

SOTSIAALTEADUSKOND
TÖÖSTUSPSÜHHOOGIA INSTITUUT
TEADUS- JA ARENDUSTEGEVUSE AASTAARUANNE 2012

1. Instituudi struktuur

Tööstuspsühholoogia instituut, Department of Industrial Psychology
Instituudi direktor Mare Teichmann

- Hariduspoliitika õppetool, Chair of Educational Policy
- Psühholoogia õppetool, Chair of Psychology, Mare Teichmann
- TTÜ Eesti inseneripedagoogika keskus, Estonian Centre for Engineering Pedagogy, Tiia Rüütmann

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)*;

There were four main lines of research at the Institute of Industrial Psychology – occupational stress (including psychosocial factors at work), engineering education and didactics, non-technical competencies for engineers, and new industrial relations in Estonia.

Two doctoral theses are being finalized: Liina Randmann “Estonian employees’ psychological Contracts: Factors affecting strength of perceived obligations”, and Velli Parts “The Model of Non-technical Competences for Engineers”.

Institute was responsible for a major development: Work and Organizational Psychology double degree curricula development with Mykolas Romeris University (Lithuania), and with University of East London (UK). In cooperation with University of East London (UK) has started work with a joint PhD programme.

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

- 1) The model of engineers’ non-technical competences draws six engineering non-technical competence domains and in each domain, in turn, is divisible into several competences. The six domains in a heuristic model are: Professional ethics (includes three competences: personal ethics, professional ethics, social ethics); Personal competencies (includes four competences: flexibility, stress tolerance and coping with stress, self-management, learning skills and motivation); Interpersonal competencies (includes four competences: communication, collaboration, negotiations and conflict management, influence/manipulation); Innovation and entrepreneurial competencies (includes two competences: innovativeness, creativity, and entrepreneurship); Leadership, management and administrative competencies (includes three competences: project management, organization / division management, and team leadership); Law and legal system (includes three competences: intellectual property laws, knowledge of legal issues in engineers’ work, commercial law).
- 2) Why is it that students are a source of stress for university academics in Estonian universities? However, it was not so big problem in University of Bordeaux. In both

academic groups the average occupational stress level was quite high – more than one third of academic staff members suffered from work stress, respectively in Estonian universities 38.93 percent and at the University of Bordeaux 39.1 percent. However, it is true that intensity of sources of stress were different in the dissimilar academic cultures. For example, in the occupational stress profile of University of Bordeaux, the major sources of stress were workload, professional development, and bureaucracy, which were statistically significant lower-level sources of occupational stress in Estonian university academics.

- 3) What is really dramatic about the findings regarding how academic staff members feel about students is that they do not follow an easily interpretable pattern. Based on the stress and strain approach, stressors refer to work-related characteristics, events or situations that give rise to stress, and strain refers to the academics' psychological or physiological responses to stress. However, despite the stress and strain approach we understand that Estonian academics feel that students and teaching are highly stressful for them. But we do not get a satisfactory answer to the question of why Estonian academics feel students and teaching are more stressful than academics from Bordeaux University. For interpretation the research results we used the scapegoat theory. This theory prejudice springs from frustration among people who are themselves disadvantaged. Scapegoats are persons or a category of people typically with little power whom more powerful people unfairly blame for their own troubles. Scapegoating is a hostile social-psychological discrediting routine by which people move blame and responsibility away from themselves and toward a target person or group. According to scapegoat theory, people may be prejudiced toward a group in order to vent their negative stressful feelings. In modern usage a scapegoat may be a child, student, employee, peer, client, or work-team singled out for unmerited negative treatment or blame.

2.2 Uurimisgrupi kuni 5 olulisemat publikatsiooni läinud aastal.

- 1) Teichmann, M.; Parts, V.; Randmann, L. (2012). Role Conflict and Stress: Juggling Hats. Munduate, L.; Euwema, M.; Elgoibar, P. (Toim.). Ten steps for empowering employee representatives in the new European industrial relations (87 - 96). Spain: McGraw-Hill/Interamericana De Espana, S.L.
- 2) Teichmann, M. (2013). Eastern European versus Western European managers' work locus of control and quality of life. Cross-cultural and interdisciplinary approaches of Work and Organizational Psychology (1 - 25). Poland: University of Silesia [ilmumas]
- 3) Teichmann, M.; Parts, V.; Kerikmäe, T.; Murdvee, M.; Pevkur, A. (2013). A Heuristic Model of Non-technical Competences for Engineers. WSEAS EDUCATION'13. Cambridge, UK: WSEAS, 2013, 1 - 10. [ilmumas]
- 4) Teichmann, M.; Ilvest, J. Jr.; Dondon, P. (2013). Would university academic staff be happier without students? Cambridge, UK: WSEAS, 2013, 1 - 10. [ilmumas]
- 5) Teichmann, M., Randmann, L. (2013). Myths among Personnel (HR) Professionals. EAWOP in Practice, 1-7 [ilmumas]

2.3 Loetelu struktuuriüksuse töötajate rahvusvahelistest tunnustustest.

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

Mare Teichmann – European Network of Work and Organizational Psychology professors (ENOP)
Eesti ja Balti riikide esindaja

Mare Teichmann – Sileesia Ülikooli korraline valitud professor

Tiia Rüütmann - International Society for Engineering Education (IGIP), asepresident

2.5 Aruandeaasta tähtsamad T&A finantseerimise allikad.

SA Archimedesega sõlmitud lepingud ja välisriiklikud lepingud

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:
 - 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:

Lep. 12117 EASi Innovatsiooniosaku programm: AS Taasusravikeskus Viiking kliendikesksete muudatuste käivitamine (20.08.2012 – 1.12.2012)

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

ARP8102A, Kolmanda taseme õppe kvaliteedi arendamise programm PRIMUS tegevus 5, Uuringute ja analüüside läbiviimine raames ajavahemikul 01.01.2009-31.12.2013 läbiviidav uuring Akadeemilise personali tööstress ja web-põhine tööstressi preventsionisüsteem, Teichmann Mare (1.01.2009 - 31.12.2013)

- SA Keskkonnainvesteeringute Keskusega sõlmitud lepingud:

- Siseriiklikud lepingud:

TVL-12/43 Praxis uuring “Vähipatsientide elukvaliteet ja seda mõjutavad tegurid” raames toimuva küsitluse jaoks WHOQoL-BREF küsimustiku kasutamiseks andmine ja selle küsimustikuga kogutud andmete esmane analüüs” (20.06.2012 – 1.12.2012)

- EL Raamprogrammi projektid:

- Välisriiklikud lepingud:

VEU475, NEIRE I, Euroopa töötajate esindajate läbirääkimised paindlike, õiglaste ja innovatiivsete töösuhete osas, Teichmann Mare (1.12.2010 - 28.02.2012)

VEU588, NEIRE II, New European Industrial Relations (NEIRE): Expectations of Employers on Employee representatives' roles, attitudes, and competencies to act as partners in social innovation, Mare Teichmann (01/12/2012 - 30/11/2013)

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

1.2

Teichmann, M.; Ilvest, J. Jr. (2012). Human Factors Engineering: digital teaching tools and paper-free handouts for lecture notes. WSEAS Transactions on Advances in Engineering Education, 9(2), 31 - 41.

1.3

2.1

2.2

3.1

Teichmann, M.; Parts, V.; Randmann, L. (2012). Role Conflict and Stress: Juggling Hats. Munduate, L.; Euwema, M.; Elgoibar, P. (Toim.). Ten steps for empowering employee representatives in the new European industrial relations (87 - 96). Spain: McGraw-Hill/Interamericana De Espana, S.L.

Rüütman, T.; Kipper, H. (2012). Rethinking Effective Teaching and Learning for the Design of Efficient Curriculum for Technical Teachers. 41st IGIP International Conference on Engineering Pedagogy. 15th International Conference on Interactive Collaborative Learning. Collaborative Learning and New Pedagogical Approaches in Engineering Education. IEEE, 2012, 1 - 9.

Kipper, H.; Rüütman, T. (2012). Teaching for Understanding in Engineering Education. 41st IGIP International Conference on Engineering Pedagogy. 15th International Conference on Interactive Collaborative Learning. Collaborative Learning and New Pedagogical Approaches in Engineering Education. IEEE, 2012, 1 - 9.

3.2

Rüütman, T.; Kipper, H. (2012). Design of the Curriculum on Master Level for Engineering Educators at Tallinn University of Technology. V.M. Prihodko, Z.S. Sazonova (vastutav toimetaja) (Toim.). Inženernaja pedagogika (142 - 150). Moskva: Tsentr inženernoi pedagogiki MADI

Teichmann, M. (2012). Master in Work and Organizational Psychology (Tallinn University of Technology). ENOP Newsletter (18 - 22).Maison des Sciences de l'Homme

Kipper, H.; Rüütman, T. (2012). Master Studies for Technical Teachers at Tallinn University of Technology. International Conference on Curriculum Theory and Practice "Hilda Taba 110", Tallinn, Estonia, December 7-8, 2012. (Toim.) K. Kalamees-Ruubel. Tallinn, Estonia: Juura, Õigusteabe AS, 2012, 73 - 75.

Rüütman, T.; Kipper, H. (2012). Standard Curriculum of International Society for Engineering Education (IGIP) as the Basis of the Curriculum Design for Technical Teacher Education. International Conference on Curriculum Theory and Practice "Hilda Taba 110", Tallinn, Estonia, December 7-8, 2012. (Toim.) K. Kalamees-Ruubel. Tallinn, Estonia: Juura, Õigusteabe AS, 2012, 75 - 76.

3.3

4.1

5.1

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

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

Jrk nr	Nimetus	Hind	Hankimise aeg
1.	Videokaamera Sony HXR-MC2000E	1 325,00	16.02.2012
2.	Skanner Epson Perfect V600	215,83	21.08.2012
3.	Laserprinter Colour	250,00	24.08.2012
4.	Sülearvuti MacBook Pro/Core i7	1 277.50	24.10.2012
5.	Sülearvuti MacBook Pro/Core i7	1 277.50	24.10.2012
6.	Sülearvuti HP IDS 2560p	805,00	24.10.2012
7.	Arvuti iMac 21,5"	1 252.50	01.11.2012
8.	Mobiilitelefoni iPhone 4S	515,85	04.05.2012