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ESCAPE 36

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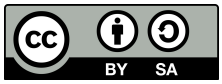

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Table of Contents

PREFACE

PEER REVIEWED CONFERENCE PROCEEDINGS

Section 1: CAPE in Circular Economy

Section 2: CAPE in Clean Energy Systems

Section 3: CAPEing with Uncertain Futures

Section 4: Pharmaceutical and Biotechnological Systems

Section 5: Modelling and Simulation

Section 6: Concepts, Methods and Tools

Section 7: Process Design, Scheduling and Optimisation

Section 8: Process Control and Operation

Section 9: CAPE in Education, Knowledge Transfer and Entrepreneurship

INDEX

Introduction

Solomon Brown, Maria Papathanasiou, David Bogle, Joan Cordiner, Michael Fairweather (eds.)

The 36th European Symposium on Computer Aided Process Engineering (ESCAPE|36) was held in the UK from Sunday 21 June to Wednesday 24 June 2026 at the University of Sheffield. The organisation was led by members of the University's School of Chemical, Materials and Biological Engineering, in collaboration with the Institution of Chemical Engineers (IChemE) and the Grantham Centre for Sustainable Futures.

Since it began, ESCAPE has become a prestigious platform for the process systems engineering community to connect with experts, share innovative ideas, and explore latest advancements. Spread across four days, researchers, industry professionals, and students, will enjoy a wide range of presentations, posters, plenary speakers, workshops, panel discussions, networking opportunities, and social events.

In an era defined by climate challenges, resource constraints, and rapid technological advancement, the need for sustainable practices has never been more urgent or complex. The main theme of this year's conference, Resilient Sustainability through CAPE, reflects the shift toward integrating resilience through design and the critical role computer-aided process engineering has when developing innovative tools and adaptive, efficient systems that can withstand uncertainty while minimising environmental impact. This conference brings together leading minds to explore how advanced modelling, simulation, optimisation, and data-driven decision-making can drive sustainable transformation across sectors.

ESCAPE|36 received 687 abstract submissions, of which 654 were invited for a 5-to-8 page full paper or a 2-page short paper after a first round review. Upon rigorous re-review of all papers submitted, 331 conference papers have been published in full open access by PSE Press as a volume of the *Systems & Control Transactions* series. Another 162 contributions being made available as short papers separately.

The scientific contributions were organised into oral sessions, poster presentations, workshops and demonstrations, within nine thematic areas:

1. CAPE in Circular Economy
2. CAPE in Clean Energy Systems
3. CAPEing with Uncertain Futures
4. Pharmaceutical and Biotechnological Systems
5. Modelling and Simulation
6. Concepts, Methods and Tools
7. Process Design, Scheduling and Optimisation
8. Process Control and Operation
9. CAPE in Education, Knowledge Transfer and Entrepreneurship

We would like to extend our sincere thanks to all authors, reviewers, topic coordinators, plenary and keynote speakers, and members of the Scientific and Organizing Committees. We gratefully acknowledge the University of Sheffield and the IChemE for their support and express our heartfelt appreciation to our numerous sponsors. This edition marks the second volume with PSE Press as the official publisher of the ESCAPE proceedings (full papers volume) – continuing this important collaboration in promoting high-quality, open access dissemination of PSE research.

We hope this volume captures the scientific excellence, collaborative spirit, and forward-looking vision that defined ESCAPE|36 and continue to serve as a valuable reference for researchers and practitioners in the years ahead.

ESCAPE|36 - European Symposium on Computer Aided Process Engineering
Sheffield, UK. 21-24 June 2026

Peer Review Policy

TERMINOLOGY

- **Conference Paper:** This is a peer-reviewed research paper describing an **original** research contribution and published in the conference proceedings.

APPLICATION

- All conference papers are subject to peer review.

PUBLICATIONS

- All conference papers which have passed peer review and have been accepted by the conference chairs will be published in the conference proceedings.

PEER REVIEW PROCESS

Initial Screening

The conference chairs will screen the initial submissions (one-page abstracts) of contributed papers. At their option, chairs may choose to reject these submissions for any reason, but the primary reasons for rejection at this stage are (a) subject does not match conference themes and topics; (b) in appropriate, unprofessional, unethical, or dishonest material; (c) duplicate submissions; (d) abandoned submissions; (e) multiple submissions from same presenter; (f) obvious poor quality; (g) reasonable suspicion of machine-generated text; (h) need to limit acceptances because of conference space constraints. Chairs may also transfer papers between sessions at this stage.

Conference chairs will then invite authors of the one-page abstracts that have passed the initial screening to submit a conference paper for peer review.

Conference Paper Peer Review

Conference chairs act as editors. They will assign peer reviewers to assess the quality of the conference papers and manage the peer review process for each paper. Peer reviewers are generally selected from the International Scientific Committee who are scientists, engineers, or researchers with technical expertise in the conference topic. Peer reviewers must be considered technical experts in their field, hold a PhD, and have published peer reviewed scientific works previously. Each work must be reviewed by a minimum of two peer-reviewers.

A “single-blind” peer review system is used, in which the peer reviewers have access to the identities of the authors, but the authors are never given the identities of the peer reviewers. This is consistent with most journal peer-review procedures in our field.

Peer reviewers will be given a set of quality criteria that may include scientific and technical quality, quality of writing, originality and novelty, appropriateness for the conference topic and theme, interest to the community, and other factors of merit. Peer reviewers are expected to be rigorous and critical in their technical assessments and adhere to the highest standards in the field in order to ensure high quality. Peer reviewers are asked to comment on their assigned conference papers and issue a recommendation to the conference chairs based on this quality criteria. Reviewers may recommend one of the following:

- **Accept Paper.** No technical changes are necessary before publication. Only typographical, spelling, grammar, or other minor changes are necessary which do not require technical review.
- **Accept Paper with Minor Revisions.** Some minor technical issues need to be addressed either through technical changes to the manuscript or through rebuttal to reviewer comments. The reviewer does not believe the issues are significant enough to require additional technical review by the reviewers. The reviewer has provided enough commentary such that the editor can decide if the minor issues have been addressed in a future revision.
- **Reject Without Reconsideration.** The technical issues are so significant that it is unlikely that an acceptable

manuscript could be produced by the deadline; or, the manuscript is out of scope, inappropriate, or computer-generated.

Peer reviewers may be asked to provide numerical scores or rankings, as well as provide written comments intended for the chairs and/or the authors. Peer reviewers are encouraged to provide specific and constructive feedback that will aid the authors in improving the work and provide advice to the chairs.

The conference chairs are responsible for making the final decision on each paper and may require several rounds of author changes if necessary to meet quality standards. Conference chairs are not required to follow the recommendations of the peer reviewers in making these decisions. It is possible that conference chairs will choose to not accept some papers that still pass through rigorous technical peer review, especially when limited by available space or when papers do not sufficiently promote conference objectives. Conference chairs may also transfer papers between sessions as desired.

CONFLICTS OF INTEREST AND ETHICAL GUIDELINES

The chairs and peer reviewers must ensure they do not have a conflict of interest that may bias their decisions, such as ensuring that authors are at “arm’s length” and have no financial conflicts of interest. Peer reviewers and chairs must disclose if they have such a conflict of interest with a specific submission, and if so, a different chair and/or peer reviewer should be assigned to handle that submission.

To help determine conflicts of interest, and for all other ethical guidelines, we use the Systems and Control Transactions ethical guidelines described at: https://psecommunity.org/contributor-guidelines

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