

Measurement Precision KUKA Robots Move at a Defined Distance and Proposal for a Robotized Workplace to Support the Learning Process

Dominika Palaščáková, Peter Demeč

Technical University of Košice, Faculty of Mechanical Engineering, Department of Production Systems, Letná 9, 042 00 Košice; E-mails: peter.demec@tuke.sk; dominika.palascakova@tuke.sk

This article describes robotised welding workplace and gathering information from the workplace. It focuses on the collection of information to wear welding pliers. The workplace will be linked to a database, which will dispose of the measured data, which we will be able to through the web server we can look on the Internet, anywhere in the world. The advent of the Internet has significantly changed the environment of the production and education. The implementation of Web technology moves to integrate into production systems virtual races. With this rapid information technology we can exchange data on production and products all over the world 24 hours a day, and regardless of the place and time. The Internet allows for effective cooperation and interaction at a distance on a global scale. Through the internet it is possible to provide the operating instructions without physical presence of the production systems. The Internet not only allows quick access to its ability, but also their rapid transfer. Local production and regional trade is becoming global. The relationships between suppliers, producers, consumers, which have so far been "personal" to become virtual. Through the Internet, you can run the activities of the production system, inform all interested parties about what is happening and what has happened.

Keywords: pocbmax, poczmax, kkz

Acknowledgement

The work was supported by Ministry of Education of the Slovak Republic KEGA 039 TUKE-4/2016 The creating of virtual laboratories based on web technologies to support the educational process in the field of Manufacturing Technology.

References

- [1] BROŽEK, M. (2014). Working Variables Optimization of Resistance Spot Welding, *Manufacturing Technology*, Volume 14, s. 522-527, ISSN 1213-2489, M201498
- [2] PALAŠČÁKOVÁ, D., DEMEČ, P. (2014). Industrial information application for the production process - 2014. In: *Acta Mechanica Slovaca*. Roč. 18, č. 1 (2014), s. 44-48. - ISSN 1335-2393
- [3] <http://www.kuka.com>
- [4] <http://www.daihen-usa.com/>
- [5] <http://www.pantek.cz/produkty/wonderware-system-platform/>
- [6] www.elvac.sk
- [7] DRBÚL, M., STANČEKOVÁ, D., BABÍK, O., HOLUBJAK, J., GÖRÖGOVÁ, VARGA, D. (2016). Simulation Possibilities of 3D Measuring in Progressive Control of Production, *Manufacturing Technology*, Volume 16, s. 53-58, ISSN 1213-2489, M201611
- [8] FABIAN, M., BOSLAI, R., IŽOL, P., JANEKOVÁ, J., FABIANOVÁ, J., FEDORKO, G., BOŽEK, P. (2015). Use of Parametric 3D Modelling - Tying Parameter Values to Spreadsheets at Designing Molds for Plastic Injection, *Manufacturing Technology*, Volume 15, s. 24-31, ISSN 1213-2489, M201505
- [9] DEMEČ, P. (2005). *Výrobná technika* - 1. vyd. - Košice : Sjf TU, - 2005. - 250 s. - ISBN 80-8073-426-7
- [10] NOVAK-MARCINCIN, J., FECOVA, V., BARNA, J., JANAK, M., NOVAKOVA-MARCINCINOVA, L. (2013). Using of the Virtual Reality Application with the Scanning Device Kinect for Manufacturing Processes Planning, *Manufacturing Technology*, Volume 13, s. 215-219, ISSN 1213-2489, M201341

Paper number: M2016249

Copyright © 2016. Published by Manufacturing Technology. All rights reserved.