Title of Paper in English

Diana Mesquita1, Rui M. Lima2, Valquíria Villas-Boas3

1 Universidade Católica Portuguesa, Faculty of Education and Psychology, Research Centre for Human Development, Porto, Portugal

2 ALGORITMI Centre, Department of Production and Systems, School of Engineering, University of Minho, Guimarães, Portugal

3 Federal University of Rio Grande do Sul, Brazil

Email: [dmesquita@ucp.pt](mailto:dmesquita@ucp.pt), [rml@dps.uminho.pt](mailto:rml@dps.uminho.pt), [vvillasboas@gmail.com](mailto:vvillasboas@gmail.com)

**Abstract**

This document should be used as a template for the papers submitted to PAEE/ALE’2025. It provides the intended general structure, format, and other relevant information. Please read the template contents carefully and follow the instructions. Copy your text into this template to preserve the styles and other formatting elements. Papers should be written in English. The abstract should not exceed 300 words, followed by two to four keywords. The full paper is expected to have six to eight pages.

**Keywords**: Active Learning; Engineering Education; Conference Information; Project Approaches.

# Introduction

This document is to be used as a template for the paper. It provides information on its general structure and format, and explains that using general information on the conference. Save this document and copy your text into this template. The paper can be written in English.

The demand for engineering professionals is characterised by requirements of deep and solid interdisciplinary technical and transversal competences. Changing Engineering programmes ([Graaff & Kolmos, 2007](#_heading=h.1t3h5sf)) to meet these requirements can be addressed by different active learning approaches ([Christie & de Graaff, 2017](#_heading=h.2et92p0); [Lima, Andersson, & Saalman, 2017](#_heading=h.2s8eyo1)) and several institutions of higher education have been addressing these requirements with project approaches to engineering education. Problem and Project-Based Learning approaches ([Edström & Kolmos, 2014](#_heading=h.tyjcwt); [Graaff & Kolmos, 2003](#_heading=h.3dy6vkm); [Helle, Tynjälä, & Olkinuora, 2006](#_heading=h.4d34og8)) have proven to be effective in making interdisciplinary connections between different subject matters, developing, in parallel, competences of project management, autonomy and communication ([Lima, Dinis-Carvalho, Flores, & Hattum-Janssen, 2007](#_heading=h.17dp8vu); [Powell & Weenk, 2003](#_heading=h.3rdcrjn)).

PAEE/ALE'2025 is an international conference on active learning in engineering education, aiming to be a place for teachers, researchers, and professionals specializing in Engineering Education to meet annually to exchange, share, and discuss ideas to enhance engineering education with Active Learning. Besides paper sessions, participants will experience active involvement in workshops, debates, interactive sessions, and student project sessions. The conference is the merging of two international events: the International Symposium on Project Approaches in Engineering Education (PAEE) organized by the PAEE association and the Department of Production and Systems of the University of Minho, Portugal, since 2009, and Active Learning in Engineering Education Workshop (ALE) organized by Active Learning in Engineering Education Network since 2000. This event joins together the International Symposium on Project Approaches in Engineering Education (PAEE'2025) and the Active Learning in Engineering Education Workshop (ALE'2025). PAEE/ALE'2025 will be the 11th collaboration of the two events.

The PAEE/ALE’2025 is hosted by the Universidade Católica Portuguesa – Porto Campus in Porto, Portugal (Figure 1).

More information can be found at the conference website: <https://paeeale.dps.uminho.pt/>

A building with a lawn and a large building

AI-generated content may be incorrect.

Figure 1. Image of the campus of Universidade Católica Portuguesa, Porto, Portugal

# Scope

This year's conference will focus on “Innovative Pathways: Bridging Professional Development and Active Learning,” which is expected to discuss how to develop teachers’ competences to foster active learning in higher education, particularly Engineering Education. Different types of interaction approaches will be carried out, namely: (i) interactive sessions with keynote speakers; (ii) roundtable with experts on professional development; (iii) paper sessions (regular sessions and students paper award), (iv) workshops. On paper sessions and students award, participants can share their research work and/or their experiences. The workshops involve small groups working as teams and enable extensive discussions and exchange of experiences with international experts.

## Conference organisation model

The following themes are proposed, but PAEE/ALE’2025 is open to suggestions for other topics related to project approaches in engineering education:

* Active Learning and PBL Approaches
* Artificial  Intelligence and digital technologies
* Attracting young people to Engineering
* Curriculum design
* Student Assessment
* Inclusion, diversity and ethics in Engineering Education
* Education for sustainability
* Research on PBL and Active Learning
* Student’s engagement and partnership
* Teacher’s Professional Development for Active Learning
* University-Business Cooperation
* Innovative experiences in engineering education

The programme diversity, in terms of interaction approaches and addressed themes, makes the PAEE/ALE a platform for those who wish to share and learn more about active learning and project-oriented approaches to teaching/learning of higher education and, particularly, engineering education.

## Milestones – important dates

The conference has the milestones indicated in Table 1. Please note that the tables should be formatted as below, without vertical borders.

Table 1. Milestones – important dates.

|  |  |
| --- | --- |
| Date | Milestones |
| Feb. 15, 2025 | Abstract submission for full papers |
| March 4, 2025 | Notification of abstract acceptance |
| April 10, 2025 | Full paper submission |
| April 10, 2025 | Abstract only submission |
| April 30, 2025 | Notification of acceptance |
| May 05, 2025 | Camera-ready submission for full papers |
| May 15, 2025 | Early bird registration |
| June 15, 2025 | Final registration to be included in proceedings |

# Target Stakeholders

The PAEE/ALE conference aims to engage teachers, researchers on Engineering Education, deans of Engineering Schools, and professionals concerned with Engineering Education in the discussion of Active Learning and Project Approaches in Engineering Education through active workshops and presentations of current practice and research in this field. Considering the scope of this year’s conference, all areas of knowledge in higher education are welcome.

# Information for Participants

This section has information relevant for participants in terms of: (i) web platform registration, (ii) conference registration and (iii) instructions for authors.

## Submission Platform

Participants should register in the conference platform to submit their abstracts/papers and also to conclude the registration: <https://paeeale-2025.eventqualia.net/en/cloud/paee251847/account/login/>

## Conference Registration

Conference registration is compulsory for PAEE/ALE’2025 participants. **Papers will only be published after registration and payment of the registration fee.** At least, one of the authors is required to register and present the paper.

Please find more information on conference registration and payment on the conference website (<https://paeeale.dps.uminho.pt/registration/>). Participants who do not present a paper are also welcome to PAEE/ALE’2025.

## Instructions for Authors

Papers submitted to the conference must comply with this document, which the authors should use as a template. They must be a minimum of six pages and a maximum of eight pages.

This document is in accordance with the following general rules:

* Document file must be in Microsoft Word format applying the styles used in this template.
* Page layout in A4 size with one column text format.
* Entire document written using “Segoe UI” text font.
* Left and right margins of 2 cm; top and bottom margins of 2.5 cm.
* Word style “Normal”: body text with “Segoe UI” text font size 10, single line spacing, justified, spacing after paragraph 6 pts.
* Title must use the word style “Head\_Title”, using “Segoe UI” text font, bold, size 16, left aligned.
* Word style “Authors”: author information with “Segoe UI Light” text font, bold, size 10, left aligned.
* Word styles “affiliation” and “email”: affiliation and email addresses with “Segoe UI” text font, size 8, left aligned.
* Word style “Heading 1”: first level section titles with “Segoe UI” text font, bold, size 14, distance before paragraph of 24 pts and hanging indent of 0.76 pts.
* Word style “Heading 2”: second level section titles with “Segoe UI” text font, bold, size 12, distance before paragraph of 10 pts and hanging indent of 1.02 pts.
* Word style “Heading 3”: third level section titles with “Segoe UI” text font, bold, size 10, distance before paragraph of 10 pts and hanging indent of 1.27 pts.
* Do not use section titles of level 4 and more.
* Do not use footnotes.
* Figure and table captions with “Segoe UI” text font, size 9. Figures and Tables are left aligned.
* References use APA style:
  + Cross reference has “author (year)” or (author, year).
  + Reference list sorted by last name.

Please format your document according to the standards above, including Word styles. **To comply with the standards, copy your text into this template.**

# Conclusion

This document is a quick reference guide for submitting full papers and provides some information about the conference in general. If you have any questions or need any further information, please consult the conference website: <https://paeeale.dps.uminho.pt/>. Do not hesitate to contact the organising committee by email: [support@eventqualia.com](mailto:support@eventqualia.com).

# References

Christie, M., & de Graaff, E. (2017). The philosophical and pedagogical underpinnings of Active Learning in Engineering Education. *European Journal of Engineering Education, 42*(1), 5-16. doi:10.1080/03043797.2016.1254160

Edström, K., & Kolmos, A. (2014). PBL and CDIO: complementary models for engineering education development. *European Journal of Engineering Education, 39*(5), 539-555. doi:10.1080/03043797.2014.895703

Graaff, E. d., & Kolmos, A. (2003). Characteristics of Problem–Based Learning. *International Journal of Engineering Education, 19*(5), 657-662.

Graaff, E. d., & Kolmos, A. (Eds.). (2007). *Management of Change: Implementation of Problem-Based and Project-Based Learning in Engineering*. Roterdam: Sense Publishers.

Helle, L., Tynjälä, P., & Olkinuora, E. (2006). Project-Based Learning in Post-Secondary Education - Theory, Practice and Rubber Sling Shots. *Higher Education, 51*(2), 287-314.

Lima, R. M., Andersson, P. H., & Saalman, E. (2017). Active Learning in Engineering Education: a (re)introduction. *European Journal of Engineering Education, 42*(1), 1-4. doi:10.1080/03043797.2016.1254161

Lima, R. M., Dinis-Carvalho, J., Flores, M. A., & Hattum-Janssen, N. v. (2007). A case study on project led education in engineering: students' and teachers' perceptions. *European Journal of Engineering Education, 32*(3), 337 - 347.

Powell, P. C., & Weenk, W. (2003). *Project-Led Engineering Education*. Utrecht: Lemma.