

# Institute of Cybernetics NAS of Ukraine Valentyna Cherepynets valentyna.cherepynets@incyb.kiev.ua

This presentation is for

Workshop 4 internet of Things

#### **Description of the Organization**



- Glushkov Institute of Cybernetics (GIC) of National Academy of Sciences of Ukraine (NASU) is a widely known in Ukraine and abroad scientific center for solution of fundamental and applied problems in computer science and engineering.
- GIC is a developer of the fastest Ukrainian supercomputer SCIT-4 and one
  of the mainframes of Ukrainian GRID supercomputing network which
  takes part in European Grid Infrastructure projects.
- Since 2006 GIC participated in 150+ R&D projects with partners from US,
   Canada, EU and other countries.

#### **Description of your research interest**



- Department staff consists of 33 employees (researchers and software developers) and PhD students. 14 team members have PhD degree.
- The team has designed and developed a number of parallel, distributed data processing and computational applications, desktop, web, real-time software, hardware complexes and ready-to-use systems.
- Research interests and activities include: HPC, distributed computing, grids, clouds; microelectronics, Internet of Things (IoT), Smart Houses; ecology monitoring, intelligent city infrastructures; 3D seismic waves algorithms and software, geophysics; 3D scanning and printing of objects from the real world.

# IoT-03-2017 (RIA) R&I on IoT integration and platforms

#### Smart network for air pollution monitoring



#### Objectives:

- to create extensible smart network and expandable open source platform for independent air quality monitoring
- to make the united monitoring system
- to analyse and implement the collected data

#### Expected results

- system of sensors measuring the air pollution to be installed in problem areas of the city
- united monitoring system
- reducing the air pollution, improving the national health and quality of life

#### In progress / done

 project is being implemented in Kyiv, Ukraine. Created and installed a network of sensors that successfully monitors air pollution in a residential complex, located near the factory.

# Consortium - profile of known partners (if any) ICTURKEY

No	Partner Name	Type	Country	Role in the Project
01	Kyiv National Taras Shevchenko University	University	Ukraine	Development of mathematical models
02	Living Lab, Kyiv	Agency	Ukraine	Implementation to Smart City
03	Kyiv Smart City Hub	Association / Governmen t	Ukraine	Dissemination, promotion
04	1991 Open Data Incubator	Agency	Ukraine	Support with open data implementation
05	Neocortex	Agency	Ukraine	Neural networks

### **Consortium - required partners**



No	Expertise	Туре	Country	Role in the project
01	Paperwork consulting	Consulting	Any	Partner
02	Dissemination, promotion in Europe	Consulting, Agency	Any	Partner
03	Health and/or ecology department	Government	Any	Support, promotion
04	Microelectronic factory, production of sensors	SME, IND	Any	Producer
05	Calibration laboratory	SME, RTD	Any	Partner



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#### Recommendations



- The presentation has to last up to 4 minutes (maximum)
- Do not overload your slides
- Provide weblinks to additional material
- Slides should be in English
- Do not use videos etc. they might be not supported by the Infoday IT system
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   before November 21, 2016.