

CURRICULUM VITAE

Full name: Demetrios Karamousantas
Father's name: Christos
Mother's name: Heleni
Birth date: October 9th, 1957
Place of Birth: Kalapodi, Atalante, Lokrida, Fthiotida Prefecture, Greece
Gender: Male
Family status: Father of 2 children



Language skills:

- Greek (native or bilingual proficiency)
- Romanian (full professional proficiency)
- English (professional working proficiency)

Studies:

- 1984 MSc Mechanical Engineering with specialization in Agricultural Engineering, Technical University of Cluj, Romania
- 1988 PhD Mechanical Engineering with specialization in Machine Tools & Related Tools for Agricultural Engineering, Technical University of Cluj, Romania
- 1992 - 1993 Education, School of Pedagogical & Technological Education, Athens, Greece
- 2013 - 2014 Post-doctoral research in "Agricultural Acoustics" when using conventional Diesel fuel and Biodiesel fuel in farm tractors.

Seminars:

- 1999 Technical Chamber of Greece seminar, titled "Administrative consultants for European funding programs", for engineers.

Work Experience:

- Professor, School of Agricultural Technology and Food & Nutrition Technology, Technological Educational Institute of Peloponnese, Greece (headquartered in Kalamata, Greece). Educational field: "Greenhouse Facilities, Greenhouse Equipment, Operation & Automation and Renewable Energy Sources".
- Owner of technical office, accomplishing Electromechanical installation studies, heavy commercial & industrial electromechanical equipment modernisation studies, agricultural facility studies, renewable energy source plant studies (specialization in solar power, wind power, biodiesel, environmental studies).
- Involved in the "Renewable Energy Sources from Agriculture and for Agriculture" field.
- Involved in European funding programs (e.g. N.S.R.F.).
- Served as teacher in the Greek Army, teaching courses about "Internal Combustion Engines" and other engineering courses.

- Studies for electromechanical installations in the agricultural product markets of Hania, Volos, Corinthos, Kouloura (Veria) with a total budget of 4 billion Drachmas and an electromechanical installation budget of 1 billion Drachmas.
- Supervised the construction of the electromechanical installations in the agricultural product markets of Hania, Volos and Kouloura (Veria), with a budget of 450 million Drachmas.

Educational experience:

- Started in 1991. Experience in secondary school education, vocational education, technology education, university education.
- Elected professor in 3 Technological Educational Institute Departments in Greece, Department of Industrial Planning, Kozani, Department of Agricultural Machinery & Irrigation, Messolonghi, Department of Greenhouse & Floral Cultivation, Kalamata (chose the latter). Career in Kalamata started on March 4, 1998. Educational field: "Greenhouse Facilities, Greenhouse Equipment, Operation & Automation and Renewable Energy Sources".
- Internship supervisor, School of Pedagogical & Technological Education, Athens, Greece.
- Taught in School of Pedagogical & Technological Education, Athens, Greece (pedagogical & technological courses, e.g. "Machining Technologies", "Masonry & Electromechanical Installations", "Electrical Installations & Applications").
- Taught in Technological Educational Institute of Chalkida, Greece.
- Taught in Technological Educational Institute of Athens, Greece.
- Taught in Vocational Education Institutes of Peristeri, Aegaleo, Ilioupolis, Greece.
- Taught in the Educational Center of the Hellenic Defence Systems, Greece.
- Taught in the Educational Center of the Hellenic Association of Vehicle Body Repair Technicians & Painters.
- Served and serves as director of several committees within the Technological Educational Institution of Peloponnese associated with equipment and laboratory instruments, as well as construction work.
 - Involved in the technical specifications associated with the Institution's Greenhouse facilities.
 - Organised the following courses: "Greenhouse Equipment, Operation & Automation", "Greenhouse Facilities", "Renewable Energy Sources", "Engineering Basics & Agricultural Machinery". Organising the courses included organizing syllabus, equipping the laboratory and the creation of scientific literature for the courses.
- Founder of the "Greenhouse Facilities, Greenhouse Equipment, Operation & Automation and Renewable Energy Sources" laboratory in the Technological Educational Institute of Peloponnese (former Kalamata).
 - The laboratory was equipped with a 60 square-meter greenhouse, a

combined heat source system (heating oil, heavy fuel oil, gas and biomass). Heat is transferred via steel pipes and a hot air system. It was also equipped with an irrigation system, a fertilization system, a misting system, a shade curtain system, a ventilation system and a weather station. Also a unique aeroponics and hydroponics system was created, a first for Greece. **All systems are controlled using an automation system controlled by computer with dedicated software.**

- The agricultural machinery laboratory was also equipped with an 80 horsepower farm tractor, a modern farm tractor cutaway model and Otto and Diesel Cycle engine cutaway models.

- Also founded a Renewable Energy Source Laboratory, equipped with a 20 kW solar farm. Besides being used for BSc level courses, it provides power to the national power grid of Greece with the Institution counterbalancing the power it provides to the grid for lower electricity bills.

Professional titles:

- Technical Chamber of Greece member since May 10th, 1985 (identification number 46082).
- Greek Construction Work Contractor Catalog B-Class-Certified registered member & Greek Public Works Contractor Catalog B-Class-Certified registered licensed member. Qualification License for Electromechanical Works, High Pressure Hydraulics Works, Industrial Works, Power Infrastructure Works. Official Construction Works Contractor License holder.
- Owner of Mechanical/Electrical Engineering technical office.
- Current Technological Educational Institute of Peloponnese Technical Council member.
- Former Technological Educational Institute of Peloponnese Technical Council President.
- Former elected Chairman, School of Agricultural Technology, Technological Educational Institute of Peloponnese.
- Former elected Studies Director, Required Selected Course Program, Technological Educational Institute of Peloponnese.
- Former elected Deputy President, Department of Organic & Greenhouse Crops, Technological Educational Institute of Peloponnese.
- Former elected Deputy President, Required Selected Course Program, Technological Educational Institute of Peloponnese.

**European
funding
Programs:**

- Scientific Director on behalf of Greece for the investment program codenamed “Tempus JB-JEP-14093-RO” and titled “Continuous education Agricultural Engineering centers – Education for reconstruction”.

Participating Educational Institutes:

- Technological Educational Institute of Peloponnese
- “Transylvania” Technical University, Brasov, Romania
- Technical University of Cluj, Romania
- “Georghe Asachi” Technical University, Iasi, Romania
- Technical University of Hohenheim, Stuttgart, Germany
- International Agricultural & Economic Development Research Center, Heidelberg, Germany
- Kuratorium für Technik und Bauwesen in der Landwirtschaft (K.T.B.L.), Darmstadt, Germany
- Technical University of Gent, Belgium
- Valencia Technical University, Spain
- Experimental Agricultural Mechanisation Institute, Rome, Italy

Contributed to the creation of scientific literature titled “Informatics in Agriculture”, which was distributed to the Agricultural Engineers and Agriculturist Engineers attended the program’s seminar in the education centers of Romania. Contributed to the definition of the detailed syllabus schedule, which was about to be taught in the educational centers of Romania, during the international member meet organised by the Technological Educational Institute of Peloponnese in March 2001. Invited to teach “Greenhouse - Mechanical Installations” and “Agricultural Machinery” in the education centers of Romania (Cluj, Iasi, Brasov).

- Scientific Director of the “Archimedes III” research funding program titled “Smart Greenhouse Facility with automated use of Renewable Sources”. During research, 5 renewable energy sources (geothermal energy, solar power, wind power, solid biofuels and liquid biofuels) and 2 conventional energy sources (Diesel fuel and L.P.G. / L.N.G.) will be used. All renewable energy sources work in parallel and alternatively thanks to dedicated software developed for the specific purpose.

There is an aquaponics system experiment with good promising results for the region of Greece. Dedicated software was developed to achieve precise greenhouse climate control.

The greenhouse installation is independent from external power sources and also fully automated.

The applied research data from the use of renewable energy sources is recorded and stored to a dedicated server. The results show the first-of-its-kind use of renewable energy sources and the excellent renewable energy resource system performance for supplying energy for all greenhouse functions and climate control applications through all renewable energy sources, with geothermal energy being the essential.

Presented the system’s operation in a “State Television of Greece”

show.

Gathered experiment results from **actual** measurements for use in scientific publications and international conferences, based on the system described above.

- Member of the research team of the Technological Educational Institute of Peloponnese that accomplished an “Archimedes III” research funding program titled “The effect of organic fertilization in technological and quality characteristics of potatoes before and after frying - biotechnological markers, studying about acrylamide”.
- After publishing the results of the “Agricultural Acoustics” research, an “agricultural acoustics” field of study was created.

Scientific societies membership:

- Hellenic Agricultural Engineers Society (HelAgEng)
- European Society of Agricultural Engineers
- International Commission of Agricultural Engineering
- Technical Chamber of Greece disciplinary board (**rappporteur**)
- Permanent Scientific Committee for “Mechanical equipment for environmental protection and pollution abatement “ , Technical Chamber of Greece (**trustee**)
- Permanent Political Committee for “Food and Biotechnology”, Technical Chamber of Greece
- Member of administrative council, “Demetra” Organization of Agricultural Vocational Education Training and Employment

Scientific literature:

- **A. Asimakopoulos, D. Karamousantas, G. Nikolopoulos**, “Hydraulic installations”, Ministry of Education, Pedagogical Institute.
- **D. Karamousantas, A. Karagiannidis**, “Car Mechanics” , Ministry of Education, Pedagogical Institute.
- **Dr. Ing. N. Burnete, Dr. Ing. N. Bataga, Dr. Ing. D. Karamousantas**, “Constructia Si Calculul Motoarelor Cu Ardere Interna (Mecanismul Motor)” (“Internal Combustion Engine Build And Calculations (Engine Mechanisms)”), 2001, part of the bibliographic content of the Department of Mechanical Engineering, Technical University of Cluj, Romania.

Scientific publications:

- **Google Scholar** (<http://scholar.google.gr>). Keyword searches: “Karamousantas”, “Karamusantas”.
- **Elsevier Scopus** (<http://www.scopus.com/home.uri>). Keyword searches: “Karamousantas”, “Karamusantas” (access permission and login is required).