

Editorial

**Caroline Baillie and Jonte Bernhard**

The experience of interacting with technological artefacts

**Brandon I. Collier-Reed, Jennifer M. Case and Cedric Linder**

Perceptions of mathematics in engineering

**Paul Winkelman**

Seeing through the lens of social justice: a threshold for engineering

**J. Kabo and C. Baillie**

Learning computer science: perceptions, actions and roles

**Anders Berglund, Anna Eckerdal, Arnold Pears, Philip East, Päivi Kinnunen, Lauri Malmi, Robert McCartney, Jan-Erik Moström, Laurie Murphy, Mark Ratcliffe, Carsten Schulte, Beth Simon, Ioanna Stamouli and Lynda Thomas**

Variation theory applied to students' conceptions of computer programming

**Michael Thuné and Anna Eckerdal**

Physics group work in a phenomenographic perspective – learning dynamics as the experience of variation and relevance

**Åke Ingerman, Maria Berge and Shirley Booth**

Learning as acquiring a discursive identity through participation in a community: improving student learning in engineering education

**Saalih Allie, Mogamat Noor Armien, Nicolette Burgoyne, Jennifer M. Case, Brandon I. Collier-Reed, Tracy S. Craig, Andrew Deacon, Duncan M. Fraser, Zulpha Geyer, Cecilia Jacobs, Jeff Jawitz, Bruce Kloot, Linda Kotta, Genevieve Langdon, Kate le Roux, Delia Marshall, Disaapele Mogashana, Corrinne Shaw, Gillian Sheridan and Nicolette Wolmarans**

Teaching in higher education through the use of variation: examples from distillation, physics and process dynamics

**Duncan Fraser and Cedric Linder**

Liminal spaces and learning computing

**Robert McCartney, Jonas Boustedt, Anna Eckerdal, Jan Erik Moström, Kate Sanders, Lynda Thomas and Carol Zander**

Student learning in an electric circuit theory course: critical aspects and task design

**Anna-Karin Carstensen and Jonte Bernhard**

# European Journal of Engineering Education



## SPECIAL ISSUE

Educational research impacting  
engineering education

## GUEST EDITORS

Caroline Baillie and Jonte Bernhard