CURRICULUM VITAE KONSTANTINOS T. KOTSIS

Professor of Science Education

Department of Primary Education University of Ioannina

Ioannina, Greece

Date of Birth: June 10, 1959 Place of Birth: Athens, Greece

Work Address: Department of Primary Education, University of Ioannina, 45110

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- 1976: Graduate of Zosimaia High School, Ioannina
- **1980:** B.Sc. in Physics, School of Physics and Mathematics, Aristotle University of Thessaloniki
- 1981–1986: Research Associate, 5th Physics Laboratory, Solid State Division, Department of Physics, University of Ioannina
- 1984–1985: Assistant Researcher, Polytechnic University of New York (educational leave program)
- 1987: Ph.D. in Natural Sciences, School of Sciences, University of Ioannina
- 1989–1994: Lecturer, Department of Physics, University of Ioannina
- 1994–1999: Assistant Professor, Department of Physics, University of Ioannina
- **1999–2006:** Assistant Professor, Department of Primary Education, University of Ioannina
- 2006–2012: Associate Professor, Department of Primary Education, University of Ioannina
- 2012-Present: Full Professor, Department of Primary Education, University of Ioannina

2. SCIENTIFIC ACTIVITIES

2.1 Membership in Scientific Committees and Professional Associations

- Member of the Greek Physical Society (President of the Ioannina Branch, 2007–2017)
- Member of the Pedagogical Society of Greece
- Member of the Greek Association for Science Education
- Member of the American Physical Society



- Member of the New York Academy of Sciences
- Member of the Greek Society for the Science and Technology of Condensed Matter
- Member of the European Synchrotron Radiation Society
- Member of the International Union of Crystallographers (World Directory of Crystallographers, ed. Yves Epelboin, Kluwer Academic)
- Member of the Central Committee for External Transfer Student Examinations
- Evaluator of Teacher Training Programs (PEK)
- Member of the Scientific Committee of the journal Science Education:
 Research and Practice
- Member of the Scientific Committee of the journal ... στα γράμματα
- Scientific Committee Member and Reviewer at national conferences on Science Education and New Technologies in Education (Rethymno 2002, Athens 2004, Ioannina 2007, Florina 2009, Alexandroupoli 2011, Volos 2013, Thessaloniki 2015, Rethymno 2017, Florina 2019, Athens 2021, Ioannina 2023, Thessaloniki 2025)
- Member of the Scientific Committee of the journal Science and Technology Issues in Education
- Member of the Scientific Committee of the journal Themes in Science and Technology Education

2.2 Reviewer for Scientific Journals

- Science and Technology Issues in Education
- Themes in Science and Technology Education
- Computer Applications in Engineering Education (Parts 1 & 2)
- Discover Education
- Journal of Scientific & Industrial Research
- Journal of Science Education Research
- Frontiers in Education
- Humanities and Social Sciences Communications
- International Journal of Artificial Intelligence in Education
- EPJ Quantum Technology
- Interactive Learning Environments

2.3 Editorial Roles

- ✓ Editors | Humanities and Social Sciences Communications
- ✓ Frontiers in Education | Editorial board
- ✓ Editorial Team European Journal of Education and Pedagogy
- ✓ Editorial Board European Journal of Contemporary Education and E-Learning

- ✓ Editorial Team: Science Journal of Education:: Science Publishing Group
- ✓ Editorial Team Jurnal Pembelajaran Fisika
- ✓ Editorial Board Aquademia

3. TEACHING ACTIVITIES

3.1 Undergraduate and Postgraduate Teaching

I have taught a broad array of courses at both undergraduate and postgraduate levels across several departments at the University of Ioannina, including Physics, Chemistry, Informatics, Primary Education, and Interdepartmental Programs.

Department of Physics

- Modern Trends in Physics Education
- Physics Education I & II
- Physics Teaching Methodology
- General Physics I
- Physics Laboratory I
- · Laboratory of General Physics I
- Oscillations II and Laboratory
- Crystallography

Postgraduate Studies in Physics

- Applications of Synchrotron Radiation
- Physics Teaching Methodology I
- Physics Experiments I & II in Education

Department of Chemistry

- Experimental Physics I
- Experimental Physics II

Department of Informatics

- General Physics I
- General Physics II

Department of Primary Education

- Basic Concepts in Physics
- Physics Education
- STEM Education
- Physics in Everyday Life
- Basic Physics I-IV

Postgraduate Program in "Education Sciences"

- Teaching Approaches to Physics Concepts
- The Role of Experimentation in Physics Education
- Research Methodology in Science Education

Postgraduate Program in "Science Education and Learning Technologies"

- Science Education
- Contemporary Trends in Science Education

School of Education – Teachers' Training School

- Basic Physics Concepts
- Teaching Physics

Professional Development Program for Primary Education Teachers

- Basic Physics
- Physics Education

Interdisciplinary Program "Science and Culture," University of Joannina

- Radiation and Humans
- History of Physics II

Department of Biological Applications and Technologies

Science Education
 Interuniversity Master's Program
 "Education Sciences – Learning
 Technologies" (University of

Ioannina & Aristotle University of Thessaloniki)

Science Education

3.2 Supervision of PhD Dissertations (completed)

- **Asimina Kontogeorgiou** (2006): The Role of Visualization in Understanding and Teaching the Structure of Matter
- Filippos Evangelou (2012): The Impact of Real and Virtual Physics Experiments on Learning
- **Georgios Stylos** (2013): Attitudes and Practices of Primary Teachers on Science Education
- **Georgios Karaoglou** (2016): Relationship between Adults' Understandings of Physics Laws and their Scientific Literacy
- **Dimosthenis Bolanakis** (2016): Evaluation of Remote Physics Experiments Using Wireless Networks
- Christina Kostara (2022): Alternative Ideas in Physics, Chemistry, and Biology of High-Achieving Students Entering University
- **Dimitra Kazantzidou** (2022): Scientific Literacy and Alternative Ideas in Children's Fictional Environmental Books
- Antonios Christonasis (2022): The Impact of Sensorimotor Activities on Understanding Mechanics Concepts

3.3 PhD Supervision in Progress

- Leonidas Gavrilas STEM education and educational robotics in teacher training
- Dimitrios Panagou
- Georgia Vakarou
- Vasiliki Samara
- Konstantinos Tsoumanis
- Paraskevi Christonasi
- Victoria Christodoulou

3.4 Supervision of Master's Theses

Over **200 Master's theses** supervised in the postgraduate programs of:

- Department of Primary Education
- Department of Physics
- Department of Chemistry
- Department of Early Childhood Education

4. ADMINISTRATIVE RESPONSIBILITIES

- 1996–1999: Member of the Board of Directors, Institute of Solid Earth Physics (focus: seismic prediction using the VAN method)
- 2001–2005: Vice Director of General Education, Teachers' Training School, Department of Primary Education, University of Ioannina
- 2002–2010: Alternate Member, University Research Committee, University of Ioannina
- 2002–2005: Institutional Coordinator for the EPEAEK Project for furnishing the Central Library of the University of Ioannina
- **2002–2007:** Deputy Institutional Coordinator, Development Project for the Central Library, University of Ioannina
- **2007–2010:** Institutional Coordinator, Central Library Development Project, University of Ioannina
- 2003–2005: Scientific Coordinator, EU Leonardo da Vinci Program No.
 BG/03/B/F/PP-166034 Virtual Incubator for Prequalification into Resource Tutors for Disabled People
- **2005–2007:** Scientific Coordinator, EU Leonardo da Vinci Program No. UK/05/B/F/PP-162402 *Quality Assurance and Accessible Training*
- 2006–Present: Director, Laboratory of Science Teaching and Education,
 Department of Primary Education
- **2007–2009:** Scientific Coordinator, EU Leonardo da Vinci Program No. UK/07/LLP-LdV/TOI-065 *Quality Assurance and Accessible Training 2*
- 2007–2009: Scientific Coordinator, EU GRUNDTVIG Program (No. 134653-LLP-1-2007-UK) ETTAD: Enabling Teachers and Trainers to Improve the Accessibility of Adult Education
- **2007–2012:** President, Teachers' Training School, Department of Primary Education, University of Ioannina
- **2007–2010:** Director, Pedagogical Institute for Teacher Training (PEK) of Ioannina
- 2008–2010: Chair, Council for the Selection of Primary and Special Education School Advisors
- 2010–2022: President, Board of Student Housing, University of Ioannina
- 2009–2013: Vice Chair, Department of Primary Education, University of loannina
- 2013–2017: Chair, Department of Primary Education, University of Ioannina
- 2017–2021: Dean, School of Education, University of Ioannina
- **2009–2014:** Director, Postgraduate Program, Department of Primary Education
- 2018-Present: Director, Master's Program "Science Education and Learning Technologies," Department of Primary Education

- 2014–2021: Member of the General Assembly (EDE) of the Interdepartmental–Interuniversity Postgraduate Program "Education Sciences – Learning Technologies" (Universities of Ioannina and Thessaloniki)
- 2014–2016: Vice President, Assembly of Deans and Chairs of Schools and Departments of Education in Greece
- Member of the Senate, University of Ioannina for 11 Academic Years:
 - o 1990–1992: Elected Representative of the Faculty of Physics
 - o 2001–2002: Representative of Assistant Professors
 - o 2006–2007: Representative of Associate Professors
 - o 2013–2017: As Chair, Department of Primary Education
 - o 2017–2021: As Dean, School of Education
- **2019–2021:** Chair, Scientific Supervisory Committee (EPES) for the Model Junior and Senior High Schools of Zosimaia School, Ioannina
- 2021–Present: Chair, Scientific Supervisory Committee (EPES) for the 1st and 2nd Experimental Primary Schools and the Experimental Kindergarten of Ioannina

5. AUTHORSHIP AND PUBLICATIONS

5.1 Authored Books

- Alexandropoulos, N.G., Theodoridou, E., Kotsis, K.T. (1996). Condensed Matter and X-rays, University of Ioannina Press.
- Kotsis, K.T. (2005). *Physics Teaching and Experimentation*, University of loanning Press.
- Kotsis, K.T. (2011). A Research-Based Approach to the Timeless Nature of Alternative Conceptions in Physics Education, University of Ioannina Press.
- Bolanakis, D.E., Glavas, E., Evangelakis, G.A., Kotsis, K.T., Laopoulos, T. (2011). Microcomputer Architecture: Principles of Low-Level Programming and Applications with the M68HC908GP32 Microcontroller, Sychroni Paideia, Thessaloniki.
- Bolanakis, D.E., et al. (2012). Microcomputer Architecture: Low-Level Programming Methods & Applications of the M68HC908GP32, Amazon Publishing.
- Samara, V., & Kotsis, K.T. (2020). The Environmental Dimension of Light in Kindergarten, LAP Lambert Academic Publishing.

5.2 National Curriculum and Teacher Guides (Ministry of Education, Greece)

- Kotsis, K., Apostolakis, E., Gikopoulou, O., Mitzithras, K., Patrinopoulos,
 M. (2021). Curriculum for Science in Grades 5 and 6, Institute of Educational Policy.
- Kotsis, K., Apostolakis, E., et al. (2021). Science Teacher's Guide for Primary School, Institute of Educational Policy.

5.3 University Lecture Notes

- Basic Concepts in Physics (1999)
- The Birth of Classical Physics (2000)
- Effects of Electromagnetic Radiation on Humans (2000)

5.4 Editorial Work

- Kotsis, K. (Ed.) (1992). Proceedings of the 8th National Greek Conference on Solid State Physics, Ioannina.
- Greek Society for the Science and Technology of Condensed Matter (1995). *Directory of Researchers in Condensed Matter*, Ioannina.
- Kotsis, K. (Ed.) (2005). Completing a Cycle of Studies..., University of Ioannina, Teachers' Training School.
- Katsikis, A., Kotsis, K., Mikropoulos, A., Tsaparlis, G. (Eds.) (2007).

 Proceedings of the 7th National Greek Conference on Science Education and New Technologies in Education, Ioannina.
- **Nikolaou, G. & Kotsis, K.** (2015). *Environment, Education, Geography* (Festschrift for Prof. Apostolos Katsikis), Pedio Publishing, Athens.
- Kotsis, K.T., Stylos, G., Vakarou, G. (Eds.) (2023). Extended Abstracts of the 13th National Greek Conference on Science Education and New Technologies, University of Ioannina, ISBN: 978-618-82063-2-8.
- Kotsis, K.T., Stylos, G., Vakarou, G., Gavrilas, L., Panagou, D. (Eds.) (2024). 13th National Greek Conference Proceedings New Trends and Research in Learning, Teaching, and Technologies in Science Education, University of Ioannina.
- Kotsis, K.T., Stylos, G. (Eds.) (2025). Experiment and Science Education: 40 Years of the Department of Primary Education, University of Ioannina, Open Press – EKT, ISBN: 978-618-82063-5-9. https://doi.org/10.12681/lpet.240

6. RESEARCH CITATIONS

Citations to your published academic work are extensively recorded and publicly accessible via your **Google Scholar profile**:

► Konstantinos T. Kotsis – Google Scholar

This includes a comprehensive list of peer-reviewed publications in:

- Physics (Condensed Matter, X-ray Scattering, Spectroscopy)
- Science Education
- Educational Technology
- STEM and Environmental Literacy
- Misconceptions and Conceptual Change
- Artificial Intelligence in Education

7. COMPLETE LIST OF SCIENTIFIC PUBLICATIONS

7.1 Doctoral Dissertation

 Kotsis, K.T. (1986). Dynamical and Kinematical X-ray Scattering Near a Reciprocal Lattice Point. University of Ioannina, Greece. https://doi.org/10.12681/eadd/0880

7.2 Articles in International Peer-Reviewed Journals

- 1. Alexandropoulos, N.G., & Kotsis, K.T. (1985). Use of kinematical diffraction in X-ray topography. *Journal of Applied Crystallography*, 18(6), 509–512. https://doi.org/10.1107/S0021889885010792
- 2. Kotsis, K.T., & Alexandropoulos, N.G. (1986). Diffraction pattern near the Bragg angle for an asymmetrically cut crystal. *Journal of Applied Crystallography*, 19(6), 473–476. https://doi.org/10.1107/S0021889886088921
- 3. Alexandropoulos, N.G., et al. (1986). Chernobyl fallout on Ioannina-Greece. *Nature*, 322(6082), 779–780. https://doi.org/10.1038/322779a0
- 4. Kotsis, K.T., & Alexandropoulos, N.G. (1987). A source of spurious peaks in a multi-crystal x-ray spectrometer. *Journal of Physics E: Scientific Instruments*, 20(1), 74. https://doi.org/10.1088/0022-3735/20/1/013
- Alexandropoulos, N.G., et al. (1991). Rocking curves structure near an η-beam interaction point. *Nuclear Instruments and Methods A*, 308, 282–284. https://doi.org/10.1016/0168-9002(91)90648-A
- 6. Alexandropoulos, N.G., & Kotsis, K.T. (1991). Source of misindexing of the Umweg peaks in Renninger scans. *Physica Status Solidi A*, 128(2), K61–K66. https://doi.org/10.1002/pssa.2211280232
- 7. Alexandropoulos, N.G., & Kotsis, K.T. (1992). Umweg peak high-resolution flat crystal X-ray spectrometer. *Solid State Communications*, 81, 533–536. https://doi.org/10.1016/0038-1098(92)90607-B
- 8. Alexandropoulos, N.G., et al. (1992). Observed rocking curves fine structure in the Aufhellung site of Renninger scan peaks. *Acta Crystallographica A*, 48(4), 490–494. https://doi.org/10.1107/S0108767392000254
- 9. Alexandropoulos, N.G., & Kotsis, K.T. (1993). On the shape of Umweg peaks. *Physica Status Solidi A*, 140(2), 303–309. https://doi.org/10.1002/pssa.2211400202
- 10. Alexandropoulos, N.G., & Kotsis, K.T. (1994). Umweg peak intensity dependence on X-ray beam polarization. *Solid State Communications*, 89(1), 73–75. https://doi.org/10.1016/0038-1098(94)90421-9
- 11. Psilas, K., Kalogeropoulos, C., Kotsis, K.T., et al. (1994). Controlled astigmatism in cataract surgery. *European Journal of Implant and Refractive Surgery*, 6(5), 273–279. https://doi.org/10.1016/S0955-3681(13)80227-4

- Alexandropoulos, N.G., Kotsis, K.T., et al. (1994). Difference Compton Profiles of Zr and ZrH₂. Solid State Communications, 92, 453–457. https://doi.org/10.1016/0038-1098(94)90527-4
- Danakas, S.K., Kotsis, K.T., Papanicolaou, N.I. (1998). Compton profiles of calcium at various temperatures. *Physica Status Solidi B*, 209(1), 81–92. https://doi.org/10.1002/(SICI)1521-3951(199809)209:1<81::AID-PSSB81>3.0.CO;2-C
- 14. Andreou, Y., & Kotsis, K.T. (2005). Estimating spatial quantities by blind and sighted children. *International Congress Series*, 1282, 780–784. https://doi.org/10.1016/j.ics.2005.05.027
- 15. Andreou, Y., & Kotsis, K.T. (2006). Basic science concepts in blind and sighted children. *International Journal of Learning*, 12(1), 253–258. https://doi.org/10.18848/1447-9494/CGP/v12i01/47458
- 16. Andreou, Y., & Kotsis, K.T. (2006). Mathematical concept development in blind and sighted children. *International Journal of Learning*, 12(7), 254–260. https://doi.org/10.18848/1447-9494/CGP/v12i07/47920
- 17. Stylos, G., Evangelakis, G.A., & Kotsis, K.T. (2008). Misconceptions on classical mechanics by freshman university students. *Themes in Science and Technology Education*, 1(2), 157–177.
- Bolanakis, D.E., Evangelakis, G.A., Glavas, E., & Kotsis, K.T. (2009). Teaching low-to-high level programming using microcontrollers. *Computer Applications in Engineering Education*, 19, 525–537. https://doi.org/10.1002/cae.20333
- 19. Bolanakis, D.E., Kotsis, K.T., & Laopoulos, T. (2010). Transitioning from computer to microcomputer architecture. *European Journal of Engineering Education*, 35(1), 91–98. https://doi.org/10.1080/03043790903312162
- 20. Dermitzaki, I., Stavroussi, P., Vavougios, D., & Kotsis, K.T. (2013). Greek adaptation of the SMTSL questionnaire. *European Journal of Psychology of Education*, 28, 747–766. https://doi.org/10.1007/s10212-012-0138-1
- 21. Bolanakis, D.E., Kotsis, K.T., & Laopoulos, T. (2015). Wireless sensor system for barometric altimetry. *IEEE Aerospace and Electronic Systems Magazine*, 30(11), 20–28. https://doi.org/10.1109/MAES.2015.150013
- 22. Bolanakis, D.E., Kotsis, K.T., & Laopoulos, T. (2016). Barometric altimetry with MEMS and Ethernet. *Computer Applications in Engineering Education*, 24, 444–455. https://doi.org/10.1002/cae.21722
- 23. Bolanakis, D.E., Laopoulos, T., & Kotsis, K.T. (2016). Fixed-point arithmetic in microcomputer architecture education. *International Journal of Electrical Engineering Education*, 9(1), 1–7.
- 24. Evangelou, F., & Kotsis, K.T. (2019). Real vs virtual physics experiments on friction: A 5th grade study. *International Journal of Science Education*, 41(3), 330–348. https://doi.org/10.1080/09500693.2018.1549760

- Samara, V. & Kotsis K.T. (2020). Preschool children's perceptions of the role of light and chlorophyll in plants' photosynthesis, International Journal of Educational Innovation, Vol. 2, Issue 5, 146-157. https://doi.org/10.69685/LWNW3690
- 26. Samara, V., & Kotsis, K.T. (2020). Designing preschool environmental light activities. *International Journal of Educational Innovation*, 2(6), 19–30. https://doi.org/10.69685/FIZY4260
- 27. Stylos, G., Sargioti, A., Mavridis, D., & Kotsis, K.T. (2021). Validation of a thermal concept evaluation test. *International Journal of Science Education*, 43(2), 247–273. https://doi.org/10.1080/09500693.2020.1865587
- 28. Pantazis, S., Stylos, G., Kotsis, K.T., & Georgopoulos, K. (2021). The effect of 3D Printing technology on primary school students' content knowledge, anxiety and interest toward science, International Journal of Educational Innovation, Vol. 3, Issue 1, 38-50. https://doi.org/10.69685/YTQA3097
- 29. Stylos, G., & Kotsis, K.T. (2021). Hands-on heat experiments in primary school. *Primary Science*, 167, 32–34. https://eric.ed.gov/?id=EJ1290278
- 30. Stylos, G., & Kotsis, K.T. (2021). Homemade apparatus for thermal concepts. *The Physics Teacher*, 59, 477–479. https://doi.org/10.1119/10.0006134
- 31. Migdanalevros I. & Kotsis K.T., (2021). Literacy of students of the Department of Primary Education regarding radioactivity, *International Journal of Educational Innovation*, Vol. 3, Issue 3, 136-145. https://doi.org/10.69685/YTQA3097
- 32. Migdanalevros I. & Kotsis K.T., (2021). Literacy of students of the Physics Department regarding the greenhouse effect and the ozone hole, *International Journal of Educational Innovation*, *Vol. 3, Issue 4,* 74-85. https://doi.org/10.69685/ZUCP1970
- 33. Panagou, D., Kotsis, K.T., & Stylos, G. (2021). Perceptions of physics concepts in Cyprus. *Electronic Journal for Research in Science & Mathematics Education*, 26(2), 91–109. https://ejrsme.icrsme.com/article/view/21441
- 34. Stylos, G., Kamtsios, S., & Kotsis, K.T. (2022). Pre-service primary teachers' efficacy beliefs in teaching physics. *Journal of Science Teacher Education*, 34(1), 44–62. https://doi.org/10.1080/1046560X.2021.2023959
- 35. Kotsis, K.T., & Panagou, D. (2022). Using alternative ideas to map learning curves in force concepts. *European Journal of Science and Mathematics Education*, 10(4), 495–506. https://doi.org/10.30935/scimath/12251
- 36. Gavrilas, L., Kotsis, K.T., & Papanikolaou, M. (2022). University students' attitudes toward mobile radiation. *Aquademia*, 6(2), ep22009. https://doi.org/10.30935/aquademia/12393
- 37. Christonasis, A., & Kotsis, K.T. (2022). Circular motion learning through action vs observation. *European Journal of Education Studies*, 9(10). https://doi.org/10.46827/ejes.v9i10.4493

- 38. Gavrilas, L., Kotsis, K.T., & Papanikolaou, M., (2022). Gender differences in Attitudes and Behaviors associated with Electromagnetic Radiation of Mobile Phones and Wireless Networks. *International Journal of Educational Innovation*, 4(5), 25-37. https://doi.org/10.69685/GYWB7195
- 39. *Christonasis, A. & Kotsis, T. K., (2022),* Introducing impulse to 6th-grade students kinesthetically: The impact on their reasoning, *International Journal of Educational Innovation, 4(5),* 38-46. https://doi.org/10.69685/PZTY2107
- 40. Kotsis, K.T., & Panagou, D. (2023). Self-concept and force/weight understanding in teachers. *International Journal of Professional Development, Learners and Learning*, 5(1), ep2301. https://doi.org/10.30935/ijpdll/12628
- 41. Kotsis, K.T., & Stylos, G. (2023). Correlation between misconceptions in mechanics and students' mental age. *European Journal of Education Studies*, 10(1), 77–90. https://doi.org/10.46827/ejes.v10i1.4619
- 42. Stylos, G., Siarka, O., & Kotsis, K.T. (2023). Scientific literacy among Greek pre-service primary teachers. *European Journal of Science and Mathematics Education*, 11(2), 271–282. https://doi.org/10.30935/scimath/12637
- 43. Kotsis, K.T., & Stylos, G. (2023). Relationship of IQ with alternative conceptions of force and weight. *European Journal of Education and Pedagogy*, 4(1), 21–25. https://doi.org/10.24018/ejedu.2023.4.1.544
- 44. Kazantzidou, D., & Kotsis, K.T. (2023). Ozone layer representations in Greek children's books. *Interdisciplinary Journal of Environmental and Science Education*, 19(1), e2302. https://doi.org/10.29333/ijese/12847
- 45. Kaliampos, G., Kotsis, K., & Kornelaki, A. (2023). Critique of democratic argument for science teaching. *The European Educational Researcher*, 6(2), 3–17. https://doi.org/10.31757/euer.621
- 46. Samara, V., & Kotsis, K.T. (2023). Educational robotics in primary science education. *European Journal of Education Studies*, 10(2), 51–64. https://doi.org/10.46827/ejes.v10i2.4652
- 47. Gavrilas, L., & Kotsis, K.T. (2023). Self-reported mobile phone health issues among students. *Eurasian Journal of Science and Environmental Education*, 3(1), 7–15. https://doi.org/10.30935/ejsee/12958
- 48. Kotsis, K.T., Stylos, G., Houssou, P., & Kamaratos, M. (2023). Understanding heat and temperature across educational levels. *European Journal of Education and Pedagogy*, 4(1), 136–144. https://doi.org/10.24018/ejedu.2023.4.1.577
- 49. Kotsis, K., & Tsiouri, E. (2023). Teaching energy in primary school using iPads. *European Journal of Education Studies*, 10(3). https://doi.org/10.46827/ejes.v10i3.4696

- 50. Kotsis, K.T., & Panagou, D. (2023). Learning curve on the concept of energy via alternative ideas. *Contemporary Mathematics and Science Education*, 4(1), ep23011. https://doi.org/10.30935/conmaths/13022
- 51. Christonasis, A., Stylos, G., Chatzimitakos, T., Kasouni, A., & Kotsis, K.T. (2023). Religiosity and acceptance of the Big Bang theory by teachers. *Eurasian Journal of Science and Environmental Education*, 3(1), 25–32. https://doi.org/10.30935/ejsee/13043
- 52. Samara, V., & Kotsis, K.T. (2023). Robotics in primary education: Approaches and teacher attitudes. *European Journal of Education and Pedagogy*, 4(2), 194–204. https://doi.org/10.24018/ejedu.2023.4.2.629
- 53. Gavrilas, L., & Kotsis, K.T. (2023). Preservice teachers' knowledge of electromagnetic radiation and wireless tech. *International Journal of Professional Development, Learners and Learning*, 5(2), ep2309. https://doi.org/10.30935/ijpdll/13191
- 54. Vavoulioti, A.R., Stylos, G., & Kotsis, K.T. (2023). Greek preservice teachers' views on nuclear energy. *Aquademia*, 7(1), ep23004. https://doi.org/10.30935/aquademia/13205
- 55. Kotsis, K.T., Nikou, G., & Stylos, G. (2023). Preservice teachers' readiness for online physics teaching. *European Journal of Education and Pedagogy*, 4(3), 26–30. https://doi.org/10.24018/ejedu.2023.4.3.668
- 56. Kotsis, K.T., Siarka, N., & Stylos, G. (2023). Science and technology course choices of preservice teachers. *European Journal of Education and Pedagogy*, 4(3), 20–25. https://doi.org/10.24018/ejedu.2023.4.3.666
- 57. Evangelou, F., & Kotsis, K.T. (2023). Use of "MATHEMA" software to teach light reflection. *European Journal of Education and Pedagogy*, 4(2), 261–266. https://doi.org/10.24018/ejedu.2023.4.2.643
- 58. Samara, V., & Kotsis, K.T. (2023). STEM in primary classrooms: Attitudes, barriers, suggestions. *Contemporary Mathematics and Science Education*, 4(2), ep23018. https://doi.org/10.30935/conmaths/13298
- 59. Gioti, C., Stylos, G., & Kotsis, K.T. (2023). Engineering students' conceptions of engineering. *International Journal of Mechanical Engineering Education*. https://doi.org/10.1177/03064190231177431
- 60. Tsoumanis, K., Stylos, G., & Kotsis, K.T. (2023). Scientific literacy in Greek preservice teachers and students. *Science Education International*, 34(2), 121–131. https://doi.org/10.33828/sei.v34.i2.6
- 61. Stylos, G., Samara, V., & Kotsis, K.T. (2023). Teachers' misconceptions about Einsteinian gravity. *International Journal of Science Education*. https://doi.org/10.1080/09500693.2023.2260223
- 62. Christonasis, A., Stylos, G., Panagou, D., & Kotsis, K.T. (2023). Artificial intelligence as an educational partner in physics. *European Journal of*

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