

# **Ninth International Conference on Lean Six Sigma**

## ***Theme: Operational Excellence in the era of Industry 4.0 and Industry 5.0***

***November 13<sup>th</sup> and 14<sup>th</sup> 2023***

***Venue: Faculty of Business and Law, Newcastle Business School, Northumbria University, Newcastle, England, UK***

### **Day 1 – 13<sup>th</sup> of November**

<b>Time Zone (UK)</b>	<b>Location/Venue: CCE1 002 (Lecture Theatre)</b>
<b>8:45 am</b>	<b>Welcome Remarks – Professor Alan Reed, Deputy Pro Vice-Chancellor (Research and KE), Northumbria University</b>
<b>9:00 am</b>	<b>Opening Remarks – Professor Jiju Antony, Vice President of Research for International academy for Quality, Conference Chair and Founder, Northumbria University</b>
<b>9:15 - 10.15 am</b>	<p><b>Keynote Address 1</b></p> <p><b>Title:</b> Lean Six Sigma in the era of Digitization: Where are we today and where are we going?</p> <p><b>Speaker:</b> Professor Roger Hoerl, Brate-Peschel Professor of Statistics at Union College in New York, USA</p>
<b>10.15 - 11.15 am</b>	<p><b>Keynote Address 2</b></p> <p><b>Title:</b> Using Strategic Planning to Leverage Digitization to Grow Your Operational Excellence Culture.</p> <p><b>Speaker:</b> Jd Marhevko, VP of Quality for ZF Group’s Electronics &amp; ADAS Division, USA</p>
<b>11.15 - 11.45 am</b>	<b>Refreshment Break/Networking</b>
<b>11.45 am - 12.45 pm</b>	<p><b>Keynote Address 3</b></p> <p><b>Title:</b> The Future Direction of Lean Six Sigma in the Digital Era: Technology and People.</p> <p><b>Speaker:</b> Professor Peter Hines, Enterprise Excellence Network, UK</p>
<b>12.45 – 1.45 pm</b>	<b>Lunch Break</b>

CONCURRENT BREAKOUT ROOM # 1 CCE1- 002 (Lecture Theatre)	CONCURRENT BREAKOUT ROOM #2 CCE1 - Harvard lecture theatre 401 (4 <sup>th</sup> floor)	CONCURRENT BREAKOUT ROOM #3 CCE1 - Harvard lecture theatre 402 (4 <sup>th</sup> floor)	CONCURRENT BREAKOUT ROOM #4 CCE1 - Harvard lecture theatre 403 (4 <sup>th</sup> floor)
1.45 pm – 3.00 pm Session Chair: <b>Professor Jiju Antony</b>	1.45 pm – 3.00 pm Session Chair: <b>Dr Alireza Shokri</b>	1.45 pm – 3.00 pm Session Chair: <b>Dr Daryl Powell</b>	1.45 pm – 3.00 pm Session Chair: <b>Dr Chad Laux</b>
1.45 pm – 2.10 pm  <b>Title:</b> Utilizing LSS for enhanced Data Governance and Privacy: a SLR  <i>Speaker: Manal Alduraibi, Ardurra Group Inc., USA</i>	1.45 pm – 2.10 pm  <b>Title:</b> Planting the seed: introducing knowledge of digitalization using CI capabilities  <i>Speaker: Alinda Kokkinou, AVANS University of Applied Sciences &amp; Breda University of Applied Sciences, The Netherlands</i>	1.45 pm – 2.10 pm  <b>Title:</b> Productivity improvement in SMEs - an organizational culture perspective  <i>Speaker: Mr Theis Villadsen, University of South-Eastern Norway, Kongsberg, Norway</i>	1.45 pm – 2.10 pm  <b>Title:</b> Revealing research trends in Operational Excellence: from year 2018 to year 2023  <i>Speaker: Mohamed Alblooshi, Zayed University, UAE</i>
2.10 pm – 2.35 pm  <b>Title:</b> A Conceptual Framework to mitigate process improvement project failures through change management theory  <i>Speaker: Dr Raja Jayaraman, Khalifa University, UAE</i>	2.10 pm – 2.35 pm  <b>Title:</b> Lean Six Sigma and Generative AI Natural Language Processing Models  <i>Speaker: Dr Alessandro Laureani, Independent LSS Scholar, Ireland</i>	2.10 pm – 2.35 pm  <b>Title:</b> The benefits of real-time business intelligence in manufacturing: a systematic review  <i>Speaker: Mr Vince McSkimmings, Data Strategist, Business Intelligence Analyst and PhD candidate, Northumbria University, UK</i>	2.10 pm – 2.35 pm  <b>Title:</b> Improving Quality Metrics: Profile and Lead in a Gear Using Lean Six Sigma  <i>Speaker: Shubham Sharma, Shoolini University, India</i>
2.35 pm – 3.00 pm  <b>Title:</b> Exploring the LSS 4.0 skills and competencies: results from a pilot survey  <i>Speaker: Dr Cristina Ciliberto, University of Messina, Italy</i>	2.35 pm – 3.00 pm  <b>Title:</b> Reducing defects in the manufacturing of cover control shaft through FMEA  <i>Speaker: Dwi Kurniawan, Institut Teknologi Nasional, Indonesia</i>	2.35 pm – 3.00 pm  <b>Title:</b> Lean manufacturing evaluation framework in the context of Industry 4.0 for the aerospace sector  <i>Speaker: Mohamed Addajou, University of Gloucestershire</i>	2.35 pm – 3.00 pm  <b>Title:</b> Leveraging Lean Six Sigma for sustainable transformation and empowering Decarbonization initiatives in Petroleum development Oman (PDO)  <i>Speaker: Zeyana Al-Yazeedi, PDO, Sultanate of Oman</i>
3.00 pm – 3.30 pm	Refreshment Break/Networking		

3.30 pm – 4.45 pm Session Chair: <b>Professor Jiju Antony</b>	3.30 pm – 4.45 pm Session Chair: <b>Dr Raja Jayaraman</b>	3.30 pm – 4.45 pm Session Chair: <b>Dr Daryl Powell</b>	1.45 pm – 3.00 pm Session Chair: <b>Dr Chad Laux</b>
3.30 pm – 3.55 pm  <b>Title:</b> Utilising DFLSS methodology in a university for new course design and introduction  <b>Speaker:</b> <i>Dr Olivia McDermott, University of Galway, Republic of Ireland</i>	3.30 pm – 3.55 pm  <b>Title:</b> Assessing Sustainable Production Improvement: A Case Study applying Circular VSM  <b>Speaker:</b> <i>Dr Javier Santos, University of Navarra, Spain</i>	3.30 pm – 3.55 pm  <b>Title:</b> Types of Waste in Higher Education Institutions Based on the Lean Philosophy: Development of an Assessment Instrument  <b>Speaker:</b> <i>Dr Leander Luiz Klein, Federal University of Santa Maria, Brazil</i>	3.30 pm – 3.55 pm  <b>Title:</b> Lean Six Sigma and intelligent manufacturing on financial performance: an empirical study of Chinese Manufacturing firms  <b>Speaker:</b> <i>Na Li, Beijing University of Chemical Technology, China</i>
3.55 pm – 4.20 pm  <b>Title:</b> LSS for the optimisation of RPA systems in Financial Service operations  <b>Speaker:</b> <i>Dr Bart Lameijer, University of Amsterdam Business School, The Netherlands</i>	3.55 pm – 4.20 pm  <b>Title:</b> Enhancing CI practices in software development team via AR method  <b>Speaker:</b> <i>Lubomir Stowik, Jagiellonian University, Poland</i>	3.55 pm – 4.20 pm  <b>Title:</b> How can Lean Healthcare research provide insight into Lean Higher Education?  <b>Speaker:</b> <i>Kate Maguire, Oxford Brookes University, UK</i>	3.55 pm – 4.20 pm  <b>Title:</b> Failure Mode and Effect Analysis (FMEA): A LSS technique on Abuse-Deterrent Formulations  <b>Speaker:</b> <i>Dr Chad Laux, Purdue University, USA</i>
4.20 pm – 4.45 pm  <b>Title:</b> Pathways for integrating Lean Management with Industry 4.0 - a Dynamic Capabilities perspective  <b>Speaker:</b> <i>Tim Komkowski, Heriot-Watt University, Scotland, UK</i>	4.20 pm – 4.45 pm  <b>Title:</b> Exploring the development of management systems in a sustainability era  <b>Speaker:</b> <i>Dr John Larsson, Scania/KTH Royal Institute of Technology, Sweden</i>	4.20 pm – 4.45 pm  <b>Title:</b> <i>Improving the production process of an automotive display Manufacturer – An action-research case study using Lean Six Sigma and Data Mining</i>  <b>Speaker:</b> <i>Rui Oliveira, University of Minho, Portugal</i>	4.20 pm – 4.45 pm  <b>Title:</b> Business Agility – Preparing Petroleum Development Oman (PDO) for the Future  <b>Speaker:</b> <i>Zaaima Al Ghafri, PDO, Sultanate of Oman</i>
5.00 pm – 5.15 pm	Closing Remarks of Day 1: <b>Dr Chad Laux and Dr Raja Jayaraman</b> (Co-Chairs)  <b>Venue:</b> Lecture Theatre – CCE1 002		
7.00 pm – 10.30 pm	Dinner and Entertainment <b>Venue:</b> Northumbria University Students' Union		

## Day 2 – 14<sup>th</sup> November 2023

<b>Time Zone (UK)</b>	<b>Location/Venue: CCE1 002 (Lecture Theatre)</b>
9.15 - 10.15 am	<p><b>Keynote Address 4</b></p> <p><b>Title:</b> How to Create Performance Excellence in Hospitals with Lean and Lean Six Sigma?</p> <p><b>Speaker:</b> Professor Jaap van den Heuvel and Professor Ronald J.M.M. Does, Netherlands</p>
10.15 – 11.15 am	<p><b>Keynote Address 5</b></p> <p><b>Title:</b> Enhancing the effectiveness of Design of Experiments with ML algorithms</p> <p><b>Speaker:</b> Mr Robert G. Launsby, Founder of Launsby Consulting, USA</p>
11.15 am – 11.45 am	<b>Refreshment Break / Networking</b>
11.45 am – 12.45 pm	<p><b>Keynote Address 6</b></p> <p><b>Title:</b> Unleashing the Digital Avengers: Assembling Tribes to Revolutionise Operational Excellence and Value Stream Delivery</p> <p><b>Speaker:</b> Mr James Dwan, CEO of Catalyst Consulting, UK</p>
12.45 pm – 1.45 pm	<b>Lunch Break</b>

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1.45 pm – 3.00 pm Session Chair: <b>Professor Jiju Antony</b>	1.45 pm – 3.00 pm Session Chair: <b>Dr Beth Cudney</b>	1.45 pm – 3.00 pm Session Chair: <b>Dr Olivia McDermott</b>	1.45 pm- 3.00 pm Session Chair: <b>Dr Evangelos Psomas</b>
1.45 pm – 2.10 pm <b>Title:</b> A Global Study on Critical Failure Factors of Design for Six Sigma  <b>Speaker:</b> <i>Professor Shreeranga Bhat, St Joseph Engineering College, Mangalore, India</i>	1.45 pm – 2.10 pm <b>Title:</b> Using the Voice of the Customer to Improve Patient Satisfaction  <b>Speaker:</b> <i>Dr Beth Cudney, Maryville University, USA</i>	1.45 pm – 2.10 pm <b>Title:</b> Lean Six Sigma Application in a Pharma Inbound Warehouse -A Case Study  <b>Speaker:</b> <i>Darren Woods, University of Galway, Republic of Ireland</i>	1.45 pm – 2.10 pm <b>Title:</b> Practical implications of the integration of Lean, Green, and Industry 4.0: a systematic literature review  <b>Speaker:</b> <i>Dr Nikolitsa Gkoloni, University of Patras, Greece</i>
2.10 pm – 2.35 pm <b>Title:</b> The Status of OPEX Methodologies in the Energy Sector: An Empirical Finding from Oman	2.10 pm – 2.35 pm <b>Title:</b> Lean Six Sigma Criticisms and Gaps: A Critical Literature Review	2.10 pm – 2.35 pm <b>Title:</b> Transformational Leadership Training for Agile-Lean Managers -A Case Study	2.10 pm – 2.35 pm <b>Title:</b> The role of Machine Vision Technology to boost Quality 4.0: Bibliometric overview and future research directions

<i>Speaker: Yousuf Al Zaabi, PDO, Sultanate of Oman</i>	<i>Speaker: Dr Chad Laux, Purdue University, USA</i>	<i>Speaker: Stuart Nelson, University of Galway, Republic of Ireland</i>	<i>Speaker: Juliano Endrigo Sordan, Federal University of São Carlos, Brazil</i>
2.35 pm – 3.00 pm  <b>Title:</b> The impact of Lean Six Sigma adoption on corporate performance: A longitudinal study  <i>Speaker: Dr Michael Sony, Oxford Brookes University, UK</i>	2.35 pm – 3.00 pm  <b>Title:</b> Networked Value Stream Map for Lean Sustainability  <i>Speaker: Dr Chad Laux, Purdue University, USA and Dr Beth Cudney, Maryville University, USA</i>	2.35 pm – 3.00 pm  <b>Title:</b> Reconfiguring Waste Elimination in Lean Supply Chain: The Role of Blockchain Technology  <i>Speaker: Esraa Said Mohamed Elghonimy Mohamed, Newcastle University, UK</i>	2.35 pm – 3.00 pm  <b>Title:</b> A pilot study on the current state of Quality 4.0 in healthcare organizations in the United Arab Emirates  <i>Speaker: Juman Alsadi, Khalifa University, UAE</i>
<b>Tea/Coffee Break: 3:00 pm – 3:30 pm</b>	<b>Tea/Coffee Break: 3:00 pm – 3:30 pm</b>	<b>Tea/Coffee Break: 3:00 pm – 3:30 pm</b>	<b>Tea/Coffee Break: 3:00 pm – 3:30 pm</b>
3.30 pm – 4.45 pm Session Chair: <i>Dr Michael Sony</i>	3.30 pm – 4.45 pm Session Chair: <i>Dr Alireza Shokri</i>	3.30 pm – 4.45 pm Session Chair: <i>Dr Olivia McDermott</i>	No more sessions will be running in this room
3.30 pm – 3.55 pm  <b>Title:</b> Operational Excellence NOT a Magic Bullet: Analysis of its key criticisms  <i>Speaker: Dr Michael Sony, Oxford Brookes University, UK</i>	3.30 pm – 3.55 pm  <b>Title:</b> Understanding teaching effectiveness attributes from the student's perspective  <i>Speaker: Dr Beth Cudney, Maryville University, USA</i>	3.30 pm – 3.55 pm  <b>Title:</b> <i>Enabling the twin green &amp; digital transition using learning factories</i>  <i>Speaker: Orhan Sahin, Cranfield University</i>	
3.55 pm – 4.20 pm  <b>Title:</b> Teaching Six-Sigma to Engineers Using a Catapult  <i>Speaker: Alya Alketbi and Danait Daniel, Khalifa University, UAE</i>	3.55 pm – 4.20 pm  <b>Title:</b> A systematic literature review with bibliometric analysis of OPEX in microenterprises  <i>Speaker: Juman Alsadi, Khalifa University, UAE</i>	3.55 pm – 4 pm  <b>Title:</b> Leveraging Lean Methodology for Operational Excellence in Oil & Gas Industry to Maximize Efficiency and Accelerate Oil Production  <i>Speaker: Abdullah Al Amri, PDO, Sultanate of Oman</i>	
4.20 pm – 4.55 pm  <b>Title:</b> A global study on the applicability of ISO 18404:2015 in the service sector: an exploratory qualitative study	4.20 pm – 4.55 pm  <b>Title:</b> Measurement System Analysis to compare two alternative methods of dimensional assessment in ceramic tile production		

<p><b>Speaker: Dr Michael Sony,</b> <b>Oxford Brookes University, UK</b></p>	<p><b>Speaker: Juliano Endrigo</b> <b>Sordan, Federal University</b> <b>of São Carlos, Brazil</b></p>	
<p><b>Closing Remarks of Day 2</b> <b>5 .00 pm –5.15 pm</b></p> <p><b>Dr Alireza Shokri and Dr Adrian</b> <b>Small (Northumbria University)</b></p>		