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Education

Title, Institute

Graduate

Agricultural Engineer Diploma, Agricultural University of Athens

Civil Engineer Diploma, University of Patras

Mechanical Engineer Diploma, University of Patras

Post- Graduate

Post-Graduate Diploma in Solar Energy, University of Perpignan

Diplôme d' Études Approfondies (D.E.A), University of Perpignan

Master of Science in Meteorology, University of Athens, Greece

Diplôme de Docteur Ingénieur. University of Perpignan

Post- Doc

Dr Dozent (Habilitation) in Agrometeorology, University of Patras, Greece

Professional Experience

Year

Position, Institute

1974-1978

Agricultural Engineer, "Sykourion Mills of Ch. KITTAS".

1978-1980

Researcher, University of Perpignan and French National Institute of Agronomic Research (I.N.R.A.).

1983-1984

Agricultural Engineer, Ministry of Agriculture of Greece

1984- 1987

Research Scientist, Ministry of Agriculture of Greece

1987-1993

Professor, Technological Educational Institute of Messologi

1993 -1997

Associate Professor, University of Thessaly, Department of Agriculture Crop and Animal Production, Greece

1997-2001

Professor, University of Thessaly, Department of Agriculture Crop and Animal Production, Greece

2001- today

Professor, University of Thessaly, School of Agricultural Sciences, Department of Agriculture Crop Production and Rural Environment, Greece

2006- today

Director of the Institute of Technology and Management of Agricultural Ecosystems, Centre for Research & Technology – Thessaly, Greece

International recognition

- Citations: 650 citations (scopus)
- Chairman in scientific sessions in more than 30 National and International Conferences
- Reviewer of Journal of Agricultural Engineering Research, Biosystems Engineering, Agricultural and Forest Meteorology, Scientia Horticulturae, HortScience, Transactions of the ASABE, Energy, Computers and Electronics in Agriculture, International Journal of Heat and Mass Transfer, Solar Energy, Energy and Buildings, Australian Journal of Experimental Agriculture, Transactions of the ASABE
- Member in international committees for faculty staff election and promotion
- Reviewer of international and national projects
- President of the organising committee and chairman of Greensys 2011 international conference (5 -10 June 2011, Greece)

Research Interests

1. Construction, equipment and functioning of greenhouses (covering and construction materials, greenhouse physics, heating, ventilation, cooling, shading, irrigation, fog, CO₂ enrichment, climate control systems, mechanical equipment, internal constructions etc).
2. Using computational fluid dynamics (CFD) to improve the design of agriculture buildings.
3. Hydroponic systems (setup, equipment, design).
4. Energy technologies in agriculture with emphasis in energy savings and in the use of renewable energy sources in agriculture buildings.
5. Facilities for postharvest treatment of agricultural products (storage installations, refrigeration rooms, packaging equipment, drying installations).
6. Urban green: management, green roofs, environmental and biometeorological aspects
7. Distance learning in greenhouse technologies and in energy in agriculture.

Research Projects

1. 1992- 1993: Theoretical and experimental study of natural ventilation in Mediterranean greenhouses (General Secretariat for Research and Technology, PLATON).
2. 1993- 1994: Traditional storage techniques for vegetables in Pilion (Research Committee, University of Thessaly).
3. 1994-1998: Investigation of greenhouse natural ventilation in Greece (General Secretariat for Research and Technology PENED 94).
4. 1995- 1996: Development of a software for optimal greenhouse climate control (General Secretariat for Research and Technology, PLATON).
5. 1995- 1996: Energy plans for extended use of solar energy and biomass in small and medium cities (APAS).
6. 1997-1998: Influence of a thermal screen on greenhouse energy performance (Research Committee, University of Thessaly).
7. 1998-2000: Development of an environmental friendly greenhouse equipped with insect-proof screen suitable for Mediterranean conditions (General Secretariat for Research and Technology, PLATON).
8. 1999-2001: Management of high humidity in greenhouses in Greece (General Secretariat for Research and Technology, YPER 97).
9. 1999-2001: 100% fuel substitution in greenhouse heating by biomass (ALTENER II).
10. 1999-2001: Regular RES courses for European Agricultural Engineers (ALTENER II).
11. 2000-2002: New learning technologies for lifelong self learning on greenhouse engineering and management. A pilot trilingual web based tool (LEONARDO DA VINCI).
12. 2001-2002: RES DISSEMINATION. Clean Energy and Agriculture. Summer courses for engineers (ALTENER).
13. 2002-2004: Production of new UV-absorbing cover materials aiming to reduce greenhouse pest and diseases and assessment in field conditions (General Secretariat for Research and Technology, PAVET 2000).
14. (2000-2005). Closed System for Water and nutrient management in horticulture (5th European framework, Quality of Life).
15. 2003- 2004: Optimization of the heating of greenhouses (General Secretariat for Research and Technology, ENTEP).
16. 2004- 2005. Behavior of pesticides in greenhouse environment (Ministry of Education, EPEAK, PYTHAGORAS).
17. 2005- 2008. Optimization of the greenhouse climate management of Mediterranean greenhouses during winter period (General Secretariat for Research and Technology, PENED).
18. 2006-2008. Development and evaluation of anti-drop covering materials, environmental friendly and suitable for (General Secretariat for Research and Technology & Plastika Kritis AEBEE, PAVE).
19. 2006-2008. Development and optimization of an hybrid system for greenhouse heating and hydroponic cultivations frame, friendly to the environment (General Secretariat for Research and Technology. & Geothermiki S.A.).
20. 2006-2008. Production, Standardization, Marking, and Traceability: Innovative Technologies and Methods for the Ensurance of Total Quality in the Production, Packaging, Transport, Storage, and

Supply of Food and Beverages. (General Secretariat for Research and Technology, Research and Technological development consortia in priority areas for the region).

21. 2006-2008. Total Quality in the Production, Packaging, Transport, Storage, and Supply of Food in Thessaly (Thessaly Food). (General Secretariat for Research and Technology Regional Technological Platforms).
22. 2006-2008. «Investigation of pesticides emission and dispersion from naturally ventilated greenhouse. (General Secretariat for Research and Technology of Greece, PLATON).
23. 2006-2008. Energy crops – Production, development and marketing of Biofuels in Greece. (General Secretariat for Research and Technology of Greece, Human Networks for Research and Technological Education)
24. 2006-2008. Greenhouse technologies friendly to the environment. (General Secretariat for Research and Technology of Greece, Human Networks for Research and Technological Education)
25. 2010-2012. Sustainable use of irrigation water in the Mediterranean region, EU-FP7, KBBE-2009-3
26. 2010-2012. Development of an integrated system for monitoring and management of quantity and quality of water resources in rural areas under climate change scenarios. Case study in the lake of Carla. GSRT, Cooperation
27. 2010.2012. Optimization of greenhouse climate control for salinity control using omic technology. GSRT, Cooperation

Publications in Peer Reviewed Journals

1. Kittas C., 1986. "Estimation des besoins d' aération des serres en Grèce". *Agronomie*, 6 (7), 629-632.
2. Kittas C, 1985. "Study of the Convective Heat Transfer Phenomena in a Greenhouse" (in Greek). *Techn Chronika - B*, 5 (4): 45-60.
3. Κίττας Κ., 1985. "Determinative Factors of the Greenhouse Air Temperature". *Techn Chronika - B*, 5 (4): 61-77.
4. Kittas C., 1986. "Estimation des besoins de chauffage des serres en Grèce". *Agronomie*, 6 (7), 633-638.
5. Kittas C., 1986. "Greenhouse Cover Conductances". *Boundary Layer Meteorology*, 36, 213-225.
6. Kittas C., 1987 (in Greek). "The Significance of the Sun Position to the Rational Installation of the Protected Cultivations in Greece". *Techn Chronika - B*, 7 (1): 5-31.
7. Kittas C., Chiapale J.P., Villele de O., Aries F., 1987. Modèle d' estimation de la température de paroi d' une serre". *Agricultural and Forest Meteorology*, 29, 131-142.
8. Kittas C. 1986 (in Greek) "Water Consumption in Greenhouses". *Techn Chronika - B*, 6(4): 5-29.
9. Kittas C., 1987. "Energy behaviour and location of greenhouse in Greece". *International Journal of Energy Systems*, 7 (3), 64-71.
10. Kittas C., 1986. "The response of a greenhouse to climate features as a tool to its equipment design". *International Journal of Energy Research*, Vol. 11, 531-540.
11. Kittas C., 1987. "Un modèle d' estimation des des déperditions énergétiques diurnes des serres". *Agronomie*, 7 (3), 175-181.
12. Kittas C., Chiapale J.P., Villele de O., Aries F., 1987. " Paramètres significatifs du déterminisme de la température de l' air de la serre". *Agricultural and Forest Meteorology* 40, 265-277.
13. Kittas C., 1985 (in Greek). "The greenhouse, a Tool of Bioclimatology Modification". *Techn Chronika - B*, 7 (2): 5-28.
14. Kittas C., 1988 (in Greek). "A simplified Method for Estimating the Greenhouse Heating Needs". *Techn Chronika - B*, 8 (1): 109-121.
15. Kaouris Y.G., Kittas C., Santamouris M., 1989. "Regional Monthly Estimation of Greenhouse Energy consumption - Application to Greece". *Solar and Wind Technology*, Vol. 6, No 3, pp. 225-233.
16. Kittas C., 1990. "Solar Radiation of a Greenhouse as a Tool to its Irrigation Control". *International Journal of Energy Research*, Vol. 14, 881-892.
17. Kittas C., 1990. "L' ombreggiamento quale fattore di conduzione razionale delle colture protette in Grecia". *Colture Protette*, 1, 95-101.
18. Kittas C., 1992. "Influence d' un brise-vent sur les pertes convectives et radiatives d' une serre". *Boundary Layer Meteorology* 61: 99-111.
19. Kittas C., 1993. "Modifications du comportement thermique et mécanique d' une serre, induites par un brise-vent situe et amont". *Agronomie*, 13, 105-108.

20. Kittas C., 1994. " Détermination du coefficient global de transmission de chaleur à travers la paroi d'une serre ". Agricultural and Forest Meteorology, 69, 205-221.
21. Kittas C., 1993 (in Greek). "Climatic suitability of a region for cultivations under cover". Techn Chronika - B, 12 (3): 7-27.
22. Kittas C. Giaglaras P., 1994 (in Greek). "Contribution to the Evaluation of the Greenhouse Crops Water Needs". Techn Chronika - A, 14 (22): 113-127.
23. C. Kittas, B. Draoui, T. Boulard., 1995. "Quantification du taux d' aération d' une serre à ouvrant continu en toiture". Agricultural and Forest Meteorology, 77:95-111
24. C. Kittas, 1995. "A simple climograph for characterizing regional suitability for greenhouse cropping in Greece". Agricultural and Forest Meteorology, 78: 133-141
25. C. Kittas, T. Boulard, M. Mermier, G. Papadakis., 1996. "Wind induced air exchange rates in a greenhouse tunnel with continuous side openings". Journal of Agricultural Engineering Research, 65, 37-49
26. C. Kittas, T. Boulard, G. Papadakis, 1997. "Natural ventilation of a greenhouse with ridge and side openings; sensitivity to temperature and wind effects". Transactions of ASAE 40(2) , 415-425.
27. Boulard, P. Feuilloley, C. Kittas, 1997. "Natural ventilation performances of seven greenhouse and tunnel types." Journal of Agricultural Engineering Research, 67,249-266.
28. T. Boulard, G. Papadakis, C. Kittas, M. Mermier, 1997. "Characterisation of the air flow and associated sensible heat exchanges in a naturally-ventilated greenhouse." Agricultural and Forest Meteorology, 88,111-119.
29. T. Boulard, C. Kittas, G. Papadakis, M. Mermier, 1998. "Pressure field and air flow at the opening of a naturally- ventilated greenhouse". Journal of Agricultural Engineering Research, 71,93-102.
30. C. Kittas, A. Baille, 1998. "Determination of the spectral properties of several greenhouse cover materials. Evaluation of specific parameters related to plant response." Journal of Agricultural Engineering Research, 71,193-202.
31. C. Kittas, A. Baille, P. Giaglaras, 1999. "Influence of Covering Material and Shading on the Spectral Distribution of Light in Greenhouses". Journal of Agricultural Engineering Research, 73, 341-351.
32. N. Katsoulas, A. Baille, C. Kittas, 2001. Effect of misting on transpiration and conductances of a greenhouse rose canopy. Agricultural and Forest Meteorology, 106, 233-247.
33. C. Kittas, N. Katsoulas, A. Baille, 2001. Influence of greenhouse ventilation regime on microclimate and energy partitioning of a rose canopy during summer. Journal of Agricultural Engineering Research, 79(3), 349-360.
34. A. Baille, C. Kittas, N. Katsoulas, 2000. Influence of whitening on greenhouse microclimate and crop energy partitioning. Agricultural and Forest Meteorology, 107(4), 293-306.
35. C. Kittas, A Jaffrin, Th. Bartzanas, 2001. Greenhouse evaporative cooling: measurements & data analysis. Transactions of ASAE 44(3) , 683-689.
36. Ch. Lykas, P. Giaglaras, C. Kittas, 2001. Availability of iron in hydroponic nutrient solutions for rose crops. Journal of Horticultural Science and Biotechnology, 76 (3): 350-352.
37. Ch. Lykas, V. Exarchou, K. Gourgoulianis, P. Giaglaras, Th. Gemptos, C.Kittas, P. –A. Molyvdas, 2001. Noxious gases in greenhouses. Ann Agric Environ Med, 8: 99-101.
38. T. Bartzanas, T. Boulard, C. Kittas, 2002. Numerical simulation of the airflow and temperature distribution in a tunnel greenhouse equipped with insect- proof screen in the openings. Computers and Electronics in Agriculture, 43, 207-221.
39. J.C. Roy; T. Boulard; C. Kittas; S. Wang, 2002. Convective and Ventilation Transfers in Greenhouses, Part 1: Greenhouse considered as a Perfectly Stirred Tank. Biosystems Engineering 83 (1): 1-20.
40. T. Boulard; C. Kittas; J.C. Roy; S. Wang, 2002. Convective and Ventilation Transfers in Greenhouses, Part 2: Determination of the Greenhouse Distributed Climate. Biosystems Engineering, 83 (2): 129-147.
41. C. Kittas, T. Boulard, T. Bartzanas, N. Katsoulas, M. Mermier, 2002. Influence of an insect screen on greenhouse ventilation. Transactions of the ASAE, 45(4): 1083- 1090.
42. N. Katsoulas, A. Baille, C. Kittas, 2002. Influence of Leaf Index on Canopy Energy Partitioning and Greenhouse Cooling Requirements. Biosystems Engineering, 83 (3): 349-359.
43. Bartzanas Th., Kittas C., 2003. Numerical Simulation oh the Influence of Ventilator Configuration in Greenhouse Microclimate. Geotechnical Scientific Issues, 14 (4): 14- 23.
44. C. Kittas, T. Bartzanas, A. Jaffrin, 2003. Temperature Gradients in a Partially Shaded Large

- Greenhouse Equipped with Evaporative Cooling Pads. *Biosystems Engineering*, 85(1): 87- 94.
45. C. Kittas; N. Katsoulas, A. Baille, 2003. Influence of Aluminised Thermal Screens on Greenhouse Microclimate and Night Transpiration. *Transactions of the ASAE*, 46(6): 1653- 1663.
 46. T. Bartzanas; T. Boulard; C. Kittas, 2004. Effect of Vent Arrangement on Windward Ventilation of a Tunnel Greenhouse. *Biosystems Engineering*, 88(4): 479-490.
 47. C. Kittas, M. Karamanis, N. Katsoulas, 2005. Air Temperature Regime in a Forced Ventilated Greenhouse with Rose Crop. *Energy and Buildings*, 37 (8): 807- 812.
 48. C T. Bartzanas, M. Tchamitchian, C. Kittas, 2005. Influence of the Heating Method on Greenhouse Microclimate and Energy Consumption. *Biosystems Engineering*, 91(4): 487-499.
 49. T. Bartzanas, N. Katsoulas, C. Kittas, T. Boulard and M. Mermier, 2005. The Effect of Vent Configuration and Insect Screens on Greenhouse Microclimate, *International Journal of Ventilation*, 4(3): 103-202.
 50. N Katsoulas, C Kittas, G Dimokas, Ch Lykas, 2006. Effect of Irrigation Frequency on Rose Flower Production and Quality. *Biosystems Engineering*, 93(2): 237-244.
 51. N. Katsoulas, T. Bartzanas, T. Boulard; M. Mermier, C. Kittas. Effect of Vent Openings and Insect Screens on Greenhouse Ventilation. *Biosystems Engineering*, 93(4): 427-436.
 52. Ch. Lykas, N. Katsoulas, P. Giaglaras, C. Kittas, 2006. EC and pH. Prediction in a Recirculated Nutrient Solution of a Greenhouse Soilless Rose Crop. *Journal of Plant Nutrition*, 29: 1585-1599
 53. C. Kittas, M. Tchamitchian, N. Katsoulas, P. Karaiskou, Ch. Papaioannou, 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.
 54. T. Bartzanas, C. Kittas, 2007. Greenhouse Microclimate and Dehumidification Effectiveness under Different Ventilators Configuration. *Building and Environment*, Vol 42/10 pp 3774-3784.
 55. Katsoulas, N., Baille, A., Kittas, C., 2007. Leaf boundary layer conductance in ventilated greenhouses. An experimental approach. *Agricultural and Forest Meteorology*, 144: 180-192.
 56. Bartzanas T; Kittas C; Sapounas A.A., Nikita- Martzopoulou Ch., 2007. Analysis of airflow through experimental rural buildings: sensibility to turbulence models. *Biosystems Engineering*, 97: 229- 239.
 57. 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..
 58. 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.
 59. A.A. Sapounas, T. Bartzanas, C. Nikita – Martzopoulou, C. Kittas, 2008. Aspects of CFD modeling of Fan and Pad Evaporative Cooling System in Greenhouses. *International Journal of Ventilation* 6 (4): 212-224.
 60. Lykas Ch., Papafotiou M., Katsoulas N., Kittas C., 2008. Gardenia jasminoides height control using a photosensitive polyethylene film. *HortScience* 43: 1942-2270.
 61. N. Katsoulas, C. Kittas, 2008. Impact of Greenhouse Microclimate on Plant Growth and Development with Special Reference to the Solanaceae. *European Journal of Plant Science and Biotechnology* 2 (1): 45- 61.
 62. C. Kittas, N. Katsoulas, T. Bartzanas, M. Mermier, T. Boulard, 2008. The Impact of Insect Screens and Ventilation Openings on the Greenhouse Microclimate. *Transactions of the ASABE*, 51(6): 2151- 2165.
 63. N Tadj, T. Bartzanas, B. Draoui, C. Kittas, 2008. Experimental and Numerical Investigation of Convective Heat Transfer in a Tunnel Greenhouse. *International Review of Mechanical Engineering*, 6 (2): 92-104
 64. G. Dimokas, M. Tchamitchian, C. Kittas, 2009. Calibration and validation of a biological model to simulate the development and production of tomatoes in Mediterranean greenhouses during winter period. *Biosystems Engineering*, 103: 217-227.
 65. I. Tsirogiannis, N. Katsoulas, Kittas C., 2010. Effect of Irrigation Scheduling on Gerbera Flower Yield and Quality. *HortScience* 45(2):1–6. 2010.
 66. 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.
 67. Fidaros D.K., Baxevanou C.A., Bartzanas T., Kittas C., 2010. Numerical simulation of thermal

- behavior of a ventilated arc greenhouse during a solar day. *Renewable Energy*. 35: 1380-1386.
68. N. Tadj, T. Bartzanas, D. Fidaros, B. Draoui, C. Kittas, 2010. Influence of Heating System on Greenhouse Microclimate Distribution, *Transactions of ASABE*, *Transactions of the ASABE*, 53: 1-14.
 69. Tsirogiannis I., Katsoulas N., Kittas C., 2009. Effect of irrigation scheduling on gerbera flower yield and quality. *HortScience*, 45:1-6.
 70. D. Papanastasiou, D. Melas, Th. Bartzanas, C. Kittas, 2010. Temperature, comfort and pollution levels during heat waves and the role of sea breeze. *International Journal of Biometeorology*, 54: 307-317.
 71. Papanastasiou D.K., Fidaros D., Bartzanas T., Kittas C. Monitoring particulate matter levels and climate conditions in a Greek sheep and goat livestock building. *Environmental Monitoring & Assessment*, accepted, revised version under review.

Presentations in Conferences

1. Chiapale J.P., Kittas C., Villele de O., 1981. Estimation régionale des besoins de chauffage des serres. *Acta Horticulturae*, 115: pp 493-503 (International congress I.S.H.S. "Energy in protected cultivations", Dublin, Sept. 1980).
2. Chiapale J.P., Kittas C., Villele de O., 1984. Estimation des besoins de ventilation d' une serre plastique. *Acta Horticulturae* 154, 257-266 (International Congress I.S.H.S. "Plastics in Mediterranean countries", Naubel, Tunisie, Febr. 1984).
3. Kittas C., Kaouris Y., 1984. Estimation des besoins diurnes de ventilation des serres plastiques en Grèce. *Proceedings of AMSE International Congress on modelling and simulation*. Vol. 3.1, Athens, June 1984.
4. Kittas C., 1984. Un simple modèle d' estimation de consommation d' énergie pour le chauffage des serres en Grèce. *Proceedings of AMSE International Congress on modelling and simulation*. Vol. 3.1, Athens, June 1984.
5. G.D. Nanos, C. Kittas, 1997. "An alternative low-cost storage for kiwifruit" *Acta Horticulturae* 444: 625- 628.
6. C.Kittas, T. Boulard, G. Papadakis, 1997. Ventilation flow rates through combined ridge and side openings of a greenhouse; an experimental study. *Acta Horticulturae* 443, 31-38 (Proceedings of the International Congress for greenhouse technologies in mild climates. Tel Aviv 12-17 May 1996).
7. C. Kittas, T. Boulard, G. Papadakis, M. Mermier, 1996. Mapping of air and energy fluxes along a greenhouse large opening through three dimensional anemometer. 1st Mediterranean Colloquium on protected cultivation. October 6-9, 1996, Agadir, Morocco.
8. C. Kittas, A. Baille, 1997. Determination of spectral properties of several greenhouse cover materials. Evaluation of specific parameters related to plant response. *Proc. of the 14th International Congress for Plastics in Agriculture*, 216- 224, Tel Aviv, March 9-14, 1997.
9. C. Kittas, A. Baille, P.Giaglaras, 1998. In - situ measurements of solar radiation in greenhouses: influence of cover materials and shading techniques. *Proc. of the 13th International Congress on Agricultural Engineering*, Vol.4, 243-250, Rabat, Morocco, 2-6 February 1998.
10. P. Giaglaras, A. Baille, C. Kittas, 1998. Prediction of the effects of CO2 enrichment and artificial lighting on the performance of a greenhouse production system. *IFAC-CAEA 98 Congress*,14-17 Juin 1998, Athens, Greece.
11. P. Giaglaras, Ch. Lykas, C. Kittas, 1998. Dynamic Simulation of a Nutrient Solution's Composition in a Closed Hydroponics System. *IFAC-CAEA 98 Congress*,14-17 Juin 1998, Athens, Greece.
12. C. Kittas, G. Papadakis, Th. Bartzanas, 1998. Cooling of Greenhouses. 1st National Congress in Floriculture, 27-29 May 1998, Volos, Greece.
13. G. Papadakis, C. Kittas, Th. Bartzanas. Renewable Energy Sources. Possibilities for implementation in Floriculture. 1st National Congress in Floriculture, 27-29 May 1998, Volos, Greece.
14. C. Kittas, G. Papadakis, P. Giaglaras, 1998. Heat and mass transfer processes in the greenhouse ecosystem. *E-Proceedings of the International Conference on Agricultural Engineering AgEng98*, Oslo, August 24-27, 1998.
15. C. Kittas, A. Baille, Th. Bartzanas, 1998. Climate Control of Mediterranean Greenhouses: Practices and Perspectives. 1st National Conference of the Hellenic Society of Agricultural Engineers, Athens, 11-13 December 1998, 195-208.

16. Th. Bartzanas, P. Giaglaras, C. Kittas, 1998. Types, Equipment. Energetic Evaluation and Potential Energy Saving in the Greenhouses of Magnesia Region (GR). Proceedings of the 1st National Conference of Hellenic Society of Agricultural Engineers, Athens 11 - 13 December 1998, 109-120.
17. N. Katsoulas, Th. Bartzanas, C. Kittas, 1998. Experimental determination of overall heat loss coefficient in a plastic greenhouse. Proceedings of the 1st National Conference of Agriculture Engineers, Athens 1999, 185-194.
18. T. Boulard, S. Wang, R. Haxaire, C. Kittas, G. Papadakis, M. Mermier, 1999. "Air flows, temperature and humidity patterns in a greenhouse tunnel". *Acta Horticulturae*, 507, 53-60. (Proceedings of the 3rd International Workshop on "Models for plant growth and control of the shoot and root environments in greenhouses", Ramat Gan, Israel, February 21-26, 1999).
19. C. Kittas, A. Baille, N. Katsoulas, 1999. "Transpiration and canopy resistance of greenhouse soilless roses in Greece. Measurements and modelling". *Acta Horticulturae* 507, 61-68. (Proceedings of the 3rd International Workshop on "Models for plant growth and control of the shoot and root environments in greenhouses", Ramat Gan, Israel, February 21-26, 1999).
20. C. Kittas, P. Giaglaras, Th. Bartzanas, G. Gangas, 1999. "Heating Energy Saving in Greenhouse for Ornamental Plant Production in Magnesia Region (GR)". Proceedings of AgEnergy'99 Conference, Athens- Greece, 2-5 June 1999, Vol.2, 872-879.
21. C. Kittas, G. Papadakis, Th. Bartzanas, P. Giaglaras, 1999. "Renewable Energy Sources and Energy Saving in Mediterranean Greenhouses". Proceedings of AgEnergy'99 Conference, Athens-Greece, 2-5 June 1999, Vol.2, 919-926.
22. Kittas, C., A. Baille, Katsoulas, N., 1999. Estimation of crop transpiration under cover. Proceedings of the 4th International Conference of GCMWS: "Management of Water Sources in Sensitive Regions of Greece", Volos, Greece, 17- 19 June 1999, Volume 1: 170-176.
23. P. Giaglaras, A. Baille, C. Kittas, 1999. "Rational Use of Energy on Ornamental Pot Plant Production". Proceedings of the 6th National Conference on Renewable Energy Sources of the I.H.T., Volos, 3-5 November 1999, Volume B': 1- 12.
24. C. Kittas, M. Karamanis, N. Katsoulas, 1999. "Study of the Parameters Determining the Air Temperature of a Dynamically Ventilated Plastic Greenhouse with a Rose Crop. Proceedings of the 6th National Conference on Renewable Energy Sources of the I.H.T., Volos, 3-5 November 1999, Volume B': 35- 42.
25. Kittas, C., Baille, A., Katsoulas, N., 2000. Influence of misting on the diurnal hysteresis of canopy transpiration rate and conductance in a rose greenhouse. *Acta Horticulturae*, 534, 155-161. (Proceedings of the international conference on Greenhouse Techniques towards the 3rd Millennium. September 5-8, 1999 Haifa, ISRAEL).
26. C. Kittas, A. Jaffrin, Th. Bartzanas, 2000. Greenhouse Evaporative Cooling. Measurements and Data Analysis. *Acta Horticulturae* 534, 67-74 (Proceedings of the international conference on Greenhouse Techniques towards the 3rd Millennium. September 5-8, 1999 Haifa, ISRAEL).
27. Katsoulas, N., Lykas, Ch., Giaglaras, P., Kittas, C. Management of nutrient solution in a closed hydroponic system with a rose crop in the region of Magnisia-Greece. 2nd National Conference in Floriculture: «Current trends and new technologies in floriculture of 2000». Volos-Greece, 24-26 May 2000.
28. Giaglaras P., Safouri Ch., Kittas C., Tsitsipis I. Natural control methods against insect pests in greenhouse: Insect proof nets and photosensitive cover materials. 2nd National Conference in Floriculture: «Current trends and new technologies in floriculture of 2000». Volos-Greece, 24-26 May 2000.
29. Th. Bartzanas, H. Fatnassi, D. Feidaros, C. Kittas. Investigation of Greenhouse Natural Ventilation using numerical methods (CFD). Proceedings of the 2nd National Conference of the Hellenic Society of Agricultural Engineers, Volos- Greece, 3- 5 September 2000, 366-373.
30. P. Giaglaras, Th. Bartzanas, C. Kittas, 2000. Insects screens in greenhouses: System's analysis. Proceedings of the 2nd National Conference of the Hellenic Society of Agricultural Engineers, Volos-Greece, 3- 5 September 2000, 331-339.
31. C. Kittas, N. Katsoulas, Th. Bartzanas, P. Giaglaras, M. Karamanis, Ch. Lykas, 2000. Energetic evaluation of a greenhouse thermal screen. Proceedings of the 2nd National Conference of the Hellenic Society of Agricultural Engineers, Volos- Greece, 3- 5 September 2000, 221-228.
32. Kavouras, S., Katsoulas, N., Kittas, C., 2000. Transpiration and stomatal conductance of rose plants. Measurements using porometer. Proceedings of the 2nd National Conference of the Hellenic

- Society of Agricultural Engineers, Volos- Greece, 3- 5 September 2000, 398-405.
33. M. Karamanis, C. Kittas, 2000. Word wide net: a tool for reinforcing the education in agricultural engineering. Application in teaching of "Greenhouse climate management" course. Proceedings of the 2nd National Conference of the Hellenic Society of Agricultural Engineers, Volos- Greece, 3- 5 September 2000, 417- 424.
 34. Th. Bartzanas, C. Kittas, 2000. Numerical simulation (CFD) of greenhouse heating. Proceedings of 1st South-eastern Europe Fluent Users Group Meeting 20 October 2000, Thessaloniki, S5: 48-53.
 35. A. Koutra , J.A. Calzoni P. Giaglaras, G. Riva C. Kittas. Fuel Substitution in Greenhouse Heating by biomass - Targeted actions for Magnesia (Greece). XIV Memorial CIGR World Congress, November 28- December 1, 2000, Tsukuda, Japan.
 36. Katsoulas, N., Nanos, G, Kittas, C., 2001. CO₂ enrichment and photosynthesis in a greenhouse tomato crop. Proceedings of the 19th Scientific Conference of Greek Society of Horticultural Sciences, Iraklion Crete, Greece, 25- 27 October 1999, Volume 6: 255-258 (in Greek).
 37. C. Kittas, A. Baille, N. Katsoulas, 2001. Transpiration and energy balance of a greenhouse rose crop in Mediterranean summer conditions. Acta Horticulturae 559, Volume I, 395- 400 (Proceedings of the International Symposium on Protected Cultivation in Mild Winter Climates: Current Trends for Sustainable Technologies Cartagena - Almeria, Spain, 7-11 March 2000).
 38. Ch. Lykas, P. Giaglaras, C. Kittas, 2001. Nutrient solution management in recirculating soilless culture of rose in mild winter climates. Acta Horticulturae 559, Volume II, 543-548 (Proceedings of the International Symposium on Protected Cultivation in Mild Winter Climates: Current Trends for Sustainable Technologies Cartagena - Almeria, Spain, 7-11 March 2000).
 39. Katsoulas, N., Kittas, C., Baille, A, 2001. 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 on Growing Media and Hydroponics, August 31 – September 6 1999, Halkidiki, Macedonia, Greece).
 40. Th. Bartzanas, T. Boulard and C.Kittas, 2002. Numerical Simulation of the Airflow and Temperature Patterns in a Greenhouse Equipped with Insect-Proof Screen in the Openings. Acta Horticulturae 578: 351- 358 (Proceedings of the International Symposium on Design and Environmental Control of Tropical and Subtropical Greenhouses, Taiwan, 15-18 April 2001).
 41. C. Kittas and Th. Bartzanas, 2001. Prediction of temperature distribution in a large greenhouse equipped with evaporative cooling. International Symposium on Design and Environmental Control of Tropical and Subtropical Greenhouses, Taiwan, 15-18 April 2001.
 42. Th. Bartzanas, C. Kittas. Improving greenhouse ventilation efficiency with computational fluid dynamics. 2nd South-eastern Europe Fluent Users Group Meeting, 31 October - 2 November 2001, Bucharest, Romania.
 43. Vatsanidou A., Kostopoulou B., Giaglaras P., Tsitsipis I., Kittas C. Effect of an insect proof screen on insects population in a tomato greenhouse. 9th National Entomological Congress, Ioannina, 13- 16 November 2001.
 44. C. Kittas and N. Katsoulas A. Baille, 2003. Influence of Aluminized Thermal Screens on Greenhouse Microclimate and Night Transpiration, Acta Horticulturae 614, Volume 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).
 45. Th. Bartzanas and C. Kittas. Design optimization of heating and ventilation systems with Numerical Methods. Proceedings of the Proceedings of the 1st Conference of Hellenic Association of ICT in Agriculture, Food and Environment, Athens, 6-7 June, 2002, 243- 252.
 46. S. Tsalapatas, P. Giaglaras, S. Kavouras, P. Karaikou, C. Kittas. "GEM", an e-Community for the dissemination of information on Greenhouse Technology. Proceedings of the 1st Conference of Hellenic Association of ICT in Agriculture, Food and Environment, Athens, 6-7 June, 2002, 261- 266.
 47. Th. Bartzanas, T. Boulard, C. Kittas. Analysis of greenhouse ventilation performance using computational fluid dynamic tools. E-Proceedings of the International Conference on Agricultural Engineering AgEng2002, Budapest, Hungary, 30 June – 4 July 2002.
 48. C. Kittas, Th. Bartzanas, T. Boulard, 2002. Influence of the heating system on greenhouse microclimate during night time. E-Proceedings of the International Conference on Agricultural Engineering, AgEng2002, Budapest, Hungary, 30 June 30 - 4 July 2002.
 49. C. Kittas, P. Giaglaras, A. Koutra, 2002. Heating of greenhouses using biomass in Magnesia (Greece). Proceedings of the 7th National Conference of the Institute of Solar Engineering, Patra-

- Greece, 6- 8 November 2002, Volume B, 169- 176.
50. Th. Bartzanas, C. Kittas, 2002. Optimization of Greenhouse Heating using Numerical Methods. Proceedings of the 7th National Conference of the Institute of Solar Engineering, Patra - Greece, 6- 8 November 2002, Volume B, 243- 250.
 51. Kittas, C., Katsoulas, N., 2002. Use of thermal screens for greenhouse energy saving. Influence on greenhouse microclimate. Proceedings of the 7th National Conference of the Institute of Solar Engineering, Patra - Greece, 6- 8 November 2002, Volume B, 251-258.
 52. Th. Bartzanas, C. Kittas, 2003. New methods in greenhouse microclimate research. Proceedings of the 20th National Conference of the Greek Society of Horticultural Sciences, Cyprus, 29 October- 1 November 2001, 354-357.
 53. C. Kittas, H. Labropoulos, N. Katsoulas, Th. Bartzanas, 2003. Influence of insect screens on greenhouse ventilation. Proceedings of the 20th National Conference of the Greek Society of Horticultural Sciences, Cyprus, 29 October- 1 November 2001, 346- 349.
 54. G. Dimokas, Ch. Lykas, P. Giaglaras, K. Kittas, 2003. Use of plant morphological characteristics for bending technique application in a rose crop. Proceedings of the 20th National Conference of the Greek Society of Horticultural Sciences, Cyprus, 29 October- 1 November 2001, 298- 301.
 55. Katsoulas, N., Kittas, C., 2003. Effect of leaf area index on greenhouse rose crop transpiration. Proceedings of the 20th Scientific Conference of National Conference of the Greek Society of Horticultural Sciences, Cyprus, 29 October- 1 November 2001, 318-321.
 56. Bibi A., Lykas Ch., Nanos G., Kittas C., 2003. Comparative research on the productivity of a rose cultivation in open and closed hydroponic system. Proceedings of the 3rd National Conference of the Hellenic Society of Agricultural Engineers, Thessaloniki, 29- 31 May 2003, 188- 195.
 57. Papaioannou, Ch., Obeid, D., Katsoulas, N., Kittas, C., 2003. Effect of two new greenhouse UV-absorbing cover materials on greenhouse microclimate and tomato growth. Proceedings of the 3rd National Conference of the Hellenic Society of Agricultural Engineers, Thessaloniki, 29- 31 May 2003, 354-361.
 58. Vatsanidou A., Margaritopoulos I., Papaioannou Ch., 2003. Effect of UV- absorbing covering materials on the activity of insects in a greenhouse tomato cultivation. Proceedings of the 3rd National Conference of the Hellenic Society of Agricultural Engineers, Thessaloniki, 29- 31 May 2003, 370-378, 362- 369.
 59. Th. Bartzanas, C. Kittas, 2003. Numerical and Experimental Investigation of Greenhouse Natural Ventilation. Proceedings of the 3rd National Conference of the Hellenic Society of Agricultural Engineers, Thessaloniki, 29- 31 May 2003, 370-378.
 60. C. Kittas, A. Kontes, Th. Bartzanas, 2003. Humidity and Temperature Distribution in a Greenhouse Equipped with Evaporative Cooling System and Progressive Shading. Proceedings of the 3rd National Conference of the Hellenic Society of Agricultural Engineers, Thessaloniki, 29- 31 May 2003, 379-386.
 61. Kittas, C., Katsoulas, N., 2003. Effect of several greenhouse climate control systems on greenhouse microclimate. Proceedings of the 3rd National Conference of the Hellenic Society of Agricultural Engineers, Thessaloniki, 29- 31 May 2003, 387-394.
 62. Katsoulas, N., Kittas, C., 2003. Comparative study of the influence of greenhouse ventilation, misting and shading systems on a greenhouse rose crop. Proceedings of the 3rd National Conference of the Hellenic Society of Agricultural Engineers, Thessaloniki, 29- 31 May 2003, 395-402.
 63. C. Kittas, Th. Bartzanas, S. Tsalapatas, E. Tzanakaki, 2004. Training Young European Engineers on the Application of Renewable Energy Sources in Agriculture. Proceedings of 2nd HAICTA's Conference, Information Systems & Innovative Technologies in Agriculture, Food and Environment, 18-20 March, Thessaloniki 2004, pp 358-365.
 64. Lykas, Ch., Katsoulas, N., Kittas, C., 2003. Measurements and modelling of pH and EC of the nutrient solution in a closed hydroponic system with a rose crop. Proceedings of the 21st National Conference of the Greek Society of Horticultural Sciences, Volume A', 371-374.
 65. C. Kittas, Ch. Papaioannou, D. G. Obeid and N. Katsoulas. Effect of two new UV-absorbing greenhouse-covering films on growth and yield of a tomato soilless crop. E- Proceedings of the International Symposium of the CIGR 2nd Technical Section: "New Trends in Farm Buildings", May 2 - 6, 2004, Évora, Portugal.
 66. M Tchamitchian, Th, Bartzanas, C. Kittas, 2004. Use of rose crop model to control air temperature in

- a heated greenhouse. E- Proceedings of the 26th National Conference of the Greek Society of Biology Sciences, May 27- 30, Volos, Greece, 2004
67. C. Kittas, Th. Bartzanas, A. Sapounas and N. Tsiropoulos, 2004. Modelling the dispersion and emission of pesticides from greenhouses: a CFD approach. 3rd European conference on Pesticides and Related Organic Micropollutants in the Environment. 7-10 October 2004, Chalkidiki, Greece.
 68. C. Kittas, N. Katsoulas and M. Tchamitchian, 2004. Greenhouse Soilless rose Crop Transpiration. Application for Accurate irrigation Control. E- Proceedings of the International Conference "Protection and restoration of the Environment VII", June 28- July 1, 2004, Mykonos, Greece.
 69. A. Baille, C. Kittas, N. Katsoulas. Crop-Climate Coupling Mechanisms in Greenhouses. Characterization and Analysis. International Symposium on Sustainable Greenhouse Systems Greensys 2004, September 12-16, 2004, Leuven, Belgium.
 70. C. Kittas, N. Katsoulas, A. Baille. Use of Artificial Leaves for Aerodynamic Conductance Monitoring in Greenhouses. International Symposium on Sustainable Greenhouse Systems Greensys 2004, September 12-16, 2004, Leuven, Belgium.
 71. T. Bartzanas, C. Kittas. Heat and Mass Transfer in a Large Evaporative Cooled Greenhouse Equipped with a Progressive Shading. International Symposium on Sustainable Greenhouse Systems Greensys 2004, September 12-16, 2004, Leuven, Belgium.
 72. Kittas, C., Dimokas, G., Lykas, Ch. and Katsoulas, N. Effect of Two Irrigation Frequencies on Rose Flower Production and Quality. International Symposium on Sustainable Greenhouse Systems Greensys 2004, September 12-16, 2004, Leuven, Belgium.
 73. D. Petsani, Ch. Lykas, M. Papafotiou, C. Kittas, 2005. Effect of a photoselective coloured greenhouse covering material on growth of gardenia. Proceedings of the 21th National Conference of the Greek Society of Horticultural Sciences, Ioannina, 8- 10 October 2003, Volume A', 331- 334
 74. Papaioannou, Ch., Obeid, D., Katsoulas, N., Kittas, C., 2005. Effect of two new greenhouse UV-absorbing cover materials on greenhouse microclimate and tomato growth. Proceedings of the 21st National Conference of the Greek Society of Horticultural Sciences, Ioannina - Greece, 8-10 October 2003, Volume A', 65- 68
 75. Ch. Lykas, N. Katsoulas, C. Kittas. EC and pH in a recirculated nutrient solution of a greenhouse soilless rose crop. Measurements and modelling. E- Proceedings of the International Symposium of the CIGR 2nd Technical Section: "New Trends in Farm Buildings", May 2 - 6, 2004, Évora, Portugal.
 76. S. Kavouras, Ch. Lykas, C. Kittas, 2005. Effect of Ca²⁺, Mg²⁺ and K⁺ deficiency on rose plant recovering capacity. Proceedings of the 21th National Conference of the Greek Society of Horticultural Sciences, Ioannina 8- 10 October 2003, Volume B', 477- 480
 77. Th. Bartzanas, C. Kittas, 2005. Microclimate Distribution in a Heated Greenhouse with Tomato Crop. Proceedings of the 21th National Conference of the Greek Society of Horticultural Sciences, Ioannina- Greece, 8 - 10 October 2003, Volume A', 69- 72.
 78. Ch. Lykas, D. Petsani, M. Papafotiou, C. Kittas. Effect of a Red to Far Red Light Filtering Plastic Film on Growth of Gardenia (*Gardenia jasminoides*). International Symposium on Artificial Lighting in Horticulture "Recent Advances in Horticultural Lighting", June 21-24 2005, Lillehammer, Norway.
 79. 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, Palenc 2005, 19-21 May 2005 Santorini, Greece, Volume I: 59-64.
 80. 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, Palenc 2005, 19-21 May 2005 Santorini, Greece, Volume II: 1003-1008.
 81. M. Tchamitchian, C. Kittas, Th. Bartzanas, Ch. Lykas. Daily Temperature Optimisation in Greenhouse by Reinforcement Learning. E- Proceedings, Horacek, P., Simandl, M., Zitek, P. (eds), 16th IFAC World Congress, 4- 8 July 2005, Prague.
 82. Bartzanas Th., Katsoulas N., Kittas C., 2005. Analysis of the 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 Buildings Structures", 7- 10 July 2005, Patra, Greece, 29- 34.
 83. Kittas C., Katsoulas N., Baille A., 2005. Influence of Crop Leaf Area Index on Greenhouse Cooling Requirements, Proceedings of the International Conference on "The Integration of the Renewable

- Energy Systems into the Buildings Structures”, 7- 10 July 2005, Patra, Greece, 179- 185.
84. C. Kittas, Th. Bartzanas, At. Sapounas, 2005. Numerical Analysis of Airflow through an Experimental Livestock Building: Sensibility to Turbulence Models. 4th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2005), 19-22 September Cairo Egypt.
 85. Th. Bartzanas, N. Tadj, G. Theodoridis, C. Kittas, 2005. Numerical Analysis of Airflow through Porous Screens. Influence of Screens’ Porosity. 4th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2005), 19-22 September Cairo Egypt.
 86. C. Kittas, At. Sapounas, Th. Bartzanas, 2005. Prediction of Pesticides Emission and Dispersion from a Naturally Ventilated Greenhouse: a CFD approach. XXXI CIOSTA-CIGR V Congress, 19- 21 September 2005, Hohenheim, Germany.
 87. A. Sapounas, T. Bartzanas, Ch. Nikita – Martzopoulou, C. Kittas, 2005. Numerical simulation of natural ventilation in a livestock building. Sensibility to turbulence models. Proceedings of the 4th National Conference of the Hellenic Society of Agricultural Engineers Athens 6- 8 October 2005, pages: 48-56.
 88. T. Bartzanas and C. Kittas, 2005. Influence of vent type on greenhouse dehumidification. Proceedings of the 4th National Conference of the Hellenic Society of Agricultural Engineers Athens 6- 8 October 2005, pages: 1-9.
 89. N. Katsoulas and C. Kittas, 2005. Use of artificial leaves for the control of aerodynamic conductance in greenhouse, Proceedings of the 4th National Conference of the Hellenic Society of Agricultural Engineers Athens 6- 8 October 2005, pages: 38-47.
 90. P. Maletsika, Ch. Papaioannou, A. Siomos, C. Kittas, 2005. Influence of UV solar radiation on production and quality characteristics of tomato crop. Proceedings of the 4th National Conference of the Hellenic Society of Agricultural Engineers Athens 6- 8 October 2005, pages: 65-70.
 91. C. Kittas, N. Katsoulas, T. Bartzanas, 2005. Influence of insect screens and vent type on greenhouse ventilation rate. Proceedings of the 4th National Conference of the Hellenic Society of Agricultural Engineers Athens 6- 8 October 2005, pages: 19-27.
 92. C. Kittas, T. Bartzanas, N. Kasoulas, 2005. Simulation of a tracer gas emission in the inside and outside environment of greenhouse. 22 National Conference of the Greek Society of Horticultural Sciences, Patra 19-21 October, 2005
 93. N. Rigakis, T. Bartzanas K. Kittas, 2005. Influence of different shading screens on microclimate and development of a tomato crop. 22 National Conference of the Greek Society of Horticultural Sciences, Patra 19-21 October 2005
 94. Ch. Papaioannou, N. Katsoulas, G.D. Obeid, C. Kittas. Influence of UV absorbing films on growth and development of a greenhouse hydroponic crop. 22 National Conference of the Greek Society of Horticultural Sciences, Patra 19-21 October 2005
 95. G. Dimokas, Ch. Lykas, N. Katsoulas, N. Katsoulas and C. Kittas. Influence of irrigation frequency on the production of a hydroponic rose crop. 22 National Conference of the Greek Society of Horticultural Sciences, Patra 19-21 October, 2005
 96. Ch. Lykas, A. Koutsoflini, Ch. Lykas, C. Kittas. Estimation of NO₃- and PO₄²⁻ concentration on hydroponic rose cultivated plants in relation to greenhouse microclimate and the nutrient solution. 22 National Conference of the Greek Society of Horticultural Sciences, Patra 19-21 October 2005
 97. Ch. Manolaraki, N. Katsoulas, M. Tchamitchian and C. Kittas. Influence of UV absorbing films on the photosynthesis of an hydroponic greenhouse tomato crop. 22 National Conference of the Greek Society of Horticultural Sciences Patra 19-21 October 2005
 98. E. Tsirakou, N. Katsoulas, M. Tchamitchian, A. Xa and C. Kittas. Influence of grafting on photosynthesis of aubergines crop in greenhouse. 22 National Conference of the Greek Society of Horticultural Sciences Patra 19-21 October 2005.
 99. Bartzanas and C. Kittas, 2006. Influence of Vent Design on Greenhouse Microclimate during Dehumidification with Simultaneous Heating and Ventilation, *Acta Horticulturae* 719: 349- 356 (Proceedings of the International Symposium on Greenhouse Cooling, April 24- 27 April 2006, Almeria, Spain).
 100. N. Katsoulas, E. Kitta, C. Kittas, I.L. Tsirogiannis, E. Stamati and D. Savvas, 2006. Greenhouse Cooling by a Mist System: Effects on Microclimate and Quality of a Soilless Pepper Crop, 2006. *Acta Horticulturae* 719: 455- 462 (Proceedings of the International Symposium on Greenhouse Cooling, April 24- 27 April 2006, Almeria, Spain).
 101. C. Kittas, T. Bartzanas, N. Katsoulas and A.A. Sapounas, 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, April 24- 27 April 2006, Almeria, Spain).
102. C. Kittas, N. Katsoulas, T. Bartzanas, T. Boulard and M. Mermier, 2006. Effect of Vent Openings and Insect Screens on Greenhouse Microclimate Distribution, *Acta Horticulturae* 719: 615- 622 (Proceedings of the International Symposium on Greenhouse Cooling, April 24- 27 April 2006, Almeria, Spain).
 103. C. Kittas, M. Tchamitchian, T. Bartzanas. Optimisation of a biophysical model in order to save energy durinn greenhouse heating. National Conference of the Institute of Solar Engineering for Renewable Energy Sources, 29-31 March, Thessaloniki.
 104. T. Bartzanas, N. Katsoulas, C. Kittas, A. Sapounas, 2006. Dispersion of Pesticides from a Naturally Ventilated Greenhouse: a CFD Approach. *Acta Horticulturae* 718: 307- 314 (Proceedings of the Illrd International Symposium on Models for Plant Growth, Environmental Control and Farm Management in Protected Cultivation, Hortimodel 2006, Wageningen, The Netherlands, October 29- November 2, 2006).
 105. Ch. Lykas, N. Katsoulas, C. Kittas. Calcium, Magnesium and Potassium Concentrations Prediction in a Recirculated Nutrient Solution of a Greenhouse Soilless Rose Crop. *Acta Horticulturae* 718: 491- 498 (Proceedings of the Illrd International Symposium on Models for Plant Growth, Environmental Control and Farm Management in Protected Cultivation, Hortimodel 2006, Wageningen, The Netherlands, October 29-November 2, 2006).
 106. N. Tadj, T. Bartzanas, C. Kittas. Convective Heat Transfer in a Heated from Soil Greenhouse Tunnel. International Symposium on Protected Culture in a Mild-Winter Climate, 19-24 February 2006 Agadir, Morocco
 107. T. Bartzanas, A.A. Sapounas, Ch. Nikita- Martzopoulou, C. Kittas, 2006. Applications of CFD on Agricultural Structures, E- Proceedings of the HAICTA's International Conference on Information Systems in Sustainable Agriculture, Agroenvironment and Food Technology, 20- 23 September 2006, Volos, Greece, 506- 514.
 108. G. Dimokas and C. Kittas, 2006. Model-based climate management during winter period in Mediterranean greenhouses, E- Proceedings of the HAICTA's International Conference on Information Systems in Sustainable Agriculture, Agroenvironment and Food Technology, 20- 23 September 2006, Volos, Greece, 905- 910.
 109. Katsoulas, N., Bartzanas, T., Manolaraki, Ch., and Kittas C., 2007. Effect of anti-drip greenhouse cover materials on microclimate and production of a hydroponic cucumber crop. *GreenSys 2007: High Technology for Greenhouse Systems Management*, October 4-6, 2007, Naples, Italy.
 110. Kittas, C., Bartzanas, T., Sapounas, A., Katsoulas, N., Tsiropoulos, N., 2007. Numerical modelling and experimental measurements of pesticides dispersion in a naturally ventilated greenhouse. *GreenSys 2007: High Technology for Greenhouse Systems Management*, October 4-6, 2007, Naples, Italy.
 111. Baxevanou K., Bartzanas T., Feidaros, D., Kittas, C., 2007. Solar radiation distribution in a tunnel greenhouse. *GreenSys 2007: High Technology for Greenhouse Systems Management*, October 4-6, 2007, Naples, Italy.
 112. Bartzanas, T., Tadj, T., Draoui, B., Kittas, C., 2007. Numerical and experimental investigations of airflow and temperature patterns in a heated tunnel greenhouse. *GreenSys 2007: High Technology for Greenhouse Systems Management*, October 4-6, 2007, Naples, Italy.
 113. 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.
 114. Bartzanas, T., Tadj, T., Draoui, B., Kittas, C., 2007. Influence of vents type arrangement on greenhouse thermal driven ventilation. 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.
 115. Peponakis, C., Katsoulas, N., Petsani D., and Kittas C., 2007. Study of a tomato growth model for optimization of greenhouse microclimate in a tomato seedlings greenhouses. First Symposium

- on Horticulture in Europe, 17 – 20, February 2008, Vienna, Austria.
116. Katsoulas, N., Katsoupa, M., and Kittas C., 2007. Effect of a new “silver” PE greenhouse covering film on microclimate and production of a tomato crop. First Symposium on Horticulture in Europe, 17 – 20, February 2008, Vienna, Austria.
 117. Bartzanas, T., Baxevanou, C., Feidas, D., Kittas C., 2007. Microclimate patterns under different shading nets. First Symposium on Horticulture in Europe, 17 – 20, February 2008, Vienna, Austria.
 118. Gialis, S., Bartzanas T., Tselios, Ch., Toullos, L., Kittas, C., 2007. Assessing the possibility of biomass use on greenhouse heating using GIS. First Symposium on Horticulture in Europe, 17 – 20, February 2008, Vienna, Austria
 119. Gialis, S., Bartzanas T., Tselios, Ch., Toullos, L., Kittas, C., 2007. GIS as a Decision Support Tool for Protected Cultivations Planning. Accepted for Poster Presentation in the 6th European Conference on Precision Agriculture, 3-6 June 2007, Skiathos, Greece.
 120. Papanastasiou D.K., Bartzanas T., Kittas C., 2008. Studying heat wave events in Magnesia, Greece. 12th Conference of the Union of Hellenic Physicists, 20 – 23 March, Kavala, Greece.
 121. N. Katsoulas, D. Petsani, C. Peponakis, M. Tchamitchian and C. Kittas, 2008. Development of a simple growth model for control of tomato seedlings cultivations. Strategies Towards Sustainability of Protected Cultivation in Mild Winter Climate, Antalya, Turkey, 6-11 April 2008.
 122. C. Kittas, T. Bartzanas N. Rigakis and N. Katsoulas, 2008. Influence of shading screens on microclimate and growth of a tomato crop. Strategies Towards Sustainability of Protected Cultivation in Mild Winter Climate, Antalya, Turkey, 6-11 April 2008.
 123. Syrivelis D., Katsoulas N., Papanastasiou D.K., Bartzanas T., Kittas C. 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
 124. Ch. Papaioannou, N. Katsoulas and C. Kittas, 2008. Study of ultraviolet radiation transmission of UV-absorbing greenhouse cover materials during time. AgEng2008 (International Conference on Agricultural Engineering & Industry Exhibition), Hersonissos, Crete, Greece, 23-25 June 2008.
 125. Papanastasiou D.K., Bartzanas T., Kittas C. Ozone levels in central Greece: trend and impacts on agriculture. AgEng2008 (International Conference on Agricultural Engineering & Industry Exhibition), Hersonissos, Crete, Greece, 23 – 25 of June, 2008.
 126. Kittas C., Bartzanas Th., Nacima T., Feidas D Influence of heating system on greenhouse microclimate and crop activity. AgEng2008 (International Conference on Agricultural Engineering & Industry Exhibition), Hersonissos, Crete, Greece, 23 – 25 of June, 2008.
 127. N. G. Tsiropoulos, A. Papadi-Psyllou, N. Katsoulas, K. Kravvariti, T. Bartzanas, T. Boulard and C. Kittas, 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.
 128. D. Fidas, C. Baxevanou, T. Bartzanas, C. Kittas, 2008. Flow characteristics and temperature patterns in a fan ventilated greenhouse, *Acta Horticulturae*, 797: 123-130.
 129. A.Sapounas, T. Bartzanas, C. Nikita-Martzopoulou, C. Kittas, 2008. Fan and Pad Evaporative Cooling System for Greenhouses: Evaluation of a Numerical and Analytical Model. *Acta Horticulturae*, 797: 131-137.
 130. G. Dimokas, C. Kittas, M. Tchamitchian, 2008. Validation of a Tomato Crop Simulator for Mediterranean Greenhouses. *Acta Horticulturae*, 797: 247-252.
 131. C. Kittas, A. Vatsanidou, T. Bartzanas, D. Bliatsos. Specialization of National Certification Norms of agriculture production for greenhouse cultivations. Cretacert 2008, 2nd International Conference for quality and marketing of agriculture products, Crete, 25- 27 September, 2008.
 132. C. Kittas, K. Peponakis, T. Bartzanas. Food Technological Platform of Thessaly. Cretacert 2008, Cretacert 2008, 2nd International Conference for quality and marketing of agriculture products, Crete, 25- 27 September, 2008.
 133. Ch. Baxevanou. D. Fidas, T. Bartzanas, C. Kittas. Numerical simulation of solar thermal load of a typical room with planted roof. 9th National Conference on Renewable Energy Sources, Pafos 26-28 March 2009, Cyprus

134. D. Fidaros, Ch. Baxevanou, T. Bartzanas, C. Kittas. Numerical simulation thermal behaviour of a ventilated arc greenhouse during a solar day. 9th National Conference on Renewable Energy Sources, Pafos 26-28 March 2009, Cyprus
135. C. Kittas, T. Bartzanas, N. Katsoulas. Greenhouse heating- challenges in the Mediterranean region in light of the increase in fuel prices: a review and current trends in Greece. 19th Agro Mashov Exhibition, Israel Trade Fairs and Convention Center, Tel Aviv, Israel 14-15 January 2009 (Invited presentation).
136. Katsoulas N., Kittas C., Feidaros D., Batzanas T., Baxevanou K., 2009. Study of a passive solar heating greenhouse crop grow gutter. *Acta Horticulturae*, in press (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 200, Quebec, Canada).
137. Dimokas G., Katsoulas N., Tchamitchian M., Kittas C., 2009. Development of a Bio-physical simulator for Mediterranean greenhouses. *Acta Horticulturae*, in press (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 200, Quebec, Canada).
138. Bartzanas T., D. Fidaros, Katsoulas N., Boulard T., Kittas C., 2009. Experimental results and simulation analysis of climate distribution in a greenhouse with insect screens. *Acta Horticulturae*, in press (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 200, Quebec, Canada).
139. Ch. Lykas and G. Dimokas, C. Kittas. Alteration of NO₃-, PO₄³⁻ and SO₄²⁻ Concentration on Rose Plants in Response to Greenhouse Climate Parameters and their Concentration in the Nutrient Solution. *Acta Horticulturae*, in press (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 200, Quebec, Canada).
140. Ali Youssef, Jan Dekock, Nikolaos Katsoulas, Sezin Eren Ozcan, Constantinos Kittas, Daniel Berckmans. Data-based approach to model the dynamic behaviour of greenhouse temperature. *Acta Horticulturae*, in press (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 200, Quebec, Canada).
141. Fidaros D., Baxevanou C., Bartzanas T., Kittas C. Investigation of flow patterns in a greenhouse with mechanically assisted ventilation. (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 200, Quebec, Canada).
142. Vatzanidou A., Bartzanas Th., Kittas C. Efficiency of physical means of IPM on insect population control in greenhouse crops. (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 200, Quebec, Canada)
143. Kittas C., Katsoulas N. Bartzanas T. Characterization and analysis of the effects of greenhouse climate control equipment on greenhouse microclimate and crop response. (Proceedings of the International Symposium on High Technology for Greenhouse Systems, GreenSys 2009, June 14-19, 200, Quebec, Canada).
144. T. Bartzanas, D. Fidaros, A. Baxevanou, C. Kittas. Three dimensional simulation of forced convection flow in an arched greenhouse. 6th National Conference of Agriculture Engineer, Thessaloniki, 8-10 October 2009.
145. Baxevanou, D. Fidaros, D. Papanastasiou, T. Bartzanas, C. Kittas. Numerical simulation of flow & transport phenomena in livestock building. 6th National Conference of Agriculture Engineer, Thessaloniki, 8-10 October 2009.
146. D. Fidaros, A. Baxevanou, T. Bartzanas, C. Kittas. Numerical simulation of an empty room thermal behaviour with green roof. . 6th National Conference of Agriculture Engineer, Thessaloniki, 8-10 October 2009.
147. D. Papanastasiou, D. Fidaros, A. Baxevanou, T. Bartzanas, C. Kittas, 2009. Study of climate and airborne particles levels in a naturally ventilated livestock building. 6th National Conference of Agriculture Engineer, Thessaloniki, 8-10 October 2009.
148. C. Peponakis, N. Katsoulas, .C. Kittas, 2009. Calibration and validation of a nursery tomato crop. 6th National Conference of Agriculture Engineer, Thessaloniki, 8-10 October 2009.
149. C. Papaioannou, N. Katsoulas, C. Kittas, 2009. Distribution of Solar Energy inside a tunnel greenhouse. 6th National Conference of Agriculture Engineer, Thessaloniki, 8-10 October 2009.
150. C. Kittas, N. Katsoulas, Th. Bartzanas, Ch. Lykas, M. Tsetselidou. Study of a passive solar heating greenhouse crop grow gutter. 6th National Conference of Agriculture Engineer, Thessaloniki, 8-10 October 2009.

151. P. Dimitropoulos, D. Karabatzakis, E. Martini, N. Zarokostas, A. Zaxaris, T. Bartzanas, C. Kittas. Traceability of greenhouse products using RFID technology. 25th National Conference of Greek Society for Vegetables Production, 20-23 October 2009 Veroia, Greece.
152. T. Bartzanas, D. Fidaros, A. Baxavanou, N. Katsoulas, C. Kittas. Efficiency of insects screens on greenhouse crops. A numerical approach. 5th National Conference of Greek Society for Vegetables Production, 20-23 October 2009 Veroia, Greece.
153. E. Kitta, N. Katsoulas, D. Savvas, T. Bartzanas. Influence of shading and salinity on heat and mass transfer in a hydroponic cucumber crop. 25th National Conference of Greek Society for Vegetables Production, 20-23 October 2009 Veroia, Greece.
154. Dova, E., Sophianopoulos, D. S., Katsoulas, N., Kittas, C., 2010. Differences in required structural efficiency of standard commercial steel greenhouses among EU countries: a Hellenic experience. 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal.
155. Kittas, C., Katsoulas, N., Bartzanas, T., Papa, K., Thanasenaris, A., 2010. Improvement of greenhouse microclimate distribution by means of air mixing fans. 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal.
156. Katsoulas, N., Bartzanas, T., Kittas, C., 2010. Microclimate distribution in a greenhouse cooled by a fog system. 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal.
157. Bartzanas, T., Katsoulas, N., Tsouknidas, A., Kittas, C. Effect of two new cover materials on greenhouse energy consumption and cooling load. 28th International Horticultural Congress, August 22-27, 2010, Lisboa, Portugal.
158. 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.
159. Katsoulas, N., Bartzanas, T., Fidaros, D., Kittas, C., 2010. Study of a passive solar heating greenhouse crop grow gutter: A CFD approach. International Conference on Agricultural Engineering, AgEng 2010, September 6-8, 2010, Clermont-Ferrand, France.
160. 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.
161. S. Tsiantou, T. Bartzanas, C. Kittas. State of the art for plant selection and substrate composition in green roof systems. 5th European Conference on Energy Performance and Indoor Climate in Buildings & 1st Cool Roof Conference 29 September-1 October 2010, Rhodes Island, Greece
162. D. Papanastasiou, T. Bartzanas, C. Kittas. Monitoring the urban heat island in a Greek coastal city. 5th European Conference on Energy Performance and Indoor Climate in Buildings & 1st Cool Roof Conference 29 September-1 October 2010, Rhodes Island, Greece
163. D.Fidaros, C.Baxevanou, D. Papanastasiou, T.Bartzanas & C.Kittas. Numerical investigation of particle pollutants reduction due to green roof. 5th European Conference on Energy Performance and Indoor Climate in Buildings & 1st Cool Roof Conference 29 September-1 October 2010, Rhodes Island, Greece
164. D.Fidaros, C.Baxevanou, T.Bartzanas & C.Kittas. Estimation of the reduced cooling needs from a typical green roof. Numerical investigation of particle pollutants reduction due to green roof. 5th European Conference on Energy Performance and Indoor Climate in Buildings & 1st Cool Roof Conference 29 September-1 October 2010, Rhodes Island, Greece.