CURRICULUM VITAE

Emmanouel Rovithis, PhD

Personal Info

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Academic Info

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Researchgate: researchgate.net/profile/Emmanouel_Rovithis
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Ιόνιο Πανεπιστήμιο: avarts.ionio.gr/en/department/people/486-rovithis/

Art Portfolio

Personal Website: www.sonicmanos.com
Soundcloud: www.soundcloud.com/rovithis
Vimeo: www.vimeo.com/emmanouelrovithis

Academic Education

Ph.D in Electronic Music Composition   **2016**
Ionian University, Corfu, Greece, Department of Music Studies, Rating «First-class Honours», Thesis Title: *Kronos: Electronic Audio Game based on Electronic Music Composition in Educational Applications*

M.A. in Music Composition   **2004**
Anglia Polytechnic University, Music Department, Cambridge, UK

Diploma in German Literature   **2001**
National Kapodistrian University of Athens, Greece, Department of German Language and Literature, Rating «Excellent»

Other Education

Degree in Classical Guitar   **2000**
Degree in Harmony   **2000**
Degree in Counterpoint   **2000**
State Conservatoir «Rhythm»
Abitur Certificate in German Language   **1996**
High School Certificate   **1996**
German School of Athens
Cambridge Certificate of Proficiency in English Language   **1993**
British Council

Research Activity

Fields of Interest

- Audio Games
- Audio Interaction
- Sonification
- Audio Augmented Reality
- Gamification
- Instructional Design

Research Experience

«ImGame – An Innovative Digital Environment Based on Research with Elements of Immersive Aesthetics and Serious Gaming»   **2022-2025**
Contribution to the project: gamification, research, dissemination, experimental evaluation
[No. 101054570, funded by the European Union & the Municipality of Tripolis in the frames of **Creative Europe Programme***. Partners: Vidzeme University of Applied Sciences (Latvia), Municipality of Tripolis, Pro Progressione (Hungary), September 2022 – August 2025]*

«Consulting Services to the Municipality of Delphi on the Design and Development of the Specifications for the Itea Digital Museum»   **2023**
Contribution to the project: gamification, audio interaction design
[No. 80622 Municipality of Delphi, Partner: Ionian University Audiovisual Arts Department]

«C.Cage - Immersive Adventure Game for the Promotion of Local Creativity, Art and Tradition in the Town of Corfu»   **2019-2020**
Contribution to the project: gamification, concept design, research, dissemination, experimental evaluation
[Operational Program "Ionian Islands 2014-2020" (grant MIS number: 80405), co-financed by Greece and the European Union (European Social Fund (ESF), October 2019 - June 2020]

«Augmented Reality Audio Games»   **2018 - 2019**
Contribution to the project: gamification, concept design, sound design, research, dissemination, experimental evaluation
[Operational Program Human Resources Development, Education and Life- long learning, Priority Axes 6, 8, 9, Act "Supporting Researchers with emphasis on New Researchers" (grant MIS number: 5007016), co-financed by Greece and the European Union (European Social Fund - ESF), June 2018 - December 2019]

Publications

PhD Dissertation (in greek)

Rovithis, E. (2015). *Kronos: Electronic Audio Game based on Electronic Music Composition in Educational Applications.* (Doctoral Dissertation, Ionian University, Dept. of Music Studies).

Chapters in Books (in english)

Papadopoulou, A., **Rovithis, E.**, Panagopoulos, I., (2021) Serious Film Games (S.FI.GA): Integrating Game Elements with Filmmaking Principles into Playful Script Writing., in Linda Daniella (Ed.). Smart Pedagogy of Game-based Learning (pp. 195-215). Springer, Cham. DOI: 10.1007/978-3-030-76986-4

Undergraduate Textbooks (in greek)

Papadopoulou, A., **Rovithis, E**., & Panagopoulos, I. (2023). *Serious Film Games S.FI.GA.* [Undergraduate textbook]. Kallipos, Open Academic Editions. https://dx.doi.org/10.57713/kallipos-131

International Peer-reviewed Journals (in english)

Rovithis, E., Papadopoulou, A., Komianos, V., Garneli, V., & Floros, A. (2024) Speech Puzzles (Spuzzles): Engaging the Reduced, Causal, and Semantic Listening Modes for Puzzle Design in Audio Games. *Applied Sciences, 14(9)*, 3858. https://doi.org/10.3390/app14093858

Gintere, I., **Rovithis, E.**, Bakk, Á. K., & Misjuns, A. (2024). ImGame Project: A Comprehensive Theory of Immersive Aesthetics and Innovation in Serious Gaming. *International Journal of Game-Based Learning (IJGBL)*, *14*(1), 1-18.

Rovithis, E., Moustakas, N., Vogklis, K., Drossos, K., & Floros, A. (2021). Design Recommendations for a Collaborative Game of Bird Call Recognition Based on Internet of Sound Practices. *Journal of the Audio Engineering Society*, *69(12)*, 956-966. DOI: 10.17743/jaes.2021.0043

Moustakas, N., Floros, A., **Rovithis, E.**, & Vogklis, K. (2021). Prediction and Controlling of Auditory Perception in Augmented Environments. A Loudness-Based Dynamic Mixing Technique. *Applied Sciences*, *11(22)*, 10944. DOI: 10.3390/app112210944

Rovithis, E., Moustakas, N., Floros, A., & Vogklis, K. (2019) Audio Legends: Investigating Sonic Interaction in an Augmented Reality Audio Game. *Multimodal Technologies Interact,*, *3*, 73, DOI: 10.3390/mti3040073

Rovithis, E., Floros, A., Moustakas, N., Vogklis, K., & Kotsira, L. (2019). Bridging Audio and Augmented Reality towards a new Generation of Serious Audio-only Games. *The Electronic Journal of e-Learning,* 17(2), pp. 144-156, available online at www.ejel.org, DOI: 10.34190/JEL.17.2.07

International Peer-reviewed Conferences (in english)

Gintere, I., **Rovithis, E.**, Bakk, Á. K., & Misjuns, A. (2024) ImGame: An Immersive Educational Environment to Teach Contemporary Art. *In Proceedings of the 16th International Conference on Computer Supported Education (CSEDU)*. Angers (France), May 2nd-4th, DOI: 10.5220/0012600000003693

Rovithis, E., Komianos, V., Vogklis, K., Pergantis, M., Moustakas, N., Kontopanagou, K., Tsipis, A., Loufopoulos, A., Tsiridou, T., Floros, A., & Giannakoulopoulos A. (in press). C.CAGE (Corfu Cultural Adventure GamE): An Immersive Adventure Game to Showcase the History, Tradition, Art, and Local Creativity of Corfu. In: *Proceedings of the 4th Digital Culture & AudioVisual Challenges Conference on Interdisciplinary Creativity in Arts and Technology (DCAC).* Ionian University.

Rovithis, E., Papadopoulou, A., & Panagopoulos, I. (in press) A Classification of Mobile Audio Creative Applications as a Roadmap for Planning the Learning Process. *In Proceedings of the 3rd Digital Culture & AudioVisual Challenges Conference on Interdisciplinary Creativity in Arts*

and Technology (DCAC). Ionian University.

Rovithis, E., Papadopoulou, A., & Floros, A. (2023). Designing Audio Technology-Oriented Practices for Teaching Art to Primary School Pupils. In: *Proceedings of the 2nd Digital Culture & AudioVisual Challenges Conference on Interdisciplinary Creativity in Arts and Technology (DCAC).* Ionian University.

Rovithis, E., Panagopoulos, I., Papadopoulou, A., & Giannakoulopoulos, A. (2022). Serious Film Games (S.FI.GA.): An Educational Approach of Scriptwriting through a Challenge of Uncertainty. In *Proceedings of the 11th International Conference in Open and Distance Learning* (pp. 1–15). Hellenic Open University. DOI: 10.12681/icodl.3557

Moustakas, K., **Rovithis, E.,** Vogklis, K., & Floros, A. (2020, October). Adaptive Audio Mixing for Enhancing Immersion in Augmented Reality Audio Games. *In Companion Publication of the 2020 International Conference on Multimodal Interaction* (pp. 220-227). DOI: 10.1145/3395035.3425325

Moustakas, N., Floros, A., **Rovithis, E.,** & Vogklis, K. (2019). Augmented Audio-Only Games:A New Generation of Immersive Acoustic Environments through Advanced Mixing. *In Audio Engineering Society Convention 146.* Audio Engineering Society (AES)

Rovithis, E., Floros, A., & Kotsira, L. (2018). Educational Audio Gamification: Theory and Practice. *In Proceedings of the 17th European Conference on e-Learning (ECEL)* (pp. 497–505). ACPI.

Rovithis, E., & Floros, A. (2018). AstroSonic: an Educational Audio Gamification Approach. In *Proceedings of the 1st Digital Culture & AudioVisual Challenges Conference on Interdisciplinary Creativity in Arts and Technology (DCAC).* Ionian University.

Rovithis, E., Floros, A., Mniestris, A., & Grigoriou, N. (2014). Audio games as educational tools: Design principles and examples. In *Proceedings of Games Media Entertainment (GEM), 2014 IEEE* DOI: 10.1109/GEM.2014.7048083

Rovithis, E., Mniestris, A., & Floros, A. (2014). Educational audio game design: sonification of the curriculum through a role-playing scenario in the audio game 'Kronos'. In *Proceedings of the 9th Audio Mostly: A Conference on Interaction With Sound* (p. 21). ACM. http://doi.org/10.1145/2636879.2636902.

Rovithis, E. (2012). A classification of audio-based games in terms of sonic gameplay and the introduction of the audio-role-playing-game: Kronos. In *Proceedings of the 7th Audio Mostly Conference on Interaction with Sound - AM '12.* ACM Press. DOI: 10.1145/2371456.2371483

National Peer-reviewed Conferences (in greek)

Moustakas, N., Floros, A., **Rovithis, E.,** & Vogklis, K. (2022). Dynamically Variable Mixing to Enhance Auditory Perception in Audio Augmented Reality Environments. In: *Proceedings of the 11th Panhellenic Conference «Acoustics 2022» Hellenic Institute of Acoustics (HELINA).* Thessaloniki, Greece: Hellenic Institute of Acoustics.

Rovithis, E., Moustakas, N., Voglis K., & Floros, A. (2021). Audio Legends: Approaching the Educational Aspect of Augmented Reality Audio Games. *In Proceedings of the 1st Panhellenic*

Conference «Educational games in formal and informal learning». School Life and Education Museum, National Centre of Research & Preservation of School Material.

Rovithis, E., & Papadopoulou, A. (2021). A Classification of Tablet Audio-creative Applications in terms of Curriculum, Gamification, and Interface. *In Proceedings of the 1st Panhellenic Conference «Educational games in formal and informal learning»*. School Life and Education Museum, National Centre of Research & Preservation of School Material.

Rovithis, E., Moustakas, N., Floros, A., & Voglis, K. (2018). Augmented Reality Audio Games: a First Approach. In: *Proceedings of the 9th Panhellenic Conference «Acoustics 2018» Hellenic Institute of Acoustics (HELINA)*. Kalamata, Greece: Hellenic Institute of Acoustics.

Rovithis, E. (2018). The Last Universal Common Ancestor: a project-oriented approach in teaching Digital Sound Processing. In: *Proceedings of the 9th Panhellenic Conference «Acoustics 2018» Hellenic Institute of Acoustics (HELINA)*. Kalamata, Greece: Hellenic Institute of Acoustics.

Rovithis, E., Metallinou, F.-A., & Floros, A. (2016). Hearing the Magnetic Storm: an educational interactive audio environment. In: *Proceedings of the 8th Panhellenic Conference «Acoustics 2016» Hellenic Institute of Acoustics (HELINA)*. Aigaleo, Greece: Hellenic Institute of Acoustics.

Rovithis, E., & Floros, A. (2016). Cerberus: Educational Audio Game on Noise. In: *Proceedings of the 4th Conference of the Hellenic Society of Acoustic Ecology (HSAE) «Sound, Noize, Environment»*. Mytilini, Greece: Hellenic Society of Acoustic Ecology.

Rovithis, E., Kotsira, L., & Marantou, N. (2016). Melodic Path: Educational Audio Game for Teaching Melodic Dictation. *In: Proceedings of the «Education in the Time of ICT» Conference.* Athens, Greece: New Educator.

Rovithis, E., Floros, A., & Mniestris, A. (2015). Educational Audio Game Design - Kronos, a Role-Playing Game. In: *Proceedings of the 1st Hellenic Conference of Art Education «Wherever one hears music..modern approaches in music education»*. Patras, Greece: University of Patras.

Rovithis, E., Floros, A., & Mniestris, A. (2014). Serious audio-only games: a modern educational approach. In: *Proceedings of the 3rd Conference of the Hellenic Society of Acoustic Ecology (HSAE) «Acoustic Ecology & Education».* Athens, Greece: Hellenic Society of Acoustic Ecology.

Teaching Experience

Academic Experience

Laboratory Teaching Staff Member	**2020-ongoing**
Department of Audio and Visual Arts, Ionian University	
Academic Scholar	**2019-2020**
Department of Audio and Visual Arts, Ionian University	
Adjunct Lecturer	**2017-2019**
Department of Audio and Visual Arts, Ionian University	

Selected Courses

Audio Processing Software Design (MA)
Postgraduate course focusing on visual programming (programming language "Pure Data") and aiming at the analysis and implementation of sound synthesis and processing techniques.

Sound Art (MA)
Postgraduate course focusing on digital media and sound synthesis techniques on the basis of electroacoustic music language.

Sound Creation in Educational Applications
Course that focuses on the application of audio technologies for the development of interactive educational activities.

Content and Practicum in Secondary Education
Course that focuses on lesson planning techniques and their application in the context of practicum in secondary education school units.

Teaching of Art and Creative Technologies
Course focusing on the development and evaluation of novel pedagogical practices.

Augmented Technologies in the Curriculum
Course that focuses on the implementation of Mixed Reality technologies and practices for the development of interactive educational applications.

Digital Sound Processing
Course focusing on the design and application of processing algorithms on digital audio signals (programming language: "GNU Octave").

Dissertation Supervisions (Postgraduate Level)

"Electroacoustic Music Synthesis via Electric Guitar and Digital Processing" 2024
Contribution: Main Supervisor
Interdisciplinary Postgraduate Programme "Sound Arts and Technologies" (SONARTS), Ionian University, Departments of Music Studies and Audio and Visual Arts.

"Creating an Augmented Reality Audio Game for Exploring the Cultural Heritage of Corfu"
2024
Contribution: Main Supervisor
Interdisciplinary Postgraduate Programme "Sound Arts and Technologies" (SONARTS), Ionian University, Departments of Music Studies and Audio and Visual Arts.

"Generative Sound Synthesis for the Creation of an Interactive Soundscape" 2020
Contribution: Main Supervisor
Interdisciplinary Postgraduate Programme "Sound Arts and Technologies" (SONARTS), Ionian University, Departments of Music Studies and Audio and Visual Arts.

"Educational Environment for Sound and Music Synthesis" 2019
Contribution: Special Consultant and Reviewer
Interdepartmental / Interdisciplinary Postgraduate Programme "Advanced Computer and Communication Systems", Aristotle University of Thessaloniki

Workshops & Seminars

Space Audissey 2019-2020
Workshop on music creation (10th-14th grade) focusing on the familiarisation with audio processing digital media through a game scenario about the planet Mars. ("Musix Lab" Educational Center, The Friends of Music Society, Athens Megaron Music Hall)

Digital Kids Orchestra 2016-2017

Workshop on music creation (6th-12th grade) introducing students to the concepts of melody and rhythm through physical and digital instruments (iPad-apps). (Hellenic-American Educational Foundation, Athens College - February 2016, Athens Digital Arts Festival 2017 - May 2017)

Music Games in a Digital World   **2015**
Workshop on music creation (6th-12th grade) through game activities via selected iPad applications. (Summer Camp, Hellenic-American Educational Foundation, Athens College, June 2015)

Sound Design   **2006-2012**
Series of seminars and workshops introducing participants of various age groups and musical backgrounds to sound design in fields, such as soundscape synthesis, live performance, interactive installations, music for theatre, and photography augmentation. ("Mikro Polytexneio" Foundation for the Arts)

Invited Talks

Scientific Conference "Society. Technologies. Solutions"   **2024**
Vidzeme University of Applied Sciences (Valmiera, Latvia).
Speech: "Audio Legends: an Augmented Knot in the Audio Gaming Thread", a presentation of the historical development and contemporary state of the field of Audio Games, the audio interaction mechanics involved, as well as the relevant research results by the Audiovisual Signal Processing Laboratory "EPOASI" at the Department of Audiovisual Arts.

Postgraduate Programme "Greek and World Theatre, Dramaturgy, Performance, Education"   **2023**
Faculty of Theatre Studies, National and Kapodistrian University of Athens
Speech: "Sound Art in Theatre: conception and praxis", an approach to the inherent qualities of sound composition for theatre through personal works and methodological suggestions regarding the complete range of the creative process from the conceptual design, the communication as part of a team and the collection of material, to the final production and sound diffusion in space.

Distinctions

The audio game «**the Freq**», developed by Dr. Rovithis, was selected in the top 10 games at the Athens Gaming Forum 2012 for its innovative and accessible gameplay. (April 2012)

The game development team «**Audio Based Games**» (ABG), managed by Dr. Rovithis, was selected in the 3 most innovative startup suggestions within the business incubator initiative «Ekinisi Lab» for supporting the entrepreneurship of young researchers. (June 2014)

Editing/Reviewing Experience

Special Issue "Applied Audio Interaction", MDPI   **2023-2024**
Guest Editor

Scientific Journal "Multimedia Tools and Applications", Springer   **2023-2024**
Reviewer

Scientific Journal "Transactions on Applied Perception", ACM   **2023-2024**
Reviewer

Scientific Journal "Museum Management and Curatorship", Taylor & Francis **2023-2024**
Reviewer

DCAC Conference Proceedings   **2022-2024**
Editor/Reviewer

Organizational Experience

International Conference DCAC   **2024**
Coordination of the volunteers responsible for the reception and technical coverage at the 6th international conference **Digital Culture & AudioVisual Challenges (DCAC)** of the Ionian University Department of Audio & Visual Arts.

International Audiovisual Arts Festival   **2019-2024**
Curating the exhibition of audiovisual works and interactive installations of graduate and post-graduate students, and phd candidates, as well as contributing to the organization of the festival's volunteers at the 13th, 15th, and 16th international **Audiovisual Arts Festival** of the Ionian University Department of Audio & Visual Arts.

International Exhibition of Thessaloniki   **2022-2023**
Curating the exhibition stand of the Ionian University and presenting the exhibited works of the Audio & Visual Arts Department at the 86th and 87th International Exhibition of Thessaloniki.

International Joined Conference ICMC-SMC   **2014**
Personal assistant (P.A.) of honored guests Jean-Claude Risset and John Chowning at the international joint **ICMC-SMC 2014 Conference** «Music Technology meets Philosophy» in Athens, Greece.

Artistic Work

Music Composition & Sound Design

Theatre

Prometheus   **2023**
director: Aris Biniaris, Theatre Gloria
Goodbye Lindita   **2023-2024**
director: Mario Banushi, Greek National Theatre
Taal in Taal out   **2022**
director/choreographer: Justine Goussot, On Off Studio
Ragada   **2020-2022**
director: Mario Banushi, Rooms Exhibition & Theatro Sti Sala
Dotted   **2018**
director: Vicky Sachpazi **,** Fingerprint Dance-theatre Group, Artiria@Athens
Dead end   **2012**
director: Ilias Pimenidis, Alkmini Theatre
The cherry orchard   **2012**
director: Dimitris Kanellos, Mikro Polytexneio Theatrical Workshop
The train that brought tear and laughter   **2012**
director: Giota Koundouraki, Mikro Polytexneio Theatrical Workshop
Road dance theater   **2012**
director: Christina Sougioultzi, Mikro Polytexneio Theatrical Workshop
Judgement day   **2012**
director: Alexandra Sakellaropoulou, Mikro Polytexneio Theatrical Workshop
I think one square meter is enough   **2011**

director: Takis Tzamargias, Greek Centre of International Theatre Institute

Homeriad   2010
director: Esther Andre Gonzalez, The Free Fall Company

The fabulous case of the bat   2009
director: Vicky Sachpazi, The Free Fall Company

The kiss of space   2008
director: Sofia Filippidou, The Flying Octopuses Theatre Group

From now on only happy end   2008-2009
director: Georgia Mavragani, The Happy End Theatre Group, Theatres Chora & Epi Kolono

On seeing the 100% perfect girl   2007-2008
director: Georgia Mavragani, The Happy End Theatre Group, Theatre Epi Kolono

Women, whose men are missing   2007
director: Sofia Seirli, Mikro Polytexneio Theatrical Workshop

Sweet bird of youth   2007
director: Anita Kagkalou, Mikro Polytexneio Theatrical Workshop

The short story of my life   2006
director: Kyriakos Chatzimichailidis, Pocket Theatre Festival

The beauty and the beast   2006
director: Tonia Stavropoulou, Theatrical Workshop of Vrilissia Municipality

The little prince   2005
director: Tonia Stavropoulou, Theatrical Workshop of Vrilissia Municipality

Moon week   2005
director: Thrasos Kaminakis, Pocket Theatre Festival

Plutus   2002
director: Maria Matsouka, Hellenic College of London

Cinema

The last pornmovie   2006
director: Costas Zapas, music signed with the alias «Asad»

Tsiou   2005
director: Makis Papadimitratos, music signed with the alias «Savage Mambas»

Sound Design & Audio Interaction Programming

Installations

LUCA the last universal common ancestor   2018
Audiovisual Arts Festival, Ionian University, Corfu
Four-channel interactive audio installation that interprets sonically the evolutionary process of living beings from simple, unicellular to complex, multicellular organisms, by means of the sound's fidelity and the processing algorithms' complexity.

Kronos   2017
Audiovisual Arts Festival, Megaron Concert Hall, Athens
Interactive audio installation, in which users are introduced to concepts and practices of electronic music composition by solving riddles and accomplishing tasks within the context of an electronic role-playing game.

Hearing the magnetic storm   2016
Athens Science Festival, Technopolis, Athens
Interactive audio installation that aims at informing and raising awareness about the phenomenon of magnetic storms by sonically representing the alteration of Earth's magnetic field caused by solar energy.

The hidden poets' garden   2012
Asomaton Theatre, Thisseio, Athens
Performance based on processing pre-recorded recitation of poems and live improvisation with sound producing objects.

Original Vs Copy   2010
Design Walk Festival, Monastiraki, Athens
Interactive audiovisual installation based on the collage of fragmented pre-recorded interviews, aiming to represent the complexity of human existence. The installation's space was scenographically prepared with threads interconnecting excerpts from the interviews written on the walls to enhance the audience's immersion.

The Box   2008
Booze Cooperativa, Kolokotroni, Athens
Interactive audiovisual installation based on time-travelling to different eras. The installation took place in a specially constructed chamber (time-machine) to enhance the audience's immersion.

Rockaby   2007
Bios, Pireos, Athens
Interactive audiovisual installation based on Samuel Beckett's respective play. Sound was stochastically de- and re-constructing the pre-recorded narration, while space was prepared with props from the life of the play's character to enhance the audience's immersion.

Laptop Hug   2002
Babble's Festival, APU University, Cambridge, UK
Projection of audiovisual material (video) criticizing people's excessive dependency on technology.

Hangover   2002
Kettle's Yard Gallery, Cambridge, UK
Audio installation with processed fragments of pre-recorded human speech randomly collected during a night-out.