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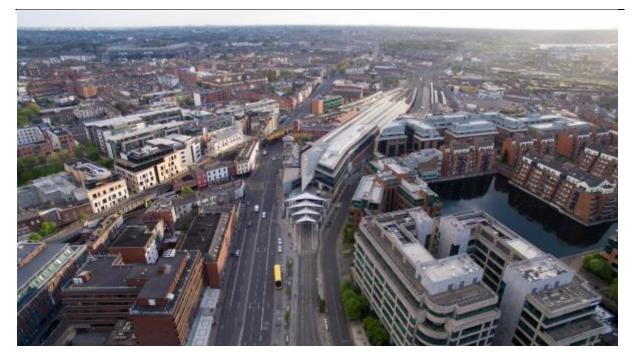FORUM

Building Smart Cities with Dublin as a showpiece

Mr. Leo Clancy, Head of Technology, Consumer & Business Services at IDA Ireland.

BARCELONA, February 27, 2017 — IDA Ireland and Dublin City Council have signed an agreement with AT&T, the global supplier of entertainment, business, mobile and high speed internet and networking services, to collaborate and exchange information about Smart Cities' solutions. This initiative will foster an open dialogue of IoT best practices with Ireland and Dublin as a center piece, since they are fast developing into a leading IoT location.

This international collaboration with Ireland will offer many opportunities to explore other innovations on IoT-related development projects across the country, including the Dublin Docklands' IoT project.

"IDA Ireland welcomes AT&T's choice of Ireland as the company's first international location for global Smart Cities collaboration," said Martin Shanahan, CEO, IDA Ireland. "The availability of world class talent, excellent infrastructure and openness from industry, academia and government to collaborate, enables companies to deliver outstanding IoT products and services. Companies are discovering that Ireland is small enough to trial, yet big enough to prove their Internet of Things technologies and solutions."

"Being smarter will be a defining characteristic of tomorrow's leading cities. Dublin has the key ingredients and is exploiting them to be at the forefront of smart city developments leveraging our unique cluster of global technology companies, thriving start-ups and research centers," said Owen Keegan, Chief Executive, Dublin City Council. "Dublin City Council is delighted to collaborate with AT&T, one of the world's leading technology companies, to explore future smart city innovations[1]."

For a perspective on how Ireland is well placed for IoT developments, see https://tinyurl.com/lvgljgj.

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[1] http://www.idaireland.com/newsroom/att-dublin/

CONNECT: Science Foundation Ireland Research Centre for Future Networks and Communications[2].

By Prof. Willie Donnelly, President of Waterford Institute of Technology.

A team from the SFI funded CONNECT Research Centre at Trinity College Dublin has won the Spectrum Challenge competition at IEEE International Symposium on Dynamic Spectrum Access Networks (DYSPAN), being held in Baltimore, Maryland, USA, on 6-9th March 2017.

The Spectrum Sharing Challenge is designed to demonstrate a radio protocol that can achieve high spectral efficiency in a dynamic environment.

From left to right: Justin Tallon, Ahmed Selim, Francisco Paisana

The CONNECT team was composed of: Francisco Paisana, Ahmed Selim, Andre Puschmann, Christian Blümm, Justin Tallon, Pedro Alvarez, and Maicon Kist. Their contribution was entitled 'Context-Aware Cognitive Radio using Deep Learning'.

The CONNECT contribution drew on research work performed as part of Wishful (Wireless Software and Hardware platforms for Flexible and Unified radio and network controL), a Horizon 2020 funded project led at Trinity College by Prof Luiz DaSiva, and the deep learning research work of Dr Ahmed Selim.

In addition, the CONNECT Centre at Trinity College Dublin hosted a visit from Portugal's Minister for Science, Technology and Higher Education, Mr. Manuel Heitor; the Ambassador of Portugal to Ireland, H.E. Bernardo Futscher Pereira; and Professor Paulo Ferrão, National Director of the MIT-Portugal Program.

The delegation met Portuguese researchers at CONNECT, Dr Pedro Alvarez and Dr Francisco Paisana, along with CONNECT's International Funding Manager, Dr Raquel Harper, and listened to a presentation on CONNECT's research goals by Professor Linda Doyle.

More info:

https://connectcentre.ie/about/

Precision Dairy is a research project jointly funded by Science Foundation Ireland and Teagasc, two leading research-funding agencies in Ireland, in order to advance the use of ICT and associated technologies in modern day farming. In particular, the project focuses on the use of the Internet of Things (IoT) as part of an on-farm Future Internet solution. This solution will ultimately form an integrated environment merging multitude of individual sensors located on a farm, the environment will allow farmer to conduct a continuous fine grained monitoring of the on-farm processes, while results of the monitoring process will be further used as inputs for the specialized decision support system, used by the farmer.

Decision support systems, part of the overall technological architecture of the Precision Dairy ecosystem will present the main interest for the farmer who is rather interested in receiving intelligent insight based on a particular sensory data than the data itself. Therefore, it is crucial for the integrated environment to ensure in-time delivery of this insight to the farmer. This is a significant challenge in view of the harsh environmental conditions and the lack of infrastructure, Internet connectivity that are typical to the farming environment. The Precision Dairy project aims to address this challenge through the use of Fog Computing technologies. In recognition of the central role of the cow in Dairy Farming as well as the relatively low speed of the farming processes (e.g. in comparison to other industries) the project adopts delay-tolerant technologies for sensory data collection and analysis. Thus, the project develops a novel Fog-enabled animal-wearable device. The device apart of conventional data collection functionality will host a set of data analytics services. The services will be configured on per-cow basis based on the historical sensory data available for the cow. Performance of those services will essentially support on-the-field analysis of the data in real time, forming an on-the-field extension of the decision support system. Results of the analysis, for example, may be brought to the attention of the farmer during milking when he is in the immediate vicinity of the animal, or used to segregate the animal from the rest of the herd using a virtual fence/automatic gate technology operating on the farm as part of the same integrated environment.

More info:

http://www.tssg.org/projects/precision-dairy-2/

Mr. Leo Clancy, Head of Technology, Consumer & Business Services at Industrial Development Authority (IDA) Ireland. Mr. Clancy leads IDA's Global Team in the areas of Technology, Content, Consumer Products and Business Services and is a member of the Executive Management team of IDA. His team has responsibility for proposition development, marketing & business development and client aftercare, present in all major global markets, working on a daily basis with top multinationals to win Foreign Direct Investment into Ireland and help companies develop their operations here. Mr. Clancy is a nominated Member of the Horizon 2020 Future Internet Forum of Member States and Associated Countries (H2020 FIF).

Professor Willie Donnelly, President of Waterford Institute of Technology, Ireland. Professor Willie Donnelly was appointed President of Waterford Institute of Technology (WIT) in April 2015, having held the position of Head of Research and Innovation at the Institute for the previous 10 years. He is also Chair of the Telecommunications Software and Systems Group (TSSG), a world class research mobile service and communications management research centre that he co-founded at WIT in 1996. He is a Co-Principle Investigator (PI) on both the Science Foundation Ireland (SFI) funded PI Precision Dairy project and the SFI research centre CONNECT.

Prior to entering Academia, Prof. Donnelly worked for 15 years in the telecommunications and utilities industries. He is a member of the "Research, Innovation, and Science Policy Experts" (RISE) high level group (HLG) established by Commissioner Moedas. RISE gives direct strategic support to the European Commissioner for research, innovation, and science and to the European Commission. He is the founding nominated Ireland representative on the European Future Internet Forum of Member States and Associated Countries (now known as H2020 FIF).

The FIF Monitor is an ongoing tool for Member States and Associated Countries to publish and share their national best practices, success stories and Future Internet developments on a regular basis.

If you would like to publish an item via the FIF Monitor, please email to the contacts below:

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[ceFIMS-CONNECT](#) is a project funded by the European Commission within Objective ICT-2013.1.7 Future Internet Research and Experimentation ([FIRE](#)).