## **Lecture Notes in Networks and Systems**

### Volume 122

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Monica Rossi · Matteo Rossini · Sergio Terzi Editors

# Proceedings of the 6th European Lean Educator Conference

**ELEC 2019** 



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### **Preface**

This publication constitutes the refereed post-conference proceedings of the 6th European Lean Educator Conference 2019, ELEC 2019, held in Milan, Italy, in November 2019.

ELEC is an international conference hosted in Europe that focuses on lean approach, on its forefront development and on the educational process necessary/useful to spread it in both academic and industrial worlds. That is why, ELEC brings together a diverse audience of participants including academics (teachers and researchers), intermediaries (consultants and coaches) and practitioners (managers and employees from industry) in an eclectic mix every year.

The ambitious aim of ELEC is to create the right environment for a fruitful exchange within and between academia and industry by pursuing the mission of shaping the existing generation and growing the next generation of lean educators. How to engage in continuously innovative educational methods is paramount to create more prosperous and fairer societies. And this publication contributes to this aim, from a scientific perspective with practical evidences.

Beyond lean thinking's roots in manufacturing, countless applications have emerged and other fields are experiencing more and more successful lean transformations, from product development and innovation to office and all knowledge work, in services from health care to education and macro-projects in construction and mining, to mention just a few. This means there are so many cross-learning opportunities between the various fields, as well as teaching and learning approaches face a constant evolution towards more effective and efficient ways to understand the potentialities of lean thinking in practice.

ELEC 2019 scope and objective explore the latest academics and industrial contributions to lean education, looking for innovative methods and approaches that allow lean thinking benefits to materialize in practice in as many industries as possible, hence the name given to 2019 conference: *The Lean Educator and Practitioner Mashup*.

In this publication, the editors introduce 41 revised full papers that were carefully reviewed, presented and deeply discussed during 11 parallel sessions at ELEC 2019, around the following topics: lean trainings within university and industry

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collaborations; lean product and process development; lean and people empowerment; emerging contexts for lean applications; measuring lean performances; lean, green and circular; continuous improvement initiatives; lean thinking in practice; organizational culture in lean journeys; innovative trainings to teach lean management.

Milan, Italy

The editors Monica Rossi Matteo Rossini Sergio Terzi

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