

# Preface

Serhiy O. Semerikov<sup>1,2,3</sup>[0000–0003–0789–0272],  
Andrii M. Striuk<sup>2</sup>[0000–0001–9240–1976], and  
Mariya P. Shyshkina<sup>3</sup>[0000–0001–5569–2700]

<sup>1</sup> Kryvyi Rih State Pedagogical University, 54 Gagarin Ave., Kryvyi Rih, 50086,  
Ukraine

[semerikov@ccjournals.eu](mailto:semerikov@ccjournals.eu)

<https://kdpu.edu.ua/semerikov>

<sup>2</sup> Kryvyi Rih National University, 11 Vitalii Matusevych Str., Kryvyi Rih, 50027,  
Ukraine

[andrey.n.stryuk@gmail.com](mailto:andrey.n.stryuk@gmail.com)

<http://mpz.knu.edu.ua/pro-kafedru/vikladachi/224-andrii-striuk>

<sup>3</sup> Institute for Digitalisation of Education of the NAES of Ukraine, 9 M. Berlynskoho  
Str., Kyiv, 04060, Ukraine

[marimodi@gmail.com](mailto:marimodi@gmail.com)

<https://iitlt.gov.ua/eng/structure/departments/cloud/detail.php?ID=269>

**Abstract.** The 6th volume of the *CTE Workshop Proceedings* contains articles about the most interesting practices and ideas on the use of cloud technologies in education, carefully selected, reviewed and recommended by members of the international editorial board of the similarly-named workshop (CTE 2016), which was held in a hybrid format on April 22, 2016 in Kryvyi Rih, Ukraine.

**Keywords:** cloud-based learning environments · cloud technologies of open education · cloud technologies of mobile learning · cloud-based learning management systems · cloud technologies for informatics learning · cloud technologies for mathematics learning · cloud technologies for physics learning

## 1 Introduction

It is our pleasure to present you the proceedings of the 4th Workshop on Cloud Technologies in Education (CTE 2016). The workshop took place in Kryvyi Rih (Ukraine) on April 22, 2016 (Fig. 2). This volume focused on advancing research and also academic applications of information and communication technologies related to cloud computing; history, state-of-the-art and trends in cloud-based learning and computer-based training.



**Fig. 1.** CTE2016 logo.



Institute of Information Technologies and Learning Tools of the NAPS of Ukraine  
Kryvyi Rih National University  
Kryvyi Rih State Pedagogical University  
Cherkasy State Technological University  
National Technical University "Kharkiv Polytechnic Institute"  
Taras Shevchenko National University of Luhansk  
Kherson State University  
Eastern Washington University

**Fig. 2.** CTE organizers.

## 2 CTE 2016 overview

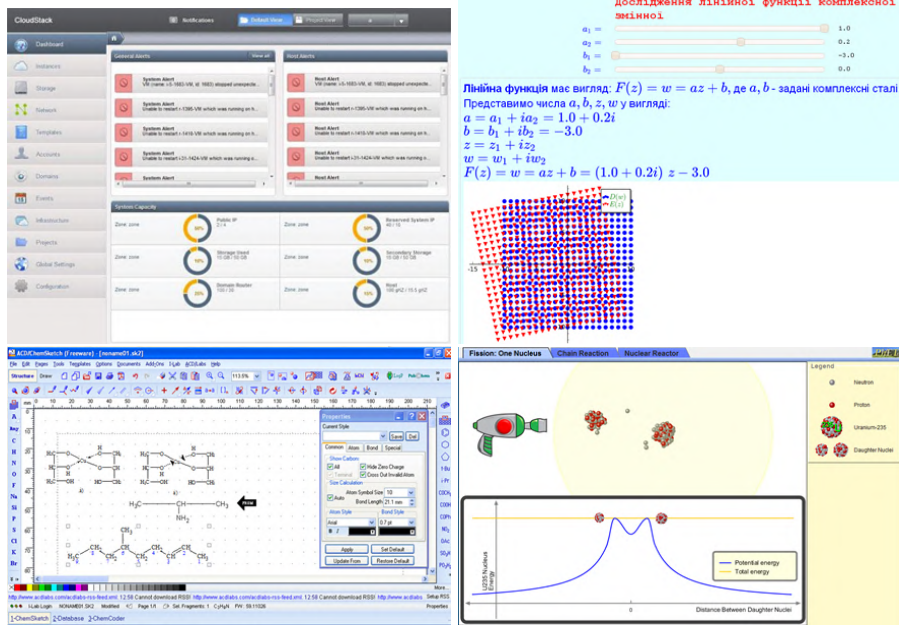
Overall the CTE 2016 attracted 47 submissions. Out of these, we have accepted 32 most interesting papers to be presented at the workshop and published in our proceedings journal. Each submission was peer-reviewed by at least two experts regarding its relevance for the workshop, scientific quality, originality, and technical adequacy.

CTE 2016 topics of interest since 2012 [29–31]:

- Cloud-based learning environments [2, 3, 6, 7, 10, 11, 14, 15, 35]
- Cloud technologies of open education [23, 34]
- Cloud technologies of mobile learning [4, 9, 12, 20]
- Cloud-based learning management systems [18, 19, 21, 22]
- Cloud technologies for informatics learning [5, 8, 16, 24, 26, 28, 32, 33]
- Cloud technologies for mathematics learning [1, 17, 25, 27]
- Cloud technologies for physics learning [13]

## 3 Conclusion

The CTE 2016 would not have been possible without the support of many people. First of all, we would like to thank all the authors who submitted papers and thus demonstrated their interest in the research problems within our scope. We are very grateful to the members of our Program Committee for providing timely and thorough reviews. We would like to thank the local organizers of the workshop whose devotion and efficiency made our event a very interesting and effective scientific forum.



1 вересня 1985 року – початок викладання основ інформатики та ОТ



А. П. Ершов та М. І. Жалдак – фундатори шкільної інформатики

Fig. 3. СТЕ 2016 highlights.

## References

- [1] Andriievskaya, V.M.: Theoretical-methodological foundation of technology advanced elementary mathematics education. *CTE Workshop Proceedings* **4**, 201–205 (Mar 2017), <https://doi.org/10.55056/cte.350>
- [2] Bilousova, L.I., Zhytienova, N.V.: Cloud services as an effective visualization tool. *CTE Workshop Proceedings* **4**, 25–30 (Mar 2017), <https://doi.org/10.55056/cte.320>
- [3] Damniskaya, A.V.: Cloud based platforms, tools and services. *CTE Workshop Proceedings* **4**, 12–24 (Mar 2017), <https://doi.org/10.55056/cte.319>
- [4] Dekhtiarova, Y.O.: Interactive tool SMART kapp in modern education. *CTE Workshop Proceedings* **4**, 100–103 (Mar 2017), <https://doi.org/10.55056/cte.333>
- [5] Diachenko, O.F.: The didactic potential of cloud technologies in the study of computing disciplines by bachelors in system analysis. *CTE Workshop Proceedings* **4**, 159–162 (Mar 2017), <https://doi.org/10.55056/cte.341>
- [6] Filonenko, M.M., Podkovko, K.V.: E-portfolio in postgraduate education system of teachers of higher medical (pharmaceutical) educational institutions: psychological and pedagogical aspect. *CTE Workshop Proceedings* **4**, 31–35 (Mar 2017), <https://doi.org/10.55056/cte.321>
- [7] Franchuk, N.P.: Modern educational environment. *CTE Workshop Proceedings* **4**, 7–11 (Mar 2017), <https://doi.org/10.55056/cte.317>
- [8] Grisun, L.E., Sherstyuk, D.G.: Computer models for interdisciplinary links support in high school. *CTE Workshop Proceedings* **4**, 135–139 (Mar 2017), <https://doi.org/10.55056/cte.338>
- [9] Hranovska, T.I., Laptyeva, M.V.: Mobile technologies as a tools to support learning at the school course of inorganic chemistry. *CTE Workshop Proceedings* **4**, 82–92 (Mar 2017), <https://doi.org/10.55056/cte.330>
- [10] Hrytsuk, Y.V., Hrytsuk, O.V.: Organization of testing students with Office 365. *CTE Workshop Proceedings* **4**, 41–45 (Mar 2017), <https://doi.org/10.55056/cte.331>
- [11] Kademiya, M.Y., Kobysia, V.M.: Implementation SMART-learning tools of modern network technologies. *CTE Workshop Proceedings* **4**, 36–40 (Mar 2017), <https://doi.org/10.55056/cte.322>
- [12] Karpova, O.O.: Peculiarities of implementation of mobile learning of foreign languages at the economic university. *CTE Workshop Proceedings* **4**, 93–99 (Mar 2017), <https://doi.org/10.55056/cte.332>
- [13] Khomutenko, M.V.: Educational physical experiment as a research tool in the cloud-oriented learning environment. *CTE Workshop Proceedings* **4**, 211–222 (Mar 2017), <https://doi.org/10.55056/cte.353>
- [14] Kiyanovska, N.M.: Free and open source cloud technology based on the type Software as a Service. *CTE Workshop Proceedings* **4**, 52–58 (Mar 2017), <https://doi.org/10.55056/cte.324>
- [15] Kobysia, A.P.: The use cloud technology of the design work of students. *CTE Workshop Proceedings* **4**, 46–51 (Mar 2017), <https://doi.org/10.55056/cte.323>

- [16] Kolgatina, L.S., Ponomareva, N.S.: The specificity of students' independent work in the disciplines of natural-mathematical cycle in terms of blended learning. *CTE Workshop Proceedings* **4**, 140–151 (Mar 2017), <https://doi.org/10.55056/cte.339>
- [17] Kramarenko, T.G.: Training of teacher to school students collaborate with educational resources of cloud based projects. *CTE Workshop Proceedings* **4**, 206–210 (Mar 2017), <https://doi.org/10.55056/cte.351>
- [18] Kucheriavyi, A.O.: Technological bases of projecting distance learning courses. *CTE Workshop Proceedings* **4**, 104–108 (Mar 2017), <https://doi.org/10.55056/cte.334>
- [19] Lapuzina, O.M., Lisachuk, L.M.: Creation of distance courses in natural sciences for international students of preparatory phase of training in Ukrainian, Russian, English languages. *CTE Workshop Proceedings* **4**, 109–113 (Mar 2017), <https://doi.org/10.55056/cte.335>
- [20] Leshko, K.V., Rykova, L.L.: Augmented reality as a tool in creative development of future education professionals. *CTE Workshop Proceedings* **4**, 76–81 (Mar 2017), <https://doi.org/10.55056/cte.329>
- [21] Nazar, M.M.: Components of efficient distance learning course. *CTE Workshop Proceedings* **4**, 114–128 (Mar 2017), <https://doi.org/10.55056/cte.336>
- [22] Nazar, M.M., Meshcheriakov, D.S.: On the issue of developing and applying the model of the participant of Internet training. *CTE Workshop Proceedings* **4**, 129–134 (Mar 2017), <https://doi.org/10.55056/cte.337>
- [23] Ostapenko, L.P., Solovyova, O.K.: Massive open online courses in the system of training of future teachers including practice of Media education. *CTE Workshop Proceedings* **4**, 71–75 (Mar 2017), <https://doi.org/10.55056/cte.328>
- [24] Ponomarova, N.O.: Actual problems of professional orientation of pupils on IT-specialty. *CTE Workshop Proceedings* **4**, 163–167 (Mar 2017), <https://doi.org/10.55056/cte.343>
- [25] Popel, M.V., Bobyliev, D.Y.: Differentiation of student learning to complex analysis using CoCalc. *CTE Workshop Proceedings* **4**, 192–200 (Mar 2017), <https://doi.org/10.55056/cte.349>
- [26] Popel, M.V., Semerikov, S.O., Shokalyuk, S.V.: Use of environment CoCalc and commercial systems and computer mathematics. *CTE Workshop Proceedings* **4**, 152–158 (Mar 2017), <https://doi.org/10.55056/cte.340>
- [27] Potapova, O.M.: The use of cloud-based computing in the research activities of future engineers while learning higher mathematics. *CTE Workshop Proceedings* **4**, 187–191 (Mar 2017), <https://doi.org/10.55056/cte.348>
- [28] Rassovytska, M.V., Striuk, A.M.: Using a cloud-based CAD systems into professional and practical training of future mechanical engineers. *CTE Workshop Proceedings* **4**, 168–174 (Mar 2017), <https://doi.org/10.55056/cte.344>
- [29] Semerikov, S.O., Striuk, A.M.: CTE - Workshop on Cloud Technologies in Education. *CTE Workshop Proceedings* **1**, 1–2 (Mar 2013), <https://doi.org/10.55056/cte.308>

- [30] Semerikov, S.O., Striuk, A.M., Teplytskyi, I.O.: CTE 2013: 2nd Workshop on Cloud Technologies in Education. *CTE Workshop Proceedings* **2**, 1–8 (Mar 2014), <https://doi.org/10.55056/cte.311>
- [31] Semerikov, S.O., Striuk, A.M., Teplytskyi, I.O.: 3rd Workshop on Cloud Technologies in Education. *CTE Workshop Proceedings* **3**, 1–8 (Mar 2015), <https://doi.org/10.55056/cte.309>
- [32] Sheina, M.M.: The use of SMART-boards the lessons in elementary school. *CTE Workshop Proceedings* **4**, 175–178 (Mar 2017), <https://doi.org/10.55056/cte.345>
- [33] Shustakova, T.B.: Formation of cognitive independence of students using Google services. *CTE Workshop Proceedings* **4**, 179–186 (Mar 2017), <https://doi.org/10.55056/cte.347>
- [34] Soroko, N.V.: The problem of designing a digital learning ecosystem for massive online courses (Estonian experience). *CTE Workshop Proceedings* **4**, 64–70 (Mar 2017), <https://doi.org/10.55056/cte.327>
- [35] Vorozhbyt, A.V.: Creation of multimedia content of the cloud-based learning environment in Technical Lyceum. *CTE Workshop Proceedings* **4**, 59–63 (Mar 2017), <https://doi.org/10.55056/cte.325>