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IFIP is the global non-profit federation of societies of ICT professionals that aims at achieving a worldwide professional and socially responsible development and application of information and communication technologies.

IFIP is a non-profit-making organization, run almost solely by 2500 volunteers. It operates through a number of technical committees and working groups, which organize events and publications. IFIP's events range from large international open conferences to working conferences and local seminars.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is generally smaller and occasionally by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is also rigorous and papers are subjected to extensive group discussion.

Publications arising from IFIP events vary. The papers presented at the IFIP World Computer Congress and at open conferences are published as conference proceedings, while the results of the working conferences are often published as collections of selected and edited papers.

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Olivia McDermott · Angelo Rosa ·
José Carlos Sá · Aidan Toner (Eds.)

Lean, Green and Sustainability


8th IFIP WG 5.7

European Lean Educator Conference, ELEC 2022


Galway, Ireland, November 22–24, 2022


Proceedings

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ISSN 1868-4238 ISSN 1868-422X (electronic)
IFIP Advances in Information and Communication Technology
ISBN 978-3-031-25740-7 ISBN 978-3-031-25741-4 (eBook)
<https://doi.org/10.1007/978-3-031-25741-4>

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The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

In this proceedings, we share the papers that were presented at the 8th European Lean Educator Conference (ELEC 2022), which was hosted face to face in Galway, Ireland, during November 22–24, 2022. This year’s conference was special in that it was sponsored by the International Federation for Information Processing (IFIP) for the second time in its history, having been organized in close collaboration with the IFIP Working Group 5.7 Special Interest Group (SIG) on the Future of Lean Thinking and Practice. The conference was organized by the University of Galway, Ireland.

The ELEC community is dedicated to fostering knowledge exchange within academia as well as between academic institutions and industry, which we believe is especially important. As such, ELEC 2022 provided a platform for professors, teachers, trainers, and coaches from academia, industry, and public sector organizations to share their knowledge and experiences and learn from one another.

ELEC conferences distinguish lean thinking as a broad management and operations improvement philosophy, fully grounded in science and supported by a continually growing set of methods, techniques, and tools. Given that this year’s conference theme was ‘Lean, Green and Sustainability’, ELEC 2022 made a special effort to highlight the role of lean and green as well as sustainability concepts in the emerging digital lean manufacturing paradigm.

This volume includes the 28 full papers that were presented at ELEC 2022. The papers were double-blind peer-reviewed to ensure quality and went through a rigorous editing and ‘redline’ review to ensure conformance to the standards of ELEC. We had 42 presentations at the conference of which 28 were academic paper submissions.

We thank the many experienced Lean authors and academics who submitted academic papers and guaranteed a high quality of submissions and acceptances. To name but a few of these academics, they included Angelo Rosa, José Carlos Sá, Daryl Powell (ELEC 2021 chair), Ton van Kollenburg (ELEC 2023 chair), José Dinis Carvalho (ELEC 2019 chair) and Matteo Rossini (ELEC 2020 chair), and their extended faculty members, who ensured and authored high-quality submission.

Thanks also to the reviewer team who reviewed several papers each and redlined areas for improvement and gave feedback to ensure high standards and aid decisions.

We thank the academics from various Irish educational institutions who worked closely with their industry-based MSc and PhD Lean students to ensure that firstly those high-achieving student thesis/final papers were edited to a high academic standard before submission to the ELEC system and secondly that Irish Lean industry practice was represented and showcased at ELEC 2022.

The topics which emerged at ELEC 2022 were:

- Lean & People
- Lean in Healthcare
- Lean 4.0
- Lean in Manufacturing

- Lean Learning in the Digital Era
- Lean in Services
- Lean, Green & Sustainability

In addition to the technical program, ELEC 2022 featured five keynote talks:

- Daryl Powell (SINTEF Manufacturing AS), ‘Lean & the Green Economy: The Promise of a Waste Free Society’;
- Richard Keegan (Trinity College Dublin), ‘Is Lean Operational Excellence Useful Today?’;
- Rose Heathcote (University of Buckingham), ‘The Sustainable Enterprise: Delivering a Better Kind of Value’;
- Richard Dawson (UPMC Medical Group), ‘Creating a Culture of Service Excellence in Healthcare’.
- Stuart Nelson (University of Galway) ‘Leadership in Lean’.

On behalf of the Conference Committee, we would like to thank all contributors for the high standard of work presented at ELEC 2022. This of course would not have been possible without the support of our International Scientific Committee and reviewers, so we would also like to thank these members for their efforts in reviewing and selecting the papers to be presented at ELEC 2022.

To conclude, we hope that ELEC 2022 stimulated the exchange of both research results and practical experiences to enhance the state of the art of lean thinking and practice.

November 2022

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