

## ELEVCON 2023 - Program - Day 1

**Tuesday, June 20, 2023**

Time	Function
<b>08:30-09:00</b>	<b>Registration and Morning Coffee</b>
<b>09:00-09:30</b>	<p><b>OPENING SESSION</b></p> <p>Welcome &amp; Introductory Remarks:  <b>Dr. Marja-Liisa Siikonen</b>, M.Sc, Ph.D., CEO, MLS Lift Consulting Ltd., Elevcon 2023 Chairwoman &amp; Program Manager  <b>Gil Stier</b>, IAEE Administrative Board Chairman</p>
<b>09:30-10:30</b>	<p><b>SESSION 1: ELEVATOR COMMUNICATION AND INFORMATION SYSTEMS</b></p> <p><b>Chairperson: Dr. Stefan Gerstenmeyer</b>, Global Cluster Lead, Traffic and Group Control                      Research &amp; Development, TK Elevator, Germany</p>
09:30-10:00	<p>Subject: <b>Emergency, Security, Communication, Monitoring (voice, video)</b>                      Abstract: <b>Future of Elevator Emergency Communication after Traditional Fixed Lines, 2g and 3g Networks Sunset</b>                      Author: Petr Chovanec, 2N Telekomunikace a.s, Czech Republic                      Presenting: <b>Mr. Petr Chovanec</b>, 2N Telekomunikace a.s, Czech Republic</p>
10:00-10:30	<p>Subject: <b>Communication, IoT, COP Common Operating System</b>                      Abstract: <b>IoT Takes the Elevator World into Industry 5.0: The Omnipresent IoT Development will change inevitably the Elevator World, A Quantum Leap of System Utilization and Yield</b>                      Author: Christian-Erik Thöny, CEDES Group, Switzerland                      Presenting: <b>Mr. Christian-Erik Thöny</b>, Member of Advisory Board CSEM, CEDES Group, Switzerland</p>
<b>10:30-11:00</b>	<b>Coffee Break &amp; Exhibition Visit</b>
<b>11:00-12:30</b>	<p><b>SESSION 2: ELEVATOR AND SHAFT COMPONENTS</b></p> <p><b>Chairperson: Prof. Dr.-Ing. Mazen Ayoubi</b>, Head of Research and Innovation, PohlCon GmbH, Germany</p>
11:00-11:30	<p>Subject: <b>Shaft Components, Bracket design, Simulation, Earthquake, Seismic</b>                      Abstract: <b>The Simulation of Seismic Effects on Guide Rail Fasteners and Re-design of Brackets</b>                      Authors: Abdülmelik Sancak<sup>1</sup>, Adem Candaş<sup>2</sup>, C. Erdem İmrak<sup>3</sup>, Sefa Targıt<sup>4,2,3</sup> ITU Elevator Technologies Laboratory, 34437 Istanbul, Turkey, <sup>4</sup>ASRAY, Pelitli Yolu Str. No:133 Gebze/Kocaeli                      Presenting: <b>Mr. Abdülmelik Sancak</b>, ITU Elevator Technologies Laboratory, Turkey</p>

<p>11:30-12:00</p> <p>12:00-12:30</p>	<p>Subject: <b>Elevator Cab, Point Fixed Laminated Glass</b>  Abstract: <b>Finite Element Analysis of Glass Panels with Bolted Connections Designed for a Running Car</b>  Authors: Prof. Eren Kalay<sup>1</sup>, C. Erdem Imrak<sup>1</sup> and Adem Candas<sup>1, 1,2,3</sup> ITU Faculty of Mechanical Engineering  Presenting: <b>Prof. Eren Kalay</b>, ITU Faculty of Mechanical Engineering, Turkey</p> <p>Subject: <b>Elevator Component, Strength Evaluation, Adhesion</b>  Abstract: <b>Evaluation of Elevator's Car Floor Using Adhesive Bonding</b>  Authors: Akira Nagao*, Takashi Abe*, Katsuhiko Shimada*, Tomoki Kariya, Akihiro Yamaguchi, Satoshi Ihara  Hitachi Building Systems Co., Ltd.*, Hitachi, Ltd  Presenting: <b>Mr. Akira Nagao</b>, Hitachi Building Systems Co., Ltd., Japan</p>
<p>12:30-13:30</p>	<p><b>Lunch &amp; Exhibition Visit</b></p>
<p>13:30-15:30</p> <p>13:30-14:00</p> <p>14:00-14:30</p> <p>14:30-15:00</p> <p>15:00-15:30</p>	<p><b>SESSION 3: SAFETY COMPONENTS</b>  <b>Chairperson: Prof. Erdem Imrak, ITU Elevator Technologies Laboratory, 34437 Istanbul, Turkey</b></p> <p>Subject: <b>Traction Machine Design, Brakes and Safety Components</b>  Abstract: <b>Selection Criteria for Safety Components – Based on Elevator Brakes for Traction Machines</b>  Author: Alexander Hutler, Chr. Mayr GmbH + Co. KG, Germany  Presenting: <b>Mr. Alexander Hutler</b>, Key Account Manager Elevator Brakes, Chr. Mayr GmbH + Co. KG, Germany</p> <p>Subject: <b>Electronic Sensors, EN Standards, Safety Components, Overview</b>  Abstract: <b>The State-of-The-Art and Future of Safe Shaft Information Systems</b>  Author: Stephan Rohr, ELGO Batscale AG, Liechtenstein  Presenting: <b>Dr.-Ing. Stephan Rohr</b>, Chief Technology Officer, ELGO Batscale AG, Liechtenstein</p> <p>Subject: <b>Rope Inspection, Objective analysis, Testing</b>  Abstract: <b>The Magnetic Rope Testing in The Elevator Market: Analysis and Evidence</b>  Authors: Bruno Vusini, Daniel Rossi, Tommaso Bertani, AMC Instruments  Presenting: <b>Dr. Bruno Vusini</b>, Managing Director, AMC Instruments, Italy</p> <p>Subject: <b>Safety, Monitor, Escalator, Computer Vision</b>  Abstract: <b>Enhancing Escalator Safety with Optic-Fiber Sensing Technology</b>  Authors: W.H. Chung<sup>1, 2</sup>, K.C. Cheng<sup>2</sup>, H. Y. Tam<sup>2</sup>, <sup>1</sup>Avaron Technologies Limited, <sup>2</sup>The Hong Kong Polytechnic University, HKSAR, Hong Kong, China  Presenting: <b>Prof. Hwa-Yaw Tam</b>, The Hong Kong Polytechnic University, HKSAR, Hong Kong</p>

15:30-16:00	<b>Coffee Break</b>
16:00-17:00	<b>SESSION 4: WORKSHOP 1</b> Subject: <b>How to Setup Safety Devices in an Elevator</b> Authors: Stephan Rohr <sup>1</sup> , Christopher Bormann <sup>2</sup> , <sup>1</sup> ELGO Batscale AG, Liechtenstein, <sup>2</sup> ELGO Electronic GmbH, Germany Presenting: <b>Dr.-Ing. Stephan Rohr</b> , Chief Technology Officer. ELGO Batscale AG, Liechtenstein
18:30	<b>Reception</b>
<b>ELEVCON 2023 - Program - Day 2</b>	
<b>Wednesday, June 21, 2023</b>	
<b>Time</b>	<b>Function</b>
08:30-09:00	<b>Registration and Morning Coffee</b>
09:00-10:30	<b>SESSION 5: MODERNIZATION AND RIDE COMFORT</b> <b>Chairperson: Dr. Albert So, International Association of Elevator Engineers (HK-China Branch), Visiting Professor in Lift Engineering Faculty of Arts, Science &amp; Technology, University of Northampton, UK</b>
09:00-9:30	Subject: <b>Modernization, Site Survey, Method</b> Abstract: <b>Digital Elevator Survey – Improving Modernization Site Surveys</b> Author: Darren Batey, Kone Industrial Ltd., Finland Presenting: <b>Mr. Darren Batey</b> , Customer Solutions Manager, Kone Industrial Ltd., Finland
9:30-10:00	Subject: <b>Ride Comfort, Regression Analysis</b> Abstract: <b>Estimation of Parameters Affecting Ride Comfort in Elevators</b> Authors: Keisuke Terada, Yoshitake Kamijo, and Yoshiyuki Iwata, Toshiba Infrastructure Systems & Solutions Corporation Presenting: <b>Mr. Keisuke Terada</b> , Toshiba Infrastructure Systems & Solutions, Tokyo, Japan
10:00-10:30	Subject: <b>Testing, Acoustical Impairment, Noise and Vibration to the Shaft</b> Abstract: <b>Compare Study on The Performance of Acoustic Insulation Element for Guide Rail Connections Using Anchor Channels with Channel Bolts</b> Authors: Mazen Ayoubi <sup>1</sup> and Sacha Aobotta <sup>1</sup> , PohlCon GmbH, Berlin Presenting: <b>Prof. Dr.-Ing. Mazen Ayoubi</b> , Head of Research and Innovation PohlCon GmbH, Germany
10:30-11:00	<b>Coffee Break &amp; Exhibition Visit</b>

<p><b>11:00-12:30</b></p> <p>11:00-11:30</p> <p>11:30-12:00</p> <p>12:00-12:30</p>	<p><b>SESSION 6: ELEVATOR GROUP CONFIGURATION AND DESIGN</b>  <b>Chairperson: Mr. Viswesh Vancheeshwar, Frost &amp; Sullivan, the Growth Partnership Company</b></p> <p>Subject: <b>Elevator group configurations, divider beam, modular system, design standard, quality control</b>  Abstract: <b>Divider Beam Design as Part of The Standard Elevator Design</b>  Author: Michael Merz, Hilti Corporation, Principality of Liechtenstein  Presenting: <b>Dr. Sc.techn. Michael Merz</b>, Competence Manager, Hilti Corporation, Principality of Liechtenstein</p> <p>Subject: <b>Optimal Elevator Design, Space, Consultant</b>  Abstract: <b>Design Challenges in Asia due to Manufacturers' Differences</b>  Authors: K. Rajah Venkatraman, Vinay Venkatraman, Fortune Consultants, India  Presenting: <b>K. Rajah Venkatraman</b>, Vinay Venkatraman, Fortune Consultants, India</p> <p>Subject: <b>Elevator Design, Dual Cars, Multifunctional</b>  Abstract: <b>Inspiration from the Shard: Time-sharing Dual Cars Multifunctional Lift Design for Super Tall Luxury Residential Towers</b>  Author: Hongliang Liang, Aliang Lift Design Studio Ltd, UK  Presenting: <b>Mr. Hongliang Liang</b>, Vertical Transportation Consultant, Aliang Lift Design Studio Ltd, UK</p>
<p><b>12:30-13:30</b></p>	<p><b>Lunch &amp; Exhibition Visit</b></p>
<p><b>13:30-15:00</b></p> <p>13:30-14:00</p> <p>14:00-14:30</p>	<p><b>SESSION 7: MAINTENANCE AND CONDITION MONITORING</b>  <b>Chairperson: Mr. Sefa Targit, Vice President, MAKFED Turkish Machinery Federation, Turkey</b></p> <p>Subject: <b>Maintenance, ASME Standard, Tasks</b>  Abstract: <b>Vertical Equipment Maintenance</b>  Author: John W. Koshak, QEC, CEI eMCP, LLC - Managing Member, USA  Presenting: <b>Mr. John W. Koshak</b>, QEC, CEI eMCP, LLC, Managing Member, USA</p> <p>Subject: <b>Maintenance, Predictive, False Alarms, Fault Data</b>  Abstract: <b>Condition Monitoring of Elevator Using Deep Learning and Frequency Analysis Approach</b>  Authors: Krishna Mohan Mishra<sup>1</sup>, John-Eric Saxen<sup>2</sup>, Jerker Bjorkqvist<sup>2</sup>, and Kalevi J. Huhtala<sup>1</sup>, <sup>1</sup>Unit of Automation Technology and Mechanical Engineering, Tampere University, Tampere, Finland, <sup>2</sup>Department of Information Sciences, Abo Akademi University, Turku, Finland  Presenting: <b>Dr. Krishna Mishra</b>, Unit of Automation Technology and Mechanical Engineering, Tampere University, Tampere, Finland</p>

14:30-15:00	<p><b>Subject: Elevator Monitoring with Computer Vision, Detect Objects</b></p> <p><b>Abstract: Automatic Detection of Objects Blocking Elevator Doors Using Computer Vision</b></p> <p><b>Authors:</b> David Baumgartner<sup>1</sup>, Ignace Jordens<sup>2</sup>, Daniel Wilfing<sup>3</sup>, Oliver Krauss<sup>1</sup>, Dorfmeister<sup>1</sup>, Gerald Zwettler<sup>1</sup>, <sup>1</sup> University of Applied Sciences Upper Austria – Research Group Advanced Information System and Technology (AIST), Austria, <sup>2</sup> PXL University of Applied Sciences and Arts, Belgium, <sup>3</sup> VIEW Promotion GmbH (Ltd)</p> <p><b>Presenting: Mr. Gerald Zwettler</b>, Senior Researcher, University of Applied Sciences Upper Austria – Research Group Advanced Information System and Technology (AIST), Austria.</p>
<b>15:00-15:15</b>	<b>Coffee Break</b>
15:15-16:15	<p><b>SESSION 8: WORKSHOP 2</b></p> <p><b>Subject: Reverse Engineering - Remote Monitoring of Elevators and Authorised Third-Party Access to Elevator Data</b></p> <p><b>Author: Mr. Esko Kilpeläinen</b>, Modusolutions, Finland</p> <p><b>Presenting: Mr. Esko Kilpeläinen</b>, Modusolutions, Finland</p>
<b>17:30</b>	<p><b>City Tour &amp; Dinner</b></p> <p>High Tech Award Elevatori-Elevcon</p> <p><b>Presenting: Eng. Matteo Volpe</b>, Editor Elevatori Magazine, Italy</p>
<b>ELEVCON 2023 - Program - Day 3</b>	
<b>Thursday, June 23, 2023</b>	
<b>Time</b>	<b>Function</b>
<b>08:30-09:00</b>	<b>Morning Coffee</b>
<b>08:30-10:30</b>	<p><b>SESSION 9: ELEVATOR PLANNING AND SIMULATION</b></p> <p><b>Chairperson: Mr. Robert Nicholson</b>, President, Architectural Elevator Consulting, LLC, USA</p>
09:00-09:30	<p><b>Subject: Elevator, Energy Consumption, Simulation</b></p> <p><b>Abstract: A Procedure to estimate Elevator Energy Consumption using Elevator Traffic Simulation</b></p> <p><b>Authors:</b> Janne Sorsa, KONE Corporation, Finland</p> <p><b>Presenting: Dr. Janne Sorsa</b>, D.Sc. (Tech) KONE Corporation, Finland</p>

09:30-10:00	<p>Subject: <b>Elevator Design, High Schools, Case Study</b>  Abstract: <b>Vertical High Schools - The Future of Failure?</b>  Authors: Scott Hampson, Arup, Australia  Presenting: <b>Mr. Scott Hampson</b>, Vertical Transportation Leader, Arup, Australia</p>
10:00-10:30	<p>Subject: <b>Elevator and Escalator Design, Traffic, Simulation</b>  Abstract: <b>Simulation Based Design of Transportation Systems in Buildings</b>  Authors: Henri Hakonen, Lic.Sc. (Tech.) &amp; Juha-Matti Kuusinen, D.Sc. (Tech.), and Janne Sorsa, D.Sc. (Tech) KONE Corporation, Finland  Presenting: <b>Mr. Henri Hakonen</b>, Lic.Sc. (Tech.), KONE Corporation, Finland</p>
<b>10:30-11:00</b>	<b>Coffee Break</b>
<b>11:00-12:30</b>	<p><b>SESSION 10: EMERGENCY AND EVACUATION</b>  <b>Chairperson: Dr. Janne Sorsa</b>, Head of People Flow Planning, KONE Major Projects</p>
11:00-11:30	<p>Subject: <b>Evacuation, EN and ISO Standards</b>  Abstract: <b>Evacuation Lift Standardization</b>  Author: Ari Kattainen, KONE Technology and Innovation, Finland  Presenting: <b>Mr. Ari Kattainen</b>, Leading Expert, Codes and Standards, KONE Technology and Innovation, Finland</p>
11:30-12:00	<p>Subject: <b>Seismic Detectors, Self-Diagnostics, Auto Recovery</b>  Abstract: <b>Enhancement of Auto-Recovery Function for Elevators After Earthquake</b>  Author: Shohei Kondo, Shuichi Hayakawa and Junji Takeda, Toshiba Elevator and Building Systems Corporation, Japan  Presenting: <b>Mr. Shohei Kondo</b>, Toshiba Elevator and Building Systems Corporation, Japan</p>
12:00-12:30	<p>Subject: <b>Hazard, Earthquake, EN 81-77</b>  Abstract: <b>A Field Study on the Damage of Elevators after the Twin Earthquakes</b>  Authors: Ferhat Çelik<sup>1</sup>, C. Erdem İmrak<sup>2</sup>, and Sefa Targıt<sup>3</sup>. <sup>1</sup>Blain Hydraulic GmbH, Heilbronn, Germany  <sup>2</sup>ITU Elevator Technologies Laboratory, 34437 Istanbul, Turkey,  <sup>3</sup>ASRAY, Pelitli Yolu Str. No:133 Gebze/Kocaeli, Turkey  Presenting: <b>Mr. Sefa Targıt</b>, General Manager of ASRAY and Vice President of MAKFED, Turkey</p>
<b>12:30-13:30</b>	<b>Lunch &amp; Exhibition Visit</b>

13:30-15:00	<p><b>SESSION 11: FUTURE ELEVATOR SYSTEMS</b></p> <p><b>Chairperson: Dr. Marja-Liisa Siikonen</b>, M.Sc, Ph.D. CEO, MLS Lift Consulting Ltd. &amp; Elevcon 2023 Chairwoman &amp; Program Manager</p>
13:30-14:00	<p>Subject: <b>Elevator, Space and Moon Environment</b></p> <p>Abstract: <b>Elevators on the moon are closer than you think</b></p> <p>Authors: Yuval Valiano-Rips<sup>1</sup>, Maya Glickman-Pariente<sup>2</sup>, <sup>1</sup>Rips Elevators Group (Rips engineering Ltd), Israel, <sup>2</sup>SPACEIALIST Ltd, Israel</p> <p>Presenting: <b>Mr. Yuval Valiano-Rips</b>, Rips Elevators Group, Rips Engineering Ltd, Israel</p>
14:00-14:30	<p>Subject: <b>Ropeless, Vertical and Horizontal Movement History</b></p> <p>Abstract: <b>An Historical Overview of Multidirectional, Cableless Elevator Systems</b></p> <p>Author: Dr. Lee E. Gray, The University of North Carolina at Charlotte, USA</p> <p>Presenting: <b>Dr. Lee Gray</b>, Professor of Architectural History, University of North Carolina at Charlotte, USA</p>
14:30-15:00	<p>Subject: <b>Ropeless, Hoisting Systems, Simulation, Power Consumption, Power Failure</b></p> <p>Abstract: <b>Study on Linear Permanent Magnet Synchronous Machines for Ropeless Lifts</b></p> <p>Authors: Albert So<sup>1</sup> and W.L. Chan<sup>2</sup>, International Association of Elevator Engineers (HK-China Branch), <sup>1</sup>University of Northampton, <sup>2</sup>The Hong Kong Polytechnic University, UK, Hong Kong</p> <p>Presenting: <b>Dr. Albert So</b>, International Association of Elevator Engineers (HK-China Branch), Visiting Professor in Lift Engineering Faculty of Arts, Science &amp; Technology, University of Northampton, UK</p>
15:00-15:30	<p><b>Closing Remarks</b></p>