**Overall Architecture and Main Features**

MOTEL consists of two main components:

- **MuRobA**, a coordinated multi-robot architecture for enabling controlled mobility of the sensor nodes, and
- **FLEXOR**, a flexible sensor network architecture for enabling backchannel-free WSN experiments.

MOTEL is in progress and here we present the general architecture design of both MuRobA and FLEXOR, along with our first demonstration of the whole system.

**Flexible Runtime Management Software Architecture for WSN**

FLEXOR consists of:

- Automatic code generation of modules and management
- Modular, flexible design of different system instances via system specifications
- Several system specifications concurrently loadable on a single system (sensor node)
- Complete re-use of available modules (protocols, applications, algorithms, etc.)
- Remote debugging, status inquiries and data logging
- Independent from specific hardware (currently for TinyOS and OMNeT++)

**Future Work**

- Implement a remote testbed control unit for FLEXOR as well as MuRobA.
- Extend MuRobA for other types of robots (autonomous rechargeable robots for full autonomy of the remote testbed)
- Add a physical connection between sensor nodes and robots.
- Extend MOTEL for outdoor environments

**Further Information**

- [http://www.youtube.com/watch?v=y26U9WB4LV0](http://www.youtube.com/watch?v=y26U9WB4LV0)