

**Analysis of household electricity consumption patterns and economy of water heating shifting and saving bulbs**  
**Rosin, Argo; Möller, Taavi; Lehtla, Madis; Höimoja, Hardi** Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2010 / p. 15-20 : ill

**Andmevõrkudest automaatikas**  
**Lehtla, Madis; Lehtla, Tõnu** Elektriku kalender 1998 1997 / lk. 174-188

**Application of databases for compatibility of electrical installation design [Electronic resource]**  
**Lehtla, Madis; Müür, Margus; Kõivastik, Ivar; Müül, Kristjan** CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 299-302 [CD-ROM]  
<https://ieeexplore.ieee.org/document/5942249> <https://doi.org/10.1109/CPE.2011.5942249>

**Auxiliary power converter for a tram**  
**Vinnikov, Dmitri; Lehtla, Madis** Summer Seminar on Nordic Network for Multi Disciplinary Optimised Electric Drives 2002 / ? p

**Comparison of renewable electricity generation options with household electrical load patterns**  
**Auväär, Aivar; Rosin, Argo; Rosin, Kai; Drovtar, Imre; Lehtla, Madis** Proceedings : IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society : Austria Center Vienna, Vienna, Austria, 10-14 November, 2013 2013 / p. 1555-1560 : ill  
<https://ieeexplore.ieee.org/document/6699364> <https://doi.org/10.1109/IECON.2013.6699364> Conference Proceedings at Scopus Article at Scopus

**Computer models for simulation and control of a traction supply system [Electronic resource]**  
**Lehtla, Madis; Laugis, Juhan** EPE-PEMC 2006 : 12th International Power Electronics and Motion Control Conference : Portorož, Slovenia, August 30 - September 1, 2006 : proceedings 2006 / p. 1372-1377 : ill. [CD-ROM]  
[https://www.researchgate.net/publication/224382843\\_Computer\\_Models\\_for\\_Simulation\\_and\\_Control\\_of\\_a\\_Traction\\_Supply\\_System](https://www.researchgate.net/publication/224382843_Computer_Models_for_Simulation_and_Control_of_a_Traction_Supply_System)

**A conceptual design method for the general electric vehicle**  
**Sell, Raivo; Tamre, Mart; Lehtla, Madis; Rosin, Argo** Estonian journal of engineering 2008 / 1, p. 3-16 : ill  
<https://doi.org/10.3176/eng.2008.1.01>

**Control and protection of a traction supply system**  
**Lehtla, Madis** 3rd International Symposium "Topical Problems of Education in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology : Kuressaare, Estonia, January 16-21, 2006 2006 / p. 93-98 : ill

**Control system development environment with MatLAB SIMULINK real time workshop**  
**Lehtla, Madis** Baltic electrical engineering review 1998 / 1, p. 21-24: ill

**Control system for electric traction drive**  
**Lehtla, Madis; Laugis, Juhan** BEC 2004 : proceedings of the 9th Biennial Baltic Electronics Conference : October 3-6, 2004, Tallinn, Estonia 2004 / p. 331-332 : ill

**Design of devices for advanced protection, voltage-quality and load priority control in residential microgrids**  
**Lehtla, Madis; Rosin, Argo; Möller, Taavi; Pikner, Rando** EPE-PEMC 2010 : 14th International Power Electronics and Motion Control Conference : 6-8 September 2010, Ohrid, Republic of Macedonia 2010 / p. T6-97 - T6-100  
<https://ieeexplore.ieee.org/document/5606611> <https://doi.org/10.1109/EPEPEMC.2010.5606611>

**Design of renewable micro generation monitoring and control application**  
**Lehtla, Madis; Kõivastik, Ivar; Möller, Taavi; Kallaste, Ants; Rosin, Argo** PQ2010 : 7th International Conference "2010 Electric Power Quality and Supply Reliability" : June 16-18, 2010, Kuressaare, Estonia 2010 / p. 105-110 : ill

**Development of auxiliary power supply for tram**  
**Vinnikov, Dmitri; Lehtla, Madis** BEC 2002 : proceedings of the 8th Biennial Baltic Electronics Conference : October 6-9, 2002, Tallinn, Estonia 2002 / p. 389-390 : ill

**Development system for special purpose electrical drives and converters**  
**Joller, Jüri; Lehtla, Madis** ELECTROMOTION '99 : 3rd International Symposium on Advanced Electromechanical Motion Systems : July 8-9, 1999, Patras, Greece : proceedings. Vol. II 1999 / p. 637-640 : ill

**Digitaaltehnika doktorantidele. Osa II, Kombinatsioon- ja järjendlülitused = Digital engineering. Part II, Combinational and sequential circuits [Võrguväljaanne]**  
**Lehtla, Madis** 2014 [http://egdk.ttu.ee/files/2014/Digitaaltehnika\\_doktorantidele2.pdf](http://egdk.ttu.ee/files/2014/Digitaaltehnika_doktorantidele2.pdf)

**Elektrienergia salvestamine**  
**Lehtla, Madis** Elektrala 2007 / 2, lk. 12-13

**Elektrimõõteseadmed. Osa 4, Erinõuded. Staatilised alalisvoolu aktiivenergia arvestid (klassid A, B ja C) = Electricity metering equipment. Part 4, Particular requirements. Static meters for DC active energy (class indexes A, B and C)**  
2023 [https://www.estr.ee/record=b5652954\\*est](https://www.estr.ee/record=b5652954*est)

**Elektrimõõteseadmed vahelduvvoolule. Osa 1, Üldnõuded, katsetused ja katsetingimused. Klassidesse A, B ja C kuuluvalt arvestid [Võrguteavik] = Electricity metering equipment (a.c.). Part 1, General requirements, tests and test conditions. Metering equipment (class indexes A, B and C)**  
2019 [https://www.estr.ee/record=b5201299\\*est](https://www.estr.ee/record=b5201299*est)

**Elektrimõõteseadmed vahelduvvoolule. Osa 1, Üldnõuded, katsetused ja katsetingimused. Klassidesse A, B ja C kuuluvalt arvestid [Võrguteavik] = Electricity metering equipment (a.c.). Part 1, General requirements, tests and test conditions. Metering equipment (class indexes A, B and C)**  
2019 [https://www.estr.ee/record=b5201316\\*est](https://www.estr.ee/record=b5201316*est)

**Elektrimõõteseadmed vahelduvvoolule. Osa 2, Erinõuded. Elektromehaanilised aktiivenergia arvestid (klass A ja B) [Võrguteavik] = Electricity metering equipment (a.c.). Part 2, Particular requirements. Electromechanical meters for active energy (class indexes A and B)**  
2019 [https://www.estr.ee/record=b5201740\\*est](https://www.estr.ee/record=b5201740*est)

**Elektrimõõteseadmed vahelduvvoolule. Osa 2, Erinõuded. Elektromehaanilised aktiivenergia arvestid (klass A ja B) [Võrguteavik] = Electricity metering equipment (a.c.). Part 2, Particular requirements. Electromechanical meters for active energy (class indexes A and B)**  
2019 [https://www.estr.ee/record=b5201747\\*est](https://www.estr.ee/record=b5201747*est)

**Elektrimõõteseadmed vahelduvvoolule. Osa 3, Erinõuded. Staatilised aktiivenergia arvestid (klass A, B ja C) [Võrguteavik] = Electricity metering equipment (a.c.). Part 3, Particular requirements. Static meters for active energy (class indexes A, B and C)**  
2019 [https://www.estr.ee/record=b5201755\\*est](https://www.estr.ee/record=b5201755*est)

**Elektrimõõteseadmed vahelduvvoolule. Osa 3, Erinõuded. Staatilised aktiivenergia arvestid (klass A, B ja C) [Võrguteavik] = Electricity metering equipment (a.c.). Part 3, Particular requirements. Static meters for active energy (class indexes A, B and C)**  
2019 [https://www.estr.ee/record=b5202118\\*est](https://www.estr.ee/record=b5202118*est)

**Elektroonikaseadmete raalprojekteerimine**  
**Lehtla, Madis** 2002 [http://www.estr.ee/record=b1729819\\*est](http://www.estr.ee/record=b1729819*est)

**EuroTeQ as an alliance to promote European engineering education**  
**Vodovozov, Valery; Raud, Zoya; Lehtla, Madis** Proceedings of the 15th International Conference on Computer Supported Education (CSEDU 2023). Vol. 2 2023 / p. 601-607 <https://doi.org/10.5220/0011824900003470>

**EuroTeQ Project : first impressions and estimates**  
**Vodovozov, Valery; Lehtla, Madis; Raud, Zoya** 2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON): conference proceedings 2022 / 5 p  
<https://doi.org/10.1109/RTUCON56726.2022.9978799>

**Feasibility study of 200 kW half-bridge and full-bridge DC/DC converters with 6.5 kV IGBTs**  
**Vinnikov, Dmitri; Lehtla, Madis** 19th International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Speedam 2008 : Ischia (Italy), June 11th-13th, 2008 : conference proceedings 2008 / p. 1537-1541 : ill. [CD-ROM]  
<https://ieeexplore.ieee.org/document/4581238>

**Hardware and software of the IGBT power converter**  
**Lehtla, Madis** Actual Problems of Electrical Drives and Industry Automation : the research symposium of young scientists : Tallinn, Estonia, May 31 - June 5, 1999 1999 / p. 67-70: ill

**A hydrogen technology as buffer for stabilization of wind power generation**  
**Andrijanovitš, Anna; Egorov, Mikhail; Lehtla, Madis; Vinnikov, Dmitri** 8th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology. II : [Pärnu, January 11-16, 2010 : proceedings] 2010 / p. 62-70 : ill [https://www.estr.ee/record=b2549033\\*est](https://www.estr.ee/record=b2549033*est)

**Intelligent control and diagnostics system for Tallinn trams**  
**Rosin, Argo; Lehtla, Madis; Möller, Taavi** EPE-PEMC 2004 : 11th International Power Electronics and Motion Control Conference : 2-4 September 2004, Riga, Latvia : proceedings. Vol. 6 of 7, Mechatronics, industrial drive systems, power electronics and drives in transport, EMC and design of PE systems 2004 / p. 6-185 - 6-188 : ill

**Kergrööbassöidukite ajamid ja juhtimine**

**Laugis, Juhani; Lehtla, Tõnu; Joller, Jüri; Rosin, Argo; Vinnikov, Dmitri; Lehtla, Madis** 2008  
[http://www.esther.ee/record=b2394445\\*est](http://www.esther.ee/record=b2394445*est)

### **Kinetic energy storage systems**

**Hõimoja, Hardi; Lehtla, Madis** 8th International Workshop on Research and Education in Mechatronics 2007 : 14-15 June 2007, Tallinn, Estonia 2007 / p. 284-288 : ill

### **Kütuseelement ergutab jätkuvalt fantaasiat : [kütuseelemendist Dmitri Vinnikov ja Madis Lehtla]**

Juurak, Raivo; **Vinnikov, Dmitri; Lehtla, Madis** Õpetajate Leht 2010 / 5. märts, lk. 7 : fot [https://artiklid.elnet.ee/record=b1962215\\*est](https://artiklid.elnet.ee/record=b1962215*est)

### **Magnetization model for separately magnetized traction motor control**

**Lehtla, Madis** 2nd International Symposium "Topical Problems of Education in the Field of Electrical and Power Engineering" : Kuressaare, Estonia, January 17-22, 2005 2005 / p. 82-83 : ill

### **Managing energy consumption of linear delta robots using neural network models**

**Vodovozov, Valery; Lehtla, Madis; Raud, Zoya; Semjonova, Natalia; Petlenkov, Eduard** Energies 2024 / art. 4081  
<https://doi.org/10.3390/en17164081> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

### **Microprocessor based traction control system and diagnostic algorithms for the traction drive TVM1**

**Lehtla, Madis** Symposium "Topical Problems of Education in the Field of Electrical and Power Engineering" : Kuressaare, Estonia, January 19-24, 2004 2004 / p. 58-61 : ill

### **Microprocessor control systems of light rail vehicle traction drives**

**Lehtla, Madis** 2006 [https://www.esther.ee/record=b2170586\\*est](https://www.esther.ee/record=b2170586*est)

### **Modeling of demand side management scenarios in apartment buildings**

**Vill, Kaija; Rosin, Argo; Lehtla, Madis** PQ2016 : the 10th International Conference 2016 Electric Power Quality and Supply Reliability Conference (PQ) : August 29-31, 2016, Tallinn, Estonia : proceedings 2016 / p. 113-118 : ill  
<https://doi.org/10.1109/PQ.2016.7724099>

### **Modernisation of trams in Estonia**

**Laugis, Juhani; Lehtla, Tõnu; Pettai, Elmo; Joller, Jüri; Rosin, Argo; Lehtla, Madis; Vinnikov, Dmitri** The 6-th International Conference on Unconventional Electromechanical and Electrical Systems : UEES'04. Vol. 2 of 3 2004 / p. 561-564

### **Modernization of electrical transport systems in Estonia**

**Laugis, Juhani; Lehtla, Tõnu; Joller, Jüri; Boiko, Vitali; Vinnikov, Dmitri; Lehtla, Madis** 10th International Power Electronics and Motion Control Conference : EPE-PEMC 2002, Cavtat & Dubrovnik : 9-11 September 2002, Cavtat & Dubrovnik, Croatia 2002

### **Operation and diagnostics of the tram traction drive**

**Lehtla, Madis; Joller, Jüri; Laugis, Juhani** 3rd International Scientific Workshop "Compatibility in Power Electronics" (CPE 2003) : Gdansk-Zielona Gora, Poland, 28-30 May, 2003 2003 / p. 61-63

### **Parameter identification and comparision of an induction motor models**

**Lehtla, Tõnu; Joller, Jüri; Lehtla, Madis; Laugis, Juhani** Eighth International Conference on Power Electronics and Variable Speed Drives : 18-19 September 2000 2000 / p. 201-205 : ill <https://ieeexplore.ieee.org/document/888922>

### **Performance and feasibility analysis of electricity price based control models for thermal storages in households**

**Rosin, Argo; Link, Siim; Lehtla, Madis; Martins, Joao; Drovtar, Imre; Roasto, Indrek** Sustainable cities and society 2017 / p. 366-374 : ill <https://doi.org/10.1016/j.scs.2017.04.008> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

### **Pick-and-place operation of linear Delta robots with low energy consumption**

**Vodovozov, Valery; Lehtla, Madis; Raud, Zoya; Petlenkov, Eduard** 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 6 p <https://doi.org/10.1109/RTUCON62997.2024.10830764>

### **Power analyse and new loss minimization possibilities of a tram system**

**Joller, Jüri; Lehtla, Madis** 10th International Power Electronics and Motion Control Conference : EPE-PEMC 2002, Cavtat & Dubrovnik : 9-11 September 2002, Cavtat & Dubrovnik, Croatia 2002

### **Power analyse of a tram system with energy storage devices**

**Joller, Jüri; Lehtla, Madis** BEC 2002 : proceedings of the 8th Biennial Baltic Electronics Conference : October 6-9, 2002, Tallinn, Estonia 2002 / p. 395-396

### **Power electronics and electrical drives**

**Lehtla, Tõnu** 2003 [http://www.esther.ee/record=b1860163\\*est](http://www.esther.ee/record=b1860163*est)

## **Research and development of voltage converter for trams**

**Vinnikov, Dmitri; Lehtla, Madis; Joller, Jüri; Laugis, Juhan** Power and Electrical Engineering International Scientific Conference 2002 / ? p

## **Residential electricity consumption and loads pattern analysis**

**Rosin, Argo; Höimoja, Hardi; Möller, Taavi; Lehtla, Madis** PQ2010 : 7th International Conference "2010 Electric Power Quality and Supply Reliability" : June 16-18, 2010, Kuressaare, Estonia 2010 / p. 111-116 : ill

## **Sissejuhatus digitaaltehnikasse**

**Lehtla, Madis** 2016 [http://www.estet.ee/record=b4618200\\*est](http://www.estet.ee/record=b4618200*est)

## **Slip control upgrades for light-rail electric traction drives**

**Lehtla, Madis; Höimoja, Hardi** EPE-PEMC 2008 : 2008 13th International Power Electronics and Motion Control Conference : 1-3 September 2008, Poznan, Poland : abstracts 2008 / p. 61 <https://ieeexplore.ieee.org/document/4635492>

## **Slip control upgrades for light-rail electric traction drives [Electronic resource]**

**Lehtla, Madis; Höimoja, Hardi** EPE-PEMC 2008 : 2008 13th International Power Electronics and Motion Control Conference : 1-3 September 2008, Poznan, Poland : proceedings 2008 / p. 1604-1607 : ill. [CD-ROM]

<https://ieeexplore.ieee.org/document/4635492/keywords> <https://doi.org/10.1109/EPEPEMC.2008.4635492>

## **Stepper motor drive as a control object for teaching microprocessor control of electrical drives**

Kährik, Rainer; **Lehtla, Madis** 6th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology : [Kuressaare, January 12-17, 2009] 2009 / p. 140-143 : ill

## **Supply for the auxiliary systems in the rail vehicle**

**Lehtla, Madis; Vinnikov, Dmitri** Actual Problems of Electrical Drives and Industry Automation : the 3rd Research Symposium of Young Scientists : Tallinn, Estonia, May 19-26, 2001 2001 / p. 68-70 : ill

## **Survey of loss minimization methods in tram systems [Electronic resource]**

**Höimoja, Hardi; Vinnikov, Dmitri; Lehtla, Madis; Rosin, Argo; Zakis, Janis** SPEEDAM 2010 : International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Pisa, Italy, 14th-16th June, 2010 : proceedings 2010 / p. 1356-1361 : [CD-ROM] <https://ieeexplore.ieee.org/document/5544863>

## **The control of operation modes in a traction drive**

**Lehtla, Madis; Joller, Jüri** The 4th Research Symposium of Young Scientists : Actual Problems of Electrical Drives and Industry Automation : Tallinn, Estonia, May 17-21, 2003 2003 / p. 77-82 : ill

## **Traction and control of light rail vehicles**

**Laugis, Juhan; Lehtla, Tõnu; Joller, Jüri; Rosin, Argo; Vinnikov, Dmitri; Lehtla, Madis** 2008  
[http://www.estet.ee/record=b2394449\\*est](http://www.estet.ee/record=b2394449*est)

## **Tram traction drives and comparison of their control methods**

**Joller, Jüri; Lehtla, Madis; Lehtla, Tõnu; Laugis, Juhan** The 7th Biennial Conference on Electronics and Microsystem Technology "Baltic Electronics Conference" : BEC 2000 : October 8 - 11, 2000, Tallinn, Estonia : conference proceedings 2000 / p. 203-204 : ill

## **Об опыте Института электропривода и силовой электроники ТТУ в области модернизации электроподвижного состава Таллиннского трамвайного парка**

**Vinnikov, Dmitri; Boiko, Vitali; Lehtla, Madis; Rosin, Argo; Laugis, Juhan** Технічна електродинаміка 2004 / 3, с. 52-55 : ил