

Curriculum Vitae

Personal information

Name	Łukasz Sztangret
Date of birth	May 7, 1981
Languages	<ul style="list-style-type: none">• Polish (native)• English
Tel.	+48 12 6174183
E-mail	szt@agh.edu.pl
Present appointment (since 2007)	AGH University of Science and Technology Faculty of Metals Engineering and Industrial Computer Science Department of Computer Science and Modelling al. Mickiewicza 30, 30-059 Kraków, Poland

Academic degrees

- Ph. D. Metallurgy (with distinction), 2014
Specialization: Applied Computer Science
Faculty of Metals Engineering and Industrial Computer Science
AGH University of Science and Technology
Thesis on: "Reduction of computational costs of the metallurgical processes optimization" (in Polish)
 - M. Sc. Automatic Control and Robotics, 2006
Specialization: Computer Control Systems
Faculty of Electrical Engineering, Automatics, Computer Science and Electronics
AGH University of Science and Technology
Thesis on: "Bicubic spline approximation of thrust of F-15 aircraft" (in Polish)
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Scientific interests

- Optimization and control algorithms (in particular bio-inspired methods)
 - Metamodelling techniques
 - Design of experiment theory and sensitivity analysis methods
 - Application of artificial intelligence
 - Inverse analysis computation
 - Advanced methods for metamodelling and optimization of metallurgical processes
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Selected publications and book chapters

- Jarosz P., Kusiak J., Małecko S., Oprocha P., Sztangret Ł., Wilkus M. (2015): A methodology for optimization in multistage industrial processes: a pilot study. *Mathematical Problems in Engineering*, pp. 1-10
- Kusiak J., Sztangret Ł., Pietrzyk M. (2015): Effective strategies of metamodelling of industrial metallurgical processes. *Advances in Engineering Software*, vol. 89, pp. 90-97

- Sztangret Ł., Szeliga D., Kusiak J. (2014): Survey of effectiveness of inverse analysis computation. *Computer Methods in Materials Science*, vol. 14 no. 3, pp. 160-166
 - Rauch Ł., Sztangret Ł., Pietrzyk M. (2013): Computer system for identification of material models on the basis of plastometric tests. *Archives of Metallurgy and Materials*, vol. 58 iss. 3, pp. 737-743
 - Kusiak J., Szeliga D., Sztangret Ł. (2012): Modelling techniques for optimizing metal forming processes, In: Lin J., Balint D., Pietrzyk M. (eds.): *Microstructure evolution in metal forming processes*. Woodhead Publishing Limited, Oxford pp. 35-66
 - Sztangret Ł., Szeliga D., Kusiak J., Pietrzyk M. (2012): Application of inverse analysis with metamodelling for identification of metal flow stress. *Canadian Metallurgical Quarterly*, vol. 51 no. 4, pp. 440-446
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Selected research projects

- Multi-criteria optimization strategy for production chains of the graph structure, No. 2013/11/S/ST8/00352, 2014-2016, co-worker
 - System for optimization of processes and production cycles of metal forming processes, No. NR07-0006-10, 2011-2013, co-worker
 - Development of methodology of technology optimization of the production cycle of multiphase steel sheets based on sensitivity analysis and metamodelling, No. N508 590139, 2010-2013, co-worker
 - The use of artificial intelligence methods in modelling and control of copper production, No. 3 T08B 034 30, 2006-2009, co-worker
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Teaching experience

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| Lectures and laboratory trainings | <ul style="list-style-type: none"> • Programming in C/C++ • Computing in Matlab/Programming in Matlab • Optimization methods • Machine learning |
| Laboratory trainings | <ul style="list-style-type: none"> • Control theory • Cellular automata • Operating systems • Parallel computing |
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Organization of conferences

- XVI. Conference on Computer Methods in Materials Technology, January 11-14, 2009, Krynica-Zrdój, Poland
- XVIII. Conference on Computer Methods in Materials Technology, January 16-19, 2011, Zakopane, Poland
- XX. Conference on Computer Methods in Materials Technology, January 13-16, 2013, Zakopane, Poland
- XXII. Conference on Computer Methods in Materials Technology, January 11-14, 2015, Krynica-Zrdój, Poland
- The 14th International Conference Metal Forming 2012, September 16-19, 2012, Kraków, Poland