

Program

8th FRUCT Conference

Lappeenranta, Finland
9-12 November 2010



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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Kirill Zelenski (Mobile committee chair, Russoft, Finland)

The program of 8th FRUCT conference

November 9-12, Lappeenranta, Finland

The conference is free of charge, but all participants must be registered at www.fruct.org/conference8

DATE	TIME	SESSIONS		
09.11.10	10.00-10.30	Registration to Libmeegotouch training and FRUCT8 conference (room 6325)		
	10.30-12.30	Libmeegotouch training: Introduction to MeeGo Touch Framework (room 6325)		
	12.30-13.30	Lunch (only for pre-registered participants of Libmeegotouch training)		
	13.30-15:00	Libmeegotouch training: An Application from Scratch (room 6325)		
	15:00-15:30	Coffee-Break (only for pre-registered participants of Libmeegotouch training)		
	15:30-17:00	Libmeegotouch training: The application (room 6325)		
10.11.10	08.30-09.15	Registration to Smart-M3 training and FRUCT8 conference (room 6325)		
	09.15-11.15	Smart-M3 Platform training (room 6325)		
	11.45-12.00	Lunch (only for pre-registered participants of Smart-M3 training)		
	11.00-12.00	Registration to FRUCT8 conference (room 2310)		
	12.00-14.00	Official opening of 8th FRUCT conference (room 2310)		
	14:00-14:15	Coffee-Break		
	14:15-17:30	Smart Spaces & Smart-M3 platform (room 4409-10)		
11.11.10	09.00-09.30	Invited talk: Open Innovations, Marko Torkkeli, LUT, Finland (room 2310)		
	09.30-11:00	Maemo/MeeGo solutions for Social Networking (room 4409-10)	Network Technologies I (room 4504)	
	11:00-11:15	Coffee-Break		
	11:15-12:30	Maemo/MeeGo solutions (room 4409-10)	Network Technologies II (room 4504)	
	12:30-13:00		Lunch	
	13:00-13:30	Lunch (only for pre-registered participants of FRUCT8 conference)		
	13:30-14:00	Lunch		Mobile Multimedia & Video (room 4504)
	14:00-15:30	New Trends in Services (room 2310)		
	15:30-15:45	Coffee-Break		
	15:45-17:15	Publishing Research Results (room 2310)	Network Technologies III (room 4504)	Security training (room 6325)
	17:15-18:00	Smart Spaces WG face-to-face (room 2310)	Maemo/MeeGo WG face-to-face (room 4504)	
	19:00-22:00	Social Event (only for pre-registered participants of FRUCT8 conference)		
12.11.10	09.15-11:30	Security (room 4409-10)		
	11:30-12:30	Lunch (only for pre-registered participants of FRUCT8 conference)		
	12:30-14:00	Embedded Networks and Solutions (room 2310)		
	14:00-14:30	Coffee-Break		
	14:30-17:00	Mobile Software and Services (room 2310)		
	17:00	Official closing of 8 th FRUCT conference (room 2310)		

Libmeegotouch: Touch Everywhere (MeeGo Training)

The training agenda is as follows:

- Introduction to MeeGo Touch Framework
 - How to get started? How do I build it? On which platform?
 - Why would I use MeeGo touch instead of QML/plain Qt in tablets?
 - What kind of tooling support is available for MeeGo Touch?
 - MeeGo Touch resources: community, bugzilla, gitorius, etc.
- An Application from Scratch
 - Choosing our target: tablets/handhelds
 - Setuping our environment: Qt Creator, libmeegotouch, git
 - What visual elements I need? graphics, styles, etc.
 - Coding:
 - Code style
 - Recommended design patterns
 - Localization: How I should code to do my application localizable (multi-languages)?
 - Styles/graphics: How to use? , How manipulates meegotouch the graphics?
 - How MeeGo Touch applications are tested and debugged?
- The application

We will develop a sample an application, while following, the audience may follow us and create an application of their own.

 - My application is done:
 - How can I run my application on a real device (e.g. N900) or emulator?
 - What are the steps to package/publish my application?

Recommended skills for the audience:

- Basic skills of C++ and Qt
- Basic skills in using GNU/Linux platform as development environment

To follow the coding exercise, we recommend bringing with you:

- Laptop with a supported MeeGo development environment (Debian / Ubuntu recommended)
- QtCreator + local copy of libmeegotouch + dependencies (read README at gitorius)

This is the one day training that starts on Nov 9 at 10.00 and continues till 17.00. If you want to take part in the training please register yourself at <http://fruct.org/node/345> (please note that FRUCT conference registration is not enough to enter the training). Looking forward to see you at the training!

Smart-M3 platform training

The training session gives an overview of different available APIs for the Smart-M3 platform and the possible programming models. There is also a hands-on component where a simple application written in python is extended.

Smart-M3 is an interoperability platform that provides mechanisms to share information expressed using RDF. The platform consists of a Semantic Information Broker (SIB) that stores the information, and Knowledge Processors (KP) that can insert, remove, query and subscribe to information. The information is stored in Smart-M3 according to standardized or otherwise agreed ontologies. Information sharing helps the participating KPs to gather relevant context information which leads to more efficient operation and innovative multi-device use cases. For more information about Smart-M3 please check <http://en.wikipedia.org/wiki/Smart-M3>.

The Smart-M3 open source release contains KP APIs for GLib/C, Python, and Qt/C++. The KPs can connect to the SIB by using either TCP/IP or NoTA H_IN protocol. There are also ontology library generators for GLib/C, Python and ANSI-C APIs that allow developers to program using ontology concepts instead of using Smart-M3 basic operations and RDF. The release will be improved with new features such as conditional update and a set of generic KPs helping to process context information.

The training attendees have a choice to follow the training in lecturer-driven mode or take part in hands-on, which assumes the following pre-requirements from the corresponding attendees:

- You should bring own laptop with working installation of Smart-M3. Smart-M3 will available to all developers under open license. To learn more about Smart-M3 installation visit: <http://sourceforge.net/projects/smart-m3/>
- You should have basic knowledge of Python language

The training agenda is as follows:

- Show M3 python API in detail, overview of other APIs
- Different abstraction levels: SSAP vs. using an ontology library
- Hello world example
- Hands-on exercise / detailed demo

This is the half-day training that starts on Nov 10 at 9.00 and continues till 11.30. If you want to take part in the training please register yourself at <http://fruct.org/node/346> (please note that FRUCT conference registration is not enough to enter the training). Looking forward to see you at the training!

Platform Security training

In this hands-on training session we will explore the development environment and coding language for making credential programs in the OnBoardCredentials context, and further to provision them to the platform. The participants get to write their own small authentication credential that is provisioned and run in an emulated instance of ObC.

This is half-day training that starts on Nov 11 at 15.30 and continues till 18.00. If you want to take part in the training please register yourself at <http://fruct.org/node/347> (please note that FRUCT conference registration is not enough to enter the training). Looking forward to see you at the training!



CALL FOR PARTICIPATION

Symbian Development Contest on Mobile Device Energy Spending

We welcome everyone to take a part in a new FRUCT R&D challenge in the field of Energy and Power Management. The contest target is to develop Symbian software which **maximizes** energy consumption of a mobile device. The main idea of this contest is to better understand:

- what are the most energy-consuming components and what are the ways to use them;
- what are the programming modules and design patterns that consumes most power;
- how to simultaneously use maximum number of embedded physical elements of a smartphone.

The target of spending the maximum amount of energy may sound odd but in this way we hope to enhance understanding of energy consuming operations and look at battery consumption from a completely different perspective. The contest application can do whatever, doesn't need good UI, so this approach will allow to really focus on energy-consumption.

The contest winner will be awarded by FRUCT diploma, invitation to present the winner solution at one of the following FRUCT events (the winner will get a choice of at least 3 options) and Nokia N95 8Gb smartphone device.

The contest rules:

- 1) The contest programs will be executed at Nokia N95 8Gb, Nokia 5800 and Nokia N97. The result energy performance will be calculated as an arithmetic mean of the best two tests, i.e. if test will run only on Nokia N95 8GB, the reported result will be based only on one measurement.
- 2) The contest solutions should be regular Symbian applications that can do anything (functionality doesn't matter as long as it consumes a lot of energy), but they must be installed to the phone by using normal application installation procedures.
- 3) The energy measurements will be carried out by Nokia Energy Profiler (NEP), which will be provided on request to all contest participants for local testing. Everything is simple - the solution which has the highest average power consumption according to the NEP measurement is the winner.
- 4) The measurement has to be carried out in the following way. First, the competition software is started and immediately after it NEP is started. After 4 minutes the measurement is stopped. It is not allowed to touch the device during the period of measurement.
- 5) The contest application can initiate as many external connections as it can, but it is not allowed to have external connections, which were not initiated by the application.
- 6) The result of one power measurement is taken as an average power in NEP trace over two minutes interval [for 1st and 3rd minutes]. As said in (1), the final measurement will be counted as the top two scores from measurements on the official contest devices.
- 7) Please note that it is absolutely forbidden to make hardware modification and low level (assembler) hacking! Only regular Symbian applications will be accepted to the contest.
- 8) The contest application should be sent to info@fruct.org and contain the following:
 - a. Installable version of the application (it is allowed to have different installation files for different models of contest devices).
 - b. One-page description of the applied approach to maximize energy spending and how it is implemented.
 - c. Symbian source code of the contest application.
- 9) The contest start at the date of publication of this document and the submissions are accepted till 23.59, December 12 (Helsinki time). The contest result will be published on December 22.

To learn more about the contest we welcome you to attend the special talk "Monitoring of mobile devices energy consumption & Contest rules" that will be given by Gerard Bosch from Nokia Research Center, Helsinki lab. The presentation time is 13:45, in room 2310 of the main building of Lappeenranta University of Technology (in the final part of the "Official Opening of 8th FRUCT conference" session). Also after the 8th FRUCT conference the presentation materials will be published at FRUCT web site. More information is available at <http://www.fruct.org/contest>.

MAKE THE MOST POWER CONSUMING APPLICATION AND WIN!

The program of 8th FRUCT conference

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November 9 (Tuesday)

Lappeenranta University of Technology, Skinnarilankatu 34, 53850 Lappeenranta

10:00	30m	Onsite registration to Libmeegotouch training	
Session: Libmeegotouch training: Introduction to MeeGo Touch Framework			
Room: 6325		Trainers: Adrian Yanes and Dezso Denes	
10:30	2h	Introduction to MeeGo Touch Framework	
12:30	1h	Lunch (only for pre-registered participants of Libmeegotouch training)	
13:30	1.5h	An Application from Scratch	
15:00	30m	Coffee-Break (only for pre-registered participants of Libmeegotouch training)	
15:30	1.5h	The Application	
17:00		Closing of Libmeegotouch training	

November 10 (Wednesday)

Lappeenranta University of Technology, Skinnarilankatu 34, 53850 Lappeenranta

09:00	30m	Onsite registration to Smart-M3 training	
Session: Smart-M3 Platform training			
Room: 6325		Trainer: Jukka Honkola	
09:15	2.5h	<ul style="list-style-type: none"> - Show M3 python API in detail, overview of other APIs - Different abstraction levels: SSAP vs. using an ontology library - Hello world example - Hands-on exercise / detailed demo 	
11:45	45m	Lunch (only for pre-registered participants of Smart-M3 training)	

11:30	30m	FRUCT Conference Registration	
Session: Official Opening of 8th FRUCT conference			
Room: 2310		Chairman: Pekka Jäppinen	
12:00	20m	Welcome to the 8 th FRUCT conference and Greetings	
12:20	20m	FRUCT Program Description, Status and Future Perspectives, Sergey Balandin, FRUCT General Chair	
12:40	20m	FRUCT Web Working Group report, Anton Sergeev, FRUCT Web WG secretary, Russia	
13:00	45m	Keynote lecture: Trends in Mobile SW Development, Sami Pesonen, Digia, Finland	
13:45	15m	Monitoring of mobile devices energy consumption & Contest rules, Gerard Bosch, NRC, Finland	
14:00	15m	Coffee-break	
Session: Smart Spaces & Smart-M3 platform			
Room: 4409-10		Chairman: Kirill Krinkin	
14:15	30m	Invited talk: Cyber foraging, J. Porras, LUT, Finland	
14:45	45m	Smart-M3 Open Source, J. Honkola, NRC, Finland	
15:30	45m	A Smart-M3 lab course: approach and design style to support student projects, L. Roffia, A. D'Elia, F. Vergari, D. Manzaroli, S. Bartolini, G. Zamagni, T. S. Cinotti, J. Honkola, University of Bologna/NRC, Italy/Finland	
16:15	15m	Smart Space-Driven Sustainable Logistics: Ontology and Major Components, A. Smirnov, A. Kashevnik, N. Shilov, H. Paloheimo, H. Waris, S. Balandin, SPIIRAS/NRC, Russia/Finland	
16:30	15m	Mobile Multi-Blogging in Smart-M3: Architecture and Scenarios, D. Zaiceva, I. Galov, A. Sannikov, A. Mezhenin, D. Korzun, PetrSU, Russia	
16:45	15m	M3-Weather: A Smart-M3 World-Weather Application for Mobile Users, A. Samoryadova, I. Galov, P. Borovinskiy, K. Kulakov, D. Korzun, PetrSU, Russia	
17:00	15m	SmartSlog 0.3x: New Ontology Library API and Optimization, D. Korzun, A. Lomov, P. Vanag, PetrSU, Russia	
17:15	15m	Innovation for the Future Internet, J. Noll, CWI, Norway	
17:30		Closing of Day 1	

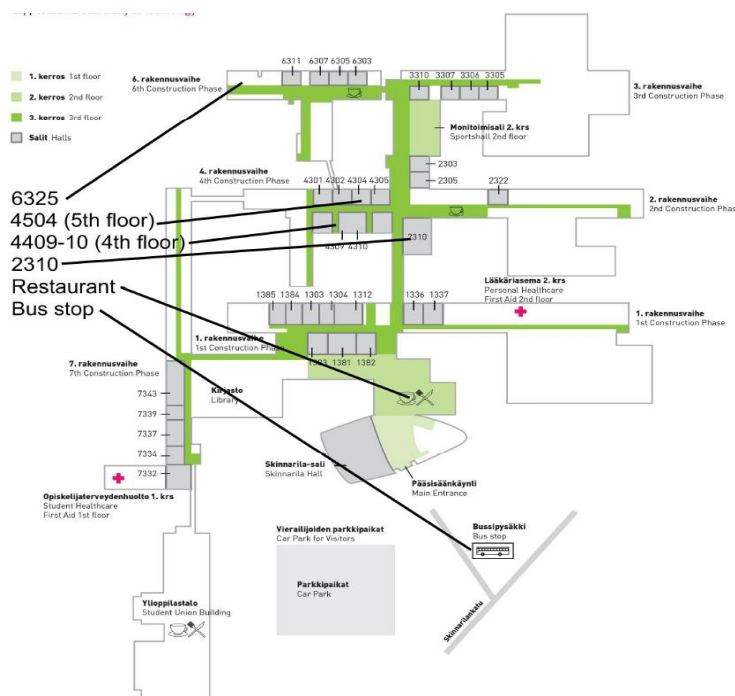
November 11 (Thursday)

Lappeenranta University of Technology, Skinnarilankatu 34, 53850 Lappeenranta

08:45	15m	Registration and Day Agenda	
09:00	30m	<i>Invited talk: Open Innovations, Marko Torkkeli, LUT, Finland (room 2310)</i>	
Session: MAEMO/MeeGo solutions for Social networking		Session: Network technologies I	
Room: 4409-10		Room: 4504	
Chairman: Jukka Honkola		Chairman: Villy Bæk Iversen	
09:30	15m	Russian MeeGo community, T. Turenko, Nokia	Ultra-high throughput converged optical wireless links: challenges and opportunities, K. Prince, X. Yu, DTU Fotonik, Denmark
09:45	15m	Libraries for VKontakte and Facebook Clients: API-based approach, S. Zakharov, P. Shiryaev, K. Kulakov, PetrSU, Russia	
10:00	15m	Maemo-Freemantle Plugins for VKontakte Network and address book, I. Burlak, S. Zaharov, K. Ivashov, V. Dimitrov, K. Kulakov, PetrSU, Russia	
10:15	15m	Telepaty Connection Manager based on libvkontakte library, K. Ivashov, V. Dimitrov, PetrSU, Russia	Client Cooperation Technique Evaluation for Modern Broadband Wireless Networks, S. Andreev, O. Galinina, A. Turlikov, TUT/Speech Technology Center/ SPbSUAI, Finland/Russia
10:30	15m	QMF Plugins for VKontakte and Facebook Networks, P. Shiryaev, K. Kulakov, PetrSU, Russia	Latency Measurement Testbed for Wireless Sensor Networks, S. Lembo, Aalto University, Finland
10:45	15m	Video capturing service with social networks functionality for MeeGo, M. Smirnov, S. Ivanov, NNSU, Russia	Comparative Analysis of Equalization Methods for SC-FDMA, A. Dogadaev, A. Kozlov, A. Ukhanova, SPbSUAI/DTU Fotonik, Russia/Denmark
11:00	15m	Coffee-break	
Session: MAEMO/MeeGo solutions		Session: Network technologies II	
Room: 4409-10		Room: 4504	
Chairman: Timofey Turenko		Chairman: Kamau Prince	
11:15	15m	Test driven approach for porting software to mobile platforms, P. Zubarev, M. Zaslavsky, SPbETU, Russia	Performance modelling of wireless cellular networks, V.B. Iversen, DTU Fotonik, Denmark
11:30	15m	Multi-Blogging with Scribo 0.3x, A. Sannikov, D. Zaiceva, A. Mezhenin, D. Korzun, PetrSU, Russia	
11:45	15m	OpenCV performance on MAEMO/MeeGo, I. Mironov, D. Ilina, NNSU, Russia	
12:00	15m	Maemo/MeeGo Games with Accelerometer-based Control, K. Kirpichenok, V. Dmitriev, A. Sotnikov, V. Dimitrov, PetrSU, Russia	Simulation of 3G/WLAN Offload: First Steps, N. Amelichev, K. Krinkin, SPbETU, Russia
12:15	15m	Mobile Context Toolbox An Extensible Context Framework for the Maemo Platform, A. Stopczynski, J. E. Larsen, L. Skomial, DTU Informatics, Denmark	Analytical model of WiMAX cell in AMC environment, T. Efimushkina, TUT, Finland
12:30	15m	SOA-oriented approach and full distributed approach comparison, E. Kaina, Y. Korolev, SPbETU, Russia	Lunch
12:45	15m	Investigating Simple Task-Performance Behavior, S. Kalwar, K. Heikkinen, J. Porras, LUT, Finland	
13:00	30m	Lunch	
Session: New Trends in Services		Session: Mobile Multimedia & Video	
Room: 2310		Room: 4504	
Chairman: Antti Knutas		Chairman: Roman Dunaytsev	
13:30	30m	Lunch	
14:00	15m	Implementing Embedded Web Interaction System for Conferences, A. Knutas, LUT, Finland	Spline-based image interpolators and decimators: design and efficient implementation, K. Egiazarian, A. Gotchev, TUT, Finland
14:15	15m	Expert control system of convenience of User Interface, D. Ilina, M. Smirnov, I. Lysenkov, NNSU/HSE, Russia	Quality Estimation for Scalable Video Coding, A. Ukhanova, K. Mazhar, DTU Fotonik/KTH, Denmark/Sweden

14:30	15m	Measuring the Feelings of Users to Reduce Internet anxiety, S. Kalwar, K. Heikkinen, J. Porras, LUT, Finland	Video coding based on three-dimensional discrete pseudo cosine transform, E. Belyaev, SPIIRAS, Russia
14:45	15m	Scheduling home appliances for energy efficient buildings, A. Rossello-busquet, G. Kardaras, V.B. Iversen, J. Soler, L. Dittmann, DTU Fotonik, Denmark	Video transmission in broadband optical-wireless links, A. Lebedev, A. Ukhanova, T.T. Pham, N.G. Gonzalez, DTU Fotonik, Denmark
15:00	15m	Aspects of a messages-bus based communications framework in multi-modal and multi-device environment to support independent living of elder people, P. Heinilä, LUT, Finland	Increasing the information capacity of digital images in telecommunication systems, N. Voloshina, S. Bezzateev, V. Minchenkov, SPbSUAI, Russia
15:15	15m	Knowledge management system for the Saint-Petersburg Museum of Optics, D. Mouromtsev, Y. Katkov, I. Pochinok, A. Zlobin, J. Valcenko, SPbSU ITMO/SPbETU, Russia	Power consumption issues for wireless video transmission, A. Ukhanova, DTU Fotonik, Denmark
15:30	15m	Coffee-break	
Session: Publishing Research Results		Session: Network Technologies III	
Room: 2310 Chairman: Arto Kaarna		Room: 4504 Chairman: Karen Egiazarian	
15:45	45m	Publishing Research Results: The Research Process, A. Kaarna, LUT, Finland	Traffic optimization techniques for P2P systems, R. Dunaytsev, TUT, Finland
16:30	45m	Publishing Research Results: The Writing Process, P. Jones, LUT, Finland	Power consumption profile of N900 in video streaming application, A. Pyattaev, TUT, Finland
			Performance Evaluation of Packet Re-ordering on Concurrent Multipath Transmissions for IPTV, G. Mansour, SPbSUT, Russia
Closing of Day 2			
17:15	45m	Smart Spaces Work Group face-to-face meeting (Room 2310)	Maemo/MeeGo Work Group face-to-face kick-off meeting (Room 4504)
18:00	3h	Social event	

**Platform security training
(Room 6325)**
Trainer: Jan-Erik Ekberg



November 12 (Friday)

Lappeenranta University of Technology, Skinnarilankatu 34, 53850 Lappeenranta

09:00	15m	Registration and Day Agenda
Session: Security		
Room: 4409-10		Chairman: Alexey Dudkov
09:15	1h	Hardware platform security and ObC, J.-E. Ekberg, Nokia, Finland
10:15	15m	Enforcing Privacy Policies in Mobile Context-Aware Services, W. Oyomno, P. Jäppinen, E. Kerttula, LUT, Finland
10:30	45m	Maemo/Meego platform security, J.-E. Ekberg, Nokia, Finland
11:15	15m	On The Security Of Online Banking, A. Sergeev, V. Minchenkov, SPbSUAI, Russia
11:30	1h	Lunch
Session: Embedded Networks and Solutions		
Room: 2310		Chairman: Sergey Balandin
12:30	15m	RMAP and STP protocols modelling over the SpaceWire SystemC model, V. Olenev, I. Korobkov, N. Martynov, A. Shadursky, SPbSUAI, Russia
12:45	15m	CCSDS Packet Transfer Protocol for space applications, A. Dmitrov, SPbSUAI, Russia
13:00	15m	SystemC/SDL co-modelling: the protocol SDL models Tester, V. Olenev, A. Stepanov, I. Lavrovskaya, SPbSUAI, Russia
13:15	15m	Embedded Operating Systems for Microprocessor Architecture MIPS32, S. Osmolovsky, SPbSUAI, Russia
13:30	15m	Methods for real-time data delivery with SpaceWire, D. Raszhivin, SPbSUAI, Russia
13:45	15m	An End-to-End flow control mechanism for improvement data delivery reliability in SpaceWire, A. Abramov, SPbSUAI, Russia
14:00	30m	Coffee-break
Session: Mobile Software & Services		
Room: 2310		Chairman: Jari Porras
14:30	15m	HiveMind: Cross-platform Application for Collaborative Mind Mapping, A. Vasilev, A. Golovchenko, A. Kulikov, I. Paramonov, Yaroslavl SU, Russia
14:45	15m	Development of interactive applications with multimodal interfaces for mobile devices, S. Glazkov, SPIIRAS, Russia
15:00	15m	Comparison of Modern Mobile Platforms from the Developer Standpoint, R. Dorokhova, N. Amelichev, SPbETU, Russia
15:15	15m	Location-based Services in Public Buildings: LIST for N900, G. Serebryakov, D. Bepalov, I. Mironov, B. Vasilev, S. Sosnin, NNSU, Russia
15:30	15m	Web-system for Mobile Meeting Participant Support, A. Ronzhin, M. Prischepa, V. Budkov, SPIIRAS, Russia
15:45	15m	Mobile sport motion capture system, A. Kuznetsov, SPbSU ITMO, Russia
16:00	15m	Musical Engineering in JamMo, M. Gynther, H. Hedberg, LUT/University of Oulu, Finland
16:15	15m	Synchronization of personal information between mobile devices and web-based services, B. Clair, LUT, Finland
16:30	15m	Implementation of UMSIC Group Management Service, J. Laakkonen, T. Kallonen, K. Heikkinen, LUT, Finland
16:45	15m	A Communication Middleware Quality Enhancement with Qt Framework, K. Kolehmainen, LUT, Finland
17:00		Official closing of 8th FRUCT conference



FOR NOTES



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FOR NOTES



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8th Conference of Open Innovations Framework Program FRUCT

Program

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CALL FOR PARTICIPATION

9th Conference of Open Innovations Framework Program FRUCT Petrozavodsk, Russia, 26-29 April 2011

Overview

The FRUCT Program is one of the largest regional academia-to-industry and university-to-university cooperation frameworks. The conferences are attended by the representatives of over 15 FRUCT universities from Russia, Finland and Denmark, and industrial experts from Nokia, Nokia Siemens Networks and Symbian Foundation, a number of guests from other companies and universities.

The conference is a forum for the most active students, a chance to meet colleagues from industrial research and to learn more about the FRUCT initiative. The conference provides an opportunity for student teams to present progress and results of their ongoing R&D projects and attend lectures given by the top academic and industrial experts. Traditionally the conference program consists of 1.5-2 days of intensive training for the hottest technologies and 2.5-3 days of the conference presentations.

We warmly welcome all university research teams to participate in the conference, present your research and join the FRUCT Program. Participation is free, but requires pre-registration.

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. For more information about the FRUCT program please visit www.fruct.org.

Call for papers and presentations

You are welcome to submit your full paper or "presentation only" (based on 150-500 words abstracts) proposals by **February 25, 2011**. The list of the conference focus topics is provided below, but you also welcome to propose new challenging R&D subjects:

- Open source solutions, development and maintenance of mobile OSS MeeGo
- Smart spaces, new use cases for well known devices, integration of peripherals
- Inter-device connectivity, embedded networks, hardware/software co-design
- Software and services for mobile devices, design of future applications and UIs
- Technology proofing, modeling, verification and validation, testing techniques
- Security for mobile devices, management of personal and business privacy
- Design and optimization of emerging wireless network technologies
- Energy management, new sources of energy, green technologies
- Modern network architectures, air interfaces and protocols
- Mobile multimedia and video services and solutions
- Mobile-Health, Fitness and Medical mobile services

The paper template and further details available at: <http://www.fruct.org/conference9>.