

# Final Schedule and Program of the 65th International Scientific Conference of Riga Technical University on Power and Electrical Engineering RTUCON2024

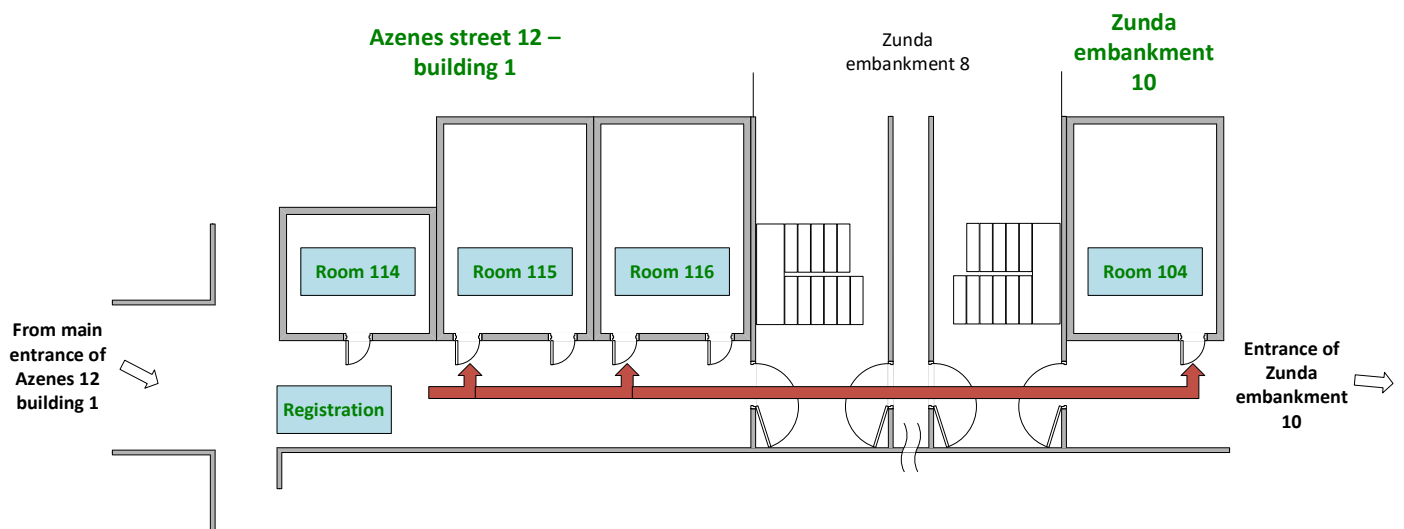
## At Glance

### Dates and Time

All activities of RTUCON2024 will occur on Friday (October 11, 2024) from 9:00 to 22:20.

### Venue

The most of the activities of RTUCON2024 will take place at Riga Technical University, Faculty of Computer Science, Information Technology and Energy. There are two quite close locations: **1) Azenes street 12, Building 1 (Rooms 114, 115 and 116); 2) Zunda Embankment 10 (Room 104).**



## Registration

The **registration** for the conference will take place from 9:00 to 11:30 in the hall in front of rooms 114/115/116 at Azenes street 12/1.

## Parallel Event

In parallel with the registration in Room 115 at Azenes street 12/1 from 9:30 to 11:30 will occur an **IEEE IES Distinguished Lecture** by **Prof. Sheldon Williamson** "AI-Enabled Battery Management Systems for E-Mobility" (the lecture itself from 9:30 to 11:00, the discussion about AI-based BMS from 11:00 to 11:30). The organizing committee of RTUCON2024 kindly invites you to attend this lecture before the working sessions of the conference. More information about this lecture can be found at <https://iee.ee/event/ieee-ies-distinguished-lectures-on-advanced-topics-in-electromobility/>).

## Working Program

Working sessions will take place from 11:30 to 19:00 in rooms 115 and 116 at Azenes street 12/1 and in room 104 at Zunda Embankment 10. **All presentations are oral (lecture type)**. The presentations are mostly in-person. All distant (virtual) presentations are concentrated in the morning session from 11:30 to 12:45 in room 104 at Zunda Embankment 10.

**The time, dedicated to each presentation is 15 minutes. It is assumed that the presentation itself takes 10...12 minutes, but the following discussion – 3...5 minutes.** Should the discussion be fruitful it can be prolonged by the chairperson of the corresponding session (postponing the break, following after the session).

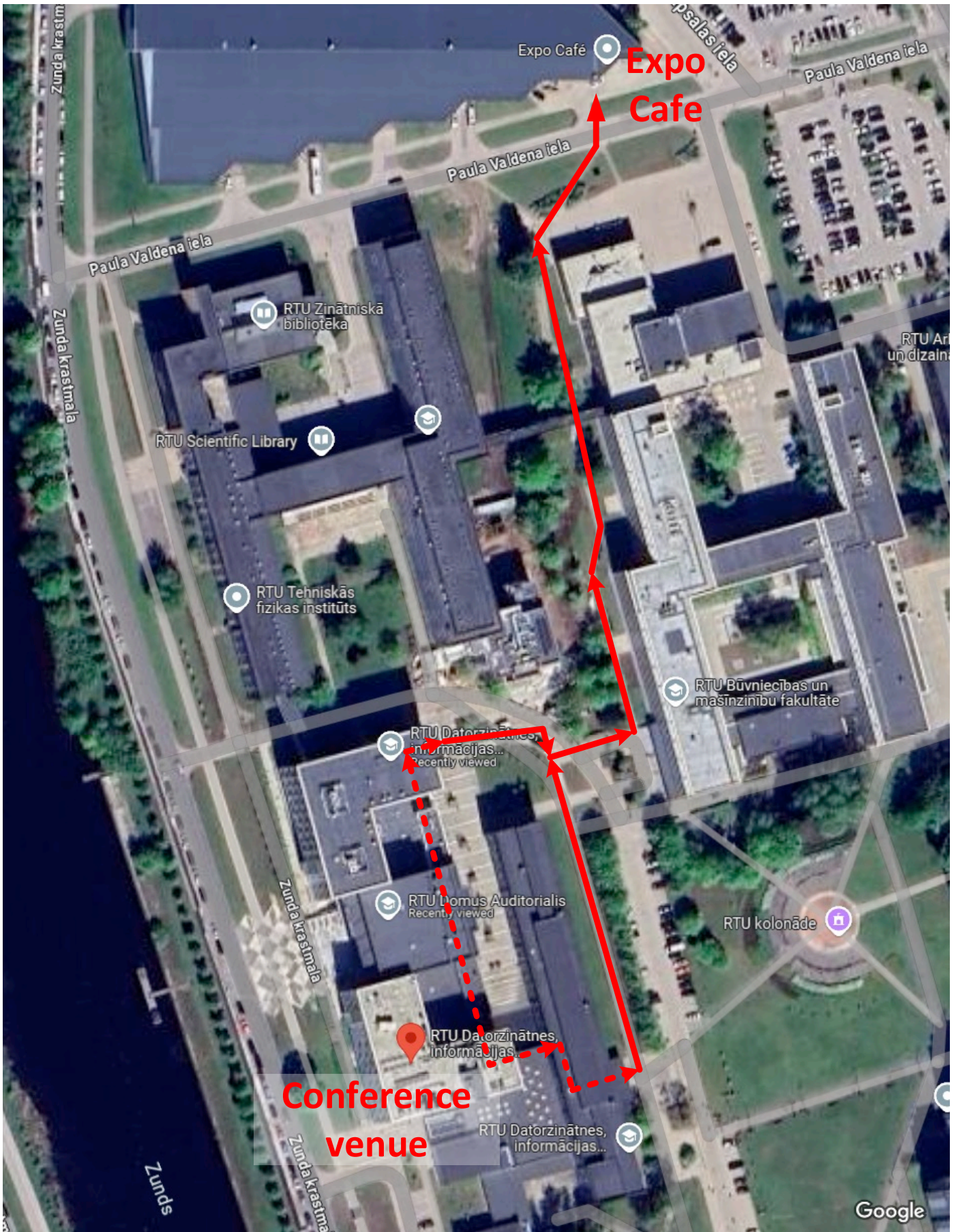
## Coffee Breaks and Lunch

Coffee breaks will be served in room 114 at Azenes street 12/1. The coffee with simple snacks will be offered continuously from 9:00 to 19:00. In addition to the coffee and simple biscuits, some special snacks will be offered in the dedicated time from 11:15 to 11:30 and from 16:30 to 17:15.

**Lunch** will be available from **12:45 to 13:30** in bistro "Expo Cafe" (Exhibition Hall Kipsala – outside of the campus) at Kipsalas street 8. **The organizers of the conference will guide its participants to this location.** During registration, participants will receive a red voucher from "Expo Café", which is required to attend lunch.

**N.B.! All participants can only attend lunch at the designated time when the organizers will lead the group to the location.**





### Gala Dinner and Award Ceremony

The **Gala Dinner and Award Ceremony** will take place in the Leisure Centre “Lido” (Krasta street 76 from 20:00 to 22:00). **Transportation from the venue to Leisure Centre “Lido” will be at 19:40.** Transportation from Leisure Centre “Lido” to the venue will be at 22:00.

# Schedule of the 65th International Scientific Conference of Riga Technical University on Power and Electrical Engineering RTUCON2024

2024, October 11 (Friday)

	Zunda Embankment 10, Room 104	Azenes street 12/1, Room 115	Azenes street 12/1, Room 116	
8:00				8:00
9:00	Registration (Hall in front of Room 114, 115, 116)			9:00
10:00	Registration (Hall in front of Room 114, 115, 116) In parallel with the registration in Room 115 will occur an IES Distinguished Lecture of Prof. Sheldon Williamson "AI-Enabled Battery Management Systems for E-Mobility" More about this event at <a href="https://iee.ee/event/ieee-ies-distinguished-lectures-on-advanced-topics-in-electromobility/">https://iee.ee/event/ieee-ies-distinguished-lectures-on-advanced-topics-in-electromobility/</a>			10:00
11:00	Coffee Break			11:00
12:00	Virtual Session [Reports 5296, 3505, 4973, 4401, 2240 → 5p]	Power Electronics I [Reports 2556, 5255, 6739, 4455, 8808 → 5p]	Power Energy I [Reports 0446, 0665, 9049, 6902, 0722 → 5p]	12:00
13:00	Break for Lunch (Bistro at 1 <sup>st</sup> Floor)			13:00
14:00	Control Electronics and ICT [Reports 9914, 9031, 1904, 6816, 7965, 7877 → 6p]	Electrical Engineering [Reports 0306, 3469, 1507, 1867, 1111, 4997 → 6p]	Power and Energy II [Reports 1505, 4646, 1341, 1557, 6927, 6994, 9073 → 7p]	14:00
15:00	Education in Engineering [Reports 8871, 8583, 6752, 2218, 3498, 6737, 3812 → 7p]	Power Electronics II [Reports 0042, 5639, 5637, 3597, 2231 → 5p]	Power and Energy III [Reports 1185, 4892, 6322, 2995, 9836, 9906, 7441 → 7p]	15:00
16:00		Coffee Break		16:00
17:00	Coffee Break			17:00
18:00	Electrical Machines, Drives and Transport [Reports 7622, 3432, 3499, 6337, 8895, 7839, 9919 → 7p]		Power and Energy IV [Reports 2545, 0426, 6038, 1613, 0692, 8757, 6392 → 7p]	18:00
19:00				19:00
20:00	19:40 Transportation from the venue to Leisure Centre "Lido"			20:00
21:00	Gala Dinner and Award Ceremony (Leisure Centre "Lido")			21:00
22:00	22:00 Transportation from Leisure Centre "Lido" to the venue			22:00
23:00				23:00

## Presentations in Zunda Embankment 10, Room 104

### Room 104 (Zunda Embankment 10), 11:30-12:30, Virtual Session

Chairpersons:		Prof. Ilya A. Galkin (Riga Technical University, Latvia) Dr. Tatjana Lomane (Riga Technical University, Latvia) Prof. Mikhail Gorobetz (Riga Technical University, Latvia)
From	To	<i>Presenting Author (Affiliation), Paper Authors "Paper Title" (Paper ID)</i>
11:30	11:45	<i>Jamshaid Iqbal Janjua (Al-Khawarizmi Institute of Computer Science, University of Engineering and Technology, Lahore, Pakistan)</i> Jamshaid Iqbal Janjua, Sagheer Abbas and Sagheer Abbas <b>"Optimizing Patient Outcomes with AI and Predictive Analytics in Healthcare" (5296)</b>
11:45	12:00	<i>Fehmi Demirel (Beko - Test &amp; Verification / Hardware, Turkey)</i> Rahmet Aybuke Bilir, Fehmi Demirel, Berkant Ozkan and Eren Okumus <b>"Lifetime Analysis of Physically Damaged Electrolytic Capacitors" (3505)</b>
12:00	12:15	<i>Anastasiia Kindinova (O.M. Beketov National University of Urban Economy in Kharkiv, Ukraine)</i> Pylyp Hovorov, Mykola Khvorost, Roman Trishch, Vitalii Kolotylo and Anastasiia Kindinova <b>"Risk assessment of reduction in voltage quality at load nodes of power systems" (4973)</b>
12:15	12:30	<i>Galo Santillan (Technical University of Cotopaxi, Ecuador)</i> Galo Santillan, Rommel Aguilar and Carlos Quinatoa <b>"Optimal Transmission Line Switching for Congestion Management" (4401)</b>
12:30	12:45	<i>David Raisz (Budapest University of Technology and Economics, Hungary)</i> Zaid Ali, Tamás Guth, Bence Sütő and David Raisz <b>"A Laboratory Investigation of a Multi-function PR-controlled DVR" (2240)</b>

12:45-13:30 – Lunch ("Expo Cafe" (Exhibition Hall Kipsala – outside of the campus) at Kipsalas street 8)

## Room 104 (Zunda Embankment 10), 13:30-15:00, ICT in Electrical and Power Engineering

Chairpersons:		Prof. Mikhail Gorobetz (Riga Technical University, Latvia) Mr. Jurijs Timofejevs (Riga Technical University, Latvia)
From	To	<i>Presenting Author (Affiliation), Paper Authors "Paper Title" (Paper ID)</i>
13:30	13:45	<i>Ernests Kancēvičs (Riga Technical University, Latvia)</i> Ernests Kancēvičs <b>"Development and analysis of portable heart rate measurement solutions" (9914)</b>
13:45	14:00	<i>Jevgenijs Telicko (University of Latvia, Latvia)</i> Jevgenijs Telicko and Andris Jakovičs <b>"ESP32 based breathing rate monitoring system for sport activities" (9031)</b>
14:00	14:15	<i>Vytenis Sinkevičius (Klaipeda State University of Applied Sciences, Lithuania)</i> Vytenis Sinkevičius and Valda Šneiderienė <b>"Actuator simulation of a two-wheeled hybrid robot sensor platform" (1904)</b>
14:15	14:30	<i>Jurijs Timofejevs (Riga Technical University, Latvia)</i> Jurijs Timofejevs, Andrejs Potapovs and Mikhail Gorobetz <b>"COMPUTER VISION BASED RECOGNITION ALGORITHM FOR SEA BUCKTHORN HARVESTING ROBOT" (6816)</b>
14:30	14:45	<i>Ilona Platonova (Riga City Council Digital Agency, Latvia)</i> Laila Zemite, Ilona Platonova, Evija Plone, Vladimirs Petrovs and Stefano Primatesta <b>"Harnessing 5G Connectivity and UAVs for Enhanced Public Safety" (7965)</b>
14:45	15:00	<i>Simon Kappenstein (Karlsruhe Institute of Technology, Germany)</i> Simon Kappenstein, Veit Hagenmeyer and Lutz Gröll <b>"Multiobjective Optimization of Energy Pulsation and Power Dissipation in Modular Multilevel Converters (MMCs)" (7877)</b>

## Room 104 (Zunda Embankment 10), 15:00-16:45, Education in Engineering

Chairpersons:		Dr. Zoja Raud (Tallinn University of Technology, Estonia) Prof. Nadezhda Kunicina (Riga Technical University, Latvia)
From	To	<i>Presenting Author (Affiliation), Paper Authors "Paper Title" (Paper ID)</i>
15:00	15:15	<u>Nadezhda Kunicina (Riga Technical University, Latvia)</u> Shchasiana Arhun, Andrii Hnatov, Nadezhda Kunicina, Iryna Trunova, Olha Ulianets and Vasyl Daleka <b>"Integrating Sustainability in Engineering with a Double Degree Program Case Study" (8871)</b>
15:15	15:30	<u>Antons Patlins (Riga Technical University, Latvia)</u> Antons Patlins <b>"The Importance of Including Sustainable Development Goals (SDGs) in the Educational Process of Engineers and Electrical Engineers" (8583)</b>
15:30	15:45	<u>Nadezhda Kunicina (Riga Technical University, Latvia)</u> Mert Musluoglu, Nadezhda Kunicina and Yelena Chaiko <b>"Vulnerability Assessment of Industrial Control Systems for Colonial Pipeline and WannaCry Ransomware" (6752)</b>
15:45	16:00	<u>Valery Vodovozov (Tallinn University of Technology, Estonia)</u> Valery Vodovozov, Zoja Raud and Eduard Petlenkov <b>"Strengthening Active Learning with a Reinforcement Approach in Engineering Education" (2218)</b>
16:00	16:15	<u>Roberts Grants (Riga Technical University, Latvia)</u> Nadezhda Kunicina, Jelena Chaiko, Igors Utesevs and Roberts Grants <b>"Enhancing Electrical Engineering Education through Project-Based Learning" (3498)</b>
16:15	16:30	<u>Nadezhda Kunicina (Riga Technical University, Latvia)</u> Anatolijs Zabasta, Volodymyr Kazymyr, Nadezhda Kunicina and Oleksandr Velihorskyi <b>"Digital Learning Ecosystem: Online concept for engineering education" (6737)</b>
16:30	16:45	<u>Nadezhda Kunicina (Riga Technical University, Latvia)</u> Shchasiana Arhun, Andrii Hnatov and Nadezhda Kunicina <b>"Research on the "Electric Vehicles and Automotive Electronics" Curriculum Aimed at Modernization within the DIGITRANS Project" (3812)</b>

16:45-17:00 – Coffee Break (Room 114, at Azenes street 12/1)

## Room 104 (Zunda Embankment 10), 17:00-18:45, Electrical Machines, Drives and Vehicles

Chairpersons:		Prof. Valery Vodovozov (Tallinn University of Technology, Estonia) Dr. Kaspars Kroičs (Riga Technical University, Latvia)
From	To	<u>Presenting Author (Affiliation),</u> <u>Paper Authors</u> <b>"Paper Title" (Paper ID)</b>
17:00	17:15	<u>Valery Vodovozov (Tallinn University of Technology, Estonia)</u> <i>Valery Vodovozov, Madis Lehtla, Zoja Raud and Eduard Petlenkov</i> <b>"Pick-and-Place Operation of Linear Delta Robots with Low Energy Consumption" (7622)</b>
17:15	17:30	<u>Michael Barrett (Engineers Ireland, Ireland)</u> <i>Michael Barrett</i> <b>"Detecting Stator Winding Inter-Turn Short-Circuit in Tidal Stream Turbines by Relative Value Temperature Analysis" (3432)</b>
17:30	17:45	<u>Kaspars Kroics (Riga Technical University, Latvia)</u> <i>Kaspars Kroics and Valerijs Maricevs</i> <b>"Improved Initial Rotor Angle Detection for Vector Controlled Permanent Magnet Synchronous Motor with Incremental Encoder" (3499)</b>
17:45	18:00	<u>Hannu Kärkkäinen (LUT University, Finland)</u> <i>Hannu Kärkkäinen, Matias Tiihonen, Lassi Aarniovuori, Dong Liu, Markku Niemelä and Jouni Ikäheimo</i> <b>"Direct-On-Line Synchronous Reluctance Motor Loss Segregation with Measurements" (6337)</b>
18:00	18:15	<u>Vsevolod Burenin (Riga Technical University, Latvia)</u> <i>Vsevolod Burenin, Jaroslavs Zarembo and Oskars Krievs</i> <b>"Effect of Different Selective Harmonic Elimination Solution Sets on Harmonic Distortion and Induction Motor Losses" (8895)</b>
18:15	18:30	<u>Lassi Aarniovuori (LUT University, Finland)</u> <i>Lassi Aarniovuori, Matias Tiihonen, Shoab Ahmed, Hannu Kärkkäinen, Markku Niemelä, Jan Barta and Ondrej Vitek</i> <b>"Segregation of Additional High Frequency Harmonic Losses created by PWM supply" (7839)</b>
18:30	18:45	<u>Olaseinde David Olagbegi (Silesian University of Technology, Poland)</u> <i>Olaseinde David Olagbegi, Mariusz Stępień and Paweł Lasek</i> <b>"Empowering Sustainable Mobility: The Role of Power Electronics in ADAS Technology" (9919)</b>

**19:40 – Transportation from the venue to Leisure Centre “Lido”**

**20:00 – Gala Dinner and Award Ceremony (Leisure Centre “Lido”)**



## Presentations in Room 115 (Azenes street 12/1)

### Room 115 (Azenes street 12/1), 11:30-12:45, Power Electronics (Part I)

Chairpersons:		Dr. Andrii Chub (Tallinn University of Technology, Estonia) Mr. Alexander Bubovich (Riga Technical University, Latvia)
From	To	<u>Presenting Author (Affiliation),</u> <u>Paper Authors</u> <b>"Paper Title" (Paper ID)</b>
11:30	11:45	<u>Sachin Chauhan (Tallinn University of Technology, Estonia)</u> Sachin Chauhan, Andrei Blinov, Andrii Chub and Dmitri Vinnikov <b>"Active Clamped Dual Current Fed Bidirectional DC-DC Converter for Wide Voltage Range Applications" (2556)</b>
11:45	12:00	<u>Edivan Carvalho (Tallinn University of Technology, Estonia)</u> Edivan Carvalho, Andrii Chub, Dmitri Vinnikov, Andrei Blinov and Anna Kyselova <b>"Using Electric Vehicles to Enhance Power Supply Resilience of Buildings During Emergencies and Critical Situations" (5255)</b>
12:00	12:15	<u>Tanel Jalakas (Tallinn University of Technology, Estonia)</u> Tanel Jalakas, Andrii Chub, Indrek Roasto and Dmitri Vinnikov <b>"Design Issues of SSCBs for residential DC Microgrids" (6739)</b>
12:15	12:30	<u>Andrii Chub (Tallinn University of Technology, Estonia)</u> Ievgen Verbytskyi, Andrei Blinov, Andrii Chub, Dmitri Vinnikov and Anna Kyselova <b>"Active Front End Converter with Voltage Balancing Capability" (4455)</b>
12:30	12:45	<u>Sachin Chauhan (Tallinn University of Technology, Estonia)</u> Asgar Bahador, Ebrahim Babaei and Sachin Chauhan <b>"Improved Half-Bridge Z-Source Inverter Based Gamma Structure With Continuous Input Current" (8808)</b>

**12:45-13:30 – Lunch ("Expo Cafe" (Exhibition Hall Kipsala – outside of the campus) at Kipsalas street 8)**

## Room 115 (Azenes street 12/1), 13:30-15:00, Electrical Engineering and Equipment

Chairpersons:		Prof. Ilya A. Galkin (Riga Technical University, Latvia) Dr. Ansis Avotins (Riga Technical University, Latvia)
From	To	<i>Presenting Author (Affiliation), Paper Authors "Paper Title" (Paper ID)</i>
13:30	13:45	<i>Lauri Kütt (Tallinn University of Technology, Estonia) Jan Markus Tinno, Lauri Kütt, Martin Parker, Jan Kulikov and Martin Jaanus "Inrush Current Measurement and Modeling - Practical Cases and Primary Modeling Methods" (0306)</i>
13:45	14:00	<i>Girts Stana (Riga Technical University, Latvia) Girts Stana, Kaspars Kroics and Viesturs Brazis "Study of the Efficiency of Electric Transport Mobile Supercapacitor Energy Storage System Charging from Overhead Catenary" (3469)</i>
14:00	14:15	<i>Olena Rubanenko (University of West Bohemia, Czech Republic) Milan Belik, Olena Rubanenko and Babu Phaneendra "Increasing efficiency PV system due considering technical condition" (1507)</i>
14:15	14:30	<i>Milan Belik (University of West Bohemia, Czech Republic) Olena Rubanenko and Milan Belik "Simulation of energy cooperatives in Ukraine grid with high level integration of renewable energy sources" (1867)</i>
14:30	14:45	<i>Martin Parker (Tallinn University of Technology, Estonia) Martin Parker, Argo Rosin, Inna Gorislavskaja, Dago Antov, Toivo Varjas and Taavi Möller "Case study of outdoor digital screens effect on drivers" (1111)</i>
14:45	15:00	<i>Martins Marcinkevics (Riga Technical University, Latvia) Martins Marcinkevics and Ansis Avotins "Lighting System Design Challenges for Vertical Farming Containers. Part 1. Perspective from Electrical Design" (4997)</i>

16:45-17:00 – Coffee Break (Room 114, at Azenes street 12/1)

## Room 115 (Azenes street 12/1), 15:00-16:30, Power Electronics (Part II)

Chairpersons:		Prof. Dmitri Vinnikov (Tallinn University of Technology, Estonia) Prof. Ilya A. Galkin (Riga Technical University, Latvia)
From	To	<i>Presenting Author (Affiliation), Paper Authors "Paper Title" (Paper ID)</i>
15:00	15:15	<i>Sayeed Hasan (Tallinn University of Technology, Estonia)</i> <i>Sayeed Hasan, Andrii Chub, Andrei Blinov and Dmitri Vinnikov</i> <b>"Implementation Issues of Droop Controlled DC Microgrids: State of Charge Management of Battery Energy Storage and Impact of Sensor Gain Tolerance" (0042)</b>
15:15	15:30	<i>Adam Kastner (Karlsruhe Institute of Technology, Germany)</i> <i>Adam Kastner, Lutz Gröll and Veit Hagenmeyer</i> <b>"Vibrational Control for Energy Balancing in Modular Multilevel Converters" (5639)</b>
15:30	15:45	<i>Kristiāns Gaspersons (Riga Technical University, Latvia)</i> <i>Kristiāns Gaspersons and Kaspars Kroičs</i> <b>"DC Bus Voltage Controller with Variable Coefficients for Supercapacitor Backup Storage System" (5637)</b>
15:45	16:00	<i>Furqan Amjad (Tallinn University of Technology, Estonia)</i> <i>Furqan Amjad, Tarmo Korõtko and Argo Rosin</i> <b>"Forecasting PV Energy Generation Using Transformer-Based Architectures: A Comparative Study of Lag-Llama, TFT, and DeepAR" (3597)</b>
16:00	16:15	<i>Lauri Kütt (Tallinn University of Technology, Estonia)</i> <i>Lauri Kütt, Tuuli Tiivel, Mart Parker, Laur Valgur, Marek Jarkovoi and Andrii Chub</i> <b>"A DTFT-based approach for condition monitoring of switch-mode power converters" (2231)</b>

[19:40 – Transportation from the venue to Leisure Centre "Lido"](#)

**20:00 – Gala Dinner and Award Ceremony (Leisure Centre "Lido")**

## Presentations in Room 116 (Azenes street 12/1)

### Room 116 (Azenes street 12/1), 11:30-12:45, Power Engineering (Part I)

Chairpersons:		Prof. Aleksandrs Dolgicers (Riga Technical University, Latvia) Dr. Ivars Zalitis (Riga Technical University, Latvia)
From	To	<u>Presenting Author (Affiliation),</u> <u>Paper Authors</u> <b>"Paper Title" (Paper ID)</b>
11:30	11:45	<u>Dauids Kronkalns (Riga Technical University, Latvia)</u> <u>Dauids Kronkalns and Laila Zemite</u> <b>"Evaluating SF6 Alternatives in Medium and High Voltage Switchgear" (0446)</b>
11:45	12:00	<u>Lauri Kütt (Tallinn University of Technology, Estonia)</u> <u>Kristjan Peterson, Noman Shabbir, Victor Astapov, Lauri Kütt and Kamran Daniel</u> <b>"Community Battery Sizing for Distribution Level RES Hosting Capacity Improvement" (0665)</b>
12:00	12:15	<u>Roberts Lazdins (Riga Technical University, Latvia)</u> <u>Roberts Lazdins, Anna Mutule and Lubova Petrichenko</u> <b>"Comparative Assessment of Prosumer Support Scheme Adoption for Energy Communities in Latvia" (9049)</b>
12:15	12:30	<u>Jevgenijs Kozadajevs (Riga Technical University, Latvia)</u> <u>Jevgenijs Kozadajevs, Ivars Zalitis and Anna Mutule</u> <b>"Optimal Self Generation Portfolio For Multi-Apartment Building" (6902)</b>
12:30	12:45	<u>Merilin Metsik (Tallinn University of Technology, Estonia)</u> <u>Merilin Metsik, Argo Rosin, Vahur Maask and Hannes Agabus</u> <b>"Analysis of Consumer Energy Flexibility and Applicability for Power System" (0722)</b>

12:45-13:30 – Lunch ("Expo Cafe" (Exhibition Hall Kipsala – outside of the campus) at Kipsalas street 8)

## Room 116 (Azenes street 12/1), 13:30-15:15, Power Engineering (Part II)

Chairpersons:		Prof. Anna Mutule (Riga Technical University, Latvia) Dr. Jevgenijs Kozadajevs (Riga Technical University, Latvia)
From	To	<u>Presenting Author (Affiliation),</u> <u>Paper Authors</u> <b>"Paper Title" (Paper ID)</b>
13:30	13:45	<u>Artjoms Obushevs (Zurich University of Applied Sciences, Switzerland)</u> <u>Miguel Ramirez Gonzalez, Artjoms Obushevs, Rafael Segundo and Petr Korba</u> <b>"Real-Time Simulation of the Initial Dynamic Model of CE in ePHASORsim: Issues and Troubleshooting" (1505)</b>
13:45	14:00	<u>Kārlis Baltputnis (Riga Technical University, Latvia)</u> <u>Kārlis Baltputnis, Diāna Žalostība, Jana Teremranova, Patriks Pazāns and Zane Broka</u> <b>"Refinement and Calibration of Optimization Models for Baltic Region Energy System Development" (4646)</b>
14:00	14:15	<u>Poonam Syal (National Institute of Technical Teachers Training and Research, India)</u> <u>Pratibha Chauhan and Poonam Syal</u> <b>"Performance Enhancement of Micro Hydro Power Plant with Improved Load Controller" (1341)</b>
14:15	14:30	<u>Jelena Tihana (Riga Technical University, Latvia)</u> <u>Inna Bilous, Volodymyr Voloshchuk, Eugene Nikiforovich, Valerii Deshko, Anatoliy Sapunov and Jelena Tihana</u> <b>"Increasing efficiency of a condensing boiler by improving the design and operating characteristics of the consumer" (1557)</b>
14:30	14:45	<u>Guido Andreesen (Tallinn University of Technology, Estonia)</u> <u>Guido Andreesen, Madis Leinakse, Jako Kilter and Mart Landsberg</u> <b>"Cost-Efficient Improvement of Power System's Reliability within Limited Funds" (6927)</b>
14:45	15:00	<u>Egils Dzelzitis (Riga Technical University, Latvia)</u> <u>Egils Dzelzitis, Peteris Apse Apsitis and Edijs Lungis</u> <b>"Creation of a smart energy management system in the climate neutral student campus" (6994)</b>
15:00	15:15	<u>Justo García-Sanz-Calcedo (University of Extremadura, Spain)</u> <u>Manuel Botejara-Antúnez, Antonio Díaz-Parralejo, Antonio Macías-García and Justo García-Sanz-Calcedo</u> <b>"Environmental impact of Solar Salt as a heat transfer fluid for CSP plants" (9073)</b>

### Room 116 (Azenes street 12/1), 15:15-17:00, Power Engineering (Part III)

Chairpersons:		Dr. Roman Petrichenko (Riga Technical University, Latvia) Dr. Diana Zalostiba (Riga Technical University, Latvia)
From	To	<u>Presenting Author (Affiliation),</u> <u>Paper Authors</u> <b>"Paper Title" (Paper ID)</b>
15:15	15:30	<u>Konstantins Burcevs (Riga Technical University, Latvia)</u> <i>Antans Sauhats, Konstantins Burcevs, Roman Petrichenko, Galina Bockarjova and Diana Zalostiba</i> <b>"Comparing and Combining Nuclear with Solar, Wind, and Gas" (1185)</b>
15:30	15:45	<u>Konstantins Burcevs (Riga Technical University, Latvia)</u> <i>Antans Sauhats, Konstantins Burcevs, Roman Petrichenko, Galina Bockarjova and Diana Zalostiba</i> <b>"Minimizing Transition Costs: Choice of Green Energy Mixes and Storage Solutions in the Baltic Power System Conditions" (4892)</b>
15:45	16:00	<u>Tatjana Lomane (Riga Technical University, Latvia)</u> <i>Anatolijs Mahnitko, Tatjana Lomane, Inga Zicmane and Timurs Kuzņecovs</i> <b>"The Impact of Infrastructural Changes in Baltic Energy Systems on the Reliability of Their Operation after Synchronization with Energy Systems of Central Europe" (6322)</b>
16:00	16:15	<u>Miroslav Gutten (University of Zilina, Slovakia)</u> <i>Miroslav Gutten, Daniel Korenciak and Jan Kanuch</i> <b>"Analysis of the temperature dependences of insulation parameters for oil high-voltage transformer using the method FDS" (2995)</b>
16:15	16:30	<u>Diana Zalostiba (Riga Technical University, Latvia)</u> <i>Antans Sauhats, Diana Zalostiba, Andrejs Utans, Roman Petrichenko, Olegs Linkevics, Santa Kiene and Ruslans Komarovs</i> <b>"Refurbishment of a Hydropower Plant into a Pumped Storage Facility: A Prefeasibility Study" (9836)</b>
16:30	16:45	<u>Roman Petrichenko (Riga Technical University, Latvia)</u> <i>Amir Abdel Menaem, Mohamed Elgamal, Vladislav Oboskalov, Anatolijs Mahnitko and Roman Petrichenko</i> <b>"Impact of sampling of load stochastic process on probabilistic loss of load assessment for a power system" (9906)</b>
16:45	17:00	<u>Aleksandrs Borisovs (Riga Technical University, Latvia)</u> <i>Aleksandrs Borisovs and Aleksandrs Dolgicers</i> <b>"Economical calculation basis of synthetic gas production using alternate renewable resources in combining of hydrogen and carbon dioxide" (7441)</b>

17:00-17:15 – Coffee Break (Room 114, at Azenes street 12/1)

## Room 116 (Azenes street 12/1), 17:15-19:00, Power Engineering (Part IV)

Chairpersons:		Prof. Andrejs Utans (Riga Technical University, Latvia) Dr. Laila Zemite (Riga Technical University, Latvia)
From	To	<i>Presenting Author (Affiliation), Paper Authors "Paper Title" (Paper ID)</i>
17:15	17:30	<u>Jalal Sahebkar Farkhani (Aalborg University, Denmark)</u> Jalal Sahebkar Farkhani, Jonathan Cervante Gomes, Peter Jan Randewijk, Kaiqi Ma, Claus Leth Bak and Zhe Chen <b>"State of the art of fault current limiter and application to the HVDC systems" (2545)</b>
17:30	17:45	<u>Josifs Survilo (Riga Technical University, Latvia)</u> Josifs Survilo <b>"HVAC and HVDC Transmission Lines" (0426)</b>
17:45	18:00	<u>Josifs Survilo (Riga Technical University, Latvia)</u> Josifs Survilo <b>"Decarbonization, what it is" (6038)</b>
18:00	18:15	<u>Muhammad Usman Sardar (Tallinn University of Technology, Estonia)</u> Bilal Asad, Toomas Vaimann, Ants Kallaste, Jako Kilter and Muhammad Usman Sardar <b>"Fault Simulation and Analysis of High-Voltage Circuit Breaker's Spring Charging Mechanism Using a Universal Motor Model" (1613)</b>
18:15	18:30	<u>Dmitrijs Rusovs (Riga Technical University, Latvia)</u> Dmitrijs Rusovs, Varis Zentins, Aleksandrs Sorocins, Ludmila Jakovleva and Agnese Lickrastina <b>"Heat pump coupling with rooftop solar microgeneration array" (0692)</b>
18:30	18:45	<u>Andris Backurs (Latvia University of Life Sciences and Technologies, Latvia)</u> Laila Zemite, Edgars Stipnieks, Andris Backurs, Aigars Laizans, Karlis Vonda and Patrick Cnubben <b>"Optimizing Municipal Waste Recycling for Renewable Energy Production" (8757)</b>
18:45	19:00	<u>Ance Ansonē (Riga Technical University, Latvia)</u> Ance Ansonē, Līga Rozentāle, Uldis Bariss and Dagnija Blumberga <b>"Status and potential role of biomethane in the way towards gas sector decarbonization. Case study of Latvia" (6392)</b>

19:40 – Transportation from the venue to Leisure Centre “Lido”

**20:00 – Gala Dinner and Award Ceremony (Leisure Centre “Lido”)**