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Professor  
Agricultural Constructions - Greenhouses

Agronomist, Dr Agricultural Engineering  
UNIVERSITY OF THESSALY  
School of Agricultural Sciences  
Dept. of Agriculture Crop Production and Rural Environment

CURRICULUM VITAE

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## Summary

Nikolaos Katsoulas, Professor (in Agricultural Constructions – Greenhouses), PhD. Agronomist-Agricultural Engineer, Dept. of Agriculture Crop Production and Rural Environment, University of Thessaly, Greece

## EDUCATION

B.Sc. Department of Agriculture Crop and Animal Production, University of Thessaly., Greece. Doctorate of Philosophy in Agricultural Sciences, Department of Agriculture Crop and Animal Production, University of Thessaly. Postdoctoral Research in the Department of Agriculture Crop Production and Rural Environment, School of Agricultural Sciences, University of Thessaly.

## MOBILITY

Has long-term stays for research cooperation and teaching the following organisations: University of Cartagena, Spain; INRA, Avignon, France; Katholieke Universiteit Leuven, Belgium; Seoul National University, Korea; University of Arizona, Tucson, USA; Wageningen University and Research Centre, Wageningen, The Netherlands; Hochschule Geisenheim University, Geisenheim, Germany.

## TEACHING EXPERIENCE

Teaching experience of 16 years: 3 courses in the undergraduate program of the Department Agriculture Crop Production and Rural Environment, University of Thessaly, Greece, 3 courses in the MSc Programs of the School of Agricultural Sciences of the University of Thessaly, Greece.

## RESEARCH, PUBLISHED WORK AND RECOGNITION

Participation in 40 research projects. Publications: 2 Theses (diploma and PhD), 8 book chapters, 66 publications in peer reviewed journals, more than 100 full text papers in international conference proceedings, more than 70 papers in national conference proceedings. More than 1200 citations of the published work.

## ADMINISTRATIVE EXPERIENCE

Member in more than 15 committees of the Department of Agriculture Crop Production and Rural Environment, University of Thessaly. Supervisor of more than 20 BSc Thesis, 5 MSc Thesis. Supervisor of 6 PhD Thesis. Member of the Advisory Committee in 5 PhDs and member of PhD Examination Committee of 4 PhD Theses. Scientific responsible of 12 research projects. Member of the Organizing Committee of 3 Conferences and Secretary of the Organizing Committee at 1 of them and Co-Convener at GreenSys2011 International Symposium.

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## **A. PERSONAL DATA**

Name: Nikolaos  
Surname: Katsoulas  
Date of birth: 25 April 1974  
Place of birth: Lamia, Greece  
Nationality: Greek  
Marital Status: Married, two children

Current position: Professor (*Agricultural Constructions-Greenhouses*)  
Dept. of Agriculture Crop Production and Rural Environment,  
School of Agricultural Sciences, University of Thessaly, Greece.

Current Work address: University of Thessaly, School of Agricultural Sciences, Dept. of  
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## **B. EDUCATION, TRAINING and MOBILITY**

In 1997 he graduated from the Dept. of Agriculture Crop and Animal Production of the University of Thessaly, with the grade of 7.04/10.

In 1998 obtained a 3.5 years Scholarship for Ph D studies in the field of Agricultural Constructions from the Greek State Scholarships Foundation and started his PhD study.

At the same time, he was in charge of all climate measurements in the experimental greenhouses of the Laboratory of Agricultural Constructions and Environmental Control and managed and guided several students carrying out their Diploma or Master Thesis in the Laboratory of Agricultural Constructions and Environmental Control, of the University of Thessaly, under the supervision of Professor C. Kittas, Director of the Laboratory.

During 2001, he visited for three months, as an Erasmus student, the Polytechnic University of Cartagena (Murcia-Spain), where he worked under the supervision of Professor Alain Baille, former Director of the Bioclimatology Unit of INRA at Avignon. He studied the fundamental for leaf aerodynamic conductance with an artificial leaf that constructed by himself and was trained on greenhouse climate modelling.

In 2002 he presented and defended his Thesis in the Department of Agriculture Crop and Animal Production of the University of Thessaly and obtained a Ph D degree in Agricultural Sciences with a grade of 10/10. His Thesis is entitled "Influence of environmental variables on greenhouse rose crop transpiration", deals with the influence of greenhouse cooling systems during summer, on greenhouse microclimate and on rose crop response and was conducted under the guidance of Professor C. Kittas, Director of the Laboratory of Agricultural Constructions and Environmental Control of the University of Thessaly.

From July 2002 to February 2004, he accomplished his military service as an officer of the Greek State Air-forces.

During March 2004 he obtained one year Scholarship by the Ministry of National Education and Religious Affairs of Greece for Post Doctoral studies in the field of Greenhouse Environment.

During July 2004 he was elected Lecturer of the Dept. of Agriculture Crop Production and Rural Environment of the School of Agricultural Sciences of University of Thessaly, in the field of "Agricultural Constructions with emphasis to Greenhouse Environment".

During August 2005 he was assigned Lecturer of the Dept. of Agriculture Crop Production and Rural Environment of the School of Agricultural Sciences of University of Thessaly.

In the meantime between his election and his appointment to the faculty as Lecturer, continued to work in the Dept. of Agriculture Crop Production and Rural Environment of the University of Thessaly, where taught courses on Agricultural Engineering as a temporary Lecturer.

Furthermore, in order to continue his research activity at doctoral level, participated as a postdoctoral researcher in the research project entitled "Investigation of pesticides behaviour in greenhouse environment", which was implemented during the period 2004 - 2006, under the Pythagoras (Ministry of Education and Religious affairs of Greece) program.

During May 2006 he went for two weeks (22/05/2006 to 03/06/2006) at the Universidad Politecnica de Cartagena, in Cartagena, Spain, in the frame of Erasmus projects.

During July 2006, he went for one month in the Station of Bioclimatology of INRA in Avignon, France, for scientific collaboration.

In April 2008, he attended a training course lasting one week at Wageningen University in the Netherlands that included training on greenhouse technologies.

During August 2008 (16-31 August 2008) he visited the Laboratory of Monitoring-Modelling-Management of Bioresponses (M3-BIORES) of the Department of Biosystems, School of BioScience Engineering of the Catholic University of Leuven, in Leuven, Belgium, where he worked on control of the microclimate of greenhouses. Within the framework of Erasmus, an agreement between the University of Thessaly and the Catholic University of Leuven was signed, to allow exchange of students and teaching staff members to the above University.

During April 2010 he was elected Assistant Professor of the Dept. of Agriculture Crop Production and Rural Environment of the School of Agricultural Sciences of University of Thessaly, in the field of "Agricultural Constructions with emphasis in Greenhouses" and appointed to the position during October 2010.

During September of 2011 and 2012 he visited the Seoul National University, Korea and the University of Arizona, Arizona, USA, respectively, in the frame of the research project Smart Controlled Environment Agriculture Systems - SMART-CEA that was carried out under the Marie Curie Actions, People, International Research Staff Exchange Scheme of the FP7 program.

During his sabbatical leave, from March 2014 to October 2014, he stayed at Wageningen University and Research Centre in the Greenhouse Technology Group and cooperated with the Researcher of the Group Dr Cecilia Stanghellini.

During July 2015 he was elected Associate Professor of the Dept. of Agriculture Crop Production and Rural Environment of the School of Agricultural Sciences of University of Thessaly, in the field of "Agricultural Constructions with emphasis in Greenhouses" and appointed to the position during November 2015.

From May of 2016 he is the Director of the Laboratory of Agricultural Constructions and Environmental Control of the Dept of Agriculture Crop Production and Rural Environment of the University of Thessaly.

During 2017 he was invited and served as coordinating expert of the EIP-AGRI Focus Group on Circular Horticulture: How to increase circularity in protected horticulture? <https://ec.europa.eu/eip/agriculture/en/focus-groups/circular-horticulture>. The Focus Group was formed and worked during 2017 and 2018.

During August 2019 he was elected Professor of the Dept. of Agriculture Crop Production and Rural Environment of the School of Agricultural Sciences of University of Thessaly, in the field of "Agricultural Constructions - Greenhouses" and appointed to the position during February 2020.

From February 2020 he is the Director of the Institute of Rural Development of the IASON University Center for Innovation Research and Development of the University of Thessaly.

**C. EDUCATION TITLES**

- Ph D Diploma in Agronomy of the School of Agriculture, Crop and Animal Production, University of Thessaly.
- Diploma in Agronomy of the School of Agriculture, Crop and Animal Production, University of Thessaly.
- Certificate of Proficiency in English of the University of Michigan.

**D. SCHOLARSHIPS**

- Scholarship of the Greek State Scholarships Foundation for Ph D studies in the field of Agricultural Constructions.
- Scholarship of the Ministry of National Education and Religious Affairs of Greece for Post Doctoral studies in the field of Greenhouse Environment.

**E. TEACHING EXPERIENCE**

In the frame of his Ph D studies, he contributed to the educational activities of the Laboratory of Agricultural Constructions and Environmental Control of the University of Thessaly with over of 250 hours of lecturing and laboratory training in the frame of the following courses:

- Agricultural Constructions and Environmental Control of Plant Production Units
- Energy Technologies in Agriculture
- Agricultural Mechanics and Topography

He has managed and guided several students carrying out their Diploma or Master Thesis in the Laboratory of Agricultural Constructions and Environmental Control, of the University of Thessaly, under the supervision of Professor C. Kittas, Director of the Laboratory.

During the academic years 2003-2004 he teach the following courses as Temporary Lecturer of the Dept. of Agricultural Machinery of the Technological Education Institute of Larissa:

- «Environmental Control of Agricultural Structures», for 6 hours per week and
- «Storage of Agricultural Products», for 4 hours per week.

During the academic years 2004-2005 and 2005-2006 he teach the following course as Temporary Assistant Professor of the Dept. of Agricultural Machinery of the Technological Education Institute of Larissa:

- «Environmental Control of Agricultural Structures», for 6 hours per week.

During the academic year 2004-2005 he teach the following courses as Temporary Lecturer of the Dept. of Agriculture Crop Production and Rural Environment of the School of Agricultural Sciences of the University of Thessaly:

- «Agricultural Constructions and Environmental Control of Plant Production Units», for 4 hours per week and
- «Energy Technologies in Agriculture», for 2 hours per week.

Since 2005 he teaches the following courses as Lecturer and since 2010 as Assistant Professor of the Dept. of Agriculture Crop Production and Rural Environment of the School of Agricultural Sciences of the University of Thessaly:

- «Agricultural Constructions- Greenhouses», for 4 hours per week,
- «Energy Technologies in Agriculture», for 2 hours per week,
- «Hydroponic Systems», for 4 hours per week,
- «Agricultural Constructions – Equipment and Technologies for postharvest treatment of Agricultural Products», for 4 hours per week

and the following courses of Master degree programs of the Dept. of Agriculture Crop Production and Rural Environment of the School of Agricultural Sciences of the University of Thessaly:

- «Greenhouses and Livestock buildings», for 3 hours per week

- «Measurements and Automations in Agricultural buildings», for 3 hours per week.
- «Greenhouses technologies», for 3 hours per week
- «Agricultural Constructions – Equipment and Technologies for postharvest treatment of Agricultural Products», for 3 hours per week

## **F. RESEARCH EXPERIENCE**

List of research projects that Nikolaos Katsoulas has been involved as Researcher or Scientific Responsible of the project:

### *Projects funded by the European Commission*

1. «CLOsed SYStem for water and nutrient management in horticulture». Research project funded by the European Union, 01/01/2002-31/12/2003, Contract number QLK-2000-01301. *Researcher.*
2. Sustainable orchard irrigation for improving fruit quality and safety, IRRIVAL, Research project funded by the European Union, 01/06/2006-31/05/2009. *Researcher.*
3. Sustainable use of irrigation water in the Mediterranean region, Sirrimed, (funded by the European Union), 2009-2013. *Researcher*
4. Smart Controlled Environment Agriculture Systems, Smart-CEA, (funded by the European Union), 2011-2014. *Researcher.*
5. Online Professional Irrigation Scheduling Expert System, OplRIS. Research project funded by the European Union, 01/12/2013-30/11/2015. *Researcher and Project Manager.*
6. Adapt agricultural production to climate change and limited water supply, Adapt2Change (LIFE09 ENV/GR/000296). Research project funded by the European Union, 01/08/2014-31/08/2016. *Researcher and Project Manager*
7. Raising public awareness of development issues and promoting development education in the European Union. RURAL DEAR AGENDA - EYD 2015. Research project funded by the European Union, 01/09/2015-31/12/2017. *Researcher and Project Manager.*
8. European network for the cohesion and solidarity in rural areas, ENSURE, Europe for Citizens Project funded by the EU, 9/2017-7/2019. *Researcher and Project Manager.*
9. Pathways to phase-out contentious inputs from organic agriculture in Europe, Organic Plus. H2020 (SFS-08-2017, RIA project, grant agreement No 774340), 01/05/2018-30/04/2022. *Coordinator for UTH.*
10. Green Growth through the capitalization of innovative Greenhouses, MED Greenhouses. Interreg-MED project, (PA no: 3082) 01/02/2018-31/07/2019. *Coordinator for UTH, Communication manager of the project.*
11. Precision irrigation management to improve water and nutrient use efficiency in the Mediterranean region, PRECIMED. Project funded in the frame of PRIMA projects. 10/2019-9/2022, *Coordinator for UTH.*
12. Organic Photovoltaic Greenhouse-ORION. Project funded in the frame of SOLAR-ERA.NET Cofund 2 Additional Joint Call projects (PA no: 56). 2020-2023, *Coordinator for UTH.*

### *Bilateral Research Projects*

13. «Development of a greenhouse equipped with an insect proof system, appropriate for Mediterranean conditions». Research project funded by the General Secretariat for Research and Technology of Greece, under the framework of the Bilateral Greek-France agreement, 01/06/1999-31/07/2000. *Researcher.*

14. «Study of the dispersion of pesticides in naturally ventilated greenhouses». Research project funded by the General Secretariat for Research and Technology of Greece, under the framework of the Bilateral Greek-France agreement, 1/5/2007-31/9/2008. *Researcher.*
15. «Development of an e-tool for calculating the irrigation needs in Mediterranean greenhouses». Research project funded by the General Secretariat for Research and Technology of Greece, under the framework of the Bilateral Greek-Egypt agreement, 1/5/2007-31/7/2008. *Coordinator of the project.*
16. «Pesticides Monitoring Systems using Nanosensors for Safe Food Production». Research project funded by the General Secretariat for Research and Technology of Greece, under the framework of the Bilateral Greek-China agreement, 1/3/2013-30/9/2015. *Researcher.*
17. Cascade Hydroponics: an integrated approach to increase productivity, resource use efficiency and sustainability of protected horticulture, Cash. Greece-Germany bilateral project. 06/2018-05/2021. *Coordinator of the project.*
18. Development of a textile with Silica coating for environmental friendly control of insects in agricultural production, AgriTexSil. Greece-Germany bilateral project. 05/2018-05/2021. *Coordinator of the project.*

#### *National Research Projects*

19. «Production of new UV-absorbing greenhouse cover materials aiming to reduce insects and diseases inside the greenhouse». Research project funded by the General Secretariat for Research and Technology of Greece, 01/06/2001-31/05/2003. *Researcher.*
20. «Development of domestic technology and know-how for greenhouse crop cultivation in closed hydroponic systems aiming to reduce nitrogen and chemical leaches in the ground» (Research project funded by the Ministry of National Education and Religious Affairs of Greece, 1/1/2004 - 31/8/2006). *Researcher.*
21. Control of fungi in Solanaceum crops by alternative (non-chemical) methods». Research project funded by the Ministry of National Education and Religious Affairs of Greece, 2004-2006. *Researcher.*
22. «Tracing of pesticides in the greenhouse environment» (Research project funded by the Ministry of National Education and Religious Affairs of Greece, 1/3/2004 - 28/2/2005). *Post-Doctorate Researcher.*
23. «Optimisation of greenhouse climate control in Mediterranean greenhouses during winter». Research project funded by the General Secretariat for Research and Technology of Greece, under the framework of PENED projects, 07/09/2005-06/09/2008. *Researcher.*
24. «Development and study of new anti-drip greenhouse cover materials appropriate for environmental friendly greenhouses». Research project funded by the General Secretariat for Research and Technology of Greece, under the framework of PAVET projects, 01/05/2006-30/10/2007. *Researcher.*
25. «Development and optimisation of an environmental friendly, hybrid system for passive solar heating in greenhouses with hydroponic crops». Research project funded by the General Secretariat for Research and Technology of Greece, under the framework of PAVET projects, 01/05/2006-30/10/2007. *Researcher.*
26. «Human networks for Research and Technological training: New Technologies for environmental friendly Greenhouses». Research project funded by the General Secretariat for Research and Technology of Greece, 16/4/2007-15/10/2008. *Researcher-Network Coordinator.*
27. Innovation Pole of Thessaly: «Ensuring total quality in production, packaging, handling, storage and distribution of food in Thessaly - Thessaly food». Research project funded by the General Secretariat for Research and Technology of Greece, 1/10/2007-30/9/2008. *Researcher.*

28. Theoretical and experimental investigation of greenhouse microclimate. Research project funded by the Ministry of Education, Lifelong Learning and Religious Affairs of Greece under the frame of Heraclitus projects. 2010-2013. *Researcher*.
29. Development of an Integrated System for the Water Resources Quality and Quantity Monitoring and Management of Agricultural Watersheds under Climate Change Conditions. Application to Lake Karla Watershed (HYDROMENTOR). Research project funded by the General Secretariat for Research and Technology of Greece under the Cooperation projects. 2011-2014. *Researcher*.
30. Optimal climate management of greenhouse cultivation with high salinity problems using omics techniques. Research project funded by the General Secretariat for Research and Technology of Greece under the Cooperation projects. 2011-2014. *Researcher*.
31. Evaluation of the effects of planting on buildings and development of innovative relevant hydroponic structures. Research project funded by the Ministry of Education, Lifelong Learning and Religious Affairs of Greece under the frame of Archimedes projects. 2011-2014. *Researcher*.
32. Intelligent crop-based environmental monitoring and control of sustainable greenhouse eco-systems. Research project funded by the General Secretariat for Research and Technology of Greece under the Aristeia projects. 2012-2015. *Researcher*.
33. Innovative polymer greenhouse films via application of functional coating, INGRECO. 2018-2021. Co-financed by the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH – CREATE – INNOVATE (project code: T1EDK-01499). *Coordinator for UTH*.
34. Development and optimization of an aquaponic system to increase sustainability in food production, FoodOASIS. 2018-2021. Co-financed by the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH – CREATE – INNOVATE (project code: T1EDK-01153). *Coordinator of the project*.
35. Exploitation of liquid wastes for microalgae cultivation and use for biodiesel and aquafeed production, Algae4Fuel&Aqua. 2018-2021. Co-financed by the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH – CREATE – INNOVATE (project code: T1EDK-01580). *Coordinator of the project*.
36. Semitransparent organic and printed photovoltaics for energy efficient Mediterranean greenhouses, Fotokipia. 2018-2021. Co-financed by the European Union and Greek national funds through the Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH – CREATE – INNOVATE (project code: T1EDK-01701). *Coordinator for UTH*.

*Research Projects funded by the Research Committee of the University of Thessaly*

37. «Determination of the effects of a thermal screen on the energy balance of the greenhouse». 01/02/1997-31/05/1997. *Researcher*.
38. «Installation and operation of a hydroponic system». 10/09/1997-09/07/1998. *Researcher*.
39. «Development and validation of a statistical model for tomato seedlings crop simulation». 01/05/2007-31/07/2008. *Scientific responsible of the project*.
40. Rational landscape design for optimal bioclimatic conditions at school yards. 2011-2012. *Researcher*.

## **G. PUBLISHED WORK**

### **G.1. Books and Book Chapters**

- G.1.1. Katsoulas, N., Kittas, C., 2011. Greenhouse crop transpiration modeling. In: Gerosa, G. (Ed.), *Evapotranspiration - from measurements to agricultural and environmental applications*, ISBN: 978-953-307-512-9, InTech, Available from: <http://www.intechopen.com/articles/show/title/greenhouse-crop-transpiration-modelling>
- G.1.2. Sørensen, C.G., Bochtis, D.D., Bartzanas, T., Katsoulas, N., Kittas, C., 2012. Minimizing environmental impact from applying selected inputs in plant production. In: Dupont, H. (Ed), *Environmental Management: Systems, Sustainability and Current Issues*, ISBN: 978-1-61324-899-7, Nova Publishers.
- G.1.3. Kittas, C., Katsoulas, N., Bartzanas, T., 2012. Greenhouse climate control in Mediterranean greenhouses. *CUADERNOS DE ESTUDIOS AGROALIMENTARIOS* | ISSN 2173-7568 | 89-114|
- G.1.4. Kittas, C., Katsoulas, N., Bartzanas, T., Bakker, S., 2013. Good Agricultural Practices in Greenhouse Climate Control and Energy Use. (pages 63-95) In: Baudoin, W., Nono-Womdim, R., Lutaladio, N., Hodder, A., Castilla, N., Leonardi, C., De Pascale, S., Qaryouti, M. (Eds), *Good agricultural practices (GAPs) for Greenhouse Vegetable Crops. Principles for the Mediterranean Climate Areas*. FAO, pp 622.
- G.1.5. Kittas, C., Katsoulas, N., Bartzanas, T., 2017. Structure: design, technology and climate control. In: Baudoin et al., (Eds), *Good Agricultural Practices for greenhouse vegetable production in the South East European countries*, FAO plant production and protection paper 230, 434 p.
- G.1.6. Nikolaou, G., Neocleous, D., Katsoulas, N., and Kittas, C., 2017. Irrigation Management Techniques Used in Soilless Cultivation. In: Webster, D.J. (Ed), *Advances in Hydroponics Research*, Nova Sciences Publishers, Inc. ISBN: 978-1-53612-151-3.
- G.1.7. Greenhouses: Technologies for optimal production. 2019. C. Stanghellini, B. Ooster, E. Heuvelink. Scientific editing: Nikolaos Katsoulas. ISBN 978-960-635-089-4, Publisher: Ekdoseis Pedio.
- G.1.8. Nikolaou, G., Neocleous, D., Kitta, E., Katsoulas, N., 2020. Advances in irrigation/fertigation techniques for hydroponic systems. In Gruda, N., (Ed.) *Advances in horticultural soilless culture*, Burleigh Dodds Series in Agricultural Science, *in press*.

### **G.2. Thesis**

- G.2.1. Katsoulas N., 1997. Experimental determination of the greenhouse overall heat loss coefficient in a PE covered greenhouse. Diploma Thesis, University of Thessaly, 70 pp.
- G.2.2. Katsoulas N., 2002. Influence of environmental variables on greenhouse rose crop transpiration. PhD Thesis, University of Thessaly, 244 pp.

### **G.3. Papers published in International Journals of the SCI**

- G.3.1. Katsoulas, N., Baille, A., Kittas, C., 2001. Effect of air misting on transpiration and bulk conductances of a greenhouse rose canopy. *Agricultural and Forest Meteorology*, 106(3): 233-247.
- G.3.2. Baille, A., Kittas, C., Katsoulas, N., 2001. Influence of whitening on greenhouse microclimate and crop energy partitioning. *Agricultural and Forest Meteorology*, 107(4): 293-306.
- G.3.3. Kittas, C., Katsoulas, N., Baille, A., 2001. Influence of greenhouse ventilation regime on microclimate and energy partitioning of a rose canopy during summer conditions. *Journal of Agricultural Engineering Research*, 79(3): 349-360.

- G.3.4. Katsoulas, N., Baille, A., Kittas, C., 2002. Influence of leaf area index on canopy energy partitioning and greenhouse cooling requirements. *Biosystems Engineering*, 83(3): 349-359.
- G.3.5. Kittas, C., Boulard, T., Bartzanas, T., Katsoulas, N., Mermier, M., 2002. Influence of an insect screen on greenhouse ventilation. *Transactions of the ASAE*, 45(4): 1083-1090.
- G.3.6. Kittas, C., Katsoulas, N., Baille, A., 2003. Influence of an aluminised thermal screen on greenhouse microclimate and canopy energy balance. *Transactions of the ASAE*, 46(6): 1653-1663.
- G.3.7. Kittas, C., Karamanis, M., Katsoulas, N., 2005. Air temperature regime in a forced ventilated greenhouse with a rose crop. *Energy and Buildings*, 37: 807-812.
- G.3.8. Bartzanas, T., Katsoulas, N., Kittas, C., Boulard, T., Mermier, M., 2005. The effect of vent configuration and insect screen on greenhouse microclimate. *International Journal of Ventilation*, 4(3): 193-202.
- G.3.9. Katsoulas, N., Kittas, C., Dimokas, G., Lykas, Ch., 2006. Effect of irrigation frequency on rose flower production and quality. *Biosystems Engineering*, 93(2): 237-244.
- G.3.10. Katsoulas, N., Bartzanas, T., Boulard, T., Mermier, M., Kittas, C., 2006. Effect of vent openings and insect screens on greenhouse ventilation. *Biosystems Engineering*, 93(4): 427-436.
- G.3.11. Lykas, C., Katsoulas, N., Giaglaras, P., Kittas, C., 2006. EC and pH prediction in a recirculated nutrient solution of a greenhouse soilless rose crop. *Journal of Plant Nutrition*, 29: 1585-1599.
- G.3.12. Kittas, C., Tchamitchian, M., Katsoulas, N., Karaïskou, P., Papaïoannou, Ch., 2006. Effect of two new UV-absorbing greenhouse-covering films on growth and yield of an eggplant soilless crop. *Scientia Horticulturae*, 110(1): 30-37.
- G.3.13. Katsoulas, N., Baille, A., Kittas, C., 2007. Leaf boundary layer conductance in ventilated greenhouses. An experimental approach. *Agricultural and Forest Meteorology* 144: 180–192
- G.3.14. Savvas, D., Stamati, E., Tsirogiannis, I. L., Mantzos, N., Barouchas, P. E., Katsoulas, N., Kittas, C., 2007. Interactions between salinity and irrigation frequency in greenhouse pepper grown in a closed-loop hydroponic system. *Agricultural Water Management*, 91: 102-111.
- G.3.15. Katsoulas, N., Kittas, C., Tsirogiannis, I. L., Kitta, E., Savvas D., 2007. Greenhouse microclimate and soilless pepper crop production and quality as affected by a fog evaporative cooling system. *Transactions of the ASABE*, 50(5): 1831-1840
- G.3.16. Lykas Ch., Papafotiou M., Katsoulas N., Kittas C., 2008. Gardenia jasminoides height control using a photosensitive polyethylene film. *HortScience*, 43(7): 2027-2033.
- G.3.17. Katsoulas N., Kittas C., 2008. Impact of greenhouse microclimate on plant growth and development with special reference to the Solanaceae. In: Passam H. (Ed) *The fruiting species of the Solanaceae. The European Journal of Plant Science and Biotechnology 2 (Special Issue 1)*, 31-44.
- G.3.18. Kittas C., Katsoulas N., Bartzanas T., Mermier M., Boulard T., 2009. The impact of insect screens and ventilation openings on the greenhouse microclimate. *Transactions of the ASABE*, 51(6): 2151-2165.
- G.3.19. Katsoulas N., Savvas D., Tsirogiannis I., Merkouris, O., Kittas C., 2009. Response of an eggplant crop grown under Mediterranean summer conditions to greenhouse cooling. *Scientia Horticulturae*, 123(1): 90-98.
- G.3.20. Tsirogiannis I., Katsoulas N., Kittas C., 2010. Effect of irrigation scheduling on gerbera flower yield and quality. *HortScience*, 45:1-6.

- G.3.21. Khah, E.M., Katsoulas, N., Tchamitchian, M., Kittas, C., 2011. Effect of grafting on eggplant leaf gas exchanges under Mediterranean greenhouse conditions. *International Journal of Plant Production*, 5(2): 121-134.
- G.3.22. Kittas, C., Katsoulas, N., Rigakis, N., Bartzanas, T., Kitta, E., 2012. Effects on microclimate, crop production and quality of a tomato crop grown under shade nets. *Journal of Horticultural Science and Biotechnology*, 87(1): 7-12.
- G.3.23. Kitta, E., Katsoulas, N., Savvas, D., 2012. Shading effects on greenhouse microclimate and crop transpiration in a cucumber crop grown under Mediterranean conditions. *Applied Engineering in Agriculture*, 28(1): 129-140.
- G.3.24. Katsoulas, N., Boulard, N., Tsiropoulos, N., Bartzanas, T., Kittas, C., 2012. Experimental and modelling analysis of pesticides fate from greenhouses: case of pyrimethanil on tomato crop. *Biosystems Engineering*, 113(2): 195-206.
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- G.4.94. Metsoviti M.N., Lachanidou G., Manolios A., Berillis P., Katsoulas N., Papapolymerou G., Karapanagiotidis I.T., 2018. The effect of fishmeal and fish oil replacement by dietary microalgae species on liver histology in gilthead seabream (*Sparus aurata*). Proceedings of the 3<sup>rd</sup> International Congress on Applied Ichthyology & Aquatic Environment (Hydromedit 2018, 8-11 November 2018, Volos), 148-151.
- G.4.95. Metsoviti M.N., Katsoulas N., Karapanagiotidis I.T., Papapolymerou G., 2018. Effect of cultivation of microalgae *Euglena gracilis* in different environments on growth rate and protein and lipid contents. Proceedings of the 3<sup>rd</sup> International Congress on Applied Ichthyology & Aquatic Environment (Hydromedit 2018, 8-11 November 2018, Volos), 625-626.
- G.4.96. Metsoviti M.N., Kyriakidis K., Yiannoukkos A., Kokkali M., Katsoulas N., Papapolymerou G., Karapanagiotidis I.T., 2018. The effect of fishmeal and fish oil replacement by microalgae species on proximate composition of gilthead seabream (*Sparus aurata*). Proceedings of the 3<sup>rd</sup> International Congress on Applied Ichthyology & Aquatic Environment (Hydromedit 2018, 8-11 November 2018, Volos), 627-628.

#### **G.5. *Papers published in Proceedings of National Greek Conferences***

More than 70 papers published in proceedings of National conferences in Greek.

#### **G.6. *Invited keynote presentations***

- G.6.1. Katsoulas, N., Voogt, W., 2013. Recent trends in salinity control for soilless growing systems management. ISHS International Symposium on Growing Media and Hydroponics- GroSci2013», June 17-21, 2013, Leiden, The Netherlands.
- G.6.2. Katsoulas, N., Kittas, C., Boulard, T., Bartzanas, T., 2013. Recent trends in greenhouse microclimate and climate control studies. ISHS International Symposium on «New

Technologies for Environment Control, Energy saving and Crop Production in Greenhouses and Plant Factory - GreenSys2013», October 6-10, 2013, Jeju, Korea.

#### **G.7. TECHNICAL GREEK MAGAZINES**

- G.7.1. C. Kittas, T. Bartzanas, N. Katsoulas, 2004. Greenhouse Cooling. Modern Technical Review 144, 24-30.
- G.7.2. C. Kitas, N. Katsoulas, T, Bartzanas, 2005. Greenhouse Cooling. Agriculture and Animal Production, v 5, p31-42.
- G.7.3. C. Kittas, T. Bartzanas, N. Katsoulas. Greenhouses in Grece, 2011: Current trends and future perspectives, Agriculture and Animal Production 10:19-28
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- G.7.5. N. Katsoulas, T. Bartzanas, C. Kittas, 2011. Energy saving and energy saving technologies in greenhouses. Agriculture and Animal Production 10: 54-57

#### **H. CITATIONS**

More than 1200 citations of published work have been found in the ISI® data base

#### **I. ADDITIONAL INFORMATION**

##### **► Member of the following organisations**

1. Representative of the Hellenic Society of Agricultural Engineers (HelAgEng).
2. Member of the European Society of Agricultural Engineers (EurAgEng).
3. Member of the International Society of Horticultural Sciences (ISHS).

##### **► Reviewer and member of SCI Journals**

Reviewer in the following Journals: Biosystems Engineering, Agricultural and Forest Meteorology, Agricultural and Water Management, European Journal of Horticultural Science, Annals of Applied Biology, Journal of Zhejiang University SCIENCE, Scientia Horticulturae, Applied Energy, Climatic Change, Environmental Earth Sciences, HortScience, European Water Management, Science of the Total Environment, Computers and Electronics in Agriculture.