Impressive Scientific Results

VOJTĚCH ADAM
TOWARDS THE UNDERSTANDING A METAL-TUMOUR-METABOLISM

PETR NEUGEBAUER
THZ-FRASCAN-ESR: THZ FREQUENCY RAPID SCAN ELECTRON SPIN RESONANCE SPECTROSCOPY FOR SPIN DYNAMICS INVESTIGATIONS OF BULK AND SURFACE MATERIALS
Our selected projects

RICAIIP
Research and Innovation Centre on Advanced Industrial Production
H2020 Teaming

CEITEC – Central European Institute of Technology

Strengthening Nanoscience and Nanotechnology Research at CEITEC
H2020 Twinning

GAČR

Plasmon enhanced terahertz electron paramagnetic resonance
H2020 FET OPEN

2D Nanomaterials Electrochemistry
GAČR Expro

H2020 Projects

Projects in realization

120

24

19

4

10

15

26

10

MPO

GAČR Projects

TAČR Projects

SOMOPRO

OP VVV

*Data valid as of June 2019

CEITEC – Central European Institute of Technology
CEITEC cooperation in highly automated systems

- Highly automated production systems
- H2020 AI4DI – AI for Digitizing Industry
- Cooperation with AUDI, Fraunhofer, TU Munich,.....

- Automated driving and electromobility
- H2020 AutoDrive
- Cooperation with Infineon, SIEMENS, DAIMLER, BOSCH, ZF, Fraunhofer,.....
Digimat DIH
South-Moravian Digital Manufacturing Hub

Expert advisory focused on the digitization of small and medium-sized companies
- Analysis of needs and company readiness to implement digitization
- Designing a tailor-made solution
- Contacts to potential vendors for implementation
- Recommendations on funding source

Operated by JIC and INTEMAC
- will be supported by RICAIP infrastructure at CEITEC
DIH² project

A Pan-European Network of Robotics DIHs for Agile Production

• network of 26 European Digital Innovation Hubs (DIHs).
• built a sustainable pan-European network of DIHs
• South-Moravian node operated by INTEMAC
• technological expertise provided by CEITEC BUT within RICAIP project
CEITEC links RICAIP to South-Moravian innovation ecosystem and Pan-European Network of DIHs.
RICAIP Future and Benefits for Region

- A new research area in CEITEC focused to Advanced Control Technologies, Robotics and Instrumentation with overlapping to Artificial Intelligence will be launched soon after approving by CEITEC ISAB
- Important involvement of students – at least 15 bachelor and master students and about 5 PhD students preparing Bachelor, Diploma and Dissertation Theses
- Testbed can be used by about 300 Bachelor and Master students in the frame of laboratory education and training in next 3 years
- Innovative SMEs in South-Moravian region – vibro-diagnostics, cybersecurity, high-speed industrial drives, virtual reality (JIC workshop – several SMEs interested in testing of firewalls for connecting industrial technologies)
- Access to testbed for project partners in large industry oriented H2020 projects (already running and future - Infineon, Siemens, AUDI, ZF Friedrichshafen, …)
Conclusion

- RICAIP project is logical continuation of CEITEC activities in highly automated systems research.
- The infrastructure built within RICAIP will provide researchers an excellent environment to design and validate AI based solutions for production technologies.
- It will allow to further develop international cooperation.
- RICAIP will be also significant part of regional and national innovation ecosystems, supporting namely cooperation with innovative SMEs.

- It is a great honour for CEITEC BUT to be a member of RICAIP team.
- Best wishes for all of us not only for today’s kick-off, but for successful reaching all planned project milestones and targets in coming years.