

Elena A. Averboukh

Education and Training

1996 -	Doctorate in Engineering (Habilitation), Automatised Systems for Quality and Safety Control, University of Kassel, Germany
1992 -	Doctorate in Engineering (Habilitation), Technical Cybernetics, Decision Support & Statistical Process Control Systems, Moscow Energy Technical University
1980 - 1983	Doctorate in Engineering (PhD) in Automatic Control and Human-Machine Systems, Twer Technical University
1978 - 1982	M.Sc. in Mathematics (specialisation in Computing Techniques), Twer State University
1973 – 1978	M.Sc. in Electrical Engineering (Systems Engineering), Twer Technical University
1996	TRIZ Certified Instructor/Coach (Invention Machine Inc.)
1999	Lead Instructor/Course Developer Minitab™ (Additive GmbH – Distributor of Minitab in Germany)
2000	Certified Instructor iGrafx 2003 for Six Sigma
2001	Instructor for Black Belts/Green Belts/Champions (Six Sigma Qualtec Inc. SSQI – On-Job Training)
2002	Certified Instructor for Black Belts/Green Belts (by Motorola University)
2002	Certified Instructor/Coach Ideation-TRIZ (Ideation, Inc.)
2004	Certified Six Sigma Master Black Belt (SSQI/ ASQ)

Delivery of Six Sigma Training:

- DMAIC training (completing fifth programme Jan 2005)
- DFSS training (completing tenth programme Jan 2005)
- DFSS in Software/Web Design (completing third programme Apr 2005)
- Project Champion Training (12 classes conducted)
- Green Belt Training (10 classes conducted)

Coaching and Mentoring

Coached and certified Black Belts, Champions, Six Sigma Leaders, Green Belts from a wide range of business activities: Manufacturing, Design, R&D, Marketing & Sales, Financial Services, Human Resources, IT, Finance, E-Business.

Course Development

- training courses and course materials for Black- and Green Belts in manufacturing and transactional application areas, as well as for software/web-design, user interface design and e-business applications,
- for training Champions, Black- and Green Belts in Business Case- and Project Selection and Management;
- special courses for Master Black Belts in
 - advanced statistical topics using Minitab,
 - Business Process Modelling and Management using iGrafx 2003 for Six Sigma etc.,
 - Kansei Engineering,
 - Usability Engineering etc.

Skills Summary

An energetic, internationally recognised and highly respected Instructor/Coach/Master Black Belt with excellent teaching and consulting skills and experiences, strong people and leadership skills and a demonstrated ability to lead and to achieve successful Six Sigma deployment. Unique combination of strong academic cross-disciplinary background and creativity, with more than 27 years of industrial experience and successful international industrial and business records.

Project Management and Team Leadership

- Completed highly successful DMAIC/DFSS projects with high business and financial impact for more than 117 clients, providing extensive high-level business strategy, -processes, VOC and systems analysis, failure- and root cause analysis, process /systems modelling and evaluation, technology forecast and failure prediction, generation of innovative solutions, design and implementation of efficient control systems consulting.
- Since 1994-5 works with governmental clients as consultant/expert evaluator of national R&D programmes (Japan STA, MITI, European Commission) in innovative customer- and user-centred systems/product design and -evaluation and human behaviour modelling for quality of life at different stages:
Programme development, tender project-proposals evaluation, intermediate project results- and management evaluation, strategic consulting.
- Leading the implementation of Six Sigma in SMEs in Germany
- Experienced in deploying Six Sigma from the earliest stages

Training

- Recognised in advanced Team Training
- Clients praise her teaching and consulting abilities, excellent communication skills across all hierarchical levels from CEOs to technicians
- Course participants love her dynamic, interactive teaching style, success determination and devotion, and always comment on her depth of practical cross-disciplinary knowledge.
- Active in organising international conferences and workshops

Data Analysis

- Full range of DMAIC and Business/e-Business/Product DFSS tools and techniques including:
 - Cause & Effect, FMEA, Process Mapping
 - Gauge R&R
 - Process capability and Z shift
 - Hypothesis testing (t test, p test, F test, ANOVA, Chi squared etc)
 - Correlation and Simple/Multiple Linear Regression
 - Non-parametric statistics
 - Reliability Analysis
 - Time Series Modelling
 - Designed Experiments
 - Statistical Process Control charts
 - Voice of Customer Analysis, Kansei Engineering
 - Benchmarking
 - Needs analysis/QFD
 - Project Planning
- Highly proficient with Microsoft Office, Minitab, iGrafx 2003 Process for Six Sigma, Process Model, etc,

Software (re-) engineering

- UML (Unified Modelling Language)-tools for OO-Software (re-)engineering: Rational Rose, Analyst, Objective, Artisan, iLogix etc.
- IDEF Structured Data Analysis for software development
- Advanced methodology and tools for user-centred software design, usability engineering and usability testing
- Software ergonomics
- Programming languages C, C++, JAVA etc.

Innovative Problem Solving

- TRIZ
- Ideation-TRIZ
- I-TRIZ for DMAIC
- I-TRIZ for DFSS

Career History

Positions held:

2000 - 2002 Technical University of Poznan, **Honorary Prof.**, Post-graduate course "Internet Technologies"

2000 – ADDITIVE Academy GmbH, **Leader of Training Programme** " Statistical Process Control using MINITAB" and MINITAB for Six Sigma

Lead course developer and lead trainer for Minitab Users, particularly for Six Sigma

2000 EU Expert/Evaluator, 5th Framework Programme "Quality of Life"

1996-present **Assoc.Professor**, Institute for Measurements and Automation, University of Kassel
Interdisciplinary Centre for Quality of Life and Usability Studies (LUSI-Centre eG),
Master Black Belt

Industry funded professor/instructor/Master Black Belt. Full responsibility for project acquisition and marketing, project management, training course design and delivery, as well as for project results and reporting for commercial and governmental clients

1995 –2000 **Expert/Evaluator** for MITI- and STA-R&D National 5-year Programme Japan

Recipient of the Price of Japanese Government for foreign researchers, work as a strategic consultant during the Programme preparation (\$1,7B), tender proposal evaluation, as well as programme supervision and evaluation of the progress and intermediate results

1993 - 1996 **Senior Researcher**, Laboratory for Man-Machine Systems, University of Kassel, Germany

Co/deputy leader and project manager of several international R&D projects funded by DFG, European Commission; member of technical committee of industrial project consortium

1992 -1994 **Head of division** "Expert systems and technologies", INTEPRO, St.-Petersburg Ship Building Technical University

Full responsibility for project acquisition and marketing, project management, training course design and delivery, as well as for project results and reporting for commercial and governmental clients

1991- 1993 **Director** of "Intelligent and Control Laboratories" (INCOLAB), Ltd.

Full responsibility for project acquisition and marketing, management, financial results, training course design and delivery, as well as for project results and reporting for commercial and governmental clients

1986- 1991 **Senior Researcher and Head of Laboratory**, Research Institute in All-Union Scientific-Industrial Consortium for Geophysical Research and Plant in Wells, Twer

Full responsibility for project definition and management, as well as for project results and reporting for commercial and governmental clients

1978- 1986 **Junior Researcher, PhD Student and Senior Researcher**, Department „Automatisation and Control Systems“ (ACS), , Twer Technical University

Industry-related R&D project, deputy project-manager, training course design and delivery for students and continuing education for professor staff, responsible for innovation, project results and reporting for commercial and governmental clients

Awards:

1995 Japanese Government Research Award for Foreign Specialists (Science and Technology Agency)

1984 Silver medal of All-Union Exhibition of National Economy (VDNH, Moscow) for "System for Stabilisation of Quality Characteristics of Electrovacuum Glasses"

Lecturing

1998- International Usability School, LUSI-Centre eG, Six Sigma (DMAIC, DFSS, I-TRIZ) for Executives, Champions, Master-, Black- and Green Belts in Manufacturing, Transactional and Software Applications, Software Usability Qualification Programme, Meta- and OO-Modelling Methods and Technologies, Statistical Process Control, Six Sigma etc.

1997- Academy in Mannheim, Ass. Professor, "Creativity and Usability Engineering"

1996- University of Kassel, Ass. Professor „Quality and Safety Control Systems“/ Usability Master Class Courses "Creativity & Usability Engineering", "User Interface Design", " Innovative System-Design Technologies", "WEB-Usability" etc.

1995-1996 University of Kassel, Lector „Measuring, Control and Automatisation Techniques“

1986-1991 Twer State University, Docent (Associated Professor)
5th year, "Data processing and quality control systems and techniques (in geo- and petrophysics)"
Supervising industrial practice, course works and M.Sc. Diplomas

1981-1991 Twer Technical University, Lector : 5th year, "Modelling and Optimisation of Complex Systems", "Automatisation Systems for Enterprises", "Control Systems for Technological Processes" Continuing education for academic staff "Control Systems for Technological Processes"
Supervising course works and M.Sc. Diplomas

Publications:

Numerous publications, in the field of design and evaluation of complex interactive systems, software technologies, quality control and monitoring systems, adaptive user interfaces , quality assurance and usability testing, ergonomics, task and knowledge analysis, human performance modelling, intelligent tutoring systems, control diagnostics and identification of technological processes, statistical and simulation modelling. List of publications is available.

Patents:

9 Patents implemented in industries, 1 is Technical Standard.

Languages: English, German, Russian - fluent (Verbal and Written), Slavic languages – read and understand

Membership: IFAC, IEEE societies. Nominated by DIN expert in DIN AA4/AA8, CEN TC 122, WG6 (Ergonomics), in DIN ad-hoc Group on Usability. Active in organising International Conferences.