

Analysis of competency-based learning - 6 years later

Umbleja, Kadri; Kuk, Vello; Jaanus, Martin Proceedings of 2017 IEEE Global Engineering Education Conference (EDUCON) : 25-28 April 2017, Athens, Greece 2017 / p. 165-174 : ill <https://doi.org/10.1109/EDUCON.2017.7942843>

Analysis of forgetting in a learning environment

Kukk, Vello; Umbleja, Kadri BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 335-338 : ill

Analyzes of competence based approach to learning

Umbleja, Kadri; Kuk, Vello; Jaanus, Martin; Udal, Andres; Gordon, Boris International Conference on Engineering Education 2012 : proceedings : Turku, Finland, July 30-August 3, 2012. Part 2 2012 / p. 418-425 : ill

Answer evaluation in competence based learning

Umbleja, Kadri; Kuk, Vello; Jaanus, Martin ICEE 2011 E-book CD-ROM : An International Conference on Engineering Education : 21-26 August 2011, Belfast, Northern Ireland, UK 2011

Automatic answer evaluation with competence based learning

Umbleja, Kadri Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK seitsmenda aastakonverentsi artiklite kogumik : 15.-16. novembril 2013, Haapsalu 2013 / p. 111-114 : ill

Can K-12 students learn how to program with just two hours?

Umbleja, Kadri Learning Technology for Education in Cloud : The Changing Face of Education : 5th International Workshop, LTEC 2016, Hagen, Germany, July 25-28, 2016 : proceedings 2016 / p. 250-264 : ill http://dx.doi.org/10.1007/978-3-319-42147-6_21

Competence Based Interactive Learning with HomeLabKits : experience and work in progress

Jaanus, Martin; Umbleja, Kadri; Kuk, Vello; Udal, Andres 2014 IEEE Global Engineering Education Conference (EDUCON) : Istanbul, Turkey, April 2-5, 2014 2014 / 1082-1084 : ill

Competence based learning - framework, implementation, analysis and management of learning process =

Kompetentsipõhine õpe - raamistik, implementatsioon, analüüs ja õppeprotsessi juhtimine

Umbleja, Kadri 2017 <https://digi.lib.ttu.ee/7573>

Competence-based approach to learning

Umbleja, Kadri; Kuk, Vello; Jaanus, Martin 2013 IEEE Global Engineering Education Conference (EDUCON) : 13-15 March 2013, Technische Universität Berlin, Berlin, Germany 2013 / p. 552-559 : ill

Developing integrated learning environment – analysis

Kukk, Vello; Jaanus, Martin; Umbleja, Kadri; Švets, Oleg International Conference on Engineering Education : ICEE 2010 : Poland, Gliwice 18.07.-22.07.2010 2010 https://www.researchgate.net/publication/228941924_Developing_integrated_learning_environment-analysis

Hierarchical conceptual clustering based on quantile method for identifying microscopic details in distributional data

Umbleja, Kadri; Ichino, Manabu; Yaguchi, Hiroyuki Advances in data analysis and classification 2020 / 30 p. : ill <https://doi.org/10.1007/s11634-020-00411-w>

Home and remote laboratories - development of web based practical works for higher and vocational education

Shvets, O.; Kuk, Vello; Jaanus, Martin; Umbleja, Kadri Journal of international scientific publications : materials, methods & technologies 2009 / [4] p

HomeLabKits - implementation and usage

Jaanus, Martin; Kuk, Vello; Umbleja, Kadri; Gordon, Boris; Pikkov, Mihhail BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 331-334 : ill

Implementation of the robot arm in the interactive learning environment

Jaanus, Martin; Udal, Andres; Kuk, Vello; Umbleja, Kadri 2014 International Conference on Signals and Electronic Systems (ICSES) : Poznań, Poland, 11-13 September 2014 2014 / [4] p. : ill

Improved C5D electronic realization of conductivity detector for capillary electrophoresis

Jaanus, Martin; Udal, Andres; Kuk, Vello; Umbleja, Kadri; Gorbatšova, Jelena; Mölder, Lauri Elektronika ir elektrotehnika = Electronics and electrical engineering 2016 / p. 29-32 : ill <http://dx.doi.org/10.5755/j01.eie.22.3.15311>

Improving symbolic data visualization for pattern recognition and knowledge discovery

Umbleja, Kadri; Ichino, Manabu; Yaguchi, Hiroyuki Visual informatics 2020 / p. 23-31 : ill <https://doi.org/10.1016/j.visinf.2019.12.003>

Integrated labs for electrical engineering courses in competence based learning environment - practical experience
Jaanus, Martin; Umbleja, Kadri; Udal, Andres; Pärnamets, Kaiser 2019 Electric Power Quality and Supply Reliability Conference (PQ) & 2019 Symposium on Electrical Engineering and Mechatronics (SEEM), Kärda, Estonia, June 12-15, 2019 : proceedings 2019 / 4 p. : ill <https://doi.org/10.1109/PQ.2019.8818266>

Integrating labs into learning environment

Jaanus, Martin; Kuk, Vello; Umbleja, Kadri Elektronika ir elektrotehnika = Electronics and electrical engineering 2010 / 6, p. 27-30 : ill https://www.researchgate.net/publication/228406705_Integrating_Labs_into_Learning_Environment

Interactive distance lab solution for robotic arm

Umbleja, Kadri; Jaanus, Martin; Kuk, Vello; Udal, Andres Joint International Conference on Engineering Education & International Conference on Information Technology ICEE/ICIT-2014 : June 2-6, 2014, Riga, Latvia 2014 / p. 339-348 : ill

Kool - õpetamisasutusest õpiruumiks : [e-ülikooli kevadkonverentsist, ka TTÜ osalusest]

Umbleja, Kadri Studioosus 2009 / mai, lk. 5 https://www.ester.ee/record=b1558644*est

Laboratory experience with competence based learning

Umbleja, Kadri; Kuk, Vello; Jaanus, Martin; Švets, Oleg International Conference on Engineering Education and Research : ICEER 2013 : Marrakesh, July 1st-5th : proceedings 2013 / p. 487-494

Learning to program with Lego Mindstorms - difference between K-12 students and adults

Umbleja, Kadri Teaching and Learning in a Digital World : proceedings of the 20th International Conference on Interactive Collaborative Learning. Volume 2 2018 / p. 447-458 https://link.springer.com/chapter/10.1007/978-3-319-73204-6_49
https://doi.org/10.1007/978-3-319-73204-6_49 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

New concepts of automatic answer evaluation in competence based learning

Umbleja, Kadri; Kuk, Vello; Jaanus, Martin; Udal, Andres 2014 IEEE Global Engineering Education Conference (EDUCON) : Istanbul, Turkey, April 2-5, 2014 2014 / p. 922-925 : ill

Predicting students' behavior during an e-learning course using data mining

Umbleja, Kadri; Ichino, Manabu Interactive Collaborative Learning : proceedings of the 19th ICL Conference. Volume 2 2017 / p. 175-189 http://dx.doi.org/10.1007/978-3-319-50340-0_14

Processing answers in competence-based learning

Umbleja, Kadri; Kuk, Vello; Jaanus, Martin INNOVATIONS 2012 : world innovations in engineering education and research 2012 / p. 91-100

Remote laboratories and methods of their application in study process

Švets, Oleg; Kuk, Vello; Jaanus, Martin; Umbleja, Kadri Journal of international scientific publications : materials, methods & technologies 2010 / 2, p. 60-67

Similarity and dissimilarity measures for mixed feature-type symbolic data

Ichino, Manabu; Umbleja, Kadri Studies in Theoretical and Applied Statistics 2018 / p. 131-144 <https://doi.org/10.1007/978-3-319-73906-9> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Student behavior changes in Estonia revealed by e-learning technology

Udal, Andres; Kuk, Vello; Jaanus, Martin; Umbleja, Kadri; Piho, Gunnar Digital Turn in Schools - Research, Policy, Practice : proceedings of ICEM 2018 Conference 2019 / p. 83-90 https://doi.org/10.1007/978-981-13-7361-9_6 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Students' grading control and visualisation in competence-based learning approach

Umbleja, Kadri Proceedings of 2015 IEEE Global Engineering Education Conference (EDUCON) : 18-20 March 2015, Tallinn University of Technology (TUT), Tallinn, Estonia 2015 / p. 287-296 : ill <http://dx.doi.org/10.1109/EDUCON.2015.7095985>

The first year experience of using LEGO Mindstorms robots in the Tallinn University of Technology outreach program for secondary and primary school learners

Umbleja, Kadri New Technologies and Innovation for Global Business : ICEE 2015 : proceedings of 19th International Conference on Engineering Education, 20-24 July 2015, Zagreb, Croatia 2015 / p. 741-748

The method of quantum optical communication based on entangled photon pairs

Udal, Andres; Jaanus, Martin; Umbleja, Kadri; Reeder, Reeno BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 33-36 : ill

Two-dimensional knowledge model for learning control and competence mapping

Kuk, Vello; Umbleja, Kadri; Jaanus, Martin Learning Technology for Education in Cloud : 4th International Workshop, LTEC 2015,

Maribor, Slovenia, August 24-28, 2015 : proceedings 2015 / p. 16-27 : ill http://dx.doi.org/10.1007/978-3-319-22629-3_2

Using microcontrollers for high accuracy analogue measurements

Jaanus, Martin; Udal, Andres; Kukk, Vello; Umbleja, Kadri Elektronika ir elektrotehnika = Electronics and electrical engineering
2013 / p. 51-54 : ill