Smart-Space Working Group Activity Overview

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Smart Space Working Group Mission

Mission of the Smart Space Working Group is as follows:

- Creation and prototyping of solutions based on principles of the **smart spaces paradigm** and ubiquitous computing
- Development and promotion of the **smart space solutions** for the users of **mobile devices**
- Analysis and creation of the corresponding **use cases** and **business models**
- Elaboration of other competences to provide competitive advantages for the work group members at the emerging market of **smart spaces services**

At the moment all activities of the working group are related to **Smart-M3** platform that has been developed by the Artemis JU programme in Sofia and in Finnish national DIEM project.
Smart Space Working Group Members

- Sergey Balandin (FRUCT, WG co-chair)
- Jukka Honkola (Innorange, WG co-chair)
- Alexey Kashevnik (SPIIRAS, WG secretary)
- Pekka Jappinen (LUT)
- Alfredo D'Elia (Nokia)
- Yury Korolev (SPbETU)
- Dmitry Korzun (PetrSU)
- Kirill Krinkin (SPbETU)
- Evgeny Linsky (SUAI)
- Alexander Malahov (SUAI)
- Ilya Paramonov (YarSU)
- Luca Roffia (Bologna University)
- Andrew Vasilev (YarSU)
- Michel Banatre (IRISA)
- Vladimir Gorodetsky (SPIIRAS)
- Oleg Kandaurov (ITMO)
- Alexey Koren (SUAI)
- Vesa Luukkala (Nokia)
- Jari Porras (LUT)
- Alexander Pyattaev (TUT)
- Vladimir Sayenko (KTURE)
- Marina Turenko (FRUCT)
Current Working Group Projects

- **Current Projects:**
  - Core SmartConference system (**SPIIRAS**)
  - SmartLogistics system (**SPIIRAS**)
  - Audio-visual support system for Mobile E-meeting Participant (**SPIIRAS**)
  - Smart Scribo system (**PetrSU**)
  - Web extensions for Smart Conference System (**SUAI**)
  - Integration Smart conference and live journal (**SPbETU**)
  - HiveMind for SmartConference system (**YaSU**)
  - C# KPI for Smart-M3 (**UNIBO**)
  - Smart Space Control Panel (**UNIBO**)

- **Completed Projects:**
  - M3-Weather: A Smart-M3 Forecast Widget for Mobile Users (**PetrSU**)
  - An ANSI C Code Generator for the Smart-M3 Platform (**PetrSU**)

**SPIIRAS**
Smart-M3 Platform Overview

- **Smart-M3 includes:**
  - SIB: Devices and software entities (applications) can publish their embedded information for other devices and software entities through simple, shared Service Information Brokers.
  - The interface for managing information in the SIB is provided by Knowledge Processors (KP)
  - The understandability of information is based on the usage of the common RDF ontology models and common data formats.

- **Smart-M3 allows user KP to:**
  - add,
  - remove,
  - change, and
  - subscribe, on information in SIB.
SmartConference System: Introduction

- Intelligent system based on Smart-M3 platform for automation of the conference management processes
- It provides conference participants with the following possibilities:
  - control of presentations using mobile devices without any connection cables;
  - change profiles using mobile devices and share it to the smart space;
  - access information about another participants (information on profiles and presentations);
  - independent browsing of presentations of other participants;
  - see current presentation on the projector screen and on the own mobile device;
  - see conference agenda on the whiteboard screen and on the mobile device;
- Also the system includes automated scheduling system which shows remaining time for the current participant and reminders to presenters when the presentation time is over
SmartConference System: General Architecture

Participant’s Software  Smart Space  Services

User KP 1
KP

User KP 2
KP

...  

User KP n
KP

Smart Spaces

External Services
KP  Ontology

Whiteboard
KP  Ontology

Projector
KP  Ontology

Participant’s Software

Smart Space

Services
SmartConference System: Ontology

- has subclass
- has individual
- part-of
- presents
- shows
- visited by
- have
- is_occupied_by
- is_not_occupied_by
# SmartConference System: Whiteboard

The current presentation is highlighted by yellow.

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00 - 13:20</td>
<td>Alexey Kashevnik</td>
<td>Smart Space Working Group Activity Overview</td>
</tr>
<tr>
<td>13:00 - 13:20</td>
<td>Diana Zaiceva</td>
<td>A Blogging Application for Smart Spaces</td>
</tr>
<tr>
<td>13:20 - 13:40</td>
<td>Alexander Ronzhin</td>
<td>An audiovisual system of monitoring of participants in the smart space</td>
</tr>
<tr>
<td>13:40 - 14:00</td>
<td>Ivan Galov</td>
<td>Blogging in the Smart Conference System</td>
</tr>
<tr>
<td>14:00 - 14:20</td>
<td>Aleksandr Lomov</td>
<td>Blogging in the Smart Conference System</td>
</tr>
<tr>
<td>18:00 - 18:20</td>
<td>Alexander Belahov</td>
<td>Extensions for Smart Conference</td>
</tr>
</tbody>
</table>

This speaker is absent now.

For this speaker photo is not available.

This buttons allows to change the order of presenters.

This buttons allows to start conference from the selected speaker.

This buttons allows to stop the conference.

Scheduled time for the presentation end.

Full screen button.
SmartConference System: User Interface on Nokia N900 device

- Agenda of the conference like in the whiteboard
- The current presentation is highlighted by yellow
- Participant can see the current slide in his/her mobile device
- Participant can see and edit his/her profile
- Participant can see information and presentation of chosen presenter
SmartConference System: Remote Control of Presentation

- Current slide of user presentation
- This button allows to start playing video specified in user profile
- Buttons for presentation control
- Current slide number and total amount of slides
- Time left till the scheduled end of presentation
- Presenter have to press this button when he/she is completed the presentation
SmartConference System: User Profile Information

Information about participant specified in user profile

Presentation information filled the same way

Refresh specified in Photo URL user’s photo

Path to the presenter’s photo. It is needed to keep the photo in the www folder of web-server running on N900 device
Conclusion

- Smart space working group virtual meetings are provided in every two weeks by Fridays.

- Welcome to the Smart Space Working Group (please contact to me or Sergey Balandin if are interested in participation).

- Please inform me about ideas of how-to improve SmartConference system.

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http://www.fruct.org/smart
Thank you for Attention
Questions are Welcome

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