

# INTERNATIONAL CONFERENCE on INFORMATION SYSTEMS & INNOVATIVE TECHNOLOGIES IN AGRICULTURE, FOOD and ENVIRONMENT

## Conference Programme Overview

18-20 March 2004 Thessaloniki, Greece

**Thursday 18 March**

9:00 – 10:30	<b>Registration</b> (Aristotle University Old Building of School of Philosophy)
10:30	<p style="text-align: center;"><b>Conference Opening</b> (Aristotle University Old Building of School of Philosophy)</p> <p>Welcome address:  <b>Basil Manos</b>, conference chair  <b>Maro Vlachopoulou</b>, program chair  Rector of University of Macedonia  President of Technological Institute of Thessaloniki  Representatives of invited officials</p> <p>Opening:  Rector of Aristotle University of Thessaloniki</p>
11:00 – 12:30	<p style="text-align: center;"><b>Plenary Session</b> (Aristotle University Old Building of School of Philosophy)</p> <p style="text-align: center;"><b>Keynote Speakers</b></p> <p style="text-align: center;"><b>Professor Alexander Sideridis</b>, Agricultural University of Athens, President of HAICTA, Greece, "ICT IN AGRICULTURE &amp; ENVIRONMENT: RECENT DEVELOPMENTS IN GREECE"</p> <p style="text-align: center;"><b>Professor Gerhard Schiefer</b>, University of Bonn, Germany, "Electronic Trade Platforms for Food: Strategies, Developments and Sector Implications - An international perspective"</p> <p style="text-align: center;"><b>Professor George Beers</b>, Wageningen University, Netherlands, "Consumer driven ICT in Agrifood Chains"</p>
12:30 – 14:00	Lunch Break (Aristotle University)
14:00 – 15:00	Business exhibition (University of Macedonia)

		Room A.	Room B.	Room C.	Room D.
	<b>Parallel Sessions 1.</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>
		E-commerce/E-business	ITA	Decision Support Systems	Education/Training
	Chair	M. Vlachopoulou	T. Gemptos	L. Iliadis	E. Gelb
15:00 – 16:40		<p>22. Are Really the Grocery End-Users Ready to Place Orders via Internet?  <b>C. Priporas, C. Theodoridis, I. Kamenidou</b></p> <p>90. Internet-based greenhouse climate choice to grow greenhouse tomatoes  <b>Tchamitchian M., Mercier S.</b></p> <p>58. Evaluation of an agricultural web site  <b>F. Patsioura, M. Vlachopoulou, V. Manthou</b></p> <p>5. A prototype web site for public broadcast using DPSIR indicators Experiment on the Nestos delta, Greece.  <b>A. Karakos, X. Skoulikaris, Th. Koutroumanidis</b></p>	<p>41. Multi-spectrum Global Illumination Computation For Greenhouse Applications  <b>S. Vougioukas</b></p> <p>55. Determination of Economic Damage Threshold of Weeds on Wheat in Mashhad using Regression Equations  <b>J. Gherekhloo, D. Mazaheri, A. Ghanbari, M. Ghannadha</b></p> <p>72. Typology of the lagoons of northern Greece according to their environmental characteristics and fisheries production  <b>G. Arabatzis, A. Kokkinakis</b></p> <p>138. The Use Of The S-Band Weather Radar For Flood Protection In The Agricultural Area Of Thessaly  <b>A. Baltas</b></p>	<p>3. A Fuzzy Decision Support System for the restoration of Lake Koronia  <b>Panagiotis Tzionas, Irene A. Ioannidou and Stephanos Paraskevopoulos</b></p> <p>32. A multiple-criteria decision model for selecting the optimum fertilization variant for the 'Akane' apple-tree cultivar  <b>I. Armeanu, F. Stanica.</b></p> <p>97. Ground water management by mathematical models  <b>Ch. Babajimopoulos &amp; S. Kavalieratou</b></p> <p>135. Water Management Decision Support Systems  <b>S. Ntalagiorgos and A. Sideridis</b></p>	<p>40 Planning Considerations on the Development of Online Distance Learning Courses in Agriculture  <b>Bousiou-Makridou D. Valasidou A.</b></p> <p>23. Education, Training And Distance Learning: "Learning In The Information Society- Perspectives In The Sector Of Agriculture"  <b>H. Fragkou</b></p> <p>34. On the Implementation of New Teaching and Training Methods in Agricultural Education  <b>R. Pöldaru, J. Roots, R. Ruus</b></p> <p>36. E-Learning in the work-places in the Rural Sector of northeastern Greece  <b>H. Jahankhani, L. Iliadis, E. Pimenidis</b></p>
16:40 – 17:00	Afternoon Break				
17:00 – 19:00	<b>Parallel Sessions 2.</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Business session</b>
		GIS/RS applications	Information Systems	Internet Services & Architectures	
	Chair	I. Gitas	M. Coelho	M. Salampasis	M. Papaeconomou A. Gertsis

	<p>30. A "need" or a "must" for developing Governmental Agricultural GIS in Greece <b>Mavridis A., I. Ifadis, P. Savaidis</b></p> <p>128. Hydrological and Ecological Modeling of a River Catchment Basin <b>G. Gotchev, R. Scherer, A. Hachikyan, M. Lazarova</b></p> <p>60. Spatial models and multi-criteria queries for the analysis of geographic and soil data, using Geographic Information Systems <b>K. Douros, G. Silleos, N. Karapetsas, E. Moutziki H. Topaloglou</b></p> <p>29. Biological Farming System: Management and Certification through GIS Models <b>Mavridis A., I. Ifadis, P. Savaidis</b></p>	<p>95. Enhancement of agro-industrial complex competitiveness through IT-based Information System in Transition Economies: case for Ukraine <b>S. Ivanov, A. Lyakh</b></p> <p>127. Process of Implementation of Corporation Information System <b>I. Vrana</b></p> <p>7 Human Resources Data Base Management Using Microsoft Visual C++ For Greek Forest Administration <b>Zacharoula. S. Andreopoulou, Sophia. E. Vassiliadou, Anastasios. K. Papastavrou</b></p> <p>94. Testing of Variable Rate, GPS Guided Fertilizer Broadcasting Systems <b>M. Fadel</b></p>	<p>86. Web Services: Their Role in Supply Chain for SMEs <b>S. Pavlou, B. Karakostas</b></p> <p>126. Ontologies based conceptualisation for semantic integration of agricultural applications <b>D. Tektonidis, M. Salampasis, C. Batzios</b></p> <p>39. Intelligent Optimisation Agents in Food Supply Chain Management <b>Eleni Mangina, Ilias P. Vlachos</b></p>	<p>1) Giberitis V. <b>V. Giurdas Publishing</b></p> <p>2) Kefalas K. <b>MIK3</b></p> <p>3) Papaeconomou M. <b>Papaeconomou Agrochemicals</b></p> <p>4) Kontos A. <b>Marathon Data</b></p>
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**Friday 19**

9:00 - 10:40	<b>Parallel Sessions 3.</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>
		<b>Education Training</b>	<b>Decision Support Systems</b>	<b>GIS/RS applications</b>	<b>ICT Adoption</b>
	<b>Chair</b>	E. Pimenidis	P. Tzionas	A. Hachikyan	K. Sindir
		<p>13. HTML-Presentation of Fishery Time Series Database and Trend Modeling for the Purpose of E-Learning <b>Georgios K. Tegos, Diana V. Stoyanova, Kolyo Z. Onkov</b></p> <p>59. AgriBus e-learning model in Greek environment <b>E. Malama, D. Folinias, M. Vlachopoulou, V. Manthou</b></p> <p>66. The instruction of Greek fresh water fishes through a multimedia learning system. <b>Andreopoulou Z., Kokkinakis A., Kirkenidis J., Papastavrou A.</b></p> <p>64. Development Of A Model Web Environment Application To Support Environmental Education Projects On The "Forest" Issue <b>Skoufa E., Andreopoulou Z., Karameris A. Papastavrou A</b></p>	<p>115. Problems in Assessing Business Investment Plans and the Need for Applying the Multicriteria Decision Making Analysis Method. An Empirical Implementation in the Region of Kavala. <b>Nicolaidis M., Chatzoglou, P., Koutroumanides T., Tzarta Z.</b></p> <p>17. The use of a neural network technique for the prediction of water quality parameters <b>Maria J. Diamantopoulou, Dimitris M. Papamichail, Vassilis Z. Antonopoulos</b></p> <p>48. An Integrated System For Water Resources Monitoring, Economic Evaluation and Management <b>S. Arabatzis, B. Manos</b></p> <p>96. Simulation of soil water, nitrogen, uptake and leaching during irrigation with treated wastewater in corn fields, using WANISIM Model <b>V. Antonopoulos</b></p>	<p>31. Promoting the Implementation of an Information Network based on GIS for the Sustainable Development of Agriculture and of the Environment in Greece. <b>Mavridis A., I. Ifadis, P. Savaidis</b></p> <p>62. Application of Geo-Statistical methods for spatial analysis of soil data <b>N. Karapetsas, K. Douros, I. Gitas, G. Silleos, H. Topaloglou, E. Moutziki</b></p> <p>61. Erosion risk assessment and its impact in the agricultural environment using high resolution satellites and GIS <b>I. Gitas, M. Nikolaou, G. Silleos, N. Karapetsas</b></p> <p>1. Implementing Irrigation Scheduling Using Geographical Information Systems <b>P. Vyrlas, D. Kalfountzos, K. Dragoidou, M. Sakellariou-Makrantonaki</b></p>	<p>142. A Summary of the EFITA ICT Adoption Questionnaires <b>Ehud Gelb, P. Wagner, K. Roskopf, C. Parker</b></p> <p>88. ICT and Rural Development: A sceptical look at the emerging 'consensus' <b>A. Koutsouris</b></p> <p>93. Training Young European Engineers on the Application of Renewable Energy Sources in Agriculture <b>Kittas C., Bartzanas T., Tsalapatas S., E. Tzanakaki</b></p> <p>65. Supporting the development and management of the trout fish farming using e learning <b>Kokkinakis A, Andreopoulou Z., Bouchounas T. Papageorgiou N.</b></p>
	10:40 - 11:00	Morning Break			
11:00 - 12:40	<b>Parallel Sessions 4.</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>
		<b>Decision Support Systems</b>	<b>ITA</b>	<b>OT</b>	<b>E-commerce/E-business</b>
	<b>Chair</b>	G. Weigert	I. Vrana	S. Tzortzios	E. Magina

		<p>99. A Decision Support System Unifying Partial Environmental Risk Indices by Using Fuzzy Intersection Operators: The Case of Forest Fires <b>L. Iliadis</b></p> <p>98. Estimation of the water balance of cultivated soils by mathematical models <b>Ch. Babajimopoulos, A. Panoras</b></p> <p>134. A Decision Support System for Forest Fire Management <b>S.T. Kaloudis, N.A. Lortzos, A.B. Sideridis, C.P. Yialouris</b></p> <p>129 Decision Support System for a River Network Pollution Estimation Based on a Structural-Linguistic Data Model <b>A. Hachikyan, R. Scherer, M. Angelova, M. Lazarova</b></p>	<p>73. Typology of the lakes of Northern Greece according their environmental characteristics and fisheries production <b>A. Kokkinakis and G. Arabatzis</b></p> <p>107. Combining reactive &amp; Deterministic Behaviors for Mobile Agricultural Robots <b>S. Vougioukas, S. Fountas, S. Blackmore, Lie Tang</b></p> <p>141. The Influence of Cotton Variety in the Calibration Factor of a Cotton Yield Monitor <b>A. T. Markinos, T. A. Gemtos, D. Pateras, L. Toullos, G. Zerva, M. Papaconomou</b></p> <p>70. Cultivation heterogeneity study in a Mediterranean agricultural area, using high spatial resolution multi-spectral imagery <b>C. Karydas, N. Silleos, N. Karydas</b></p>	<p>122. Effects of different arrangements of drip irrigation laterals on cotton crop in Thessaly plain <b>M. Sakellariou – Makrantonaki, E. Gatselis, S. Tzortzios, P. Vyrlas, D. Kalfountzos</b></p> <p>139. Problems of Biological Agriculture Development in Albania <b>K. Pata, F. Gjoka, M. Tandini</b></p> <p>43. An Association Model for Agriculture Income in EU <b>Haritou, A. Voyiatzis</b></p> <p>50. Evaluation of radiation use efficiency &amp; canopy orientation in corn (<i>Zea mays</i> L.) and pigweed (<i>Amaranthus retroflexus</i> L.) in competition condition <b>A. Rahimi, M. Rahimian, M. Alikhani and Farinaz Borghaei</b></p>	<p>15. Value Added Communities and their impact on rural areas in Greece <b>E. Pimenidis, J. Bolissian</b></p> <p>130 Business networks and clusters in the agricultural sector <b>A. Matopoulos, M. Vlachopoulou, V. Manthou</b></p> <p>133. A Greek Organic Agriculture Portal <b>C. Costopoulou, S. Karetos, M. Ntaliani, I. Gidarakou, A. Sideridis</b></p> <p>83. Designing CSCW System for Integrated, Web-Based, Cotton Cultivation Services <b>C. Pontikakos, G. Zakynthinos, T. Tsiligiridis</b></p>
12:40 – 14:20	Lunch Break				
14:20 - 15:40	<b>Parallel Sessions 5.</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>
		<b>OT</b>	<b>ITA</b>	<b>DSS</b>	<b>ICT</b>
	<b>Chair</b>	A. Gertsis	C. Batzios	C. Babajimopoulos	K. Yalouris
	<p>78. Economic consideration in cattle breeding <b>Pärna, E., Saveli, O.</b></p> <p>87. Sustainable Development of Rural Private Households in Latvia <b>A. Eglite</b></p> <p>2. Use of Emitters as Air-Relief Valves for Overcoming Suck-Back Clogging In Subsurface Drip Emitters <b>P. Vyrlas, M. Sakellariou-Makrantonaki, D. Kalfountzos</b></p>	<p>57. Agricultural Resource Planning through IT Platform – An Approach <b>H. Singh, K. Bhattacharya</b></p> <p>131. Agriculture And Environment: A Reciprocal Sustainability <b>Attilio A. Poli and Maria Chiara Metallo</b></p> <p>132. Information Technology in Farming Businesses in Izmir and its Environs <b>Fetah, V., Sindir, K.O.</b></p>	<p>16. Comparison between Neural Networks and Regression Analysis in bark volume prediction <b>Maria J. Diamantopoulou</b></p> <p>54. An Internet-Based Farm Management Decision Support System <b>Kurlavicius, G. Kurlavicius A.</b></p> <p>84. On Evaluative Measurement of Landscape Change <b>M. Sambrakos, T. Glezakos and T. Tsiligiridis</b></p>	<p>136. Digital Libraries: Their potential in farming <b>M. Malliappis and A. Sideridis</b></p> <p>140. A Horticultural Ontology <b>E. Antonopoulou, Y. Koumpouros, M. Malliappis, H. Passam, A. B. Sideridis, I. Vlachos, C. Yialouris</b></p> <p>116. "ISODART": An Information System for the Organisation and Dissemination of Agricultural Research Results <b>Paraskevi Georgiou, Christos Douligeris, Elias Zintzaras, Sideris Theocharopoulos, Paschalis Thriskos</b></p>	
15:40 - 16:20	Afternoon break				
16:20 - 17:40	<b>Parallel Sessions 6.</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>	<b>Scientific session</b>
		<b>OT</b>	<b>OT</b>	<b>ITA</b>	<b>GIS</b>
	<b>Chair</b>	K. Bhattacharya	K. Pata	T. Tsiligiridis	R. Scherer
	<p>92. Spatial interpolation of reference evapotranspiration and precipitation in Greece <b>M. Mardikis, D. Kalivas, V. Kollias</b></p> <p>69. Local Knowledge as a Competitive Advantage &amp; an Innovation Tool for Regional Production Systems: The case of Food and Beverages Sector in the North Aegean Region, Greece <b>Katsikis I., Kizos A., Spilanis I.</b></p> <p>105. Internationalization processes in the food industry: experience of Ukraine <b>Orekhova T., Pashko E</b></p>	<p>110. Evaluation of competition ability between corn (<i>Zea Mays</i> L.) and lambs quarter density (<i>Chenopodium Album</i>) influenced by planting pattern by using competition models <b>E. Fateh, F. Sharif_Zadeh, D. Mazaheri, M. Baghesta</b></p> <p>137. Formation of information basis of pricing poultry-products <b>Alexandrov I.</b></p> <p>24. Agriculture and the farmer's occupation for the 21<sup>st</sup> century <b>A. Papageorgiou</b></p>	<p>143. Evaluation of Decision Rules for SITE-SPECIFIC Fertilization In Strip Trials <b>G. Weigert, M. Gandorfer, A. Meyer-Aurich, A. Heißenhuber and P. Wagner</b></p> <p>9. Applications of precision agriculture in Ellas (Greece): wheat yield mapping <b>Gertsis, A, G. Vellidis &amp; G. Rains</b></p> <p>46. Rural Space Information System <b>M. Coelho, A. Alves</b></p> <p>81. Trend yield maps in Greece and the UK <b>T. Gemtos, S. Blackmore, S. Fountas, A. Markinos</b></p>	<p>14. Classification of agricultural fields by using Landsat TM and QuickBird sensors. The case study of olive trees in Lesvos island. <b>C. Vasilakos, J. Hatzopoulos, K. Kalabokidis, K. Koutsovilis, A. Thomaidou,</b></p> <p>21. A Study of Land Use Changes in a Forest Area of Northeastern Greece using Spatio-Temporal Models in a GIS environment <b>Dimitrios P. Triantakostas, Vassiliki J. Kollias and Dionisios. P. Kalivas</b></p> <p>33. AGROffice an integrated solution for (geo)tracing, field cost calculation, subsidy forms, thematic mapping, logistics and the</p>	

base platform for precision farming.

***Stefan Mössler***

25. GIS methodology for the assessment of the tillage erosion risk on cultivated hillsides in a area of central Greece.

***George Papathanasiou,  
Stelios Gerontidis,  
Vassiliki Kollias and  
Dionissios Kalivas***

21:00 - 24:00

**Dinner**

**Saturday 20**

9:00 - 20:00

**Daily Excursion**