



**STEM | STEAM | STREAM**

# **Approach in Theory and Practice of Contemporary Education**

31 May, 2024

University of Kragujevac

Faculty of Education in Jagodina, Serbia



## **AGENDA**

**9:00–10:00 Registration**

**10:00-10:15 Opening ceremony**

**10:15-11:15 Plenary sessions**

**11:15-11:30 Questions and Comments**

**11:30–12:00 Coffee break**

**12:00–13:00 Parallel sessions**

**13:00 – 14:00 Lunch break**

**14:00 – 15:00 Parallel sessions**

**15:00 – 15:30 Closing of the Conference and conclusions**



**10:00 – 10:15 Opening ceremony**

**10:15 – 11:15 Plenary sessions**

**Amphitheatre**

**Chair: Ivana Ćirković Miladinović**

**Carlise Womack Wynne**, University of North Georgia, USA

*Using STREAM to as a vehicle for laungage learning*

**Małgorzata Cichoń**, Adam Mickiewicz University in Poznań, Faculty of Geographical and Geological Sciences, Laboratory of Geography Didactics and Educational Research

*Creativity of students studying geography in Poland as a contribution to the discussion on the implementation of the STEAM concept*

**Jelena Joksimović & Jelena Starčević**, University of Kragujevac, Faculty of Education in Jagodina

*Learning - To Make, Making To Learn: STEAM Meets Maker Movement AND Drama Meets Science: Case Study Of Mathematheater*

**Aleksandra Filipović, Dušan Ristanović & Olivera Cekić-Jovanović**, University of Kragujevac, Faculty of Education in Jagodina

*Theoretical Foundations of Innovating The Teaching of Science Using Steam Concept of Education*

**Discussion**



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### **Online Session 1**

Chair: Ivana Ćirković Miladinović

Parameter for online access: <https://zoom.us/j/5390909717?pwd=SS9VaDVFaXgwWnpwSWUxMVlwM044UT09> Meeting ID: 539 090 9717 Passcode: 212216

#### **12:00 – 13:00 Parallel sessions**

1. **Dóra Dergez-Rippl PhD**, University of Pécs, Doctoral School of Philosophy, Faculty of Cultural Sciences, Education and Regional Development  
*Self-expression, reading experience and beyond – The pedagogical relevance of our mythological tradition*

2. **Mónika Bagota & Katalin Kulman**, ELTE Faculty of Primary and Pre-school Education, Mathematics Department  
*Measurements and adventures at the interface of mathematics and environmental education*

3. **Koureas Argyrios, Angeioplastis Athanasios, Tsimpiris Alkiviadis, Varsamis Dimitrios**, International Hellenic University, Department of Computer, Informatics and Telecommunications Engineering, **Natsikas Konstantinos**, Life Long Training Center, ComputerGr  
*Teaching History with the aid of Educational Robotics*

4. **Dali Dolidze**, Ilia State University Faculty of Business, Technology and Education  
*STEAM project-Interdisciplinary integration of music and physics*

#### **13:00 – 14:00 Lunch Break**

#### **14:00 – 15:00 Parallel sessions**

5. **Lana Skender**, Academy of Arts and Culture in Osijek  
*Attitudes of Croatian Visual Art Teachers towards the Effectiveness of Blended Learning*

6. **Natalija Drakulović, Škograd, Jelena Joksimović**, University of Kragujevac, Faculty of Education in Jagodina  
*Drama Meets Science: Case Study Of Mathematheater*

7. **Mira Jovanović, Sanja Vuletić, Ljiljana Stankov & Nataša Dubljanin**, Academy of Applied Studies Šabac  
*The role of the STEM/STEAM/STREAM approach in the professional development of lecturers in colleges for pre-school teacher's education*

#### **Discussion**



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### **Online Session 2**

Chair: Marija Stanojević Veselinović

Parameter for online access: <https://zoom.us/j/3312172193?pwd=TC8zSnhWU3FiUlFmOzNmY3JlQS3FRUT09> Meeting ID: 331 217 2193 Passcode: 973602

#### **12:00 – 13:00 Parallel sessions**

- 1. Antonija Raspopović Dragić, Danica Vasiljević-Prodanović & Jelena Vidojević**, University of Belgrade, Faculty of Special Education and Rehabilitation  
*The STREAM Approach as a Response to Contemporary Educational Challenges: The Role of Cognitive and Sociocultural Theoretical Frameworks*
- 2. Katarina Putica**, University of Belgrade, Faculty of Chemistry, Innovation center, Department of Chemical Education  
*Meta-analysis of the effects of STEM teaching approach on the development of 21st century competencies related to learning of natural sciences*
- 3. Sanja Blagdanić & Miroslava Ristić**, University of Belgrade, Faculty of Education  
*Curriculum potentials for STEM/STEAM approach in younger grades of elementary school in Serbia*
- 4. Aleksandra Ikonov, Katarina Šeravić Lovrak, Nataša M. Đorđević Paović & Jelica Mirosavić**, STEM Education Center  
*STEM certification as a didactic-methodological tool for professional development of teachers in STEM/STEAM/STREAM education*

#### **13:00 – 14:00 Lunch Break**

#### **14:00 – 15:00 Parallel sessions**

- 5. Časlav Stoiljković, Aleksandra Janković**, Academy of Vocational Studies Southern Serbia, Department of High School for Teachers Bujanovac, **Igor Đurić** University of Priština, Faculty of Philosophy in Kosovska Mitrovica, **Maja Filipović**, Academy of Vocational Studies Southern Serbia, Department of High School for Teachers Bujanovac  
*Professional Development of Preschool Teachers in the Function of Implementation of Steam Approach*
- 6. Danica Veselinov, Ljiljana Kelemen Milojević & Jasmina Mirković**, Preschool Teacher Training and Medical College in Vršac  
*Contextual Learning the contemporary preschool curriculum: reflections from practice*
- 7. Ivan Tomić & Katarina Tomić**, The Academy of Applied Preschool Teaching and Health Studies Kruševac  
*Use of Bee-Bot in the development of computational thinking in preschool children*

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**STEM | STEAM | STREAM**

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31 May, 2024  
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### **Parallel Sessions 1 (Room 1)**

Chair: Milan Milikić

#### **12:00–13:00 Parallel sessions**

- 1. Ivana Paula Gortan-Carlin & Marina Diković**, Juraj Dobrila University of Pula, Faculty of Educational Sciences, Croatia  
*Future Preschool Teachers' Intercultural Communication In The Context of Traditional Music*
- 2. Vera Savić**, University of Kragujevac, Faculty of Education in Jagodina, **Ana Živković**, Čegar Primary School Niš, Serbia  
*Integrating STEM into EFL Curriculum through STEM Day Activities: Learners' and Teachers' Perceptions*
- 3. Jelena Spasić, Milan Milikić**, University of Kragujevac, Faculty of Education in Jagodina, **Jelena Lukić**, University of Belgrade, Faculty of Education  
*The role of the STEMS concept on the development of language abilities and the functionality of knowledge from mathematics and nature and society*
- 4. Marija Stanojević Veselinović**, University of Kragujevac, Faculty of Education in Jagodina  
*The views of Foreign Language Teachers on STEM/STEAM/STREAM concept in Education*

#### **13:00 – 14:00 Lunch Break**

#### **14:00 – 15:00 Parallel sessions**

- 5. Tamara Bradonjić**, University of Kragujevac, Faculty of Education in Jagodina,  
*STEM approach for 21st century skills and interdisciplinary development - EFL teachers' attitudes*
- 6. Sandra Tasić**, University of Kragujevac, Faculty of Education in Jagodina,  
*Developing creative and critical thinking through STEAM projects in early English language learning: A case study*
- 7. Adisa Šahović Džanković, Selma Slezović Mehović & Goran Milanović**, University of Belgrade, Faculty of Education, Teaching department Novi Pazar  
*STEM Approach Implementation in the Integration of Teaching Contents of Natural and Social Sciences and English Language*

#### **Discussion**



**STEM | STEAM | STREAM**

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31 May, 2024  
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### **Parallel Sessions 2 (Room 2)**

Chair: Gordana Stepić

#### **12:00 – 13:00 Parallel sessions**

- 1. Nataša Vukićević, Emina Kopas-Vukašinović & Ivana Ćirković Miladinović**, University of Kragujevac, Faculty of Education in Jagodina  
*Music and Didactic Game in the STREAM Approach: From Creation to Outcome*
- 2. Gordana Stepić**, University of Kragujevac, Faculty of Education in Jagodina  
*Application of the STEAM learning model approach in educational practice*
- 3. Nedeljko Milanović & Andrijana Miletić**, University of Kragujevac, Faculty of Education in Jagodina  
*The Perception of The Parents of Students of The First Cycle of Primary Education According to the Stem Concept of Learning*

#### **13:00 – 14:00 Lunch Break**

#### **14:00 – 15:00 Parallel sessions**

- 4. Jelena Stošić Jović**, University of Niš, Faculty of Education in Vranje  
*The Significance of Modern Toys in an Interdisciplinary approach to the Teaching of Beginning Reading and Writing*
- 5. Marija Krstić Radojković**, University of Kragujevac, Faculty of Education in Jagodina,  
*The importance of early digital literacy of preschool children*
- 6. Emilija Popović, Jelena Veljković Mekić, Bojana Nikolić & Dragana Dragutinović**, Academy of Tehnical-Educational Vocational Studies Niš-Pirot  
*Presentation of the Project Musical For Children: A Fairy Tale from the Park*
- 7. Marta Dedaj**, Preschool Teacher Training and Business Informatics College of Applied Studies – Sirmium, **Jelena Ivančević**, Preschool institution „Poletarac“, Stara Pazova **Nataša Stevanić**, Preschool institution „Pčelica“, Sremska Mitrovica **Tijana Karganović**, Preschool institution „Kaja“, Ljig  
*The teacher's perspective on the application of the STEAM approach to learning in education*

#### **Discussion**





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### **Parallel Sessions 3 (Room 3)**

Chair: Nenad Stevanović

#### **12:00 – 13:00 Parallel sessions**

- 1. Aleksandra Mihajlović, Nenad Vulovic & Miloš Đorđević**, University of Kragujevac, Faculty of Education in Jagodina  
*Primary School Students Attitudes and Interest in Out-of-School Time STEAM Activities*
- 2. Milan Komnenović**, University of Kragujevac, Faculty of Education in Jagodina, **Miloš Stojadinović**, University of Niš, Faculty of Philosophy  
*Mapping the Landscape: A Comprehensive Analysis of Artificial Intelligence Integration in STEM Education through Mixed-Methods Approach*
- 3. Verica Milutinović, Ivana Obradović & Suzana Đorđević**, University of Kragujevac, Faculty of Education in Jagodina  
*Exploring Primary School Students' Motivation and Enjoyment in Learning Programming Through Gamification*
- 4. Nenad Stevanović**, University of Kragujevac, Faculty of Education in Jagodina  
*Educational potential of video games for application in STEAM/STREAM approach in teaching*

#### **13:00 – 14:00 Lunch Break**

#### **14:00 – 15:00 Parallel sessions**

- 5. Valentin Petroussenko**, Paisii Hilendarski University of Plovdiv  
*Challenges for the Student Centered Learning (SCL) within the environment of the fake information*
- 6. Andrej Ignjatić**, University of Zagreb, Faculty of Organization and Informatics, Varaždin, **Diana Božić**, University of Zagreb, Faculty of Transport and Traffic Sciences, Zagreb  
*A Case Study on STEM Problem-Based Learning Approach in Developing Competencies for Recognizing Phishing Emails*
- 7. Sanja Nikolić**, University of Kragujevac, Faculty of Education in Jagodina, **Jelena Marković**, Primary School Nada Popović Kruševac  
*Application of the STEAM Concept in the Flipped Classroom*

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### **Parallel Sessions 4 (Room 4)**

Chair: Ivana Milić

#### **12:00 – 13:00 Parallel sessions**

- 1. Snežana Mirasčieva, Emilija Petrova Gorgeva, Verica Josimovska & Daniela Koceva**, Goce Delcev University Štip, Faculty of Educational Sciences  
*Dimensioning of Strategies in Contemporary Educational Work in a Historical Context – From Comenius To STREAM*
- 2. Daliborka Popović, Božana Rašković**, University of Priština-Kosovska Mitrovica, Faculty of Education Prizren-Leposavić,  
*Self-assessment of the competencies of employees in educational institutions for the STEM concept of education*
- 3. Anđela Milovanović, Irena Golubović-Ilić & Slađana Stanković**, University of Kragujevac, Faculty of Education in Jagodina  
*Impact of STEM Concept Application on Prevention, Correcting And/Or Eliminating Students Misconceptions*
- 4. Ivana Milić & Jelena Mladenović**, University of Kragujevac, Faculty of Education in Jagodina  
*Students' Attitudes Towards The Implementation of the STEAM Approach of University Teaching*

#### **13:00 – 14:00 Lunch Break**

#### **14:00 – 15:00 Parallel sessions**

- 5. Aleksandar Ignjatović, Živorad Marković & Bojan Miloradović**, University of Kragujevac, Faculty of Education in Jagodina  
*The Role of Physical Education in STEAM Learning*
- 6. Aleksandar Milenković, Aleksandra Maksimović, Dragutin Ostojić & Dalibor Rajković**, University of Kragujevac, Faculty of Science  
*How high school students assess the importance of STEM workshops for acquiring new knowledge*
- 7. Vojislav Andrić**, Mathematical Club Diofant, Valjevo  
*One Methodical Approach to Modelling STEM Material for Learning and Teaching*

#### **Discussion**





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### **Amphitheatre**

**15:00 – 15:30 Closing of the Conference and conclusions**