

## PROJECT I

Developing an innovative automatic visual control system (AOI 4.0) based on artificial intelligence, to be used for testing electronic components dedicated for the automotive industry.

Fitech is currently conducting the R&D project co-financed by European Funds for Smart Growth Operational Programme 2014-2020

**Project scope:** The goal of the project is to carry out industrial research and development works to develop a globally innovative AOI 4.0 automatic visual control system based on artificial intelligence, carried out in on-line mode and available for implementation in the currently operated production lines.

**Planned results:** Innovative concept will bring a number of benefits such as defect identification efficiency increased up to 99%, reduction of false calls up to 5%, reduced testing software development time for a particular PCBA model down to 2.5 hrs, optimization of the PCBA package testing time, and two-sided PCBA testing capacity.

**Project total value:** 15 445 009.50 PLN

**EU Funding:** 8 689 998.34 PLN

Project co-financed by EU from the European Regional Development Fund under the Intelligent Development Program as part of the competition of the National Center for Research and Development: Sectoral R&D programs „INNOMOTO” 2014-2020



## PROJECT II

Intelligent robot for autonomous handling of assembly and assembly of electronic components based on artificial intelligence and neural networks.

Fitech is currently conducting the R&D project co-financed by European Funds for Smart Growth Operational Programme 2014-2020

**Project scope:** The goal of the project is to carry out industrial research and development works to develop a globally innovative Autonomous robotic THT component assembly system based on artificial intelligence available for implementation in the currently operated production lines.

**Planned results:** Innovative concept will bring a number of benefits such as modular construction allowing fast reconfiguration of manufacturing line in 7 days, decrease of assembly error factor to 50ppm and decreased programming time to 30 minutes.

**Project total value:** 8 277 865.00 PLN

**EU Funding:** 4 209 576.00 PLN

The project is co-financed by the European Union from the European Regional Development Fund under the Intelligent Development Program. Project implemented as part of the competition of the National Center for Research and Development: Szybka Ścieżka.



## PROJECT III

Robot School - Research and Development Center for highly innovative process automation technologies based on the practical use of Industry 4.0 solutions in the professional electronics industry.

Fitech is currently conducting the investment project co-financed by European Funds for Smart Growth Operational Programme 2014-2020

**Project Title:** Robots School - Research and Development Center for highly innovative process automation technologies based on the practical use of Industry 4.0 solutions in the professional electronics industry.

**Project scope:** The goal of the project is to build Robot University campus in Cracow, Poland and to buy laboratory equipment necessary to implement the research agenda related to the automation of production processes using artificial intelligence.

**Planned results:** As a result of the project, R&D infrastructure will be created, which will be used to conduct research and development works for the creation of innovative products in the field of professional electronics. Thanks to the planned groundbreaking research work, there will be:

- product innovations developed in the form of intelligent robots for autonomous process management in the professional electronics industry
- process innovations in a method of building automated and robotic solutions, where classic programming will be replaced with AI-based machine learning using neural networks.

**Project total value:** 94 317 630.00 PLN

**EU Funding:** 16 986 865.00 PLN



# PROJECT IV

Development of innovative, configurable modules in the course of R&D works for the construction of specialized production lines, equipped with proprietary design solutions.

Fitech is currently conducting the R&D project co-financed by European Funds for Smart Growth Operational Programme 2014-2020

**Project Title:** Development of innovative, configurable modules in the course of R&D works for the construction of specialized production lines, equipped with proprietary design solutions

**Project scope:** The subject of the project is to execute R&D works aimed at developing innovative, on the Polish market, configurable modules for the construction of specialized production lines, equipped with proprietary design solutions. The modular approach to the construction of the production line is a response to the defined technological gap in terms of the need to quickly change the product without loss of quality and production efficiency.

**Planned results:** The innovativeness of the solution planned to be developed results from the design and functional solutions planned to be developed and applied, which will enable to obtain the most important effect currently sought by the market of recipients, i.e. a significant reduction in construction time and reconstruction of the line automating industrial processes while maintaining the expected quality, stability, efficiency and repeatability, while providing analytics based on IIoT solutions.

**Project total value:** 9 126 075.28 PLN

**EU Funding:** 4 587 698.93 PLN

