


QUALITY ENGINEERING AND MANAGEMENT RESEARCH CENTER

Contact details

Name	Quality Engineering and Management Research Center
Acronym	QEMRC
Logo	
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Areas of expertise

Quality management and engineering – Interdisciplinary research area, with applicability in industry, in the service sector and in the public sector (education, health, administration) for improving products, processes and organizations
Customer oriented development – applying specific algorithms, techniques and methods for developing and improving products, services, processes and organizations
Industrial metrology – high precision 3D measurement and scanning in industrial engineering; 3D surface scanning for reverse engineering

Team

Prof. Dr. Eng. Sorin Popescu, Assoc. Prof. Dr. Eng. Mihai Dragomir
 Prof. Dr. Eng. Liviu Crișan, Assoc. Prof. Dr. Eng. Dan Hurgoiu, Assoc. Prof. Dr. Eng. Mihai Tripa, Sen. Lect. Dr. Eng. Grigore Pop, Sen. Lect. Dr. Diana Dragomir
 PhD. stud. Eng. Ștefan Bodi, PhD. stud. Eng. Diana Rusu and 8 other PhD. students as external collaborators

Representative projects

GPS-VToolbox, “Geometrical Product Specification and Verification as toolbox to meet up-to-date technical requirements”, Erasmus+ Programme Key Action 2 – Strategic Partnership Projects, (2015-2018)
DACIT, “The conservation and revitalisation of cultural and natural heritage, When ancient everyday life becomes UNESCO heritage. The scanning, digital restoration and contextualization of Dacian artefacts from Orăștie Mountains”, EEA grants - PA16/RO12, (2015-2016)
NoGAP, “Knowledge Transfer Community to bridge the gap between research, innovation and business creation”, European FP7 – INCO project, (2013-2016)
MUVoT, “Blended Learning course on Measurement Uncertainty for advanced vocational training”, Leonardo da Vinci – Transfer of Innovation, (2011-2013)
“Project concerning software development for coordinate measuring machines”, Werth Messtechnik GmbH, (2011-2012)
SAM-EMU, “Statistical Analysis of Measurement Data for the Evaluation of Measurement Uncertainty”, UE Erasmus - ECDEM, (2008-2009)

Significant results

The most representative publications of the past 5 years:

1. S. Popescu, D. Pitic, M. Dragomir, "Creativity, Idea Management and Innovation - Prerequisites for New Product Development in a Furniture Start-Up", *Proceedings of the 2014 International Conference on Production Research - Regional Conference Africa, Europe and the Middle East and 3rd International Conference on Quality and Innovation in Engineering and Management*, Cluj-Napoca, July 1-5, 2014, ISBN 978-973-662-978-5, pp. 406-410
2. M. Dragomir, D. Dragomir, S. Popescu, Ș. Bodi, "Case study regarding teaching Design for quality at graduate level", *Proceedings of the IETEC-BRCEBE Conference*, Sibiu, Romania, November 1-4, 2015, ISSN 1843-6730, ISBN 978-0-646-94781-5, pp. 78-86, "Best paper award" at the conference
3. L. Crișan, G., Pop, "Influence of tool geometry and process temperature on hole quality when drilling carbon fiber reinforced plastics", *11th IMEKO TC14 International Symposium on Measurement and Quality Control*, Cracow & Kielce, Poland, September 11-13, 2013, ISBN 978-1-632-66817-2, pp. 151-156
4. S. Popescu, M. Drăgan, M. Dragomir, D. Pitic, "From Organisational Business Performance to an Environmental Excellence Framework", in *Journal of Environmental Protection and Ecology*, vol. 14, no. 4, 2013, pp. 1711-1718
5. F. Iliescu, S. Popescu, M. Dragomir, D. Dragomir, "Public-Private Partnership in the Water Sector in Romania: Success or Failure", in *Water Science and Technology: Water Supply*, vol. 13, no. 5, 2013, pp. 1249-1256
6. S. Popescu, M. Dragomir, D. Pitic, E. Brad, "Method for competitive environmental planning", in *Environmental Engineering and Management Journal*, vol. 11, no. 4, 2012, pp. 823-828
7. C. Neamțu, D. Hurgoiu, S. Popescu, M. Dragomir, H. Osanna, "Training In Coordinate Measurement Using 3D Virtual Instruments", in *Measurement*, vol. 45, no. 10, 2012, pp. 2346-2358

Significant solutions:

Algorithms and methodologies for management systems' implementation and improvement
 Customized instruments for improving project management
 Customer oriented product development methodologies
 Measurement uncertainty evaluation and training
 3D scanning techniques and methodologies

Products and technologies:

Precision measurements using multiple sensor technologies
 Methodology for evaluating the maturity of integrated management systems
 E-learning solutions for training in quality engineering and industrial metrology
 Software solution for automatic probe head configuration in case of multisensor CMM for Werth GmbH - Germany
 Food industry process automation

Others:

Mihai Dragomir, Oana Iamandi, Ștefan Bodi, Robert Gohla, Daniela Chiran, *Innovation Management & Transnational Partnership. Training for SMEs and Start-Ups/Entrepreneurs - Handbook*, ISBN 978-3-95663-013-2, Steinbeis-Edition Publishing house, Stuttgart, 2014 (English-Russian)
 Călin Neamțu, Mihai Dragomir, Daniela Popescu, Sorin Popescu, Radu Răcășan, *Uncertainty of conventional measurements - Incertitudinea de măsurare în metrologia clasică*, ISBN 978-973-662-783-5, Editura UT PRESS, Cluj-Napoca, 2012

The offer addressed to the economic environment

Research & development	Development of methodologies and instruments for quality engineering and customer oriented development Research concerning optimizing the implementation of standardized management systems Research concerning specific aspects of quality engineering in various fields (e.g. quality in education, quality in the pharmaceutical industry, etc.) Research concerning measurement uncertainty and 3D scanning Customised solutions for industrial processes automation
Consulting	Designing, implementing, maintaining and improving standardized management systems Consultancy on developing new products or improving the existing ones
Training	Quality management Quality engineering techniques and instruments Industrial metrology