









Science · Technology · Engineering · Math

CONFERENCE PROGRAM
24 February 2021 y.

### STEM-EDUCATION

# INTEGRATED APPROACH

# TO STEM

### **TEACHER TRANING**









# L. N. GUMILYOV EURASIAN NATIONAL UNIVERSITY FACULTY OF INFORMATION TECHNOLOGIES



Science. Technology. Engineering. Math

#### Online scientific conference

24 February 2021 y., 14:00 (time Nur-Sultan)

### STEM-EDUCATION

- The concept of the online scientific conference "STEM education"
- The program of the online scientific conference

#### The concept of the online scientific conference "STEM - education"

Name of the school: online scientific conference "STEM - education".

**Subject:** integration of science and education.

Working languages: Kazakh, Russian, English.

**Base:** online format, Faculty of Information Technologies of L.N. Gumilyov ENU, Department of Computer Science, Nur-Sultan, Pushkin, 11 Street.

Dates: February 24, 2021.

The purpose of the conference: to identify, support and disseminate the best pedagogical experience of educators, to develop their creative potential and professional skills in the direction of STEM.

Conference participants: teachers and scientists of higher educational institutions, principals and teachers at schools, teachers of colleges, institutes for advanced training of educators, regional methodological centers and interschool methodological centers are invited to participate in the conference

#### During the conference, it is planned to discuss the following issues:

- STEM education, content, prospects and directions of development, resources and opportunities of schools, institutions of additional education in the development of STEM education, prospects for cooperation with educational organizations and projects, high-tech enterprises and business structures
- using the capabilities of online educational platforms in the organization of STEM education in distance and mixed formats

#### Within the framework of the conference, the following sections are planned:

- ✓ STEM in Computer Science Teaching;
- ✓ STEM in secondary school;
- ✓ STEM in Education: the Experience of Foreign Teachers.

The conference program includes reports that will discuss the analysis of the state and directions of development of STEM education, the possibilities of new formats as a basis for building professional careers in the field of high technologies.

#### **Program Committee of the Conference:**

Seilov Shakhmaran Zhursinbekovich – Doctor of Economics, Professor, Dean of the Faculty of Information Technology.

Serik Meruyert – Doctor of Pedagogical Sciences, Professor, Head of the Department of Computer Science.

Zhumadillaeva Ainur Kanadilovna – Candidate of Technical Sciences, Associate Professor of the Department of Computer Engineering.

Druz Anna Nikolaevna – Associate Professor of the Institute of Mathematics, Mechanics and Computer Science, South Federal University.

Bondarev Maksim Germanovich – Head of the Department of Primary Education, Academy of Psychology and Pedagogy, Southern Federal University.

Batchenko Alla Gennadievna – Head of the Center for International Programs and Projects, Southern Federal University.

Sagnaeva Saule Kayrollievna - Candidate of Physical and Mathematical Sciences, Associate Professor of the Department of System Analysis and Management of the Faculty of Information Technology.

Alzhanov Aytugan Kairzhanovich – Candidate of Pedagogical Sciences, Associate Professor of the Department of Computer Science.

Davletova Ainash Khaliullinovna – Candidate of Pedagogical Sciences, Associate Professor of the Department of Computer Science of the Faculty of Information Technologies.

Abildinova Gulmira Maratovna – Candidate of Pedagogical Sciences, Associate Professor of the Department of Computer Science of the Faculty of Information Technologies.

Karelkhan Nursaule - Senior Lecturer of the Department of Computer Science.

Akhmetova Balgyn – teacher of NIS.

Nurbekova Gulmira Fazylgalamovna – doctoral student of the specialty 8D01511 Computer Science.

Balgozhina Gulmira Beketovna – Senior Lecturer of the Department of Computer Science.

#### **Organizers of the conference:**



L.N. Gumilyov Eurasian National University (Kazakhstan, Nur-Sultan).



Southern Federal University (Russia, Rostov-on-Don).

#### Plenary presentations.

- 1. Celal Karaca PhD, Head department of Computer Technology, Aksaray university (Turkey). The topic "Effect of STEM in Computer Science Education".
- 2. Bondarev Maxim Germanovich, Head of the Department of Primary Education, Academy of Psychology and Pedagogy, Southern Federal University. **The topic** of the report is "STEM education and practices of working with talents in the field of natural and engineering sciences in the Russian Federation".
- 3. Serik Meruert Doctor of Pedagogical Sciences, Professor, Head of the Department of Informatics, Akhmetova Balgyn Lecturer at NIS. **Topic of the report «Preparation of school children for STEM projects».**

#### Section "STEM in the study of information».

**Chairman:** Serik M. – Doctor of Pedagogical Sciences, Professor, Head of the Department of Computer Science

**Secretary:** Karelkhan Nursaule – PhD, Department of Computer Science.

№	Author's name	University	Title of the article:
1.	Bondarev M. G.	South Federal University	STEM EDUCATION AND
			PRACTICES OF WORKING
			WITH
			TALENTS IN THE FIELD OF
			NATURAL AND
			ENGINEERING SCIENCES IN
			THE RUSSIAN FEDERATION
2.	Kurakbay O. S.	M. O. Auezov SKU	STEM DIRECTION
			ROBOTICS
			ROLE OF LESSONS
3.	Yerezhepov Zh.I.	L.N.Gumilyov Eurasian	PRIMARY SCHOOL
	Zhalgasbekova Zh. K.	National University	Samarkand
			UNIVERSAL LEARNING
			ACTIONS
			STRUCTURE
4.	Balgaliyev M.A.	L.N.Gumilyov Eurasian	STUDENTS
	Zhalgasbekova Zh.K.	National University	"CRITICAL" IN TRAINING
			THINK FROM THE POINT of
			VIEW
			DEVELOPMENT"
			Technology
			KEY FEATURES
5.	Serikbayeva M.Zh.	L.N.Gumilyov Eurasian	INFORMATICS
	Karieva K.U.	National University	INNOVATIVE IN TEACHING
			TOOLS

6.	Abdez N.D.	M. Auezov South	Schoolchildren
	Urmatova A. N.	Kazakhstan	IMAGINE THE SPACE
		University	Formation
			PSYCHOLOGICAL
			PREREQUISITES
7.	Kasymkhanov S.D.	L.N.Gumilyov Eurasian	SAPHANA
		National University	ON THE PLATFORM
			INTERREGIONAL
			REPORTING MANAGEMENT
			FOR ENTERPRISES
			EXPLORE THEIR MODELS
8.	Turanov A. K	M. Auezov South	HOW TO TEACH ROBOTICS
		Kazakhstan	IN EDUCATION
		University	
9.	Omarbekov A.M.	L.N.Gumilyov Eurasian	QUALITY OF EDUCATION
	Alzhanova E.E.	National University	CONTROLLED
	Ormanbek A.T.		PEDAGOGY
			DIMENSIONS
10.	Zharmukhanbetov S.,	M. Auezov South	GREEN ECONOMY,
	Sultanbek T.,	Kazakhstan	VACUUM
	Temirbek A.,	University	RADIATORS
	Kozhakhmet A.,		
	Kenzhebay B.,		
	Duisebek A.		
11.	Omarbekov A.M.	L.N. Gumilyov Eurasian	ACADEMIC ACHIEVEMENTS
	Alzhanova E.E.	National University	QUALITY INFORMATION
	Ormanbek A.T.		TECHNOLOGY
			MONITORING

Section: "STEM in secondary school".

**Chairman:** Abildinova Gulmira Maratovna – Candidate of Pedagogical Sciences, Associate Professor of the Department of Computer Science of the Faculty of Information Technology.

**Secretary:** Sadvakasova Aigul Kadyrkhanovna – PhD, Acting Associate Professor of the Department of Computer Science

№	Author's name	University	Title of the article:
1.	Serik M., Akhmetova	L.N.Gumilyov Eurasian	SCHOOL
	B.	National University	STEM STUDENTS
			FOR PROJECTS
			Preparation

2.	Maksatov Shalkar Aldanbaiuli Karelkhan Nursaule	L.N. Gumilyov Eurasian National University	USING VIRTUAL REALITY TO TEACH THE SUBJECT "FUNDAMENTALS OF PARALLEL COMPUTING"
3.	Karymsakova A.E. Khasenova A.E.	L.N.Gumilyov Eurasian National University	METHODOLOGICAL BASICS APPLICATIONS OF ICT IN SUMMATIVE ASSESSMENT PER UNIT AND SUMMATIVE ASSESSMENT PER QUARTER IN ENGLISH LESSONS
4.	Hvatova V.A.	Institute of Education, Immanuel Kant Baltic Federal University	PEDAGOGICAL CONDITIONS FORMS CONSTRUCTIVE STUDENTS' SKILLS IN THE CLASSROOM GEOMETRY
5.	Bykovsky O.I.	Institute of Education, Immanuel Kant Baltic Federal University	PEDAGOGICAL CONDITIONS DOMAIN- LANGUAGE INTEGRATED LEARNING WITHIN THE FRAMEWORK OF STEAM EDUCATION IN HIGH SCHOOL
6.	Круглова М.А.,	Institute of Education, Immanuel Kant Baltic Federal University	PEDAGOGICAL CONDITIONS FOR ORGANIZING HACKATHON IN ADDITIONAL EDUCATION
7.	Shkilevich I.A.	Institute of Education, Immanuel Kant Baltic Federal University	ANIMATION AS A MEANS DEVELOPMENT CREATIVE ABILITIES SCHOOLCHILDREN IN STEAM CONTEXT- APPROACH

8.	Krasyuk V.V.	Institute of Education,	MAIN
		Immanuel Kant Baltic Federal	TRENDS
		University	REMOTE
			TRAINING IN
			CONDITIONS
			COVID-19 PANDEMICS
9.	Gaukhar Omashova,	M. Auezov South Kazakhstan	«PLASTIC RECYCLING
	Serik Zharmukhanbetov	University	USING ENERGY»

Section: "STEM in education: the experience of foreign teachers".

**Chairman:** Maxim G. Bondarev, Head of the Department of Primary Education, Academy of Psychology and Pedagogy, Southern Federal University.

**Secretary:** Akhmetova Balgyn – teacher of NIS.

№	ФИО автора	Университет	Название статьи
1.	Celal Karaca	Aksaray university.	EFFECT OF STEM IN COMPUTER SCIENCE EDUCATION
2.	Druze A.N., Manukyan A.A.	South Federal University, Rostov- on-Don, Russian Federation	PROJECT OVERVIEW, IMPLEMENTED IN FRAMEWORK STEM DEVELOPMENT- EDUCATION (EXPERIENCE IRISH REPUBLIC)
3.	Konyushenko S.M.	Institute of Education, Immanuel Kant Baltic Federal University	STEAM – PRACTICES: PEDAGOGICAL VIEW
4.	Parakhina O.V.,	Institute of Education, Immanuel Kant Baltic Federal University	STEAM APPROACH IN EDUCATION: PERSPECTIVES AND CHALLENGES
5.	Nosenko O.S.	Institute of Education, Immanuel Kant Baltic Federal University	EFFICIENCY INTERDISCIPLINARY ON LEARNING AS A FACTOR OF CHANGE PROFESSIONAL PEDAGOGICAL ACTIVITY

6	Kulagina A.O.	Institute of	LEARNING CONTENT	
	Kulagilia A.O.			
		Education,	FOREIGN LANGUAGE	
		Immanuel Kant	AT THE BASIC SCHOOL IN	
		Baltic Federal	THE CONTEXT OF THE PHENOMENAL-	
		University	ORIENTED	
			APPROACH	
7	Balashov N.A.,	Institute of	IMPLEMENTATION EXPERIENCE	
		Education,	STEAM PRACTICES IN	
		Immanuel Kant	ADDITIONAL	
		Baltic Federal	EDUCATION	
		University		
8.	Stolyarova I.V.	Institute of	INTERDISCIPLINARY	
		Education,	CONNECTIONS AS A MEANS	
		Immanuel Kant	PREPARATION FOR	
		Baltic Federal	THE THEORETICAL PART OF THE	
		University	OLYMPIAD ON	
		·	PHYSICAL CULTURE	
9.	Ananina S.A.	Institute of	STEAM PROJECT AS	
		Education,	TOOL	
		Immanuel Kant	FORMS	
		Baltic Federal	ENVIRONMENTAL	
		University	CULTURE	
			SCHOOLCHILDREN	
		Baltic Federal University		