



**2020 Symposium on Lift and Escalator Technologies**  
**23 - 25 September 2020**  
**Online**

*Day 1*

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	<b>08:30</b> <b>Welcome and Introduction</b> <b>Stefan Kaczmarczyk and Richard Peters</b>
	<b>Session 1: Energy and Equipment</b> <b>Chair: Rory Smith</b>
<b>08:35 – 08:50</b>	<b>A MATLAB/SIMULINK BASED ELEVATOR ENERGY CONSUMPTION MODEL</b> <i>Lutfi Al-Sharif, The University of Jordan, Jordan.</i>
<b>08:50 – 09:05</b>	<b>AN ENERGY EFFICIENT FUEL CELL HYBRID ELEVATOR: THE MAIN CONCEPT AND DESIGN TOPOLOGY</b> <i>Stefan Kaczmarczyk, University of Northampton, UK.</i>
<b>09:05 – 09:20</b>	<b>A DESIGN METHODOLOGY OF ROPE TENSION METER USED FOR LIFT AUTOMATIC DOOR ASSEMBLY</b> <i>Anup Balharpure, Rewale Engineering Pvt. Ltd, India.</i>
<b>09:20 – 09:35</b>	<b>Q&amp;A</b>
	<b>Break</b> <b>09:35 – 10:00</b>
<b>10:00 - 11:00</b>	<b>Panel Discussion</b> <b>THE FUTURE FOR STANDARDS IN THE LIFT INDUSTRY</b> <b>Chair: Nick Mellor</b> <b>Panel: Ian Jones, TAK Mathews, Rory Smith, Graham Worthington</b>
<b>11:00</b>	<b>Close Day 1</b>

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## 2020 Symposium on Lift and Escalator Technologies

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### Day 2

08:30

Welcome

David Cooper and Nick Mellor

Session 2: Technology

Chair: Richard Peters

08:35 – 08:50	<b>IOT, MAGIC OR MYTH</b> <i>Rory Smith, University of Northampton, USA.</i>
08:50 – 09:05	<b>RESEARCH OF REAL TIME VIDEO MONITORING AND REMOTE CONTROL SYSTEM OF ESCALATORS</b> <i>Yantai Luo, Shanghai Mitsubishi Elevator Corporation, Japan.</i>
09:05 – 09:20	<b>FEASIBILITY STUDY OF USING A COUPLER SKATE ENCODER SYSTEM FOR MONITORING THE REAL TIME STATUS OF LIFT DOOR OPERATION</b> <i>Rohit Nehe, Creestaa Lifts, India.</i>
09:20 – 09:35	<b>Q&amp;A</b>

Break

09:35 – 09:45

Session 3: Engineering

Chair: Stefan Kaczmarczyk

09:45 – 10:00	<b>COMPUTATIONAL ENVIRONMENT FOR SIMULATING IMPACT OF BUILDING SWAY ON HIGH RISE LIFTS</b> <i>Jaakko Kalliomäki, KONE, Finland.</i>
10:00 – 10:15	<b>STUDY ON A VIBRATION REDUCTION SYSTEM FOR LIFT ROLLER GUIDES</b> <i>Yosuke Shima, Tokyo Denki University Japan.</i>
10:15 – 10:30	<b>COMPUTER-AIDED STRUCTURAL ANALYSIS OF THE LIFT CAR - GUIDING SYSTEM UNDER THE NORMAL AND EMERGENCY ARREST OPERATIONAL CONDITIONS</b> <i>Mohammad Ghaleeh, University of Northampton, UK.</i>
10:30 – 10:45	<b>Q&amp;A</b>

Break

10:45 – 11:00

11:00 – 12:00	<b>Panel Discussion</b> <b>THE LIFT INDUSTRY AND COVID-19</b> Chair: David Cooper Panel: Phil Hofer, Sridhar Rajagopal, Ian Smith, Jochem Wit
12:00	<b>Close Day 2</b>



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**Day 3**

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**08:30**

**Welcome**

**David Cooper and Nick Mellor**

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**Session 4: Escalator Safety and Earthquakes**

**Chair: Lutfi Al-Sharif**

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**08:35 – 08:50** **STUDY ON EVACUATION ROUTE IN CASE OF A DISASTER  
CONSIDERING THE FRAGILITY OF MECHANICAL STRUCTURES**

*Kazusada Natsu, Tokyo Denki University, Japan.*

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**08:50 – 09:05** **THE PASSENGER INPUT INTO ESCALATOR ACCIDENTS**

*David Cooper, LECS UK Ltd, UK.*

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**09:05 – 09:20** **STUDY ON ESCALATOR FALL OFF BEHAVIOUR DURING  
EARTHQUAKES**

*Nayuta Sudo, Tokyo Denki University, Japan.*

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**09:20 – 09:35** **Q&A**

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**Break**

**09:35 – 09:50**

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**Session 5: Traffic and Control**

**Chair: Rory Smith**

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**09:50 – 10:05** **THE ROUND TRIP TIME SIMULATION**

*Matthew Appleby, Peters Research Ltd, UK.*

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**10:05 – 10:20** **CALL-GIVING DEVICES IN LIFT TRAFFIC DESIGN WITH A  
DESTINATION CONTROL SYSTEM**

*Janne Sorsa, KONE Industrial Ltd, Finland.*

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**10:20 – 10:35** **USING THE INTER-LINKED MONTE CARLO SIMULATION  
METHOD (iMCS) TO CALCULATE THE VALUE OF THE  
ELEVATOR ROUND TRIP TIME TO REFLECT THE RANDOM  
NATURE OF PASSENGER ARRIVALS**

*Lutfi Al-Sharif, The University of Jordan, Jordan.*

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**10:35 – 10:50** **THE MAXIMUM NUMBER OF PASSENGERS BOARDING A LIFT  
IN OFFICE BUILDINGS BASED ON AUTOMATED PASSENGER  
COUNTS**

*Tiina Laine, KONE Industrial Ltd, Finland.*

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**10:50 – 11:05** **Q&A**

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**11:05**

**Closing: Stefan Kaczmarczyk & Richard Peters**

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**End of Proceedings**