

SCIENTIFIC PROGRAM

INTERNATIONAL SCIENTIFIC CONFERENCE
“INFORMATICS, MATHEMATICS,
EDUCATION AND THEIR
APPLICATIONS”

13 – 15 November 2024 · Pamporovo, Bulgaria

2024 **i**IMEA

www.imea2024.fmi-plovdiv.org

Organizer

Faculty of Mathematics and Informatics
Paisii Hilendarski University of Plovdiv

13.11.2024 • HALL A

15:00 - 15:20 Official opening of the conference

15:20 - 15:40 **Anniversaries**

15:40 - 16:00 **Anniversaries**

16:00 - 16:30 **Break**

16:30 - 18:00 **Seminar:** Stoyan Cheresharov, **ARTIFICIAL INTELLIGENCE IN EDUCATION – OPPORTUNITIES AND CHALLENGES**

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16:30 - 16:45 Georgi Iliev, **LEVERAGING AI IN SALESFORCE TO ENHANCE EDUCATIONAL PLATFORMS**

16:45 - 17:00 Angel Urilski, Rosen Hristev, **MIGRATING AN E-LEARNING SYSTEM FROM WINDOWS SERVER TO LINUX SERVER**

17:00 - 17:15 Ventsislav Dilyanov, **EXPERIMENTAL APPLICATION OF PEDAGOGICAL INNOVATIONS IN LABORATORY EXERCISES ON MMIS. OBSERVATIONS AND ANALYSIS OF THE RESULTS**

17:15 - 17:30 Roksana Filipova, **APPLICATION OF THE E-LEARNING SYSTEM CODE.ORG IN TEACHING THE SUBJECT OF COMPUTER MODELING IN 3RD AND 4TH GRADE**

17:30 - 17:45 Venche Mladenova, **THE VIRTUAL ENVIRONMENT AS A FACTOR FOR INCREASING THE MOTIVATION FOR LEARNING**

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09:30 - 09:45 Maria Vasileva, Nikolay Kyurkchiev, Tsvetelin Zaeovski, Anton Iliev, Vesselin Kyurkchiev, Asen Rahnev, **DYNAMICS OF A PLANAR MODEL: MELNIKOV'S APPROACH, APPLICATIONS**

09:45 - 10:00 Yordan Epitropov, Nako Nachev, **THE PROBLEM FOR ISOMORPHISM OF GROUP ALGEBRAS OF FINITE GROUPS OVER THE FIELD OF RATIONAL NUMBERS**

10:00 - 10:15 Sava Grozdev, Veselin Nenkov, Tatiana Madjarova, **TOUCHING CONICS GENERATED BY FEUERBACH CONFIGURATIONS AND HOMOTHETY**

10:15 - 10:30 Dimitar Nedanovski, Svetoslav Nenov, Dimitar Pilev, **FROM NONLINEAR LEAST SQUARES TO REFINEMENT OF THE CROSSOVER SELECTION IN THE DIFFERENTIAL EVOLUTION METHOD**

10:30 - 11:00 **Coffee Break**

11:00 - 11:20 **Plenary talk:** Gregory Makrides, **STEAME-ACADEMY: STEAME TEACHER FACILITATORS CERTIFICATION SUPPORTED BY EUROPEAN STEAME REGIONAL ACADEMIES**

11:20 - 11:40 **Plenary talk:** Boyan Bontchev, Valentina Terzieva, Elena Paunova-Hubenova, **PERSONALIZATION OF STEM EDUCATION**

11:40 - 12:00 **Plenary talk:** Dragomir Nedeltchev, Tsvetelin Zaeovski, **NOTE ON THE VOLATILITY STRUCTURE**

12:00 - 12:20 **Plenary talk:** Billur Kaymakcalan, **SOME RESULTS ON DELTA, NABLA AND DIAMOND ALPHA PACHPATTE TYPE DYNAMIC INEQUALITIES**

12:20 - 14:00 **Lunch Break**

14:00 - 14:15 Cvetelina Dinkova, Radostina Encheva, **SOME RELATIONS BETWEEN THE SHAPE CURVATURES OF A THREE-DIMENSIONAL FRENET CURVE AND ITS ASSOCIATED FOUR-DIMENSIONAL FRENET CURVE**

- 14:15 - 14:30** Mancho Manev, Hristo Manev, Asen Hristov, EDUCATIONAL STANDARDS OF A NEW MASTER'S DEGREE PROGRAM IN BIOSTATISTICS
- 14:30 - 14:45** Todor Atanasov, Todorka Terzieva, MICROLEARNING USING IT TOOLS – CONCEPT AND BENEFITS
- 14:45 - 15:00** Todorka Terzieva, Angel Golev, THE DUECOS PROJECT – SMART TECHNOLOGIES AND MODELLING OF PROCESSES IN EDUCATION
- 15:00 - 15:20** **Plenary talk:** Preslav Nakov, FIGHTING DISINFORMATION IN THE ERA OF LARGE LANGUAGE MODELS
- 15:20 - 15:35** Dobrinka Boykina, Todorka Glushkova, Vanya Ivanova, Marta Teofilova, Boyan Zlatanov, SOME IDEAS FOR THE TRAINING OF STUDENT TEACHERS FOR STEAME EDUCATION
- 15:35 - 15:50** Ivaylo Staribratov, Todorka Glushkova, THE RELATIONSHIP BETWEEN DIGITAL, MATHEMATICAL AND LINGUISTIC LITERACY IN PROGRAMMING EDUCATION: RESEARCH AND CONCLUSIONS
- 15:50 - 16:15** **Coffee Break**
- 16:15 - 16:30** Marta Gardeva, Vanya Ivanova, Denitsa Katsarska, Marija Lesovska, WAYS TO ENHANCE THE ENGLISH FOR SPECIFIC PURPOSES CLASSROOM
- 16:30 - 16:45** Vera Shopova, Ivan Dimitrov, STEM AND ARTIFICIAL INTELLIGENCE IN EDUCATION: TRANSFORMING PRIMARY SCHOOL LEARNING THROUGH INNOVATION
- 16:45 - 17:00** Ivelina Velcheva, FROM IDEA TO PRESENTATION: ARTIFICIAL INTELLIGENCE SUPPORTING EDUCATORS

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- 09:30 - 09:45** Georgi Hristov, PROGRAMMING IN PRIMARY EDUCATION AND BUILDING 21ST CENTURY COMPETENCIES
- 09:45 - 10:00** Vladimir Tirolski, ANALYSIS OF EDUCATION ON FINANCIAL LITERACY AROUND THE WORLD AND BULGARIA
- 10:00 - 10:15** Muharem Mollov, TEACHER QUALIFICATION FOR COMPETENCY-BASED COLLABORATIVE LEARNING
- 10:15 - 10:30** Kosta Garov, Stefka Aneva, Elena Todorova, TEACHING PROGRAMMING IN TEACHER TRAINING
- 10:30 - 11:00** **Coffee Break**
- 11:00 - 11:15** Nikola Valchanov, INGESTION AND ANALYSIS OF DATA FROM WEARABLE DEVICES
- 11:15 - 11:30** Nikolay Pavlov, Veselina Naneva, Youri Yanakiev, WEB PORTAL FOR STRESS LEVEL AND BURNOUT RESILIENCE ASSESSMENT FOR SCHOOL TEACHERS IN BULGARIA
- 11:30 - 11:45** Simeon Monov, Detelinka Trifonova, Nikolay Pavlov, Andrey Nikolov, BULGARIAN SQUAD AND RACE QUESTION-ANSWERING DATASETS
- 11:45 - 12:00** Simeon Monov, Zlatomila Mincheva, Nikolay Pavlov, SYNTHETIC TIME SERIES DATA IN RESTAURANTS' SUPPLY CHAIN PLANNING
- 12:00 - 14:00** **Lunch Break**
- 14:00 - 14:15** Simeon Monov, Emre Myumyun, Nikolay Pavlov, Andrey Nikolov, QUESTION CONTEXT RETRIEVAL, BASED ON TOC LOOKUP IN QUESTION GENERATION AND TESTING SYSTEMS
- 14:15 - 14:30** Nikolay Pavlov, Simeon Monov, Miglena Dodleva, Maria Dobрева, EFFICIENCY COMPARISON OF LLMS IN INFORMATION EXTRACTION FROM INSURANCE POLICY DOCUMENTS

- 14:30 - 14:45** Todorka Glushkova, Konstantin Rusev, CONTEXT-AWARE MODELING OF DYNAMIC RESOURCE MANAGEMENT IN CLOUD INFRASTRUCTURE
- 14:45 - 15:00** Evgeni Valchev, Todorka Glushkova, AN INFRASTRUCTURE APPROACH TO BUILDING AN IOT ECOSYSTEM FOR AGRICULTURE"
- 15:00 - 15:15** Viktor Matanski, Anton Iliev, Todorka Terzieva, GENERATIVE VISUALIZATION – PROFESSIONAL STUDENT TRAINING
- 15:15 - 15:30** Stefani Paunova, Vladimir Valkanov, Angel Georgiev, CONCEPTUAL ARCHITECTURE OF AN AUTOMATED SYSTEM FOR ASSESSING STUDENTS' ASSIGNMENTS
- 15:30 - 16:00** **Coffee Break**
- 16:00 - 16:15** Asya Stoyanova-Doycheva, Todorka Glushkova, Maria Grancharova, APPROACH FOR GENERATING TEST QUESTIONS IN BULGARIAN FROM ONTOLOGIES
- 16:15 - 16:30** Veneta Tabakova-Komsalova, Stanimir Stoyanov, Ivan Stoyanov, Laska Kostadinova-Tzankova, AN ATTEMPT TO CREATE A METHODOLOGY FOR THE STUDY OF MODERN ARTIFICIAL INTELLIGENCE
- 16:30 - 16:45** Magdalena Maglizhanova, Veneta Tabakova-Komsalova, Stanimir Stoyanov, Laska Kostadinova-Tsankova, INTERACTIVE PLATFORM FOR TEACHING AND ASSESSING STUDENTS IN LOGIC PROGRAMMING WITH PROLOG: AUTOMATED CREATION OF KNOWLEDGE BASES AND RULES
- 16:45 - 17:00** Maya Stoeva, THE EVOLUTION OF DESIGN SYSTEMS AND UI/UX TECHNIQUES

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- 09:30 - 09:45** Angel Golev, Valia Arnaudova, NOTES ON A MODIFIED PLANAR MODEL: INTRINSIC PROPERTIES, SIMULATIONS
- 09:45 - 10:00** Gergana Koleva, ELECTRONIC TOOLS TO HELP CHILDREN WITH COMMUNICATION DISABILITIES
- 10:00 - 10:15** Angel Urilski, Valia Arnaudova, IMPROVING SECURITY AND ACCESSIBILITY OF E-LEARNING AND RESEARCH SYSTEMS
- 10:15 - 10:30** Kremena Stefanova, Veselina Naneva, POWER BI CONNECTORS FOR ENHANCED DATA INTEGRATION

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Clarification

Hall A is the big conference hall on Floor 1.

Hall B is the small conference hall on Floor 5 next to Lobby.