : B.S. (Diploma) in Chemical Engineering (grade: 8.26/10)  
*November 1986* : Technical Chamber of Greece (TCG) permission for practice of Chemical Engineer's profession  
*1986 - 1990* : Graduate study towards Ph.D. degree in the Department of Chemical Engineering, University of Patras and in the Institute of Chemical Engineering and High Temperature Chemical Processes (ICE/HT), Patras, Greece  
*September 1990* : PhD degree in Chemical Engineering (grade: excellent)  
*1990 - 1992* : Fulfillment of two years military service requirement in the Hellenic Navy (Hellenic Naval Academy)  
*1992 - 1996* : Post-Doctoral Fellow - Researcher of ICE/HT

- 1994 - 1996 : Teaching Staff of the Department of Chemical Engineering, University of Patras
- 1997 - 1999 : Researcher of Danish Technological Institute (DTI)- Division of Building Technology, Concrete Centre- Denmark
- 1999 - 2000 : Head of Concrete Technology Laboratory, Division of Research & Quality, TITAN Cement Co. S.A., Elefsis, Greece
- 2000 - 2001 : Researcher of National Technical University of Athens, Department of Chemical Engineering, Athens, Greece
- 2001 - 2006 : Teaching Staff of University of Patras & University of Ioannina
- 2003 - 2007 : R&D Consultant & Research Fellow, Patras Science Park S.A.
- 4/2007 – 3/2016 : Associate Professor, Department of Environmental and Natural Resources Management, School of Engineering, University of Patras, Agrinio, Greece
- 3/2016 – 9/2022 : Professor in “*Physical and Chemical Environmental Processes, Durability and Sustainability of Constructions*”, Department of Environmental Engineering, School of Engineering, University of Patras, Greece – approved to move to the Department of Civil Engineering, School of Engineering, University of Patras, Greece.
- 9/2022 – today : **Professor, Department of Civil Engineering, School of Engineering, University of Patras, Greece.**

### AWARDS & DISTINCTIONS

- 1982 - 1985 : Greek State Scholarship for undergraduate studies
- 1986 : Technical Chamber of Greece’ Prize for distinction in undergraduate studies among all Greek Universities
- 1986 - 1990 : ICE/HT Fellowship for graduate studies
- 1993 : **International Prize (Wason Medal for Materials Research)** of American Concrete Institute (ACI) for the work: Papadakis, V.G., C.G. Vayenas, and M.N. Fardis, "Fundamental Modeling and Experimental Investigation of Concrete Carbonation", *ACI Materials Journal*, **88**(4), 363-373 (1991).  
Ref.: *Concrete International*, **15**(4), 15, April 1993.  
*TCG Bulletin*, **1768**, 77, July 12, 1993.
- 1997 - 1999 : **Marie Curie Research Training Grant**  
Quality of applicant: 38/40 (Average selected 34/40)
- 2000 - 2001 : **Marie Curie Return Grant**
- Prof. V.G. Papadakis is ranked among **Top 2% Scientists** Worldwide by Stanford University, USA

### PROFESSIONAL SOCIETIES

1. Technical Chamber of Greece - Member No. 48740 (1986)

2. Greek Association of Chemical Engineers (1086)
3. Greek Concrete Department, FIP-CEB-RILEM Member (1988)
4. American Concrete Institute (ACI) - Member No. 130682 (1993)
5. Marie Curie Fellowship Association (MCFA) – Member. Nr. 1836 (1997)
6. Industrial By-Products Research and Development Association (EVIPAR)
7. International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM) – Member. Nr. 7730 (2017)

## **LANGUAGES**

1. *Greek* - Mother Language
2. *English* - Very good; advanced study and practice during the Education
3. *French* - Good; private study

## **PARTICIPATION IN COMMITTEES, REVIEWS, BOARDS**

1. National Representative, 7<sup>th</sup> Framework Programme, European Committee, Specific programme CAPACITIES “Research for the benefit of SMEs”, 2006-2009.
2. Expert Evaluator of Research Programmes: *CIP-EIP ECO-INNOVATION of European Commission*, HORIZON EUROPE Cluster 5: Climate, Energy & Mobility, *Qatar National Research Fund (QNRF, and panel member for the programmatic evaluation)*, *FWO Belgium*, *Greek General Secretariat of Research & Technology*, etc. Coach of European Commission for SME Instrument – H2020.
3. Regional Innovation Pole of Western Greece, Coordinator & Member of BoD (2006-2009).
4. European Committee CEMBUREAU- Project Group 1.6: “European Concrete Standard EN 206” (TITAN Cement Co. representative, 1999-2000).
5. Greek Committee ELOT- TE 51: “Cement” (TITAN Cement Co. repress., 1999-2000).
6. Technical Committees of TCG; wording of specifications; TCG expert.
7. Organization committee of the 6th CANMET/ACI International Conference on Durability of Concrete, Thessaloniki, June 2003. International Scientific Committee member of the iconBM - International Conference on Bio Mass, Florence, Italy, 4-7 May, 2014. International Advisory Committee Member of the 2014 Int’l Conference on Advances in Concrete Construction (ICAC14), 24-29 August 2014, Busan, Korea. Member of the *Scientific Committee*: 18<sup>th</sup> Greek Conference for Concrete, TEE, Athens, 29-31/3/2018. Member of the *Scientific Committee* for the segment *Durability, Monitoring and Repair of Structures/ RILEM Spring Convention and International Conference on Sustainable Materials, Systems and Structures, SMSS2019*. Member of the *Scientific Committee* of the Workshop “CO<sub>2</sub> storage in concrete” - CO2STO-2019, June 2019, Marne la Vallée, France.
8. Reviewer of scientific papers of the international journals: *ACI Materials Journal*, *Applied Catalysis B: Environmental*, *Cement and Concrete Composites*, *Cement and Concrete Research*, *Chemical Engineering Science*, *Construction & Building Materials*, *IES Journal Part A: Civil & Structural*

*Engineering, Journal of Materials Science, Journal of Hazardous Materials, Materials & Structures, Computers & Concrete, Waste and Biomass Valorization, etc.*

9. Member of the Editorial Board of the International Scientific Journal "*Advances in Concrete Construction*".
10. Lead Guest Editor of the "*International Journal of Corrosion*" for the *Special Issue on Initiation Mechanisms, Propagation and Consequences of Concrete Reinforcement Corrosion*.
11. Member of RILEM TC 281-CCC - Carbonation of concrete with supplementary cementitious materials and of RILEM TC -GDP – Test methods of gas diffusion in porous media
12. Head of the Greek side in the Memorandum of Cooperation between the University of Patras and the Beijing University of Chemical Technology (BUCT).

### **PROFESSIONAL-RESEARCH-TEACHING EXPERIENCE**

- Summer 1984* : Practical exercise, Hellenic Refineries of Aspropyrgos
- 1984 - 1986* : Diploma Thesis work in the subject: "Theoretical and Experimental Investigation of Macroscopical Behavior of Deep Bed Filters".  
Construction of a pilot unit for experimental investigation of deep bed filtration process, applied at the water cleaning and waste water treatment. Mathematical simulation of the process and computer solution.  
Supervisor: Prof. A.C. Payatakes  
Dept. of Chemical Engineering, University of Patras
- 1986 - 1990* : Ph.D. Thesis work in the subject: "Investigation of Physicochemical Processes of Hardened Cement Paste Carbonation and of the Effects on the Reinforced Concrete Durability".  
Design and construction of experimental apparatuses for investigation of concrete carbonation and gas effective diffusivity measurement.  
Characterization of porous media. Experience in analytical laboratory apparatuses and methods. Mathematical models development of physicochemical processes of concrete carbonation and solution by computer.  
Recommendations for engineers.  
Supervisors: Professors:  
C.G. Vayenas, Dept. of Chemical Engineering, Univ. of Patras  
M.N. Fardis, Dept. of Civil Engineering, Univ. of Patras
- 1986 - present* : Supervision of Diplomatic works of students (about 60)  
of Chemical Engineering Dept., Univ. of Patras
- 1986 - 1990* : Teaching Assistant for the following courses in the Dept. of Chemical Engineering, Univ. of Patras:
1. "Introduction to Chemical Engineering"
  2. "Energy Subjects"
  3. "Chemical Engineering Practical Exercises"
- 1992 - 1996* : Post-doctoral research work in the subject: "Development of Improved Automotive Catalytic Converters".

Design and construction of an experimental apparatus for measurements of catalytic activity and durability of catalytic systems for car exhaust emissions conversion. Experience in a laboratory of catalysis, chemical processes and environmental engineering. Construction and testing of automotive catalytic converter. Study for industrial production.

Supervisors: Professors:

C.G. Vayenas, Dept. of Chemical Engineering, Univ. of Patras

X.E. Verykios, Dept. of Chemical Engineering, Univ. of Patras

- 1994 - 1996 : Autonomous Teaching of the course: "Chemical Industries" of the Dept. of Chemical Engineering, Univ. of Patras.
- 1995 - 1997 : Autonomous Teaching of the course: "Plant Design & Economics for Chemical Engineers" of the Dept. of Chemical Engineering, Univ. of Patras.
- 1997 - 1999 : Research & Training in DTI - Division of Building Technology - Concrete Centre (DK) in the following subjects:
- a. Development of high durability and performance concrete by using pozzolans and optimum material synthesis.
  - b. Prediction of the concrete properties from the knowledge (quality and quantity) of its composition materials.
  - c. Material assessment during construction of the fixed link across Øresund, connecting Denmark-Sweden, and solution of problems related to the bridge durability.
- Cooperation with Technical University of Denmark (DTU), Geological Survey of Denmark (GEUS) large constructive firms (Rambøll, Cowi).
- 1999 - 2000 : Head of Concrete Technology Laboratory, Division of Research & Quality, TITAN Cement Co. S.A., Elefsis, Greece  
Consultancy of Group TITAN clients. Development of quality assurance system according to EN 45001. Industrial research programs towards new application for cement and concrete quality improvement.
- 2000 - 2001 : Researcher of National Technical University of Athens, Department of Chemical Engineering, Athens, Greece  
Use of Greek supplementary cementing materials for sustainable building-sector growth, in cooperation with Prof. Stamatis Tsimas
- 2001 - 2006 : Teaching the course: "Conceptual Design of Chemical Processes", Department of Chemical Engineering, University of Patras.  
"Construction Materials", Department of Materials Science, Un. of Patras.  
"Environmental Economics", Department of Environment and Natural Resources, University of Ioannina
- 2003 - 2007 : R&D Consultant, Patras Science Park S.A.  
Consultancy for cement and concrete industry and constructive firms.  
Applications in recycling and exploitation of industrial wastes.  
Concrete technology, design and durability. Development, promotion and exploitation of Innovation.

- 2007 - 2022 : Professor (2016-9/2022) in *Physical and Chemical Environmental Processes, Durability and Sustainability of Constructions*, (Associate Professor, 2007-2015) Department of Environmental Engineering, School of Engineering, University of Patras, Agrinio:
- Teaching the undergraduate courses: “Construction Materials”, “Transport Phenomena”, “Unit Operations”, “Plant Design and Economics”, “Environmental Economics”, “Materials & Environment” and “Environmental Impact Issues”.
  - Teaching the post-graduate courses: “Environmental Impact Issues – Specific Environmental Studies – Planning & Implementation in Protected Areas” in MSc Programme “Sustainable Management of Protected Areas”.
  - Teaching the post-graduate courses: “Green Environmental Technologies” and “Management & Communication in Environmental Projects” in MSc Programme “Applications of Environmental Protection & Management”.
  - Supervisor of 2 Post-doctoral Works.
  - Supervisor of 8 PhD Theses (three were completed and presented successfully, 6/2014, 3/2017, 5/2021). Member of the supervising committee for more than 15 PhD Theses.
  - Supervisor of 15 MSc Theses.
  - Supervisor of more than 70 Diploma Works.
  - Member in various Committees of the Department: Professional rights for graduates, Organization of Post-graduate syllabus, Department's rename to Environmental Engineering, Events & Communication, etc., and of the University: Supply of IT equipment, etc. Vice-President of the Department, 2017-18.
- 9/2022 - today : Professor in *Physical and Chemical Environmental Processes, Durability and Sustainability of Constructions*, Department of Civil Engineering, Division of Structural Engineering, University of Patras, Greece.

### **SCIENTIFIC AREAS OF INTEREST**

1. *Cement, Concrete and Building Materials Technology*: Chemistry of cement and additives, concrete technology, concrete durability, environmental effect on buildings and constructions, protection and restoration of building materials and constructions, cement production industries and concrete production plants consultancy. Extended use of industrial by-products (fly ash, slags, biomass ashes, etc.) for a sustainable development of the building sector. Environmental cost and life cycle analysis. Software development and applications.
2. *Physicochemical Processes & Environment*: Mathematical modeling and experimental investigation of physical and chemical processes: Porous media characterization, drying, diffusion, reaction engineering, design and analysis of chemical reactors. Heterogeneous catalysis and environmental management: Catalyst preparation, catalytic reaction kinetics, car catalytic converters, catalyst rejuvenation and recycling, management of gas emissions, environmental

control and quality. Recycling & exploitation of by-products. Industrial ecology. Techno-economical analysis. Computer simulation.

3. *Development & Management of Innovation*: Development, promotion and exploitation of Innovation. Innovation and regional development. Creativeness and Innovation. Research on benefit of SMEs. Technology transfer. Enterprise incubators. Social enterprises and urban development. Industrial history and cultural - urban development. Techno-economical analysis and business plan. Creation and growth of clusters. Technology foresight.

## RESEARCH PROGRAMS

- Hellenic Secret. of Res. & Tech. PROPE progr.* : "Investigation of Physicochemical Processes of Hardened Cement Paste Carbonation and of the Effects on the Reinforced Concrete Durability"  
 Organization: University of Patras / Research Committee  
 Project leaders: Prof. M.N. Fardis, Prof. C.G. Vayenas  
 Position: Researcher  
*Start: 1/1987*  
*End: 6/1990*
- Hell. Ministry of Public Works GSPW/D1 progr.* : "Investigation of Physicochemical Parameters of Seawater and its Biological Pollution Potential on Underwater Construction in the Area of Rion-Antirion for the Bridge Project"  
 Organization: Civil Engineering Dept., University of Patras  
 Project leader: Prof. I. Antonopoulos  
 Position: Researcher  
*Start: 3/1991*  
*End: 8/1992*
- Commission of Europ. Commun. STRIDE progr.* : "Development of Automotive Exhaust Catalytic Converters"  
 Organizations: ICE/HT, CERECO S.A., University of Patras, Patras Scientific Park S.A.  
 Project leader: Prof. X.E. Verykios  
 Position: Researcher and Project Manager  
*Start: 1/1992*  
*End: 12/1993*
- Hellenic Secret. of Res. & Tech. PENED progr.* : "Durability of Reinforced Concrete: Environmental Effects and Protection"  
 Organisation: University of Patras / Research Committee  
 Project leader: Prof. C.G. Vayenas  
 Position: Researcher and Project Manager  
*Start: 1/1994*  
*End: 12/1995*
- Hellenic Secret. of Res. & Tech. EPET-II progr.* : "Optimization, Quality Control and Production of Automotive Exhaust Catalytic Converters"  
 Organizations: ICE/HT, AUT, Citroen- Hellas, CERECO, ELVO, Patras Scientific Park, Ideal Standard  
 Project leader: Prof. X.E. Verykios  
 Position: Researcher and Project Manager  
*Start: 1/1995*  
*End: 12/1997*
- EC DG XI LIFE progr.* : "Collection and Recycling of Spent Autocatalysts"  
 Organizations: TECHNODYNAMICS, INDELEC EUROPE, University of Patras, Automobile Import. Assoc.  
 Project leader: Dr. V.G. Papadakis  
 Position: Project Leader & Manager  
*Start: 12/1994*  
*End: 11/1997*
- EC DG XII TMR progr.* : "Development of High Durability and Performance Concrete by using Pozzolans and Optimum Material Synthesis"  
 Organization: Danish Technological Institute  
 Project leader: C. Munch-Petersen  
 Position: Researcher and Project Manager  
*Start: 2/1997*  
*End: 1/1999*

- EC* : “Use of Supplementary Cementing Materials for Sustainable  
*DG XII* Building-Sector Growth”  
*IHP-MCIF* Organization: National Technical University of Athens  
*Start: 5/2000* Project leader: Prof. S. Tsimas  
*End: 5/2001* Position: Researcher and Project Manager
- GROWTH* : “European Standard Tests to Prevent Alkali Reactions in Aggregates”  
*2001* Organizations: 25 Industries and Research Institutes across Europe  
*EC* Project Leader: P. Nixon (British Research Establishment)  
*DG XII* Start: 3/2002 End: 3/2006  
Position: Researcher (TITAN Cement Co.)
- PRAXE* : “Production and Exploitation of Structural Fly Ash”  
*2001* Organization: National Technical University of Athens  
*GSRT* Project leader: Prof. S. Tsimas  
*1<sup>st</sup> Phase* Start: 6/2002 End: 11/2003  
Position: Researcher and Project Manager
- CRAFT* : “A Cost-Effective System Development for Complete Exploitation  
*2002* of Olive-mill Wastewater”  
*EC* Organ.: ICEHT, Shielco, Hydro Air Research (I), Papaeconomou SA  
*DG XII* Scientific officer: Dr. C.A. Paraskeva  
*Coop. Resear.* Start: 1/2003 End: 12/2004  
Position: Researcher and Project Manager
- PRAXE* : “Software Development for Concrete Design and  
*2003* Prediction of Strength and Durability”  
*GSRT* Organization: Patras Science Park S.A.  
*1<sup>st</sup> Phase* Scientific officer: Dr. V.G. Papadakis  
Start: 9/2003 End: 2/2005  
Position: Researcher and Project Manager
- KETA* : “Follow-up of the Competitiveness - Sector and individual Benchmarking of  
*2006* innovative enterprises and enterprises of foods and drinks in the RWG”  
*YPAN* Partners: PSP, KETA  
Scientific officer: Dr. V.G. Papadakis  
Start: 5/2005 End: 12/2006  
Position: Project Manager
- EKT* : “Implement actions of the Hellenic Relay Centre for the Research and  
*2006* Innovations via the Patras Science Park”  
*IRC* Organization: PSP  
*Hellenic* Scientific officer: Dr. V.G. Papadakis  
Start: 3/2006 End: 3/2007  
Position: Researcher and Project Manager
- International* : «Investigation for development of high-added value materials  
*Cooperation* form rice husk ash (PYRICE)»  
*2006* Partners: AGRINO SA, NTUA, Univ. of Porto, Univ. of Dundee  
*GSRT* Scientific officer: Athanasia Kyritsi  
Start: 7/2006 End: 12/2007  
Position: Project Manager
- ARCHIMED* : «Human Resources and Development Planning on both sides of Ionian Sea -  
*2006* Partners: PSP SA, RWG, Region Ionian Islands, Agricultural Univ. Athens,  
*Interreg III B* University of Lecce, Town of Tricase, Munic. of Sanarica, S&T Park of Sicily  
*EU* Scientific officer: Prof. P. Groumos  
Start: 6/2006 End: 12/2007  
Position: Coordinator of Operational Committee for SMEs



*Regional Innovation Pole Western Greece* 2006  
 GSRT

«Regional Innovation Pole of Western Greece»  
 47 Partners (SMEs, Universities, Research Centres, etc.)  
 Coordinating Organization: PSP SA  
 Scientific officer: Prof. P. Groumpos  
 Start: 11/2006 End: 11/2008  
 Position: Project Manager

“Urban Nose – Network of Social Enterprises”, URBACT II ERDF EU, Coordinator: Municipality of Gela, 12 partners- EU Municipalities, Duration: 6/2008 – 6/2011, Position: Coordinator of Municipality of Agrinio.

“Techno-Economical Design and Pilot Production of Advanced and High-Added Value Materials from Rice Husk Ash (PYRICE II)”, CIP-EIP-Eco-Innovation-2008 EU, Coordinator: AGRINO EVGE Pistiolas SA, Duration: 7/2009 - 7/2012, Position: Manager & Scientific Responsible.

“Sustainable Innovation and Treatment in Industrial Waste Water Clusters (STinno)”, FP7-Regions-2009-1 EU, Partners: Lahti Science and Business Park, Päijät-Häme, (Finland) (Coordinator), Regional Council of Päijät-Häme (FI), Lahti University Consortium/ Lappeenranta University of Technology, Lahti University Consortium/ Helsinki University of Technology, Regional Council of Kalmar (Sweden), University of Kalmar or Linköping (Sweden), Sustainable Sweden South East (Sweden), Patras Science Park (Greece), Regional Council of Western Greece, Foundation of Research and Technology of Hellas / ICE-HT, Italy: International Association of Mediterranean Agro-Industrial Waste, United Kingdom: N8 Water Group/EnviroLink, Duration: 11/2009 - 11/2012, Position: Coordinator of the Greek side.

“Increasing the Regional Competitiveness and Economic Growth through the R&TD&I on Sustainable Water Management (SWAM)”, FP7-Regions-2009-1 EU, Partners: Directorate-General for Universities and Science Policy- Region of Murcia, Spain (Coordinator), University of Murcia (Spain), Technological Centre for Energy and Environment (Spain), Machinery Manufacturers Association - Region of Murcia (Spain), Eastern-Galilee Municipalities Association (Israel), Galilee Technology Centre (Israel), Galilee Metal Companies Association (Israel), Patras Science Park (Greece), Regional Council of Western Greece, FORTH / ICE-HT (Greece), ENBIO Ltd (Greece), Duration: 3/2010 - 6/2012, Position: Coordinator of the Greek side.

“Architecture of Totalitarian Regimes of the XX<sup>o</sup> Century in Urban Management (ATRIUM)”, South-East Europe SEE Transnational Cooperation Programme EU, Φορείς: Municipality of Forli/Italy (Coordinator), Province of Forli-Cesena/Italy, University of Ljubljana, Faculty of Architecture, Ljubljana/Slovenia, Municipality of Velenje/Slovenia, The National Institute of Immoveable Cultural Heritage, Sofia/Bulgaria, Municipality of Dimitrovgrad/Bulgaria, Szechenyi Istvan University, Gyor/Hungary, Local Government of Gyor with County Rank/Hungary, Institute of Construction and Architecture of the Slovak Academy of Sciences, Bratislava/Slovakia, Metropolitanate of Moldavia and Bukovina – Archdiocese of Iasi/Romania, Institute for Innovation & Sustainable Development AEIPILOUS, Patras/Greece, Cultural & Educational Technology Institute ATHENA - Research & Innovation Centre in Information, Communication and Knowledge Technologies, Xhanti/Greece, Town of Labin/Croatia, Fund of microregional tourism cluster Subotica-Palic/Serbia, Municipality of Tirana/Albania, Rotor – organization for development of tourism of region Doboj/Bosnia-Herzegovina, Ministry of Culture, Sofia/Bulgaria, Municipality of Rasa/Croatia. Duration: 1/2011 - 9/2013, Position: Coordinator of the Greek side.

“Development and Implementation of Decentralised Solar-Energy-Related Innovative Technologies for Public Buildings, in the Mediterranean Basin Countries (DIDSOLIT-PB)”, ENPI CBCMED, EU Programme, Partners: Autonomous University of Barcelona, Spain (Coordinator), Institute for Innovation & Sustainable Development- AEIPILOUS (Greece), Egyptian Association for Energy and Environment (Egypt), Al-Balqa' Applied University (Jordan), Alexandria University (Egypt), Mediterranean Agronomic Institute of Chania (Greece), Eco-System Europa SL (Spain). Duration: 12/2013 - 12/2015, Position: Coordinator of the Greek side.

“Collaborative Digitization of Natural and Cultural Heritage (CD-ETA)”, Interreg Europe, EU Programme, Φορείς: Euroregion PlevenOlt, Bulgaria (Coordinator), Harghita County Council (Romania), University of Patras (Greece), ASSOCIATION OF MUNICIPALITIES OF THE RIBERA ALTA REGION (Spain), FOUNDATION FOR RESEARCH AND INNOVATION (Italy), Regional Development Agency of Gorenjska (Slovenia), Foundation Saint Mary the Royal of Historic Heritage (Spain), Estonian War Museum General Laidoner Museum (Estonia). Duration: 4/2016 - 4/2021, Position: Coordinator of the Greek side.

“Integrated management and exploitation of multi-dispersed agricultural residues – application to energy production (SYNAGRON)”, *Greek-China bilateral R&D Cooperation*, GSRT. Partners: University of Patras – Dept of Environmental Engineering (Coordinator), University of Western Macedonia – Chemical Engineering Dept, SIRMET Tech SA, Beijing University of Chemical Technology – BUCT (China), Beijing United Pioneer Environmental Engineering Co. Ltd. (China), Nanjing Benran Environmental Technology Co. Ltd. (China), Khalifa University of Science and Technology (United Arab Emirates) Duration: 14/10/2019 – 13/10/2022, Position: Coordinator of the Greek side.

“Circular Innovation and Resilient City Labs in the Adrion Region (CIRCLE)”, INTERREG V-B Adriatic-Ionian ADRIAN Programme 2014-2020. Φορείς: Municipality of Forlì, Italy (Coordinator), Romagna Tech (Italy), School Center Velenje (Slovenia), RDA of Northern Primorska Ltd. Nova Gorica (Slovenia), Regional development agency Međimurje REDEA Ltd. (Croatia), Energo-data (Croatia), Anatoliki S.A Development Agency of Eastern Thessaloniki's Local Authorities (Greece), Institute for Innovation & Sustainable Development- AEIPOUS (Greece), Environmental Protection and Energy Efficiency Fund of the Republic of Srpska (Bosnia-Herzegovina), Municipality of Laktasi (Bosnia-Herzegovina), Faculty of Applied Ecology - Futura (Serbia), Regional Agency for Socio – Economic Development – Banat Ltd (Serbia), Municipality of Ulcinj (Montenegro), Municipality of Tirana (Albania). Duration: 1/2/2020 – 31/7/2022, Position: Regional Project Manager.

## RESEARCH PUBLICATIONS AND PRESENTATIONS

### A. Publications in International Journals

- A1. Papadakis, V.G., C.G. Vayenas, and M.N. Fardis, "A reaction engineering approach to the problem of concrete carbonation", *American Institute of Chemical Engineers Journal (AIChE J.)*, **35**(10), 1639-1650 (1989).
- A2. Papadakis, V.G., C.G. Vayenas, and M.N. Fardis, "Physical and chemical characteristics affecting the durability of concrete", *American Concrete Institute Materials Journal (ACI Mat. J.)*, **88**(2), 186-196 (1991).
- A3. Papadakis, V.G., C.G. Vayenas, and M.N. Fardis, "Experimental investigation and mathematical modeling of the concrete carbonation problem", *Chemical Engineering Science (Chem. Eng. Sci.)*, **46**(5/6), 1333-1338 (1991).
- A4. Papadakis, V.G., C.G. Vayenas, and M.N. Fardis, "Fundamental modeling and experimental investigation of concrete carbonation", *ACI Mat. J.*, **88**(4), 363-373 (1991).
- A5. Papadakis, V.G., M.N. Fardis, and C.G. Vayenas, "Hydration and carbonation of pozzolanic cements", *ACI Mat. J.*, **89**(2), 119-130 (1992).
  - See also: Discussion: *ACI Mat. J.*, **90**(1), 102-103 (1993).
- A6. Papadakis, V.G., M.N. Fardis, and C.G. Vayenas, "Effect of composition, environmental factors and cement-lime mortar coating on concrete carbonation", *Materials and Structures*, **25**, 293-304 (1992).

- A7. Angelidis, T.N., V.G. Papadakis, and E. Pavlidou, "Causes of deactivation and regeneration of an industrial Pt-NiO/Al<sub>2</sub>O<sub>3</sub> nitrogen oxides reduction catalyst", *Applied Catalysis B: Environmental*, **4**(4), 301-313 (1994).
- A8. Yentekakis, I.V., C.A. Pliangos, V.G. Papadakis, X.E. Verykios, and C.G. Vayenas, "Support and NEMCA induced promotional effects on the activity of automotive exhaust catalysts", *Studies in Surface Science and Catalysis*, **96**, 375-385, (1995).
- A9. Papadakis, V.G., M.N. Fardis, and C.G. Vayenas, "Physicochemical processes and mathematical modeling of concrete chlorination", *Chem. Eng. Sci.*, **51**(4), 505-513 (1996).
- A10. Papadakis, V.G., C.A. Pliangos, I.V. Yentekakis, X.E. Verykios, and C.G. Vayenas, "Development of high performance, Pd-based, three-way catalysts", *Catalysis Today*, **29**(1-4), 71-75 (1996).
- A11. Angelidis, T.N. and V.G. Papadakis, "Partial regeneration of an aged commercial automotive catalyst", *Applied Catalysis B: Environmental*, **12**(2/3), 193-206 (1997).
- A12. Pliangos, C.A., I.V. Yentekakis, V.G. Papadakis, C.G. Vayenas and X.E. Verykios, "Support-induced promotional effects on the activity of automotive exhaust catalysts: I. The case of oxidation of light hydrocarbons (C<sub>2</sub>H<sub>4</sub>)", *Applied Catalysis B: Environmental*, **14**(3/4), 161-173 (1997).
- A13. Angelidis, T.N., M.M. Koutlemani, S.A. Sklavounos, Ch.B. Lioutas, A. Voulgaropoulos, V.G. Papadakis, and H. Emons, "Causes of deactivation and an effort to regenerate a commercial spent three-way catalyst", *Studies in Surface Science and Catalysis*, **116**, 155-164 (1998).
- A14. Papadakis, V.G., "Experimental investigation and theoretical modeling of silica fume activity in concrete", *Cement and Concrete Research*, **29**(1), 79-86 (1999).
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- D21. Antiochos, S., V.G. Papadakis, K. Maganari, and S. Tsimas, "The Development of a Blended Supplementary Cementing Material Containing High and Low Calcium Fly Ashes", 11th International Congress on the Chemistry of Cement, Cape Town, South Africa, June 2003.
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- D25. Papadakis, V.G. and M.P. Efstathiou, "Field Validation of a Computer-Based Prediction for Concrete Service Life", 2<sup>nd</sup> International *fib* Congress, Naples, Italy, June 5-8, 2006.
- D26. Antonopoulos, C.N., V.G. Papadakis Ch.D. Stylios, M.P. Efstathiou, and P.P. Groumpos, "Benchmarking Analysis for Creativity Understanding and Fostering in Conventional and New Technology Firms", XXIV IASP Conference on Science and Technology Parks, "Creative Jobs and Creative Companies – Key Factors for Growth and Competitiveness", Barcelona – Spain, 2-4 July 2007.
- D27. Antonopoulos, C.N., V.G. Papadakis, and P.P. Groumpos, "STPs as location for FDI; learning from past investment incidents: semiconductors in Western Greece", XXV IASP Conference on Science and Technology Parks, Johannesburg, 14-17 September 2008.
- D28. Konstantakou, P.P. and V.G. Papadakis, "An Integrated Management and Exploitation of Agricultural Residues – Application to Olive Tree Lop", 18<sup>th</sup> European Biomass Conference and Exhibition – From Research to Industry and Markets, Lyon, 3-7 May 2010.
- D29. Konstantakou, P.P., S.A. Haroutounian, and V.G. Papadakis, "Multilateral Exploitation of Olive Tree Lop – Techno-economical Analysis for Leave Extracts, Compost and Energy Pellet Production", Linnaeus Eco-Tech'10, Kalmar, Sweden, 22-24 November 2010.
- D30. Paraskeva, C.A., E.C. Arvaniti, and V.G. Papadakis, "Fundamentals and Techno-economical Analysis of Exploitation of Olive Mill WasteWater to High-Added Value By-products", Linnaeus Eco-Tech'10, Kalmar, Sweden, 22-24 November 2010.

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- D32. Papadakis, V.G. and S. Demis, "Estimation and Validation of Concrete Strength and Service Life Using Software Packages based on Predictive Models", 12<sup>th</sup> Inter. Conf. on Durability of Building Materials and Components, Porto, Portugal, 12-15 April 2011.
- D33. Demis, S. and V.G. Papadakis, "Durability of Glass Fibre Reinforced Polymer (FRP) Materials in Concrete – Effect of Carbonation on Bond Strength", 12<sup>th</sup> Inter. Conf. on Durability of Building Materials and Components, Porto, Portugal, 12-15 April 2011.
- D34. Demis, S. and V.G. Papadakis, "A Balanced Approach between Sustainable and Durable Design of Reinforced-Concrete Structures - The Way towards Green Durability", *fib* Symposium on Concrete Engineering for Excellence and Efficiency, Prague, Czech Republic, 8-10 June 2011.
- D35. Antonopoulos, C.N. and V.G. Papadakis, "Science Park Operations on the Verge between Renewal and Stagnation. Is there a Green Way out?", XXVIII IASP Conference on Science and Technology Parks, Copenhagen, 19-22 June 2011.
- D36. Demis, S. and V.G. Papadakis, "A Comparative Assessment of the Effect of Cement Type on Concrete Durability", 13<sup>th</sup> International Congress on the Chemistry of Cement, Madrid, Spain, 3-8 July 2011.
- D37. Arvaniti, E.C., D.P. Zagklis, V.G. Papadakis, and C.A. Paraskeva, "New Techniques in Olive Mill WasteWater (OMW) Treatment", *IFOAM AgriBioMediterraneo Conference "Organic Agriculture and Agro-Eco tourism in the Mediterranean"*, Zakynthos, Greece, 16-18 September 2011.
- D38. Demis, S. and V.G. Papadakis, "A Balanced Approach between Sustainable and Durable Design of Reinforced Concrete Structures", *6<sup>th</sup> SDEWES - Conference on Sustainable Development of Energy, Water and Environment Systems*, Dubrovnik, Croatia, 25-29 September 2011.
- D39. Papadakis, V.G., "The WaterTech Cluster of Western Greece and its recent achievements through SWAM & STinno FP7-RoK projects", 9<sup>th</sup> International Hydrogeological Congress, Kalavryta, 5-8 October 2011.
- D40. Zagklis, D.P., E.C. Arvaniti, V.G. Papadakis, and C.A. Paraskeva, "Implementation of membrane filtration in the treatment of Olive Mill Wastewaters and a techno economical study", *BioNexGen Workshop "Development of the Next Generation membrane Bioreactor system - Membrane based Wastewater Treatment and Reuse"*, Sfax Tunisia, 8-9 March 2012.
- D41. Demis, S., M.P. Efstathiou, and V.G. Papadakis, "Development of a Software Package based on Proven Predictive Models for the Estimation of Concrete Service Life", 1<sup>st</sup> International Congress on Durability of Concrete, Trondheim, Norway, 17-21 June 2012.
- D42. Papadakis, V.G., "Service Life Prediction of a Reinforced Concrete Bridge under Chloride Induced Deterioration – Failure Scenarios and Protective Measures", 1<sup>st</sup> International Congress on Durability of Concrete, Trondheim, Norway, 17-21 June 2012.
- D43. Charisiou, N.D., P.P. Konstantakou, M.A. Goula, and V.G. Papadakis, "Estimation of Nitrogen and Carbon Loss during Composting Process of Olive Tree Lops and Contribution to Greenhouse Effect", *20th European Biomass Conference & Exhibition - Setting the course for a biobased economy*, Milan, Italy, 18-22 June 2012.
- D44. Charisiou, N.D., O. Bereketidou, V.G. Papadakis, and M.A. Goula, "Environmental Impacts of Biogas Utilization Pathways", *20th European Biomass Conference & Exhibition - Setting the course for a biobased economy*, Milan, Italy, 18-22 June 2012.
- D45. Tapali, J.G., S. Demis and V.G. Papadakis, "Use of new industrial by-products and mixtures for reducing the environmental cost of constructions", *EUROCOALASH 2012 Conference*, Thessaloniki, Greece, September 25-27, 2012.
- D46. Tapali, J. and V.G. Papadakis, "An optimum design of reinforced concrete structures for prolongation of service life time at the lowest environmental cost", *3<sup>rd</sup> International Symposium on Life-Cycle Civil Engineering (IALCCE 2012)*, Vienna, Austria, 3-6 October, 2012.

- D47. Paraskeva, C.A., D.P. Zagklis, E.C. Arvaniti, and V.G. Papadakis, "Olive Mill Wastewater treatment methods: Sustainability and benchmarking", *Prosodol Symposium on "Olive Mills Wastes and Environmental Protection"*, Chania, Greece, 16-18 October 2012.
- D48. Charisiou, N.D., V.G. Papadakis and, M.A. Goula, "Life cycle assessment of biogas catalytic and electro-catalytic processes utilization", 3<sup>rd</sup> International Workshop of COST Action CM0903 "UBIOCHEM-III: Sustainable production of fuels/energy, materials & chemicals from biomass" Thessaloniki, Greece, 1-3 November 2012.
- D49. M.A. Goula, and V.G. Papadakis, "Sustainability assessment of agricultural waste biomass exploitation", *4th International Symposium on Energy from Biomass and Waste*, Venice, Italy, 12-15 November 2012.
- D50. Charisiou, N.D., V.G. Papadakis, and M.A. Goula, "Biodegradable agricultural waste biomass utilization", *Bio4SuD International Conference "Biofuels for Sustainable Development of Southern Europe"*, Thessaloniki, Greece, 19-20 November 2012.
- D51. Soutzoukis, D. and V.G. Papadakis, "Experimental investigation of production of high quality compost from agricultural residues", *21st European Biomass Conference & Exhibition - Setting the course for a biobased economy*, Copenhagen, Denmark, 3-6 June 2013.
- D52. Binas, V., V.G. Papadakis, and G. Kiriakidis, "Eco-innovative photocatalytic materials activated under visible light illumination for applications in concrete", *Concrete Innovation Conference CIC 2014*, Oslo, Norway, 11-13 June 2014.
- D53. Charisiou, N.D., M.A. Goula and V.G. Papadakis, "Composting process of olive tree prunings: Assessment of nitrogen and carbon losses", *2<sup>nd</sup> International Conference on Sustainable Solid Waste Management*, Athens, Greece, 12-14 June, 2014.
- D54. Tapali, J., S. Demis and V.G. Papadakis, "Plant design & economics for rice husk ash exploitation as pozzolanic material", *SYMBIOSIS Conference*, Athens, Greece, 19-21 June, 2014.
- D55. Soutzoukis, D. and V.G. Papadakis, "Experimental investigation of production of high quality compost from agricultural residues", *5th International Conference on Engineering for Waste and Biomass Valorisation*, Rio de Janeiro, Brazil, 25-28 August 2014.
- D56. Ferreira, M. and V.G. Papadakis, "Considerations on the modelling of chloride transport – The influence of carbonation and frost attack", *13<sup>th</sup> Inter. Conf. on Durability of Building Materials and Components*, Sao Paulo, Brazil, 2-5 September 2014.
- D57. Demis, S., C.S. Rodrigues, L.A. Santos, and V.G. Papadakis, "An Investigation of the Effectiveness and Durability Characteristics of Biomass Ashes as Pozzolanic Materials", *13<sup>th</sup> Inter. Conf. on Durability of Building Materials and Components*, Sao Paulo, Brazil, 2-5 September 2014.
- D58. Tapali, J. and V.G. Papadakis, "Exploitation of rice husk ash as a pozzolanic material for the construction industry", *4<sup>th</sup> International Conference on Industrial and Hazardous Waste Management (Crete 2014)*, Chania, Greece, 2-5 September 2014.
- D59. Kontos, S.S, P.G. Koutsoukos, V.G. Papadakis, K.C. Angelopoulos and C.A Paraskeva, "Application of physicochemical techniques for the efficient treatment of olive mill wastewaters", *7th International Conference on Water Resources in the Mediterranean Basin: WATMED 7*, Marrakesh, Morocco, 10-12 October 2014.
- D60. Charisiou, N.D., V.G. Papadakis and M.A. Goula, "Syngas production from biogas reforming over La-promoted Ni/Al<sub>2</sub>O<sub>3</sub> catalyst", *3<sup>rd</sup> International Conference on Sustainable Solid Waste Management*, Tinos, Greece, 2-4 July 2015.
- D61. Charisiou, N.D., C.A. Paraskeva, M.A. Goula and V.G. Papadakis, "Sustainability Analyses for the Exploitation of Olive Tree Cultivation Residues", *International Conference on Industrial Waste & Wastewater Treatment & Valorisation*, Athens, Greece, 21-23 May 2015.
- D62. Charisiou, N.D., A. Baklavaridis, V.G. Papadakis and M.A. Goula, "Synthesis gas production via the biogas reforming reaction over Ni/MgO-Al<sub>2</sub>O<sub>3</sub> and Ni/CaO-Al<sub>2</sub>O<sub>3</sub> catalysts", *International Conference on Industrial Waste & Wastewater Treatment & Valorisation*, Athens, Greece, 21-23 May 2015.

- D63. Charisiou, N.D., V.G. Papadakis and M.A. Goula, "Syngas production from biogas reforming over La-promoted Ni/Al<sub>2</sub>O<sub>3</sub> catalyst", *3<sup>rd</sup> International Conference on Sustainable Solid Waste Management*, Tinos, Greece, 2-4 July 2015.
- D64. Demis, S. and V.G. Papadakis, "Durability design of reinforced concrete structures – Service life estimation", *6<sup>th</sup> International Conference on Concrete Repair: Concrete Solutions 2016*, Thessaloniki, Greece, 20-22 June 2016.
- D65. Arvaniti, E.N., C.D. Stylios and V.G. Papadakis, "Open social innovation – Challenges and opportunities for Greece", *International Conference for Entrepreneurship, Innovation and Regional Development*, Thessaloniki, Greece, 31/8-1/9 2017.
- D66. Arvaniti, E.N., C.D. Stylios and V.G. Papadakis, "The challenge of introducing Open Social Innovation for urban sustainable growth", International Geographical Union, Commission on Geography of Governance, International Annual Conference, "Local Governance in the New Urban Agenda", Lecce, Italy, 19-21 October 2017.
- D67. Siakavelas, G.I., N.D. Charisiou, V.G. Papadakis, K. Polychronopoulou and M.A. Goula, "Innovative valorization of biogas for the production of renewable ethylene via oxidative coupling of CH<sub>4</sub> and CO<sub>2</sub> hydrogenation", *International Conference on Advanced Energy Materials*, Surrey, England, 10-12 September 2018.
- D68. Demis, S. and V.G. Papadakis, "Design for durability of reinforced concrete structures under the hot desert climate of the Arabian Peninsula", RILEM Spring Convention and Sustainable Materials, Systems and Structures Conference, Rovinj, Croatia, 18-22 March 2019.
- D69. Stratoura, M., E. Badogiannis, K.K. Sideris and V.G. Papadakis, "Development of durable and structural lightweight concrete", RILEM Spring Convention and Sustainable Materials, Systems and Structures Conference, Rovinj, Croatia, 18-22 March 2019.
- D70. Katrivesis, F.K., V. Sygouni, C.A. Paraskeva, V.G. Papadakis, "Use of membranes for the water treatment – Performance and perspectives", 5<sup>th</sup> distance education e-learning, International Summer School and Workshop on "Wastewater and Biosolids Management" (WWSS19), Patras, Greece, 22-27 July 2019.
- D71. Goula M.A., N.D. Charisiou, S.L. Douvartzides, G.I. Siakavelas, V.G. Papadakis, W. Wang, G. Liu, "Integrated management and exploitation of multi-dispersed agricultural residues – application to energy production", 7<sup>th</sup> International Conference of Biorefinery, Johannesburg, South Africa, 18-21 August 2019.
- D72. Siakavelas, G.I., N.D. Charisiou, V.G. Papadakis, K. Polychronopoulou, M.A. Goula, "Highly selective nickel catalysts for CO<sub>2</sub> methanation reaction based on ceria promoted with Sm<sub>2</sub>O<sub>3</sub>, Pr<sub>2</sub>O<sub>3</sub> and MgO", Conference Advanced Energy Materials", Guildford, England, 11-13 September, 2019.
- D73. Charisiou, N.D., G.I. Siakavelas, V. Sebastian, S. Hinder, M. Baker, V.G. Papadakis, W. Wang, K. Polychronopoulou, M.A. Goula, "Structural investigation of the carbon deposits on Ni/Al<sub>2</sub>O<sub>3</sub> catalyst modified by CaO-MgO for the biogas dry reforming reaction", 1<sup>st</sup> International Electronic Conference of Catalysis Sciences – Section: Catalysis for biomass conversion, 10-30 November 2019.
- D74. Papachristopoulos, E.A., V.G. Papadakis, "Using innovation as a way to create value, jobs, and promote environmental goals: A plan to introduce a new market concerning traditional olive oil production", Conference on Regional Entrepreneurship and Innovation, Patras, Greece, 3 September 2020.
- D75. Charisiou N.D., G.I. Siakavelas, V. Sebastian, S.J. Hinder, M.A. Baker, V.G. Papadakis, W. Wang, K. Polychronopoulou, M.A. Goula, "Structural investigation of the carbon deposits on Ni/Al<sub>2</sub>O<sub>3</sub> catalyst modified by CaO-MgO for the biogas dry reforming reaction", 1<sup>st</sup> International Electronic Conference on Catalysis Sciences, 10-30 November 2020.
- D76. Charisiou N.D., G.I. Siakavelas, S. Douvartzides, W. Wang, G. Liu, V.G. Papadakis, K. Polychronopoulou, M.A. Goula, "Syngas production via the biogas steam reforming reaction over a commercial Ni/MgAl<sub>2</sub>O<sub>4</sub> catalyst", 24<sup>th</sup> International Congress of Chemical and Process Engineering, 15-18 March 2021.

- D77. Katsoulis, C., V.G. Papadakis, F.A. Coutelieris, "Optimization of olive oil production plants: The case of Tryfilia, Greece", ICFPIM 2021: 15. International Conference on Food Processing Industries and Management, Athens, Greece, 8-9 April 2021.
- D78. Aravani, V.P., M. Kornaros, V.G. Papadakis, "Agricultural residues in Greece: quantitative and qualitative characterization for assessing the most promising materials for biogas production", 29<sup>th</sup> European Biomass Conference and Exhibition EUBCE 2021, Marseille, 26-29 April 2021.
- D79. Charisiou, N.D., G.I. Siakavelas, S. Douvartzides, W. Wang, V.G. Papadakis, K. Polychronopoulou, M.A. Goula, "Biogas dry reforming reaction over Ni/Al<sub>2</sub>O<sub>3</sub>, Ni/CaO-MgO-Al<sub>2</sub>O<sub>3</sub> and Ni/La<sub>2</sub>O<sub>3</sub>-Al<sub>2</sub>O<sub>3</sub>: Investigation of carbon deposition and catalyst deactivation", 29<sup>th</sup> European Biomass Conference and Exhibition EUBCE 2021, Marseille, 26-29 April 2021.
- D80. Douvartzides, S., N.D. Charisiou, W. Wang, V.G. Papadakis, M.A. Goula, "Processing of biomass derived bio-oils for large-scale Fischer - Tropsch synthesis of transportation biofuels", 29<sup>th</sup> European Biomass Conference and Exhibition EUBCE 2021, Marseille, 26-29 April 2021.
- D81. Aravani, V.P., K. Tsigkou, M. Kornaros, V.G. Papadakis, "Laboratory analyses for assessing the potential for biogas production of various agricultural residues of Greece", International Conference on Biosystems Engineering BSE 2021, Tartu, Estonia, 5-7 May 2021.
- D82. Aravani, V.P., K. Tsigkou, M. Kornaros, V.G. Papadakis, "Biochemical methane potential of various promising agricultural residues in Southern and Northern Greece", 8<sup>th</sup> International Conference on Sustainable Solid Waste Management, Thessaloniki, Greece, 23-26 June 2021.
- D83. Konstantopoulos, G., C.A. Apostolopoulos, V.G. Papadakis, "The influence of concrete cracks on the chloride penetration and corrosion damage of RC elements in the short term", 6<sup>th</sup> International Virtual Conference of Engineering Against Failure (ICEAF VI), 23-25 June 2021.
- D84. Katrivesis, F.K., V. Sygouni, V.G. Papadakis, C.A. Paraskeva, "Utilization of water treatment residual sludge for the improvement of barren soil", 6<sup>th</sup> distance education e-learning, International Summer School on "Wastewater and Biosolids Management" (WWSS21), Patras, Greece, 26-31 July 2021.
- D85. Papadakis, V.G., "Contribution of supplementary cementing materials on CO<sub>2</sub> sequestration in concrete structures", *EUROCOALASH 2021 Conference*, Thessaloniki, Greece, November 2-4, 2021.
- D86. Stratoura, M., E.G. Badogiannis, V.G. Papadakis, "Role of supplementary cementing materials on the development of durable and structural lightweight concrete", *EUROCOALASH 2021 Conference*, Thessaloniki, Greece, November 2-4, 2021.
- D87. Aravani, V.P., K. Tsigkou, M. Kornaros, V.G. Papadakis, "Anaerobic co-digestion of agricultural residues produced in Southern Greece during spring/summer season", 9<sup>th</sup> International Conference on Sustainable Solid Waste Management, Corfu, Greece, 15-18 June 2022.
- D88. Aravani, V.P., K. Tsigkou, M. Kornaros, V.G. Papadakis, "Anaerobic co-digestion of agricultural residues produced in Southern and Northern Greece", 9<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation, WasteEng2022, Copenhagen, 27-30 June 2022.

## **E. Presentations in Panhellenic Conferences with Reviewers (in Greek)**

66 presentations

## **F. Invited speaker (selections among 82)**

1. "Mathematical Modeling and Experimental Investigation of Concrete Carbonation", XXth Scientific Conference of the Youth Researchers, Higher Institute of Chemical Technology, Sofia, Bulgaria, 9-5-1989.

2. "Development of High Durability and Performance Concrete by using Pozzolans and Optimum Material Synthesis" and "The State of the Cement and Concrete in Greece: Production & Research", Danish Technological Institute (DTI), Division of Building Technology, Taastrup, Denmark, 28-2-1997.
3. "Experimental Investigation and Theoretical Modeling of Pozzolanic Activity in Concrete", DTI, Division of Building Technology, Taastrup, Denmark, 26-5-1998.
4. "Utilization of Lignite Fly Ash in Construction", RWE Energie Aktiengesellschaft, Essen, Germany, 16-12-1998.
5. "Supplementary Cementing Materials in Concrete", Danish Technological Institute, Division of Building Technology, Taastrup, Denmark, 10-2-1999.
6. "The PANEEA project: A cost-effective system development for complete exploitation of olive mill wastewater", Institute of Water Research, University of Granada, Granada, Spain, 10-12-2004.
7. «Technology Transfer & Innovation Management», FP6 CODESNET meeting, Shannon Development, University of Limerick, Ireland 8-3-2007.
8. «Μικρομεσαίες Επιχειρήσεις – Ανάπτυξη μέσω Έρευνας & Καινοτομίας», Ημερίδα «Έρευνα προς Όφελος των Μικρομεσαίων Επιχειρήσεων στο 7<sup>ο</sup> Πρόγραμμα Πλαίσιο Έρευνας και Τεχνολογικής Ανάπτυξης στην ΕΕ», EOMMEX, Αθήνα 21-6-2007.
9. «SMEs sector in Western Greece, Epirus, Puglia and Sicily», HUREDEPIS project meeting, Science & Technology Park of Sicily, Catania, Italy 16-11-2007.
10. «WaterTech Cluster of Western Greece – Regional Innovation Pole of Western Greece», 1<sup>st</sup> STinno project meeting, Marrakesh, Morocco, 12-1-2010.
11. «WaterTech Cluster of Western Greece – Regional Innovation Pole of Western Greece», 1<sup>st</sup> SWAM project meeting, Murcia, Spain, 11-3-2010.
12. «Tools and methods system for the provision of social economy services», 3<sup>rd</sup> Transnational Meeting of the project *URBAN N.O.S.E. - Network of Social Enterprises*, URBACT II, Koropi, Athens, 15-4-2010.
13. «The research-driven WaterTech cluster of Western Greece», 2<sup>nd</sup> SWAM project meeting, Patras, 7-7-2010.
14. «Animating and sensitising the territory upon Social Economy», 4<sup>th</sup> Transnational Meeting of the project *URBAN N.O.S.E. - Network of Social Enterprises*, URBACT II, Grenoble, France, 10-9-2010.
15. «Encouraging entrepreneurs & education on water technology – Western Greece», 3<sup>rd</sup> SWAM project meeting, Kiryat-Shmona, Galilee, Israel, 18-1-2011.
16. «Water technologies & water clusters challenges - Case-studies in Western Greece», 3<sup>rd</sup> SWAM project meeting, Kiryat-Shmona, Galilee, Israel, 18-1-2011.
17. «Competitiveness and research analysis of WaterTech research-driven clusters», 4<sup>th</sup> SWAM project meeting, Patras, 30-5-2011.
18. «International overview of cluster policies», 3<sup>rd</sup> STinno project meeting, Lahti, Finland 16-7-2011.
19. «Architecture of Totalitarian Regimes of the XX Century in Urban Management – Cases of the Region of Western Greece», ATRIUM Transnational Meeting, Iasi, Romania, 15-11-2011.
20. «Policies for the support of regional research-driven clusters – Impacts & Conclusions», 4<sup>th</sup> STinno project meeting, Terni, Italy 13-12-2011.
21. «High-added value materials production from Olive Mill Wastewater – A technical and economical optimization», Horizon 2020 Capacity Building/Mediterranean Environment Programme, "Best environmental practices in olive mill waste management and new technologies", Regional training: 19-21 March 2012, Athens.
22. «Presentation of project PYRICE II - Techno-Economical Design and Pilot Production of Advanced and High-Added Value Materials from Rice Husk Ash», Eco-Innovation Sustainable Concrete Workshop, European Commission, 3 May 2012, Brussels.

23. «PYRICE II project: Overall review, results and achievements», PYRICE II – Final Review, Agrino Plant, 6-6-2012, Sindos, Thessaloniki.
24. Special Guest Speaker in Scientific Coffee, «Ideas and perspectives for research cooperation in the future», Technical Research Center of Finland - VTT, 9 November 2012, Otaniemi/ Espoo, Finland.
25. Special Guest Speaker in Lecture, «A balanced approach between sustainable and durable design of reinforced-concrete structures - The way towards green durability», Aalto University, 9 November 2012, Otaniemi/ Espoo, Finland.
26. «Balanced approach between sustainable and durable design of buildings», INNOVA NET - winter school, University of Patras, 31 March 2014, Patras.
27. «A cost-effective system development for complete exploitation of olive mill wastewater» & «Techno-Economical Design and Pilot Production of Advanced and High-Added Value Materials from Rice Husk Ash», The Belt & Road Visiting Scholar Program, Beijing University of Chemical Technology, 5 June 2018, Beijing, China.
28. **Special Guest Speaker in Lecture, «A balanced approach between sustainable and durable design of reinforced concrete structures - The way towards Green Durability», University of New South Wales (UNSW), School of Civil & Environmental Engineering, 11 July 2019, Sydney, Australia.**
29. «Integrated management and exploitation of multi-dispersed agricultural residues – application to energy production», Regional Growth Conference 2021, Summer Workshop, Organization Newspaper PELOPONNESE, Patras, 5/6/2021.
30. «Resilience to Climate Change, Natural Hazards and Pandemic Risks – Biosafety», Speech at Panel 2, 2nd International Scientific Conference TMM\_CH “Transdisciplinary Multispectral Modelling and Cooperation for the preservation of Cultural Heritage – Rebranding the World in Crisis through Culture”, Athens, 13/12/2021.

## G. Selected Reports, Theses, and Books (among 71)

1. Papadakis, V.G. and C.A. Paraskeva, "Theoretical and Experimental Investigation of Macroscopical Behavior of Deep Bed Filters", *Diploma Thesis*, Chemical Engineering Dept., University of Patras, p. 156, Patras 1986.
2. Papadakis, V.G., "Investigation of Physicochemical Processes of Hardened Cement Paste Carbonation and of the Effects on the Reinforced Concrete Durability", *Ph.D. Thesis*, Chemical Engineering Dept., University of Patras, p. 240, Patras 1990.
3. Papadakis, V.G., "Aspects of Fly Ashes and their Utilization in the Constructions", *Report* to Public Power Corporation and to Association of Civil Engineers of Greece, p. 38, Patras 1992.
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