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Charles University and Brno University of Technology belong to the prestigious network of European laboratories for artificial intelligence

PRAGUE, BRNO, March 23, 2020 – Two Czech laboratories working in automatic speech and language processing have achieved significant international success. The results of the European program supporting the creation of artificial intelligence centers were announced in March, and the institutions involved in the HumanE-AI-Net project also include the Faculty of Mathematics and Physics, Charles University in Prague and the Faculty of Information Technology, BUT.

The HumanE-AI-Net project brings together leading European research centers, universities and industrial enterprises into a network of centers of excellence that goes beyond the narrow definition of artificial intelligence (hereinafter referred to as "AI") and combines leading global AI laboratories with key players in related areas such as human-computer interaction science, cognitive science, social science, or the science of complexity. This is linked to a European strategy that focuses on human-centered artificial intelligence.

"We have been involved in international projects dealing with natural language processing and spoken language since the early 1990s. The mandate of representing this area in HumanE-AI-Net is a success, but also a commitment to continue our top research in this area, while extending it in a multidisciplinary way, as the project assumes," Jan Hajič from the Faculty of Mathematics and Physics, Charles University said. The project is led by the German Artificial Intelligence Research Centre (DFKI) in Saarbrücken, with whom Charles University has a long-term cooperation in the EU Framework Programs and the Horizon 2020 Program. "Al and language technology research will be conducted in HumanE-AI-Net through joint microprojects, which aim to achieve completely new results and new research questions through unconventional experiments, which will at the same time force participants to leave the 'comfort bubble' in which they usually move with their research. HumanE-AI-Net is also a networking project aimed at preparing major AI projects in the planned Horizon Europe program," explained Hajič, who is also chairman of the pan-European association META-NET (Multilingual Europe Technology Alliance Network).

BRNO UNIVERSITY OF TECHNOLOGY



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Experts from Charles University will cooperate closely with colleagues from Brno, speech recognition experts working at the Faculty of Information Technology of the Brno University of Technology, who are among the world leaders in their field. "Participation in the HumanE-Al-Net project is a reward for our over 20 years of work in the field of speech information mining, one of the cornerstones of modern Al. We look forward to using 'HumanE-Al-Net' to drive out of our narrowly focused field and connect with people exploring Al on a much wider scale," Jan Černocký, the Head of the Speech@FIT research group commented. "Throughout our existence, we have been trying not only to produce top research results, but also to be valid members of the international research community, whether by participating in international technology evaluations or organizing international workshops," Černocký added and remembered the American projects DARPA and IARPA obtained by his group, or the fact that the biggest "speech" conference Interspeech will be held in Brno in 2021 thanks to BUT.

Under the HumanE-AI-Net project, 53 partner organizations will receive a total of nearly 12 million EUR. According to Jan Hajič and Jan Černocký, however, this is not about finance itself, but rather about prestigious European cooperation, which helps to connect key players in the field of AI. In addition to the European Commission, the Czech government is now focusing more closely on AI, and plans to establish a European Centre of Excellence in AI as a part of the National Artificial Intelligence Strategy. In addition to CU and BUT, the Czech Institute of Informatics, Robotics and Cybernetics of CTU, which is involved in three other projects funded from the same call to support the creation of AI Centers of Excellence, should participate in this initiative.

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The Institute of Formal and Applied Linguistics at the Faculty of Mathematics and Physics of Charles University was established in 1990 as a continuation of the research and teaching activities of the former Laboratory of Algebraic Linguistics, which existed since the early 1960s at the Faculty of Arts and later at the Faculty of Mathematics and Physics, Charles University. The Department is primarily a research institution focusing on many topics in the field of computational linguistics and natural language processing. It participates in many research projects at national and international level. It also coordinates the large research infrastructure LINDAT/CLARIAH-CZ, which supports research in the Czech Republic and abroad by providing language resources, tools and services in the field of Language Technologies and Digital Humanities. The Institute of Formal and Applied Linguistics offers a comprehensive curriculum for both bachelor's and master's degrees (Bc., Mgr.) and doctoral degree (Ph.D.) in Computational Linguistics. All programs are taught in Czech and English. The Institute is also a member of the double degree Master's program LCT, supported by the European Union.

The Department of Computer Graphics and Multimedia of the Faculty of Information Technology, Brno University of Technology is engaged in research and teaching in the areas of artificial intelligence and machine learning and human-computer interaction. Building on solid foundations of mathematics, physics, theoretical computer science, signal processing, automation and machine learning, it employs massive computing resources such as supercomputers, computing clusters, GP-GPU accelerators, and specialized FPGA computing architectures. The Department also received projects funded by the American agencies DARPA and IARPA and a number of national initiatives. It also intensively cooperates with Czech and international industrial companies, members of this institute was at the birth of several innovative companies: Camea, Phonexia, 3DimLaboratory, ReplayWell or AngelCam. The workplace consists of several strong research groups: Speech@FIT is focused on speech data mining, Graph@FIT is focused on image and video processing and computer graphics, KnoT@FIT is dedicated to knowledge technology, machine learning and large data processing, Aeroworks@FIT is focused on advanced automatic flight control, simulation technology and human-computer interaction, Robo@FIT is engaged in methods of image and depth data (computer vision) processing in robotics, and CPhoto@FIT is dedicated to the research and education of computational photography.