

**Latvia University of Agriculture, Faculty of Engineering**  
**Latvia Academy of Agricultural and Forestry Sciences, Division of Engineering**  
**Latvia University of Agriculture, Research Institute of Agricultural Machinery**



**9<sup>th</sup> International Scientific Conference**

# **ENGINEERING FOR RURAL DEVELOPMENT**

## **PROGRAMME**

*The Conference is supported by*

“Vocational education, training and examination center”, Ltd  
Farm “Sējas”

*Conference languages – English, Russian, Latvian*

**Jelgava, Latvia, May 27 – 28, 2010**

## ***PROGRAM COMMITTEE***

### ***Chairman***

Kaspars Vartukapteinis, Prof., Dr.sc.ing.

Latvia University of Agriculture

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Transylvania University of Brasov, Romania

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Latvia University of Agriculture

*Waclaw Romaniuk*, Prof., Dr.habil.sc.ing.

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*Dainis Viesturs*, Dr.sc.ing.

Latvia University of Agriculture, Research Institute of Agricultural Machinery

## ***ORGANISING COMMITTEE***

### ***Chairman***

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### ***Members:***

*Aivars Aboltins*, Prof., Dr.sc.ing.

*Armins Laurs*, Dr.sc.ing.

*Gunars Godmanis*, Lecturer

*Jolanta Krisuna*

*Aina Priekule*

*Aigars Kunkulis*

## Thursday, 27 May

- 9<sup>15</sup> – 10<sup>00</sup>** Registration of participants,  
Faculty of Engineering, LUA, 5 J.Cakstes boulv., 2<sup>nd</sup> floor
- 10<sup>00</sup> – 12<sup>00</sup>** Plenary session  
Faculty of Engineering, Room 429
- 
- 10<sup>00</sup> – 10<sup>10</sup>** **OPENING SPEECH**  
**Maris Kirsis**  
*Dean of the Faculty of Engineering, Latvia University of Agriculture (LUA)*
- 10<sup>10</sup> – 10<sup>35</sup>** **ENGINEERING EDUCATION – NEW APPROACH AND NEW STYLE.** *Guna Civcisa, Jolanta Janauska, Iveta Mezinska, Janis Mazais, Janis Mikelsons, Janis Rudnevs, Narimants Salenieks, Riga Technical University, Latvia*
- 10<sup>35</sup> – 11<sup>00</sup>** **DEVELOPMENT OF ENGINEERING EDUCATION DURING LAST 20 YEARS IN RUSSIA.** *Vladimir Romanenko, St-Petersburg State University of Technology and Design, North-West Institute of Printing, Russia*
- 11<sup>00</sup> – 11<sup>25</sup>** **CONTRIBUTION OF THE RESEARCH INSTITUTE OF AGRICULTURAL MACHINERY DURING 50 YEARS OF ITS EXISTENCE.** *Arvids Vilde, Dainis Viesturs, Semjons Ivanovs, Andrievs Ilsters, Imants Ziemelis, Ruta Balode, Latvia University of Agriculture, Research Institute of Agricultural Machinery*
- 11<sup>25</sup> – 11<sup>50</sup>** **RESEARCH IN BIOSYSTEMS ENGINEERING IN LATVIA UNIVERSITY OF AGRICULTURE.** *Gints Birzietis, Kaspars Vartukapteinis, Latvia University of Agriculture, Faculty of Engineering*
- 11<sup>50</sup> – 12<sup>00</sup>** **ABOUT THE CONFERENCE PROGRAMME**  
*Aivars Aboltins, Vice-chairman of the Organizing Committee of the Conference*
- 
- 12<sup>00</sup> – 13<sup>00</sup>** Lunch
- 13<sup>00</sup> – 15<sup>00</sup>** Work in sections
- 15<sup>00</sup> – 15<sup>30</sup>** Coffee break
- 15<sup>30</sup> – 17<sup>30</sup>** Work in sections
- Regulations:** *Presentations – 10 minutes*  
*Discussions – 5 minutes*
- 18<sup>00</sup>** Excursion to LUA Library and Museum (Jelgava Palace)
- 19<sup>00</sup>** Conference dinner  
2 Liela Str., Jelgava Palace, Silver Hall

## Section 1: PLANT BREEDING MACHINERY

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5 J. Cakstes boulv., Room 212

Chairman: Prof., Dr.sc.ing. A. Āboltniš, Latvia University of Agriculture

Vice-chairman: Prof., Dr.sc.ing. J.Olt, Estonian University of Life Sciences

- 1. MATHEMATICAL SIMULATION OF BEET VIBRATIONAL EXTRACTION**  
Volodimir Bulgakov<sup>1</sup>, Semjons Ivanovs<sup>2</sup>  
*<sup>1</sup>Ukrainian Academy of Agrarian Sciences, <sup>2</sup>Latvia University of Agriculture*
- 2. ASSESSMENT OF A LASER SCANNER ON AGRICULTURAL MACHINERY**  
Detlef Ehlert, Michael Heisig, Rolf Adamek  
*Leibniz-Institute for Agricultural Engineering Potsdam-Bornim, Germany*
- 3. CONTROLLED TRAFFIC FARMING**  
Jiri Masek, Milan Kroulik, Frantisek Kumhala  
*Czech University of Life Sciences*
- 4. MAINTENANCE COSTS OF INTENSIVELY USED SELF-PROPELLED MACHINES IN AGRICULTURAL COMPANIES**  
Juri Olt, Ulo Traat, Arne Kuut  
*Estonian University of Life Sciences*
- 5. ADHESIVE BONDS DEGRADATION**  
Miroslav Muller, Petr Valasek  
*Czech University of Life Sciences*
- 6. APPLICATION BOOM FOR CHEMICAL PROTECTION OF HOPS GROWN ON LOW TRELLIS SYSTEMS**  
Adolf Rybka, Ivo Honzik, Petr Hermanek, Bohuslav Jost, Lenka Zampachova  
*Czech University of Life Sciences*
- 7. SOME INVESTIGATIONS IN PRECISION AGRICULTURE**  
Arvids Vilde, Dainis Lapins, Gundega Dinaburga, Adolfs Rucins, Sandris Cesnieks, Edmunds Pirs, Andris Berzins, Aigars Plume, Janis Kopmanis  
*Latvia University of Agriculture*
- 8. SOME ASPECTS IN PREPARATION OF TRANSPORT AND FIELD OPERATIONS ON LARGE BULGARIAN FARMS BY USING GPS AND GOOGLE EARTH**  
Atanas Atanasov, Plamen Kangalov, Kaloyan Stoianov, Ivailo Angelov  
*University of Rousse, Bulgaria*
- 9. USAGE OF DIFFERENT MATERIALS IN AIR HEATED SOLAR COLLECTORS**  
Aivars Aboltins, Janis Palabinskis, Guntis Ruskis  
*Latvia University of Agriculture*
- 10. WHEELED ROBOT FOR RURAL ENVIRONMENT**  
Teodor Akinfiev, Manuel Armada  
*Technical University of Madrid, Spain*
- 11. DIFFERENCES OF SOIL AGROCHEMICAL PROPERTIES IN CONNECTION WITH ALTITUDE IN WINTER WHEAT**  
Gundega Dinaburga, Dainis Lapins, Janis Kopmanis  
*Latvia University of Agriculture*

## Section 2: LIVESTOCK BREEDING MACHINERY

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5 J. Cakstes boulv., Room 326

Chairman: Prof., Dr.sc.ing. J.Priekulis, Latvia University of Agriculture

Vice-chairman: Prof., Dr.habil.sc.ing. W.Romaniuk, Poznan Branch of the Institute of Technology and Life Sciences in Falenty, Poland

**1. BEHAVIOR OF COWS AND ITS CONSEQUENCES RELATED TO THE USE OF MILKING ROBOTS**

Stanislaw Winnicki<sup>1</sup>, Tomasz Kolodziejczyk<sup>1</sup>, Romana Glowicka-Woloszyn<sup>2</sup>, Andrzej Myczko<sup>1</sup>, Barbara Musielska<sup>1</sup>

<sup>1</sup>*Institut Technologiczno-Przyrodniczy w Falentach Oddzial Poznan, Poland;* <sup>2</sup>*Uniwersytet Przyrodniczy w Poznaniu, Poland*

**2. COMPARISON OF TMR AND PMR FEEDING SYSTEMS**

Stanislaw Winnicki<sup>1</sup>, Romana Glowicka-Woloszyn<sup>2</sup>, Tomasz Kolodziejczyk<sup>1</sup>, Wacław Romaniuk<sup>1</sup>, Robert Kantarowski<sup>2</sup>

<sup>1</sup>*Poznan Branch of the Institute of Technology and Life Sciences in Falenty, Poland;* <sup>2</sup>*Poznan University of Life Sciences, Poland*

**3. ECONOMICALLY MOST EFFICIENT EQUIPMENT IN MILKING PARLOURS**

Juris Priekulis<sup>1</sup>, Andris Kurgs<sup>2</sup>

<sup>1</sup>*Latvia University of Agriculture;* <sup>2</sup>*AKP GEA Westfaliasurge Ltd.*

**4. PRINCIPLES AND EXPERIENCES OF DESIGNING AUTOMATIC MILKING COW SHEDS**

Arvo Leola

*Estonian University of Life Science*

**5. A DAIRY HERD DYNAMIC MODEL AS A BASIC TOOL IN SIMULATION OF DAIRY HUSBANDRY TECHNOLOGICAL ADVANTAGES**

Eugene V. Ternov

*The Republican Unitary Enterprise "Scientific and Practical Centre of the National Academy of Sciences of Belarus for Agriculture Mechanization"*

**6. INNOVATIVE DEVELOPMENT OF SWINE FIDING EQUIPMENT ON A NEW TECHNOLOGICAL LEVEL**

Gutman Yasiliy, Maxim Naunka

*National Academy of Sciences of Belarus for Agricultural Mechanization*

**7. RESEARCH IN TIME BETWEEN MILKING INTERVAL AND VARIABILITY OF MILKING FREQUENCY USING MILKING ROBOTS**

Armins Laurs, Juris Priekulis, Martins Purins

*Latvia University of Agriculture*

**8. WARMING OF PIGLETS RESTING PLACES BY AIR HEAT PUMP IN DEPENDENCE ON OUTSIDE AIR TEMPERATURE**

Andrievs Ilsters, Viktorija Zagorska, Zanis Jesko

*Latvia University of Agriculture*

**9. EFFECTIVENESS OF SOMATIC CELL COUNT DETERMINATION IN THE MILKING ROBOTS**

Ivars Lasis, Vita Antane, Armins Laurs

*Latvia University of Agriculture*

**10. WORKING EFFICIENCY OF SPIRAL CONVEYOR IN TRANSPORTATION OF MIXED FEED**

Ansis Salins, Juris Priekulis

*Latvia University of Agriculture*

**11. RESEARCH OF RAIN WATER USING POSSIBILITIES**

Edmunds Visockis<sup>1</sup>, Rasma Deksnė<sup>1</sup>, Erika Teirumnieka<sup>1</sup>, Marina Kobakhidze<sup>2</sup>

<sup>1</sup>*Rezekne Higher Education Institution, Latgale Sustainable Development Research Institute, Latvia;*

<sup>2</sup>*Shota Rustaveli State University, Georgia*

### Section 3: MOTOR VEHICLE AND FUELS

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5 J. Cakstes boulv., Room 241

Chairman: Asoc.prof., Dr.sc.ing. D.Berjoza, Latvia University of Agriculture

Vice-chairman: Lecturer, Mg.sc.ing. V.Pirs, Latvia University of Agriculture

- 1. INTERMEDIATE REGULARITIES ON THE ENERGETICAL PARAMETERS OF THE TRACTOR ENGINES**  
Arvids Vilde, Edmunds Pirs  
*Latvia University of Agriculture*
- 2. THEORETICAL MODEL OF EXPLOITATION OF AUTOMOBILES OPERATED WITH BIOETHANOL-GASOLINE MIXTURE FUELS**  
Aivars Aboltins, Dainis Berjoza, Vilnis Pirs  
*Latvia University of Agriculture*
- 3. RESEARCH INTO MODELS OF CHOICE OF TRACTOR AGGREGATES**  
Nikolajs Kopiks, Dainis Viesturs  
*Latvia University of Agriculture*
- 4. SIMULATION OF PRESSURE OSCILLATION IN HYDRAULIC HITCH-SYSTEM**  
Janis Laceklis-Bertmanis, Edgars Repsa, Eriks Kronbergs  
*Latvia University of Agriculture*
- 5. EXPERIMENTAL INVESTIGATION IN ACCELERATION OF VEHICLES**  
Andris Linins, Dainis Berjoza  
*Latvia University of Agriculture*
- 6. EVALUATION USABILITY OF WATER ADSORPTION AND RECTIFICATION IN DEHYDRATION OF BIOETHANOL**  
Gunars Bremers<sup>1</sup>, Gints Birzietis, Anita Blija<sup>1</sup>, Arnolds Skele<sup>1</sup>, Adolfs Rucins<sup>1</sup>, Aleksejs Danilevics<sup>2</sup>  
<sup>1</sup>*Latvia University of Agriculture;* <sup>2</sup>*Latvia University*
- 7. INVESTIGATION OF IMPACT OF BIOFUEL BLEND ON ARCTIC DIESEL FUEL PROPERTIES**  
Aivars Birkavs, Gints Birzietis, Ilmars Dukulis  
*Latvia University of Agriculture*
- 8. THE SPECIFIC PECULIARITIES OF RAPESEED FUEL USAGE DEPENDING ON OIL CHEMICAL STRUCTURE**  
Vladimirs Baks, Ilmars Dukulis  
*Latvia University of Agriculture*
- 9. COMPARISON OF MODEL CALCULATIONS AND EXPERIMENTAL RESULTS OF DIESEL ENGINE FUELLED WITH BIODIESEL**  
Ruslans Smigins, Aivars Aboltins  
*Latvia University of Agriculture*
- 10. MOST WIDESPREAD CAR FUEL SYSTEMS IN LATVIA**  
Janis Mistris, Gints Birzietis  
*Latvia University of Agriculture*

## Section 4: ENERGETICS

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5 J. Cakstes boulv., Room 312

Chairman: Assoc.prof., Dr.sc.ing. A.Galiņš, Latvia University of Agriculture

Vice-chairman: Prof., Dr.habil.sc.ing. A.Šnīders, Latvia University of Agriculture

- 1. THE APPLICATION OF THE CONSUMED CURRENT SPECTRAL ANALYSIS FOR THE MONITORING OF BEARING UNITS OF INDUCTION MACHINES**  
Aleksandrs Gasparjans<sup>1</sup>, Aleksandr Terebkov<sup>1</sup>, Anastasia Zhiravetska<sup>2</sup>  
*<sup>1</sup>Maritime Academy of Latvia; <sup>2</sup>Riga Tehnical University, Latvia*
- 2. PULSE DENSITY MODULATION CIRCUIT**  
Janis Greivulis, Janis Donins  
*Riga Technical University, Latvia*
- 3. ANALYSIS OF HEATING VALUE VARIATIONS IN STORED WOOD**  
Nerijus Ciganas, Algirdas Raila  
*Lithuanian University of Agriculture*
- 4. ADAPTIVE SELF-TUNING UP MODEL FOR NON-STATIONARY PROCESS SIMULATION**  
Andris Sniders  
*Latvia University of Agriculture*
- 5. LOCAL ENERGY RESOURCES IN THE INTEGRATED SYSTEM OF ENERGY PRODUCTION AND USE**  
Andris Upitis, Viktorija Zagorska, Miervaldis Kristapsons, Zanis Jesko  
*Latvia University of Agriculture*
- 6. PECULIARITIES OF DOMESTIC WATER HEATING BY SOLAR COLLECTORS**  
Ilze Pelece, Henriks Putans, Viktorija Zagorska, Liene Kancevica, Imants Ziemelis  
*Latvia University of Agriculture*
- 7. SEMI-SPHERICAL SOLAR COLLECTOR FOR WATER HEATING**  
Ilze Pelece  
*Latvia University of Agriculture*
- 8. ANAEROBIC DIGESTION OF SEWAGE SLUDGE**  
Vilis Dubrovskis, Imants Plume, Vladimirs Kotelenecs, Eduards Zabarovskis  
*Latvia University of Agriculture*
- 9. BIOGAS PRODUCTION FROM FRESH MAIZE BIOMASS**  
Vilis Dubrovskis, Imants Plume, Janis Bartusevics, Vladimirs Kotelenecs  
*Latvia University of Agriculture*
- 10. SPECTRAL ILLUMINATION EQUIPMENT FOR GREENHOUSE PLANTS**  
Janis Fridrihsons, Ina Alsina  
*Latvia University of Agriculture*
- 11. DEVICE OF LUMINESCENT LIGHT BULBS WITH DEFECTED FILAMENTS**  
Janis Fridrihsons, Aldis Lojans, Ainars Galins  
*Latvia University of Agriculture*

## Section 5: MECHANICS AND MATERIAL SCIENCE

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5 J. Cakstes boulv., Room 410

Chairman: Asoc.prof., Dr.sc.ing. A.Kaķītis, Latvia University of Agriculture

Vice-chairman: Prof., Dr.sc.ing. M.Brozek, Czech University of Life Sciences

**1. BRIQUETTING OF CHIPS FROM NONFERROUS METAL**

Milan Brozek, Alexandra Novakova

*Czech University of Life Sciences*

**2. EVALUATION OF HELICAL SPRINGS**

Alexandra Novakova, Milan Brozek

*Czech University of Life Sciences*

**3. FEATURES OF BIO-BRIQUETTES PRESSING WITH THE PISTON BRIQUETTING PRESS**

Alexandru Muntean<sup>1</sup>, Bohumil Havrland<sup>2</sup>, Victor Pobedinsky<sup>1</sup>, Tatiana Ivanova<sup>2</sup>, Grigore Marian<sup>1</sup>

*<sup>1</sup>State Agrarian University of Moldova; <sup>2</sup>University of Life Sciences Prague, Czech Republic*

**4. AUTOMATIC MEASUREMENT OF RESIDUAL STRESSES IN THE REPAIRED DETAILS OF FARMING MACHINES BY THE COHERENT OPTICS METHOD**

Andrey Apalkov<sup>1</sup>, Teodor Akinfiev<sup>1</sup>, Manuel Armada<sup>1</sup>, Igor Odintsev<sup>2</sup>

*<sup>1</sup>Technical University of Madrid, Spain; <sup>2</sup>A.A.Blagonravov Mechanical Engineering Research Institute, Moscow, Russia*

**5. IMPROVING ENERGY PERFORMANCE OF EQUIPMENT FOR PRODUCTION OF PEELED VENEER**

Jury Kalugin, Alexander Alifanov

*Baranovich State University, Belarus*

**6. INFLUENCE OF VISUAL CONDITION ON RESIDUAL FLEXURAL CAPACITY OF EXISTING PRECAST CONCRETE PANELS**

Jaan Miljan, Mihkel Kiviste

*Estonian University of Life Sciences*

**7. VISUALIZATION STORIES AS A METHOD TO STIMULATE INVENTING PROCESS**

Aigars Atvars

*Institute of Physical Research and Biomechanics, Latvia*

**8. POSSIBILITIES OF USE OF MECHANICAL SURFACE TREATMENT WASTE IN FORM OF POLYMERIC PARTICLE COMPOSITE FILLERS**

Petr Valasek, Miroslav Muller

*Czech University of Life Sciences*

**9. RESEARCH IN WELDED SIEVE QUALITIES DEPENDANCE ON ASPECTS OF PRODUCTION TECHNOLOGY**

Gunars Verdins, Daina Kanaska

*Latvia University of Agriculture*

**10. HERBACEOS ENERGY CROP SHREDDING SIZE DETERMINATION**

Mareks Smits, Andris Kronbergs, Eriks Kronbergs

*Latvia University of Agriculture*

**11. CHANGES OF ROLLING FRICTION LINK CHAIN STEP IN LINK TURNING**

Emils Pudans, Guntars Uzklingsis

*Latvia University of Agriculture*

**12. DURABILITY OF THE ARRANGED STRUCTURE BIOMASS BRIQUETTES**

Aivars Kakitis, Imants Nulle, Dainis Ancans

*Latvia University of Agriculture*

## Section 6: EDUCATIONAL SCIENCES

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5 J. Cakstes boulv., Room 403

Chairman: Assoc.prof., Dr.paed. L.Maļinovska, Latvia University of Agriculture  
Vice-chairman: Prof., Dr.paed. O.Vetrova, St.Petersburg State Polytechnic University,  
Russia

- 1. CONFERENCES AND COMPETENCIES: STUDENTS CONFERENCE AS ENVIRONMENT FOR COMPETENCIES FORMATION**  
Olga G. Vetrova  
*St.Petersburg State Polytechnic University, Russia*
- 2. SOME ASPECTS OF SKILLS AND COMPETENCES IN ENGINEERING EDUCATION**  
Vladimir Romanenko<sup>1</sup>, Larisa Malinovska<sup>2</sup>, Galina Nikitina<sup>3</sup>  
<sup>1</sup>*St-Petersburg State University of Technology and Design, Russia;* <sup>2</sup>*Latvia University of Agriculture;*  
<sup>3</sup>*St-Petersburg Branch of the Academy of Information Technologies in Education, Russia*
- 3. TRAINING TEACHERS IN UKRAINE**  
Galina Marchenko  
*Horlivka State Pedagogical Institute of Foreign Languages, Ukraine*
- 4. STUDENTS CONNECTING TO PRODUCTION PROBLEMS RESOLUTIONS IN CAD/CAM AREA**  
Natasa Naprstkova  
*Jan Evangelista Purkyne in Usti nad Labem, Czech Republic*
- 5. CREATION STUDY AIDS WITHIN THE STUDENTS WORKS**  
Kusmierczak Sylvia  
*J. E. Purkyne University in Usti nad Labem, Czech Republic*
- 6. DESIGNING A THEORETICAL MODEL OF TRAINING ENGINEERS FOR ECOLOGICALLY SAFE INDUSTRIAL ACTIVITIES**  
Uladzimir Zuyeu, Vasily Kachurka  
*Baranovichi State University, Belarus*
- 7. INTELIGENT USE OF ENERGY IN ENGINEERING EDUCATION**  
Anda Zeidmane, Inese Ozola  
*Latvia University of Agriculture*
- 8. COMPETITIVENESS OF PERSONALITY AS A NEW CONCEPT IN MODERN EDUCATION AND PEDAGOGY SCIENCE**  
Irena Katane  
*Latvia University of Agriculture*
- 9. FIRST YEAR STUDENT EVALUATION OF STUDY PROCESS AT THE FACULTY OF ENGINEERING**  
Kaspars Vartukapteinis, Antonina Cukure, Janis Cukurs  
*Latvia University of Agriculture*

## Friday, 28 May

9<sup>30</sup> BUS TOUR to *Training and research farm of the Latvia University of Agriculture "Vecauce"* and *P.Upītis's impressive lilac garden at Dobele*  
~ 16<sup>00</sup> RETURNING TO JELGAVA



### Training and research farm of the Latvia University of Agriculture

**"Vecauce"** is a unique training and research centre - many-branched farm, which deals with cattle breeding and also with cultivation of plants - growing pedigree seeds, including maintenance selection. "Vecauce" is the only state farm for research and experiments in cattle-breeding and veterinary medicine science and practice, where the needed number of animals can be provided, including for experiments of diagnosing new animal diseases. "Vecauce" has also become the main place in the country, where corn is researched.

The farm occupies a significant place in the study process, and it is also an important research base. Both the University students and students of the technical and vocational schools of Latvia strengthen their practical skills there. Various field practices take place in "Vecauce" on a regular basis, and they are obligatory for all students of the university. Field practices significantly complete the theoretical knowledge acquired at the University.



Biogas plant, which uses manure and field biomass, is created in the Vecauce complex. This is the first important biogas plant in Latvia, which is set up in the cattle farm. Production of biogas is cost-effective, because it gives a possibility to cover all the needs of the farm for electric energy and heating. Vecauce is proud of the most up-to-date dairy complex in the Baltics, where milking of around 120 cows is performed by robots-milkers. The Annual Harvest Festival and a wide profile agriculture exhibition "Vecauce", where cattle breeders participate, take place at the Farm. Also animal auctions - beef cattle, sheep and small animals, agricultural machinery demonstrations and seminars are held there.



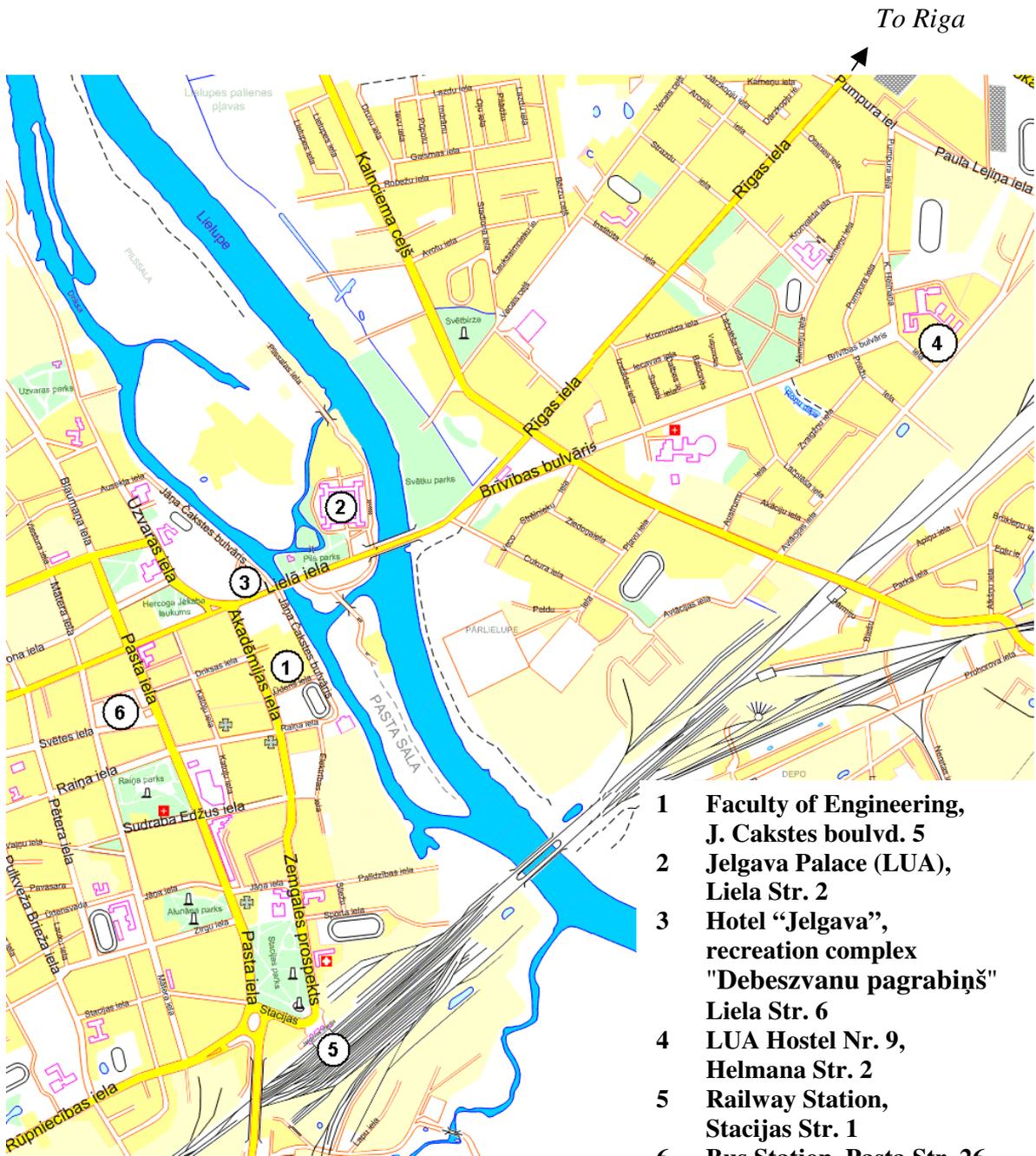


Latvijas Valsts  
Augkopības  
institūts

**P.Upītis's impressive lilac garden at Dobele** is the most impressive of its kind in the Baltics. The best time to visit this Latvian Orchards Institute garden is during the lilac flowering season. The 4 hectare garden is bursting with the smells and colours of more than 200 varieties of lilac. It has become traditional for classical music concerts to be staged in the gardens. A memorial museum is dedicated to the life and work of the garden's creator, Pēteris Upītis. (+371

26408655, +371 63722294, [www.lvai.lv](http://www.lvai.lv)).





*Address of the Conference Committee*

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