

# CV



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## PROFESSIONAL EXPERIENCE AND EDUCATION:

- 2013.10 –** Poznan University of Technology (PUT), Institute of Structural Engineering, Full professor.  
*Lectures:* Structural mechanics (in Polish), Applied mathematics (in Polish), Theory of elasticity and plasticity (in English), Concrete structures (in English)
- 2017.03 – Head of the Division of Concrete Constructions, PUT
- 2001.10 – 2013.09** University of Zielona Góra (UZ), Institute of Building Engineering, Division of Structural Mechanics, professor of UZ.  
*Lectures:* Strength of materials, Computer methods, Structural optimization
- 2013.02 – 2013.09 Full professor, UZ
- 2007.10 – 2008.08 Deputy Dean for Scientific Affairs, Faculty of Civil and Environmental Engineering
- 2005.01 – 2007.09 Director of the Institute of Building Engineering (IB), UZ
- 2002.09 – 2013.09 Head of the Structural Mechanics Division, IB UZ
- 2006 (1 mon.) Visiting professor, Institute of Mechanics and Shell Structures, TU Dresden (Prof. B.W. Zastrau)
- 1981.10 – 2001.09** Poznan University of Technology (PUT), Institute of Structural Engineering, Division of Structural Mechanics
- 2000 (3 mon.) Fellowship, Texas Institute of Computational and Applied Mathematics (TICAM), University of Texas at Austin, USA (Prof. L. Demkowicz, Prof. J.T. Oden)
- 1996-2001 Lecturer of Structural Engineering, and of Structural Mechanics, Poznan University of Technology
- 1995-1996 Research worker, Institute for Applied Mathematics, University of Hanover, Germany (Prof. E. Stein, Prof. A. Mielke)
- 1993-1995 Lecturer of Structural Engineering, and of Structural Mechanics, Poznan University of Technology
- 1993 (3 mon.) Fellowship, Institute of Structural and Computational Mechanics (IBNM), University of Hanover, Germany (Prof. E. Stein)
- 1993 (6 mon.) Fellowship, Institute of Computational Mathematics (BICOM), Brunel University, England (Prof. J.R. Whiteman)
- 1991-1992 Lecturer of Structural Engineering, and of Structural Mechanics, Poznan University of Technology
- 1991 (3 mon.) Fellowship, Institute of Structural and Computational Mechanics (IBNM), University of Hanover, Germany (Prof. E. Stein)
- 1981-1990 Assistant Lecturer of Structural Engineering, and Structural Mechanics, Poznan University of Technology

2012	Scientific title of professor, conferred by the President of Poland
2000	DSc - Habilitation (with honors), Poznan University of Technology
1990	PhD (with honors), Poznan University of Technology
1986	Master of Mathematics (with honors), Adam Mickiewicz University in Poznan
1981	Master of Engineering (with honors), Poznan University of Technology
1976	Technician of Roads and Bridges (with honors), Technical College for Geodesy and Roads in Poznań (Technikum Geodezyjno-Drogowe w Poznaniu)

### RESEARCH INTERESTS:

Solid and structural mechanics, unilateral contact, shape memory alloys, concrete, composites, hysteretic behavior, variational inequalities, computational methods in mechanics

### MAIN RESEARCH AND LABORATORY EQUIPMENT PROJECTS:

*Modernisation and development of the research laboratory of the Institute of Structural Engineering of Poznan University of Technology for testing of high-performance materials* (1.6 mln PLN (0.4 mln euros)), a project of the (Polish) Ministry of Science and Education, decision no. 6571/IA/SP/2016, head, 2016-2017.

*Modernisation and development of the research laboratory of the Institute of Building Engineering of Zielona Góra University* (6 mln PLN (1.5 mln euros)), a project of the European Union and the Polish Government, realized within the Sectoral Operational Programme - Improvement of the Competitiveness of Enterprises, Action 1.4.2, contract no. WKP\_1/1.4.2/2/2005/161/262/546/2006/U, head, 2006-2010.

*Analysis and adaptive modelling of nonhomogeneous structures taking into account inequality constraints*, KBN project no 5 T07A 04224, head, 2003-2005.

*Mathematical modelling and numerical simulation of inequality problems in structural mechanics*, KBN project no 8T11F 01710, head prof. A. Gawęcki, principal contractor, 1996-1997.

*Spannungs- und verzerrungsbedingte Phasenübergänge in Ingenieurwerkstoffen*, VW-Stiftung project no I/70 281(4), head prof. E. Stein, contractor, 1995-1998.

### PROFESSIONAL ACTIVITIES AND SOCIETIES:

Publications Author/co-author of 150+ publications (articles, reports), 3 books (author), 5 books (co-editor), list of publications till 2013

[http://etacar.put.poznan.pl/mieczyslaw.kuczma/MKuczma-publikacje\(SKEP\)\\_1981-2013.pdf](http://etacar.put.poznan.pl/mieczyslaw.kuczma/MKuczma-publikacje(SKEP)_1981-2013.pdf)

and since 2013

<https://sin.put.poznan.pl/people/details/mieczyslaw.kuczma>

Selected authored/co-edited books:

- M. Kuczma, Foundations of the mechanics of shape memory structures. Modelling and numerics (in Polish), University of Zielona Góra Press, Zielona Góra 2010.
- M. Kuczma, K. Wilmański (Eds.), Computer Methods in Mechanics, Springer, Heidelberg Berlin 2010.
- B. Albers, M. Kuczma (Eds.), Continuous Media with Microstructure 2, Springer, Heidelberg Berlin 2016.
- Cz. Wozniak, M. Kuczma, R. Świtka, K. Wilmański (Eds.), Advances in the Mechanics of Inhomogeneous Media, University of Zielona Góra Press, Zielona Góra 2010.
- M. Kuczma, J. Korbicz (Eds.), Innovation in building engineering: proceedings of the INTERREG IIIC 3-CIP Conference, University of Zielona Góra Press, Zielona Góra 2005.
- M. Kuczma, Application of Variational Inequalities in the Mechanics of Plastic Flow and Martensitic Phase Transformations. Transactions no. 352, PUT Press, Poznań 1999.

Plenary lectures 3rd Polish Congress on Mechanics (PCM) and 21st International Conference on Computer Methods in Mechanics (CMM), Gdańsk, 08-11.09.2015

7th International Symposium on Mechanics of Materials and Structures, Augustów, 02-06.06.2013

52. Sympozjon „Modelowanie w Mechanice”, Ustroń, 23–27.02.2013

VI Konferencja Naukowa Konstrukcje Zespólone, Zielona Góra, 20-21.06.2002

Supervisor: Doctoral theses (3)

Reviewer: Doctoral theses (13), Habilitation theses (19), Professorships (14), Books (10)

Applications for research projects (ERC – EU, NRF of South Africa)

Applications for research projects in Poland (NCN, NCBiR, KBN, MNiSW)

Computers and Mathematics with Applications

Computer Assisted Mechanics and Engineering Sciences

Engineering Structures

Archives of Mechanics,

Bulletin of the Polish Academy of Sciences

Engineering Transactions

Civil and Environmental Engineering Reports

International Journal of Engineering Science

Computer Methods in Applied Mechanics and Engineering

Journal of Theoretical and Applied Mechanics

Journal of Computational and Applied Mathematics

Journal of Sandwich Structures and Materials

Journal of Sound and Vibration

Editorial Board International Journal Computer and Mathematics with Applications, 2012-

Civil and Environmental Engineering Reports (CEER), 2005-

Engineering Structures, 2016-

Editor-in-chief Civil Engineering and Environmental Reports, 2010.06–2013.12

Thematic Editor CAMES, 2017-

President of the Polish Association of Computational Mechanics (PACM), 2013-2015, 2015-2017,

Vice-President of PACM, 2017-

Chairman of the Polish Section of GAMM, 2018-

Organizer: *Conferences, minisymposia, courses*

Minisymposium MS609: Modelling, Simulation, and Testing of Cementitious Composites (jointly with J. Fish, P. Wriggers), World Congress on Computational Mechanics – WCCM2018, New York 22-27.07.2018

Minisymposium MS12: *Numerical Analyses for Concrete Structures*

(jointly with H. Mang, A. Halicka, A. Winnicki), 22<sup>nd</sup> International Conference on Computer Methods in Mechanics (CMM 2017), Lublin 13-16.09.2017

Course on *Non-linear Finite Element Analysis with particular Focus on time-dependent Problems*, Lecturer Prof. St. Hartmann, PACM, Poznań 21-23.02.2017

Course *Nanomechanics of Materials and Material Structures*, Lecturer Prof. G. Szefer, PACM, Poznań 01-02.07.2016

Course on *Mechanics of Random and Fractal Media*, Lecturer Prof. M. Ostoja-Starzewski, PACM, Poznań 25-26.06.2015

International Conference on *Continuous Media with Microstructure* - CMwM2015 (jointly with B. Albers), Łagów 02-05.03.2015

Minisymposium: *Smart Material System and Structures*

(jointly with J. Schröder, G. Stavroulakis, G. Szefer), 3<sup>rd</sup> *Polish Congress on Mechanics* and 21<sup>st</sup> International Conference on *Computer Methods in Mechanics* (PCM-CMM-2015 Congress), Gdańsk 08-11.09.2015

Minisymposium: *Smart Materials and Structures*

(jointly with Joachim Bluhm, Wieslaw Ostachowicz), 11th. World Congress on *Computational Mechanics* (WCCM2014), 5th. European Conference on *Computational Mechanics* (ECCM V), 6th. European Conference on *Computational Fluid Dynamics* (ECFD VI), Barcelona 20-25.07.2014

Minisymposium MS-15: *Composite Materials and Structures*  
(jointly with J. Schröder, G. Szefer, Vladimir Kompis, Milan Zmindak), CMM 2013 -  
Computer Methods in Mechanics, Poznań 27-31.08.2013

Minisymposium MS 302: *Computational Aspects of Smart Materials and Structures*  
(jointly with H. Irschik, P. Steinmann, G. Szefer), ECCOMAS 2012, Vienna 10-14.9.2012

Minisymposium MS 01: *Computational Aspects of Smart Materials and Structures*  
(jointly with J. Schröder, G. Szefer), CMM 2011 - Computer Methods in Mechanics,  
Warsaw 16-21.05.2011

Minisymposium MS 112: *Computational Aspects of Smart Structures and Materials*  
(jointly with R. Lammering, W. Ostachowicz), 4ECCM, Paris 16-21.05.2010

Conference *Continuous Media with Microstructure*, Zielona Góra, 20.03.2010

**18<sup>th</sup> International Conference on Computer Methods in Mechanics (CMM 2009)**,  
Zielona Góra, 18-21.05.2009 (jointly with K. Wilmański)

Minisymposium MS097: *Delamination Including Internal Contact* ((jointly with  
B.W. Zastrau) at the ECCOMAS 2008, Venice, 30 June - 4 July 2008

Conference on the *Mechanics of Inhomogeneous Media*, Łagów 2005, 2008, 2010  
(jointly with R. Świtka)

Conference on *Innovation in Building Engineering*, Zielona Góra 2005, 2007  
(jointly with J. Korbicz)

6<sup>th</sup>, 10<sup>th</sup>, and 21<sup>st</sup> *Bohemian-Saxon-Silesian Mechanics Colloquium*, Zielona Góra 2005,  
2007, 2014 (10<sup>th</sup> BSSMC jointly with K. Wilmański)

Minisymposium on *Numerical Methods in Plasticity*, MAFELAP, Uxbridge 1996, 1999

An Intensive Course on the *hp*-Adaptive Finite Element Methods, Poznan 1992  
(jointly with A. Garstecki)

Member: Committee on Mechanics of the Polish Academy of Sciences, 2007-2011, 2011-2015,  
2016-

General Council of International Association for Computational Mechanics, 2013-

General Assembly of European Community on Computational Methods in Applied  
Sciences, 2015-

Committee for Computational and Applied Mathematics of ECCOMAS, 2010-

Commission for Building Engineering of Poznań Branch of the Polish Academy of  
Sciences, 2007-

Section of the Mechanics of Materials of the Committee on Mechanics  
of the Polish Academy of Sciences, 2003-

Section of the Mechanics of Materials and Structures of the Committee on Civil  
and Hydroengineering of the Polish Academy of Sciences, 2003-

Polish Association of Computational Mechanics (PACM), 1991-;  
Managing Board, 2007-; President of Managing Board, 2013-2017,

New York Academy of Sciences, 1994-2001

London Mathematical Society, 1993-2001

Gesellschaft für Angewandte Mathematik und Mechanik (GAMM), 1991-

Section of Computational Mechanics of the Committee on Mechanics  
of the Polish Academy of Sciences, 1990-1993, 2003-

Polish Association of Engineers and Technicians of Civil Engineering (PZITB),  
1986–present,

Chair of the Scientific Committee of PZITB, Branch Zielona Góra, 2006–2013

Polish Association of Theoretical and Applied Mechanics, 1984-  
(treasurer of the Poznan Branch, 1992-1995)

**HONOURS AND AWARDS:**

The IACM Fellow Award	2018
Award of Rector of Poznan University of Technology	2016, 2017
O.C. Zienkiewicz Medal	2013
Award of Rector of the University of Zielona Góra	2004, 2007, 2008, 2009, 2011
Award of Minister of National Education	2001
Fellowship of the TICAM (now ICES)	2000
Fellowship of the Volkswagen Stiftung	1995
Fellowship of the European Communities	1993
Fellowship of the British Council	1992
Fellowship of the German Academic Exchange Service (DAAD)	1991
Award of Minister of National Education	1990
Award of Rector of Poznan University of Technology	1990
Medal "For outstanding graduate of the PUT"	1981

**LANGUAGES:** English, German, Russian

**AVOCATIONS:** Non-fiction, sports

2019-04-27