

Curriculum Vitae

Name: **Michael Gr. Vrachopoulos**
Address: Nirvana 29, Athens Hellas
Tel. 8324020 - 094 636152 - 2896837
Fax. 2823243 -email: afrodit@central.ntua.gr

Studies - Descent:

I was born in Lesvos in 1958 and in 1968 I went to Athens where I finished high school. In October 1976 I successfully passed my exams for the specialty of engineering at Technical and Vocational Teacher Training Institute (S.E.L.E.T.E.) and I graduate in July 1981.

Since November 1981 till July 1990 I was studying in the engineering course of National Technical University of Athens in Mechanical Engineering Department and I obtained my diploma with "6.75".

In the meantime I'd joined the Army and I finished my military service in August 1987.

In July 1991 the Sector of Mechanical Engineering Department of National Technical University of Athens accepted my application for taking the position of a candidate doctor in the field of Applied Thermodynamics with the title: "Phenomena of non-permanent heat fluid in buildings"

Previous professional experience:

In July 1973 I was working as an auto-mechanic till 1974.

In 1975 till 1981 I was working as a mechanic of air-conditioning units. Since 1981 I have been keeping an office of Engineering designs and constructions.

Teaching Experience:

I was teaching in Technical Lycea for seven years (1981-88) In September 1988 I was appointed to the Technical and Vocational Teacher Training Institute (S.E.L.E.T.E.) and I became the professor in charge of Cooling and Air Conditioning Laboratory.

In 1983 I wrote a book with the title: "Introduction to Air

Conditioning"

In 1990 I wrote the "Introduction to the Theory Fluids Mechanics and Hydraulics" and in 1991 "Cooling Machines and Installations".

The above books have been used by the students of the Technical and Vocational Teacher Training Institute (S.E.L.E.T.E.) and I became the

Scientific Experience:

I participate in researching programmes of the General Committee of Research and Technology as well as in European researching Programmes in co-operation with European Researching Centres.

I particularly refer:

- Design and Construction of Panel Cooling System (Researching Programme)
- Development of circulation for the experimental analysis of air-cooling and air-heating coils.
- Experimental and Calculating analysis of External Walls Thermal reaction (Programme Thermie 1992).

Laboratorial Experience:

- Construction of "Environmental Conditions Comparison System" for external walls thermal reaction for periodic and non-periodic phenomena. The whole system is completely controlled by a computer.
- Thermal Insulation - Determination of thermal conductivity by means of the Guarded hot plate apparatus.
- I've been scientifically responsible for the air-conditioning laboratory of National Technical University of Athens in Mechanical Engineering Department, Thermal Engineering section where the above mentioned take place. I also participate in the solar Energy Laboratory.

I am the researcher of theoretical analysis and construction of original unit for the usage of geothermal energy.

Scientific Activity:

1. K.A.Antonopoulos, F.K.Democritou, M.Gr.Vrachopoulos.

- “An experimental system for the transient non-periodic thermal analysis of structural elements”. Submitted to Energy-The International Journal, 1993.
2. K.A.Antonopoulos, F.K.Democritou, M.Gr.Vrachopoulos. “Research in the field of air conditioning”. Submitted to the Pan-Hellenic Association of Mechanical Engineers, 1993.
 3. K.A.Antonopoulos, F.K.Democritou, M.Gr.Vrachopoulos. “Measuring of Wall elements thermal reaction”. Submitted to Technical chronics.
 4. K.A.Antonopoulos, M.Gr.Vrachopoulos. “On the Inverse Transient Heat-Transfer problem in structural elements exposed to solar radiation”. Submitted to Energy-The International Journal, 1994.
 5. K.A.Antonopoulos, M.Gr.Vrachopoulos. “On-Site experimental estimation of thermal conductivities and capacities in multilayer walls under arbitrary transient conditions using explicit and implicit finite-difference schemes”. Submitted to Energy-The International Journal, 1994.
 6. K.A.Antonopoulos, M.Gr.Vrachopoulos. “Analytical solution of the inverse unsteady wall heat conduction problem and experimental application”, Int. Journal of Energy Research, Vol.20,pp.745-762, 1996
 7. K.A.Antonopoulos, M.Gr.Vrachopoulos. “The adjoint solution technique for the calculation of the thermal properties of layers in multilayer slabs under transient heat conduction”, Renewable Energy, in press, 1996.
 8. K.A.Antonopoulos, C.Tzivanidis and M.Gr.Vrachopoulos. “Using orthogonal expansion of functions over multilayer walls for calculating the layer thermal properties”, Applied Thermal Engineering, in press, 1996.
 9. K.A.Antonopoulos, M.Gr.Vrachopoulos and C.Tzivanidis. “Experimental and theoretical studies of space cooling using ceiling-embedded piping”, Applied Thermal Engineering, in press, 1996.
 10. K.A.Antonopoulos, C.Tzivanidis and M.G.Vrachopoulos. “Air- Conditioning Using Ceiling-Embedded Piping”, Submitted to Technical chronics TEE 1997.
 11. K.A.Antonopoulos, M.Gr.Vrachopoulos and C.Tzivanidis. “Energy Economizing in Air- Conditioning: Roof Cooling”, Submitted to the Pan-Hellenic Association of Mechanical Engineers, 1997.
 12. M.Gr.Vrachopoulos, J.Papageorgakis. “Exploitable So-

logenous and Indigenous Heating in the Flat Subsoil of Attiki” Submitted to Technical chronics 1997.

13. M.Gr.Vrachopoulos, G.K.Peroglou and V.N. Goudoula. “Exploitation of Solar and Indigenous Heat Flow of the Shallow Substratum of Attiki”, release in EMES (Engineering of Modern Energy Systems) at May 30 – June 1, 1997, Oradea Romania
14. M.Gr.Vrachopoulos, A.S.Bifsas, S.K.Stilianou, and V.N.Goudoula. “The Optimum Exploitation of the Indigenous “Heat” of the Geological Substratum in Sousaki, Korinthos”, release in EMES (Engineering of Modern Energy Systems) at May 30 – June 1, 1997, Oradea Romania
15. K.A.Antonopoulos, M.Gr.Vrachopoulos and C.Tzivanidis. “Experimental Evaluation of Energy Savings in Air-Conditioning Using Metal Ceiling Panels”, release in International Conference on “ Energy and the Environment” at Aug, 1997, Cyprus and Applied Thermal Engineering 1998.

Languages:

English.

Athens 13-5-1999

Michael Gr. Vrachopoulos