JIC INNOVATION VOUCHERS

CASE STUDY

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ÚPT AVČR Ústav přístrojové techniky AVČR, v.v.i.

Institute of scientific Instruments of the AS CR, v. v. i.

Laser detector of proportion and shape deviations

implementation agency: JIC South Moravian Innovation Centre

financial sponsor: Brno

media partners: Moderní řízení, Finanční management

partners: enterprise europe network, CEITEC central european institute of technology, RIS3

This project is implemented within the framework of the Regional Innovation Strategy of South Moravia

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Company – Voucher Recipient

MESING, spol. s r.o. (WWW.MESING.CZ)

Address	Mariánské nám. 1, 617 00 Brno
Specialization	Mechanical Engineering, Electrical Engineering
Size	Middle-size Enterprise
Profile	MESING, spol. s r.o. specializes mainly in made-to-order length measuring devices and automation machinery. It supplies the customers with wide range of products from simple measurement devices used in workshops to fully automatic stations and assembly lines (more information on www.mesing.cz)

Knowledge Provider

Institute of Scientific Instruments of the Academy of Sciences of the Czech Republic

Coherence Optics Department

(www.isibrno.cz)

Profile	The institute concerns itself with the research of physical methods, special technologies and unique instrument principles in the field of electron optics and microscopy, nuclear magnetic resonance, bioinformatics and coherent light optics. It produces top-class technological elements and methods in the field of ultra high vacuum, cryotechnique, and superconductivity. The aim of the interdisciplinary research of microstructure of matter is to obtain such results that can be used in biology, chemistry, medicine, ecology and physics.
Responsible Researcher	Ing. Ondřej Číp, Ph.D

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Cooperation

Realization Period	10/2010 – 01/2011
Value	189 000 CZK (without VAT)
Subject	Feasibility study, including experimental testing of laser detector of proportion and shape deviations during high-temperature shaping and machining.
Outputs	1) Feasibility study, including experimental validation of proposed method, stating achieved results 2) Sub-components of the measurement system and detection chain will be used for follow-up realization of measurement system prototype.
Utilization and Asset	Measuring of proportion and shape of hot and burning components during high-temperature machining and shaping. New product that has not been normally available on the market so far.

Evaluation of Cooperation – Ing. Richard Wíttek (MESING, spol. s r.o.)

„Laser detector is designed for the control of hot and burning components, especially during forging process. Contact methods cannot be used for these purposes due to high temperatures. Contactless systems produced by renowned foreign producers that have been known so far, do not fulfil basic precision and utility requirements. Therefore, we affiliated with the Institute of Scientific Instruments of the Academy of Sciences of the Czech Republic, to prove the potential of development of such a device. Similar device has not been on the market so far. On that account, commercial success is being expected. Currently, the model device is being field tested with the aim of further preparation of operating prototype. The model was on show on International Engineering Fair in Brno, 2011 and other acquisitions are being prepared inland as well as abroad. It is a unique device with preconditions for successful commercial realization."

Has the company cooperated with any other research institution before?	„Yes, with the Institute of Scientific Instruments of the Academy of Sciences of the Czech Republic."
Would there be any cooperation even without the innovation voucher?	„Yes."

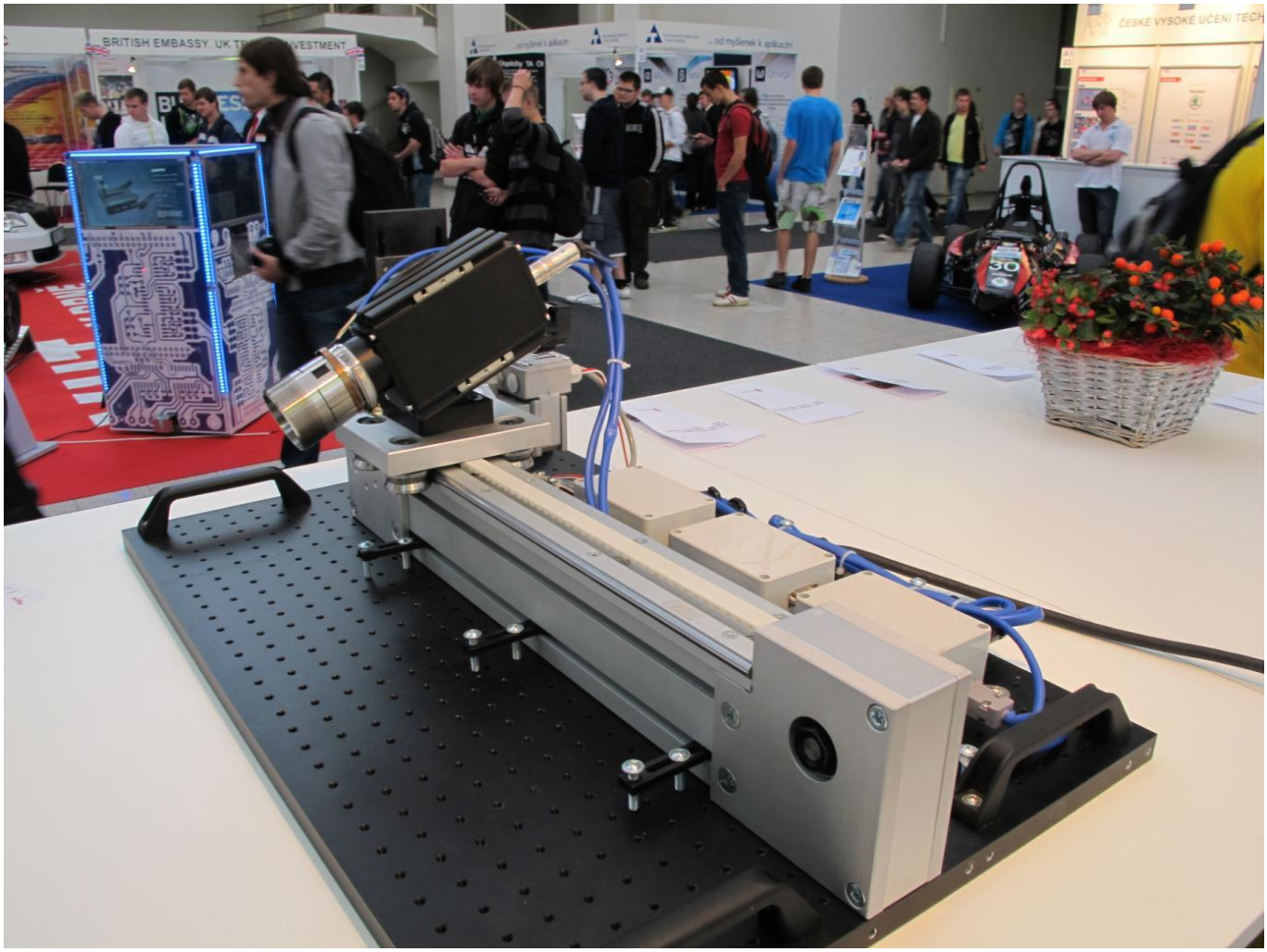

Figure 1: Developed Laser Detector