



# Program

## The 11th Conference of Open Innovations Association FRUCT and 1st Regional Seminar on Mobile Healthcare, Early Diagnostics and Fitness

St-Petersburg, Russia  
23-27 April 2012





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!



# Organization Committee of the 11th Conference of Open Innovations Association FRUCT and 1st Regional Seminar on Mobile Healthcare, Early Diagnostics and Fitness

General Chair: Sergey Balandin  
Local Chair: Veronika Prokhorova  
Conference Secretaries: Anton Sergeev, Ekaterina Dashkova

## Program Committee

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Liang Zhou (Technical University of Munich, Germany)



# The program of 11<sup>th</sup> FRUCT conference in St-Petersburg

## April 23-27, 2012 St-Petersburg, Russia

All events are free of charge, but all participants must be registered at [www.fruct.org/conference11](http://www.fruct.org/conference11)

On April 23-24: Saint-Petersburg State Electrotechnical University "LETI", Prof. Popova 5, Building 3

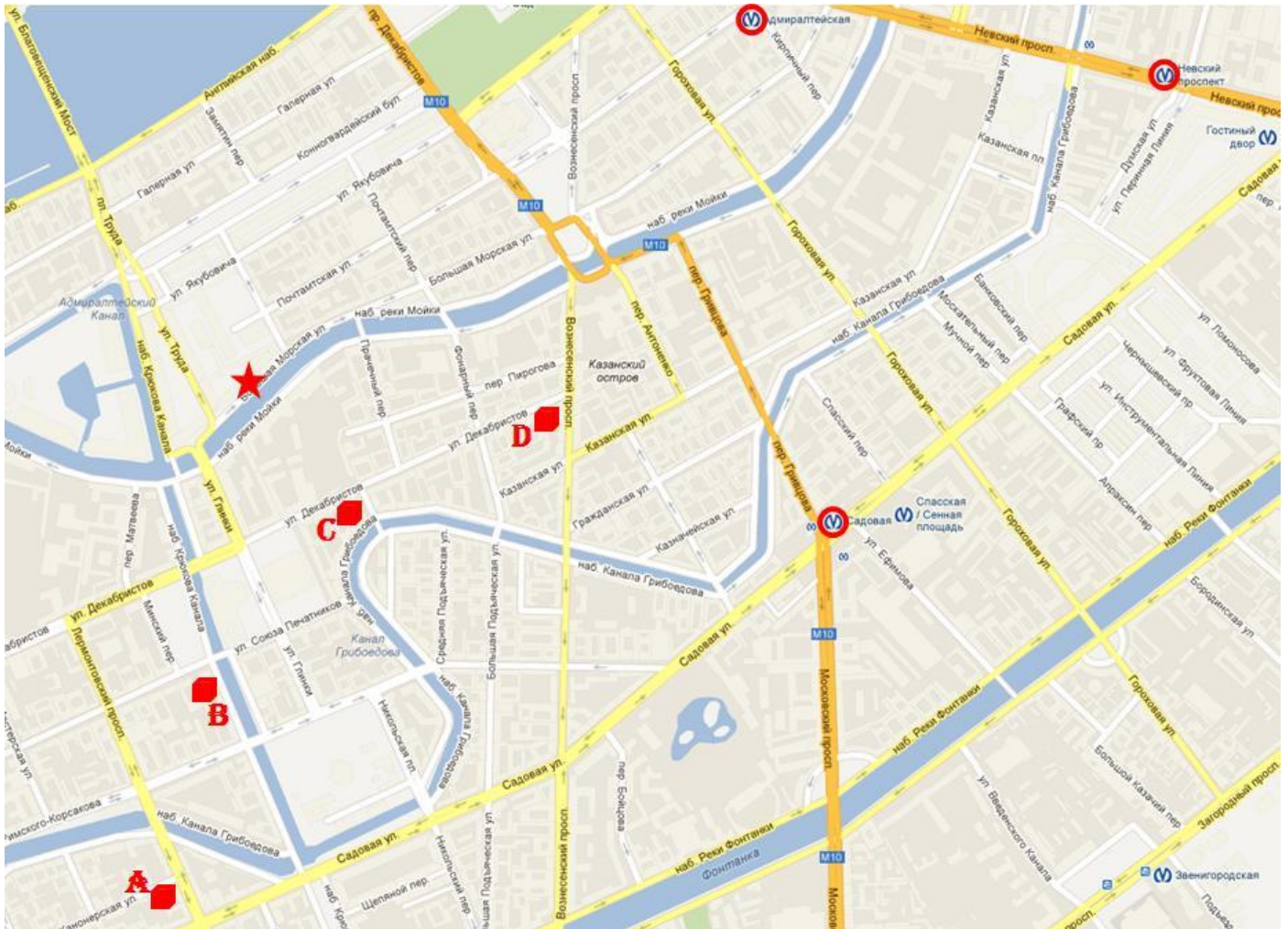
On April 25-27: Saint-Petersburg State University of Aerospace Instrumentation, Bolshaya Morskaya, 67

DATE	TIME	PROGRAM	
23.04.12	09.00-18.00	QML for Mobile Development Training (in Russian): Getting started with QML, SPbETU "LETI", Prof. Popova 5, Building 3, room 3402	
24.04.12	09.00-18.00	QML for Mobile Development Training (in Russian): Graphics and Components, SPbETU "LETI", Prof. Popova 5, Building 3, room 3402	
25.04.12	09.00-12.00	QML for Mobile Development Training (in Russian): Extra components and capabilities, SUAI, Bolshaya Morskaya 67, room 53-03	ENPI project meeting (only by invitation), SUAI, Bolshaya Morskaya 67, room 52-45
	12.00-14.00	<b>Opening of 11<sup>th</sup> FRUCT conference</b> , SUAI, Bolshaya Morskaya 67, Main conference-hall Welcome words and the main plenary session of the conference Keynote talk: Cross platform hybrid Internet applications, Knut Yrvin, Nokia	
	14.00-14.30	<b>Coffee break (Main conference-hall)</b>	
	14.30-16.10	Qt and cross platform solutions session, SUAI, Main conference-hall	
	16.10-16.40	<b>Coffee break (Main conference-hall)</b>	
	16.40-18.30	FRUCT info session - Status, News and Web WG meeting, SUAI, Main conference-hall	
	18.30-21.00	<b>Meeting of the FRUCT Advisory Board (only by invitation)</b>	
26.04.12	09.00-11.00	Opening and Plenary session of the 1 <sup>st</sup> Regional Seminar on Mobile Healthcare, Early Diagnostics and Fitness, SUAI, Bolshaya Morskaya 67, Main conference-hall	
	11.00-11.30	<b>Coffee break (Main conference-hall)</b>	
	11.30-13.00	Mobile Healthcare, Early Diagnostics and Fitness session I, SUAI, Main conference-hall	Modeling of Embedded Solutions session, SUAI, Bolshaya Morskaya 67, room 53-03
	13.00-14.00	<b>Lunch break</b>	
	14.00-15.30	Mobile Healthcare, Early Diagnostics and Fitness session II, SUAI, Main conference-hall	Embedded Solutions session, SUAI, Bolshaya Morskaya 67, room 53-03
	15.20-15.50	<b>Coffee break (Main conference-hall)</b>	
	15.50-18.00	Mobile Healthcare Working Group meeting, SUAI, Main conference-hall	Network technologies session, SUAI, Bolshaya Morskaya 67, room 53-03
	18.00-18.30	Preparation to the Demo Session and Social Event, SUAI, Main conference-hall	
18.30-21.00	<b>Demo Session and Social Event</b> , SUAI, Bolshaya Morskaya 67, Main conference-hall		
27.04.12	09.00-11.00	Future of Telecommunications and Services session, SUAI, Main conference-hall	Mobile Linux session, SUAI, Bolshaya Morskaya 67, room 53-03
	11.00-11.30	<b>Coffee break (Main conference-hall)</b>	
	11.30-13.00	Semantic Web and Knowledge mining session, SUAI, Main conference-hall	Qt and Mobile Linux WG meeting, SUAI, Bolshaya Morskaya 67, room 53-03
	13.00-14.00	<b>Lunch break</b>	
	14.00-15.40	Privacy and Security session, SUAI, Main conference-hall	Smart-M3 Platform session, SUAI, Bolshaya Morskaya 67, room 53-03
	15.40-16.00	<b>Coffee break (Main conference-hall)</b>	
	16.00-17.30	Smart Spaces and IoT WG meeting, SUAI, Main conference-hall	Legal training-seminar: Patents and Copyright (in Russian), SUAI, Bolshaya Morskaya 67, room 53-03
	17.45-18.00	<b>Official closing of 11<sup>th</sup> FRUCT conference</b> , SUAI, Main conference-hall	



## Practical Information

The FRUCT conference on April 25-27 will be held in the main building of SUAI University on Bolshaya Morskaya, 67 (marked by red star) in the center of St-Petersburg, not far from St. Isaak cathedral. You can get there from metro "Nevsky prospect" by trolleybus 5, 22 or bus 22, 3, 27, or by walking from metro "Admiralteystvo" or "Sadovaya" (marked by (M)). The recommended hotels are marked by red cubes: A-Azimut, B-Premier, C-History, D-"Year 1913".



Note: SUAI building has security control on the entrance. In order to get access to the conference you **must register** via the conference web [www.fruct.org/conference11](http://www.fruct.org/conference11) (registration is free of charge). For your convenience, inside the building there are signs to help find conference rooms, places for coffee breaks, lunch place and other facilities.



# Smart Conference User Client Installation Guide

## Installation of SmartConference and SmartScribo clients for N900

- 1) Connect to Extras-Devel repository. To install Extras-Devel repository open applications manager and create catalog: catalogue name: Extras-Devel; web address: <http://repository.maemo.org/extras-devel/>; distribution: fremantle; components: free non-free.
- 2) Find the SmartConference package and install it.
- 3) At the start of application you need to set IP address, port, and SIB name provided by conference organizers.
- 4) After installing SmartConference client, download the latest SmartScribo deb-package from: <http://sourceforge.net/projects/smartscribo/files/BlogClients/Maemo5/>
- 5) Install the package and launch SmartScribo client. If some dependencies were not resolved, then install the additional required packages
- 6) The first launching creates the config file ~/.smartscribo/config. It can be edited in a dialog window with field for IP address of SIB.
- 7) Fill the correct value (provided by conference organizers) and press OK. These preferences can be changed anytime in Settings window from Menu->Settings->Change settings SIB.

To switch between SmartConference / SmartScribo: do **Switch on Scribo** in SmartConference client; in SmartScribo client choose **Switch on SCS**. Read more: <https://sourceforge.net/projects/smartconference/files/Documentation>.  
The SmartScribo user guidelines: <http://gitorious.org/smart-scribo/smart-scribo/blobs/master/UserGuide.pdf>.

## Smart Conference Client Installation Guide for Symbian

Smart Conference Client for Symbian supports only Anna and Belle versions of the operating systems. To install the application:

- 1) Go to <http://yar.fruct.org/projects/sc-clients/files> and download the installation SIS file of the most recent version of the client suitable for your Symbian release.
- 2) Run the installation file and follow instructions of the wizard to complete the installation.

If you do not have Qt libraries installed on your device, they will be downloaded and installed automatically.

If an error occurred during the installation, select **Smart installer** from the main menu. This will finish the installation properly.

## Smart Conference Client Installation Guide for Android

- 1) Go to <http://yar.fruct.org/projects/sc-clients/files> and download the .apk file of the most recent version of the client.
- 2) Run the .apk file to install the application.
- 3) Run the Smart Conference Client from the application list.
- 4) If Ministro II is not installed on your system, you will be prompted to install it. Click **yes**. It will launch Google Play, on the Ministro II page. Download and install Ministro II.
- 5) After the Ministro II installation, you will get a warning that the Smart Conference client needs extra libraries to run. You will be prompted to download them. Click **yes**. It will start required libraries download.

After downloading of the required libraries the application is ready to use.

Downloading should not be interrupted, otherwise the application will not run. In this case go to Settings → Applications → Manage applications → Ministro and click **Clear data**. Then restart the Smart Conference client, and try to download all required libraries again.

## Configuration of Smart Conference Clients for Symbian and Android

After the start of the application the configuration page appears. In order to participate in the conference either as a presenter or a visitor you must specify the following information:

- 1) The IP address and port of the Smart Space provided by conference organizers.
- 2) The user's personal information and photo on the **Personal information editor** screen.
- 3) PDF presentation on the **Presentation information editor** screen (*to participate as a presenter only*).

When you have done the client configuration, press the **Connect** button to establish connection with the conference smart space, or the **Exit** button to close the client. In both cases, the settings will be saved.

To get the most recent information on the Smart Conference clients for Symbian and Android visit the following web page: [http://yar.fruct.org/projects/sc-clients/wiki/User\\_manual](http://yar.fruct.org/projects/sc-clients/wiki/User_manual).



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April 23-27, 2012 St-Petersburg, Russia

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## April 23 (Monday)

Saint-Petersburg State Electrotechnical University "LETI", Prof. Popova 5, Building 3

Training: QML for Mobile Development: Getting started with QML

Room: 3402

Trainer: Kirill Krinkin

<b>08:30</b>	30m	<b>Registration (room 3402)</b>
<b>09:00</b>	1.5h	Introduction into QtQuick and QML. Technology overview, Introduction to QML, architecture
<b>10:30</b>	15m	<b>Coffee break</b>
<b>10:45</b>	1.5h	Basic elements (Item, Rectangle, Image, Text, Component, MouseArea), Property Binding, Component Layouts, Layouts and Anchors Application as states and transitions. Animations
<b>12:15</b>	45m	<b>Lunch break</b>
<b>13:00</b>	1.5h	Using QtCreator and tools for QML Apps. Mastering with tools, project structure discussion. Deploying QML application to device
<b>14:30</b>	15m	<b>Coffee break</b>
<b>14:45</b>	1.5h	QML and JS integration
<b>16:15</b>	1h45m	Work on project
<b>18:00</b>		<b>Closing of Day 1</b>

## April 24 (Tuesday)

Saint-Petersburg State Electrotechnical University "LETI", Prof. Popova 5, Building 3

Training: QML for Mobile Development: Graphics and Components

Room: 3402

Trainer: Kirill Krinkin

<b>09:00</b>	1.5h	Data models and views. Model View Controller approach, components with models, delegates. XmlListModel
<b>10:30</b>	15m	<b>Coffee break</b>
<b>10:45</b>	1.5h	Page based applications. Application and windowing, Page and page stack navigation
<b>12:15</b>	45m	<b>Lunch break</b>
<b>13:00</b>	1.5h	Integration QML with C++
<b>14:30</b>	15m	<b>Coffee break</b>
<b>14:45</b>	1.5h	Networking. Getting access to the Internet, using WebView.
<b>16:15</b>	1h45m	Work on project
<b>18:00</b>		<b>Closing of Day 2</b>



**April 25 (Wednesday)**

**Saint-Petersburg State University of Aerospace Instrumentation, Bolshaya Morskaya, 67**

<b>Training:</b> QML for Mobile Development: Extra components and capabilities		Trainer: Kirill Krinkin
<b>Room:</b> 53-03		
<b>09:00</b>	1.5h	QML and Mobility. Multimedia. Playing sounds and video. Reading input from camera
<b>10:30</b>	75m	Location components. Getting GEO position, using maps applets
<b>10:00</b>	2h	<b>Registration (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>
<b>Session:</b> Official opening of 11 <sup>th</sup> FRUCT conference		Chairman: Sergey Balandin
<b>Room:</b> Main conference-hall		
<b>12:00</b>	15m	Opening of the 11 <sup>th</sup> FRUCT conference and welcome words from State University of Aerospace Instrumentation and General Consulate of Finnish Republic in St-Petersburg
<b>12:15</b>	15m	Skolkovo Technology Challenges, Albert Efimov, Skolkovo, Russia
<b>12:30</b>	30m	EIT ICT Labs: Bringing ICT to Life in Europe, Marko Turpeinen, EIT ICT Labs Helsinki Node, Finland
<b>13:00</b>	20m	Russian IT industry in 2011: new trends and opportunities, Valentin Makarov, Russoft, Russia
<b>13:20</b>	40m	Keynote talk: Cross platform hybrid Internet applications, Knut Yrvin, Nokia, Norway
<b>14:00</b>	30m	<b>Coffee-break (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>
<b>Session:</b> Qt and cross platform solutions		Chairman: Knut Yrvin
<b>Room:</b> Main conference-hall		
<b>14:30</b>	20m	Preprocessor Based Approach for Cross-Platform Development with Qt Quick Components, Ilya Paramonov, Andrew Vasilev, Denis Laure, Nikita Kozhemyakin, Yaroslavl State University, Russia
<b>14:50</b>	20m	Firepoint: Application for Identified Fires Notification, Inessa Sofronova, Artem Timonin, Artem Kalinin, Alexander Troshkov, Alexander Borodin, Kirill Kulakov, Petrozavodsk State University, Russia
<b>15:10</b>	20m	Interactive Metro Map for Moscow and St.-Petersburg, Nikita Karpinsky, Evgeny Linsky, Alexander Malakhov, State University of Aerospace Instrumentation, Russia
<b>15:30</b>	20m	Context-awareness feature in Octotask task manager, Denis Laure, Ilya Paramonov, Yury Krupin, Andrey Vasilev, YarSU, Russia
<b>15:50</b>	20m	EcoWatch - a social mobile service for environmental monitoring, Alexander Borodin, PetrSU, Russia
<b>16:10</b>	30m	<b>Coffee-break (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>
<b>Session:</b> FRUCT info session - Status, News and Open Meeting of Web Working Group meeting		Chairman: Sergey Balandin
<b>Room:</b> Main conference-hall		
<b>16:40</b>	30m	Overview of FRUCT: current status and latest updates and presentation of NordSecMob program, Sergey Balandin, FRUCT, Finland
<b>17:10</b>	20m	Personalization of the FRUCT social network, Valery Kirkizh, SUAI, Russia; Vitaly Petrov, Tampere University of Technology, Finland; Maria Komar, Polina Shishkina, YarSU, Russia
<b>17:30</b>	1h	Planning of the FRUCT program future and Web WG open discussion
<b>18:30</b>		<b>Closing of Day 2 followed by the meeting of FRUCT Advisory Board</b>





April 26 (Thursday)

Saint-Petersburg State University of Aerospace Instrumentation, Bolshaya Morskaya, 67

<b>09:00</b>	30m	<b>Registration and Day Agenda (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	
<b>Session:</b> Opening and Plenary session of the Regional Seminar on Mobile Healthcare, Early Diagnostics and Fitness			
<b>Room:</b> Main conference-hall		Chairman: Alexander Borodin	
<b>09:30</b>	45m	Mobile Healthcare in Russia, Oleg Medvedev, Moscow State University, Russia	
<b>10:15</b>	45m	Secure Remote Monitoring of Personal Medical Appliances, Andrei Gurtov, University of Oulu, Finland	
<b>11:00</b>	30m	<b>Coffee-break (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	
<b>Session:</b> Mobile Healthcare, Early Diagnostics and Fitness I		<b>Session:</b> Modeling of Embedded Solutions	
<b>Room:</b> Main conference-hall		<b>Room:</b> 53-03	
Chairman: Andrei Gurtov		Chairman: Valentin Olenev	
<b>11:30</b>	20m	IT and Medicine. Interdisciplinary collaboration: Skolkovo case, Albert Efimov, Skolkovo; Ivan Stoliarov, MSU, Russia	SDL/SystemC co-simulation and code auto-generation, Michel Gillet, Nokia, Finland
<b>11:50</b>	45m	Motivating people to be physically active: the role of technology and web, Konstantin Pekarskiy, Technogym SPA, Russia	Possibility of SystemC code generation from SDL specification, Pavel Morozkin, SUAI, Russia
<b>12:35</b>	20m	Remote Monitoring of Human Body Joint Pains with Nokia N900 device, Tn Nagabhusan, S.P. Shiva Prakash, SJCE, India; Suresh Chande, Nokia, Finland; Prabhu Shankar, Emroy University, USA	Code-generator of parallel assembly code for digital signal processor, Nikita V. Bukharenko, SUAI, Russia
<b>13:00</b>	1h	<b>Lunch break</b>	
<b>Session:</b> Mobile Healthcare, Early Diagnostics and Fitness II		<b>Session:</b> Embedded Solutions	
<b>Room:</b> Main conference-hall		<b>Room:</b> 53-03	
Chairman: Oleg Medvedev		Chairman: Michel Gillet	
<b>14:00</b>	20m	Visualization of Human Posture Based on Accelerometer Data, Evgeny Tsvetkov, PetrSU, Russia	Adaptive libraries for multicore architectures with explicitly-managed memory hierarchies, Konstantin Nedovodeev, SUAI, Russia
<b>14:20</b>	20m	Sport Training System Based on ECG Monitor, Evgeny Stankevich, Ilya Paramonov, YarSU, Russia	High-Level System-on-Chip Simulator, Aleksandr Orlov, Alexey Syschikov, SUAI, Russia
<b>14:40</b>	20m	Cross-platform ECG Compression Library for Mobile HealthCare Services, Alexander Borodin, Yuliya Zavyalova, PetrSU, Russia	SpaceWire network performance evaluation during the streaming STP data transmission, Ilya Korobkov, SUAI, Russia
<b>15:00</b>	20m	Mobile Arrhythmia Detector, Yuliya Zavyalova, Alexander Borodin, PetrSU, Russia	Plug & Play for SpaceWire networks: centralized algorithm, Ksenia Khramenkova, SUAI, Russia
<b>15:20</b>	30m	<b>Coffee-break (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	
<b>Working Group meeting:</b> Mobile Healthcare		<b>Session:</b> Network technologies	
<b>Room:</b> Conference-hall		<b>Room:</b> 53-03	
Chairman: Oleg Medvedev		Chairman: Andrey Ovchinnikov	
<b>15:50</b>	30m	Mobile Healthcare Working Group meeting	Invited talk: Simulations and QoS in Modern Mobile Networks, Dmitry Petrov, Magister Solution Oy, Finland
<b>16:20</b>	40m		Application perspective on wireless communication medium challenges, Pekka Jappinen, LUT, Finland
<b>17:00</b>	20m		Beaconing In A Highway Scenario: Vulnerable Vehicles Problem, Ali Bin Tariq, TUT, Finland
<b>17:20</b>	20m		Fuzzy logic queue discipline processing over bottleneck link, Vladimir Deart, Andrey Maslennikov, MTUCI, Russia
<b>17:40</b>	20m		On the Progress of Test Bench Development for IEEE 802.11-based WLAN Models Verification, Vitaly Petrov, Sergey Andreev, TUT, Finland; Maxim Egorov, YarSU, Russia
<b>18:00</b>	30m	<b>Preparation of the main conference-hall to Demo Session and Social Event</b>	Methods to improve the efficiency of IPTV services, Alexey Borodinsky, PJSC Rostelecom, Russia
<b>Session:</b> Conference social event combined with Demo session and presentation of demos in Pecha Kucha format			
<b>Room:</b> Main conference-hall		Chairman: Ilya Paramonov	
<b>18:30</b>	2.5h	<b>Demo Session and Social Event (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	



April 27 (Friday)

Saint-Petersburg State University of Aerospace Instrumentation, Bolshaya Morskaya, 67

<b>09:00</b>	<b>15m</b>	<b>Registration and Day Agenda (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	
<b>Session:</b> Future of Telecommunications and Services		<b>Session:</b> Mobile Linux	
<b>Room:</b> Main conference-hall		<b>Room:</b> 53-03	
Chairman: Valtteri Niemi		Chairman: Timofey Turenko	
<b>09:15</b>	<b>45m</b>	Future Telecommunications to make the Information Society a seamless reality, Roberto Saracco, Telecom Italia, Italy	Cgroups as a Resource Management Technique, Vladimir Zapolskiy, Nokia, Finland
			Implementing Automatic Handover Solutions for Linux-based Mobile Devices, Nickolay Amelichev, FRUCT OSLL LETI, Russia
<b>10:00</b>	<b>20m</b>	Mediator based Approach for Smart Spaces Integration, Yury Korolev, Kirill Yudenok, OSLL LETI lab, Russia	Spatial filters implementation for Geo2Tag LBS platform, Vasiliy Romanihin, Mark Zaslavskiy, Kirill Krinkin, FRUCT OSLL LETI lab, Russia
<b>10:20</b>	<b>20m</b>	Smart space logistic service for real-time ridesharing, Alexey Kashevnik, Nikolay Teslya, SPIIRAS, Russia	Traffic prediction in wireless mesh networks using process mining algorithms, Eugene Kalishenko, Kirill Krinkin, FRUCT OSLL LETI, Russia
<b>10:40</b>	<b>20m</b>	SmartDiet - Personal Wellbeing Assistant and Diet Planner Mobile Service, Ekaterina Dashkova, TUT, Finland; Regina Dorokhova, OSLL LETI lab, Russia	Power-saving routing algorithms in wireless mesh networks: A survey, Tn Nagabhushan, S.P.Shiva Prakash, SJCE, India; Kirill Krinkin, LETI, Russia
<b>11:00</b>	<b>30m</b>	<b>Coffee-break (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	
<b>Session:</b> Semantic Web and Knowledge mining		<b>Working Group meeting:</b> Qt and Mobile Linux	
<b>Room:</b> Main conference-hall		<b>Room:</b> 53-03	
Chairman: Roberto Saracco		Chairman: Timofey Turenko	
<b>11:30</b>	<b>45m</b>	Context-driven data mining and knowledge extraction, Vladimir Gorodetsky, SPIIRAS, Russia	Meeting of Qt and Mobile Linux Working Group
<b>12:15</b>	<b>20m</b>	OWL-ontology visualization tool, Pavel Smirnov, Dmitry Mouromtsev, ITMO, Russia	
<b>12:35</b>	<b>20m</b>	Using Drool rule-platform for the optical CAD web-application development, Dmitry Mouromtsev, Maxim Kolchin, ITMO, Russia	
<b>13:00</b>	<b>1h</b>	<b>Lunch break</b>	
<b>Session:</b> Privacy and Security		<b>Session:</b> Smart-M3 Platform	
<b>Room:</b> Main conference-hall		<b>Room:</b> 53-03	
Chairman: Pekka Jappinen		Chairman: Alexey Kashevnik	
<b>14:00</b>	<b>40m</b>	Privacy in mobile communications, Valtteri Niemi, Nokia, Finland	Smart-Space Working Group Activity Overview in 2011-2012, Alexey Kashevnik, SPIIRAS, Russia
			A demo blog recommendation system for SmartScribo, Diana Zaiceva, Dmitry Korzun, PetrSU, Russia
<b>14:40</b>	<b>20m</b>	Security key distribution while transmitting via an optical fibre with polarization and absorption, Anna Sotnikova, George Miroshnichenko, ITMO, Russia	Synchronization Problems in Parallel Activity of SmartScribo Blog Processors, Rustam Kadirov, Ivan Galov, Dmitry Korzun, PetrSU, Russia
<b>15:00</b>	<b>20m</b>	Maemo/MeeGo platform security: great framework or story of a failure, Timofey Turenko, FRUCT, Finland	SmartSlog knowledge patterns: initial experimental performance evaluation, Pavel Vanag, Dmitry Korzun, PetrSU, Russia
<b>15:20</b>	<b>20m</b>	Smart-M3 security activity, Kirill Yudenok, OSLL LETI, Russia	Evaluation of the Smart Space Approach in Mobile Data Processing, Sergey Marchenkov, Pavel Vanag, Dmitry Korzun, PetrSU, Russia
<b>15:40</b>	<b>20m</b>	<b>Coffee-break (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	
<b>Working Group meeting:</b> Smart Spaces and Internet of Things		<b>Legal Training:</b> Patents and Copyright (in Russian)	
<b>Room:</b> Main conference-hall		<b>Room:</b> 53-03	
Chairman: Sergey Balandin		Trainer: Vyacheslav Turenko	
<b>16:00</b>	<b>1.5h</b>	Smart Spaces and Internet of Things WG meeting	
<b>17:45</b>	<b>15m</b>	<b>Official closing of 11<sup>th</sup> FRUCT conference, SUAI, Bolshaya Morskaya 67, Main conference-hall</b>	



# The 1st Regional Seminar on Mobile Healthcare, Early Diagnostics and Fitness

Seminar date: 26 April 2012

Place: SUAI, Bolshaya Morskaya 67, Main conference-hall

## Overview

Association FRUCT supported by Nokia University Cooperation Program in Russia organizes the first Regional seminar 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 CIS and exchange best practices and ideas with other regions. The seminar program consists of invited lectures given by the top experts in the field and presentation of students' research and development projects. The seminar organizers welcome all attendees of the FRUCT conference to join the seminar and become a member of FRUCT Mobile Healthcare working group.

## Program of the Seminar

April 26 (Thursday)

Saint-Petersburg State University of Aerospace Instrumentation, Bolshaya Morskaya, 67

09:00	30m	<b>Registration and Day Agenda (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	
<b>Session:</b> Opening and Plenary session of the Regional Seminar on Mobile Healthcare, Early Diagnostics and Fitness		Chairman: Alexander Borodin	
<b>Room:</b> Main conference-hall			
09:30	45m	Mobile Healthcare in Russia, Oleg Medvedev, Moscow State University, Russia	
10:15	45m	Secure Remote Monitoring of Personal Medical Appliances, Andrei Gurtov, University of Oulu, Finland	
11:00	30m	<b>Coffee-break (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	
<b>Session:</b> Mobile Healthcare, Early Diagnostics and Fitness I		Chairman: Andrei Gurtov	
<b>Room:</b> Main conference-hall			
11:30	20m	IT and Medicine. Interdisciplinary collaboration: Skolkovo case, Albert Efimov, Skolkovo; Ivan Stoliarov, MSU, Russia	
11:50	45m	Motivating people to be physically active: the role of technology and web, Konstantin Pekarskiy, Technogym SPA, Russia	
12:35	20m	Remote Monitoring of Human Body Joint Pains with Nokia N900 device, Tn Nagabhushan, S.P. Shiva Prakash, SJCE, India; Suresh Chande, Nokia, Finland; Prabhu Shankar, Emroy University, USA	
13:00	1h	<b>Lunch break</b>	
<b>Session:</b> Mobile Healthcare, Early Diagnostics and Fitness II		Chairman: Oleg Medvedev	
<b>Room:</b> Main conference-hall			
14:00	20m	Visualization of Human Posture Based on Accelerometer Data, Evgeny Tsvetkov, PetrSU, Russia	
14:20	20m	Sport Training System Based on ECG Monitor, Evgeny Stankevich, Ilya Paramonov, YarSU, Russia	
14:40	20m	Cross-platform ECG Compression Library for Mobile HealthCare Services, Alexander Borodin, Yuliya Zavyalova, PetrSU, Russia	
15:00	20m	Mobile Arrhythmia Detector, Yuliya Zavyalova, Alexander Borodin, PetrSU, Russia	
15:20	30m	<b>Coffee-break (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	
<b>Session:</b> FRUCT Mobile Healthcare Working Group face-to-face meeting (cont.)		Chairman: Oleg Medvedev	
<b>Room:</b> Main conference-hall			
15:50	2.1h	FRUCT Mobile Healthcare Working Group face-to-face meeting, Chairman: Oleg Medvedev	
18:00		<b>Closing of the Seminar Program</b>	
<b>Session:</b> Conference social event combined with Demo session and presentation of demos in Pecha Kucha format		Chairman: Ilya Paramonov	
<b>Room:</b> Main conference-hall			
18:30	2.5h	<b>Demo Session and Social Event (SUAI, Bolshaya Morskaya 67, Main conference-hall)</b>	



# QML for Mobile Development Training (in Russian)

Training date: 23-25 April 2012

Place: SPbETU and SUAI universities

С 23 по 25 апреля 2012 года в Санкт-Петербурге, FRUCT при поддержке Nokia проводит открытый и бесплатный тренинг по разработке приложений на QML. Тренинг проводится на базе Санкт-Петербургского Государственного Электротехнического Университета "ЛЭТИ" и Санкт-Петербургского Государственного Университета Аэрокосмического Приборостроения (ГУАП). Приняв участие в тренинге, Вы получите необходимые знания и практические навыки по разработке приложений с использованием технологии QtQuick, и на практике познакомитесь с правилами и порядком регистрации приложений в Магазине Nokia.

## Требования к участникам

Для участия в тренингах необходимо понимать основные концепции программирования и обладать хотя бы небольшим опытом программирования на одном из популярных языков. **Необходимо иметь персональный компьютер с установленным QtSDK** (последнюю версию SDK можно загрузить с сайта <http://qt.nokia.com/>). Также каждый участник тренинга должен:

- зарегистрировать персональную учетную запись в Магазине Нокиа;
- в дни тренинга зарезервировать 3-4 часа в день для самостоятельной работы по заданиям;
- иметь базовое представление о среде разработки Qt.

## Program of the Training

### April 23 (Monday)

Saint-Petersburg State Electrotechnical University "LETI", Prof. Popova 5, Building 3

**Training:** QML for Mobile Development: Getting started with QML

**Room:** 3402

Trainer: Kirill Krinkin

<b>08:30</b>	30m	<b>Registration and Day Agenda</b>
<b>09:00</b>	1.5h	Introduction into QtQuick and QML. Technology overview, Introduction to QML, architecture
<b>10:30</b>	15m	<b>Coffee break</b>
<b>10:45</b>	1.5h	Basic elements (Item, Rectangle, Image, Text, Component, MouseArea), Property Binding, Component Layouts, Layouts and Anchors Application as states and transitions. Animations
<b>12:15</b>	45m	<b>Lunch break</b>
<b>13:00</b>	1.5h	Using QtCreator and tools for QML Apps. Mastering with tools, project structure discussion. Deploying QML application to device
<b>14:30</b>	15m	<b>Coffee break</b>
<b>14:45</b>	1.5h	QML and JS integration
<b>16:15</b>	1h45m	Work on project
<b>18:00</b>		<b>Closing of Day 1</b>

### April 24 (Tuesday)

Saint-Petersburg State Electrotechnical University "LETI", Prof. Popova 5, Building 3

**Training:** QML for Mobile Development: Graphics and Components

**Room:** 3402

Trainer: Kirill Krinkin

<b>09:00</b>	1.5h	Data models and views. Model View Controller approach, components with models, delegates. XmlListModel
<b>10:30</b>	15m	<b>Coffee break</b>
<b>10:45</b>	1.5h	Page based applications. Application and windowing, Page and page stack navigation
<b>12:15</b>	45m	<b>Lunch break</b>
<b>13:00</b>	1.5h	Integration QML with C++
<b>14:30</b>	15m	<b>Coffee break</b>





<b>14:45</b>	1.5h	Networking. Getting access to the Internet, using WebView.
<b>16:15</b>	1h45m	Work on project
<b>18:00</b>		<b>Closing of Day 2</b>

**April 25 (Wednesday)**

**Saint-Petersburg State University of Aerospace Instrumentation, Bolshaya Morskaya, 67**

<b>Training:</b> QML for Mobile Development: Extra components and capabilities		
<b>Room:</b>		Trainer: Kirill Krinkin
<b>09:00</b>	1.5h	QML and Mobility. Multimedia. Playing sounds and video. Reading input from camera
<b>10:30</b>	1h15m	Location components. Getting GEO position, using maps applets
<b>11:45</b>	15m	<b>End of the training. Moving to the Main conference-hall for opening of 11<sup>th</sup> FRUCT conference</b>

Don't forget that in order to participate in the seminar you have to make separate registration at [http://fruct.org/qml\\_spb11](http://fruct.org/qml_spb11)



## Demo Section at 11<sup>th</sup> FRUCT conference

Training date: 26 April 2012, 18:30 - 21:00

Place: SUAI, Bolshaya Morskaya 67, Main Conference hall

The Demo section of the 11th 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](mailto: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://fruct.org/node/304822>.

### List of Demos

1. Multiplatform Client and Pecha Kucha Support for Smart Conference System, by Nikita Kozhemyakin, Yarsolavl State University (YarSU lab) and Ivan Galov, Petrozavodsk State University (PetrSU lab)
2. Interactive Metro Map for Moscow and St.-Petersburg, by Nikita Karpinsky, Evgeny Linsky and Alexander Malakhov, State University of Aerospace Instrumentation (SUAI lab)
3. Location-based service for tracking ThereAndHere, by Regina Dorokhova, Open Source and Linux Lab (OSLL) FRUCT lab and Sofya Kassaye, Moscow State University of Design and Technology
4. Geo2tag client: Doctor Search, by Ivan Bezyazychnyy and Kirill Krinkin, OSLL FRUCT lab
5. Underground - interactive metro map on MeeGo and Symbian, by Nikita Karpinsky, SUAI lab
6. A demo blog recommendation system for SmartScribo, by Diana Zaiceva, PetrSU lab
7. SmartScribo Blog Client for Windows 7, by Stepan Polyakov, PetrSU lab
8. World Around Me client for Windows Phone devices, by Andrey Vdovenko, PetrSU lab
9. Evaluation of the Smart Space Approach in Mobile Data Processing, by Sergey Marchenkov, PetrSU lab
10. EcoTamagochi: Green Behaviour game, by Egor Anisimov, PetrSU lab
11. Firepoint: Application for Identified Fires Notification, by Inessa Sofronova, PetrSU lab
12. Musson: Qt-based platform for social network clients, by Kirill Kulakov, PetrSU lab
13. Learnings of QML development at PetrSU FRUCT lab, by Kirill Kulakov, PetrSU lab
14. Mobile Arrhythmia Detector, by Yuliya Zavyalova, PetrSU lab
15. Ecowatch application, by Alexander Borodin, PetrSU lab
16. Octotask: Context-aware GTD-style Task Organizer, by Denis Laure, YarSU lab
17. Sport Training System Based on ECG Monitor, by Ivan Timofeev, YarSU lab
18. Telemedical Monitoring on Android, by Evgeny Stankevich, YarSU lab
19. FRUCT Social Network, by Valery Kirkizh, SUAI lab
20. CDS: Context desktop for Symbian^3, by Artem Pogorelov, PetrSU lab
21. Using NFC technology in mobile health, by Maxim Jatskovsky, Moscow State University lab
22. Personal diet planning assistant SmartDiet, by Dorohova Regina, OSLL FRUCT lab and Ekaterina Dashkova, Tampere University of Technology



# Legal training-seminar: Patents and Copyright (in Russian)

Training date: 27 April 2012, 16:00 - 17:30

Place: SUAI, Bolshaya Morskaya 67, room 53-03

## Overview

В рамках 11ой FRUCT конференции состоится семинар-тренинг по патентному и авторскому праву. Семинар-тренинг проводится председателем коллегии патентных поверенных Санкт-Петербурга Вячеславом Туренко. На семинаре-тренинге будут рассмотрены вопросы возникновения, использования, защиты прав на результаты интеллектуальной деятельности согласно Российскому законодательству. Будут рассмотрены основания возникновения прав на результаты интеллектуальной деятельности (РИД), различные виды охраняемых РИД, в частности, объекты авторского права, такие как программы для ЭВМ и базы данных и так называемые объекты промышленной собственности – изобретения, полезные модели и промышленные образцы. Также будут вопросы различных видов прав на РИД и передачи прав на РИД. Будут рассмотрены особенности и проблемы связанные с РИД в России. В рамках тренинга будут освещены следующие вопросы:

- что такое результаты интеллектуальной деятельности
- как защитить результаты интеллектуальной деятельности
- зачем и в каких случаях нужен патент на изобретение, полезную модель и промышленный образец
- зачем нужен патент и как его получить
- обсуждение реальных примеров из практики в России
- что можно ожидать со стороны государства

Для участия в семинаре-тренинге не требуется дополнительной регистрации, но все участники должны быть зарегистрированными участниками 11ой FRUCT конференции.



FOR NOTES





FOR NOTES



FOR NOTES

# The 11<sup>th</sup> Conference of Open Innovations Association FRUCT and 1<sup>st</sup> Regional Seminar on Mobile Healthcare, Early Diagnostics and Fitness

## Program

Saint-Petersburg, Russia  
April 23-27, 2012

Printed in Saint-Petersburg State University of  
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# CALL FOR PARTICIPATION

## 12<sup>th</sup> Conference of Open Innovations

# Association FRUCT

## Oulu, Finland, 5-9 November 2012



### 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, EMC<sup>2</sup>, Business Oulu, Nokia Siemens Networks 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](http://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 **September 24, 2012**. 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
- Smart spaces, new services, context analysis and data mining
- Cross-platform development and improvement of Qt platform
- Open source cross-platform development, Mobile Linux, solutions in MeeGo and Android
- Technology proofing, modeling, verification, validation, testing techniques
- 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 management, new sources of energy, green 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/conference12>.