

**MAJANDUSTEADUSKOND  
ÄRIKORRALDUSE INSTITUUT  
TEADUS- JA ARENDUSTEGEVUSE AASTAARUANNE 2012**

## **1. Instituudi struktuur**

### **Ärikorralduse instituut, Department of Business Administration Instituudi direktor Toomas Piliste**

- Kinnisvara, logistika ja ettevõtluse õppetool, Chair of Real Estate, Logistics and Entrepreneurship, Ene Kolbre
- Organisatsiooni ja juhtimise õppetool, Chair of Organisation and Management, Milvi Tepp
- Tootmis- ja teeninduskorralduse õppetool, Chair of Operations Management, Maksim Saat
- Turunduse õppetool, Chair of Marketing, Anu Leppiman
- Töökeskkonna ja ohutuse õppetool, Chair of Labour Environment and Safety, Piia Tint
- Ergonoomia labor, Laboratory of Ergonomics, Piia Tint
- Ettevõtluskeskus, Centre for Entrepreneurship, Urve Venesaar
- Äriuringute ja -arenduskeskus, Centre for Business Research and Development, Urve Venesaar

## **2. Instituudi teadus- ja arendustegevuse (edaspidi T&A) iseloomustus**

*(NB! punktid 2.1- 2.6 täidab struktuuriüksus)*

### **2.1 struktuuriüksuse koosseisu kuuluvate uurimisgruppide**

2.1.1 teadustöö kirjeldus *(inglise keeles)*;

2.1.2 aruandeaastal saadud tähtsamad teadustulemused *(inglise keeles)*.

### **Chair of Marketing**

The Chair of Marketing has four main directions of scientific interests:

VERT449 Consumer Behaviour Research Network The chair of marketing is one of the 38 university-partners in the Consumer Behaviour Research Network, participating in COBEREN). Research design for collection of primary data on consumer culture has been completed; data collected and analysed and the book Consumption culture in Europe finalized, publisher IGI Global in February 2013.

VERT489 Transfer of Innovation, Multilateral Projects, Leonardo Da Vinci. Aim of the European project: A: Train teachers of six partner universities. B: Play marketing simulation tool Emerald Forest with students of TUT in cooperation with teachers from the Netherlands. Results: 2 teachers trained in Estonia, 80 students from TTU participated in the game (21-24.03.2012).

Hidden Champions on CEE. Methodology of the project is based on H.Simon's research. Coordinated by CEEMAN Association, 165 CEE enterprises from 18 countries have been studied. Hidden champions in Estonia were investigated. Detailed interviews with the CEOs (5 enterprises) and an analysis of financial and economic reports were conducted, completed by a research report. CEEMAN, Hidden Champions book: editor prof. Peter McKiernan, title of the chapter written by Rein Riisalu and Anu Leppiman Hidden Champions From Estonia, publisher Cambridge University

Press. Hidden Champions book is in the final stages and will be submitted to printing in the second half of February 2013.

Experience Marketing Studies in the framework of the project are based on theoretical and empirical international and national economic analysis. Different methodological approaches are used and integrated, including empirical studies to use the LCEEI (LEO) experience pyramid to study product and service design in collaboration with researchers of University of Lapland. The project involves studies of three PhD candidates with the topics: Experience Marketing: brands, challenges and prospects and social media marketing; involving consumers in the marketing process through experience design; increasing effectiveness and visibility of off-the-job organizational skills training by creating a holistic customer experience. Anu Leppiman is the official and certificated expert in Estonia in this area. From academic year 2012/2013, a new TATM02/12 master programme course of TMM1340 Experience Marketing 4ECP has been introduced.

## **Chair of Labour Environment and Safety**

The scientific work in the Chair has enlarged in 2012. The main directions in 2012 were:

1. The investigation of shale fuel oil handling (connected with T122, Piia Tint, Ada Traumann, Karin Reinhold, and Virve Siirak) - the results are given in the papers 1.1 etc. The chemicals the most hazardous in the work environment were: benzene, toluene, xylene, phenols. The concentration was determined in the cooperation with the Institute of Chemical Engineering (Prof.Oja). The work is connected with the doctoral studies of Ada Traumann.
2. The investigation of atrium-type building's workplace ergonomics, including the microclimate and lighting (included Ada Traumann, Piia Tint, Tarmo Koppel –doctoral student in TTU, economic faculty) - the results are given in the papers: The sick building syndrome was determined in the office rooms that are close to the atrium and the Windows cannot be opened. Some better work conditions have the workers working in the room with open able windows (if the atrium roof is opened). The insufficiency of natural lighting was observed in the office rooms close to the atrium. The phenomena was investigated to balance the deficiency of natural lighting with electrical light of different colour.
3. The health risks of computer workers' monotonous work (Piia Tint, Viive Pille- the doctoral student of Piia Tint in the mechanical faculty; Dr. Viuu Tuulik, Biomedicine centre of TTU) – the results: if the IT worker is working in the department store office room, then the low temperature and also low lighting are the risk factors for developing the carpal channel syndrome. The preventive measures have been worked out.
4. A model for connecting the risk factors in the work environment and risk levels and the possible health disturbances as irritating or neurological have been worked out by The PhD student Ada Traumann on the basis of new standard in the office rooms microclimate, lighting, noise, CO2 (EVS-EN 15251).
5. The results of the work have been presented in the International conferences
6. Three new project proposals have been presented: Norwegian-Estonian co-operation in health risk prevention- with Tromso and TTU Biomedical Centre- Piia Tint; in risk prevention at work with Hamburg research institute and Carolinska Institute from Sweden from the Marie Curie Industrial Developing Fund- Karin Reinhold, Sigrid Kalle; Baltic Sea Network co-operation Swedish fund: Marina Järvis, Piia Tint)

The main results: a new model for connection of the risk factors in the work environment (also Office-rooms included) and the possible health risks. The computer workers and industrial workers were investigated. The wood dust investigations have been carried out (Karin Reinhold, Ada Traumann, Sigrid Kalle, Piia Tint); PhD stud. Marina Järvis will defend her doctoral thesis in 2013. The ergonomics of workplaces in atrium-type buildings has been improved (the suggestions are given). The co-operation with occupational health doctors has been improved.

The new project has been contracted between the TTU (Chair of Work environment and Safety) and the Athens Technical University in the developing of education that will begin in Sept. 2013

## **Chair of Organisation and Management**

Chair of organization and management is focused on long term large scale research on dynamic capabilities. Dynamic capabilities are a common term in daily business language to cover dynamic change aspects for abilities, skills, and competences. The importance of dynamic capabilities phenomena has significantly risen in recent decades, it is one of the most commonly met subjects in A-category academic literature. However the phenomenon is deep and wide by containing lot of research subjects.

Due to the nature of phenomenon both basic research approaches – qualitative case study and quantitative survey – are employed. Qualitative cases concentrated on large international companies as reference examples and propositions for further research. Propositions are related with capability and alliance portfolios, and for capability developments. Additionally, literature review is in progress to find independent and dependent variables for fine capability measurement, because mostly aggregated measures are used in capability research which has certain disadvantages worth to be avoided. Quantitative surveys are mostly used to receive descriptive background of capabilities in Estonia and find causal laws between outcome variables and different perspectives. These perspectives fill many possible angles, such as capability development, best practices, project management, human resource management and ownership. For example, in capability development it is looked how different development techniques (retirement; retrenchment; renewal; replication; redeployment; recombination) change by lifecycle, competition and age of company. Then most influential capabilities are opened up as best practices to follow. There is rather large gap in project management capabilities research, therefore at first descriptive empirics were produced for overview. Human resource management stream covered how much recruitment and selection aspects influence dynamic capabilities. In ownership research it is revealed how owner types can impact dynamic capabilities.

Chair is interested in to inform everybody from wide audience about chair's field of interest, for the purpose special issue of TUT REB journal was edited and published. In addition to main stream – dynamic capabilities – work was performed in few other fields where chair has had having traditional strengths, for example – human resource management and strategy management. In human resource management field, a workplace bullying was researched in the context of organizational culture, and recruitment and selection were researched by quantitative survey. Several studies were co-authored by researchers from outside institutions, i.e. from Estonia and Finland. It is worth to emphasize that students starting from bachelor level were involved in research, the hope is that some of them remain or will be interested in research in forthcoming years. Chair is also intending to tie bachelor, master and doctoral thesis with chair's research subjects.

Results of performed research brought out many interesting findings starting from total open exploitation nature and finishing with contradictions with prior theory such as unnecessary alignment with strategy and no path in capability development.

In detail, open exploitation is next step from breakthrough open innovation aspect. In addition, alliance tie characteristics follow certain path worth to be followed. In general companies need to be careful, since capability development is more adaption with the market rather than proactive action. Project management research findings support that project-orientation is a required pre-condition to have high-level capabilities. Project related capabilities are more significant to performance than business capabilities. It is not important how companies develop capabilities, capabilities themselves matter. Companies should be careful aligning projects with strategy and pay great attention to teamwork threats. Project and business related capabilities behave differently, for example, project related get better by age, but lifecycle movements to decline direction make them worse.

## **Chair of Operations Management**

The topics of researches has been as follows.

Innovation policy in Estonia.

- a) Special attention was paid to Technology Transfer, incl. Experience Transfer Models and practices in Estonian SME-s. This topic has direct connection with clusters, technology parks and industrial parks, university and industry cooperation. These topics are investigated in the framework of Leonardo da Vinci Transfer of Innovation Project „Experience Transfer Model“ (project number 2010-1-SE1-LE005-04801). Publications together with project partners in progress.
- b) Life cycle management and sustainability in the Baltic Region, incl. Sweden, Estonia, Latvia, Ukraina and Belorussia. This topic is investigated by the Visby Programme (project VA 579).  
Work in progress. Reports and publications are planned in 2013.
- c) Mergers and Acquisitions and risk management in industrial services. Methodology of research and preliminary results are given in the paper “Risk Management in Connection with Acquisitions Using the Example of the TÜV NORD Group“ in Scientific&Academic Publishing. Management 2(4), 118-124. – by M.Saat and J.Himmelsbach and in two doctoral theses ( J.Himmelsbach and S.Björklund).

Management Values and Corporate Social Responsibility.

- a) Possibilities of using ethical theories for assesment of corporate social responsibility. Preliminary results of research will published by M.Saat and M.Meel in the paper „Using Kantian Ethics for Estimating Corporate Social Responsibility“ in Scientia Nova 16, p.7-16.
- b) Relationships between corporate sustainability, corporate social responsibility and management values.

Preliminary results were published by M.Meel, E.Titov and K.Kuimet in the paper „Post-Recession Values in Estonian Organisations. In: Business Development in Baltic Sea Region. Berlin: Peter Lang Verlag.“

Company productivity factors in manufacturing.

Special attention is paid to:

- a) *Lean production problems and consequences* (A.Miina defended doctoral theses and publications)
- b) *Methodological problems of productivity management* (E.Kalle „Handbook of Production Management“ (in Estonian).

Results of researches are and will be published in papers for scientific journals and books, also in project reports. We are together with project partners from Swedish, British and German Universities making efforts for implementing System for Accreditation of European Production Engineers in EU (work in progress). With project partners from Swedish, Irish and Slovenian Universities we are implementing methodological recommendations for experience transfer in clusters of industrial companies, but also launching such working clusters in partners countries.

### **Chair of Real Estate, Logistics and Entrepreneurship**

The chair has two main research fields: Entrepreneurship and SME Development (Prof. U. Venesaar) and Real Estate Market and the Methodology of Real Estate Valuation (Prof. Em. E. Kolbre).

Research on entrepreneurship education among university students in Estonia brought out the importance and the need to develop students' metacognitive abilities and their awareness of cognitive patterns through educational programs as it has been actively studied and encouraged by entrepreneurship scholars worldwide. The research extended the empirical evidence concerning the development of a measurement tool for assessment of students' metacognitive awareness.

The results of international survey GUESSS (Global University Entrepreneurial Spirit Student Survey) improved the understanding of both the similarities and differences of student entrepreneurial activities in European countries, supplementing previous studies. The study shows the importance of family background and professional work experience for students where these are relevant to the venture before its founding. The most influential factors in causing the differences in the process of enterprise foundation in country groups are students' gender, their study level and the type of industry the student enterprise is operating in. The research on the impact of entrepreneurship education courses to students' attitudes and competences indicates direct implications for developing the content and process of entrepreneurial learning in universities and how to focus their programmes.

Research on real estate market development concentrated how to evaluate affordability of housing in the Estonian market and how to assess the regulatory framework decisions' impact on the housing market. Determination of housing affordability is a new issue for the Estonian market and therefore to determine the housing affordability a new housing affordability index, that allows assess affordability situations from a credit repayment capability aspect, was proposed.

The results of the study confirm that during the housing boom peak in 2005-2007, the repayment affordability situation was the worst. The average purchase – sale prices were too high for average housing buyers, and they could not afford the mortgage payments. The situation started to normalise in 2008 and continued after that, but it must be considered that housing prices have fallen faster than incomes. Housing affordability index should be calculated regularly and it could be used as a possible indicator to evaluate the capability of the population to take on household loans in the Estonian household market as a whole. And there is also a suggestion for households to pay more attention on the household's credibility to avoid unrealistic expectations. This study has also shown the importance on regulatory decisions, which in the Estonian case were the waiving of limitations for all mortgage loans in 2002. The recommendation is for the government to change the Law of Credit Institutions and reinstate the restriction for mortgage loans (LTV ratio).

**2.2** Uurimisgrupi kuni 5 olulisemat publikatsiooni läinud aastal:

#### **Chair of Marketing**

- Laane, M.-A. (2012). Fragments of academic publishing in Estonia. *European Science Editing*, 38(1), 6-7.

## **Chair of Labour Environment and Safety**

- Traumann, A.; Tint, P.; Tuulik, V. (2012). Indoor air quality in educational institutions in Estonia. *Environmental Engineering and Management Journal*, 11(1), 207 - 214.
- Traumann, A.; Siirak, V.; Tint, P. (2012). Why is education in environmental safety so important ? *Environmental Engineering and Management Journal*, 11(11), 2065 - 2072.
- Tint, P.; Traumann, A. (2012). Health risk assessment in atrium-type buildings. *International Journal of Energy and Environment*, 6(4), 389 - 396.
- Tint, P.; Tarmas, G.; Koppel, T.; Reinhold, K.; Kalle, S. (2012). Vibration and noise caused by lawn maintenance machines in association with risk to health. *Agronomy Research*, 10(S1), 251 - 260.

## **Chair of Organisation and Management**

- Tambur, M.; Vadi, M. (2012). Workplace bullying and organizational culture in post-transitional country. *International Journal of Manpower*, 33(7), 754 – 768

## **Chair of Operations Management**

- Miina, A. (2012) Lean Problem: why companies Fail with Lean Implementation. *Scientific&Academic Publishing. Management* 2 (5), 232-250
- Saat, M., Himmelsbach, J. (2012) Risk Management in Connection with Acquisitions Using the Example of the TÜV NORD Group. *Scientific&Academic Publishing. Management*, 2(4), 118-124
- Meel, M., Saat, M. (2012) Using Kantian Ethics for Estimating Corporate Social Responsibility. *Scientia nova*, 16, 7-16

## **Chair of Real Estate, Logistics and Entrepreneurship**

- Lumiste, R. (2012). How expensive Is It to Support Renewable Energy in Estonia? *Baltic Journal of European Studies*, 2(1), 26 - 42.

**2.3** Loetelu struktuuriüksuse töötajate rahvusvahelistest tunnustustest.

**2.4** Loetelu struktuuriüksuse töötajatest, kes on välisakadeemiate või muude oluliste T&A-ga seotud välisorganisatsioonide liikmed.

- Oliver Parts: European Marketing Academy (EMAC) liige, Academy of International Business (AIB) liige, American Marketing Association (AMA ) liige
- Mike Wahl: Indian Academy of Management (IAM) liige, Academy of International Business (AIB) Liige, Academy of Management (AOM) liige
- Maksim Saat: Academic Council of European Institute of Advanced Studies in Management (EIASM) liige, European International Business Academy (EIBA) liige, European Business Ethics Network (EBEN) liige, International Association of Business Education (SIEC/IABE) president of Estonian chapter
- Piia Tint: Nordic Ergonomics Society (NES) liige, Human Factors Ergonomics Society (HFES) Europe Chapter, liige
- Virve Siirak: HFES Europe Chapter, liige

- Karin Reinhold: European Toxicology Society, Estonian Chapter, liige
- Urve Venesaar: A member of the Faculty of ESU (European University Network on Entrepreneurship) Doctoral Programme; A member of HIE-RO (Hansaetic Institute for Entrepreneurship and Regional Development an der Universität Rostock) Committee; a member of the Association of European Research Directors (EFMD)
- Mari Meel: European Business Ethics Network (EBEN) liige
- Anu Leppiman: University Women of Europe (UWE) liige, Finnish Association for Socialpolice and Social Work Research liige, Lapland Centre of Expertise for the Experience Industry ekspert
- Rein Riisalu: Central and East European Management Development Association (CEEMAN).

## 2.5 Aruandeaasta tähtsamad T&A finantseerimise allikad:

1. Välisriiklikud lepingud summas 184373 (kulutatud) sh laekunud 97428 Eurot;
2. Siseriiklikud lepingud summas 12790 Eurot;
3. Õppetegevuse eelarve (01TM) summas 34624 Eurot (omafin ja konverentsid).

**2.6 Soovi korral** lisada aruandeaastal saadud T&A-ga seotud tunnustusi (va punktis 2.3 toodud tunnustused), ülevaate teaduskorralduslikust tegevusest, teadlasmobiilsusest ning anda hinnang oma teadustulemustele.

## 2.7 Instituudi teadus- ja arendustegevuse teemade ja projektide nimetused (*Eesti Teadusinfosüsteemi, edaspidi ETIS, andmetel*)

- Haridus- ja Teadusministeerium
  - sihtfinantseeritavad teemad:
    - T122, Keemiatehnilised aspektid keskkonnamarkide hindamisel, Tint Piia (2010 – 2015)
  - baasfinantseerimise toetusfondist rahastatud projektid (sh TTÜ tippkeskused):
  - riiklikud programmid:
    - Teiste ministeeriumide poolt rahastatavad riiklikud programmid:
    - Uuriija-professori rahastamine:
    - SA Eesti Teadusfond/Eesti Teadusagentuur
      - grandid:
      - ühisgrandid välisriigiga:
      - järel doktorite grandid (SA ETF ja Mobilitas):
      - tippteadlase grandid (Mobilitas):
        - Ettevõtluse Arendamise SA
    - eeluuringud:
    - arendustoetused:
      - SA Archimedesega sõlmitud lepingud

- infrastruktuur (nn „mini-infra“, „asutuse infra“):
- Eesti tippkeskused:
- riiklikud programmid:
- muud T&A lepingud:
  - SA Keskkonnainvesteeringute Keskusega sõlmitud lepingud:
  - Siseriiklikud lepingud:

Lep10118A, Eesti juhtimisvaldkonna uuring, Tepp Milvi (16.11.2010 - 11.04.2011)

Projekt 6.1-5/182: Sisekaitseakadeemia riskihalduse ja elanikkonnakaitse uurimisgrupp  
Täitja Piia Tint ( ETIS-s olemas)

- EL Raamprogrammi projektid:
- Välisriiklikud lepingud:

VA579, Elutsükli juhtimine ja jätkusuutlikkus Balti Regioonis, Saat Maksim (31.08.2011 - 30.09.2013)

VIR447, E-valitsuse lahendused avaliku sektori teenuste pakkumise vahendina väike- ja keskmise suurusega ettevõtete erivajaduste jaoks Läänemere regiooni maapiirkondades (INTERREG IVA), Venesaar Urve (17.09.2009 - 16.12.2012)

VIR485, Õhukargo transpordisektori arendamine IKT meetoditele orienteeritud teenuste ja logistilise võrgustiku kaudu., Kolbre Ene (11.06.2010 - 10.09.2013)

VIR492, Väike ja keskmise suurusega ettevõtetele rahvusvahelistumise teenuste kättesaadavuse loomine, Venesaar Urve (1.01.2011 - 31.12.2013)

VIR523: Töövõime ja sotsiaalne kaasatus, TTÜ Biomeedikum, Biomeditsiinitehnika instituut  
Täitja: Piia Tint

*Euroopa Komisjoni õppe-arendusprojektid*

*VERT415, ESTIA-EARTH "To Sustain the Women's Careers as Academics, Researchers and Professionals in Engineering, Computers and Sciences", Virve Siirak,; Tint, Piia (1.10.2008 - 30.09.2011)- pikendus olemas alates Sept. 2013*

*VERT449, Tarbijakäitumise uurimise võrgustik, Arvola René (1.10.2009 - 30.09.2012)*

*VERT489, Innovatsiooni edastamine, mitmepoolsed projektid, Leonardo Da Vinci, Arvola René (1.10.2010 - 30.09.2012)*

*VERT500, Kogemussiirde mudel, Saat, Maksim (15.10.2010 - 14.12.2012)*

**2.8** Struktuuriüksuse töötajate poolt avaldatud eelretsenseeritavad teaduspublikatsioonid (*ETIS klassifikaatori alusel 1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2, 3.3, 4.1 ja 5.1*).

### 1.1

Traumann, A.; Tint, P.; Tuulik, V. (2012). Indoor air quality in educational institutions in Estonia. *Environmental Engineering and Management Journal*, 11(1), 207 - 214.

Kristjuhan, Ü. (2012). Postponing aging and prolonging life expectancy with the knowledge-based economy. *Rejuvenation Research*, 15(2), 132 - 133.



Kristjuhan, Ü.; Taidre, E. (2012). The last recession was good for life expectancy. *Rejuvenation Research*, 15(2), 134 - 135.

Prause, G.; Palacios Marques, D.; Garrigos Simon, F. (2012). What happens if a hotel introduces WEB 2.0? *Cornell Hospitality Quarterly*, xx - xx. [ilmumas]

Traumann, A.; Siirak, V.; Tint, P. (2012). Why is education in environmental safety so important? *Environmental Engineering and Management Journal*, 11(11), 2065 - 2072.

Tambur, M.; Vadi, M. (2012). Workplace bullying and organizational culture in post-transitional country. *International Journal of Manpower*, 33(7), 754 - 768

## 1.2

Prause, G. (2012). Air cargo in the Baltic Sea region. *Baltic Rim Economies*, 1/2012, 41

Daduna, J.; Hunke, K.; Prause, G. (2012). Analysis of Short Sea Shipping-Based Logistics Corridors in the Baltic Sea Region. *Journal of Shipping and Ocean Engineering*, 2(5, Serial Number 8), 304 - 319.

Tanning, Lembo; Tanning, Toivo (2012). Baltic States Problem - Labour Market; Analysis Employment, Unemployment and Vacancies of Estonia; Improved Beveridge Curve. *International Journal of Business and Social Science (USA)*, No. 21, 36 - 56.

Tint, P.; Traumann, A.; Pille, V.; Tuulik-Leisi, V.-R.; Tuulik, V. (2012). Computer users' health risks caused by the influence of inadequate indoor climate and monotonous work. *Agronomy Research*, 10(S1), 261 - 276.

Same, S. (2012). Country Branding and Experience Marketing: a Perspective on Sensemaking and Cognition Theories. *Journal of International Scientific Publications: Economy & Business*, 1 - 16. [ilmumas]

(2012). Customer orientation model for a higher education institution: When is student-customer orientation appropriate? *International Scientific Publications: Educational Alternatives*, 10(1), 1 - 17.

Tanning, T.; Tanning, L.; Saat, M. (2012). Cycles Economy by the Example of Baltic States, Germany, Sweden and Finland. *Journal of International Scientific Publications: Economy & Business*, 6, xx - xx. [ilmumas]

Tanning, T.; Tanning, L.; Saat, M. (2012). Eastern European Countries Salaries and Productivity by the Example Estonia. *Journal of International Scientific Publications: Economy & Business*, 6, xx - xx. [ilmumas]

Kristjuhan, Ü. (2012). Ergonomics as a tool in prolonging youth and postponing ageing. *Work-A Journal of Prevention Assessment & Rehabilitation*, 41(S1), 380 - 382.

Tanning, Toivo; Tanning, Lembo (2012). EUROPEAN UNION LABOUR FORCE COMPETITIVENESS IN THE WORLD. *The International Journal of Arts and Commerce*, No. 6, 64 - 79.

Laane, M.-A. (2012). Fragments of academic publishing in Estonia. *European Science Editing*, 38(1), 6 - 7.

- Tint, P.; Traumann, A. (2012). Health risk assessment in atrium-type buildings. *International Journal of Energy and Environment*, 6(4), 389 - 396.
- Kristjuhan, Ü.; Taidre, E. (2012). High work ability in the scientific activity of older and experienced academics. *Work-A Journal of Prevention Assessment & Rehabilitation*, 41(S1), 313 - 315.
- Lumiste, R. (2012). How expensive Is It to Support Renewable Energy in Estonia? *Baltic Journal of European Studies*, 2(1), 26 - 42.
- Tanning, Lembo; Tanning, Toivo (2012). Labour Costs and Productivity Analysis of East-European Countries. *International Journal of Business and Social Science (USA)*, No. 20 , 65 - 78.
- Tanning, Lembo; Tanning, Toivo (2012). LABOUR MARKET ANALYSIS OF EAST- AND SOUTHERN-EUROPEAN COUNTRIES. *The International Journal of Arts and Commerce*, No. 5 , 209 - 223.
- Miina, A. (2012). Lean Problem: Why Companies Fail with Lean Implementation. *Management*, xx - xx. [ilmumas]
- Kristjuhan, K.; Metsla, E.; Ling, H. (2012). Management capabilities and application of complex automated systems. *Estonian Journal of Engineering*, xxx - xxx. [ilmumas]
- Tanning, T.; Tanning, L. (2012). Modernized Beveridge curve. *Journal of Technology, Education, Management, Informatics*, Vol.1.(4), 258 - 269.
- Siirak, V. (2012). Moodle E-learning Environment as an Effective Tool in University Education. *Journal of Information Technology and Application in Education (JITAE)*, 1(2), 94 - 96.
- Kristjuhan, K. (2012). Non-diffusion of management innovation: The case of lean. *European Management Review*, xx - xx. [ilmumas]
- Saat, M.; Himmelsbach, J. (2012). Risk Management in Connection with Acquisitions Using the Example of the TÜV NORD Group. *Scientific&Academic Publishing. Management*, 2(4), 118 - 124.
- Rieger, A.; Saat, M.. (2012). Strategic Flexibility in International Intermediate Trade with Hanseatic Principles. *International Scientific Publications. Economy & Business*, 6, 145 - 157.
- Meel, M.; Saat, M. (2012). Using Kantian Ethics for Estimating Corporate Social Responsibility. *Scientia Nova*, 16, 7 - 16.
- Tint, P.; Tarmas, G.; Koppel, T.; Reinhold, K.; Kalle, S. (2012). Vibration and noise caused by lawn maintenance machines in association with risk to health. *Agronomy Research*, 10(S1), 251 - 260.
- Kirsipuu, Maret (2012). Sustainability of Rural Family Enterprises. Mäeltsemees, S.; Raudjärv, M.; Reiljan, J. (Toim.). *Discussions on Estonian Economic Policy. Developments in the EU Member States (83 - 104)*. Berlin\*Tallinn: Berliner Wissenschafts-Verlag, Mattimar
- Traumann, A.; Tint, P.; Reinhold, K. (2012). Work environment hazards during shale fuel oil handling. *Scientific Journal of Riga Technical University*, 3, 50 - 55.

### 1.3

Kristjuhan, Ü. (2012). Vanem inimene; müüdid ja tegelikkus. Sotsiaaltöö, 4, 15 - 18.

### 2.1

### 2.2

### 3.1

Miina, A.; Kolbre, E.; Saat, M. (2012). Critical success factors of lean implementation: example of Estonian manufacturing companies. Business Development in Baltic Sea Region, xx - xx. [ilmumas]

Niine, T.; Prause, G.; Kolbre, E.; Dziugiel, B. (2012). Air cargo outlooks of regional airports in the Baltic Sea Region: cases of Tallinn and Katowice. Business Development in Baltic Sea Region (xx - xx).P. Lang [ilmumas]

Koppel, T. (2012). Assessment of the quality of lighting systems based on the star diagram model. Z. Bazaras; V.Kleiza, KTU (Toim.). Proceedings of the ITELMS'2012: 7th International Conference Intelligent Technologies in Logistics and Mechatronics Systems (xx - xx). Kaunas Technical University, by the journal "Mechanika": Kaunas Technology University

Riivits-Arkonsuo, I.; Leppiman, A. (2012). Consumer Behavior in Social Media: Patterns of Sharing Commercial Messages. G. Prause ja U.Venesaar (Toim.). Baltic Business Development (1 - 16).Peter Lang Verlag [ilmumas]

Miina, A.; Kolbre, E.; Saat, M. (2012). Critical success factors of lean implementation: example of Estonian manufacturing companies. Business Development in Baltic Sea Region (xx - xx). Berlin: Peter Lang Verlag [ilmumas]

Ling, H.; Venesaar, U.; Pedas, K. (2012). Entrepreneurial Intention of Students' and Motivations for Their Career Choices. A. Fayolle et al (Toim.). Entrepreneurship Research in Europe (xx - xx).Edward Elgar Publishing [ilmumas]

Tint, P.; Traumann, A. (2012). Ergonomics of office-rooms workplaces in glazed buildings in cold climate. R. A. Rodrigues Ramos, I. Straupe, T.s Panagopoulos (Toim.). Recent Researches in Environment, Energy Systems and Sustainability. Proceedings of the 8th WSEAS Int. Conf. on Energy, Environment, Ecosystems and Sustainable Development (EEESD'12) (152 - 157). Portugal: WSEAS Press.

Leppiman, A.; Riivits-Arkonsuo, I.; Kaljund, K. (2012). Improving non-profit organizations' capability through open architecture model. Gunnar Prause, Urve Venesaar (Toim.). Baltic Business Development (1 - 16).Peter Lang Verlag [ilmumas]

Möldri, Margus; Tammepuu, Ants; Tint, Piia; Paas, Õnnela; Laaniste, Priit (2012). Integration of the SMS to IMS in Estonian Seveso II establishments: selected case studies. Risk Analysis VIII (227 - 236). Ashurst Lodge, Ashurst, Southampton: WIT Press

Venesaar, U., Prause, G., Lumiste, R., Vihalem, A., Kallaste, M. (2012). International Trade Fairs for Facilitating the Internationalisation of enterprises. Business Development in Baltic Sea Region (32 - 49).Peter Lang Verlag [ilmumas]

Same, S.; Larimo, J. (2012). Marketing Theory: Experience Marketing and Experiential Marketing. Ginevičius, R.; Vytautas Rutkauskas, A.; Stankevičienė, J. (Toim.). 7th International Scientific Conference "Business and Management-2012", in Vilnius, Lithuania, May 10-11, 2012 : Selected papers (1 - 8). Vilnius: VGTU Press "Technika"

Tkatsova, Laura (2012). Organizational learning as a vehicle for providing organizational health and safety culture. . Ben J.M. Ale, Ioannis A. Papazoglou, Enrico Zio (Toim.). Probabilistic Safety Assessment: Proceedings of the 11th International Probabilistic Safety Assessment and Management Conference And The Annual European Safety and Reliability Conference (PSAM 11 & ESREL 2012) (376 - 377). Finland: International Association for Probabilistic Safety Assessment and Management (IAPSAM), European Safety 3.1, vaid 3.2- Bobrov pole kontrollinud

Titov, E.; Kuimet, K.; Meel, M. (2012). Post-Recession Values in Estonian Organizations. Business Development in Baltic Sea Region. (xx - xx). Berlin: Peter Lang Verlag [ilmumas]

Rungi, M; Kolk, A (2012). Capability Development - No Path, Response to Competition: The Cross-case of Google, Ericsson, Microsoft and Nokia. In: Proceedings of the 2012 IEEE International Conference on Industrial Engineering and Engineering Management: The IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), Hong Kong, China, December 10-13, 2012. China: IEEE, 2012.

Kristjuhan, K.; Metsla, E.; Ling, H. (2012). Quality of management practices and application of complex automated systems. In: Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering 19-21st April 2012, Tallinn, Estonia: 8th International Conference of DAAAM Baltic Industrial Engineering, Tallinn, Estonia, 19-21 April 2012. (Toim.) Otto, T.. Tallinn: Tallinna Tehnikaülikooli Kirjastus, 2012, 163 - 168.

### 3.2

Hack, A.; Prause, G.; Maknyte, L. (2012). Design Management and Branding for SMEs: Experiences from the DesignSHIP Project. Muravska, T.; Prause, G. (Toim.). European Integration and Baltic Sea Region Studies: University- Business Partnership through the Triple Helix Approach (131 - 150). Berlin: Berliner Wissenschafts-Verlag [ilmumas]

Tanning, Lembo; Tanning, Toivo (2012). Eesti tööturg "Euroopa strateegia 2020" taustal. Beveridge'i kõverad. Rohusaar, Jaan (Toim.). Tallinna Tehnikakõrgkooli toimetised nr 14 (22 - 40). Tallinn: Tallinna Tehnikakõrgkool

Reidolf, M.; Prause, G. (2012). EGOPRISE Project: Results and Outlooks. Prause, G.; Hunke, K.; Thessel, F. (Toim.). Transnational Aspects of End-user Oriented E-services in the Baltic Sea Region (172 - 183). Berlin: Berliner Wissenschafts-Verlag [ilmumas]

Tanning, L.; Tanning, T. (2012). Entrepreneurship, productivity and salaries. Rohusaar, J. (Toim.). Tallinna Tehnikakõrgkooli (University of Applied Sciences) toimetised (55 - 58). Tallinn: Tallinna Tehnikakõrgkool

Tanning, Lembo; Tanning, Toivo (2012). Ettevõtetus, tööviljakus ja palgad. Rohusaar, Jaan (Toim.). Tallinna Tehnikakõrgkooli toimetised nr 14 (43 - 55). Tallinn: Tallinna Tehnikakõrgkool

Hunke, K.; Prause, G. (2012). Hub Development along Green Transport Corridors in Baltic Sea Region . Blecker, T.; Kersten, W.; Ringle, C. (Toim.). Pioneering Supply Chain Design (265 - 282).

Hamburg: University of Technology

Daduna, J.; Hunke, K.; Prause, G. (2012). Logistics Corridors and Short Sea Shipping in the Baltic Sea Area. Proceedings of the 2012 International Research Conference on Short Sea Shipping, Estoril - Portugal (2101 - 2117).Copenhagen Business School

Hunke, K.; Prause, G. (2012). Old Economy as a Success Model in the Global Economic Crisis - The German Experience. The macro and micro economic consequences of the recent/current economic crisis and the role of business education (xx - xx).Budapest University of Economic Sciences [ilmumas]

Reinhold, K. (2012). Protection of Workers against Noise at Industrial Workplaces. G. Lee (Toim.). Electronics, Information and Communication Engineering (202 - 207). Newark, USA: Information Engineering Research Institute (IERI)

Laane, M.-A. (2012). Readability of research writing and text variables in readability Formulas. Zakis, J. (Toim.). 11th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral school of energy and geotechnology. II : Pärnu, Estonia, January 16-21, 2012 (7 - 10). 2012: Elektriajam

Lumiste, R.; Prause, G.; Eiland, E. (2012). Re-evolvment of Cooperative Structures in Estonia. Muravska, T.; Prause, G. (Toim.). European Integration and Baltic Sea Region Studies: University-Business Partnership through the Triple Helix Approach (184 - 189). Berlin: Berliner Wissenschafts-Verlag [ilmumas]

Prause, G.; Thessel, F.; Hunke, K. (2012). Review of Current Status of the Use of E-government Services by SME in the Baltic Sea Region. Prause, G.; Hunke, K.; Thessel, F. (Toim.). Transnational Aspects of End-user Oriented E-services in the Baltic Sea Region (4 - 41). Berlin: Berliner Wissenschafts-Verlag [ilmumas]

Tanning, L.; Tanning, T. (2012). The labour market of Estonia and “Europe 2020 strategy”. Beveridge curve. Rohusaar, J. (Toim.). Tallinna Tehnikakõrgkooli (University of Applied Sciences) toimetised (40 - 42). Tallinn: Tallinna Tehnikakõrgkool

Tanning, T.; Tanning, L. (2012). Unemployment and vacancy. International Academy of Sciences and Higher Education (London, UK) (Toim.). XXXIV International Research and Practice Conference “Solution of a social requirements and objective reality issues in economical and juridical sciences”/III stage of the championship in economical and juridical sciences. The International Academy of Science and Higher Education (IASHE; London, UK) (xx - xx). London: International Academy of Sciences and Higher Education (London, UK) [ilmumas]

Prause, G.; Hunke, K. (2012). University – Business Interaction in the Context of Demographic Change. Muravska, T.; Prause, G. (Toim.). European Integration and Baltic Sea Region Studies: University- Business Partnership through the Triple Helix Approach (190 - 203). Berlin: Berliner Wissenschafts-Verlag [ilmumas]

Prause, G. (2012). Air cargo logistics in the Baltic Sea region. Flexibility and Adaptability of Global Supply Chains, Proceedings of the 7th German-Russian Logistics and SCM Conference. (Toim.) Ivanov, D.; Sokolov, B.; Käschel, J.. St. Petersburg: Saint Petersburg State Technical University Press, 2012, 297 - 304.

Prause, G.; Hack, A.; Maknyte, L. (2012). How to Integrate Design Management Concepts into

SME? - Experiences from the South Baltic Sea Region . In: Conference Proceedings of the International Entrepreneurship Forum: 11th International Entrepreneurship Forum (IEF) Conference, 2012 Entrepreneurship and Sustainability: From Lifestyles to Innovative Enterprises in Creative and Sustainable Environments'. University of Essex, 2012, 429 - 457.

Tkatsova, L. (2012). Influence of organizational learning implementation in the occupational health and safety culture. In: Book of Proceedings. 10th Conference of the European Academy of Occupational Health Psychology. EAOHP: European Academy of Occupational Health Psychology: 10th Conference of the European Academy of Occupational Health Psychology. (Toim.) Iavicoli, S., Jain, A., Petyx, M., Tang, J.. Nottingham, United Kingdom: Nottingham University Press, 2012, 376 - 377.

Prause, G.; Feuerhake, C.; Hochheim, H.; Hunke, K. (2012). Trade Fair Participation as Internationalisation and Networking Instrument for SME . In: Conference Proceedings of the International Entrepreneurship Forum: 11th International Entrepreneurship Forum (IEF) Conference, 2012 Entrepreneurship and Sustainability: From Lifestyles to Innovative Enterprises in Creative and Sustainable Environments'. University of Essex, 2012, 874 - 889.

Muravska, T.; Prause, G. (2012). European Integration and Baltic Sea Region Studies: University-Business Partnership through the Triple Helix Approach . Berlin: Berliner Wissenschafts-Verlag [ilmumas]

### 3.3

Kalle, E. (2012). 8.1. Tootlikkuse juhtimise kesksed mõisted. Tootmise juhtimise käsiraamat (1 - 5). Äripäeva Kirjastus

### 4.1

### 5.1

**2.9** Struktuuriüksuses kaitstud doktoriväitekirjade loetelu (*NB! struktuuriüksus lisab struktuuriüksuse töötaja juhendamisel mujal kaitstud doktoriväitekirjade loetelu*)

Aastal 2012 doktoriväitekirju ei kaitstud.

Kaitsti 2011 detsembris (2) ning on kaitstud 2013 jaanuaris (1).

**2.10** Struktuuriüksuses järel doktorina T&A-s osalenud isikute loetelu (*ETIS-e kaudu esitatud taotluste alusel*)

**2.11** Struktuuriüksuses loodud tööstusomandi loetelu

**3. Struktuuriüksuse infrastruktuuri uuendamise loetelu** (*summa eurodes*)

PV007289, Tolmumõõtja mudel EPAM-5000, 24.01.2012 (4 513,00) - sihtfinantseerimine T122  
PV007301, Tarkvara SPSS, 7.02.2012 (2 107,00)