

V International Conference on Digital Education at Environmental Universities

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Abstract. This is an introductory text to a collection of selected papers from the V International Conference on Digital Education at Environmental Universities (DEEU 2018), held in Kyiv, Ukraine, on October 17–18, 2018.

Keywords: Digital Education at Environmental Universities, DEEU 2018

1. DEEU 2018 in a glance



The V International Conference on *Digital Education in Environmental Universities* (DEEU 2018) was held at the National University of Life and Environmental Sciences (NULES) of Ukraine, Kyiv, Ukraine, on October 17–18, 2018. The founders of the conference were the National University of Life and Environmental Sciences of Ukraine and the Wroclaw Environmental and Life Sciences University; the Institute for Digitalisation of Education of the National Academy of Educational Sciences of Ukraine acted as a co-organizer of DEEU 2018.

DEEU 2018 topics of interest were:

- the key role of digital competence in the knowledge society
- e-learning resources and services at environmental universities
- formation of digital competencies in e-learning
- communication and collaboration with the business
- STEM education and the Internet of Things at environmental universities

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Figure 1: DEEU 2018 opening.

This volume represents the proceedings of the DEEU 2018. It comprises 5 contributed papers [1–5] that were carefully peer-reviewed and selected from 48 submissions. Each submission was reviewed by 2 program committee members. The accepted papers present the state-of-the-art overview of successful cases and provides guidelines for future research.

2. DEEU 2018 Committees

2.1. Program Committee

- **Stanislav Nikolayenko**, Rector, D.Sc., Professor, NULES of Ukraine (figure 3)
- **Josef Sovinsky**, Vice-Rector for Students and Education, D.Sc., Professor, Wroclaw Environmental and Life Sciences University
- **Serhii Kvasha**, Vice-Rector for Educational Activities, D.Sc., Professor, NULES of Ukraine
- **Valery Bykov**, D.Sc., professor, Director, Academician of the National Academy of Educational Sciences of Ukraine, Institute for Digitalisation of Education of the National Academy of Educational Sciences of Ukraine (figure 5)
- **Andrii Gurzhii**, D.Sc., Professor, Academician of the National Academy of Educational Sciences of Ukraine
- **Olena Glazunova**, D.Sc., Dean of the Faculty of Information Technology, NULES of Ukraine (figure 4)



Figure 2: DEEU 2018 conference information bundle.

- **Natalia Morze**, D.Sc., Professor, Vice-Rector on Informational Technologies, Borys Grinchenko Kyiv University
- **Arkadiusz Orlovsky**, D.Sc., Professor, Warsaw University of Life Sciences
- **Danuta Parilak**, D.Sc., Professor, Wroclaw Environmental and Life Sciences University
- **Olena Kuzminska**, D.Sc., Professor, Head of the Department of Information and Distance Technology, NULES of Ukraine (figure 6)
- **Eugenia Smirnova-Trybulska**, Doctor Sciences, Professor, University of Silesia
- **Marcin Glowacki**, Ph.D., Wroclaw University of Science and Technology
- **Dmytro Kasatkin**, Ph.D., Associate Professor, Head of the Department of Computer Systems and Networks, NULES of Ukraine



Figure 3: Stanislav Nikolayenko.



Figure 4: Olena G. Glazunova.

- **Krzysztof Piecarchar**, Doctor of Philosophy, Wroclaw Environmental and Life Sciences University



Figure 5: Valerii Yu. Bykov.



Figure 6: Olena H. Kuzminska.



Figure 7: DEUU 2018 committee members (left to right): Olena H. Kuzminska, Viacheslav V. Osadchyi, Svitlana V. Ahadzhanova, Valerii Yu. Bykov, Oleksandra M. Sokolyuk, and Anna V. Iatsyshin.

- **Tomas Valasek**, Ph.D., Czestochowa Polytechnic University
- **Marchen Davobrsky**, Ph.D., President of the Academic Association e-learning, Warsaw School of Economics
- **Yuriy Danko**, Doctor of Economics, Professor, Vice-Rector for Scientific Work, Sumy National Agrarian University
- **Pavel Navitski**, PhD (Cand. of sc.), Associate Professor, Belarusian State Agricultural Academy
- **Anna Stanislavskaya-Mishka**, Krakow University of Economics
- **Maria Wilkins**, Warsaw University of Life Sciences



Figure 8: Joanna Markowska.

2.2. Organizing Committee

- **Vadym Tkachuk**, D.Sc., Vice-Rector for Scientific and Pedagogical Work, International Activities and Development, NULES of Ukraine
- **Tetyana Ishchenko**, Ph.D., Professor, Director, Scientific and Methodological Center “Agro-Education”
- **Volodymyr Naditiko**, Vice-Rector for Scientific Work, Doctor of Technical Sciences, Professor, Tavria State Agrotechnological University
- **Olexandr Novikov**, doctor of sciences, Vice-rector for scientific work, Mykolayiv National Agrarian University
- **Oleksii Tkachenko**, Ph.D., Associate Professor, Deputy dean for scientific work, NULES of Ukraine
- **Anna Iatsyshyn**, Ph.D., Senior Researcher, Deputy Director for Scientific Work, Institute for Digitalisation of Education of the National Academy of Educational Sciences of Ukraine
- **Joanna Markowska**, Ph.D., Center for Distance Learning, Wroclaw Environmental and Life Sciences University (figure 8)
- **Vasyl Shynkaruk**, D.Sc., Professor, Dean of the Humanities and Pedagogical Faculty, NULES of Ukraine
- **Svitlana Agadzhanova**, Ph.D., Associate Professor, Head of the Distance Technology Center, Sumy National Agrarian University

- **Natalia Yurchuk**, Ph.D., Associate Professor, Vinnytsia National Agrarian University
- **Jerzy Mishke**, Professor, Independent Consultant, Academic Association e-learning
- **Olesia Viktorova**, D.Sc., Professor, Head of the Department of Social Pedagogy and Information technologies in education, NULES of Ukraine
- **Maxim Mokriyev**, Ph.D., Associate Professor, Head of the Distance Technology Center, NULES of Ukraine
- **Jacek Markowski**, Ph.D., Center for Distance Learning, Wroclaw Environmental and Life Sciences University
- **Viacheslav Shebanin**, Rector, D.Sc., Professor, Mykolayiv National Agrarian University
- **Kateryna Tuzhyk**, Ph.D., Associate professor of the Department of Economic Cybernetics, NULES of Ukraine
- **Tetyana Voloshyna**, Ph.D., Senior Lecturer of the Department of Information and Distance Technology, NULES of Ukraine
- **Monika Brzakola**, Distance Learning Center, Wroclaw Environmental and Life Sciences University

3. DEUU 2018 selected papers overview

E-learning and lifelong learning are considered to be important factors in the knowledge-based society. Synchronous online learning is both a conscious choice of modern universities and a necessity brought about by globalization. The materials of the article “Synchronous learning in online course: a necessity or choice?” [3] by Joanna Markowska and Izabela Kraśniewska are devoted to the issues of justifying the use of synchronous online learning at Wroclaw University of Environmental and Life Sciences (WUELS), as well as the selection and expert evaluation of the effectiveness of using ICT to support it. Two main processes have been identified to improve and develop: process of Educating / teaching employees, people interested in raising their qualifications, candidates for studies and Communication of the current and future clients of the university. The stages of the choice of the tools to support the implementation of selected processes are highlighted. To select tools we based on the following criteria: availability, some initial familiarization with the tool, the functions offered, friendly and aesthetic interface, technical support, the possibility of cooperation with the Moodle platform. As a result, to support synchronous online learning in WUELS was selected was a live stream was on YouTube, Skype, an E-science platform and Click Meeting. The effectiveness of the use of the Polish commercial service ClickMeeting has been proven.

The role of universities has been changing over last decades. In the modern society the Humboldtian model of higher education is quite obsolete concept. As a result of competition and globalization, the universities have to be adapted. The question is: how? We have to create The Thrid Generation University that aims to not only learn and research but also to collaborate with industries. Thus IN this collaboration not only university would be a „winner”, but also this kind of partnership can be beneficial for the business environment. The article “Win-win – towards the Third Generation. Case study of Wroclaw Environmental and Life Sciences University” [2] by Joanna Markowska, Sylwia Alicja Biały and Martyna Burdzy reports



Figure 9: DEUU 2018 highlights, part 1.



Figure 10: DEUU 2018 highlights, part 2.



Figure 11: DEUU 2018 highlights, part 3.

on a case study of Wrocław University of Environmental and Life Sciences in the moment of transformation. The activity of WUELS will serve as an example – and will be also a basis to analyze the model of knowledge transfer.

The article “Business and university collaboration: how partnership leads to gaining key competences by graduates?” [1] by Sylwia Alicja Biały, Jacek Markowski and Monika Brzakala explores the role of business environment in connection between students and the labour market. Many employers claimed graduates do not possess essential skills that allow them to adapt effectively in the work environment. It is not caused by new workers’ lack of knowledge or their not proper technical skills, but it is rather fault of their lack of drive and work ethic. University is often blamed for mismatch between student’s skills and demands of the labour market. As a partner in education reform, the business environment can help students with gaining key competencies and skills.

Digital education can supply the framework to support new learning approaches that engage students, bolster new revenue streams, develop with business collaboration, cut operational costs and preserve highly valued school and university brands and reputations. Effective digital transformation isn’t just about technology, though. It requires a willingness to adopt technology in new ways, beyond administrative process. The article actualizes the need to solve the problem mismatch between potential employer expectations and how universities prepare students for the future workforce. The factors that change digital technologies are determined. Approaches to creation next-generation learning environments that effectively prepare students for the future by offering access to the tools they need to prepare for the workplace while also providing a fulfilling learning experience are described in the article “Digital education: risks or benefits with business collaboration” [5] by Kateryna Tuzhyk and Olesia Moroz.

Already today, the spread of the IoT network is gaining momentum. The obvious benefits of connecting IP in the daily life of society are monetized in a significant reduction in costs, and therefore relevant. In addition, the use of such technologies leads to the actualization of certain skills of IoT users, the emergence / development of new competencies, the formation of which, in our opinion, can be done at the first year of higher education or even secondary education. The article gives examples of the use of digital measuring computer systems Einstein, LabDisc, Pasco, Relab, L-micro, FourierEdu – NOVA Link, NOVA 5000, COBRA 4. The advantages of working with digital equipment for teachers and students are identified in the article “Use of digital educational equipment experiment as a current problem of environmental education” [4] by Olga P. Pinchuk and Oleksandra M. Sokolyuk. The ways of IoT development, as well as the implementation of his ideas in the educational process are outlined.

4. DEEU 2018: Conclusion

DEEU 2018 would not have been possible without the support of many people. We would like to thank all the authors who submitted both abstracts and full papers to our conference and thus demonstrated their interest in the research problems within our scope (<https://youtu.be/idph86GmuJo>, <https://youtu.be/BpIBNnqVujs>). We are also very grateful to the members of our program committee for providing timely and thorough reviews and being cooperative in doing additional review work. We would like to thank the local organizers of the conference,

and the technical support team for their valuable service and help. Special thanks go to the sponsors of DEEU 2018 whose financial and technical contributions enabled the materialization of this instance of the conference and its sub-events, and the Academy of Cognitive and Natural Sciences (ACNS) for the great opportunity to publish DEEU 2018 proceedings in the *ACNS Conference Series: Social Sciences and Humanities* (<https://acnsoci.org/cs-ssh/>). All these people, their devotion, energy, and efficiency, made our conference a very interesting and effective scientific forum.

References

- [1] Biały, S.A., Markowski, J. and Brzakala, M., 2022. Business and university collaboration: how partnership leads to gaining key competences by graduates? *ACNS Conference Series: Social Sciences and Humanities*, 2, p.01004. Available from: <https://doi.org/10.55056/cs-ssh/2/01004>.
- [2] Markowska, J., Biały, S.A. and Burdzy, M., 2022. Win-win – towards the Third Generation. Case study of Wrocław Environmental and Life Sciences University. *ACNS Conference Series: Social Sciences and Humanities*, 2, p.01003. Available from: <https://doi.org/10.55056/cs-ssh/2/01003>.
- [3] Markowska, J. and Kraśniewska, I., 2022. Synchronous learning in online course: a necessity or choice? *ACNS Conference Series: Social Sciences and Humanities*, 2, p.01002. Available from: <https://doi.org/10.55056/cs-ssh/2/01002>.
- [4] Pinchuk, O.P. and Sokolyuk, O.M., 2022. Use of digital educational equipment experiment as a current problem of environmental education. *ACNS Conference Series: Social Sciences and Humanities*, 2, p.01006. Available from: <https://doi.org/10.55056/cs-ssh/2/01006>.
- [5] Tuzhyk, K. and Moroz, O., 2022. Digital education: risks or benefits with business collaboration. *ACNS Conference Series: Social Sciences and Humanities*, 2, p.01005. Available from: <https://doi.org/10.55056/cs-ssh/2/01005>.