National Academy of Educational Sciences of Ukraine
The Institute for Digitalisation of Education of NAES of Ukraine
Taras Shevchenko National University of Kyiv
Kaunas University of Technology (Lithuania)
Pan-European University (Slovakia)











### **CONFERENCE PROGRAM**

# IV INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE IMMERSIVE TECHNOLOGIES IN EDUCATION (ITE-2024)

**April 30, 2024** 

(hybrid format)

Languages: Ukrainian, English



#### PROGRAM COMMITTEE

*Oleh Spirin*, Doctor of Education, Professor, Corresponding Member of the NAES of Ukraine, Director of the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

*Valeriy Bykov*, Doctor of Technical Sciences, Professor, Academician of the NAES of Ukraine, Honored Worker of Science and Technology of Ukraine, Honorary Director of the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

*Svitlana Lytvynova*, Doctor of Education, Senior Researcher, Deputy Director for Science, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

*Olha Pinchuk*, PhD, Senior Researcher, Deputy Director for Scientific Experimental Work, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

Ján Lacko, PhD, RNDr, Dean of Faculty of Informatics Pan-European university (Slovakia).

Tomas Blažauskas, Dr., Professor, Kaunas University of Technology (Lithuania).

#### ORGANIZATIONAL COMMITTEE

*Oleksandr Burov*, Doctor of Technical Sciences, Senior Researcher, Leading Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

*Yuliia Nosenko*, PhD, Senior Researcher, Head of the Department, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

*Nataliia Soroko*, PhD, Leading Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

*Oleksandra Sokolyuk*, PhD, Senior Researcher, Leading Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

*Alisa Sukhikh*, PhD, Senior Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

#### COORDINATORS

*Yuliia Nosenko*, PhD, Senior Researcher, Head of the Department, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

*Nataliia Soroko*, PhD, Leading Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

#### TECHNICAL SUPPORT

*Vitaliy Tkachenko*, Senior Engineer, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

The purpose of the conference is to develop theoretical foundations and exchange practical experience of using immersive technologies in the educational process of educational institutions of different levels.

#### **CONFERENCE ISSUES**

- 1. Methodology of pedagogical activities with the use of immersive technologies in educational activities.
  - 2. Immersive technologies in STEM/STEAM education.
- 3. Theoretical-methodological and psychological-pedagogical aspects of using immersive technologies in educational institutions.
  - 4. Augmented reality technologies in education.
  - 5. Virtual reality technologies in education.
  - 6. Measuring the impact of immersive technologies on learning outcomes.
- 7. Health-preserving aspect of using immersive technologies in the educational process.
  - 8. Assessing the quality of educational material with augmented reality.
  - 9. Artificial Intelligence in education.

#### **CONFERENCE CONDITIONS**

Language: Ukrainian, English.

Forms of participation: offline, online (remote).

Forms of presentation: plenary report, sectional report, message.



Site of the Conference:

https://sites.google.com/view/ite2024/



#### **REGULATIONS**



- ▶ Plenary report up to 15 minutes
- ► Section report up to 15 minutes
- ► Message up to 5 minutes



Please note that the schedule of the conference is indicated in Kyiv time (UTC+2 (Kyiv time)

#### **AGENDA**

10:30-11:00 (Kyiv Time) – test connection

#### Join Zoom Meeting

https://us02web.zoom.us/j/89370371653?pwd=d0tFUXZzSUFpNUlkdzBrd1N3Q0JDQT09

Meeting ID: 893 7037 1653

Passcode: 552859



11:00 – 12:45 (Kyiv Time) – the 1st plenary session: opening of the conference

12:45 – 13:00 (Kyiv Time) – Break

13:00 – 15:00 (Kyiv Time) – Section session

15:00-15:30 (Kyiv Time) – the  $2^{nd}$  plenary session: summarizing the results of the conference

## 1<sup>st</sup> PLENARY SESSION: OPENING OF THE CONFERENCE 11:00 – 13:00 (Kyiv Time)

# 11:00-11:15 (Kyiv Time) – Opening of the conference, greetings to the participants

- ▶ *Oleh Spirin*, Doctor of Education, Professor, Corresponding Member of the NAES of Ukraine, Director of the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).
- ► *Valeriy Bykov*, Doctor of Technical Sciences, Professor, Academician of the NAES of Ukraine, Honored Worker of Science and Technology of Ukraine, Honorary Director of the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine).

#### 11:15 – 12:45 (Kyiv Time) – Reports at the plenary session

- ► Educating Teachers on Integrating Extended Reality. Speaker: Ján Lacko, PhD, RNDr, Dean of Faculty of Informatics Pan-European university (Slovakia) in English.
- ▶ Modern Perception of Virtual Reality Technology. Speaker: *Vyacheslav Osadchy*, Doctor of Education, Professor, Honored Worker of Science and Technology of Ukraine, Dean of the Faculty of Economics and Management, Borys Grinchenko Kyiv Metropolitan University (Ukraine) *in Ukrainian*.
- ► The Role of Educational Projects Utilizing Immersive Technologies and Game Development for Teaching Japanese Language to Philology Students. Speaker: Olena Gayevska, PhD in Philology, Assistant Professor, Taras Shevchenko National University of Kyiv (Ukraine) in English.
- ► Augmented Reality in the Transformation of Education: Prospects and Challenges. Speaker: *Nataliia Sokolova*, PhD, Assistant Professor, Dnipro University of Technology (Ukraine) *in Ukrainian*.
- ▶ XR & AI: Reality of the Synthetic World. Speakers: *Oleksandr Burov*, Doctor of Technical Sciences, Senior Researcher, Leading Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Ukraine). *Nataliia Kovalenko*, Doctor of Education, Professor, University of Vienna (Austria) *in English*.
- AI in Education: Challenges, Threats, Opportunities. Let's think this through together? Speaker: *Yuriy Bohachkov*, PhD, Senior Researcher, specialist of the highest category of the Department of Educational Measurements, State Institution "Scientific and Methodological Center of Higher Professional and Pre-Higher Education" (Ukraine) *in Ukrainian*.

#### SECTION SESSION

#### 13:00 – 15:00 (Kyiv Time)

Using virtual reality technologies for full-body tracking in ice hockey training. Speakers: *Tomas Blažauskas*, Dr., Professor, Kaunas University of Technology (Kaunas, Lithuania). *Cenker Canbulut*, PhD Student, Kaunas University of Technology (Kaunas, Lithuania) – *in English*.

**Virtual reality systems for patient rehabilitation, theoretical-methodological Aspects.** Speakers: *Ružický E., Lacko J., Kozák Š, Štefanovič J, Šramka M.* Pan-European University (Bratislava, Slovakia) – *in English*.

The role and place of future competencies in the context of digital technology development. Speaker: *Krzysztof F. Simela*, Doctor of Humanities in the field of Pedagogy, Director of the Center for Research in Vocational Education and Innovation Management of the Lukasiewicz Research Network – Institute of Exploitation Technology (Radom, Poland) – *in English*.

A system for truck driver training using immersive virtual reality. Speakers: Speakers: *Tomas Blažauskas*, Dr., Professor, Kaunas University of Technology (Kaunas, Lithuania). *Lukas Paulauskas*, PhD Student, Kaunas University of Technology (Kaunas, Lithuania) – *in English*.

Training of future marketers for using information systems in professional activities. Speaker: *Volodymyr Dyvak*, PhD, Assistant Professor, State University of Trade and Economics (Kyiv, Ukraine) – *in Ukrainian*.

Evaluation of the impact of virtual reality on the process of learning a foreign language in a higher education institution. Speaker: *Lesya Matvienko*, PhD, Assistant Professor, Poltava State Agrarian University (Poltava, Ukraine) – *in English*.

Gemini as alternative to ChatGPT in the educational process of general school. Speaker: *Marienko Maya*, Doctor of Education, Senior Researcher, Leading Researcher of the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

Using the content of the AR Book platform to implement immersive blended learning. Speaker: *Svitlana Lytvynova*, Doctor of Education, Senior Researcher, Deputy Director for Science, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

**Peculiarities of using immersive technologies in medical education.** Speaker: *Yuliia Holovchuk*, PhD (in economics), Deputy of the Vinnytsia City Council (Vinnitsa, Ukraine). *Hanna Palagnyuk*, PhD (in medicine), Assistant Professor, Vinnytsia National Medical University named after M. Pirogov (Vinnitsa, Ukraine) – *in Ukrainian*.

The impact of artificial intelligence on education. Speakers: *Liliia Desyatnyuk*, Lecturer of Bogomolets National Medical University (Kyiv, Ukraine). *Valery Zhigalo*, student of Bogomolets National Medical University (Kyiv, Ukraine) – *in Ukrainian*.

Artificial intelligence in primary education. Speaker: *Artur Andrusyk*, primary school teacher, Methodist teacher, Kryvyi Rih Gymnasium  $\mathfrak{N}_{2}$  91 (Kryvyi Rih, Ukraine) – *in Ukrainian*.

The place of immersive technologies in teaching English written communication. Speaker: *Boyko Oksana*, PhD student, Zaporizhzhya National University (Zaporizhzhia, Ukraine) – *in Ukrainian*.

Augmented reality tools in the professional training of future mathematics teachers. Speaker:  $Titova\ Lyubov$ , lecturer at the Department of Informatics and ICT, Uman State Pedagogical University named after Pavlo Tychyna (Uman, Ukraine) –  $in\ Ukrainian$ .

Expanding the limits of the possible: the impact of augmented reality technologies on the educational process. Speaker: *Daniil Doroshenko*, Oles Honchar Dnipro National University (Dnipro, Ukraine) – *in English*.

Artificial intelligence in the analytical activities of libraries: the educational role of scientists. Speaker: *Mykola Sanakuev*, Senior Researcher, Operational Information Department of the Information and Analytical Support Service, Vernadsky National Library of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

Peculiarities of analysis of psycho-emotional state for adaptation of immersive experience. Speaker: *Volodymyr Silantiev*, PhD student, Kharkiv National University of Radio Electronics (Kharkiv, Ukraine) – *in Ukrainian*.

Integration of immersive technologies into medical biology curriculum for better comprehension of complex concepts. Speaker: *Olga Yastrebova*, Assistant Lecturer, Ivano-Frankivsk National Medical University (Ivano-Frankivsk, Ukraine) – *in English*.

Using metaverse for steam education. Speaker: *Nataliia Soroko*, PhD, Leading Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in English*.

Immersive learning technologies as a component of the student's immersive mathematical environment. Speaker: *Nataliia Rashevska*, PhD, Assistant Professor, Senior Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

Methodical tools for the use of immersive technologies in vocational education institutions. Speaker: *Nataliia Pavenko*, Methodist, Educational and Methodological Center of Vocational and Technical Education in Donetsk region (Kramatorsk, Ukraine) – *in Ukrainian*.

**Peculiarities of teaching disciplines related to artificial intelligence**. Speakers: *Godlevsky Yuriy*, «Infopulse» Company (Zhytomyr, Ukraine). *Vakalyuk Tatyana*, Doctor of Education, Professor, Head of Department, Zhytomyr Polytechnic State University (Zhytomyr, Ukraine) – *in Ukrainian*.

Implementation of means of immersive technologies in the educational **process.** Speaker: *Oleksandra Sokolyuk*, PhD, Senior Researcher, Leading Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) -in *Ukrainian*.

**Electronic publications with augmented reality as a component in practical psychology.** Speakers: *Oleksandr Bobrachuk*, PhD, Head of the Department, National Aviation University (Kyiv, Ukraine). *Olena Matviychuk-Yudina*, PhD, Assistant Professor, National Aviation University (Kyiv, Ukraine). *Victoria Shvydchenko*, Senior Lecturer, National Aviation University (Kyiv, Ukraine) – *in Ukrainian*.

**Digital tools for successful communication between teachers and students: opportunities and prospects.** Speaker: *Oksana Ovcharuk*, Doctor of Education, Professor, Head of the Department, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

Experience in creating virtual tours using 360° video technology in educational projects. Speakers: *Oleksandr Bobrachuk*, PhD, Head of the Department, National Aviation University (Kyiv, Ukraine). *Svitlana Denisenko*, PhD, Assistant Professor of the National Aviation University (Kyiv, Ukraine). *Svitlana Halchenko*, PhD, Assistant Professor of the National Aviation University (Kyiv, Ukraine) – *in Ukrainian*.

An information environment supporting the interaction of STEM communities. Speakers: *Yuriy Bohachkov*, PhD, Senior Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine). *Pavlo Ukhan*, PhD, Senior Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine). *Dymiy Iryna*, teacher of Rudkivska School named after V. Zerebnyi (Rudky, Lviv Region, Ukraine) – *in Ukrainian*.

**Technologies of augmented reality in history education.** Speaker: *Volodymyr Nazarenko*, teacher of Kryvyi Rih Lyceum "KOLIYA" (Kryvyi Rih, Ukraine) – *in Ukrainian*.

Application of innovative AI-technologies in the process of training future specialists of vocational and technological education. Speaker: *Nataliia Nahorna*, PhD, Assistant Lecturer, Poltava V.G. Korolenko National Pedagogical University (Poltava, Ukraine) – *in Ukrainian*.

Innovative approaches to the development of advertising booklets for educational institutions. Speakers: *Olena Matviychuk-Yudina*, PhD, Assistant Professor, National Aviation University (Kyiv, Ukraine). *Kurilo Daria*, student of National Aviation University (Kyiv, Ukraine) – *in Ukrainian*.

A revolution in language learning: research on the integration of virtual reality technologies in philological education. Speaker: *Olha Kurbanova*, doctoral student of the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

Immersive Lesson Craft: a new generation in IM education as a key to the formation of the cognitive orientation of university students. Speaker: *Kateryna Brovko*, Senior Lecturer, Borys Grinchenko Kyiv Metropolitan University (Kyiv, Ukraine) – *in Ukrainian*.

Organization of project activities of students of vocational pre-higher education with the use of artificial intelligence. Speaker: *Olesya Kiselova*, PhD, Assistant Professor, Municipal Establishment "*Kharkiv Humanitarian-Pedagogical Academy*" (Kharkiv, Ukraine) – *in Ukrainian*.

**Didactic potential of virtual reality technology in the system of practical training of future pedagogues.** Speakers: *Olena Martsenyuk*, Dean of the Phylology Faculty. *Natalia Myslytska*, Head of Department of Natural Sciences and Mathematics. *Ruda Tatiana*, College Methodist. Communal institution of higher education "Vinnitsa Humanitarian and Pedagogical College" (Vinnitsa, Ukraine) – *in Ukrainian*.

Immersive Technologies in Education: Benefits and Challenges for Cyber Security. Speaker: *Tetiana Osypchuk*, PhD student of the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

Modern trends in the use of immersive technologies in educational institutions: by the results of statistical reports. Speaker: *Yuliia Nosenko*, PhD, Senior Researcher, Head of the Department, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in English*.

**Possibilities of using the Assembler Edu platform in the educational process of general school.** Speaker: *Olha Slobodyanik*, PhD, Senior Researcher of the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

Innovative approaches to learning: international experience of using immersive technologies in schools. Speaker: *Alisa Sukhikh*, PhD, Senior Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

**Prospects for the use of immersive technologies and artificial intelligence in blended learning**. Speakers: *Horbachenko Volodymyr*, Junior Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine). *Serhii Batsenko*, Junior Researcher, the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

**Software tools with artificial intelligence for creating electronic music.** Speakers: *Oleksandr Kovalenko*, PhD student. *Anna Iatsyshyn*, Doctor of Education, Senior Researcher, Leading Researcher of the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

Augmented Reality in the Transformation of Education: Prospects and Challenges. Speaker: *Nataliia Sokolova*, PhD, Assistant Professor, Dnipro University of Technology (Ukraine). *Nataliia Vodopyan*, PhD student of the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

Web-oriented systems for the formation of the conceptual and terminological apparatus of pedagogy and psychology with elements of artificial intelligence. Speaker: *Anna Iatsyshyn*, Doctor of Education, Senior Researcher, Leading Researcher of the Institute for Digitalisation of Education of NAES of Ukraine (Kyiv, Ukraine) – *in Ukrainian*.

2<sup>nd</sup> PLENARY SESSION: SUMMARIZING THE RESULTS OF THE CONFERENCE 15:00 – 15:30 (Kyiv Time)