"STE(A)M educators and education"

CONFERENCE PROGRAMME

Friday May 7 2021 – Morning

Greek Time	Note that Central European Time (CET) is Greek Time -1 hour			
	Session 1			
09:20-09:30	**Welcome music event**			
10:00-10:20	Scientific Paper 9	S1-R5	Measuring STEAM Learning Outcomes with an Authentic Assessment Tool	Ioannis Ioannou & Andri Vrioni
10:20-10:40	Scientific Paper 10	S1-R5	The engineering of the Revolution of 1821. Proposal for didactic utilization of the historical past with the STEAM method	Georgios Papatsimpas & Evangelia Kounavi
10:40-11:00	Scientific Paper 11	S1-R5	200 Years since the Greek Revolution-200 Years Paper: a STEAM Scenario	Stamatia Kotretsou, Evanthia Kontogouri, Georgios Reppas & Paraskevi Theophanidou
11:00-11:20	Scientific Paper 12	S1-R5	Music and STEM. Multiple sides of the same coin	Petros Stergiopoulos
11:20-11:30	**Break**			
	Session 2 Plenary Session			
11:30-12:30	**Official Opening Ceremony- Music by the Philharmonic Orchestra of Corfu**			
12:30-13:15	**How can the new science of Complexity educate young people on how to realize their talents and choose their future?** **Anastassios Bountis,** Professor Emeritus, Department of Mathematics, University of Patras & Corresponding Member of the Academy of Athens			
13:15-14:00	**From Aristotle to Heraclitus and from binary to quantum computers** **Aristotelis Raptis,** Professor Emeritus, Department of Primary Education, University of Athens			
14:00-16:00	**Lunch break**			

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Friday May 7 2021– Afternoon

			Session 3		
16:00 – 17:30	**Workshop**	**(Webex R5)** S3–R5	Paper folding in STEAM education		Spreafico Maria, Aggregate Professor Politecnico di Torino
		(Webex R4)			
16:00-16:15	Educational Practice 15	S3-R4	STEAM with LED	Secondary/ Vocational senior high school	Elena Dougia
16:15-16:30	Educational Practice 16	S3-R4	Strengthening European Cultural Heritage through STEAM	Secondary/ senior high school	Chrysoula Nenou & Lazaros Moisiadis
16:30-16:45	Educational Practice 17	S3-R4	Flight of fancy: An imaginative though realistic idea	Secondary/ junior high school	Sofronia Maravelaki
16:45-17:00	Educational Practice 18	S3-R4	From White to Black: the Wheel of Colours in Science and Art	Secondary	Theodora Gkeniou
17:00-17:15	Educational Practice 19	S3-R4	Let`s play music! : with Lego EV3 & Python	Secondary/ senior high school	Nikolaos Diamantopoulos
17:15-17:30			**Break**		
			Session 4 Plenary Session		
17:30-18:00	**Teaching transformation through learning design amid a pandemic: the case of a machine learning course** **George Magoulas,** Professor, Director Birkbeck Knowledge LAB, Birkbeck College, University of London				
18:00-18:30	**STEM or CTEMS?** **Eugenia Koleza,** Professor of Mathematics Education, University of Patras				
18:30-18:40			**Break**		
			Session 5		
18:40-19:40	**Round Table**	R-5	Learning by playing through STEAM		Barbieri Giovanni, Project Manager GemIn
19:40-20:00	**Awards ceremony** (Best Paper Awards Educational practices & photo contest)				

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Saturday May 8 2021 – Morning

			Session 6		
09:20-09:30			Welcome music event		
09:50-10:50	Round Table	R-5	University Pedagogy and STEAM: New Degrees of Freedom		Sarantos Psycharis, Professor School of Pedagogical and Technological Education-ASPETE / President E3STEM
10:50-10:55			Break		
			Session 7 Plenary Session		
10:55-11:10	Greetings				
11:10-12:10 (Webex Link)	Session organized by the Joint Research Center (JRC) European Commission *DigCompEdu , SELFIE and SELFIE for teachers STE(A)MCompEdu*				
12:10-12:40 (Webex Link)	STEM as a means of introducing modern science to school. Two characteristic examples Michalis Orfanakis, Physicist, Science teacher, 1st General Lyceum of Ierapetra				
12:40-12:45			Break		
			Session 8		
12:45-14:00	Round Table	R5	Collaborative STE(A)M Approach to Increase Young People's Motivation to STEM careers		Balomenou Athanasia, Educational Work Coordinator
12:45-13:00	Educational Practice 20	R2	Playing with Aesop's fox differently	Primary/Pre-school	Eleni-Konstantina Eglezou
13:00-13:15	Educational Practice 21	R2	Earthquakes and Safe cities 4 all with STEAM	Primary	Georgia Lascaris & Stavroula Skiada
13:15-13:30	Educational Practice 22	R2	NBS and Hardy Plants for a Sustainable City	Primary	Stavroula Skiada & Georgia Lascaris

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13:30-13:45	Educational Practice 23	R2	Functional Model of an Electric Generator with the use of Breadboard	Primary	Rania Labou
14:00-16:00	**Lunch break**				

Saturday May 8 2021 – Afternoon

			Session 9		
16:00-17:00	**Round Table 8**	R5	STEAM-IT project		Evita Tassiopoulou
17:00-17:15	Educational Practice 44	R3	A STEM approach utilizing ICT and Educational Robotics: Quality control on fruit and vegetable preparative processing.	Secondary/ Vocational senior high school	Aspasia Mylona, Vasiliki Bezaiti & Pesic Gordana
17:15-17:30	**Break**				

Session 10 Plenary Session		
17:30-18:00	**Open Schools: Creating the ideal enviroment for STEM implementation** **Sofoklis Sotiriou**, PhD, Head of RD Department, Ellinogermaniki Agogi	
18:00-18:30	**The impact of IoT, open technologies and open construction spaces, in the field of education and research in STE(A)M for all educational levels** **Konstantinos Kalovrektis,** Adjunct Professor, University of Thessaly & Coordinator of the Scientific Committee STEAM of ELLAK	
18:30-18:40	**Break**	

			Session 11		
18:40-19:00	Scientific Paper 39	S11-R5	Diving into CHOICE Framework for Reforming STEM curricula through STE(A)M approach in education"		Athanasia Balomenou & Elena Sarlis

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19:00-19:20	Scientific Paper 40	S11-R5	Advances of STEM approach in Engineering Pedagogy: Computational Thinking, Gamification, and Problem Solving	Ioannis Paliokas & Glykeria Karra
19:20-19:40	Scientific Paper 41	S11-R5	A Conceptual Framework for Computational STEAM Integration. Crosscutting Concepts, Threshold Concepts, Border Objects and their propagation in STEM integrational fusion	Sarantos Psycharis & Konstantinos Kalovrektis
19:40-20:00	Scientific Paper 42	S11-R5	Educators' competences for STE(A)M education: a case study in Greece	Natalia Spyropoulou & Achilles Kameas

Sunday May 9 2021 – Morning

Session 12				
10:20-10:30			**Welcome music event**	
10:30-10:50	Scientific Paper 51	S12-R5	Developing a Smart Chemical Liquid Device with Lego EV3 and Python: A STEM teaching proposal	Nikolaos Diamantopoulos & Hlias Spanos
10:50-11:10	Scientific Paper 52	S12-R5	Experimenting with the shape of the Earth's relief through surface runoff tables: A STEM didactic scenario approach	Niki Evelpidou, Sarantos Psycharis, Paraskevi Iatrou, Konstantinos Kalovrektis & Apostolos Xenakis
11:10-11:30	Scientific Paper 53	S12-R5	Robotics as a dynamic vehicle toward STEAM Education in 21st century classroom	Katerina Glezou
11:30-11:50	Scientific Paper 54	S12-R5	Mobile Learning with Computation Thinking for VIs	Pantelis Kydonakis, Sarantos Psycharis, Paraskevi Theodorou & Peter Williams
11:50-12:00			**Break**	

Plenary Session 13	
12:00-12:30	**Greetings**
12:30-13:00	**Pedagogical approaches to STE(A)M education** **Anastasios Mikropoulos,** Professor, University of Ioannina

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13:00-13:30	**A conceptual framework for computational STEAM integration: crosscutting concepts, threshold concepts, border objects and their propagation in STEM integrational fusion** **Sarantos Psycharis,** Professor, School of Pedagogical and Technological Education (ASPETE) & Chairman of Hellenic Education Society for STEM Education (E3STEM)
13:30-15:30	**Lunch break**

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Sunday May 9 2021 – Afternoon

		Session 14			
	Workshop 11	S14-R6	Collaborative Activities in eTwinning projects		Athanasia Zafeiropoulou
16:15-16:30	Educational practice 46	S14-R2	Black History Month	Primary	Marianhti Alexandropoulou
16:30-16:45	Break				
		Session 15 Plenary Session			
16:45-17:15	**Aerial robotics in education: Current status, affordances and challenges** **George Koutromanos,** Assistant Professor, Department of Education, National and Kapodistrian University of Athens				
17:15-17:45	**Fighting for social justice in STEAM education** **Manolis Wallace,** Associate Professor, Department of Informatics and Telecommunications, University of Peloponnese & Founder and director of ΓΑΒ LAB - Knowledge and Uncertainty Research Laboratory				
17:45-18:00	**Conclusions – Closing Ceremony**				