CURRICULUM VITAE

GEORGE N. PONTIKAKIS

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EDUCATION

1993-1998: Aristotle University of Thessaloniki (AUTh).
Diploma of Mechanical Engineering. Grade: 8/10.

1999—2003: University of Thessaly (UTh)

PhD in Mechanical Engineering. Grade: 10/10.

AREAS OF INTEREST

- Automotive exhaust gas aftertreatment modeling for SI and Diesel Engines (Three-way catalytic converters, Diesel oxidation catalysts, foam particulate filters, diesel particulate traps)

- Computer Aided Engineering for automotive exhaust aftertreatment systems

- Optimization techniques

- HVAC engineering.

- Software development.

PUBLICATIONS

- Diploma Thesis: Dynamic model for the efficiency of foam-type particulate filters (Grade: 10/10).

- A. M. Stamatelos, G. C. Koltsakis, I.P. Kandylas and G. N. Pontikakis: Computer Aided Engineering in the Development of Diesel Exhaust Aftertreatment Systems. *SAEpaper 1999-01-0458,* 1999.

- A. M. Stamatelos, G. C. Koltsakis, I.P. Kandylas and G. N. Pontikakis: Computer Aided Engineering in Diesel Exhaust Aftertreatment Systems Design. *ImechE,* Vol. 213, Part D, 1999.

- G. N. Pontikakis, G. C. Koltsakis, A. M. Stamatelos, R. Noirot, Y. Agliany, H. Colas, P. Versaevel: Experimental and Modeling Study on Zeolite Catalysts for Diesel Engines. *CAPOC V, Fifth International Congress on Catalysis and Automotive Pollution Control,* Brussels, April 2000.

- G. N. Pontikakis, G. C. Koltsakis and A. M. Stamatelos: A Mathematical Model for the Dynamic Particulate Filtration in Diesel Foam Filters. *Particulate Science and Technology: An International Journal,* Vol. 17, Issue 3.

- Pontikakis, G. N., Koltsakis, G.C. and A. M. Stamatelos: Dynamic Filtration Modeling in Foam Filters for Diesel Exhaust. *Chem. Eng. Comm. 188: 21-46, 2001*

- Pontikakis, G, Papadimitriou, C. and A. Stamatelos: Kinetic Parameter Estimation by Standard Optimization Methods in Catalytic Converter Modeling. Chem. Eng. Comm. 191 (11) 2004, 1473-1501.

■ Pontikakis, G.N. and A.M. Stamatelos: Mathematical Modeling of Catalytic Exhaust Systems for EURO-3 and EURO-4 Emissions Standards. Proc. Inst. Mech. Engrs., Part D, Journal of Automobile Engineering, Vol 215, 2001, 1005-1015

■ Pontikakis, G. Stamatelos A. Bakasis K. Aravas N.: 3-D Catalytic Regeneration and Stress Modeling of Diesel Particulate Filters by ABAQUS FEM Software. SAE 2002 Transactions, Vol.111–4, Journal of Fuels & Lubricants, 458-470. (SAE paper 2002-01-1017).

■ Pontikakis, G.N., Konstantas, G.S. and A.M. Stamatelos: Three-Way Catalytic Converter Modelling as a Modern Engineering Design Tool. ASME Transactions, J Eng for Gas Turbines and Power, Vol. 126, Issue 4, October 2004, 906-923

■ Pontikakis, G.N. and A.M. Stamatelos: Identification of Catalytic Converter Kinetic Model Using a Genetic Algorithm Approach. Proc Instn Mech Engs Vol. 218 Part D: J Automobile Engineering (2004) 1455-1472.

■ Stratakis, G.A., Pontikakis, G.N. and A.M. Stamatelos: Experimental Validation of a Fuel Additive Assisted Regeneration Model in SiC Diesel Filters. Proc Instn Mech Engrs Vol. 218 Part D: J Automobile Engineering (2004) 729-744

■ Pontikakis, G.N. and A.M. Stamatelos: 3D Catalytic Regeneration Modeling of SiC Diesel Particulate Filters. ASME Transactions, J Eng for Gas Turbines and Power, Vol.128, Issue 2, April 2006, 421-433

PROFESSIONAL EXPERIENCE

1997—2000:   Research engineer in the Laboratory of Applied Thermodynamics—Mechanical Engineering Department, AUTh.

2000—2003:   Research engineer in the Laboratory of Thermodynamics and Thermal Engines—Mechanical and Industrial Engineering Department, UTh.

2003—today: R&D Manager, EXTHERM S.A.

PARTICIPATION IN RESEARCH PROGRAMMES

■ Research engineer in the EC project: Catalytic trap for Diesel Particulate control (CATATRAP), on behalf of the Laboratory of Applied Thermodynamics (AUTh).

■ Research engineer in the research project: Development of computational tools for exhaust after-treatment systems design optimization, on behalf of the Laboratory of Thermodynamics and Thermal Engines (UTh).
Funding: PSA Peugeot Citroen.

MISCELLANEOUS

■ Languages: English (Cambridge Proficiency, Grade A),

   German (Mittelstuffe, befriedigend)

■ Computer Programming: FORTRAN—77/90, UNIX shell programming, C++, Lisp

■ Operating Systems: UNIX (IBM AIX, Linux)
                       WINDOWS XP/7

■ Software Development: Dynamic model for the heat transfer, filtration efficiency, loading and regeneration of foam-type particulate filters