



Program

The 12th Conference of Open Innovations Association FRUCT and Seminar on e-Tourism

Oulu, Finland
5-9 November 2012





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BUSINESS OULU EMC²



GAUDEAMUS IGITUR,
JUVENES DUM SUMUS!
POST JUCUNDAM JUVENTUTEM,
POST MOLESTAM SENECTUTEM
NOS HABEBIT HUMUS.

UBI SUNT, QUI ANTE NOS
IN MUNDO FUERE?
VADITE AD SUPEROS,
TRANSITE AD INFEROS,
UBI JAM FUERE.

VITA NOSTRA BREVIS EST,
BREVI FINIETUR,
VENIT MORS VELOCITER,
RAPIT NOS ATROCITER,
NEMINI PARCETUR.

VIVAT ACADEMIA,
VIVANT PROFESSORES!
VIVAT MEMBRUM QUODLIBET,
VIVANT MEMBRA QUAE LIBET!
SEMPER SINT IN FLORE!

VIVANT OMNES VIRGINES
FACILES, FORMOSAE!
VIVANT ET MULIERES,
TENERAE, AMABILES,
BONAE, LABORIOSAE!

VIVAT ET RESPUBLICA,
ET QUI ILLAM REGIT!
VIVAT NOSTRA CIVITAS,
MAECENATUM CARITAS,
QUAE NOS HIC PROTEGIT

PEREAT TRISTITIA,
PEREANT DOLORES,
PEREAT DIABOLUS,
QUIVIS ANTIBURSCHIUS,
ATQUE IRRISORES!



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	Knut Yrvin (Digia, Norway)
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The program of 12th FRUCT conference in Oulu

November 5-9, 2012 Oulu, Finland

All events are free of charge, but all participants must be registered at www.fruct.org/conference12

University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

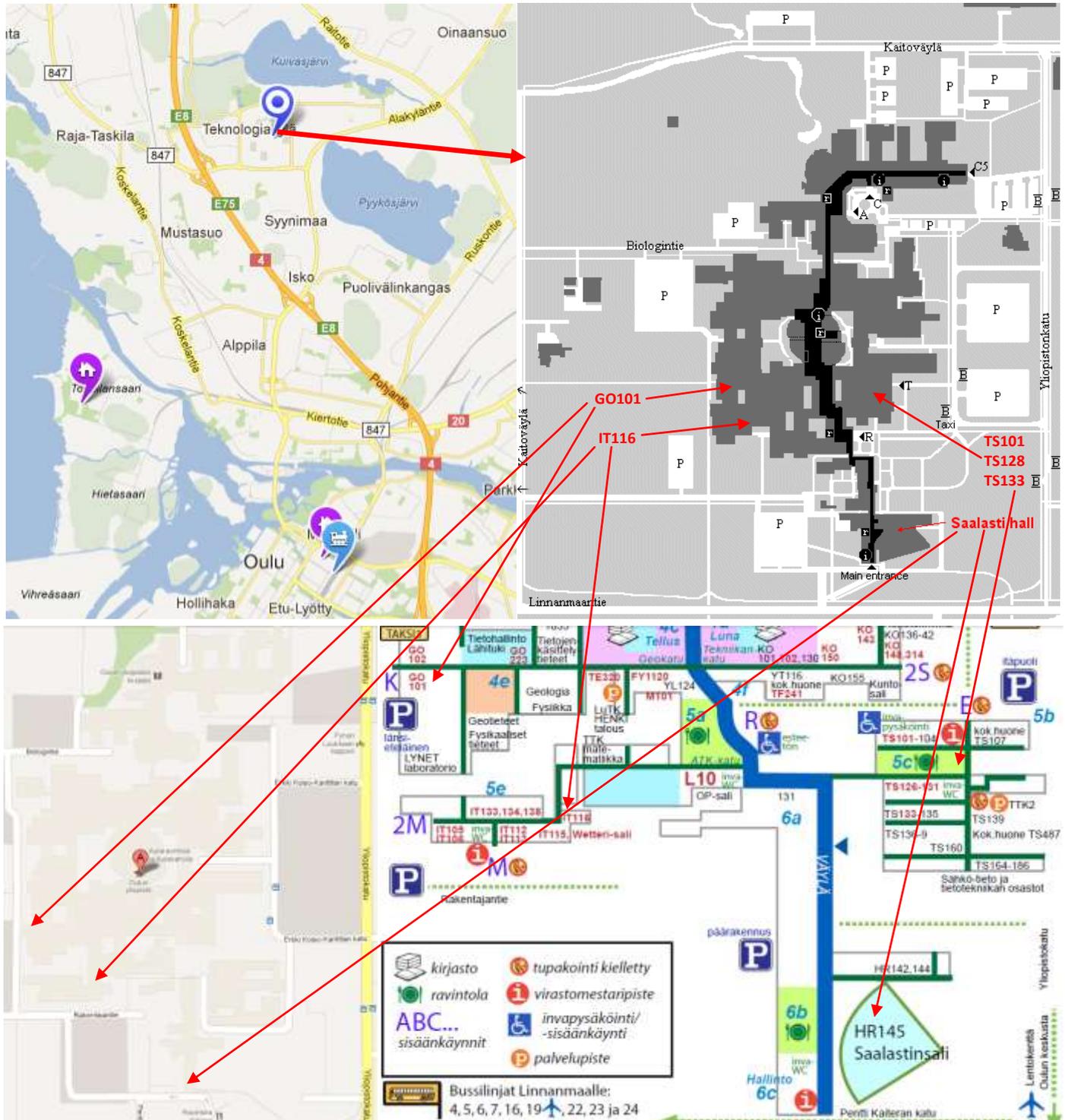
Nov 5, 16:30-20:00 Business Kitchen, Torikatu 23 (4th floor), 90100 Oulu

DATE	TIME	PROGRAM		
5.11.12	09.00-15.00	Intensive course: m-Healthcare and e-Healthcare: motivations, current status, objectives and trends, Oleg Medvedev, MSU, Russia, TA105 (Arina-Sali)		
	16:30-20:00	Workshop: m-Healthcare and e-Healthcare: Future business models (organized together Enterprise Forum 2.0), Business Kitchen, Torikatu 23 (4 th floor)		
6.11.12	09.00-11.30	Intensive course and hands-on training: 3D Internet Programming with realXtend, Jonne Nauha, Adminotech Ltd and University of Oulu, Finland, room GO223 (max 20 persons)	Workshop: Rapid low-fi prototyping techniques for design, Jonna Hakkila, CIE, room IT112	
	13.00-15.00		Seminar: Centric Design SIG/SIGCHI Finland, Jonna Hakkila, CIE, room TS127	
	15.00-18.00			
7.11.12	09.00-11.00	ENPI KA-322 project Seminar on E-Tourism in Karelia and Oulu Region, room GO101		
	11.00-12.00	Round Table on e-Tourism solutions for Karelia and Oulu Region, room GO101	Training: Geo2Tag platform, Kirill Krinkin, FRUCT, Russia, room IT135	
	12.00-13.00	Conference Registration (near room IT116)		
	13.00-14.50	Opening of 12th FRUCT conference: Welcome words and the Main Plenary Session Keynote talk: Qt commercial, what now? Knut Yrvin, Digia, Norway, room IT116		
	14.50-15.10	Coffee break (Hall near room IT116)		
	15.10-17.10	Cross-Platform Software Development, Qt and Industrial Systems, room IT116		
	17.10-17.30	Coffee-break (Hall near room IT116)	ENPI KA-179 and KA-322 projects meeting (only by invitation), meeting room in CIE	
	17.30-18.30	Training: Scientific publishing: writing and presenting of high quality papers, room IT116		
	18.30-21.00	Meeting of the FRUCT Advisory Board (only by invitation)		
8.11.12	09.00-11.00	Addressing words from Olli Silvén, Vice-Rector on Education, University of Oulu Keynote talk: National IoT activities in Finland, Wilhelm Rauss, Ericsson, Finland Internet of Things and Smart Spaces, Saalasti Hall		
	11.00-12.00	Lunch break		
	12.00-14.00	Smart Space Technologies, Saalasti Hall	Network Technologies I, room TS101	
	14.00-14.20	Coffee break (near Saalasti Hall)		
	14.20-16.00	Web Technologies, Saalasti Hall	Network Technologies II, room TS133	
	16.00-16.30	Coffee break (Hall near room TS101)		
	16.30-18.00	Smart Grids and Innovative Energy Management Solutions, room TS101	Working Group meeting: Internet of Things and Smart Spaces, room TS128	
	18.00-18.30	Break and preparation to Demo Session		
	18.30-21.00	Demo Session and Social Event, Hall near room TS101		
9.11.12	09.15-11.00	Special session: Business modeling and development, Saalasti Hall		
	11.00-12.00	Lunch break		
	12.00-14.00	Mobile Healthcare, Early Diagnostics and Fitness I, Saalasti Hall	Location-based Services, room TS101	
			Solutions for Embedded Systems, room TS101	
	14.00-14.20	Coffee break (near Saalasti Hall)		
	14.20-15.40	Mobile Healthcare, Early Diagnostics and Fitness II, Saalasti Hall	Network Technologies III, room TS101	
15.45-16.00	Official closing of 12th FRUCT conference, Saalasti Hall			



Practical Information

The main section of the 12th FRUCT conference will be held in the main building of the University of Oulu. The university is located 20 minutes from the centre of Oulu. You can get there from the airport by bus number 19 or from the city centre (and the railway station) by buses 4, 6, 7, 16 and 19. Cost of one bus ticket inside Oulu is 3,20e. You can walk from the city center through the picturesque places, but the whole route will take around 1.5 hours.



In addition to the general scheme above you can use the detailed scheme of University of Oulu main campus that can be found at page: http://www oulu.fi/dokumentit/kartat/Linnanmaa_2012_suomi.pdf. **Note:** In order to get access to FRUCT conference, e-Travel seminar and trainings you **must register** via the conference web www.fruct.org/conference12 (registration is free of charge). For your convenience, inside the university building there will be signs to help you find conference rooms, places for coffee breaks, lunch place and other facilities.



The program of 12th FRUCT conference in Oulu

November 5-9, 2012 Oulu, Finland

All events are free of charge, but all participants must be registered at www.fruct.org/conference12

November 5 (Monday)

09:00-15:00 University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

16:30-20:00 Business Kitchen, Torikatu 23 (4th floor), 90100 Oulu

Intensive course: m-Healthcare and e-Healthcare: motivations, current status, objectives and trends		
Room: TA105 (Arina-Sali)		Trainer: Oleg Medvedev
09:00	15m	Registration
09:15	1h	Problems in healthcare that stimulate implementation of e-Health
10:15	15m	Break
10:30	1h	Current state of e-Health technologies in Europe
11:30	1h	Objective need in monitoring of health
12:30	1h	Lunch break
13:30	1h	Trends in developing sensors and user interfaces in m-health
14:30	30m	Consultations by Prof. Oleg Medvedev
Workshop: m-Healthcare and e-Healthcare: Future business models (organized together Enterprise Forum 2.0)		
Room: Business Kitchen (Torikatu 23, 4 th floor)		Chairman: Petri Ahokangas
16:30	30m	Registration and Coffee
17:00	30m	Keynote talk: Current state of m-Health and e-Health technologies in Russia, Oleg Medvedev, Moscow State University, Russia
17:30	30m	Keynote talk: Current state in e-Health applications in Finland, Kalevi Virta University of Oulu, Center for Health and Technology, Finland
18:00	2h	Panel discussion on future business models for m-Healthcare and e-Healthcare
20:00		Closing of Day 1

November 6 (Tuesday)

University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

Training: 3D Internet Programming with realXtend		
Room: GO223		Trainer: Jonne Nauha
09:00	15m	Registration
09:15	45m	What is realXtend Tundra? What is Meshmoon?
10:00	15m	Coffee break
10:15	1h	Introduction to realXtend Tundra architecture
11:15	1h	Introduction to content creation and import
12:15	45m	Lunch break
13:00	2h	Tundra Scripting
15:00	15m	Coffee break
15:15	2h45m	Tundra Scripting (cont.)
18:00		Closing of Day 2



November 7 (Wednesday)

University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

Seminar: ENPI KA-322 project Seminar on E-Tourism in Karelia and Oulu Region		Chairman: Mika Ylianttila	
Room: GO101			
08:30	45m	Seminar Registration and Coffee (Hall near room GO101)	
09:15	15m	Presentation of ENPI Karelia CBC KA-322 project, Anton Shabaev, PetrSU, Russia	
09:30	15m	Overview of e-Tourism solutions from other regions, Irina Shabalina and Kirill Kulakov, PetrSU, Russia	
09:45	15m	Intelligent services for context-oriented tourists support in Karelia Republic, Alexey Kashevnik, SPIIRAS, Russia	
10:00	15m	Ideas of e-Tourism services for Karelia region, Kirill Kulakov, PetrSU, Russia	
10:15	15m	Presentation of Tourist Information Center of Republic of Karelia, Alexey Tigushkin, Tourist Information Center of Republic of Karelia, Russia	
10:30	15m	Meri City Tunturi project developing winter tourism in Oulu region, Jonne Taponen, Oulu City Centre Association, Finland	
10:45	15m	Engaging airline travelers in feedback sharing: Oulu airport case, Agnis Stibe, University of Oulu, Finland	
11:00	1h	Round Table discussion on e-Tourism solutions required for Republic of Karelia and Oulu Region	Training: Geo2Tag platform training Room: IT135 Trainer: Kirill Krinkin
12:00	1h	Conference Registration (Hall near room IT116)	
Session: Official opening of the 12th FRUCT conference		Chairman: Sergey Balandin	
Room: IT116			
13:00	20m	Opening of the 12 th FRUCT conference and welcome words from University of Oulu, Petrozavodsk State University, Business Oulu, Russian Academy of Sciences, ENPI Karelia CBC	
13:20	15m	Karelia ENPI CBC programme promoting crossborder cooperation, Henna-Mari Laurila, ENPI Karelia CBC, Finland	
13:35	15m	Converging IT and healthcare: Prospects from Oulu, Noora Jansson, Business Oulu, Finland	
13:50	20m	Urban Computing and Ubiquitous Oulu, Hannu Kukka, University of Oulu, Finland	
14:10	40m	Keynote talk: Qt commercial, what now? Knut Yrvin, Digia, Norway	
14:50	20m	Coffee-break (Hall near room IT116)	
Session: Cross-Platform Development, Qt and Industrial Systems		Chairman: Knut Yrvin	
Room: IT116			
15:10	30m	Software factory, Markku Oivo, University of Oulu, Finland	
15:40	15m	Optimal Planning Software Platform Development with Cloud Computing Technology, Anton Shabaev, Vladimir Kuznetsov and Dmitry Kositsyn, PetrSU, Russia	
15:55	15m	Experience in Developing Reference Applications with Qt/QML, Anna Samoryadova, Konstantin Kirpichenok and Kirill Kulakov, PetrSU, Russia	
16:10	15m	Practice of Porting Qt applications to Android platform, Kirill Kulakov, PetrSU, Russia	
16:25	15m	The practice of development "Walk under moon" game, Vladimir Dmitriev and Kirill Kulakov, PetrSU, Russia	
16:40	15m	The Cross-platform Application for Arrhythmia Detection, Yuliya Zavyalova, Artem Pogorelov and Alexander Borodin, PetrSU, Russia	
16:55	15m	Software System for Sawmill Operation Planning, Anatoly Voronin, Vladimir Kuznetsov, Ivan Arkhipov and Anton Shabaev, PetrSU, Russia	
17:10	20m	Coffee-break (Hall near room IT116)	



Training: Scientific publishing: writing and presenting of high quality papers

Room: IT116

Trainer: Marko Hannikainen

17:30 1h Scientific publishing: writing and presenting of high quality papers, Marko Hannikainen, TUT, Finland

18:30 Closing of Day 3

November 8 (Thursday)

University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

08:30 30m **Registration and Day Agenda (Saalasti Hall)**

Session: Internet of Things and Smart Spaces

Room: Saalasti Hall

Chairman: Sergey Balandin

09:00 15m Addressing words from Olli Silvén, Vice-Rector for Education, University of Oulu, Finland

09:15 45m **Keynote talk:** National IoT activities in Finland, Wilhelm Rauss, Ericsson, Finland

10:00 30m Two Novel Technologies Enabling IoT: Mobile Clouds and Visible Light Communications, Marcos Katz, University of Oulu, Finland

10:30 15m Innorange – from research to business, Jukka Honkola, Innorange, Finland

10:45 15m Smart Room Service Set at Petrozavodsk State University: Initial State, Ivan Galov and Dmitry Korzun, PetrSU, Russia and HIIT, Finland

11:00 1h **Lunch break**

Session: Smart Space Technologies

Room: Saalasti Hall

Chairman: Jukka Honkola

Session: Network Technologies I

Room: TS101

Chairman: Pekka Jappinen

12:00 15m Access to Smart Room Service Set from End-user Mobile Devices, Andrey Vdovenko and Dmitry Korzun, PetrSU, Russia

12:15 15m Event Recording System for Smart Space Applications, Andrey Vasilev, Ilya Paramonov, Egor Krylov and Alexey Subbotkin, YarSU, Russia

12:30 15m SmartSlog Session Scheme for Smart-M3 Applications, Aleksandr Lomov, PetrSU, Russia

12:45 15m Distributed service environment (smart spaces) security model development, Kirill Yudenok and Kirill Krinkin, SPbETU, Russia

13:00 15m Securing Interactions of Smart Objects in Smart-M3 Spaces, Ilya Nikolaevskiy, Andrei Gurto and Dmitry Korzun, HIIT, Finland

13:15 15m Sensors in a Smart Room: Preliminary Study, Rustam Kadirov, Evgeny Tsvetkov and Dmitry Korzun, PetrSU, Russia

13:30 15m RedSib: a Smart-M3 Semantic Information Broker implementation, Francesco Morandi, Luca Roffia, Alfredo D'Elia and Fabio Vergari, University of Bologna, Italy

Radio Network Data Mining for Self-Healing, Tapani Ristaniemi, University of Jyväskylä, Finland

Digital watermarking in RGB domain on weighted ECC, Sergey Bezzateev, Natalia Voloshina and Konstantin Zhidanov, SUAI, Russia

A new loss recovery algorithm for a stateless protocol, Dmitry Chalyy and Michael Nikitinskiy, YarSU, Russia

IEEE 802.11n Performance Assessment in Noisy Channel, Maksim Egorov, Vitaly Petrov and Sergey Andreev, TUT, Finland

Energy Draining Rate Based-AODV Routing in Wireless Mesh Network, Tn Nagabhushan, JSS Academy of Technical Education, S.P.Shiva Prakash, JSS Research Foundation, India and Kirill Krinkin, SPbETU, Russia



13:45	15m	Mechanism for Robust Data Flow Operation on Smart Spaces, Andrew Vasilev and Ilya Paramonov, YarSU, Russia and Sergey Balandin, FRUCT, Finland	Review Methods Configuration, Administration And Network Monitoring In High-Rate Onboard Networking Standards, Ksenia Khramenkova and Stanislava Oleynikova, SUAI, Russia
14:00	20m	Coffee break (near Saalasti Hall)	
Session: Web Technologies and Semantic Web		Session: Network Technologies II	
Room: Saalasti Hall		Room: TS133	
		Chairman: Roman Zharinov	
		Chairman: Tapani Ristaniemi	
14:20	20m	Integration of the FRUCT Social Network with Other FRUCT Web Resources, Valery Kirkizh, SUAI and Maria Komar, YarSU, Russia and Vitaly Petrov, TUT, Finland	Heterogeneous Hierarchical Wireless Sensor Network Architecture, Matti Hamalainen, University of Oulu, Finland
14:40	20m	CV Autogeneration Web Service for the FRUCT Community, Maria Komar, YarSU and Valery Kirkizh, SUAI, Russia and Vitaly Petrov, TUT, Finland	
15:00	20m	Associative Way of Data Storage, Valery Kirkizh, SUAI, Russia and Vitaly Petrov, TUT, Finland	Unified Service Gateway for Wireless Sensor Networks, Marko Hannikainen, Tampere University of Technology
15:20	20m	Integration of Computer Systems with use of Ontology, Ilya Semerhanov, German Vargin and Dmitriy Muromtsev, ITMO, Russia	Analysis and Simulation of NAMA Algorithm for Decentralized Network, Anna Solovyeva and Maxim Grankin, SUAI, Russia
15:40	20m	Methods for sentiment analysis of Twitter messages, Anton Barhan and Andrey Shakhomirov, SUAI, Russia	Load Balancing Routing Algorithm for Data Gathering Sensor Network, Evgeny Bakin and Grigory Evseev, SUAI, Russia and Denis Dorum, Hebrew University, Israel
16:00	30m	Coffee break (Hall near room TS101)	
Session: Smart Grids and Innovative Energy Management		Working group: IoT and Smart Spaces	
Room: TS101		Room: TS128	
		Chairman: Wilhelm Rauss	
		Chairman: Sergey Balandin	
16:30	30m	Security and Privacy Challenges of Smart Energy Grids, Pekka Jappinen, LUT, Finland	Internet of Things and Smart Spaces Working Group meeting
17:00	20m	Photovoltaic (PV) Energy as Recharge Source for Portable Devices such as Mobile Phones, Christian Schuss and Timo Rahkonen, University of Oulu, Finland	
17:20	20m	Intelligent active-adaptive power system of industrial enterprises, Boris Abramovich, Yuriy Sychev and Denis Ustinov, National Mineral-raw University, Veronica Prokhorova, SUAI, Russia	
17:40	20m	Analysis of discontinuous reception based energy-saving techniques, Eugeny Pustovalov and Andrey Turlikov, SUAI, Russia	
18:00	30m	Break and preparation to Demo Session	
Session: Conference social event combined with Demo session and presentation of demos in Pecha Kucha format			
Room: Hall near room TS101			
		Chairman: Ilya Paramonov	
18:30	2.5h	Demo Session and Social Event <i>(for more details see pages 15-16)</i>	



November 9 (Friday)

University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

09:00	15m	Registration and Day Agenda	
Special session: Business modeling and development		Chairman: Jarkko Paavola	
Room: Saalasti Hall			
09:15	45m	Invited talk: Business models and healthcare, Petri Ahokangas, University of Oulu, Finland	
10:00	15m	The model of managing bank's investment attractiveness, Mariya Kossukhina, Finnecc, Russia	
10:15	15m	Application of the analytic hierarchy process for multi-criterion evaluation of investment attractiveness of enterprises, Khakimdzhon Aminov and Maria Kossukhina, Finnecc, Russia	
10:30	30m	Overview of FRUCT: current status and latest updates and presentation of NordSecMob and FIRST cross-border exchange programs, Sergey Balandin, FRUCT, Finland	
11:00	1h	Lunch break	
Session: Mobile Healthcare, Early Diagnostics and Fitness I		Session: Location-based Services	
Room: Saalasti Hall		Room: TS101	
Chairman: Alexey Shveykovskiy		Chairman: Pekka Jappinen	
12:00	40m	Smartphones as receptors in a global nervous system of humanity, Esko Alasaarela, University of Oulu, Finland	TV white space test environment, Jarkko Paavola, Turku university of Applied Science, Finland
12:40	20m	Research of MEMS accelerometers features in mobile phone, Maxim Grankin, Elizaveta Khavkina and Alexander Ometov, SUAI, Russia	LUT Explorer - a Pervasive Adventure, Timo Hynninen, Janne Parkkila and Jouni Ikonen, LUT, Finland
13:00	20m	Detection of Ventricular Arrhythmias on a Smartphone, Alexander Borodin, Artem Pogorelov and Yuliya Zavyalova, PetrSU, Russia	Session: Solutions for Embedded Systems
			Room: TS101
Chairman: Pekka Jappinen		Methodology of searching for all shortest routes in NoC, Nadezhda Matveeva and Elena Suvorova, SUAI, Russia	
13:20	20m	Doctor search service using Geo2tag LBS Platform for mobile healthcare applications, Kirill Krinkin and Ivan Bezyazchnyy, SPbETU, Russia	Linux Kernel Drivers for I2C-manageable High Precision Power Source Based on ISL22317 and PCA9536 Chips, Evgeniy Kravtsunov, Andrey Kuyan and Sergey Radchenko, Moscow Center of SPARC Technologies and Andrey Kozlov, Moscow Insitute of Physics and Technology, Russia
13:40	20m	Decision support information system for hardly diagnosing diseases, Yury Apanasik, Irina Shabalina and Larisa Kuznetsova, PetrSU, Russia	Obtaining an SDL entity identifier using SDL/SystemC co-modeling, Pavel Morozkin, SUAI, Russia
14:00	20m	Coffee break (near Saalasti Hall)	
Session: Mobile Healthcare, Early Diagnostics and Fitness II		Session: Network Technologies III	
Room: Saalasti Hall		Room: TS101	
Chairman: Alexander Borodin		Chairman: Ilya Paramonov	
14:20	20m	Heart Rate Measuring Using Mobile Phone's Camera, Denis Laure, YarSU, Russia	Geo2Tag Performance Evaluation, Mark Zaslavskiy and Kirill Krinkin, SPbETU, Russia
14:40	20m	UbiHomeServer Front-end to the Ubiquitous Home Environment, Vadym Kramar, Markku Korhonen and Yury Sergeev, Oulu University of Applied Sciences, Finland	Comparative Analysis of Indoor Positioning Systems Based on Communications Supported by Smartphones, Alexey Kashevnik and Maxim Schekotov, SPIIRAS, Russia
15:00	20m	Mobile Phone Sensors in Health Applications, Evgeny Stankevich, Ilya Paramonov and Ivan Timofeev, YarSU, Russia	Concept of the System to Protect Children's Access to Information in Schools Using the DLP-system and RFID-technology, Ulia Trifonova, Roman Zharinov, SUAI, Russia



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15:20	20m	Alternative biometric, as method of information security of healthcare systems, Kate Andreeva, SUAI, Russia	Realistic Urban Traffic Simulation as Vehicular Ad-Hoc Network (VANET) via Veins Framework, Hamed Noori, TUT, Finland
15:45	15m	Official closing of the 12th FRUCT conference (Saalasti Hall)	



Intensive course on mobile healthcare and the 2nd Regional Seminar on Mobile Healthcare, Early Diagnostics and Fitness

Seminar date: 5-9 November 2012

Place: University of Oulu, Pentti Kaiteran katu 1, Saalasti Hall
Business Kitchen, Torikatu 23 (4th floor), 90100 Oulu

Overview

FRUCT Association and Enterprise Forums (<http://www.kotu.oulu.fi/ef20/>) organize the Regional workshop on Mobile Healthcare, early diagnostics and fitness. Mobile healthcare is fast developing area with a lot of growth potential, research and business opportunities. The seminar is targeted to demonstrate state of the art in field of m-healthcare in Russia and Finland and support exchange of best practices and ideas with other regions. The seminar program consists of an intensive course provided by Prof. Oleg Medvedev (Moscow State University) on Nov 5, workshop on Future business models in e-Healthcare on Nov 5, set of mHealth demos at FRUCT conference demo session on Nov 8 (<http://www.fruct.org/demo12>) and 2 conference sections on Nov 9. The seminar organizers welcome all attendees of the FRUCT conference to join the seminar program.

About Enterprise Forum

Enterprise Forum exists to promote entrepreneurship and business development themes and business cases. The EF sessions are organized as thematic evening session with two main goals: find new solutions for business renewal and managerial challenges as well as promoting entrepreneurship.

Professor of the Intensive Course: Oleg S. MEDVEDEV

Scientific career: in 1970 graduated from the First Medical Institute in Leningrad with MD degree; 1972 got Ph.D. in Medical Sciences; 1984 got Doctor of Science in Medicine 1984; 1990 appointed as Full Professor at Lomonosov Moscow State University (MSU).
1982 – 1992 Head of Experimental Pharmacology lab at Cardiology Research Center
1992 – 2000 Dean and founder of the Faculty of Basic Medicine at MSU
1992 – now Chair of the Department of Pharmacology at MSU
2004 – now Professor of Baumann Moscow Technical University



Fields of interest and expertise: pharmacology and physiology of the cardiovascular system, medical informatics, telemedicine, m-health. Has strong profile of scientific publication and cooperation projects, e.g., with Institute of Pharmacology, MIT (USA), University of Heidelberg (Germany), University of Goteborg (Sweden), University of Iowa (USA), Baker Medical Research Institute (Australia), Waseda University (Japan), etc.

Statement of Prof. Oleg Medvedev: The space program has played the key role in development of e-Health technologies in USSR and Russia. The country has over twenty years of highly isolated medicine informatization with very limited external contacts. Main tendencies in development and implementation of EHRs and PHRs are on the levels of healthcare provider, regional and national. The main problem of developed solutions is lack of common interfaces and interoperability with the existing systems. Nowadays Russian state is an active player in this field, e.g., it recently launched the Governmental program of informatization for 2011-2012 and the special facilitating role is given to the Skolkovo Foundation.

Seminar Program

November 5 (Monday)

09:00-15:00 University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

16:30-20:00 Business Kitchen, Torikatu 23 (4th floor), 90100 Oulu

Intensive course: m-Healthcare and e-Healthcare: motivations, current status, objectives and trends		
Room: TA105 (Arina-Sali)		Trainer: Oleg Medvedev
09:00	15m	Registration
09:15	1h	Problems in healthcare that stimulate implementation of e-Health



10:15	15m	Break
10:30	1h	Current state of e-Health technologies in Europe
11:30	1h	Objective need in monitoring of health
12:30	1h	Lunch break
13:30	1h	Trends in developing sensors and user interfaces in m-health
14:30	30m	<i>Consultations by Prof. Oleg Medvedev</i>
Workshop: m-Healthcare and e-Healthcare: Future business models (organized together Enterprise Forum 2.0)		
Room: Business Kitchen (Torikatu 23, 4 th floor)		Chairman: Petri Ahokangas
16:30	30m	Registration and Coffee
17:00	30m	Keynote talk: Current state of m-Health and e-Health technologies in Russia, Oleg Medvedev, Moscow State University, Russia
17:30	30m	Keynote talk: Current state in e-Health applications in Finland, Kalevi Virta University of Oulu, Center for Health and Technology, Finland
18:00	2h	Panel discussion on future business models for m-Healthcare and e-Healthcare
20:00		Closing of Day 1

November 8 (Thursday)

University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

18:00	30m	Preparation to Demo Session
Session: Conference social event combined with Demo session and presentation of demos in Pecha Kucha format		
Room: Hall near room TS101		Chairman: Ilya Paramonov
18:30	2.5h	Demo Session and Social Event

November 9 (Friday)

University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

09:00	15m	Registration and Day Agenda
09:15	45m	Invited talk: Business models and healthcare, Petri Ahokangas, University of Oulu, Finland
Session: Mobile Healthcare, Early Diagnostics and Fitness I		
Room: Saalasti Hall		Chairman: Alexey Shveykovskiy
12:00	40m	Smartphones as receptors in a global nervous system of humanity, Esko Alasaarela, University of Oulu, Finland
12:40	20m	Research of MEMS accelerometers features in mobile phone, Maxim Grankin, Elizaveta Khavkina and Alexander Ometov, SUAI, Russia
13:00	20m	Detection of Ventricular Arrhythmias on a Smartphone, Alexander Borodin, Artem Pogorelov and Yuliya Zavyalova, PetrSU, Russia
13:20	20m	Mobile Phone Sensors in Health Applications, Evgeny Stankevich, Ilya Paramonov and Ivan Timofeev, YarSU, Russia
13:40	20m	Decision support information system for hardly diagnosing diseases, Yury Apanasik, Irina Shabalina and Larisa Kuznetsova, PetrSU, Russia
14:00	30m	Coffee break (near Saalasti Hall)
Session: Mobile Healthcare, Early Diagnostics and Fitness II		
Room: Saalasti Hall		Chairman: Alexander Borodin
14:20	20m	Heart Rate Measuring Using Mobile Phone's Camera, Denis Laure, YarSU, Russia
14:40	20m	UbiHomeServer Front-end to the Ubiquitous Home Environment, Vadym Kramar, Markku Korhonen and Yury Sergeev, Oulu University of Applied Sciences, Finland
15:00	20m	Doctor search service using Geo2tag LBS Platform for mobile healthcare applications, Kirill Krinkin and Ivan Bezyazychnyy, SPbETU, Russia
15:20	20m	Alternative biometric, as method of information security of healthcare systems, Kate Andreeva, SUAI, Russia
15:45	15m	Official closing of the 12 th FRUCT conference (Saalasti Hall)



Intensive course and hands-on training on 3D Internet Programming with realXtend

Training date: 6 November 2012

Place: University of Oulu, Pentti Kaiteran katu 1, room G0223

Overview

realXtend Tundra is a 3D application platform that can be used to implement a wide range on interactive multi-user applications. In these sessions we will look into the realXtend Tundra architecture, learn how to import your own 3D content and developing application as Tundra javascript with easy to more advanced examples. The main focus will be on script development, if you want to participate material (code, assets, etc.) will be distributed during the sessions.

Pre-requirements

Attendees shall have modern PC for development with Windows XP or later. Tundra will be provided as a prebuilt SDK. Your favorite IDE/text editor if you want to participate/write along in coding JavaScript. Material will be distributed to participants during the sessions. You can follow and modify the scripts on your own as we go through them. Note that Tundra development can be done on Windows, Linux and Mac OS X but this will require you to build the SDK before hand, we won't be covering the build system at the event see more at <https://github.com/realXtend/naali#readme>.

The packaged virtual world client can be used on Windows and Mac OS X operating systems. This can be used to login to example worlds even if you don't want to participate in coding.

Program

November 6 (Tuesday)

University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

Training: 3D Internet Programming with realXtend

Room: G0223

Trainer: Jonne Nauha

09:00	15m	Registration
09:15	45m	What is realXtend Tundra? What is Meshmoon?
10:00	15m	Coffee break
10:15	1h	Introduction to realXtend Tundra architecture
11:15	1h	Introduction to content creation and import
12:15	45m	Lunch break
13:00	2h	Tundra Scripting
15:00	15m	Coffee break
15:15	2h45m	Tundra Scripting (cont.)
18:00		Closing of Day 2



ENPI KA-322 project Seminar on E-Tourism in Karelia and Oulu Region

Seminar date: 7 November 2012

Place: University of Oulu, Pentti Kaiteran katu 1, room G0101

Overview

The seminar is organized within scope of ENPI Karelia CBC KA-322 project. It provides great opportunity to foster dialogue and mutual knowledge between academic researchers and tourism business representatives and targets to support develop of R&D and practical cooperation between Finnish and Russian ICT and Tourism business experts. The seminar is aimed at creating a platform for exchanging experiences and best practices of using perspective approaches and latest information technologies for the development of e-tourism services and infrastructures in Karelia and Oulu regions. The main seminar organizers are Center for Internet Excellence (University of Oulu), FRUCT Oy, Petrozavodsk State University, St. Petersburg Institute for Informatics and Automation of Russian Academy of Sciences, and Tourist Information Centre of the Republic of Karelia.

The seminar program consists of a number of presentations that present experience and best practices of e-Tourism solutions in the world and initiates discussion for a set of ideas of the innovative tourists services adapted to the needs and specifics of Karelia and Oulu Region. Second part of the seminar consists of two parallel tracks:

- 1) Round table discussion on what other e-Tourism services and solutions might be beneficial for Karelia and Oulu Region, primary meant for the tourism industry business experts;
- 2) Technological training on Open Source Geo2Tag platform (geo2tag.org).

For more information and latest updates of the seminar program please visit the seminar web page www.fruct.org/e-tourism1.



St. Petersburg Institute for Informatics and Automation of RAS

Geo2Tag platform training

Geo2tag is an open source platform that facilitates development of Location based services. It provides comprehensive set of programming interfaces and system services like high performance database for geotags, spatial and content filter engine, tag aggregation and other. Unlike traditional analogs of LBS services (like wikimapia, yandex/google maps) that can be used for building mobile applications, the users can install their own instance of Geo2tag platform and so gain total control on resources, security, performance and high availability.

At the moment platform has RESTful API consists of more than 20 functions, which is built on HTTP/JSON technologies. The main features are: tag management, time and area filters, spatial filters for indoor services, client libraries for Java and C++. In addition several mobile clients for Android and Qt platforms are available. Geo2tag is still under development and a set of new features, e.g., user management, multi database support, channel/tag aggregation, map widget, will be released by the end of 2012.

The main goal of this training is introduction into Geo2tag architecture, technologies and use-cases. Participants will get practical experience in installation platform and development of small mobile application.

Training Agenda

- Geo2tag architecture overview;
- Installation process: how to get working platform in 5 min;
- Client libraries for Qt and java overview;
- Raw JSON interface;
- Practical examples



Pre-requirements

You should have basic experience of programming on Java and Qt plus elementary knowledge of Linux. We recommend having your own laptop for exercises.

Program

November 7 (Wednesday)

University of Oulu, Pentti Kaiteran katu 1, 90570 Oulu

Seminar: ENPI KA-322 project Seminar on E-Tourism in Karelia and Oulu Region		Chairman: Mika Ylianttila
Room: GO101		
08:30	45m	Seminar Registration and Coffee (Hall near room GO101)
09:15	15m	Presentation of ENPI Karelia CBC KA-322 project, Anton Shabaev, PetrSU, Russia
09:30	15m	Overview of e-Tourism solutions from other regions, Irina Shabalina and Kirill Kulakov, PetrSU, Russia
09:45	15m	Intelligent services for context-oriented tourists support in Karelia Republic, Alexey Kashevnik, SPIIRAS, Russia
10:00	15m	Ideas of e-Tourism services for Karelia region, Kirill Kulakov, PetrSU, Russia
10:15	15m	Presentation of Tourist Information Center of Republic of Karelia, Alexey Tigushkin, Tourist Information Center of Republic of Karelia, Russia
10:30	15m	Meri City Tunturi project developing winter tourism in Oulu region, Jonne Taponen, Oulu City Centre Association, Finland
10:45	15m	Engaging airline travelers in feedback sharing: Oulu airport case, Agnis Stibe, University of Oulu, Finland
11:00	1h	Round Table discussion on e-Tourism solutions required for Republic of Karelia and Oulu Region
		Training: Geo2Tag platform training Room: IT135 Trainer: Kirill Krinkin



Demo Session of the 12th FRUCT conference

Time: 8 November 2012, 18:30-21:00; Place: University of Oulu, Pentti Kaiteran katu 1, Hall near room TS101

The Demo section of the 12th FRUCT conference will be combined with the demo session of the Regional seminar on Mobile Healthcare, early diagnostics and fitness and with the conference social event. The first part is a promotional section to present/introduce demo projects to the public. Presentations will be done following the Pecha Kucha style. Main idea of this section is to make people aware of the demo and become interested to visit the demo stand at the second part of the session. During the second part of demo session teams get a place to install the demo and poster. If you have some special requirements please contact organizing committee by email info@fruct.org.

Pecha Kucha Presentation Format

Pecha Kucha is a presentation technique where a speaker shows a definite number of slides (usually 20 or 15), each for 20 seconds. The slides are changed automatically during the talk. The main intention for Pecha Kucha presentation style is to prevent participants from being too verbose and to make their talks more dynamic and impressive.

Pecha Kucha Night is an event where each speaker uses Pecha Kucha presentation, and speakers change each other in non-stop fashion. Initially invented by architects, this kind of event is often used to present creative projects or work; nowadays it is also used for R&D talks too. Pecha Kucha Night format allows all participants to make announcements about their demos in attractive and time-efficient way. That is why we have chosen this format for demo promotion section at FRUCT conference. More information can be found at <http://www.fruct.org/demo12>.

How to prepare Pecha Kucha presentation

Here is an instruction on how to prepare your Pecha Kucha style presentation for Demo promotion section. Your presentation must contain exactly 10 slides, and each of them will be displayed for 20 seconds. The slides will be changed automatically. So, the whole presentation will take exactly 3 minutes 20 seconds (it should be noted that usually Pecha Kucha presentation has 20 slides, but we have to reduce that number in half due to a large amount of submitted presentations). Provide the information about yourself and your presentation on the first slide (name, institution, title of your presentation).

The main purpose of your talk would be to interest people, so your presentation should make absolutely clear the main ideas of your project and explain what you plan to show at the demo stand. Make your presentation fascinating to attract attendees and avoid technical details in your talk. Reveal one main idea on each slide. Do not overload your slides with information. Remember, that each slide is displayed only for 20 seconds. Place no more than 2 lines of text per slide, or one big picture. Avoid using slide titles. Do not duplicate the same slides in your presentation — it is cheating! If you see that 20 seconds for a particular slide is not enough for you, try to decouple it into the two or more, or omit the details. Do not place “Thank you” or “Q&A” slides in the presentation. Pecha Kucha session does not imply any questions from the auditory. All the questions will be asked afterwards in a poster room. Prepare your speech thoroughly and beforehand. As you have only 20 seconds per slide, it is quite impossible to improvise during the talk. Rehearse your speech several times to be sure in the absence of pauses when you wait for the slide change, or accelerations when you fails to follow your slides. Try to speak in the same pace during all the presentation. It definitely depends on your text, so try to prepare near the same amount of text in speech for each slide.

Check list

- Use exactly 10 slides.
- Place information about yourself and your presentation (name, institution) on the first slide.
- Reveal one main idea on each slide.
- Place no more than 2 lines of text or 1 large image per slide.
- Do not duplicate the same slides, do not place “Thank you” or “Q&A” slides in the presentation
- Do not use any slide change animation
- Prepare your speech thoroughly and do not forget to rehearse it



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List of Demos (preliminary list based on submissions done by Oct 22)

1. Benefits of cooperative offloading in cognitive radio networks, H. Malik, J. Niemela, M. Makelainen, H. Tuomivaara, H. Saarnisaari, CWC, University of Oulu, Finland
2. UbiHomeServer Front-end to the Ubiquitous Home Environment demo, V. Kramar, M. Korhonen, Y. Sergeev, Oulu University of Applied Sciences, Finland
3. Architecture of a semantic framework for E-Tourism applications, D. Zamula, National Research University of Information Technologies, Mechanics and Optics, Russia
4. Blood Pressure Diary—Personal Arterial Pressure Monitoring Tool, E. Mamedov, E. Stankevich, Yaroslavl State University, Russia
5. TicksInfo Application: Information Guide on Ticks and Diseases They Transmit, I. Timofeev, V. Mikryukov, Yaroslavl State University, Russia
6. Finnish Broadcast Search Engine, Mika Rautiainen, University of Oulu, Finland
7. FRUCT Social Network, V. Kirkizh, St-Petersburg State University of Aerospace Instrumentation and M. Komar, Yaroslavl State University and V. Petrov, Tampere University of Technology, Finland
8. The Application for Arrhythmia Detection CardiaCare, A. Borodin, A. Pogorelov, Y. Zavyalova, Petrozavodsk State University, Russia
9. mHealth applications on BlackBerry 10 platform, M. Yatskovskiy, Moscow State University, Russia
10. Pulse Detector, D. Laure, Yaroslavl State University, Russia
11. Interest Management in Tundra 2, K. Vajtus-Anttila, University of Oulu
12. Visualizing Pedestrian Traffic using the Oulu 3D City Model, M. Pouke, University of Oulu
13. Tundra Portal - Multiple connections in a real space, J. Vajtus-Anttila, University of Oulu
14. Realizing 3D Web Scanning, J. Hyvärinen, University of Oulu
15. The basic elements of the security mechanisms for the Smart Space Smart-M3 platform, K. Yudenok, K. Krinkin, Saint-Petersburg Electrotechnical University (ETU)
16. Multitasking in a 3D User Interface: The service Fusion Demonstration, S. Hickey, University of Oulu.
17. Smart Room Service Set at Petrozavodsk State University: Initial State, I. Galov, D. Korzun, Petrozavodsk State University, Helsinki Institute for Information Technology (*will be presented at Web Technologies and Semantic Web session*)



FOR NOTES



FOR NOTES

The 12th Conference of Open Innovations Association FRUCT and Seminar on e-Travel

Program

Oulu, Finland
November 5-9, 2012

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CALL FOR PARTICIPATION

13th Conference of Open Innovations

Association FRUCT

Petrozavodsk, Russia, 22-26 April 2013



Overview

FRUCT is the largest regional cooperation framework between academia and industry in form of open innovations. FRUCT conferences are attended by the representatives of 20 FRUCT member universities from Russia, Finland, Denmark, Italy, Ukraine, industrial experts from Nokia, Qt community, EMC², Ericsson, Nokia Siemens Networks, Siemens and a number of guests from other companies and universities.

The conference is an R&D forum for the most active students, academic experts, industrial researchers and influential representatives of business and government. The conference invites the world-class academic and industrial researchers to give lectures on the most relevant topics, provides an opportunity for student teams to present progress and results of their R&D projects, meet new interesting people and form new R&D teams. The conference program consists of 3 to 5 intensive (½ or full day) trainings on the most promising technologies, plus 3 days of the main conference.

We warmly welcome all university research teams to participate in the conference, present your research and join the FRUCT Program. Thanks to our sponsors, all participants can enjoy free of charge registration to the event, but the online registration must be done by everyone before the conference.

Background and motivation

The distinctive feature of modern IT and Telecommunications industries is in dramatic shortening of the period when technology remains commercially viable. On the one hand, this is due to the competition between key market players that are pushing all manufacturers to accelerate innovations; on the other hand, this is due to technological progress speed up caused by the growing expansion of intellectual resource invested into R&D and design activities. This trend is an important call and challenge for the leading educational and research institutions around the globe. In the FRUCT we believe that it is crucial to combine forces of EU and Russia to follow up the competition in adopting university education to the new industrial trends. The first step is to strength a bridge between Russian and Finnish academic worlds, increase visibility of involved research teams and set direct personal contacts between academic and industrial experts. More information about FRUCT is available at www.fruct.org.

Call for papers and presentations

Submit your full papers (up to 12 pages) and extended abstracts (min 200 words, max 2 pages) for project in progress and poster/demo by **February 25, 2013**. All submitted papers will be peer reviewed by the technical committee. Please follow provided paper templates. The list of conference topics is as follows:

- Mobile-Health, fitness and medical mobile solutions
- Open source cross-platform development, Mobile Linux
- Cross-platform development and improvement of Qt platform
- Internet of things, smart spaces, context analysis and data mining
- Technology proofing, modeling, verification, validation, testing techniques
- Smart grids, energy management and alternative sources, green technologies
- Software and services for mobile devices, future applications design, UIs
- Mobile device security, management of personal and business privacy
- Design and optimization of emerging wireless network technologies
- Energy efficient design of sensors, integration of peripherals
- Modern network architectures, air interfaces and protocols
- Inter-device connectivity, embedded networks, co-design
- Mobile multimedia and video services and solutions

All conference papers and abstracts will be published in FRUCT proceeding and selected papers will be recommended for IEEE publication. The paper templates, conference news and updates, information on accommodation and all other details can be found from web page <http://www.fruct.org/conference13>.