

International Brokerage Event
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Institute of Cybernetics NAS of Ukraine
Valentyna Cherepynets
valentyna.cherepynets@incyb.kiev.ua

Description of the Organizations



- **Glushkov Institute of Cybernetics (GIC)** of National Academy of Sciences of Ukraine 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 has successfully developed 150+ R&D Grant Projects in partnership with EU, USA, Canada and other countries.
- **Kiev Smart City Hub** - the unique community center which aim is to unite, educate initiative people and help to develop urban projects.
- **ARVI Lab** - the first open Artificial Intelligence lab in Ukraine. A team of people united to create, develop, and support a robust AI community in Ukraine, to contribute equipment, support, and mentors for any project.

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, Smart Houses, Inthernet of Things (IoT); 3D scanning and printing; Artificial Intelligence (AI), Neural Networks, Machine Learning, video and photo information processing, Big Data.

“Resilience and sustainable reconstruction of historic areas to cope with climate change and hazard events”

“Transforming historic urban areas and/or cultural landscapes into hubs of entrepreneurship and social and cultural integration”



Modern computer science for Cultural heritage preservation

The main tasks that are planned to be solved with the help of Deep Learning and Neural networks for cultural heritage preservation:

1. Involving of ordinary people to become **collectors of digital data** for 3D scanning of cultural objects
2. **Object detection, recognition and image processing** in preservation and restoration of cultural heritage

The main results that are planned to be obtained:

1. **Crowdfunding platform** for collection and processing of digital data
2. **3D digitized environment** for architects and urbanists
3. **Cloud storage** of digital passports of cultural heritage objects

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Examples of our works using neural networks:

- **Wikipedia concept space 3d visualization**
<https://www.youtube.com/watch?v=EpJzLN8LL7Q>
- **Dynamic model of russian language in ukrainian infospace**
<https://www.youtube.com/watch?v=aXsvYCVeoVI>
- **VG live segmentation with face tracking and facial recognition**
<https://www.youtube.com/watch?v=ShD7K7tqdyc>

Consortium - profile of known partners *(if any)*



Our partners:

- [ARVI Lab](#) (Ukraine) - the first open Artificial Intelligence lab in Ukraine. A team of people united to create, develop, and support a robust AI community in Ukraine, to contribute equipment, support, and mentors for any project regardless of its implementation stage.
- [Video Gorillas](#) (USA) - a media-focused product and services company that develops state-of-the-art video technology incorporating machine learning, neural networks, visual analysis, object recognition, and live streaming.
- [Kyiv Smart City](#) (Ukraine) - community which has a leading role in promoting smart city initiatives in the capital of Ukraine.
- [Ministry of Culture of Ukraine](#)
- [International Institute of Visual Art](#) (Poland)
- [City Says](#) (Slovenia)

Consortium - required partners



We are looking for partners:

- Architects, urbanists
- Microelectronic and video engineers
- Software developers
- Machine Learning, Neural networks, Big Data, Artificial Intelligence specialists
- Consultants for Horizon 2020

Valentyna Cherepynets
Institute of Cybernetics NAS of Ukraine
Laboratory of high-performance and distributed
computing
Ukraine
+380 (93) 875-34-57
valentyna.cherepynets@incyb.kiev.ua
<http://incyb.kiev.ua>

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
- Send your presentations in PDF format to: CoF@turkeyinh2020.eu until **23 September 2016**.