Satratzemi Maria - Aikaterini (Maya)

Personal details	
Date of Birth:	24 January 1958
Nationality:	Greek
Marital Status:	Married, two children

Contact Information

University of Macedonia Department of Applied Informatics 156 Egnatia str., P.O.Box 1591, 54006, Thessaloniki +30-2310-891897 email: maya@uom.edu.gr home page: https://sites.google.com/a/uom.edu.gr/home-page-maya-satratzemi/

Academic Positions

1/2008-	:Professor, Department of Applied Informatics, University of Macedonia.
9/2011-9/2017	:Director of the Graduate Program of the Department of Applied Informatics,
	University of Macedonia (MSc in Applied Informatics).
2/2016 -	Member of Software and Data Engineering Lab (SDE), Member of
	Educational Technology Research Group
	Member of Educational Technology Research Group (EdTechRG UoM)
2022 -	Director of Teaching and Learning Center, University of Macedonia

Studies -Awards

 1991: Ph.D. in Informatics (Algorithmic Graph Theory: "Solving Facilities Location Problems in a Network" (in Greek)), Dept. of Applied Informatics, University of Macedonia.
 1976 (1990) Dept. of Mathematical Activity of Macedonia.

1976-1980 : Dept. of Mathematics, Aristotle University of Thessaloniki 1980 : Bachelor degree in Mathematics (8.12/10.0). Awards : Scholarship from the Greek National Scholarship Foundation, 1977-78 second year of studies: 2nd Rank 1978-79 : third year of studies: 1st Rank

Teaching Courses

Undergraduate Program

Current

Procedural Programming (1st semester)

Data Structures (2nd semester)

Past

Graph Theory (5th semester) (1998-2013) Educational Programming Environments and Techniques (7th semester) (2013 – 2015) Web Programming (8th semester) (2000 - 2013) Analysis of Algorithms (2nd semester) (2013-2021)

Postgraduate Program

Past

Software Design and Development (2001-2018) (MIS, University of Macedonia)

Web Programming (2003 – 2012) (MSc in Applied Informatics, University of Macedonia) Special Topics on Algorithms (2005 – 2012) (MSc in Applied Informatics, University of

Special Topics on Algorithms (2005 – 2012) (MSc in Applied Informatics, University of Macedonia)

Data Structures and Algorithms (2014-2022) (MSc in Applied Informatics, University of Macedonia)

Computational Thinking and Software, (2016-2022) Master in Law and Informatics, Inter-University/Interdisciplinary Department of Applied Informatics, University of Macedonia (coordinating department) & Department of Law, Democritus University of Thrace Data Mining and Learning Analytics, (2019-2023) MSc in Artificial Intelligence and Data Analytics (MSc AIDA), Applied Informatics, University of Macedonia

Research Interests

Serious Games Collaborative Programming – Distributed Collaborative Programming Environments Adaptive Systems Educational Programming Environments and Techniques Educational Technology Graph Algorithms and Applications

Publications

Books/Chapter/monographs

- 1. K. Margaritis, V. Dagdilelis, M. Satratzemi, "Ensuring the Quality of UCE for High-school Teachers, University of Macedonia, Greece», Case Study, *European University Continuing Education (EUCEN): The Managers' Handbook 2000, 223-225.*
- 2. V. Dagdilelis, M. Satratzemi, R. Boyle, G. Evangelidis, D. Finkel. *Editors of the "Proceedings of the 8th ACM Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2003)"*, ISBN 1-58113-672-2, Thessaloniki, Greece, July 2003.
- 3. Maya Sartatzemi, Vassilios Dagdilelis, Katerina Kagani, "Teaching Introductory Programming Concepts with Lego MindStorms in Greek High Schools: A Two-Year Experience", *Service Robot Applications*, ed. Yoshihiko Takahashi, INTECH, 2008, 344-368, 2008.
- 4. Maya Sartatzemi, «Object-Oriented Programming: Didactic Problems & Educational programming Environments", University of Macedonia, Publisher SOFIA, 2008 (*Pythagoras II-Funding of research groups in the University of Macedonia, Priority Action 2.2.3.e, Action 2.2.3, Measure 2.2, to be implemented within the framework of the Operational Programme "Education and Initial Vocational Training II (EPEAEK)" and co-financed by the European Union [3rd Community Support Framework, 75% financed by the European Social Fund 25% National Resources]).*
- 5. Ioannis Kazanidis, Maya Satratzemi, "Towards the integration of adaptive educational systems with SCORM standard and authoring toolkits", *Book chapter on Advanced Learning*, ed. Raquel Hijn-Neira, ISBN 978-953-307-010-0, 2009, 287-313.
- 6. Ioannis Kazanidis and Maya Satratzemi, "Restrictions and Abilities of SCORM: A Path to Adaptive Course Development", *Book chapter on Research on e-Learning and ICT in Education*, Springer, New York, NY, 2012, Part 4, 295-308, DOI: 10.1007/978-1-4614-1083-6_22.
- Kazanidis I., Satratzemi M. (2013), "A Framework for Automatic Construction of Reusable Adaptive Courses: The Case of ProPer SAT 2.0". In: Peña-Ayala A. (eds) Intelligent and Adaptive Educational-Learning Systems. Smart Innovation, Systems and Technologies, vol 17. Springer, Berlin, Heidelberg, doi: 10.1007/978-3-642-30171-1_9
- Christos Malliarakis, Maya Satratzemi, Stelios Xinogalos, "Educational Games for Teaching Computer Programming", *Book chapter on Research on e-Learning and ICT in Education Technological, Pedagogical and Instructional Perspective*, Karagiannidis, Charalampos, Politis, Panagiotis, Karasavidis, Ilias (Eds.), 87-98, 2014, doi: 10.1007/978-1-4614-6501-0_7.
- Karagiannis I., Satratzemi M. (2016) "A Framework to Enhance Adaptivity in Moodle". In: Verbert K., Sharples M., Klobučar T. (eds) Adaptive and Adaptable Learning. EC-TEL 2016. *Lecture Notes in Computer Science*, vol 9891. Springer, Cham, https://link.springer.com/chapter/10.1007/978-3-319-45153-4_53
- Karagiannis I., Satratzemi M. (2017) "Enhancing Adaptivity in Moodle: Framework and Evaluation Study". In: Auer M., Guralnick D., Uhomoibhi J. (eds) Interactive Collaborative Learning. ICL 2016. *Advances in Intelligent Systems and Computing*, vol 545. Springer, Cham, 345-359, https://link.springer.com/chapter/10.1007/978-3-319-50340-0_52.

- Tsikinas S., Xinogalos S., Satratzemi M., Kartasidou L. (2018) "Using Serious Games for Promoting Blended Learning for People with Intellectual Disabilities and Autism: Literature vs Reality". In: Auer M., Tsiatsos T. (eds) Interactive Mobile Communication Technologies and Learning. IMCL 2017. Advances in Intelligent Systems and Computing, vol 725. Springer, Cham. doi: 10.1007/978-3-319-75175-7_55.
- Tsita C., Satratzemi M. (2019) "Conceptual Factors for the Design of Serious Games". In: Gentile M., Allegra M., Söbke H. (eds) Games and Learning Alliance. GALA 2018. *Lecture Notes in Computer Science*, vol 11385. Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-11548-7_22
- Karga S., Satratzemi M. (2019) "Evaluating Teachers' Perceptions of Learning Design Recommender Systems". In: Scheffel M., Broisin J., Pammer-Schindler V., Ioannou A., Schneider J. (eds) Transforming Learning with Meaningful Technologies. EC-TEL 2019. Lecture Notes in Computer Science, vol 11722. Springer, Cham. https://doi.org/10.1007/978-3-030-29736-7_8
- 14. Despina Tsompanoudi, Maya Satratzemi, Stelios Xinogalos, Karamitopoulos Leonidas, (2020) "(2019) An Empirical Study on Pair Performance and Perception in Distributed Pair Programming". In: Auer M., Tsiatsos T. (eds) The Challenges of the Digital Transformation in Education. ICL 2018. *Advances in Intelligent Systems and Computing*, vol 917. Springer, Cham, 788-798, https://link.springer.com/chapter/10.1007%2F978-3-030-11935-5_72.
- Ioannis Karagiannis, Maya Satratzemi, " (2020) Implementation of an Adaptive Mechanism in Moodle Based on a Hybrid Dynamic User Model. In: Auer M., Tsiatsos T. (eds) The Challenges of the Digital Transformation in Education. ICL 2018. Advances in Intelligent Systems and Computing, vol 916. Springer, Cham, 1456-1467, https://link.springer.com/chapter/10.1007/978-3-030-11932-4_36
- Tsita C., Satratzemi M. (2019) A Serious Game Design and Evaluation Approach to Enhance Cultural Heritage Understanding. In: Liapis A., Yannakakis G., Gentile M., Ninaus M. (eds) Games and Learning Alliance. GALA 2019. *Lecture Notes in Computer Science*, vol 11899. Springer, Cham, https://doi.org/10.1007/978-3-030-34350-7_42
- Maya Satratzemi, Stelios Xinogalos, Despina Tsompanoudi, Leonidas Karamitopoulos, (2021), "A Two-Year Evaluation of Distributed Pair Programming Assignments by Undergraduate Students", In: Thrasyvoulos Tsiatsos, Stavros Demetriadis, Anastasios Mikropoulos, Vasilios Dagdilelis, *Research on E-Learning and ICT in Education: Technological, Pedagogical and Instructional Perspectives*, 35-57, Springer Nature, ISBN 3030643638, 9783030643638.
- Andreas Giannakoulas, George Terzopoulos, Stelios Xinogalos, Maya Satratzemi, "(2021), "A Proposal for an Educational Game Platform for Teaching Programming to Primary School Students", *Technology and Innovation in Learning, Teaching and Education: Second International Conference*, TECH-EDU 2020, Vila Real, Portugal, December 2–4, 2020, Proceedings, Vol. 1384, Communications in Computer and Information Science, In: Arsénio Reis, João Barroso, J. Bernardino Lopes, Tassos Mikropoulos, Chih-Wen Fan, Springer Nature, 2021, ISBN 3030739880, 9783030739881
- 19. Klašnja-Milićević A, Ivanović M, Vesin B, Satratzemi M and Wasson Lillehaug B (2022) Editorial: Learning Analytics – Trends and Challenges. Front. Artif. Intell. 5:856807, <u>https://doi.org/10.3389/frai.2022.856807</u>
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Journals

1. K. Tsouros, M. Satratzemi, "Minimum Cost Allocation of Supply Centers with Limitation on Time Delivery", *International Journal of Production Economics*, 26, 1992, 353-358, Elsevier Science B.V., doi: 10.1016/0925-5273(92)90087-N.

- K. Tsouros, M. Satratzemi, "Tree Search Algorithms for the Dominating Vertex Set Problem", International Journal of Computer Mathematics, 47, 1993, 127-133, Gordon and Breach Science Publ. (this work is referenced in the book "Fundamentals of Domination in Graphs", T. W. Haynes, S. T. Hedetniemi, P. J. Slater, 1998, Marcel Dekker, Inc., Pure and Applied Mathematics - A Series of Monographs and Textbooks) doi: 10.1080/00207169308804170.
- 3. K. Tsouros, M. Satratzemi, "Optimal Distribution of Supply Centers Involving Supply Capacity, Demands and Budget Restriction", *Yugoslav Journal of Operations Research*, (YUJOR) 4, 1994(2), 187-193.
- 4. K. Tsouros, M. Satratzemi, "Supply Centers Allocation under Budget Restrictions Minimizing the Longest Delivery Time", *International Journal of Production Economics*, 35, 1994, 373-377, Elsevier Science B.V, doi: 10.1016/0925-5273(94)90105-8.
- 5. K. Tsouros, M. Satratzemi, "Optimal Solution of a Total Time Distribution Problem", *International Journal of Production Economics*, 45, 1996, 473-478, Elsevier Science B.V, doi: 10.1016/0925-5273(95)00148-4.
- 6. V. Dagdilelis, M. Satratzemi, "DIDAGRAPH: A Software for Teaching Graph Theory Algorithms", *ACM SIGCSE Bulletin*, 30 (3), 64-68, 1998, doi: 10.1145/290320.283024.
- 7. M. Satratzemi, K.G. Margaritis, K. Tsouros, "An Algorithm for Prescribed Multiple Domination in Arbitrary Graphs", *Computers and Mathematics with Applications*, 35 (8), 1998, 109-115, Elsevier Science Ltd., Pergamon, doi: 10.1016/S0898-1221(98)00049-2.
- 8. M. Satratzemi, C. Tsouros, F. Harary, "An Heuristic Algorithm for Handling Multiple Responces", *Journal of Heuristics*, 6, 2000, 269-282, Kluwer Academic Publishers, doi: 10.1023/A:1009631612046.
- 9. V. Dagdilelis, M. Satratzemi, "Didactics Too, not only Teaching", *ACM SIGCSE Bulletin*, 31(3), 1999, 183, doi: 10.1145/305786.305929.
- M. Satratzemi, V. Dagdilelis, "Telemachus an Effective Electronic Marker of the Students' Programming Assignments", ACM SIGCSE Bulletin, 32(3), 2000, 191, doi: 10.1145/353519.343231.
- 11. V. Dagdilelis, M. Satratzemi, «Post's Machine: a didactic microworld as an introduction to formal programming», *Education and Information Technologies*, 6:2, 123-141, 2001, doi: 10.1023/A%3A1012319900191.
- 12. M. Satratzemi, V. Dagdilelis, G. Evangelidis, «A System for Program Visualization and Problem-Solving Path Assessment of Novice Programmers", *ACM SIGCSE Bulletin*, 33(3), 2001, 137-140, doi: 10.1145/377435.377667.
- 13. M. Satratzemi, V. Dagdilelis, G. Evangelidis, «Telemachus: A system for submission and assessment of students programs», *Learning Technology*, IEEE Learning Technology Task Force (LTTF), 3(3), July 2001, http://lttf.ieee.org/learn_tech/issues/july2001/index.html.
- V. Dagdilelis, M. Satratzemi, G. Evangelidis, «Implementing a Nationwide System for Training Very Small Enterprises for ICT Innovation: the Greek Case» *Educational Technology & Society*, Volume 6, Issue 1, 2003 (http://ifets.ieee.org/periodical/vol_1_2003/v_1_2003.html.
- 15. V. Dagdilelis, M. Satratzemi, G. Evangelidis, «What they really do? Attempting (once again) to model novice programmers' behavior», *ACM SIGCSE Bulletin*, 34(3), 2002, 244, doi: 10.1145/544414.544513.
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- 18. Stelios Xinogalos, Maya Satratzemi, Vassilios Dagdilelis, «An Introduction to Objectoriented programming with a didactic Microworld: objectKarel", *Computers & Education*, 47, 2006, 148-171, Elsevier Publishers, doi: 10.1016/j.compedu.2004.09.005.
- 19. Stelios Xinogalos, Maya Satratzemi, «The Hands-on Activities of the Programming Microworld objectKarel», *ACM SIGCSE Bulletin*, 37(3), 2005, 384, doi: 10.1145/1067445.1067586.

- 20. Stelios Xinogalos, Maya Satratzemi, «Using Hands-on Activities for Motivating Students with OOP Concepts before they are asked to Implement them», *ACM SIGCSE Bulletin*, 37(3), 2005, 380, doi: 10.1145/1067445.1067581.
- 21. Georgios Evangelidis, Vassilios Efopoulos, Vassilios Dagdilelis, Maya Satratzemi, «WIPE: A programming environment for novices», *ACM SIGCSE Bulletin*, 37(3), 2005, 113-117, doi: 10.1145/1067445.1067479.
- 22. Maya Satratzemi, «Heuristic Algorithms for Graph Set Coloring Problem», *International Journal of Pure and Applied Mathematics*, 27(4), 2006, 477-489.
- 23. Stelios Xinogalos, Maya Sartatzemi, Vassilios Dagdilelis, «Teaching Fundamental Notions of Object Oriented Programming with objectKarel», WSEAS TRANSACTIONS on ADVANCES in ENGINEERING EDUCATION, 11, 3, 2006, 1022-1029.
- 24. Stelios Xinogalos, Maya Satratzemi, Vassilios Dagdilelis, "Teaching Java with BlueJ: a Two-Year Experience", *ACM SIGCSE Bulletin*, 39, 3, 2007, 345, doi: 10.1145/1268784.1268914.
- 25. G. Paltoglou, M. Salambasis, M. Satratzemi, "A results merging algorithm for distributed information retrieval environments that combines regression methodologies with a selective download phase", *Information Processing & Management*, 44, 4, 2008, 1580-1599, doi: 10.1016/j.ipm.2007.12.008.
- 26. Ioannis Kazanidis, Maya Satratzemi, «Adaptivity in ProPer: an adaptive SCORM compliant LMS», *Journal of Distance Education Technologies*, 7, 2, 2009, 44-62, doi: 10.4018/jdet.2009040103.
- Paltoglou, G., Salampasis, M., Satratzemi, "Collection-integral Source Selection for uncooperative distributed information retrieval environments", *Information Sciences*, 180(14), 2010, 2763-2776, Ερευνητικό βραβείο από ΕΛΚΕ ΠΑΜΑΚ, 2010 (ομάδα A), doi: 10.1016/j.ins.2010.03.020.
- Paltoglou, G., Salampasis, M., Satratzemi, "Modeling information sources as integrals for effective and efficient source selection", *Information Processing and Management*, 47(1), 2011, 18-36, Ερευνητικό βραβείο από ΕΛΚΕ ΠΑΜΑΚ, 2011 (ομάδα Α), doi: 10.1016/j.ipm.2010.02.004.
- 29. Kazanidis, Ioannis and Maya Satratzemi. "Adaptivity in ProPer: An Adaptive SCORM Compliant LMS." *Distance Education Environments and Emerging Software Systems: New Technologies.* IGI Global, 2011. 172-190. doi:10.4018/978-1-60960-539-1.ch011
- 30. Ioannis Kazanidis, Maya Satratzemi, "Improving the educational process by joining SCORM with adaptivity: the case of ProPer", *International Journal of Technology Enhanced Learning*, 4 (3), 231-249, 2012.
- Christos Malliarakis, Maya Satratzemi, Stelios Xinogalos, "Designing educational games for computer programming: A holistic framework", *Electronic Journal of e-Learning*, 12 (3), 281-297, 2014.
- 32. Malliarakis, C., Satratzemi, M., Xinogalos, S., "Optimization of server performance in the CMX educational MMORPG for Computer Programming", *Computer Science and Information Systems*, Vol. 11, No. 4. 1537–1553, (2014), doi: 10.2298/CSIS131220078M.
- 33. Despina Tsompanoudi, Satratzemi, M., Xinogalos, S., "Distributed Pair Programming using Collaboration Scripts: An Educational System and initial Results", *Informatics in Education*, Vol. 14, No. 2, 291–314, 2015, DOI: 10.15388/infedu.2015.17.
- 34. Despina Tsompanoudi, Satratzemi, M., Xinogalos, S., "Evaluating the Effects of Scripted Distributed Pair Programming on Students' Performance and Participation", *IEEE Transactions on Education*, Vol. 59, Issue 1, 24-31, 2016, doi:10.1109/TE.2015.2419192.
- 35. Xinogalos S., Satratzemi M., Malliarakis C., «Microworlds, games, animations, mobile apps, puzzle editors and more: What is important for an introductory programming environment?», *Education and Information Technologies*, Vol. 22, Issue 1, 145–176, 2017, doi:10.1007/s10639-015-9433-1.
- Christos Malliarakis, Maya Satratzemi, Stelios Xinogalos, CMX: The Effects of an Educational MMORPG on Learning and Teaching Computer Programming, *IEEE Transactions on Learning Technologies*, Vol.10, Issue 2, 219-235, 2017, DOI 10.1109/TLT.2016.2556666.
- 37. Ioannis Karagiannis, Maya Satratzemi, "An adaptive mechanism for Moodle based on automatic detection of learning styles", *Journal of Education and Information Technologies*,

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- 38. Soultana Karga, Maya Satratzemi, "A hybrid recommender system integrated into LAMS for learning designers", *Journal of Education and Information Technologies*, (2018), 23(3), 1297–1329, DOI: 10.1007/s10639-017-9668-0.
- Maya Satratzemi, Stelios Xinogalos, Despina Tsompanoudi, and Leonidas Karamitopoulos, "Examining Student Performance and Attitudes on Distributed Pair Programming," *Scientific Programming*, vol. 2018, Article ID 6523538, 8 pages, 2018. https://doi.org/10.1155/2018/6523538.
- 40. Stelios Xinogalos, Maya Satratzemi, Alexander Chatzigeorgiou, Despina Tsompanoudi, "Factors affecting students' performance in Distributed Pair Programming", *Journal of Educational Computing Research* 57(2) 513–544, 2019, DOI: 10.1177/0735633117749432.
- 41. Despina Tsompanoudi, Maya Satratzemi, Stelios Xinogalos, and Leonidas Karamitopoulos, "An Empirical Study on Factors related to Distributed Pair Programming", *Journal of Engineering Pedagogy (iJEP)*, 9(2), 65-81, 2019.
- Karga, S., Satratzemi, M. Using explanations for recommender systems in learning design settings to enhance teachers' acceptance and perceived experience. *Journal of Education and Information Technologies*, 24, 2953–2974 (2019). https://doi.org/10.1007/s10639-019-09909-z
- 43. George Terzopoulos, Maya Satratzemi, "Voice Assistants and Smart Speakers in Everyday Life and in Education", *Informatics in Education*, 19 (3), 473-490, 2020. https://doi.org/10.15388/infedu.2020.21
- 44. Xinogalos, Stelios, and Maya Satratzemi. 2022. "The Use of Educational Games in Programming Assignments: SQL Island as a Case Study" Applied Sciences 12, no. 13: 6563. <u>https://doi.org/10.3390/app12136563</u>
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- 46. Christina Tsita, Maya Satratzemi, Alexandros Pedefoudas, Charalabos Georgiadis, Maria Zampeti, Evi Papavergou, Syrago Tsiara, Eleni Sismanidou, Petros Kyriakidis, Dionysios Kehagias, Dimitrios Tzovaras, "A Virtual Reality Museum to Reinforce the Interpretation of Contemporary Art and Increase the Educational Value of User Experience", Heritage 6 (5), 4134-4172, 2023. <u>https://doi.org/10.3390/heritage6050218</u>
- 47. Afroditi Stolaki, Maya Satratzemi, Stelios Xinogalos, "Examining the effects of creativity, collaboration, creative diversity and autonomy on team creative performance", Thinking Skills and Creativity, Volume 50, 2023, <u>https://doi.org/10.1016/j.tsc.2023.101415</u>.

Conferences

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- 2. K. G. Margaritis, M. Satratzemi., R. Kalfakakou, "Parallel and Distributed Algorithms for Optimising a Nonlinear Function Subject to a Linear Constraint", *Proceedings of the Second Balkan Conference on Operational Research*, Thessaloniki, October 1993, 571-583.
- 3. K. Tsouros, M. Satratzemi, "Optimal Distribution of Supply Centers Involving Supply Capacity, Demands and Budget Restriction", *Proceedings of the Second Balkan Conference on Operational Research*, Thessaloniki, October 1993, 530-536.
- 4. R. Kalfakakou, M. Satratzemi, "Determining the Family of Maximal Feasible Vectors of a Linear Inequation" (in Greek), *Annals of Engineering School*, *IΓ*, Aristotle University of Thessaloniki, 1994, 243-254.
- M. Satratzemi, K. Tsouros, "Double Domination Algorithms in Graphs", *Proceedings of the* Second Hellenic European Conference on Mathematics and Informatics HERMIS '94) Athens, September 1994 (2), 509-516, Hellenic Mathematical Society.
- M. Satratzemi, "Algorithms for Double Domination on Graphs", lecture at the Workshop "Graph Theory Applications and Network Optimisation", Technical University of Sofia, July 1994.

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- 8. M. Satratzemi, K. Tsouros, "Response Units Number for Covering Demands That Require Multiple Response", *Proceedings of the Third Balkan Conference on Operational Research*, Thessaloniki, October 1995, 556-565.
- 9. V. Dagdilelis, M. Satratzemi, «Educational Software for Teaching Support : Project PYTHAGORAS» (in Greek), *Proceedings of the Third Panhellenic Conference with International participation Didactics of Mathematics and Informatics in Education*, Patras, June 1997, 78-90.
- 10. V. Dagdilelis, M. Satratzemi, "Using Emil Post's Machine for an introduction to Formal Programming", *Proceedings of the Second Conference on Intergrating Technology into Computer Science Education (ItiCSE'97-ACM)*, Uppsala, Sweden, June 1997, 147.
- M. Satratzemi, V. Dagdilelis, "Maximal Covering Location Problem with Multiple Coverage Requirements", Proceedings of the Fourth Balkan Conference on Operational Research, Θεσσαλονίκη, Οκτώβριος 1997, 922-930.
- 12. V. Dagdilelis, M. Satratzemi, «Post's Machine: a Didactic microworld for an Introduction to formal Programming» (in Greek), *Proceedings of the sixth Hellenic Conference on Informatics, (EPY)*, Athens, December, 1997, 193-203.
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- 14. M. Satratzemi, V. Dagdilelis, "Excess Domination in Graphs", *Proceedings of the Fourth Hellenic European Conference on Computer Mathematics and its Applications* (HERCMA '98), 753-759.
- 15. V. Dagdilelis, M. Satratzemi, «Software for Teaching and Research in Graphs: algorithmic and Didactic problems» (in Greek), *Proceedings of Twelfth National Conference of E.E.E.*, Samos, September 1998, 1231-1244.
- V. Dagdilelis, M. Satratzemi, "Didactics Too, not only Teaching", poster presentation, Proceedings of the 4th Annual Conference on Innovation and Technology in Computer Science Education (ItiCSE'99-ACM), Cracow, Poland, 27 June – 1 July, 1999, 183.
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- V. Dagdilelis, M. Satratzemi, "The Introduction of New technologies in the Greek Educational System: Some Questions",), *Proceedings of European Conference on Education Research ECER'99*, Lahti, Finland, September 22-25, 1999, http://gps.leeds.ac.ul/cgibin/ucs/brs_engine_v1.
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- 106. Maya Satratzemi, Despina Tsompanoudi, Stelios Xinogalos, Karamitopoulos Leonidas, "Examining the Compatibility of Students in Distributed Pair Programming", *In Proceedings of the 18th European Conference on e-Learning*, 510-518, 7-8 November 2019, Copenhagen, Denmark.
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- 108.MAYA SATRATZEMI, STELIOS XINOGALOS, KONSTANTINOS ZAFIROPOULOS, TANIA KARGA, IOANNA DAGDILELI, "THE ATTITUDES OF FACULTY MEMBERS TOWARDS ICT: A CASE STUDY IN A GREEK UNIVERSITY", Proceedings of the 1st International Conference of the Network of Teaching and Learning Centers in Greece, Transforming Higher Education Teaching Practice, 135-142, Alexandroupoli, 6-7 July, 2023. https://ctlconference.org/proceedings/
- 109. Evangelos Dagklis, Maya Satratzemi, Georgia Koloniari, Alexandros Karakasidis, "Programming Errors And Academic Performance In An Introductory Data Structures Course: A Per Gender Analysis", *Proceedings of the 26th International Conference on Interactive Collaborative Learning (ICL2023)*, 1301-1312, Madrid, Spain, 26-27 September 2023.
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- 111.Aikaterina Chatziavgeri, Maya Satratzemi, "Analysing Gaming Behaviour: Insights on Personality Traits", *Proceedings of the 22nd European Conference on e-Learning*, 61-68, Pretoria, South Africa, 26 - 27 October 2023. <u>https://papers.academicconferences.org/index.php/ecel/issue/view/27/29</u>

Member of Scientific Societies

Member of The Hellenic Mathematics Society. Member of the Greek Computer Society (GCS). Member of The Institute Of Electrical and Electronics Engineers (IEEE). Member of IEEE Computer Society. Member of the Association of Computer Machinery (ACM). Member of the Association for the Advancement of Computing in Education (AACE).

Reviewer in Journals

- ACM Journal on Computing and Cultural Heritage
- Applied Sciences
- Computer Science and Information Systems
- Computers & Education
- Computers
- Creative Education
- Entertainment Computing
- Future Generation Computer Systems

- IEEE Access
- IEEE Internet Computing
- IEEE Transactions on Education
- IEEE Transactions on Learning Technologies
- Interactive Learning Environment
- International Journal of Computer Mathematics.
- International Journal of Computer Science and Information Systems (ComSIS).
- International Journal of Technology Enhanced Learning
- International Journal of Technology Enhanced Learning
- Journal of Computer Assisted Learning.
- Journal of Educational Computing Research
- Journal of King Saud University Computer and Information Sciences, Elsevier.
- Journal of Universal Computer Science (JUCS)
- Technology in Society

Member in steering, organising committee - Reviewer

Member of "Informatics Committee" of the University of Macedonia (1992-1995) whose role was : the requirements specification for the Informatics infrastructure of the Un. of Macedonia, evaluation of the tenders for computer hardware and communication infrastructure, e.tc.

Member of Examining committee for the employment of new staff specialized in Informatics for the University of Macedonia.

Member of the Organizing Committee of the Second Balkan Conference on Operational Research, October 1993, Thessaloniki.

Member of the Organizing Committee of the Third Balkan Conference on Operational Research, October 1995, Thessaloniki.

Departmental representative in the Special Committee of the Greek Computer Society for the "European Informatics Skills Structure" of the "Council of European Professional Informatics Societies" (CEPIS.)

Member of the Scientific Committee of the Fifth Hellenic Conference in Informatics, October 1995, Athens.

Member of the Organizing Committee of the Fourth Balkan Conference on Operational Research, October 1997, Thessaloniki.

Member of the Scientific Committee of 5th Balkan Olympiad in Informatics, October 1997, Drama.

Conference Co-chair of the 8th Annual Conference on Innovation and Technology in Computer Science Education, University of Macedonia, Thessaloniki, 30/6-2/7/2003. Member of the program committee of the 9th PanHellenic Conference in Informatics (EPY), Thessaloniki, 21-23/11/2003.

Reviewer of ITiCSE'2000, 2001, 2002, 2003, 2004, 2005, 2009 of Association for Computer Machinery (ACM).

Reviewer of SIGCSE'2004, 2005, 2009 of Association for Computer Machinery (ACM). Scientific & Organizing Committee Member of the Seventh Panhellenic Conference for Secondary School Teachers in Informatics, Thessaloniki, 12-14 April 2013.

Reviewer of ICALT 2015 (*track co-chair of Track 8. Technology-Enhanced Science, Technology, Engineering and Math Education (TeSTEM@ICALT2014)*

Reviewer of ICALT 2015 (*track co-chair of Track 8. Technology-Enhanced Science, Technology, Engineering and Math Education (TeSTEM@ICALT2015)*

Reviewer of European Conference on Games Based Learning ECGBL 2015 Reviewer of European Conference on Technology Enhanced Learning –EC-TEL 2016 Reviewer of 19th International Conference on Interactive Collaborative Learning, 2016 Reviewer of ICALT 2015 (*track co-chair of Track 8. Technology-Enhanced Science, Technology, Engineering and Math Education (TeSTEM@ICALT2016*)

Program Committee member International Conference on Interactive Mobile Communication Technologies and Learning, IMCL2017 Program Committee member IEEE Global Engineering Education Conference (EDUCON) 2017.

21st International Conference on Interactive Collaborative Learning (ICL 2018). Reviewer of the European Conference on e-Learning (ECEL18, ECEL2019, ECEL2021)

Awards

- 2003: Recognition of Service Award in Appreciation for Contributions to ACM as conference co-chair of the 8th Annual Conference on Innovation and Technology in Computer Science Education, UoM, Thessaloniki, 30/6-2/7/2003.
- 2009: Best Award Short Paper: Stelios Xinogalos, Maya Satratzemi, "A Long-Term Evaluation and Reformation of an Object Oriented Design and Programming Course", The 9th IEEE International Conference on Advanced Learning Technologies (EEEE ICALT 2009), 64-66
- 2014: Game competition ECGBL 2014, 1st winner, category: "Installed on a computer Game Winner", Christos Malliarakis, PhD candidate, http://academicconferences.org/ecgbl/ecgbl2014/ecgbl14-home.htm)
- 2019: Best Award Short Paper: Terzopoulos George, Ioannis Kazanidis, Satratzemi Maya, Avgoustos Tsinakos, "A Comparative Study of Augmented Reality Platforms for Building Educational Mobile Applications", IMCL 2019, Thessaloniki, Greece.

Supervisor of the following Ph.D. Theses:

Completed

- 1. Xynogalos Stylianos., «Educational Technology: A Didactic Microworlds for an Introduction to Object-Oriented Programming", (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2002.
- 2. Paltoglou G., «Algorithms And Strategies For Source Selection And Results Merging (Collection Fusion Algorithms) In Distributed Information Retrieval Systems», PhD, dept. of Applied Informatics, University of Macedonia, 2009.
- 3. Kazanidis I., «Educational Technology. Adaptive SCORM compliant web-based environment with use of learning styles for distance education: Application in the Object Oriented Programming instruction», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2010.
- 4. Tsobanoudi Despoina, "Educational system for distributed pair programming supporting collaboration scripts and adaptive collaboration support", (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 6/2015.
- 5. Malliarakis Christos, «Serious Games for teaching and learning computer programming: Design, development and evaluation of a customizable educational Massive Multiplayer Online Role-Playing Game (MMORPG)», PhD, dept. of Applied Informatics, University of Macedonia, 11/2015.
- 6. Karagiannis Ioannis, «An adaptive mechanism for Moodle based on learning styles supported by a data mining algorithm: Implementation of a Procedural Programming course», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 1/2018.
- Karga Soultana, "Recommender Systems in Technology Enhanced Learning: Design, Development and Evaluation of a Recommender System integrated into Learning Activity Management System (LAMS) supporting the Learning Design process", PhD, dept. of Applied Informatics, University of Macedonia, 02/2020.

In progress

- 1. Tsita Christina, "Serious Games in Cultural Heritage", 1/2017-.
- Stolaki Afroditi, "Educational Data Mining for the Advancement of Learning and Collaborating. Preparing Learners for the Challenges of the 21st century", 09/2020-
- 3. Siklafidou Eleftheria, "Serious games for violin education", 06/2021-

Member of the following Ph.D. Theses:

- 1. Tsadiras A., "Artificial Intelligence: Fuzzy Cognitive Map and Certainty Neuron" (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 1997, (committee member).
- 2. Kostopoulou St. «Regional Organization of the Maritime Transport Network: A Case Study on the Aegean Sea" (in Greek), PhD, dept. of Economics Science, Aristotle University, 1998, (committee member).
- 3. Pleuritis Ioannis, «Supporting Technologies for Teaching Mathematics to individuals with hearing problems », (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2000, (committee member).
- 4. Tsinakos August, "Artificial intelligence and Internet" (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2002, (committee member).
- 5. Deligiannis Ignatios., "An Experimental Evaluation of the Effects of Heuristics Rules on Object-Oriented Design", (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2002, (committee member).
- 6. Mprika Eleni «The Introduction of Informatics in Secondary Education: A Sociological Approach", (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2002, (committee member).
- 7. Michailidis P., «Parallel and Distributed Implementations for Approximate String Searching», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2004, (committee member).
- 8. Souravlas St., «Simulation of Digital Systems», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2004, (committee member).
- 9. Nitsios I., « Information Retrieval on Free Text Indexing and Compression Codes», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2005, (committee member).
- 10. Malliari A., «Information Retrieval from Automated Systems of Academic Libraries and Statistical Analysis», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2005, (committee member).
- 11. Lioutas A., "Study and Development of a Hypermedia Environment for Teaching Statistics», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2005, (committee member).
- 12. Baklavas G., «Scheduling Algorithms for High Speed Routers», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2005, (committee member).
- 13. Efopoulos V., «A Web-based Environment for Teaching Programming to Novices», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2005, (committee member).
- 14. Pasxaloudi V., «A Contribution to Greek Sign Language Recognition and Printed Reproduction», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2005, (committee member).
- 15. Sifaleras A., «Development and Implementation of External Points Algorithms of Simplex Type for Network Optimization Problems», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2006, (committee member).
- 16. Badr Said, «Parallel Programming of Linear Programming Algorithms», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2006, (committee member).
- 17. Samara C., «Modelling and Development of a Multimedia System of e- learning using learning objects and possibilities of adaptations: a case study of teaching algorithms and data structures», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2007, (committee member).
- Kaptan A., «An integrated Environment for Simulating Parallel and Distributed Systems: Application of Visualization Methods in Teaching Parallel Processing», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2007, (committee member).
- 19. Xatzopoulos D., «Modelling Technologically a Supported System for the Development of Adoptive Educational Processes», (in Greek), PhD, dept. of Mathematical, Physical and Computational Sciences, Faculty of Engineering Aristotle University of Thessaloniki, 2009, (committee member).

- 20. Moussiades L., «Study and Exploration of Communities in the WEB», (in Greek), PhD, dept. of Informatics, Aristotle University of Thessaloniki, 2009, (committee member).
- 21. Margaritopoulos T., «Semantic web and metadata quality: Adaptive assessment of metadata completeness in multimedia web recourses», (in Greek), PhD, dept. of Applied Informatics, University of Macedonia, 2010, (committee member).
- 22. Tsantalis N., «Evaluation and Improvement of Design Quality in Object-Oriented Systems», PhD, dept. of Applied Informatics, University of Macedonia, 2010, (committee member).
- 23. Perdos A, «Study of queues with the use of object-oriented techniques», PhD, dept. of Applied Informatics, University of Macedonia, 2011, (committee member).
- 24. Tsaggalidis E, «Meteorological databases: data mining applications and the effect of configuration of input in their performance», PhD, dept. of Applied Informatics, University of Macedonia, 2011, (committee member).
- 25. Fotaris P., «IRT-based evaluation of learning material in e-learning systems», PhD, dept. of Applied Informatics, University of Macedonia, 2011, (committee member).
- 26. Moridis, Christos N., «Affective artificial intelligence in education: affect recognition and feedback in the context of a self-assessment test system», PhD, University of Macedonia, Interdepartmental Programme of Postgraduate Studies in Information Systems, 2011, (committee member).
- 27. Kyprianidou, Maria, «Technology systems for collaborative learning group formation based on student learning style», (in Greek), PhD, dept. of Informatics, Aristotle University of Thessaloniki, 2012, (committee member).
- 28. Geranis George, «A dual network exterior point simplex-type algorithm for the minimum cost network flow problem", PhD, dept. of Applied Informatics, University of Macedonia, 6/2012, (committee member).
- 29. Terzis, Vasileios, «Integrating personalized emotional and physiological measurements into the technology acceptance model: a study of a computer based assessment system», PhD, University of Macedonia, Interdepartmental Programme of Postgraduate Studies in Information Systems, 2011, (committee member).
- 30. Kouzinopoulos, Charalampos, «Parallel and distributed implementations of multiple and two-dimensional pattern matching algorithms», PhD, dept. of Applied Informatics, University of Macedonia, 2013, (committee member).
- Sklavakis Dimitrios, "MATHESIS: An Intelligent Authoring Environment for Cognitive Tutors in Mathematics", PhD, dept. of Applied Informatics, University of Macedonia, 7/2015, (committee member).
- 32. Papahristou Nikolaos, "Decision Making in Multiplayer Environments: Application in backgammon variants", PhD, dept. of Applied Informatics, University of Macedonia, 10/2015, (committee member).
- 33. Chaikalis Theodore, «Graph-Based Software Evolution Analysis of Object-Oriented Systems», PhD, dept. of Applied Informatics, University of Macedonia, 7/2016, (committee member).
- 34. Stavrou Nikos, "Mobile-Based Assessment: An exploration of acceptance and motivation factors", PhD, University of Macedonia, Interdepartmental Programme of Postgraduate Studies in Information Systems, 11/2017, (committee member).
- 35. Zotou Maria, « Integrated environments for designing, delivering and monitoring learning: Extending Problem-based Learning with Learning Analytics and Learning Semantics », PhD, dept. of Applied Informatics, University of Macedonia, 3/2018, (committee member).
- 36. Papamitsiou Zacharoula, "Supporting learners' Capacity for Autonomous Decisions using Learning Analytics", PhD, University of Macedonia, Interdepartmental Programme of Postgraduate Studies in Information Systems, 8/2018, (committee member).
- 37. Amanatidis Theodoros, «A study on the evolution of software quality and technical debt in open source applications», PhD, dept. of Applied Informatics, University of Macedonia, 6/2020, (committee member).
- 38. Katsantonis Menelaos, "Cyber Security Game-based Training", PhD, dept. of Applied Informatics, University of Macedonia, 9/2021, (committee member).

- 39. Papachristoudis Dimitrios, "Lattice-based cryptography: protocols and applications", PhD, dept. of Applied Informatics, University of Macedonia, 05/2022, (committee member).
- 40. Christina Tikva, "A Holistic Framework for Computational Thinking in Compulsory Education Through Programming", PhD, dept. of Applied Informatics, University of Macedonia, 05/2023, (committee member).

Projects

- Education and Initial Vocational Training I (EPEAEK I), Action 1.1.b: "Informatics in Secondary Education, Training teachers in ICT technologies", 2000-2005.
- Education and Initial Vocational Training I (EPEAEK I), Action 1.1.b: "Nafsika: Developing a new interactive software for introduction to Computers" http://macedonia.uom.gr/~delys/, 2000-2005.
- Education and Initial Vocational Training I (EPEAEK I), "Telemathos: distance learning courses", 2000-2005.
- Education and Initial Vocational Training I (EPEAEK I), Action 3.1.α, 2003-2008, "Program of Study - books", dept of Applied Informatics (we develop of new software for teaching programming (ANIMPASCAL) and graphs to novices (ANIMGRAPH), 2000-2005.
- Education and Initial Vocational Training II (EPEAEK II), Action 2.2.3.e, Action 2.2.3, Measure 2.2: "*Pythagoras II-Funding of research groups in the University of Macedonia*", 2005-2007.
- European Regional Development Fund (ERDF), Coordinator of the project "ICT Equipment" University of Macedonia, 2004-2005.
- Regional Innovation Pole of Central Macedonia, Operational Program Competitiveness", Measure 4.6, Action 4.6.1" project title "*Telematic system for the management of dispatch calls for fleets of vehicles*", 3rd Support Framework 2000-2006
- Education and Initial Vocational Training II (EPEAEK II), Measure 2.2, Research Coordinator of the project *«New departments at the University of Macedonia – dept. of Technology Management"*, 2004-2008.
- General Secretariat of Research and Technology, Program for Supporting Researchers 2003, (PENED 2003), area Informatics, title of the project: "Algorithms And Strategies For Source Selection And Results Merging (Collection Fusion Algorithms) In Distributed Information Retrieval Systems".
- Research Committee University of Macedonia, Basic Research Grants Program, "Development of a Tool for Creating and Authoring Courses Customized to the User's Learning Styles and Compliant with the SCORM Educational Model", 2009-2010.
- Research Committee University of Macedonia, Principal Research 2019, "Distributed Pair Programming (DPP) : Team Compatibility and Students perceptions on DPP", 2019.
- Scientific Coordinator of the project Teaching and Learning Center UoM (OPS Code 5162366), European Structural and Investments Funds (Operational Program)
 "Human Resources Development, Education and Lifelong Learning 2014-2020" Priority Axis "IMPROVEMENT OF QUALITY AND EFFICIENCY OF THE EDUCATION SYSTEM", Action: "Center for Teaching and Learning of Higher Education", 2022-2023.