

Academic development support for implementing CDIO

Kase, Kärt; Kasuk, Tiina; Rüttnann, Tiia; Sonk, Kaimo; Sell, Raivo; Annus, Ivar 18th CDIO : International Conference : proceedings - full papers 2022 / p. 634-646 https://en.ru.is/media/cdio2022/CDIO_2022_Proceedings.pdf

Active teaching methods in engineering pedagogy

Rüttnann, Tiia; Kipper, Hants International Conference "University Teaching as a Scholarship?" January 24th - 26th, 2011, Tartu, Estonia 2011

The Activities of IGIP

Polyakova, Tatiana; Prikhodko, Viacheslav; Rüttnann, Tiia; Auer, Michael E. The International Society for Engineering Pedagogy: 1972–2022 2023 / p. 33–146 https://doi.org/10.1007/978-3-031-19890-8_2 [Article collection metrics at Scopus](#) [Article at Scopus](#)

Additional specialty of a technical teacher for engineers afforded in continuing education at Tallinn University of Technology

Rüttnann, Tiia Proceedings of 2016 13th International Conference on Remote Engineering and Virtual Instrumentation (REV) : 24-26 February 2016 in Madrid, Spain 2016 / p. 43-47 : ill <https://doi.org/10.1109/REV.2016.7444438>

Analysis of STEM teaching - most common strategies and methods enabling deep understanding and interactive learning applied by graduates of technical teacher initial and continuing education programs in Estonia

Rüttnann, Tiia Interactive Collaborative Learning : proceedings of the 19th ICL Conference - Volume 1 2017 / p. 405-414 : ill https://doi.org/10.1007/978-3-319-50337-0_39 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Analysis of the new curriculum for initial technical teacher training on bachelor level

Rüttnann, Tiia Engineering Education - the Priority for Global Development : 35th International IGIP Symposium : 18th-21st September, 2006, Tallinn : book of abstracts 2006 / p. 104-105

Analysis of the program for continuing education of technical teachers on the basis of graduates' feedback results

Rüttnann, Tiia; Kipper, Hants Proceedings of 2014 International Conference on Interactive Collaborative Learning (ICL) : 03-06 December 2014, Dubai, UAE 2014 / p. 7-12 : ill

Characteristics of activated carbon produced from biosludge and its use in wastewater post-treatment

Pikkov, Lui; Kallas, Juha; Rüttnann, Tiia; Rikmann, Ergo Environmental technology 2001 / p. 229-236 : ill

Combination of pedagogical strategies and teaching techniques for teaching computer science basics to novices = Pedagoogika strateegiate ja õpetamise tehnikate kombinatsioon informaatika algkursuse õpetamisel algajatele

Mironova, Olga 2017 <https://digi.lib.ttu.ee/i/?8745> https://www.ester.ee/record=b4696923*est

Complex approach to technical teacher education in engineering pedagogy [Electronic resource]

Rüttnann, Tiia; Kipper, Hants Forming international engineers for the information society : March 27-30, 2011, Santos, Brazil 2011 / p. 13-17 : ill [CD-ROM]

Computer science E-courses for students with different learning styles

Mironova, Olga; Amitan, Irina; Vilipõld, Jüri; Saar, Merike; Rüttnann, Tiia 2013 Federated Conference on Computer Science and Information Systems : September 8–11, 2013, Krakow, Poland 2013 / p. 735-738 : ill

Contemporary teaching methods as the basis of the curriculum for technical teacher training at Tallinn University of Technology

Rüttnann, Tiia; Vanaveski, Jüri 38th IGIP Symposium - Q2 of E2 (Quality and Quantity of Engineering Education) : 6-9 September 2009, Graz, Austria : book of abstracts+CD 2009 / p. 139-142

Contemporary teaching methods emphasizing conceptual understanding adapted for engineering education at Estonian Centre for Engineering Pedagogy

Rüttnann, Tiia; Vanaveski, Jüri Problems of education in the 21st Century 2009 / p. 159-170

Contemporary teaching strategies and models capacitating critical thinking and deep understanding in teaching engineering [Electronic resource]

Kipper, Hants; Rüttnann, Tiia Proceedings of the Joint International IGIP-SEFI Annual Conference 2010. Diversity unifies - Diversity in Engineering Education : 19th to 22th September 2010, Trnava, Slovakia 2010 / IDPap 1173 [8] p. [CD-ROM]

Continuing education for engineers in the field of teaching engineering at Tallinn University of Technology [Electronic resource]

Rüttnann, Tiia; Kipper, Hants 9th ASEE Global Colloquium on Engineering Education as part of the World Engineering Education Forum, October 18-21, 2010, Singapore 2010 / [13] p. [CD-ROM]

Curricula updates through students' participation in international competition

Valme, Daniil; Belolipetskaja, Diana; Rassölkin, Anton; Leoste, Janika; Rütmann, Tiia Robotics in education : proceedings of the RiE 2024 conference 2024 / p. 352-364 https://doi.org/10.1007/978-3-031-67059-6_31 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Deodorization of cocoa butter, fish fat and the fat of fur-bearing animals

Rütmann, Tiia; Kallas, Juha Fett-Wissenschaft Technologie = Fat-science technology 1994 / 7, p. 259-266: ill

Design of the curriculum for continuing education of engineering educators at Tallinn University of Technology

Kipper, Hants; Rütmann, Tiia Problems of education in the 21st century 2010 / p. 87-96

Design of the curriculum on master level for engineering educators at Tallinn University of Technology

Rütmann, Tiia; Kipper, Hants Инженерная педагогика ; Вып. 14, 1 2012 / p. 142-150

Design, implementation and analysis of learner-centered guided in-service programme for technical teacher education

Rütmann, Tiia; Kipper, Hants International journal of engineering pedagogy 2014 / p. 4-9

Development of critical thinking and reflection

Rütmann, Tiia The Challenges of the Digital Transformation in Education : proceedings of the 21st International Conference on Interactive Collaborative Learning (ICL2018) - Volume 2 2019 / p. 895-906 https://doi.org/10.1007/978-3-030-11935-5_85 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Development of teachers' judgement skills as a component of pre- and in-service training

Rütmann, Tiia; Läänemets, Urve; Kaja, Kadi; Kiilu, Kristi Learning in the age of digital and green transition: proceedings of the 25th international conference on interactive collaborative learning (ICL2022), Volume 2 2023 / p. 639-648 https://doi.org/10.1007/978-3-031-26190-9_67 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Educating Engineers for Future Industrial Revolutions : Proceedings of the 23rd International Conference on Interactive Collaborative Learning (ICL2020). Vol. 1

2021 <https://doi.org/10.1007/978-3-030-68198-2>

Educating Engineers for Future Industrial Revolutions : Proceedings of the 23rd International Conference on Interactive Collaborative Learning (ICL2020). Vol. 2

2021 <https://link.springer.com/book/10.1007%2F978-3-030-68201-9> <https://doi.org/10.1007/978-3-030-68201-9>

Education in Estonia

Teichmann, Mare; Läänemets, Urve; Rütmann, Tiia; Neudorf, Reet European education (and training) systems 2014 / p. 151-175

Educational decision-making about curriculum development, environments and economics of education

Läänemets, Urve; Rütmann, Tiia Proceedings of 2015 IEEE Global Engineering Education Conference (EDUCON) : 18-20 March 2015, Tallinn University of Technology (TUT), Tallinn, Estonia 2015 / p. 764-767 : ill
<http://dx.doi.org/10.1109/EDUCON.2015.7096056>

Effective strategies and models for teaching thinking skills and capitalizing deep understanding in engineering education

Rütmann, Tiia; Vanaveski, Jüri Problems of education in the 21st Century 2009 / p. 176-187

Effective teaching strategies for direct and indirect instruction in teaching engineering implemented at Tallinn University of Technology

Rütmann, Tiia; Kipper, Hants Problems of education in the 21st century 2011 / p. 60-75

Effective tools and models for engineering faculty MasteryTeaching supporting meaningful learning

Rütmann, Tiia Proceedings of the 2020 IEEE Global Engineering Education Conference (EDUCON) : Engineering Education for the Future in a Multicultural and Smart World, 27-30 April, 2020, Porto, Portugal 2020 / 1622-1626 : ill
<https://doi.org/10.1109/EDUCON45650.2020.9125266>

Engineering Education - the Priority for Global Development : 35th International IGIP Symposium : 18th-21st September, 2006, Tallinn : book of abstracts

2006 http://www.ester.ee/record=b2190287*est

Engineering pedagogy and engineering educators' competency model for effective teaching and learning steam

Rütmann, Tiia Problems of education in the 21st Century 2023 / p. 531-546 <https://doi.org/10.33225/pec/23.81.531>

Engineering pedagogy as the basis for effective teaching competencies of engineering faculty

Rütmann, Tiia Higher Education in Russia = Высшее образование в России 2019 / p. 123-131 : ill <https://doi.org/10.31992/0869-3617-2019-28-12-123-131> [Journal metrics at Scopus](#) [Article at Scopus](#)

Engineering pedagogy science as the contemporary basis for effective teaching of science, technology and engineering
Rüütman, Tiia Science and Technology Education: Current challenges and possible solutions : Proceedings of the 3rd International Baltic Symposium on Science and Technology Education (BalticSTE2019), Šiauliai, 17–20 June, 2019 / p. 187–194
https://www.academia.edu/39654294/SCIENCE_AND_TECHNOLOGY_EDUCATION_CURRENT_CHALLENGES_AND_POSSIBLE_SOLUTIONS

Enne süda, siis aju

Rüütman, Tiia Trialoog 2024 [Enne süda, siis aju](#)

Essential aspects in technical teacher education

Rüütman, Tiia; Kipper, Hants The international handbook of cultures of education policy. Volume 2, Comparative international issues in policy-outcome relationships - economic influences with standards and governance 2014 / p. 853-874

Et inseneride taimelava ei kiduks : [Eesti inseneripedagoogika keskusest : Jüri Vanaveski ja Tiia Rüütmani kommentaaridega]

Pajula, Ene; **Vanaveski, Jüri; Rüütman, Tiia; Kipper, Hants**; Vare, Raivo Õpetajate Leht 2009 / lk. 7 : fot <https://dea.digar.ee/cgi-bin/dea?a=d&d=opetajateleht20090220.1.7&e=-----et-25--1--tx-txIN%7ctxT%7ctxAU%7ctxTA----->

Evaluation of immersive project-based learning experiences

Rüütman, Tiia; Witt, Emlyn David Qivitoq; Olowa, Theophilus Oluwarotimi Olatunde; Puolitaival, Taija; Bragadin, Marco 18th CDIO : International Conference : proceedings - full papers 2022 / p. 313-323 https://en.ru.is/media/cdio2022/CDIO_2022_Proceedings.pdf

First-year dropout in ICT studies

Kori, Külli; Pedaste, Margus; **Sell, Raivo; Murtazin, Kristina; Rüütman, Tiia** Proceedings of 2015 IEEE Global Engineering Education Conference (EDUCON) : 18-20 March 2015, Tallinn University of Technology (TUT), Tallinn, Estonia 2015 / p. 437-445 : ill <http://dx.doi.org/10.1109/EDUCON.2015.7096008>

Futureproofing Engineering Education for Global Responsibility : Proceedings of the 27th International Conference on Interactive Collaborative Learning (ICL 2024) ; vol. 1

2025 <https://doi.org/10.1007/978-3-031-85652-5>

Futureproofing Engineering Education for Global Responsibility : Proceedings of the 27th International Conference on Interactive Collaborative Learning (ICL 2024) ; vol. 4

2025 <https://doi.org/10.1007/978-3-031-83520-9>

Generating curricula: A human-centred perspective in the era of artificial intelligence

Rüütman, Tiia; Läänemets, Urve Science and Technology Education : Expectations and Experiences : Proceedings of the 6th International Baltic Symposium on Science and Technology Education (BalticSTE2025) 2025 / p. 180-196
<https://doi.org/10.33225/BalticSTE/2025.180>

Inductive principles in engineering pedagogy on the example of remote labs

Sell, Raivo; Rüütman, Tiia; Seiler, Sven Proceedings : 2013 2nd Experiment@International Conference (exp.at'13) : University of Coimbra, Coimbra, Portugal, 18-20 September, 2013 2013 / p. 68-71 : ill

Inductive teaching and learning in engineering pedagogy on the example of remote labs

Sell, Raivo; Rüütman, Tiia International journal of engineering pedagogy 2014 / p. 12-15 : ill

Insenerid ja pedagoogika. Mis aitaks praegusest rohkem spetsialiste kooli?

Rüütman, Tiia opleht.ee 2025 <https://opleht.ee/2025/01/insenerid-ja-pedagoogika-mis-aitaks-praegusest-rohkem-spetsialiste-kooli/>

Inseneride ja tehnikaerialade spetsialistide puudust saab leevendada pädevate reaallaineõpetajate koolitamisega

Rüütman, Tiia Elektriala 2023 / lk. 8-9 : fot https://www.ester.ee/record=b1240496*est

Insenerihariduse suundumusi ja inseneripedagoogika olulisus

Rüütman, Tiia; Kivestu-Rotella, Tuulike Õpetajate Leht 2023 / Lk. 1 <https://dea.digar.ee/article/opetajateleht/2023/03/31/2>
[Insenerihariduse suundumusi ja inseneripedagoogika olulisus](#)

Inseneriks õppivad tudengid võiksid üldhariduskoolis reaallaineid õpetada [Võrguväljaanne]

Oll, Sulev Õpetajate Leht 2022 / lk. 10 [Inseneriks õppivad tudengid võiksid üldhariduskoolis reaallaineid õpetada](#)

Inseneripedagoogika - mõjusam õpetus STEM-valdkonnas

Rüütman, Tiia; Kübarsepp, Jakob Õpetajate Leht 2016 / lk. 13 https://artiklid.elnet.ee/record=b2762809*est
<https://opleht.ee/2016/04/inseneripedagoogika-mojusam-opetus-stem-valdkonnas/>

Inseneripedagoogika : [käsikirjaline loengumaterjal]

Rüütman, Tiia 2011

Inseneripedagoogika : STEM valdkonna õppeainete mõjus õpetamine ja õppimine. 1
Rüütman, Tiia 2016 https://www.ester.ee/record=b4608896*est

Inseneripedagoogika : STEM valdkonna õppeainete mõjus õpetamine ja õppimine. 1
Rüütman, Tiia 2019 https://www.ester.ee/record=b5179475*est <https://digikogu.taltech.ee/et/Item/17660354-9270-4ab5-b06a-4a04cbd33351>

Inseneripedagoogika : STEM valdkonna õppeainete mõjus õpetamine ja õppimine. 2
Rüütman, Tiia 2019 https://www.ester.ee/record=b5179473*est <https://digikogu.taltech.ee/et/Item/17660354-9270-4ab5-b06a-4a04cbd33351>

Inseneripedagoogika : STEM valdkonna õppeainete mõjus õpetamine ja õppimine. 2
Rüütman, Tiia 2016 https://www.ester.ee/record=b4608899*est

Inseneripedagoogika aitab leevendada olukorda Eesti põuasel õpetajaturul [Võrguväljaanne]
Rüütman, Tiia postimees.ee 2021 ["Inseneripedagoogika aitab leevendada olukorda Eesti põuasel õpetajaturul"](https://postimees.ee/2021/04/15/inseneripedagoogika-aitab-leevendada-olukorda-estis-pouasel-opetajaturul/)

Inseneripedagoogika aitab leevendada õpetajate põuda
Rüütman, Tiia Õpetajate Leht 2021 / Lk. 4 ["Inseneripedagoogika aitab leevendada õpetajate põuda"](https://www.opetajateleht.ee/2021/04/15/inseneripedagoogika-aitab-leevendada-opetajate-pouda/)

Inseneripedagoogika roll tehnikaõpetajate koolitamisel Tallinna Tehnikaülikoolis
Rüütman, Tiia; Kipper, Hants Kutseõpetajakoolitus 21. sajandil : II kutsepedagoogika konverents : konverentsi teesid 2010 / lk. 19-22

Inseneriõppe väljakutsetest ja pingutuse väärtusest: rahvusvahelised praktikad
Rüütman, Tiia Mente et Manu 2025 / lk. 44-47 <https://taltech.ee/uudised/inseneriõppe-valjakutsetest-ja-pingutuse-vaartusest-rahvusvahelised-praktikad> https://www.ester.ee/record=b1242496*est

Integration of non-technical engineering competences into contemporary engineering curricula
Rüütman, Tiia; Parts, Velli; Teichmann, Mare; Kipper, Hants International journal of engineering pedagogy 2013 / p. 20-25

Interactive methods in teaching engineering
Rüütman, Tiia; Kipper, Hants 3rd International Materials Education Symposium, April 7-8, 2011, Cambridge, UK 2011 / p. 52

The International Society for Engineering Pedagogy : 1972–2022
Polyakova, Tatiana; Prikhodko, Viacheslav; Rüütman, Tiia; Auer, Michael E. 2023 <https://doi.org/10.1007/978-3-031-19890-8> https://www.ester.ee/record=b5746643*est

Jan Amos Komenský (Comenius) – rahvaste õpetaja
Läänemets, Urve; Rüütman, Tiia Õpetajate Leht 2022 <https://opleht.ee/2022/04/jan-amos-komensky-comenius-rahvaste-opetaja/>

John L. Falconer: eetilised õpetamisviisid aitavad koolitada eetilisi insenere
Falconer, John L. Mente et Manu 2023 / lk. 24-25 : fot https://www.ester.ee/record=b1242496*est

Kas tehnoloogia asendab õpetajat?
Rüütman, Tiia Õpetajate Leht 2023 / Lk. 4 <https://dea.digar.ee/article/opetajateleht/2023/10/31/4.2>

Kasvatusteaduste sihtvalveerimine jõudis ka Tallinna tehnikaülikooli
Rüütman, Tiia Õpetajate Leht 2013 / lk. 8 <https://opleht.ee/2013/03/kasvatusteaduste-sihtvalveerimine-joudis-ka-tallinna-tehnikaulikooli/>

Klagenfurt School of Engineering Pedagogy by Adolf Melezinek as the basis of teaching engineering
Rüütman, Tiia; Kipper, Hants International journal of engineering pedagogy 2016 / p. 10-18

Klagenfurt School of Engineering Pedagogy by Adolf Melezinek as the basis of teaching engineering at Tallinn University of Technology
Rüütman, Tiia; Kipper, Hants Proceedings of 2015 International Conference on Interactive Collaborative Learning (ICL) : 20-24 September 2015, Firenze, Italy 2015 / p. 1102-1111 : ill <http://dx.doi.org/10.1109/ICL.2015.7318186>

Kümme aastat inseneripedagoogikat Eestis
Kipper, Hants; Rüütman, Tiia Inseneria 2011 / lk. 39-41 : ill https://www.ester.ee/record=b1519314*est

Learning content revisited : basis for creating a system of educational (pedagogical) activities
Rüütman, Tiia; Läänemets, Urve; Kaja, Kadi Towards a hybrid, flexible and socially engaged higher education : proceedings of the 26th international conference on interactive collaborative learning (icl2023), volume 4 2024 / p. 342-352 https://doi.org/10.1007/978-3-031-53022-7_9 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Learning in the Age of Digital and Green Transition : Proceedings of the 25th International Conference on Interactive Collaborative Learning (ICL2022), Volume 1

2023 <https://doi.org/10.1007/978-3-031-26876-2>

Learning in the Age of Digital and Green Transition : Proceedings of the 25th International Conference on Interactive Collaborative Learning (ICL2022), Volume 2

2023 <https://doi.org/10.1007/978-3-031-26190-9>

Life-long learning programme for engineers in engineering pedagogy

Rüütman, Tiia; Kipper, Hants 4th International Materials Education Symposium : Murray Edwards College University of Cambridge, UK : April 12-13, 2012 : information booklet 2012 / p. 53-54

Master studies for technical teachers at Tallinn University of Technology = Tehnikaõpetajate magistriõpe Tallinna Tehnikaülikoolis

Kipper, Hants; Rüütman, Tiia International conference on curriculum theory and practice = Rahvusvaheline õppekava teooria ja praktika konverents : Hilda Taba 110 : December 7th-8th, 2012 2012 / lk. 73-75

Mentorlus toetab õppimist ja õpetamist

Rüütman, Tiia; Kipper, Hants Mente et Manu 2014 / lk. 4-5 : fot https://artiklid.elnet.ee/record=b2665472*est

Online tools and remote labs for making ICT more attractive for students to prevent dropout

Sell, Raivo; Rüütman, Tiia; Murtazin, Kristina Proceedings of 2015 IEEE Global Engineering Education Conference (EDUCON) : 18-20 March 2015, Tallinn University of Technology (TUT), Tallinn, Estonia 2015 / p. 818-822 : ill <http://dx.doi.org/10.1109/EDUCON.2015.7096066>

Optional STEM courses for secondary schools designed and implemented for enhancement of K-12 technology education in order to excite students' interest in technology and engineering education

Rüütman, Tiia Proceedings of 2014 International Conference on Interactive Collaborative Learning (ICL) : 03-06 December 2014, Dubai, UAE 2014 / p. 144-150

Philosophy and basic principles of international society for engineering pedagogy

Rüütman, Tiia SCHOLA 2016 : proceedings of 12th International Scientific Conference SCHOLA 2016, Pedagogy and Didactics in Technical Education 2017 / p. 9-20 : ill <https://spark.adobe.com/page/7ohkpMA0ID2W/>

Pneumatics laboratory interactive educational experience development

Sandyk, Ivanna; Müür, Margus; Kuts, Vladimir; Bondarenko, Yevhen; Pizzagalli, Simone Luca; Rüütman, Tiia The 19th international CDIO conference, Trondheim, Norway, 26-29 June 2023 : proceedings - full papers 2023 / p. 144-154 <http://www.cdio.org/knowledge-library/documents/pneumatics-laboratory-interactive-educational-experience-development> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Preface

Auer, Michael E.; **Rüütman, Tiia** Educating Engineers for Future Industrial Revolutions : Proceedings of the 23rd International Conference on Interactive Collaborative Learning (ICL2020), Volume 1 (2021) 2021 / p. v-vii <https://link.springer.com/book/10.1007/978-3-030-68198-2> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Preface

Auer, Michael E.; **Rüütman, Tiia** Educating Engineers for Future Industrial Revolutions : Proceedings of the 23rd International Conference on Interactive Collaborative Learning (ICL2020), Volume 2 2021 / p. v-vii <https://link.springer.com/book/10.1007/978-3-030-68201-9> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Preface

Auer, Michael E.; **Rüütman, Tiia**; Pachatz, Wolfgang Learning in the Age of Digital and Green Transition Proceedings of the 25th International Conference on Interactive Collaborative Learning (ICL2022), Volume 1 2023 / p. vi-ix <https://link.springer.com/book/10.1007/978-3-031-26876-2> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Preface

Polyakova, Tatiana; Prikhodko, Viacheslav; **Rüütman, Tiia**; Auer, Michael E. The International Society for Engineering Pedagogy : 1972-2022 2023 / p. ix-x <https://link.springer.com/book/10.1007/978-3-031-19890-8> https://www.ester.ee/record=b5746643*est [Article collection metrics at Scopus](#) [Article at Scopus](#)

Preface

Auer, Michael E.; **Rüütman, Tiia**; Pachatz, Wolfgang Learning in the age of digital and green transition: proceedings of the 25th international conference on interactive collaborative learning (ICL2022), Volume 2 2023 / p. v-ix <https://link.springer.com/book/10.1007/978-3-031-26190-9> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Professional skills for developing supportive learning environments

Rüütmann, Tiia; Läänemets, Urve; Kiilu, Kristi; Kalamees-Ruubel, Katrin Educating Engineers for Future Industrial Revolutions : Proceedings of the 23rd International Conference on Interactive Collaborative Learning (ICL2020). Volume 2 2021 / p. 473-484
https://doi.org/10.1007/978-3-030-68201-9_8 [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Rasvade desodoreerimine vaakumkelmekolonnis : magistritöö
Rüütmann, Tiia 1992 https://www.ester.ee/record=b2632269*est

Reinforcement of engineering pedagogical competencies of engineering faculty members and doctoral students
Rüütmann, Tiia Land Economy and Rural Studies Essentials: Proceedings of the Conference on Land Economy and Rural Studies Essentials (LEASECON 2021), 10-11 May, 2021, Omsk State Agrarian University, Omsk, Russia 2022 / p. 722-734
<https://doi.org/10.15405/epsbs.2022.02.90>

Rethinking effective teaching and learning for the design of efficient curriculum for technical teachers
Rüütmann, Tiia; Kipper, Hants International journal of engineering pedagogy 2013 / p. 44-51

Rethinking effective teaching and learning for the design of efficient curriculum for technical teachers [Electronic resource]
Rüütmann, Tiia; Kipper, Hants 2012 15th International Conference on Interactive Collaborative Learning (ICL) : Villach, Austria 26–28 September 2012 2012 / 9 p. [CD-ROM]
https://www.researchgate.net/publication/269270182_Rethinking_Effective_Teaching_and_Learning_for_the_Design_of_Efficient_Curriculum_for_Technical_Teachers

The Role of AI Chatbots in Engineering Education: Experimental Findings and Implementation Strategies
Sell, Raivo; Razdan, Rahul; Kase, Kart; Rüütmann, Tiia International Journal of Engineering Pedagogy 2025 / p. 4-19
<https://doi.org/10.3991/ijep.v15i5.56681> <https://online-journals.org/index.php/i-jep/article/view/56681>

Scholarly teaching and scholarship of teaching and learning in teaching engineering
Rüütmann, Tiia; Saar, Merike Proceedings of 2017 IEEE Global Engineering Education Conference (EDUCON) : 25-28 April 2017, Athens, Greece 2017 / p. 213-218 : ill <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&number=7942850>
<https://doi.org/10.1109/EDUCON.2017.7942850>

Self-evaluation of pedagogical competencies of academic staff in the context of career management
Rüütmann, Tiia; Lõhmus, Merle; Sell, Raivo; Stõun, Ija; Pihel, Mare Teaching and Learning in a Digital World : proceedings of the 20th International Conference on Interactive Collaborative Learning. Volume 2 2018 / p. 436-446
https://link.springer.com/chapter/10.1007/978-3-319-73204-6_48 https://doi.org/10.1007/978-3-319-73204-6_48 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Self-evaluation of pedagogical competencies of academic staff of Tallinn University of Technology in the context of career management
Lõhmus, Merle; Rüütmann, Tiia Teaching for learning: the university perspective [Võrguteavik] : programme and abstract book : Conference in Tartu, Estonia 23-25 January, 2018 2018 / p. 77
https://dspace.ut.ee/bitstream/handle/10062/59045/Programmiraamat_15_01_elektroniline.pdf?sequence=5&isAllowed=y
https://www.ester.ee/record=b4766204*est

Standard curriculum of International Society for Engineering Education (IGIP) as the basis of the curriculum design for technical teacher education = Rahvusvahelise Inseneripedagoogika Ühingu (IGIP) baasõppekava kui rahvuslike õppekavade väljatöötamise alus tehnikaõpetuses
Rüütmann, Tiia; Kipper, Hants International conference on curriculum theory and practice = Rahvusvaheline õppekava teooria ja praktika konverents : Hilda Taba 110 : December 7th-8th, 2012 2012 / lk. 75-76

STEM-i loogika: õppesisu-teadmised ja neil tuginevad oskused
Rüütmann, Tiia opleht.ee 2023 [STEM-i loogika: õppesisu-teadmised ja neil tuginevad oskused](#)

Strategies and techniques of questioning effectuating thinking and deep understanding in teaching engineering at Estonian Centre for Engineering Pedagogy
Kipper, Hants; Rüütmann, Tiia Problems of education in the 21st century 2010 / p. 36-45

Strategies for the individualization of an informatics course
Mironova, Olga; Amitan, Irina; Vendelin, Jelena; Saar, Merike; Rüütmann, Tiia Proceedings of the 2014 Federated Conference on Computer Science and Information Systems 2014 / p. 835-840 : ill

Synthesis of best practices in curriculum design for engineering educators' pedagogical training
Rüütmann, Tiia; Läänemets, Urve Futureproofing Engineering Education for Global Responsibility : Proceedings of the 27th International Conference on Interactive Collaborative Learning (ICL 2024) ; vol. 2 2025 / p. 288-299 https://doi.org/10.1007/978-3-031-85649-5_35

Teaching computing for non-IT students : experience of Tallinn University of Technology

Mironova, Olga; Vendelin, Jelena; Amitan, Irina; Vilipõld, Jüri; Saar, Merike; Rüttnann, Tiia Proceedings of 2015 IEEE Global Engineering Education Conference (EDUCON) : 18-20 March 2015, Tallinn University of Technology (TUT), Tallinn, Estonia 2015 / p. 305-309 : ill <http://dx.doi.org/10.1109/EDUCON.2015.7095988>

Teaching for understanding in engineering education

Kipper, Hants; Rüttnann, Tiia International journal of engineering pedagogy 2013 / p. 55-63

Teaching for understanding in engineering education [Electronic resource]

Kipper, Hants; Rüttnann, Tiia 2012 15th International Conference on Interactive Collaborative Learning (ICL) : Villach, Austria 26–28 September 2012 / [9] p. [CD-ROM]

https://minas.medellin.unal.edu.co/images/iei/recursos/docencia_en_ingenieria/Teaching_for_Understanding_in_Engineering_Educatio.pdf

Teaching strategies for direct and indirect instruction in teaching engineering

Rüttnann, Tiia; Kipper, Hants International journal of engineering pedagogy 2011 / p. 37-44 <https://online-journals.org/index.php/i-jep/article/view/1805>

Teaching strategies for direct and indirect instruction in teaching engineering [Electronic resource]

Rüttnann, Tiia; Kipper, Hants 14 th International Conference on Interactive Collaborative Learning (ICL'2011), 21-23 September 2011, Piešťany, Slovakia 2011 / p. 107-114 [CD-ROM] <https://online-journals.org/index.php/i-jep/article/view/1805>

Teaching the art of teaching at Tallinn University of Technology

Rüttnann, Tiia; Vanaveski, Jüri Educating engineers for innovation : book of abstracts 2009 / p. 36

Teaduskondade didaktikakeskused annavad uusi õpetamisoskusi

Sarv, Mari Õõ Mente et Manu 2022 / lk. 36-37 https://www.ester.ee/record=b1242496*est

Technical teacher education problems in Estonia

Rüttnann, Tiia 7th Teacher Education Spring University (TESU) : European added value in teacher education: the role of teachers as promoters of basic skills acquisition and facilitators of learning : 6-8 May 2004, University of Tartu, Estonia : programme and abstracts 2004 / p. 70-71

Tehnikaalade õpetamine on keeruline kunst

Rüttnann, Tiia Mente et Manu 2015 / lk. 9-11 : fot https://artiklid.elnet.ee/record=b2746570*est

Tehnikaõpetajaks! : [TTÜ koostöös Tartu Ülikooliga alustab 2004. a. septembrist järjekordset tehnikavaldkonna õpetajate koolitust : eelteade]

Vanaveski, Jüri; Rüttnann, Tiia Mente et Manu 2004 / 13. mai, lk. 6 https://www.ester.ee/record=b1242496*est

Tehnikaõpetajate täiendkoolitusvõimalused Tallinna Tehnikaülikoolis

Neudorf, Reet; Rüttnann, Tiia Kutseõpetajakoolitus 21. sajandil : Il kutsepedagoogika konverents : konverentsi teesid 2010 / lk. 26-28

Testing platforms augmented with artificial intelligence and educational templates

Bondarenko, Tetiana; Rüttnann, Tiia; Kupriyanov, Oleksandr; Yahupov, Vasyi; Rostoka, Marina; Poliakov, Maksym Futureproofing Engineering Education for Global Responsibility : Proceedings of the 27th International Conference on Interactive Collaborative Learning (ICL 2024) ; vol. 1 2025 / p. 1305-1312 https://doi.org/10.1007/978-3-031-85652-5_47

The design and implementation of learner-centered guided in-service programme for technical teacher education

Rüttnann, Tiia; Kipper, Hants 2013 International Conference on Interactive Collaborative Learning (ICL) : September 25-27, 2013 at Kazan National Research Technological University, in Kazan, Russia 2013 / p. 221-226

The History of IGIP

Polyakova, Tatiana; Prikhodko, Viacheslav; Rüttnann, Tiia; Auer, Michael E. The International Society for Engineering Pedagogy: 1972–2022 2023 / p. 1-31 https://doi.org/10.1007/978-3-031-19890-8_1 [Article collection metrics at Scopus](#) [Article at Scopus](#)

The international cooperation on remote laboratories conducted with engineering didactics

Sell, Raivo; Rüttnann, Tiia Proceedings of 2014 11th International Conference on Remote Engineering and Virtual Instrumentation (REV) : 26-28 February 2014 in Porto, Portugal 2014 / p. 187-190 : ill

The international cooperation on remote laboratories in the framework of engineering didactics

Sell, Raivo; Rüttnann, Tiia International journal of engineering pedagogy 2015 / p. 8-11 <http://online-journals.org/index.php/i-jep/article/view/3917>

Tiia Rüttnann: inseneriõppe väljakutsetest ja pingutuse väärtusest

Rüttnann, Tiia Trialoog 2025 <https://trialoog.taltech.ee/tiia-ruutmann-inseneriõppe-valjakutsetest-ja-pingutuse-vaartusest/>

Tiia Rüütmann: kõige tähtsam on õppija toetamine - hirmuga ei õpi midagi

Rüütmann, Tiia Mente et Manu 2020 / lk. 14-19 : fot <https://dea.digar.ee/cgi-bin/dea?a=is&oid=AKmenteetmanu202011&type=staticpdf>

TTÜ õppejõu- ja õpetajakoolituse paindlik mudel [Võrguväljaanne]

Rüütmann, Tiia Õppejõult õppejõule 2015: kollegiaalne tagasiside : vaatmikuraamat 2015 / lk. 25 : ill <http://hdl.handle.net/10062/50036>

Töötuba "Probleemipõhine õpe reaal- ja loodusainete õpetamisel"

Rüütmann, Tiia PÜÜK 11 ja SCIENTIX esitlevad: Reaal- ja loodushariduse konverents Gunnar Polma mälestuseks Tallinna Reaalkoolis 11.-12. september 2015 / lk. 25

Unified remote and virtual lab solutions for engineering education

Sell, Raivo; Seiler, Sven; **Rüütmann, Tiia** Online experimentation : emerging technologies and IoT 2015 / p. 383-400
http://www.sensorsportal.com/HTML/BOOKSTORE/Online_Experimentation.htm

Updated curriculum for engineering pedagogical continuing in-service education

Rüütmann, Tiia; Annus, Ivar; Kübarsepp, Jakob; Läänemets, Urve; Umborg, Jaak Mobility for Smart Cities and Regional Development - Challenges for Higher Education : proceedings of the 24th International Conference on Interactive Collaborative Learning (ICL2021), Volume 2 2022 / p. 556-567 https://doi.org/10.1007/978-3-030-93907-6_59 [Conference proceedings at Scopus](#)
[Article at Scopus](#) [Article at WOS](#)

Uued inimesed ja positsioonid

Tammet, Tanel; Uska, Riina; Laanearu, Janek; Tabri, Kristjan; Vendelin, Marko; Margus, Madis; Kindsigo, Merit; Talpsepp, Tõnn; Tähemaa, Toivo; Laos, Katrin; Liiv, Innar; **Rüütmann, Tiia**; Sarapuu, Külli; Kikkas, Kaido; Pachel, Karin Mente et Manu 2022 / lk. 40-49 : fot https://www.ester.ee/record=b1242496*est

Work in progress - semantic annotations and teaching analytics on lecture videos in engineering education

Saar, Merike; Kusmin, Marge; Laanpere, Mart; Prieto, Luis P.; **Rüütmann, Tiia** Proceedings of 2017 IEEE Global Engineering Education Conference (EDUCON) : 25-28 April 2017, Athens, Greece 2017 / p. 1548-1551
<http://dx.doi.org/10.1109/EDUCON.2017.7943055>

Workshop on effective college teaching by Dr Richard Felder and Dr Rebecca Brent at Tallinn University of Technology, October 17-18, 2011

Rüütmann, Tiia; Kipper, Hants International Society for Engineering Education (IGIP). Report. Official Journal of IGIP 2011 / lk. 24-25 : fot

Would engineers need non-technical skills or non-technical competences or both?

Parts, Velli; Teichmann, Mare; **Rüütmann, Tiia** International journal of emerging technologies in learning (IJET) 2020 / p. 14-19
<https://doi.org/10.3991/ijep.v3i2.2405> [Journal metrics at Scopus](#) [Article at Scopus](#)

Дезодорирование масла какао дистилляцией в пленочной колонне

Rüütmann, Tiia; Joarand, Heiki; Grimm, M. Tallinna Tehnikaülikooli Toimetised 1990 / lk. 53-68: ill

Математическая модель процесса дезодорирования масла или массы какао в роторно-пленочном испарителе

Rüütmann, Tiia; Joarand, Heiki; Kallas, Juha Tallinna Tehnikaülikooli Toimetised 1990 / lk. 41-52: ill

Современное состояние исследований процесса десорбции с перегретым водяным паром

Joarand, Heiki; Kamenev, Inna; Kallas, Juha; Reile, Rein; **Rüütmann, Tiia** Тезисы докладов III Всесоюзного совещания по проблеме "Абсорбция газов", 5-7 мая 1987 года г. Таллин. Ч. 2 1987 / с. 49-50 https://www.ester.ee/record=b2164108*est