

NIKOLAOS KATSOULAS
Professor
Agricultural Constructions - Greenhouses

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

CURRICULUM VITAE

June 2025

Summary

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

Senior Editor of Biosystems Engineering, Elsevier

President of the European Society of Agricultural Engineers

President of the Hellenic Society of Agricultural Engineers

Funder of the Mediterranean Horticultural Center PC, Spin-off company of UTH.

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 20 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 50 research projects. Publications: 2 Theses (diploma and PhD), 9 book chapters, more than 110 publications in peer reviewed journals, more than 130 full text papers in international conference proceedings, more than 100 papers in national conference proceedings. More than 3500 citations of the published work.

Senior Editor of Biosystems Engineering, Elsevier

ADMINISTRATIVE EXPERIENCE

Director of the Lab of Agricultural Constructions and Environmental Control of the University of Thessaly. Funder of the Mediterranean Horticultural Center PC, Spin-off company of UTH. Member of HelAgEng and EurAgEng, member in more than 20 Committees of the Department of Agriculture Crop Production and Rural Environment, University of Thessaly. Supervisor of more than 30 BSc Thesis and more than 15 MSc Thesis. Supervisor of 6 PhD Thesis. Member of the Advisory Committee of more than 5 PhDs and member of PhD Examination Committee of more than 10 PhD Theses. Scientific responsible of more than 15 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. Convener of the AgEng2024 International Symposium.

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A. PERSONAL DATA

Name: Nikolaos
Surname: Katsoulas
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
Agriculture Crop Production and Rural Environment, Fytokou
Str., GR-38446, New Ionia, Magnesia, Greece

Tel: +302421093249, **M.:** +306948575954
e-mail: nkatsoul@uth.gr, nkatsoul@o365.uth.gr

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.

Since 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.

Since 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.

Since March 2021 he is appointed as Senior Editor of the Elsevier peer review Journal Biosystems Engineering.

C. EDUCATION TITLES

- PhD Diploma in Agricultural Sciences-Agricultural Engineering 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 PhD 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

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F. RESEARCH EXPERIENCE

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

F.1. 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, IRRQUAL, 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, OpiRIS. 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. 01/10/2019-31/09/2022, *Coordinator for UTH*.
12. Valorisation of ancient farming techniques in resilient and sustainable agriculture- VALOR, Erasmus+ project 612501-EPP-1-2019-1-IT-EPPKA2-KA, 01/11/2019-30/10/2022. *Coordinator for UTH*.
13. Empowerment of VET system through sustainable entrepreneurial initiatives in quality pig breeding-BREED, Erasmus+ project 2019-1-IT01-KA202-007785, 01/09/2019-31/08/2022. *Coordinator for UTH*.
14. Training Material for Global Citizenship Education (GCE) in rural areas. Erasmus+ project KA204-00B721B4, 01/01/2021-31/12/2022. *Coordinator for UTH*.

15. Organic Photovoltaic Greenhouse-ORION. Project funded in the frame of SOLAR-ERA.NET Cofund 2 Additional Joint Call projects (PA no: 56). 2022-2023, *Coordinator for UTH*.
16. Field -testing and demonstration of digital and space-based technologies with agro-ecological and organic practices in systemic innovation, PestNu. H2020, Green Deal Call: LC-GD-6-1-2020: Subtopic: C, Innovation Action project, grant agreement No 101037128), 01/10/2021-30/09/2024. *Coordinator for UTH*.
17. Innovative concepts and technologies for ECOlogically sustainable NUTRient management in agriculture aiming to prevent, mitigate and eliminate pollution in soils, water, and air – EcoNutri. HORIZON-CL6-2022-ZEROPOLLUTION-01 (Clean environment and zero pollution), Topic: HORIZON-CL6-2022-ZEROPOLLUTION-01-03, Type of Action: HORIZON-IA, Proposal number: 101081858, 01/11/2022-30/04/2026. *Coordinator for UTH*
18. Crop responsive greenhouse agrivoltaics system with CO₂ enrichment for Higher Yields-REGACE. Call: HORIZON-CL5-2022-D3-01, (Sustainable, secure and competitive energy supply), Topic: HORIZON-CL5-2022-D3-01-06, Type of Action: HORIZON-IA, Proposal number: 101096056, Proposal acronym: REGACE. 01/02/2023-31/01/2026. *Associate Coordinator for UTH*.
19. Emergent soil, plant and food onsite digital services on chemical and biological contaminants. HORIZON-MISS-2023-SOIL-01-03. Proposal number: 101157922, Proposal acronym: E-SPFdigit. 01/10/2024-30/09/2027. *Coordinator for UTH*.

F.2. Bilateral Research Projects

20. «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*.
21. «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*.
22. «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*.
23. «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*.
24. Cascade Hydroponics: an integrated approach to increase productivity, resource use efficiency and sustainability of protected horticulture, CasH. Greece-Germany bilateral project. 06/2018-12/2021. *Coordinator of the project*.
25. Development of a textile with Silica coating for environmental friendly control of insects in agricultural production, AgriTexSil. Greece-Germany bilateral project. 05/2018-12/2021. *Coordinator of the project*.

F.3. National Research Projects

26. «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*.
27. «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*.
28. 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*.
 29. «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*.
 30. «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*.
 31. «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*.
 32. «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*.
 33. «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*.
 34. 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*.
 35. Theoretical and experimental investigation of screenhouse 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*.
 36. 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*.
 37. 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*.
 38. 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*.
 39. 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*.
 40. 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*.

41. 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.*
42. 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.*
43. Semi-transparent 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.*
44. Energy autonomous greenhouse exploiting renewable energy sources, AgroRes. 2020-2022. 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: T2EDK-00912). *Subcontractor of Shelter SA SMEs.*
45. Integrated management and control system for greenhouse clusters, ICONIC. 2020-2022. 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: T2EDK-02022). *Subcontractor of Agrostis SA.*
46. KARLA climate-land-water. Innovative actions to adapt to the effects of climate change, with an emphasis on land uses and water resources management, 2021-2023. Prasino Tameio, Greece. *Deputy Coordinator for UTH.*
47. Crop and livestock stress under climate change scenarios_AGRO FUTURE CLIMATE STRESS)_Proj.ID:15743, 2023-2025. ELIDEK, *Deputy Coordinator for UTH.*
48. Circular economy in agricultural production: the cycle of nutrition between plants, fish and insects as a new food production system with a low environmental footprint (Agro-Cycle). 2023-2025. Prasino Tameio, Greece. *Deputy Coordinator for UTH.*

F.4. Research Projects funded by the Research Committee of the University of Thessaly

49. «Determination of the effects of a thermal screen on the energy balance of the greenhouse». 01/02/1997-31/05/1997. *Researcher.*
50. «Installation and operation of a hydroponic system». 10/09/1997-09/07/1998. *Researcher.*
51. «Development and validation of a statistical model for tomato seedlings crop simulation». 01/05/2007-31/07/2008. *Scientific responsible of the project.*
52. 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 modelling. 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., 2021. Advances in irrigation/fertigation techniques in greenhouse soilless culture systems (SCS). In Gruda, N., (Ed.) Advances in horticultural soilless culture, Burleigh Dodds Series in Agricultural Science, <http://dx.doi.org/10.19103/AS.2020.0076.10>
- G.1.9. Ortuño, M.F., Parra, A., Alarcón, J.J., Gómez-Bellot, M.J., Skarmeta, A., Mora M., Marín, R., Katsoulas, N., Faliagka, S., Papanastasiou, D.K., Semiani, M., Belkhiri, F.E., Dalila, S., Boukadi, K., Grati, R., Bouaziz, B. (2024). PRECIMED: development of a decision support system (DSS) for precision irrigation in Mediterranean agriculture. In: Knox, J. W. (ed.), Improving water management in agriculture: Irrigation and food production, Burleigh Dodds Science Publishing, Cambridge, UK. ISBN - print 978-1-80146-274-7

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., Karaiskou, P., Papaioannou, 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 photoselective 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.
- G.3.25. Papaioannou, Ch., Katsoulas, N., Maletsika, P., Siomos, A., Kittas, C., 2012. Effects of a UV-absorbing greenhouse covering film on tomato yield and quality. *Spanish Journal of Agricultural Research*, 10(4): 959-966.
- G.3.26. Bartzanas, T., Kacira, M., Zhu, H., Karmakar, S., Tamimi, E., Katsoulas, N., Lee, In Bok., Kittas, C., 2012. Computational fluid dynamics applications to improve crop production systems. *Computers and Electronics in Agriculture*, 93: 151-167.
- G.3.27. Tsirogiannis, I. Katsoulas, N. Savvas, D. Karras G. Kittas C., 2013. Relationships between reflectance and water status in a greenhouse rocket (*Eruca sativa* Mill.) cultivation. *European Journal of Horticultural Science*, 78(6): 275-282.
- G.3.28. Kitta, E. Katsoulas, N. Kandila, A. González-Real M.M., Baille A., 2014. Photosynthetic acclimation of sweet pepper plants to screenhouse conditions. *HortScience*, 49(2): 166-172.
- G.3.29. Kitta, E., Baille, A., Katsoulas, N., Rigakis, N., González-Real, M.M., 2014. Effects of cover optical properties on screenhouse radiative environment and sweet pepper productivity. *Biosystems Engineering*, 122:115-126.
- G.3.30. Kitta, E., Baille, A., Katsoulas, N., Rigakis, N., 2014. Predicting reference evapotranspiration for screenhouse-grown crops. *Agricultural Water Management*, 143: 122-130.
- G.3.31. Dimokas, G., Katsoulas, N., Kittas, C., Tchamitchian, M., 2014. Case studies using the biological simulator TOMGRO for greenhouse tomato crop cultivations. *Geotechnical Scientific Subjects*, 23(2): 4-11 (in Greek).
- G.3.32. Rigakis, N., Katsoulas, N., Teitel, M., Bartzanas, T., Kittas, C., 2015. A simple model for ventilation rate determination in screenhouses. *Energy and Buildings*, 87: 293-301.
- G.3.33. Katsoulas, N., Savvas, D., Kitta, E., Bartzanas T., Kittas C., 2015. Extension and evaluation of a model for automatic drainage solution management in tomato crops grown in semi-closed hydroponic systems. *Computers and Electronics in Agriculture*, 113: 61–71. <https://doi.org/10.1016/j.compag.2015.01.014>
- G.3.34. Katsoulas, N., Sapounas, A., De Zwart, F., Dieleman, J.A., Stanghellini, C., 2015. Reducing ventilation requirements in semi-closed greenhouses increases water use efficiency. *Agricultural Water Management*, 156: 90-99.
- G.3.35. Katsoulas, N., Peponakis, K., Ferentinos, K.P., Kittas, C., 2015. Calibration of a growth model for tomato seedlings (TOMSEED) based on heuristic optimisation. *Biosystems Engineering*, 40: 34-47.
- G.3.36. Antoniadis, D., Katsoulas, N., Papanastasiou, D., Christidou, V., Kittas, C., 2016. Evaluation of thermal comfort in schoolyards under Mediterranean climate conditions. *International Journal of Biometeorology*, 60(3): 319-34.

- G.3.37. Apostolou K., Pappas –Zois E., Flessas A., Neofitou C., Katsoulas N., Kittas C., Hatzioannou M., 2016. Snail farming in net-covered greenhouses: a comparison between semi-natural and artificial conditions. *Agriculture & Food*, 4: 646-654.
- G.3.38. Katsoulas, N., Elvanidi, A., Ferentinos, K.P., Kacira, M., Bartzanas, T., Kittas, C., 2016. Crop reflectance monitoring as a tool for water stress detection in greenhouses: a review. *Biosystems Engineering*, 151: 374-398.
- G.3.39. Tzounis, A., Katsoulas, N., Ferentinos, K.P., Bartzanas, T., Kittas, C., 2016. Development of a WSN for greenhouse microclimate distribution monitoring. *The Annals of "Valahia" University of Targoviste*, 10(1), 7-14. DOI: 10.1515/agr-2016-0002
- G.3.40. Katsoulas, N., Antoniadis, D., Tsirogiannis, I.L., Labraki, E., Bartzanas, T., Kittas, C., 2016. Microclimatic effects of planted hydroponic structures in urban environment: measurements and simulations. *International Journal of Biometeorology*, 61(5), 943-956, DOI 10.1007/s00484-016-1274-0.
- G.3.41. Ferentinos, K.P., Katsoulas, N., Tzounis, A., Bartzanas, T., Kittas, C., 2017. Wireless sensor networks for greenhouse climate and plant condition assessment. *Biosystems Engineering*, 153, 70-81. <https://doi.org/10.1016/j.biosystemseng.2016.11.005>
- G.3.42. Elvanidi, A., Katsoulas, N., Bartzanas, T., Ferentinos, K.P., Kittas, C., 2017. Crop water status assessment in controlled environment using crop reflectance and temperature measurements. *Precision Agriculture*, 18(3), 332-349, DOI 10.1007/s11119-016-9492-3.
- G.3.43. Tzounis, A., Katsoulas, N., Bartzanas, T., Kittas, C., 2017. Internet of Things in agriculture, recent advances and future challenges. *Biosystems Engineering*, 164, 31-48. <https://doi.org/10.1016/j.biosystemseng.2017.09.007>
- G.3.44. Nikolaou, G., Neocleous, D., Katsoulas, N., Kittas, C., 2018. Effect of irrigation frequency on growth and production of a cucumber crop under soilless culture. *Emirates Journal of Food and Agriculture*, 29(11): 863-871.
- G.3.45. Elvanidi, A., Katsoulas, N., Ferentinos, K.P., Bartzanas, T., Kittas, C., 2018. Hyperspectral machine vision as a tool for water stress severity assessment in soilless tomato crop. *Biosystems Engineering*, 165: 25-35. <https://doi.org/10.1016/j.biosystemseng.2017.11.002>
- G.3.46. Nikolaou, G., Neocleous, D., Katsoulas, N., Kittas, C., 2018. Modelling transpiration of soilless greenhouse cucumber and its relationship with leaf temperature in a Mediterranean climate. *Emirates Journal of Food and Agriculture*, 29(12): 911-920.
- G.3.47. Al-Mulla, Y. A., Al-Busaidi, H., Al-Balushi, M., Al-Mahdouri, A., Kittas, C., Katsoulas, N., 2018. Analysis of microclimate and cucumber fruit yield in a screenhouse and an evaporatively cooled greenhouse. *Transactions of the ASABE*, 61(2): 619-629. doi: 10.13031/trans.12144.
- G.3.48. Nikolaou, G., Neocleous, D., Katsoulas, N., Kittas, C., 2018. Dynamic assessment of whitewash shading and evaporative cooling on the greenhouse microclimate and cucumber growth in a mediterranean climate. *Italian Journal of Agrometeorology*, 2-18: 15-26.
- G.3.49. Ropokis, A., Ntatsi, G., Kittas, C., Katsoulas, N., Savvas, D., 2018. Impact of cultivar and grafting on nutrient and water uptake by sweet pepper (*Capsicum annuum* L.) grown hydroponically under Mediterranean climatic conditions. *Frontiers in Plant Science*, 9, 1244, doi.org/10.3389/fpls.2018.01244
- G.3.50. Antoniadis, D., Katsoulas, N., Kittas, C., 2018. Simulation of schoolyard's microclimate and human thermal comfort under Mediterranean climate conditions: Effects of trees and green structures. *International Journal of Biometeorology*, 62:2025–2036, <https://doi.org/10.1007/s00484-018-1612-5>.

- G.3.51. Elvanidi, A., Katsoulas, N., Loulou, I., Avgoustaki, D., Kittas, C., 2018. Crop reflectance measurements for nitrogen deficiency detection in a soilless tomato crop. *Biosystems Engineering*, 176: 1-11. <https://doi.org/10.1016/j.biosystemseng.2018.09.019>
- G.3.52. Elvanidi, A., Katsoulas, N., Kittas, C., 2018. Automation for water and nitrogen deficit stress detection in greenhouse based on spectral indices. *Horticulturae*, 4(4):47, doi.org/10.3390/horticulturae4040047
- G.3.53. Petropoulos, S., Fernandes, Â., Katsoulas, N., Barros, L., Ferreira, I., 2018. The effect of covering material on the yield, quality and chemical composition of greenhouse grown tomato fruit. *Journal of the Science of Food and Agriculture*, 99: 3057-3068. [doi:10.1002/jsfa.9519](https://doi.org/10.1002/jsfa.9519)
- G.3.54. Metsoviti, M., Katsoulas, N., Karapanagiotidis, I., Papapolymerou, G., 2018. Effect of nitrogen concentration, two-stage and prolonged cultivation on growth rate, lipid and protein content of *Chlorella vulgaris*. *Journal of Chemical Technology & Biotechnology*, 94: 1466–1473, <https://doi.org/10.1002/jctb.5899>
- G.3.55. Nikolaou, G., Neocleous, D., Katsoulas, N., Kittas, C., 2019. Irrigation of greenhouse crops. *Horticulturae*, 5(1), 7; <https://doi.org/10.3390/horticulturae5010007>
- G.3.56. Ropokis, A., Ntatsi, G., Kittas, C., Katsoulas, N., Savvas, D., 2019. Effects of temperature and grafting on yield, nutrient uptake, and water use efficiency of a hydroponic greenhouse sweet pepper crop. *Agronomy* 2019, 9(2), 110; <https://doi.org/10.3390/agronomy9020110> .
- G.3.57. Nikolaou, G., Neocleous, D., Katsoulas, N., Kittas, C., 2019. Effects of cooling systems on greenhouse microclimate and cucumber growth under mediterranean climatic conditions. *Agronomy*, 9(6), 300; <https://doi.org/10.3390/agronomy9060300> .
- G.3.58. Katsoulas, N., Stanghellini, C., 2019. Modelling crop transpiration in greenhouses: Different models for different applications. *Agronomy*, 9, 392; <https://doi.org/10.3390/agronomy9070392> .
- G.3.59. Metsoviti, M., Katsoulas, N., Karapanagiotidis, I., Papapolymerou, G., 2019. Comparison of growth rate and nutrient content of five microalgae species cultivated in greenhouses, *Plants*, 8(8), 279; <https://doi.org/10.3390/plants8080279>
- G.3.60. Metsoviti, M., Katsoulas, N., Karapanagiotidis, I., Papapolymerou, G., 2019. Effect of light quality and quantity on growth rate and nutrient content of *Chlorella vulgaris*, *Plants*, 9(1), 31; <https://doi.org/10.3390/plants9010031>
- G.3.61. Metsoviti, M., Katsoulas, N., Karapanagiotidis, I., Papapolymerou, G., 2019. Current and Potential Applications of Microalgae: A Mini Review. *Oceanography & Fisheries Open Access Journal*, 11(3): 1-5. <https://doi.org/10.19080/OFOAJ.2019.11.555811>
- G.3.62. Baxevanou, C., Fidaros, D., Katsoulas, N., Mekeridis, E., Varlamis, C., Zachariadis, A., Logothetidis, S., 2020. Simulation of radiation and crop activity in a greenhouse covered with semitransparent organic photovoltaics. *Applied Sciences*, 10, 2550; <https://doi.org/10.3390/app10072550>
- G.3.63. Kitta, E., Katsoulas, N., 2020. Effect of shading on photosynthesis of greenhouse hydroponic cucumber crops. *Italian Journal of Agrometeorology*, (3): 41-48. <https://doi.org/10.13128/ijam-871>
- G.3.64. Bouras, S., Katsoulas, N., Antoniadis, D., Karapanagiotidis, I., 2020. Biofuel industry waste utilisation for DHA-yielding *Schizochytrium limacinum* production: implications for circular economy and fish oil replacement in aquafeeds. *Applied Sciences*, 10(12): 4398; <https://doi.org/10.3390/app10124398>
- G.3.65. Faliagka, S., Agrafioti, P., Lampiri, E., Katsoulas, N., Athanassiou, C., 2020. Assessment of different inert dust formulations for the control of *Sitophilus oryzae*,

- Tribolium confusum* and *Aphis fabae*. Journal of Stored Product Research, 137: 105312, <https://doi.org/10.1016/j.cropro.2020.105312>
- G.3.66. Katsoulas, N., Bari, A., Papaioannou, C., 2020. Plant responses to UV blocking greenhouse covering materials: a review. Agronomy, 10, 1021. <https://doi.org/10.3390/agronomy10071021>
- G.3.67. Nikolaou, G., Neocleous, D., Kitta, E., Katsoulas, N., 2020. Implementing sustainable irrigation in water-scarce regions under the impact of climate change. Agronomy, 10(8):1120. <https://doi.org/10.3390/agronomy10081120>
- G.3.68. Agrafioti, P., Faliagka, S., Lampiri, E., Orth, M., Pätzelt, M., Katsoulas, N., Athanassiou, C., 2020. Evaluation of silica coated insect proof nets for the control of *Aphis fabae*, *Sitophilus oryzae* and *Tribolium confusum*. Nanomaterials, 10(9), 1658; <https://doi.org/10.3390/nano10091658>.
- G.3.69. Vatsanidou, A., Fountas, S., Liakos, V., Nanos, G., Katsoulas, N., Gemtos, T., 2020. Life Cycle Assessment of variable rate fertilizer application in a pear orchard. Sustainability, 12(17), 6893; <https://doi.org/10.3390/su12176893>.
- G.3.70. Vatsanidou, A., Kavalakis, C., Fountas, S., Katsoulas, N., Gemtos, T., 2020. A life cycle assessment of biomass production from energy crops in crop rotation using different tillage system. Sustainability, 12(17), 6978; <https://doi.org/10.3390/su12176978>.
- G.3.71. Katsoulas, N., Løes, A-K., Andrivon, D., Cirvilleri, G., de Cara, M., Kir, A., Knebl, L., Malińska, K., Oudshoorn, F.W., Willer, H., Schmutz, U., 2020. Current use of copper, mineral oils and sulphur for plant protection in organic horticultural crops across 10 European countries. Organic Agriculture, 10(1), 159-171, <https://doi.org/10.1007/s13165-020-00330-2>.
- G.3.72. Antoniadis, D., Katsoulas, N., Papanastasiou, D.K., 2020. Thermal environment of urban schoolyards: current and future design with respect to children's thermal comfort. Atmosphere, 11(11), 1144; <https://doi.org/10.3390/atmos11111144>.
- G.3.73. Sapounas, A., Katsoulas, N., Slager, B., Bezemer, R., Lelieveld, C., 2020. Semi-closed greenhouses: a review on design, control and performance. Agronomy, 10(11), 1739; <https://doi.org/10.3390/agronomy10111739>
- G.3.74. Elvanidi, A., Benitez-Reascos, C.M., Gourzoulidou, E., Kunze, A., Max, J.F.J., Katsoulas, N., 2020. Implementation of the circular economy concept in greenhouse hydroponics for ultimate use of water and nutrients. Horticulturae, 6(4), 83, <https://doi.org/10.3390/horticulturae6040083>
- G.3.75. Nikolaou, G., Neocleous, D., Kitta, E., Katsoulas, N., 2020. Estimation of aerodynamic and canopy resistances in a Mediterranean greenhouse based on instantaneous leaf temperature measurements. Agronomy, 10(12), 1985. <https://doi.org/10.3390/agronomy10121985>
- G.3.76. Ropokis, A., Ntatsi, G., Roupheal, Y., Kotsiras, A., Kittas, C., Katsoulas, N., Savvas, D., 2021. Responses of sweet pepper (*Capsicum annum* L.) cultivated in a closed hydroponic system to variable Ca concentrations in the nutrient solution. Journal of the Science of Food and Agriculture, 101: 4342-4349. <https://doi.org/10.1002/jsfa.11074>
- G.3.77. Stathopoulou, P., Berillis, P., Vlahos, N., Nikouli, E., Kormas, K.A., Levizou, E., Katsoulas, N., Mente, E., 2021. Freshwater-adapted sea bass *Dicentrarchus labrax* feeding frequency impact in a lettuce *Lactuca sativa* aquaponics system. PeerJ 9:e11522 <https://doi.org/10.7717/peerj.11522>
- G.3.78. Katsoulas, N., Antoniadis, D., Nikitas, A., 2021. A web-based system for fungus disease risk assessment in greenhouses: System development. Computers and Electronics in Agriculture, 188, 106326. <https://doi.org/10.1016/j.compag.2021.106326>
- G.3.79. Avdouli, D., Max, J., Katsoulas, N., Levizou, E., 2021. Basil as secondary crop in cascade hydroponics: a matter of salinity tolerance and compromise between herbal yield

- reduction and bioactive compounds increase. *Horticulturae*, 7 (8), 203. <https://doi.org/10.3390/horticulturae7080203>
- G.3.80. Fatnassi, H., Boulard, T., Poncet, C., Katsoulas, N., Bartzanas, T., Kacira, M., Gebraegziabher, H.D., Lee, I.B., 2021. Computational fluid dynamics modelling of the microclimate within the boundary layer of leaves leading to improved pest control management and low-input greenhouse. *Sustainability*, 13 (15), 8310; <https://doi.org/10.3390/su13158310>
- G.3.81. Faliagka, S., Elvanidi, A., Spanoudaki, S., Kunze, A., Max, J.F.J., Katsoulas, N., 2021. Effect of NaCl or macronutrients-imposed salinity on basil crop yield and water use efficiency. *Horticulturae*, 7(9), 296; <https://doi.org/10.3390/horticulturae7090296>
- G.3.82. Nikolaou, G., Neocleous, D., Christou, A., Polycarpou, P., Kitta, E., Katsoulas, N., 2021. Energy and water related parameters in tomato and cucumber greenhouse crops in semiarid Mediterranean regions. A review, Part I: Energy and microclimatic parameters. *Horticulturae*, 7(12), 521; <https://doi.org/10.3390/horticulturae7120521> .
- G.3.83. Nikolaou, G., Neocleous, D., Christou, A., Polycarpou, P., Kitta, E., Katsoulas, N., 2021. Energy and water related parameters in tomato and cucumber greenhouse crops in semiarid Mediterranean regions. A review, Part II: Irrigation and fertigation. *Horticulturae*, 7(12), 548; <https://doi.org/10.3390/horticulturae7120548> .
- G.3.84. Faliagka, S., Katsoulas, N., 2022. Silica coated insect proof screens for effective insect control in greenhouses. *Biosystems Engineering*, 215, 21-31 <https://doi.org/10.1016/j.biosystemseng.2022.01.003> .
- G.3.85. Bouras, S., Antoniadis, D., Kountrias, G., Karapanagiotidis, I., Katsoulas, N., 2022. Effect of pH on *Schizochytrium limacinum* production grown using crude glycerol and biogas digestate effluent. *Agronomy*, 12(2), 364. <https://doi.org/10.3390/agronomy12020364> .
- G.3.86. Schwarz, D., Harrison, M.T., Katsoulas, N., 2022. Editorial: Greenhouse gas emissions and emissions mitigation from agricultural and horticultural production systems. *Frontiers in Sustainable Food Systems*, 6, 1-3, <https://doi.org/10.3389/fsufs.2022.842848>
- G.3.87. Papaioannou, Ch., Katsoulas, N., Kitta, E., 2022. Losing blockage property of a UV-blocking greenhouse covering material: In situ and Lab measurements comparison. *AgriEngineering*, 4(1), 171-178; <https://doi.org/10.3390/agriengineering4010012>
- G.3.88. Nikolaou, G., Neocleous, D., Kitta, E., Katsoulas, N., 2023. Assessment of the Priestley-Taylor coefficient and a modified potential evapotranspiration model. *Smart Agricultural Technology*, 3,100075, <https://doi.org/10.1016/j.atech.2022.100075>
- G.3.89. Karapanagiotidis, I.T., Metsoviti, M.N., Gkalogianni, E.Z., Psoufakis, P., Asimaki, A., Katsoulas, N., Papapolymerou, G., Zarkadas, I., 2022. The effects of replacing fishmeal by *Chlorella vulgaris* and fish oil by *Schizochytrium* sp. and *Microchloropsis gaditana* blend on growth performance, feed efficiency, muscle fatty acid composition and liver histology of gilthead seabream (*Sparus aurata*). *Aquaculture*, 561, 738709, ISSN 0044-8486, <https://doi.org/10.1016/j.aquaculture.2022.738709>.
- G.3.90. Tsoumalakou, E., Mente, E., Kormas, K.A., Katsoulas, N., Vlahos, N., Kapsis, P., Levizou, E., 2022. Precise monitoring of lettuce functional responses to minimal nutrient supplementation identifies aquaponic system's nutrient limitations and their time-course. *Agriculture*, 12, 1278, <https://doi.org/10.3390/agriculture12081278>
- G.3.91. Karapanagiotidis, I.T., Metsoviti, M.N., Gkalogianni, E.Z., Psoufakis, P., Asimaki, A., Katsoulas, N., Papapolymerou, G., Zarkadas, I., 2022. The effects of replacing fishmeal by *Chlorella vulgaris* and fish oil by *Schizochytrium* sp. and *Microchloropsis gaditana* blend on growth performance, feed efficiency, muscle fatty acid composition and liver histology of gilthead seabream (*Sparus aurata*). *Aquaculture*, 561, 738709, <https://doi.org/10.1016/j.aquaculture.2022.738709>.

- G.3.92. Stathopoulou, P., Asimaki, A., Berillis, P., Vlahos, N., Levizou, E., Katsoulas, N., Karapanagiotidis, I., Rumbos, C., Athanassiou, C., Mente, E., 2022. Aqua-ento-ponics: Effect of insect meal on the development of sea bass, *Dicentrarchus labrax*, in co-culture with lettuce. *Fishes*, 7(6), 397, <https://doi.org/10.3390/fishes7060397>
- G.3.93. Elvanidi, A., Katsoulas, N., 2023. Machine learning-based crop stress detection in greenhouses. *Plants*, 12(1), 52; <https://doi.org/10.3390/plants12010052>
- G.3.94. Marín-Guirao, J.I., Páez-Cano, F.C., García-García, C., Katsoulas, N., de Cara-García, M., 2023. Evaluation of copper-free alternatives to control grey mould in organic Mediterranean greenhouse tomato production. *Agronomy*, 13(1), 137; <https://doi.org/10.3390/agronomy13010137>.
- G.3.95. Baxevanou, C., Fidaros, D., Papaioannou, C., Katsoulas, N., 2023. Design and optimization of a hybrid solar-wind power generation system for greenhouses. *Horticulturae*, 9(2), 181; <https://doi.org/10.3390/horticulturae9020181>
- G.3.96. Kittas, C., Baudoin, W., Kitta, E., Katsoulas, N., 2023. Sheltered horticulture adapted to different climate zones in Radhort Countries. *Italian Journal of Agrometeorology*, 2, 3-16, <https://doi.org/10.36253/ijam-1655>
- G.3.97. Papapolymerou, G., Karapanagiotidis, I., Katsoulas, N., Metsoviti, M., Gkalogianni, E., 2023. Biomass productivity of *Microchloropsis gaditana* cultivated in a variety of modes and effect of cobalt and molybdenum on its lipid distribution. *Green Energy and Sustainability*, 3(2):0002. <https://doi.org/10.47248/ges2303020002>.
- G.3.98. Karatsivou, E., Elvanidi, A., Faliagka, S., Naounoulis, I., Katsoulas, N., 2023. Performance evaluation of a cascade cropping system. *Horticulturae*, 9(7):802. <https://doi.org/10.3390/horticulturae9070802>
- G.3.99. Mourantian, A., Aslanidou, M., Mente, E., Katsoulas, N., Levizou, E., 2023. Basil functional and growth responses when cultivated via different aquaponic and hydroponics systems. *PeerJ* 11:e15664 <https://doi.org/10.7717/peerj.15664>
- G.3.100. Nikolaou, G., Neocleous, D., Kitta, E., Katsoulas, N., 2023. Estimating cucumber crop coefficients under different greenhouse microclimatic conditions. *International Journal of Biometeorology*. <https://doi.org/10.1007/s00484-023-02535-y>
- G.3.101. Papapolymerou, G., Gougoulas, N., Metsoviti, M., Katsoulas, N., Karapanagiotidis, I., Kasiteropoulou, D., Mpesios, A., Papadopoulou, A., 2023. FAME properties, bio-oil productivity and carbon yield coefficient of *Chlorella sorokiniana* grown with low and high initial nitrogen concentrations. *Sustainable Chemistry and Pharmacy*, 35, 101179, <https://doi.org/10.1016/j.scp.2023.101179>
- G.3.102. Aslanidou, M., Elvanidi, A., Mourantian, A., Levizou, E., Mente, E., Katsoulas, N., 2023. Nutrients use efficiency in coupled and decoupled aquaponic systems. *Horticulturae*, 9(10):1077. <https://doi.org/10.3390/horticulturae9101077>
- G.3.103. Manuelian, C.L., Valleix, S., Bugaut, H., Birgit Fuerst-Waltl, da Costa, L., Burbi, S., Schmutz, U., Evans, A., Katsoulas, N., Faliagka, S., Uygun Aksoy, Çiçekli, O., Drózd, D., Malińska, K., Whistance, L., Johnson, M., Knebl, L., Righi, F., De Marchi, M., 2023. Farmers concerns in relation to organic livestock production. *Italian Journal of Animal Science*, 22(1): 1268-1282, <https://doi.org/10.1080/1828051X.2023.2252005>
- G.3.104. Papanastasiou, D.K., Keppas, S., Melas, D., Katsoulas, N., 2023. Estimation of crops future water needs in a Mediterranean plain. *Sustainability*, 15(21), 15548; <https://doi.org/10.3390/su152115548>
- G.3.105. Georgiou, D., Exarhopoulos, S., Charisis, A., Simitsis, S., Papapanagiotou, G., Samara, C., Katsiapi, M., Kountrias, K., Bouras, S., Katsoulas, N., Karapanagiotidis, I.T., Chatzidoukas, C., Kalogianni, E.P. 2024. Valorization of *Monoraphidium* sp. microalgal biomass for human nutrition applications. *Journal of Applied Phycology*, <https://doi.org/10.1007/s10811-024-03191-4>

- G.3.106. Chandrou, E., Faliagka, S., Mourantian, A., Kollaros, M-G., Karamanoli, K., Pechlivani, E-M., Katsoulas, N., Levizou, E. 2024. Exploring the potential of biostimulants to optimize lettuce cultivation in coupled and decoupled aquaponics systems: growth performance, functional characteristics and metabolomic analysis. *Horticulturae*, 10, 514. <https://doi.org/10.3390/horticulturae10050514>
- G.3.107. Faliagka, S., Kountrias, G., Dimitriou, E., Alvarez-Gil, M., Blanco-Vieites, M., Magrassi, F., Notari, M., Pechlivani, E-M., Katsoulas, N., 2024. Development of a greenhouse wastewater stream utilization system for on-site microalgae-based biostimulant production. *AgriEngineering*, 6(3), 1898-1923; <https://doi.org/10.3390/agriengineering6030111>
- G.3.108. Aslanidou, M., Elvanidi, A., Mourantian, A., Levizou, E., Mente, E., Katsoulas, N., 2024. Evaluation of productivity and efficiency of a large-scale coupled or decoupled aquaponic system. *Scientia Horticulturae*, 337, 113552, <https://doi.org/10.1016/j.scienta.2024.113552>.
- G.3.109. Faliagka, S., Naounoulis, I., Pechlivani, E.M., Katsoulas, N., 2024. In situ nitrate monitoring for improved fertigation in on-demand coupled aquaponic systems. *Nitrogen*, 5(4), 1048-1057; <https://doi.org/10.3390/nitrogen5040067>.
- G.3.110. Naounoulis, I., Faliagka, S., Levizou, E., Katsoulas, N., 2024. Cascade hydroponics enhanced water and nutrients use efficiency in a greenhouse cucumber-melon crop combination. *Scientia Horticulturae*, 338, 113822, <https://doi.org/10.1016/j.scienta.2024.113822>.
- G.3.111. Kapetas, D., Christakakis, P., Faliagka, S., Katsoulas, N., Pechlivani, E.M., 2025. AI-driven insect detection, real-time monitoring, and population forecasting in greenhouses. *AgriEngineering*, 7, 29. <https://doi.org/10.3390/agriengineering7020029>.
- G.3.112. Karachaliou, Z., Naounoulis, I., Katsoulas, N., & Levizou, E., 2025. Cascade hydroponics as a means to increase the sustainability of cropping systems: Evaluation of functional, growth, and fruit quality traits of melons. *Sustainability*, 17(10), 4527. <https://doi.org/10.3390/su17104527>

G.4. *Papers published in Proceedings of International Conferences*

- G.4.1. Kittas, C., Katsoulas, N., Baille, A., 1999. Transpiration and canopy resistance of greenhouse soilless roses in Greece. Measurements and modelling. *Acta Horticulturae*, 507: 61-68.
- G.4.2. Katsoulas, N., Kittas, C., Baille, A., 1999. Estimating transpiration rate and canopy resistance of a rose crop in a fan-ventilated greenhouse. *Acta Horticulturae*, 548: 303-309. (Proceedings of the International Symposium of I.S.H.S. on Growing Media and Hydroponics, Kassandra, Macedonia, Greece, August 31 – September 6, 1999).
- G.4.3. Kittas, C., Baille, A., Katsoulas, N., 1999. Influence of misting on the diurnal hysteresis of canopy transpiration rate and conductance in a rose greenhouse. *Acta Horticulturae*, 534: 185-193. (Proceedings of the International Conference of I.S.H.S. on Greenhouse Techniques towards the 3rd Millennium, September 5-8, 1999 Haifa, Israel).
- G.4.4. Kittas, C., Baille, A., Katsoulas, N., 2001. Transpiration and energy balance of a greenhouse rose crop in Mediterranean summer conditions. *Acta Horticulturae*, 559(1): 395-400. (Proceedings of the 5th International Symposium of I.S.H.S. on Protected Cultivation in Mild Winter Climates: Current Trends for Sustainable Technologies, Cartagena - Almeria, Spain, 7-11 March 2000)
- G.4.5. Kittas, C., Katsoulas, N., Baille, A., 2002. Influence of aluminised thermal screens on greenhouse microclimate and night transpiration. *Acta Horticulturae*, 614(1): 387-392. (Proceedings of the International Symposium on Product and process innovation for protected cultivation in mild winter climate, March 5-8, 2002, Ragusa- Italy).

- G.4.6. Lykas, C., Katsoulas, N., Kittas, C., 2004. EC and pH prediction in a recirculated nutrient solution of a greenhouse soilless rose crop. Measurements and modelling. International Symposium of the CIGR in New trends in Farm buildings. May 2-6, 2004, Evora, Portugal.
- G.4.7. Kittas, C., Papaioannou, C., Obeid, D., Katsoulas, N., Tchamitchian, M., 2004. Effect of two new UV-absorbing greenhouse covering films on growth and yield of a tomato soilless crop. International Symposium of the CIGR in New trends in Farm buildings. May 2-6, 2004, Evora, Portugal.
- G.4.8. Karydakis, G., Kolios, N., Andritsos, N., Katsoulas, N., 2004. Separation of CO₂ from low-enthalpy geothermal fields and its use in Greenhouses. International Conference on Geothermal Energy Applications in Agriculture. May 3-4, 2004, Athens Greece.
- G.4.9. Kittas, C., Katsoulas, N., Tchamitchian, M., 2004. Greenhouse soilless rose crop transpiration. Application for accurate irrigation control. Protection and restoration of the environment VII. June 28–July 1, 2004. Mykonos, Greece.
- G.4.10. Kittas, C., Dimokas, G., Lykas, C., Katsoulas, N., 2004. Effect of two irrigation frequencies on rose flower production and quality. *Acta Horticulturae*, 691(1): 333-340. (Proceedings of the International Symposium on Sustainable Greenhouse Systems, Greensys 2004, September 12-16, 2004, Leuven, Belgium).
- G.4.11. Baille, A., Kittas, C., Katsoulas, N., 2004. Crop-climate coupling mechanisms in greenhouses. Characterization and analysis. *Acta Horticulturae*, 691(1): 163-170. (Proceedings of the International Symposium on Sustainable Greenhouse Systems, Greensys 2004, September 12-16, 2004, Leuven, Belgium).
- G.4.12. Kittas, C., Katsoulas, N., Baille, A., 2004. Use of artificial leaves for aerodynamic conductance monitoring in greenhouses. *Acta Horticulturae*, 691(2): 749-756. (Proceedings of the International Symposium on Sustainable Greenhouse Systems, Greensys 2004, September 12-16, 2004, Leuven, Belgium).
- G.4.13. Kittas, C., Katsoulas, N., Bartzanas, T., Boulard, T., Mermier, M., 2005. Effect of Vents' Opening and Insect Screen on Greenhouse Ventilation. Proceedings of the 1st International Conference on Passive and Low Energy Cooling for the Built Environment, I: 59-64.
- G.4.14. Bartzanas, T., Katsoulas, N., Kittas, C., Boulard, T., Mermier, M., 2005. Effect of Vents' Configuration and Insect Screen on Greenhouse Microclimate. Proceedings of the 1st International Conference on Passive and Low Energy Cooling for the Built Environment, II: 1003-1008.
- G.4.15. Bartzanas, T., Katsoulas, N., Kittas, C., 2005. Analysis of ventilation performance of a tunnel greenhouse using computational fluid dynamics tools. Proceedings of the International Conference on the integration of the renewable energy systems into the building structures, I: 29-34.
- G.4.16. Kittas, C., Katsoulas, N., Baille A., 2005. Influence of crop leaf area index on greenhouse passive cooling. Proceedings of the International Conference on the integration of the renewable energy systems into the building structures, I: 179-185.
- G.4.17. Katsoulas, N., Tsirogiannis, I.L. Kitta, E., Stamati, E., Savvas, D., Kittas, C., 2006. Greenhouse cooling by a fog system: effects on microclimate and on production and quality of a soilless pepper crop. *Acta Horticulturae* 719:455-462 (Proceedings of the International Symposium on Greenhouse Cooling: methods, techniques and plant response, 24-27 April 2006, Almeria, Spain).
- G.4.18. Kittas, C., Katsoulas, N., Bartzanas, T., Boulard, T., Mermier, M., 2006. Effect of vents' openings and insect screen on greenhouse microclimate distribution. *Acta Horticulturae* 719:615-622 (Proceedings of the International Symposium on Greenhouse Cooling: methods, techniques and plant response, 24-27 April 2006, Almeria, Spain.)

- G.4.19. Kittas, C., Bartzanas, T., Katsoulas, N., Sapounas, A., 2006. Measurements and modelling of a tracer gas distribution in a naturally ventilated greenhouse for pesticides dispersion determination. *Acta Horticulturae* 719:565-574 (Proceedings of the International Symposium on Greenhouse Cooling: methods, techniques and plant response, 24-27 April 2006, Almeria, Spain.)
- G.4.20. Bartzanas, T., Katsoulas, N., Kittas, C., Sapounas, A.A. 2006. Dispersion of pesticides from a naturally ventilated greenhouse: A CFD approach. *Acta Horticulturae* 718:307-314 (Proceedings of the International Symposium on Models in Protected, October 29 - November 2, 2006 Cultivation Wageningen, The Netherlands.)
- G.4.21. Lykas, Ch., Katsoulas, N., Kittas, C., 2006. Calcium, Magnesium and Potassium concentration prediction in a recirculated nutrient solution of a greenhouse soilless rose crop. *Acta Horticulturae* 718:491-498 (Proceedings of the International Symposium on Models in Protected, October 29 - November 2, 2006 Cultivation Wageningen, The Netherlands.)
- G.4.22. Katsoulas, N., Manolaraki, Ch., Kittas C., Bartzanas, T., 2007. Effect of anti-drip greenhouse cover materials on microclimate and production of a hydroponic cucumber crop. *Acta Horticulturae* 801:267-274 (Proceedings of the International Symposium on Sustainable Greenhouse Systems, GreenSys 2007: High Technology for Greenhouse Systems Management, October 4-6, 2007, Naples, Italy.).
- G.4.23. Kittas, C., Katsoulas, N., Tsiropoulos, N., Bartzanas, T., Sapounas, A., 2007. Numerical modelling and experimental measurements of pesticides dispersion in a naturally ventilated greenhouse. *Acta Horticulturae* 801:955-962 (Proceedings of the International Symposium on Sustainable Greenhouse Systems, GreenSys 2007: High Technology for Greenhouse Systems Management, October 4-6, 2007, Naples, Italy.)
- G.4.24. Kittas, C., Katsoulas, N., Sapounas, A., Bartzanas, T., 2007. Distribution of a tracer gas in a naturally ventilated greenhouse. Measurements and simulations for pesticides dispersion determination. 2nd PALENC Conference and 28th AIVC Conference - Building Low Energy Cooling and Advanced Ventilation Technologies in the 21st century, 27 - 29 September, 2007, Heraklio, Crete.
- G.4.25. Peponakis, C., Katsoulas, N., Petsani, D., Kittas, C. and Tchamitchian, M., 2008. Development of a simple growth model for light control in tomato seedlings. *Acta Horticulturae* 807:129-134 (Proceedings of the International Symposium on "Strategies towards sustainability of protected cultivation in mild winter climate, April 6-11, 2008, Antalya, Turkey).
- G.4.26. Kittas, C., Rigakis, N., Katsoulas, N. and Bartzanas, T., 2008. Influence of shading screens on microclimate and growth of a tomato crop. *Acta Horticulturae* 807:97-102 (Proceedings of the International Symposium on "Strategies towards sustainability of protected cultivation in mild winter climate, April 6-11, 2008, Antalya, Turkey).
- G.4.27. Bartzanas, T., Fidaros, D., Baxevanou, C., Katsoulas, N. and Kittas, C., 2008. Improving the efficiency of insect screens in greenhouse. *Acta Horticulturae* 807:91-96 (Proceedings of the International Symposium on "Strategies towards sustainability of protected cultivation in mild winter climate, April 6-11, 2008, Antalya, Turkey).
- G.4.28. Syrivelis, D., Katsoulas, N., Papanastasiou, D.K., Bartzanas, T., Kittas C., 2008. A network framework to exploit meteorological data for sustainable agriculture. International Advanced Workshop on Information and Communication Technologies for Sustainable Agri-production and Environment (AWICTSAE 2008), Alexandroupolis, Greece, 22 – 23 of May, 2008
- G.4.29. Papaioannou, Ch., Katsoulas, N., Kittas, C., 2008. Study of transmission to UV radiation of UV-absorbing greenhouse cover materials during three years. (International

- Conference on Agricultural Engineering & Industry Exhibition) AgEng 2008, July 23-26 2008, Chersonesos, Heraklio, Crete.
- G.4.30. Dimokas, G., Katsoulas, N., Tchamitchian, M., Kittas, C., 2008. Validation of a climate simulator (SimGreC) in mediterranean greenhouses during winter period. 4th International Conference on Information and Communication Technologies in Bio and Earth Sciences (HAICTA 2008). Agricultural University of Athens, September 18-20, 2008, Athens, Greece.
- G.4.31. Tsiropoulos, N. G., Papadi-Psyllou, A., Katsoulas, N., Kravvariti, K., Bartzanas, T., Boulard, T., Kittas, C., 2008. Measurements of pyrimethalin residues in the greenhouse air after low volume spray application. Proceedings of the 5th European Conference on Pesticides and related micropollutants in the environment, 22-25 October 2008, Marseille, France, Pesticides 2008, pp: 73-77.
- G.4.32. Katsoulas N., Kittas C., Fidaros D., Bartzanas T., Baxevanou K., 2011. Study of a passive solar heating greenhouse crop grow gutter. *Acta Horticulturae*, 893:381-388 (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 2009, Quebec, Canada).
- G.4.33. Dimokas G., Katsoulas N., Tchamitchian M., Kittas C., 2011. Development of a Bio-physical simulator for Mediterranean greenhouses. *Acta Horticulturae*, 893:525-530 (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 2009, Quebec, Canada).
- G.4.34. Bartzanas, T., Fidaros, D., Katsoulas, N., Kittas, C., Boulard, T., 2011. Experimental results and spatial simulation of climate in a greenhouse with insect screens. *Acta Horticulturae*, 893:597-604 (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 2009, Quebec, Canada).
- G.4.35. Kittas, C., Katsoulas, N., Bartzanas, T., 2011. Characterization and analysis of the effects of greenhouse climate control equipment on greenhouse microclimate and crop response. *Acta Horticulturae*, 893:117-132 (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 2009, Quebec, Canada).
- G.4.36. Youssef, A., Dekock, J., Katsoulas, N., Eren-Ozcan, S., Kittas, C., Berckmans, D., 2011. Data-based approach to model the dynamic behaviour of greenhouse temperature. *Acta Horticulturae*, 893:931-938 (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 2009, Quebec, Canada).
- G.4.37. Tsirogiannis, I., Savvas, D., Katsoulas, N., Kittas, C., 2012. Evaluation of crop reflectance indices for greenhouse irrigation scheduling. *Acta Horticulturae*, 927:269-276. (Proceedings of the 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal).
- G.4.38. Kitta, E., Bartzanas, T., Savvas, D., Katsoulas, N., 2012. Effect of shading on greenhouse energy balance and crop transpiration. *Acta Horticulturae*, 927:689-694 (Proceedings of the 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal).
- G.4.39. Dova, E., Katsoulas, N., Kittas, C., Sophianopoulos, D., 2012. Differences in required structural efficiency of standard commercial steel greenhouses among EU countries: a Hellenic experience. *Acta Horticulturae*, 927: 695-701 (Proceedings of the 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal).
- G.4.40. Kittas, C., Katsoulas, N., Bartzanas, T., Papa, K., Thanasenaris, A., 2012. Improvement of greenhouse microclimate distribution by means of air mixing fans. *Acta*

- Horticulturae, 927:589-594 (Proceedings of the 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal).
- G.4.41. Katsoulas, N., Bartzanas, T., Kittas, C., 2012. Microclimate distribution in a greenhouse cooled by a fog system. *Acta Horticulturae*, 927:773-778 (Proceedings of the 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal).
- G.4.42. Bartzanas, T., Katsoulas, N., Tsouknidas, A., Kitta, E., 2012. Effect of two new cover materials on greenhouse energy consumption and cooling load. *Acta Horticulturae*, 927:559-563 (Proceedings of the 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal).
- G.4.43. Bartzanas, T., Baxevanou, C., Fidaros, D., Papanastasiou, D. Katsoulas, N., Kittas, C., 2010. Airborne particles and microclimate distribution in a livestock building. International Conference on Agricultural Engineering, AgEng 2010, September 6-8, 2010, Clermont-Ferrand, France.
- G.4.44. Kittas, C., Katsoulas, N., Bartzanas, T., Tsiropoulos, N., Boulard, T., 2010. Measurements and modelling of pesticides residues in the greenhouse air after low volume spray application. International Conference on Agricultural Engineering, AgEng 2010, September 6-8, 2010, Clermont-Ferrand, France.
- G.4.45. Katsoulas, N., Bartzanas, T., Kitta, E., 2012. Effects of anti-drip polyethylene covering films on microclimate and crop production. *Acta Horticulturae*, 952:209-215 (Proceedings of the International Symposium on «Advanced technologies and management towards sustainable greenhouse ecosystems-GreenSys2011» June 5-10, 2011, Halkidiki, Greece).
- G.4.46. Ntola, E., Katsoulas, N., Kittas, C., Youssef, A., Exadaktylos, V., Berckmans, D., 2012. Data based modelling approach for greenhouse air temperature and relative humidity. *Acta Horticulturae*, 952:67-72 (Proceedings of the International Symposium on «Advanced technologies and management towards sustainable greenhouse ecosystems-GreenSys2011» June 5-10, 2011, Halkidiki, Greece).
- G.4.47. Lykas C., Katsoulas N., 2012. Use of shading nets to improve quality characteristics of compact gardenia (*Gardenia jasminoides* ellis) potted plant. *Acta Horticulturae*, 952:281-285 (Proceedings of the International Symposium on «Advanced technologies and management towards sustainable greenhouse ecosystems-GreenSys2011» June 5-10, 2011, Halkidiki, Greece).
- G.4.48. Katsoulas, N., Hadzilias, E., 2012. Greenhouse sector assessment in Azerbaijan and prospects for sustainable development. *Acta Horticulturae*, 952:567-546 (Proceedings of the International Symposium on «Advanced technologies and management towards sustainable greenhouse ecosystems-GreenSys2011» June 5-10, 2011, Halkidiki, Greece).
- G.4.49. Kitta, E., Bartzanas, T., Katsoulas, N., 2012. Influence of two new greenhouse covering materials on greenhouse microclimate and cooling load. *Acta Horticulturae*, 952:225-229 (Proceedings of the International Symposium on «Advanced technologies and management towards sustainable greenhouse ecosystems-GreenSys2011» June 5-10, 2011, Halkidiki, Greece).
- G.4.50. Dimokas, G., Katsoulas, N., Kittas, C., Tchamitchian, M., 2012. Case studies of a modified biological simulator (tomgro) according to short cropping period. *Acta Horticulturae*, 952:317-322 (Proceedings of the International Symposium on «Advanced technologies and management towards sustainable greenhouse ecosystems-GreenSys2011» June 5-10, 2011, Halkidiki, Greece).
- G.4.51. Katsoulas, N., Bartzanas, T., Nikolaou, Ch., Kittas, C., 2012. Use of polyethylene films with high reflection to NIR and low transmission to IR in greenhouses: effects on microclimate, energy saving and crop production. AgEng-CIGR2012, Valencia, Spain.

- G.4.52. Kittas, C., Bartzanas, T., Katsoulas, N., Kitta, E., Batilliani, A., 2012. Benchmarking of irrigated agriculture: the case of Thessaly-Greece. AgEng-CIGR2012, Valencia, Spain.
- G.4.53. Bartzanas, T., Katsoulas, N., Kittas, C., 2012. Solar radiation distribution in screenhouses: a CFD approach. *Acta Horticulturae* 956: 449-456 (Proceedings of the ISHS International Symposium on Light in Horticultural Systems- LIGHTSYM2012», 15-18 October 2012, Wageningen, The Netherlands.)
- G.4.54. Rigakis N., Katsoulas N., Kitta E., Bartzanas T., 2012. Microclimate of a pepper crop under greenhouse conditions. *Acta Horticulturae*, 956: 523-529. (Proceedings of the ISHS International Symposium on Light in Horticultural Systems- LIGHTSYM2012», 15-18 October 2012, Wageningen, The Netherlands.)
- G.4.55. Katsoulas N., Kandila A., Kitta E., Baille A., 2012. Transpiration and photosynthesis of sweet pepper growing under differing greenhouse nets. *Acta Horticulturae*, 956: 539-544. (Proceedings of the ISHS International Symposium on Light in Horticultural Systems- LIGHTSYM2012», 15-18 October 2012, Wageningen, The Netherlands.)
- G.4.56. Kittas, C., Katsoulas, N., Katsoupa, M., Papaioannou Ch., 2012. Test of a greenhouse covered by polyethylene film that reflects near-infrared radiation. *Acta Horticulturae*, 956: 507-513. (Proceedings of the ISHS International Symposium on Light in Horticultural Systems- LIGHTSYM2012», 15-18 October 2012, Wageningen, The Netherlands.)
- G.4.57. Katsoulas N., Rigakis N., Kitta E., Bartzanas T., Baille A., 2012. Transpiration of a pepper crop under greenhouse conditions. *Acta Horticulturae*, 957: 91-97. (Proceedings of the ISHS International Symposium on Models for Plant Growth, Environmental Control and Farm Management in Protected Cultivation- HortiModel2012», November 4-8, 2012, Nanjing, China.)
- G.4.58. Katsoulas N., Kakavikakis G., Kittas C., Bartzanas T., Savvas D., 2012. Performance test of a Na⁺ concentration model included in a decision support system for closed hydroponic systems management. *Acta Horticulturae*, 957: 139-145. (Proceedings of the ISHS International Symposium on Models for Plant Growth, Environmental Control and Farm Management in Protected Cultivation- HortiModel2012», November 4-8, 2012, Nanjing, China.)
- G.4.59. Katsoulas, N., Voogt, W., 2013. Recent trends in salinity control for soilless growing systems management. *Acta Horticulturae*, 1034: 433-442. (Proceedings of the ISHS International Symposium on Growing Media and Hydroponics- GroSci2013», June 17-21, 2013, Leiden, The Netherlands.)
- G.4.60. Katsoulas, N., Kittas, C., Bartzanas, T., Savvas, D., 2013. Development and evaluation of a DSS for drainage management in semi-closed hydroponic systems. *Acta Horticulturae*, 1034: 509-516. (Proceedings of the ISHS International Symposium on Growing Media and Hydroponics- GroSci2013», June 17-21, 2013, Leiden, The Netherlands.)
- G.4.61. Katsoulas, N., Rigakis, N., Kitta, E., Baille, A., 2013. Transpiration and canopy conductance of a pepper crop under screens with different porosity and shading intensity. *Acta Horticulturae*, 1037:547-553. (Proceedings of the ISHS International Symposium «New Technologies for Environment Control, Energy saving and Crop Production in Greenhouses and Plant Factory - GreenSys2013», October 6-10, 2013, Jeju, Korea).
- G.4.62. Rigakis, N., Katsoulas, N., Belitsiotis, P., Kittas, C., Bartzanas, T., 2013. Pepper crop production under shading and insect proof screenhouses. *Acta Horticulturae*, 1037:599-604. (Proceedings of the 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.4.63. Katsoulas, N., Kittas, C., Bartzanas, T., Savvas, D., 2013. Use of a decision support system for management of the drainage solution in semi-closed hydroponic systems under different drainage fractions. *Acta Horticulturae*, 1037:1067-1074. (Proceedings of the 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.4.64. Fatnassi, H., Boulard, T., Poncet, C., Bartzanas, T., Katsoulas, N., Kacira, M., 2013. CFD modeling of microclimate in the leaf boundary layer, ecological niche of pests. *Acta Horticulturae*, 1037:1027-1034. (Proceedings of the 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.4.65. Kittas, C., Katsoulas, N., Bartzanas, T., Kacira, M., Boulard, T., 2014. Exposure of greenhouse workers to pesticides. *Acta Horticulturae*, 1037:1133-1138. (Proceedings of the 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.4.66. Kittas, C., Katsoulas, N., Bartzanas, T., 2014. Energy needs and energy saving in Mediterranean greenhouses. *Acta Horticulturae*, 1054:25-30. 10.17660/ActaHortic.2014.1054.1 (Proceedings of the ISHS International Conference on Agricultural Engineering, New Technologies for Sustainable Agricultural Production and Food Security, Muscat, Oman).
- G.4.67. Kittas, C., Elvanidi, A., Katsoulas, N., Ferentinos, K.P., Bartzanas, T., 2016. Reflectance indices for the detection of water stress in greenhouse tomato (*Solanum lycopersicum*). *Acta Horticulturae*, 1112, 63-70. (Proceedings of the XXIX International Horticultural Congress: IHC2014, 17-22 August 2014, Brisbane, Australia).
- G.4.68. Ferentinos, K.P., Katsoulas, N., Bartzanas, T., Tzounis, A., Kittas, C., 2015. A climate control methodology based on wireless sensor networks in greenhouses. *Acta Horticulturae*, 1107:75-82. (Proceedings of the XXIX International Horticultural Congress: IHC2014, 17-22 August 2014, Brisbane, Australia).
- G.4.69. Katsoulas, N., Elvanidi, A., Ferentinos, K.P., Bartzanas, T., Kittas, C., 2016. Calibration methodology of a hyperspectral imaging system for greenhouse plant water stress estimation. *Acta Horticulturae*, 1142: 119-126. (Proceedings of the 6th Balkan Symposium on Vegetables and Potatoes, September 29 – October 2, 2014 Zagreb, Croatia).
- G.4.70. Apostolou, K., Neofytou, C., Aifanti, S., Katsoulas, N., Kittas, C., Hatzioannou, M., 2014. Research of the cooling effect with evaporation in the microclimate of net-covered greenhouse and in the growth of farmed snails. 1st International Congress on Applied Ichthyology and Aquatic Environment-HydroMedit).
- G.4.71. Kitta, E., Bartzanas, T., Katsoulas, N., Kittas, C., 2015. Benchmark irrigated under cover agriculture crops. *Agriculture and Agricultural Science Procedia*, 4: 348-355.
- G.4.72. Bartzanas, T., Katsoulas, N., Elvanidi, A., Ferentinos, K.P., Kittas, C., 2015. Remote sensing for crop water stress detection in greenhouses. *Precision agriculture '15*, 667-676.
- G.4.73. Kittas, C., Elvanidi, A., Ferentinos, K.P., Bartzanas, T., Katsoulas, N., 2017. Crop temperature measurements for crop water status identification in greenhouses. *Acta Horticulturae*, 1170, 695-701. (Proceedings of the ISHS International Symposium on New Technologies and Management for Greenhouses, GreenSys2015, 19-23 July, Evora).
- G.4.74. Katsoulas, N., Kaltsa, O., Rigakis, N., Kitta, E., 2017. Effect of screenhouse cover optical properties on sweet pepper fruit quality. *Acta Horticulturae*, 1170, 1071-1076.

- (Proceedings of the ISHS International Symposium on New Technologies and Management for Greenhouses, GreenSys2015, 19-23 July, Evora).
- G.4.75. Katsoulas, N., Ferentinos, K.P., Tzounis, A., Bartzanas, T., Kittas, C., 2017. Operation reliability of wireless sensor networks in greenhouse conditions. *Acta Horticulturae*, 1170, 867-874. (Proceedings of the ISHS International Symposium on New Technologies and Management for Greenhouses, GreenSys2015, 19-23 July, Evora).
- G.4.76. Ropokis, A., Savvas, D., Giagtoglou, P., Ginosatis, S., Ntatsi, G., Kittas, C. and Katsoulas, N., 2017. Nutrient uptake concentrations of a pepper crop under Mediterranean climate conditions. *Acta Horticulturae*, 1170, 687-694. DOI: 10.17660/ActaHortic.2017.1170.86 (Proceedings of the ISHS International Symposium on New Technologies and Management for Greenhouses, GreenSys2015, 19-23 July, Evora).
- G.4.77. Katsoulas, N., Bartzanas, T., Kittas, C., 2017. Online professional irrigation scheduling system for greenhouse crops. *Acta Horticulturae*, 1154, 221-228. (Proceedings of the ISHS International Symposium on Modelling for Horticulture- Model IT, 11-14 October 2015, Wageningen The Netherlands).
- G.4.78. Katsoulas, N., Ferentinos, K.P., Tzounis, A., Bartzanas, T., Kittas, C., 2017. Spatially distributed greenhouse climate control based on wireless sensor network measurements. *Acta Horticulturae*, 1154, 111-120. (Proceedings of the ISHS International Symposium on Modelling for Horticulture- Model IT, 11-14 October 2015, Wageningen The Netherlands).
- G.4.79. Kittas, C., Antoniadis, D., Katsoulas, N., Tsirogiannis, I., Varras, G., Bartzanas, T., 2015. Measurements and simulation of microclimatic effects of a horizontal hydroponic pergola. *Proceedings of the 7th International Conference on Information and Communication Technologies in Agriculture, Food and Environment*. Kavala, Greece, September 17-20, 2015, pp: 255-262.
- G.4.80. Tsirogiannis, I., Antoniadis, D., Katsoulas, N., Lykas, Ch., Christidou, V., Kitta, E., Kittas, C., 2015. Application of microclimatic landscape design in schoolyards in Greece. *Acta Horticulturae*, 1099: 935-941
- G.4.81. Elvanidi, A., Katsoulas, N., Bartzanas, T., Ferentinos, K.P., Kittas, C., 2017. Assessment of crop water status by means of crop reflectance. *Acta Horticulturae*, 1164: 297-304. DOI: 10.17660/ActaHortic.2017.1164.37. (Proceedings of the ISHS 3rd Organic Greenhouse Symposium, April 2016, Izmir, Turkey).
- G.4.82. Tripanagnostopoulos, Y., Katsoulas, N., Kittas, C., 2017. Potential energy cost and footprint reduction in Mediterranean greenhouses by means of renewable energy use. *Acta Horticulturae*, 1164: 461-466. DOI: 10.17660/ActaHortic.2017.1164.60. (Proceedings of the ISHS 3rd Organic Greenhouse Symposium, April 2016, Izmir, Turkey).
- G.4.83. Kitta, E. Bartzanas, T. Katsoulas, N., 2017. Nutrient and water use efficiency in screenhouse crops: A benchmarking approach. *Acta Horticulturae*, 1164: 289-296. DOI: 10.17660/ActaHortic.2017.1164.36. (Proceedings of the ISHS 3rd Organic Greenhouse Symposium, April 2016, Izmir, Turkey).
- G.4.84. Antoniadis, D., Katsoulas, N., Tsirogiannis, I., Kittas, C., 2017. Effect of planting and structural configurations on human thermal comfort in a schoolyard. *Acta Horticulturae*, 1189, 229-234. DOI: 10.17660/ActaHortic.2017.1189.44 (Proceedings of the 6th International Conference on Landscape and Urban Horticulture, 20-25 June 2016, Athens, Greece).
- G.4.85. Katsoulas, K., Elvanidi, A., Bartzanas, T., Ferentinos, K. P., Kittas, C., 2018. Sensing crop reflectance for water stress detection in greenhouses. *Acta Horticulturae*, 1197, 117-126. (Proceedings of the ISHS Symposium "Sensing Plant Water Status - Methods and Applications in Horticultural Science", October 5-7, Berlin, Germany).

- G.4.86. Katsoulas, K., Elvanidi, A., Zagari, E., Bartzanas, T., Kalaitzis, P., Kittas, C., 2019. Detection of salinity stress in greenhouse tomato based on crop reflectance. *Acta Horticulturae*, 1242, 723-728. (Proceedings of the III International Symposium of Horticulture in Europe-SHE2016, October 2016, Chania, Crete, Greece).
- G.4.87. Elvanidi, A., Friedel, M., Max, J. F. J., Katsoulas, N., Zinkernagel, J. 2018. Remote sensing of canopy light interception and plant water deficit stress in greenhouse. (Proceedings of 52nd DGG Annual Meeting, October 2018, Geisenheim, Germany), DGG-Proceedings, Vol. 8, 2018, No. 3, p. 1-5, DOI: 10.5288/dgg-pr-ae-2018, <http://www.dgg-online.org/proceedings/vol-08-2018/dgg-pr-ae-2018.pdf>
- G.4.88. Faliagka, S., Schmidt, L., Langner, F., Elvanidi, A., Papadopoulou, A., Katsoulas, N., Max, J. F. J. 2018. Effects of different glass covering materials on basil and mint quality. (Proceedings of 52nd DGG Annual Meeting, October 2018, Geisenheim, Germany), DGG-Proceedings, Vol. 8, 2018, No. 15, p. 1-5, DOI: 10.5288/dgg-pr-sf-2018, <http://www.dgg-online.org/proceedings/vol-08-2018/dgg-pr-sf-2018.pdf>
- G.4.89. Papadopoulou, A., Schmidt, L., Langner, F., Elvanidi, A., Max, J. F. J., Katsoulas, N., Faliagka, S. 2018. Reflectance evolution due to effect of manganese to the peppermint antioxidant activity and monoterpenes capacity. (Proceedings of 52nd DGG Annual Meeting, October 2018, Geisenheim, Germany), DGG-Proceedings, Vol. 8, 2018, No. 4, p. 1-5, DOI: 10.5288/dgg-pr-ap-2018, <http://www.dgg-online.org/proceedings/vol-08-2018/dgg-pr-ap-2018.pdf>
- G.4.90. Løes A. K., Evans, A., Katsoulas, N., De Marchi, M., Sørensen, C., Schmutz, U., 2018. Pathways to phase-out contentious inputs from organic agriculture in Europe (Organic-PLUS). Proceedings of the 2nd International Grab-It Workshop "Organic farming and agroecology as a response to global challenges" 27-29 June, 2018, Capri Island (Naples), Italy.
- G.4.91. Schmutz, U., Rayns, F., Katsoulas, N., Løes A. K., De Marchi, M., Sørensen, C., Evans, A., 2020. Phasing out contentious inputs in organic and non-organic horticulture - Organic PLUS. *Acta Horticulturae*, 1286, 211-218, DOI: 10.17660/ActaHortic.2020.1286.30. (Proceedings of the II International Symposium on Organic Horticulture for Wellbeing of the Environment and Population. Istanbul (Turkey), August 12-16, 2018).
- G.4.92. Katsoulas, N., Nikolaou, G., Neocleous, D. and Kittas, C., 2020. Microclimate and cucumber crop transpiration in a greenhouse cooled by pad and fan system. *Acta Hortic.* 1271, 235-240, DOI: 10.17660/ActaHortic.2020.1271.33 (Proceedings of the II International Symposium on Organic Horticulture for Wellbeing of the Environment and Population. Istanbul (Turkey), August 12-16, 2018).
- G.4.93. Tsihlias, C., Kavga, A., Souliotis, M. and Katsoulas, N., 2020. Greenhouse integrated photovoltaics (GIPV): effects in microclimatic parameters and canopy production. *Acta Horticulturae*, 1271, 71-78, DOI: 10.17660/ActaHortic.2020.1271.10 (Proceedings of the II International Symposium on Organic Horticulture for Wellbeing of the Environment and Population. Istanbul (Turkey), August 12-16, 2018).
- 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 3rd 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 3rd 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 3rd International Congress on Applied Ichthyology & Aquatic Environment (Hydromedit 2018, 8-11 November 2018, Volos), 627-628.
- G.4.97. Katsoulas, N., Levizou, E., Kormas, K., Mente, E., 2018. Development and optimization of an aquaponic system to increase sustainability in food production-FoodOASIS. Proceedings of the 3rd International Congress on Applied Ichthyology & Aquatic Environment (Hydromedit 2018, 8-11 November 2018, Volos), 616-617.
- G.4.98. Tsoumalakou, E., Mente, E., Katsoulas, N., Kormas, K., Berillis, P., Vlahos, N., Kapsis, P., Stathopoulou, P., Levizou, E., 2019. Nutrient input in a small scale aquaponic system: effect on lettuce functional responses and tilapia growth. Proceedings of the AQUACULTURE EUROPE 2019 International Symposium, Berlin, Germany, 7-10 October 2019. 1537-1538.
- G.4.99. Katsoulas, N., Demmelbauer-Benitez, C.M., Elvanidi, A., Gourzoulidou, E. and Max, J.F.J., 2020. Reuse of cucumber drainage nutrient solution in secondary crops in greenhouses: initial results. *Acta Horticulturae*, 1296, 767-774. DOI: 10.17660/ActaHortic.2020.1296.97 (Proceedings of the International Symposium on Advanced Technologies and Management for Innovative Greenhouses: GreenSys2019. Angers, France, June 16, 2019).
- G.4.100. Elvanidi, A., Zinkernagel, J., Max, J.F.J. and Katsoulas, N., 2020. Contribution of hyperspectral imaging to monitor water content in soilless growing cucumber crop. *Acta Horticulturae*, 1296, 1055-1062. DOI: 10.17660/ActaHortic.2020.1296.133 (Proceedings of the International Symposium on Advanced Technologies and Management for Innovative Greenhouses: GreenSys2019. Angers, France, June 16, 2019).
- G.4.101. Faliagka, S., Germani, R., Agrafioti, P., Xidas, P., Athanassiou, C., Katsoulas, N., 2021. SiO₂ applications as an alternative to insect control in greenhouses. 1st International Electronic Conference on Agronomy. doi:10.3390/IECAG2021-09720
- G.4.102. Elvanidi, A., Katsoulas, N., 2021. Calibration methodology of a remote PRI sensor for photosynthesis rate assessment in greenhouses. 1st International Electronic Conference on Agronomy. doi:10.3390/IECAG2021-10018
- G.4.103. Kitta, E., Katsoulas, N. and Kittas, C., 2021. Effect of shading on photosynthesis in greenhouse hydroponic cucumber crops. *Acta Horticulturae*, 1320, 167-172, <https://doi.org/10.17660/ActaHortic.2021.1320.21> (Proceedings of the VIII South-Eastern Europe Symposium on Vegetables and Potatoes, Ohrid, North Macedonia, 24 -26 September 2021).
- G.4.104. Katsoulas, N., Kitta, E. and Kittas, C., 2021. Technologies and techniques of greenhouse cultivation as tools to promote development education. *Acta Horticulturae*, 1320, 173-180, <https://doi.org/10.17660/ActaHortic.2021.1320.22>, (Proceedings of the VIII South-Eastern Europe Symposium on Vegetables and Potatoes, Ohrid, North Macedonia, 24 -26 September 2021).
- G.4.105. Gruda, N., Bisbis, M., Katsoulas, N. and Kittas, C., 2021. Smart greenhouse production practices to manage and mitigate the impact of climate change in protected cultivation. *Acta Horticulturae*, 1320, 189-196, <https://doi.org/10.17660/ActaHortic.2021.1320.24>, (Proceedings of the VIII South-Eastern Europe Symposium on Vegetables and Potatoes, Ohrid, North Macedonia, 24 -26 September 2021).

- G.4.106. Bataka, E.P.; Miliokas, G.; Katsoulas, N.; Nakas, C.T., 2021. A method comparison study between open source and industrial weather stations. *Engineering Proceedings*, 9(1):8. <https://doi.org/10.3390/engproc2021009008>
- G.4.107. Faliagka, S., Germani, R., Agrafioti, P., Xidas, P., Athanassiou, Ch., Katsoulas, N., 2022. SiO₂ applications as an alternative to insect control in greenhouses. *Biology and Life Sciences Forum 2021*, 3, 32. <https://doi.org/10.3390/IECAG2021-09720>
- G.4.108. Elvanidi, A., Katsoulas, N., 2022. Performance of gradient boosting learning algorithm for crop stress identification in the greenhouse cultivation. *Biol. Life Sci. Forum 2022*, 16, 25. <https://doi.org/10.3390/IECHo2022-12508>, Presented in the 1st International Electronic Conference on Horticulturae, 16–30 April 2022, MDPI: Basel, Switzerland
- G.4.109. Kittas, C., Baudoin, W., Kitta, E., Katsoulas, N., 2021. Innovative and cost-effective sheltered horticulture in RADHORT countries. *Proceedings of the IV All Africa Horticultural Congress - AAHC2021, Dakar (Senegal) 29-31 March 2021*.
- G.4.110. Tüzel, Y. and Katsoulas, N. 2021. Protected cultivation in Mediterranean region. *Acta Hortic.* 1315, 323-334, <https://doi.org/10.17660/ActaHortic.2021.1315.49>
- G.4.111. Elvanidi, A., Katsoulas, N., 2021. Calibration methodology of a remote PRI sensor for photosynthesis rate assessment in greenhouses. *Biology and Life Sciences Forum. 2021*; 3(1):60. <https://doi.org/10.3390/IECAG2021-10018>
- G.4.112. Bouras, S., Antoniadis, D., Kountrias, G., Karapanagiotidis, IT., Katsoulas, N., 2021. Effect of pH on *Schizochytrium limacinum* production grown using crude glycerol and biogas digestate effluent. *AgEng 2021*, July 4–8, 2021, Évora, Portugal.
- G.4.113. Katsoulas, N., Bari, A., Georgopoulou, T., Papaioannou, Ch., 2021. Evaluation of the effects of antidrip and UV transmission properties of polyethylene films on a greenhouse strawberry crop. *AgEng 2021*, July 4–8, 2021, Évora, Portugal.
- G.4.114. Aslanidou, M., Tsoumalakou, E., Elvalidi, A., Levizou, E., Mente, E., Katsoulas, N., 2021. Development of a simulation model for macronutrients concentration estimation in a Lab-scale aquaponic system. *AgEng 2021*, July 4–8, 2021, Évora, Portugal.
- G.4.115. Katsoulas, N., Aslanidou, M., Papanastasiou, D.K., Anestis, V., 2022. Environmental impact of aquaponic vegetable production. *Acta Horticulturae*, 1377, 911-<https://doi.org/10.17660/ActaHortic.2023.1377.114>. [Proceedings of the International Symposium on Innovative Technologies and Production Strategies for Sustainable Controlled Environment Horticulture, IHC2022, Angers, France, 14-20 August 2022.
- G.4.116. Katsoulas, N., Elvanidi, A., Karatsivou, E., Vassiliadis, V., 2022. Development of a water flow and nutrients concentration simulation model for cascade hydroponic systems. *Acta Horticulturae*, 1377, 655-662, <https://doi.org/10.17660/ActaHortic.2023.1377.80>. [Proceedings of the International Symposium on Innovative Technologies and Production Strategies for Sustainable Controlled Environment Horticulture, IHC2022, Angers, France, 14-20 August 2022.
- G.4.117. Elvanidi, A., Katsoulas, N., 2022. Artificial Neural Network based on multilayer perceptron algorithm as a tool for tomato stress identification in soilless cultivation. *Acta Horticulturae*, 1377, 447-454, <https://doi.org/10.17660/ActaHortic.2023.1377.54>. [Proceedings of the International Symposium on Innovative Technologies and Production Strategies for Sustainable Controlled Environment Horticulture, IHC2022, Angers, France, 14-20 August 2022.
- G.4.118. Mourantian, A., Aslanidou, M., Faliagka, S., Katsoulas, N., Pechlivani, E.M., Levizou, E., 2022. Combined effects of biostimulants and coupled/decoupled aquaponic systems on functional and growth responses of tomato. *XVII SOLANACEAE 2022 International Conference on the Plant Family of Solanaceae*, November 1-5, 2022, Thessaloniki, Greece.

- G.4.119. Katsoulas, N., Aslanidou, M., Vassiliadis, V., Elvanidi, E., Mourantian, A., Levizou, E., Mente, E., 2022. Simulation of Ca and K concentrations in the nutrient solution of an aquaponic system. Proceedings of the International Conference on Agricultural Engineering, AEng-Land.Technik 2022, Belrin, Germany, 22-23 November 2022, pp. 469-475.
- G.4.120. Katsoulas, N., Faliagka, S., Bari, A., Naounoulis, I., 2022. Precimed: a simulation model for nutrient uptake prediction of a hydroponic cucumber crop grown in the Mediterranean region. Proceedings of the International Conference on Agricultural Engineering, AEng-Land.Technik 2022, Belrin, Germany, 22-23 November 2022, pp. 101-106.
- G.4.121. Katsoulas, N., Baxevanou, C., Feidas, D., 2022. Optimal design of a hybrid power generation system for greenhouses. Proceedings of the International Conference on Agricultural Engineering, AEng-Land.Technik 2022, Belrin, Germany, 22-23 November 2022, pp. 53-60.
- G.4.122. Bouras, S., Kountrias, G., Karapanagiotidis, I.T., Antoniadis, D., Papanastasiou, D., Anestis, V., Katsoulas, N., 2022. Microalgae production using waste nutrient sources: effect on environmental impact indicators. Proceedings of the 2nd International Symposium Agroecoinfo, Volos, Greece 30/6/2022-2/7/2022, pp:87-92. Available online at <https://agroecoinfo2022.civ.uth.gr/sites/default/files/2022-12/preceedings.pdf>
- G.4.123. Aslanidou M., Mourantian A., Levizou E., Mente E, Katsoulas N., 2022. Water and nutrients use efficiency in Aquaponics. Proceedings of the 2nd International Symposium Agroecoinfo, Volos, Greece 30/6/2022-2/7/2022, pp: 109-113. Available online at <https://agroecoinfo2022.civ.uth.gr/sites/default/files/2022-12/preceedings.pdf>
- G.4.124. Katsoulas N., Faliagka, S., Naounoulis, I., Bari, A., 2023. Nutrient uptake of a hydroponic tomato crop, HorchiModel 2023, Almeria, Spain
- G.4.125. Katsoulas, N., Faliagka, S., Naounoulis, I., Bari, A., Aslanidou, M., Mourantian, A., Bouras, S., Kountrias, G., Pechlivani, E.M., 2023. Water and nutrients use efficiency in aquaponics: effects of biostimulant application, HorchiModel 2023, Almeria, Spain
- G.4.126. Gkalogianni, E.Z., Psafakis, P., A. Asimaki, G. Kountrias, N. Katsoulas, C. Chatzidoukas, G. Papapanagiotou, E.P. Kalogianni, A. Litinas, I.T. Karapanagiotidis 2023. Effect of fishmeal replacement by *Chlorella vulgaris* on growth performance of gilthead seabream (*Sparus aurata*). Proceedings of Aquaculture Europe 2023, 527-528, Viena, Austria, 18-21 September 2023.
- G.4.127. Karapanagiotidis, I.T. E.Z. Gkalogianni, P. Psafakis, A. Asimaki, G. Kountrias, N. Katsoulas, C. Chatzidoukas, G. Papapanagiotou, E.P. Kalogianni, A. Litinas, 2023. Effect of fishmeal replacement by *Chlorella sorokiniana* on growth performance of gilthead seabream (*Sparus aurata*). Proceedings of Aquaculture Europe 2023, 655-656, Viena, Austria, 18-21 September 2023.
- G.4.128. Galitsopoulou, A., Pechlivani, E.M., Tsachouridis, S., Faliagka, S., Giakoumoglou, N., Elvanidi, A., Katsoulas, N., 2023. In-depth study across various disciplines of the agri-food retail chain on sufficient, safe and healthy food. 7th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Ankara, Turkey, 2023, pp. 1-6, doi: 10.1109/ISMSIT58785.2023.10304993.
- G.4.129. Pechlivani, E.-M., Kapetanidou, A., Faliagka, S., Giakoumoglou, N., Salta, F., Katsoulas, N. 2023. A multidisciplinary in-depth systemic analysis to support European Green Deal halving pesticides use and loss of nutrients: a Greek case study. 7th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Ankara, Turkey, 2023, pp. 1-7, doi: 10.1109/ISMSIT58785.2023.10304887.
- G.4.130. Gkalogianni E.Z., Psafakis P., Asimaki A., Katouni A.M., Katsoulas N., Kountrias G., Chatzidoukas C., Papapanagiotou G., Kalogianni E.P., Litinas A., Karapanagiotidis

I.T., 2024. Effects of fishmeal replacement by *Chlorella sorokiniana* and *Chlorella vulgaris* dried biomass in the diet of gilthead seabream (*Sparus aurata*). Proceedings of the 5th International Congress on Applied Ichthyology, Oceanography & Aquatic Environment, HydroMediT 2024, 30 May-2 June 2024, Mytilene, Greece, pp, 181-185.

- G.4.131. Jenkins, T., Pliakoni, E.D., Rivard, C., Aslanidou, M. and Katsoulas, N., 2024. Effect of system, grafting, and harvest maturity stage on the quality of tomatoes grown in greenhouses. Acta Horticulturae, 1396, 465-470, <https://doi.org/10.17660/ActaHortic.2024.1396.61> [Proceedings of the VII International Conference Postharvest Unlimited, 20 June 2024, Wageningen, Netherlands.]

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

More than 120 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.6.3. Katsoulas, N., 2021. Circularity in greenhouse horticulture. 2021 International forum on protected horticulture. 19-22 April 2021, Shouguang, China.

H. CITATIONS

More than 4000 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 and other.