# Ph.D. Eng. Anna Kamińska-Chuchmała

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## Personal information:

Date and place of birth :	15th June 1982, Wrocław
Nationality:	Polish
Marital status:	married since 2008
Additional:	non-smoking

#### Education:

10.2010	Ph.D. in Electrical Engineering
2006 - 2010	Ph.D. studies at Wrocław University of Technology
	Faculty of Electrical Engineering
	Institute of Electrical Power Engineering
	Group of Power Networks and Systems
07.2006	M.Sc. in Computer Science
2001 - 2006	M.Sc. studies at Wrocław University of Technology
	Faculty of Fundamental Problems of Technology
	Field of study: Computer Science
	Specialization: Computer Security
1997 - 2001	High School No. 1 in Brzeg

# **Employment History:**

since 10.2011	Assistant Professor in Distributed Computer Systems Division at In-
	stitute of Informatics (since 12.2014 was transformed into Department
	of Informatics) at Faculty of Computer Science and Management at
	Wrocław University of Technology.
10.2010 - 09.2011	Assistant in Distributed Computer Systems Division at Institute of In-
	formatics at Wrocław University of Technology.

08.2006	Younger Computer Scientist for the Software Development in Bank
	BZWBK SA in Wrocław in Department of Application Development
	in Development and Support Team CBBS. Participation in project for
	the Department of Central Services.
10.2005 - 02.2006	Assistant in The Institute of Mathematics and Computer Science at The
	Faculty of Fundamental Problems of Technology at Wrocław University
	of Technology.

#### **Research Experience:**

11.2014 Receiving Wrocław University of Technology Rector Award in recognition of distinctive contributions to the university in year 2014. 10.2014 - 06.2015 Fellowship of research for the 4th edition of the Scholarship for Young Doctors (PostDoc's) Human Capital Operational Programme. The project is co-financed by the European Union under the European Social Fund. 06.2014 - 09.2015Project Leader: "Internet network performance with using geostatistical 3D forecasts" supported by Institute of Informatics at Wrocław University of Technology. 04.2014 - 09.2014Fellowship for the 10th edition of the Scholarship Competition for Human Capital Operational Programme. The project is co-financed by the European Union under the European Social Fund. 11.2013 Receiving Wrocław University of Technology Rector Award in recognition of distinctive contributions to the university in year 2013. Fellowship for the 9th edition of the Scholarship Competition for Human 01-30.09.2013 Capital Operational Programme. The project is co-financed by the European Union within the European Social Fund. 01-30.09.2013 Post-Doc in the Computational Intelligence Group headed by Prof. Manuel Graña in Universidad del Pais Vasco (UPV/EHU), San Sebastian, Spain. Research conducted with group within project funded by the EC, entitled Social and Smart (grant number 317947), project leader is University of Milan, and is carried out by 8 partners across Europe. 01-30.09.2013 Fellowship (as a Post-Doc) for the 6th edition of the Scholarship Competition for Human Capital Operational Programme co-financed by European Union within European Social Fund. 06.2013 - 09.2014Project Leader: "Comparing the ability of geostatistical and econome-

- 06.2013 09.2014 Project Leader: "Comparing the ability of geostatistical and econometric methods in spatial Web server performance" supported by Institute of Informatics at Wrocław University of Technology.
- 06.2012 09.2013 Project Leader: "3D Web Performance forecasting with using geostatistical simulation methods" supported by Institute of Informatics at Wrocław University of Technology.
- 05.2011 09.2012 Project Leader: "Methods and algorithms of spatio-temporal forecasting on the Internet" supported by Institute of Informatics at Wrocław University of Technology.
- 2006 2010 Ph.D. thesis: "Spatial electric load modeling and forecasting". Promoter: Prof. Artur Wilczyński. Reviewers: Prof. Jacek Malko from Wrocław University of Technology and Prof. Tomasz Popławski from Czestochowa University of Technology. The doctoral dissertation has been awarded.

03.2007 - 12.2007	Participation in research project supported by Ministry of National
	Education: "Electrical Power Engineering Security of Poland" about
	"Temporal-Areal Electric Load Forecasting" at Institute of Electrical
	Power Engineering at Wrocław University of Technology.
2005 - 2006	M.Sc. thesis: "NP-complete problems in planning of UMTS networks".
	Promoter Ph.D. Maciej Gębala. Reviewer: Prof. Jacek Cichoń from
	Wrocław University of Technology.
2005 - 2006	Participation in Student's project: DAL for company "Comarch" from
	Wrocław.
2005 - 2007	Co-founder and an active member of Scientific Circle of Psychology and
	Arts "Expression" at Wrocław University of Technology.
	Arts "Expression at wrociaw University of rechlology.

# Organizational Experience:

09.2015	Member of Program Committee of Workshop on Performance Evalu- ation of Parallel Applications on Large-Scale Systems to be held in con-
	junction with the 11th International Conference on Parallel Processing
00.0015	and Applied Mathematics - PPAM 2015.
09.2015	Reviewer on Workshop on Performance Evaluation of Parallel Applica- tions on Large-Scale Systems to be held in conjunction with the 11th
	International Conference on Parallel Processing and Applied Mathema- tics - PPAM 2015.
06 2015	
06.2015	Member of Program Committee of International Conference Software
. 04 0015	Engineering and Information Technology - SEIT2015.
since 04.2015	Reviewer of journal - Expert Systems with Applications published by Elsevier in USA.
since 03.2015	Reviewer of journal - e-Informatica Software Engineering.
02.2015	Member of Program Committee of 9th Conference Zarządzanie Energią
	i Teleinformatyka - ZET2015.
09.2014	Reviewer on 35th International Conference Information Systems Archi-
	tecture and Technology - ISAT2015.
since 08.2014	Reviewer of journal - International Journal of Neural Systems published
	by World Scientific Publishing.
02.2014	Reviewer on 8th Conference Zarządzanie Energią i Teleinformatyka - ZET2014.
02.2014	Member of Program Committee of 8th Conference Zarządzanie Energią
02.2011	i Teleinformatyka - ZET2014.
02.2014	Chair in session on 8th Conference Zarządzanie Energią i
02.2011	Teleinformatyka- ZET2014.
since 01.2014	Reviewer of journal - IEEE Transactions on Industrial Informatics pu-
	blished by IEEE in USA.
09.2013	Reviewer on 34th International Conference Information Systems Archi-
	tecture and Technology - ISAT2013.
09.2013	Member of Organizing Committee of 34th International Conference In-
	formation Systems Architecture and Technology - ISAT2013.
since 2013	Member of IEEE (including societies: IEEE Communication, IEEE In-
	dustrial Electronics and IEEE Computer).
since 01.2013	Reviewer of journal Computer Technology and Application (CTA) pu-
	blished by David Publishing Company, USA.

- 09.2012 Chair in session on 33rd International Conference Information Systems Architecture and Technology.
- 09.2011 Member of Organizing Committee of 32nd International Conference Information Systems Architecture and Technology - ISAT2011.

## **Educational Experience:**

09.2015	Reviewer on 13th Students' Science Conference.
09.2015	Member of Program Committee of 13th Students' Science Conference.
10.2014	Ph.D. thesis reviewer: "Lattice Computing and Hyperspectral Image Processing for Human Detection and Identification" written by Ion Ma- rqués Bailón from Universidad del Pais Vasco (UPV/EHU) in San Se-
00.0014	bastian, Spain.
09.2014	Reviewer on 12th Students' Science Conference.
09.2014	Member of Program Committee of 12th Students' Science Conference.
05.2014	Grant from Lifelong Learning Erasmus Programme for the purpose of teaching at the partner university: Department of Information Engine-
	ering at Universitá di Pisa in Italy. Lectures were conducted in English
	for Master students at computer science study.
since $2012$	Promoted 13 M.Sc. theses.
since 10.2010	Teaching courses: "Modeling and Analysis of Web Systems", "Internet Infrastructure", "Web Systems", "Web Systems Programming", "Em-
	bedded and mobile systems", "Distributed Information Systems", and "Architecture of Modern Computer Systems and Networks".
2006 - 2010	Teaching courses during the Ph.D. studies: "Computer Science in Elec- trical Engineering", "Fundamentals of Computer Science", and "Infor- mation Technologies".
2005 - 2006	Teaching a course during the M.Sc. studies: "Data base Laboratory".
2000 2000	reaching a course during the M.Sc. studies. "Data base Daboratory.

## Other Experience and Skills:

11.2013	Workshop on "Publish with Wiley in recognized scientific journals" or- ganized by Wiley in collaboration with the European Association of
	Science Editors.
11.2010	Training on basic issues related to the preparation of a proposal for
	the 7th Framework Programme. Training "Write down in the grant"
	organized by the Wrocław Centre for Technology Transfer.
since 10.2010	WebMaster and WWW page Administrator in Distributed Computers
	Systems Division.
2006 - 2010	WebMaster and WWW page Administrator in Group of Power Ne-
	tworks and Systems.
04.2008	Completed training for Ph.D. students of Wrocław University of Techno-
	logy in field of the protection and commercialization of scientific results.
02.2006	Completed training for students "Modern technology in practice. Plat-
	form IBM iSeries. Through innovations to your future" at Wrocław
	University of Technology in cooperation with IBM Poland and Scienti-
	fic Circle SISK at Wrocław University of Technology.
08.1999	Driving license: category B.

### Languages:

Polish	native
English	fluent
French	good
Spanish	basic
Italian	basic
German	basic

#### **Research** interests:

Web systems:	Web performance, distributed web networks, measurement experiments of Internet and WWW (methods, tools, the planning and the realization of measurement concerning topology and traffic).
Forecasting:	spatial 3D (area-time) forecast using geostatistical, econometric and
	fuzzy methods.
Geostatistics:	simulation methods, estimation methods (kriging), approximation of
	the variogram.
Biometrics	verification algorithms (especially iris recognition), security of stored
verification:	patterns (data bases, microprocessor cards), storage patterns in accor-
	dance with the law.

#### Activities and hobbies:

Sport:	ballroom dancing (cathegory Hobby Start), tennis, aerobics (shape, cal-
	lanetics, step reebok), mountain trekking, cross-country skiing, skating,
	bicycle touring, martial arts (Tai Chi), running.
Other:	psychology (cognitive process), books (especially by John Grisham, Dan
	Brown, and Paulo Coelho), gardening, photography, painting.

## Publications:

- 1. L. Borzemski, A. Kamińska-Chuchmała, Distributed Web Server's Data Performance Processing with Application of Spatial Econometrics Models, Advances in Intelligent Systems and Computing, Springer, in review.
- I. Marqués, M. Graña, D., A. Kamińska-Chuchmała, Bruno Apolloni, An experiment of subconscious intelligent social computing on household appliances, Neurocomputing, 2015, in press, available online 25 May 2015: http://dx.doi.org/10.1016/j.neucom.2014.08.103
- M. Graña, D. Nuñez-Gonzalez, L. Ozaeta, A. Kamińska-Chuchmała, Experiments of Trust Prediction in Social Networks by Artificial Neural Networks, Cybernetics and Systems: An International Journal, Vol. 46, Issue 1-2, 2015, pp. 19-34.
- A. Kamińska-Chuchmała, Research and Analysis of the Network Performance in Data Transmission Aspect, Rynek Energii No. 1(116), 2015, pp. 104-107, presented at Multiconference Zarządzanie Energią i Teleinformatyka - ZET 2015, Nałęczów, 18-20.02.2015.

- 5. A. Kamińska-Chuchmała, M. Schatt, Research and measurement of Web servers performance in Internet network using PlanetLab environment, Information systems architecture and technology: contemporary approaches to design and evaluation of information systems, Oficyna Wydawnicza PWr, Wrocław 2014, pp. 19-28.
- A. Kamińska-Chuchmała, Spatial Internet traffic load forecasting with using estimation method, Procedia Computer Science, Elsevier, Vol. 35, 2014, pp. 290-298, presented at 18th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems - KES 2014, Gdynia, 15-17.09.2014.
- L. Borzemski, A. Kamińska-Chuchmała, The Impact of Network Characteristics on the Accuracy of Spatial Web Performance Forecasts, Recent Advances in Knowledgebased Paradigms and Applications, Advances in Intelligent Systems and Computing, Springer International Publishing Switzerland, Vol. 234, 2014, pp. 169-179.
- 8. L. Borzemski, A. Kamińska-Chuchmała, Web Server's Performance Prediction with Using Spatial Econometrics Methods, Rynek Energii No. 3(112), 2014, pp. 120-124.
- D. Całus, T. Odzimek, A. Kamińska-Chuchmała, Smart Management of Electrical Energy Consumption, Zarządzanie energią i teleinformatyka ZET 2014: materials and studies: Henryk Kaproń (ed.), Lublin: Kaprint, 2014, pp. 7-17.
- A. Kamińska-Chuchmała, Forecast of Internet network loads as a proposition to improving efficiency in communication of smart metering, Rynek Energii No. 2(111), 2014, pp. 127-131, presented at Multiconference Zarządzanie Energią i Teleinformatyka - ZET 2014, Nałęczów, 19-21.02.2014.
- 11. A. Kamińska-Chuchmała, T. Salwa, *Spatial web server performance prediction with using GSLIB*, Information systems architecture and technology : network architecture and applications, Oficyna Wydawnicza PWr, Wrocław 2013, pp. 153-162.
- L. Borzemski, A. Kamińska-Chuchmała, Web performance forecasting with kriging method, Contemporary Challenges and Solutions in Applied Artificial Intelligence Studies in Computational Intelligence, Springer, Vol. 489, 2013, pp. 149-154, presented at The International Science Conference: Industrial, Engineering & other Application of Applied Intelligent Systems ? IEA/AIE 2013, Amsterdam, 17-21.06.2013.
- L. Borzemski, A. Kamińska-Chuchmała, Web performance forecasting with kriging method, Contemporary Challenges and Solutions in Applied Artificial Intelligence Studies in Computational Intelligence, Springer, Vol. 489, 2013, pp. 149-154.
- L. Borzemski, A. Kamińska-Chuchmała, Spatial Econometrics Models in Web Servers Performance, Communications in Computer and Information Science, Vol. 370, Springer-Verlag Berlin, 2013, pp. 45-54, presented at The International Science Conference: Computer Networks - CN'13, Lwówek Śląski, 17-21.06.2013.
- L. Borzemski, M. Danielak, A. Kamińska-Chuchmała, Empirical Web Performance Evaluation with MWING System and Turning Bands Method, Communications in Computer and Information Science, Vol. 370, Springer-Verlag Berlin, 2013, pp. 55-63, presented at The International Science Conference: Computer Networks - CN'13, Lwówek Śląski, 17-21.06.2013.

- L. Borzemski, A. Kamińska-Chuchmała, Web Performance Forecasting Using Kriging Estimation Method, Rynek Energii No. 1(104), February 2013, pp. 74-78, presented at Multiconference Zarządzanie Energią i Teleinformatyka - ZET 2013, Nałęczów, 20-22.02.2013.
- L. Borzemski, A. Kamińska-Chuchmała, Distributed Web Systems Performance Forecasting Using Turning Bands Method, IEEE Transactions on Industrial Informatics, Vol. 9, Issue 1, 2013, pp. 254-261.
- L. Borzemski, M. Danielak, A. Kamińska-Chuchmała, Short-Term Spatio-Temporal Forecasts of Web Performance by Means of Turning Bands Method, Lecture Notes in Artificial Intelligence, Vol. 7654, 2012, pp. 132-141.
- L. Borzemski, M. Danielak, A. Kamińska-Chuchmała, Comparison of Turning Bands Method and Sequetial Gaussian Simulation in Daily Analyses of Web Servers' Performance, Information Systems Architecture and Technology, Oficyna Wydawnicza PWr, Wrocław 2012, pp. 11-20.
- 20. L. Borzemski, A. Kamińska-Chuchmała, Knowledge Engineering Relating to Spatial Web Performance Forecasting with Sequential Gaussian Simulation Method, Advances in Knowledge-Based and Intelligent Information and Engineering Systems. Frontiers in Artificial Intelligence and Applications, Vol. 243, IOS Press Amsterdam, 2012, pp. 1439-1448, presented at 16th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems - KES 2012, San Sebastian, Spain, 10-12.09.2012.
- A. Kamińska-Chuchmała, Performance of Internet Network Forecast and the Perspective of Application in Smart Metering Communications, Rynek Energii No. 3(100), June 2012, pp. 39-43.
- L. Borzemski, A. Kamińska-Chuchmała, Spatio-temporal Web Performance Forecasting with Sequential Gaussian Simulation Method, Communications in Computer and Information Science, Vol. 291, Springer-Verlag Berlin, 2012, pp. 111-119, presented at The International Science Conference: Computer Networks - CN'12, Szczyrk, 19-23.06.2012.
- L. Borzemski, A. Kamińska-Chuchmała, Client-Perceived Web Performance Knowledge Discovery through Turning Bands Method, Cybernetics and Systems: An International Journal, Vol. 43, Issue 4, 2012, pp. 354-368.
- 24. A. Kamińska-Chuchmała, Comparison of geostatistical simulation methods applied in forecasts of power network and Internet, Zarządzanie energią i teleinformatyka ZET 2012 : materials and studies : Henryk Kaproń (ed.), Lublin: Kaprint, 2012, pp. 97-105, presented at Multiconference Zarządzanie Energią i Teleinformatyka - ZET 2012, Nałęczów, 15-17.02.2012.
- L. Borzemski, A. Kamińska-Chuchmała, Spatial Web Performance Forecasting with Sequential Gaussian Simulation Method, Information Systems Architecture and Technology, Oficyna Wydawnicza PWr, Wrocław 2011, pp. 37-46.

- 26. L. Borzemski, A. Kamińska-Chuchmała, Knowledge discovery about web performance with geostatistical Turning Bands method, Lecture Notes in Artificial Intelligence Vol. 6882, 2011, pp. 581-590, presented at 15th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems - KES 2011, Kaiserslautern, Germany, 12-14.09.2011.
- A. Kamińska-Chuchmała, A. Wilczyński, Comparative analysis of different models of spatial electric loads forecasts, Rynek Energii No. 4(95), pp. 97-101, presented at International Conference: Forecasting in Electric Power Engineering - PE 2011, Wisła, 14-16.09.2011.
- L. Borzemski, A. Kamińska-Chuchmała, 3D Web Performance Forecasting Using Turning Bands Method, Communications in Computer and Information Science, Vol. 160, Springer-Verlag Berlin, 2011, pp. 102-113, presented at The International Science Conference: Computer Networks - CN'11, Ustroń, 14-18.06.2011.
- A. Kaminska-Chuchmała, A. Wilczyński, Spatial electric load forecasting in transmission networks with Sequential Gaussian Simulation method, Rynek Energii No. 1(92), 35-40, presented at Multiconference Zarządzanie Energią i Teleinformatyka -ZET 2011, Nałęczów, 09-11.02.2011.
- A. Kamińska-Chuchmała, A. Wilczyński, Analysis of Different Methodological Factors on Accuracy of Spatial Electrical Load Forecast Performed with Turning Bands Method, Rynek Energii No. 2(87), pp. 54-59, presented at XVI Scientific-Technical Conference Rynek Energii Elektrycznej - REE 2010, Kaziemierz Dolny, 12-15.05.2010.
- 31. A. Kamińska-Chuchmała, A. Wilczyński, 3D electric load forecasting using geostatistical simulation method Turning Bands, The works of Wrocław Scientific Society, Vol. XVI, series B number 215, Wrocław 2009, pp. 41-48, presented at XVI National Conference The Computer-Aided Scientific Research - KOWBAN 2009, Polanica Zdrój, 28-30.10.2009.
- 32. A. Kamińska-Chuchmała, A. Wilczyński, Application Simulation Methods to Spatial Electric Load Forecasting, Rynek Energii No. 1(80), February 2009, pp. 2-9, presented at Multiconference Zarządzanie Energią i Teleinformatyka - ZET 2009, Nałęczów, 25-27.02.2009.
- 33. A. Kamińska-Chuchmała, A. Wilczyński, Spatial Electric Load Forecasting with Simulation Methods, Proceedings of VI Scientific-Technical Conference Power Networks in Industry and Power Engineering - SIECI 2008, Szklarska Poręba, 10-12.09.2008, pp. 235-241.