

CURRICULUM VITAE

Associate Professor Iouri Belski

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I hold a PhD in physics from the Moscow Institute of Physics and Technology and have over 13 years of industrial experience in the fields of electronics, measurement and instrumentation. I have published over 40 peer-reviewed papers, a book on systematic thinking and problem-solving and have been granted more than 20 inventor's certificates and patents, which have been used by industry. I have also won numerous grants totalling over \$2,000,000. I am a recognised expert in thinking and problem-solving and have consulted Governments and industrial clients in Australia and abroad. For my work at RMIT, I have received a number of Awards, including the 2006 Carrick Citation Award for Outstanding Contribution to Student Learning and the inaugural Vice-Chancellor's Distinguished Teaching Award in 2007.

QUALIFICATIONS

1992	Courses in management and intellectual property. Moscow Institute of Management, Russia.
1985 – 1989	PhD in Physics (semiconductors and dielectrics) Moscow Institute of Physics and Technology, Dolgoprudny, Russia.
1975 – 1981	MSc, BEng (First Class Honours), Automation and Electronics. Moscow Institute of Physics and Technology, Dolgoprudny, Russia.

EDUCATION EMPLOYMENT HISTORY

1996 – ongoing	Associate Professor of Thinking and Problem Solving. School of Electrical and Computer Engineering, RMIT University Melbourne, Australia.
1992 – 1993	Head, Department of Innovations. Russian-USA Joint Venture “TECOM”, Moscow. Supervised a design of innovations, developed methods and devices for novel medical apparatus and industrial equipment.
1980 – 1992	Principal Research Scientist, Project Leader and Project Deputy Leader. “PHONON” Scientific Research Institute, Moscow, Russia. Developed sensors, piezo-acoustic, microelectronics and microwave devices.

GRANTS AND FELLOWSHIPS

2008	RMIT Teaching and Learning Fellowship (\$85,000)
2007	LTIF Grant (\$40,500)
2003 – 2005	CRC, Intelligent Manufacturing Systems and Technologies Grant (\$200,000)
2000	Faculty of Engineering Fellowship (\$15,000)
1999	Faculty of Engineering Small Grants (\$8,000)
1984 – 1990	Four R&D grants while with “PHONON” Corporation, Moscow. (1,500,000 Russian Roubles)

AWARDS

2007	The Inaugural RMIT Vice-Chancellor's Distinguished Teaching Award
2006	Australian Federal Government Carrick Citation Award for Outstanding Contributions to Student Learning: <i>"For the creation of innovative methodologies and imaginative resources which help students in enhancing thinking and problem-solving skills"</i>
2005	SET Portfolio Teaching Award - Scholarship of Teaching
2005	RMIT Certificate of Achievement Teaching Award – Scholarship of Teaching
2004	RMIT University Teaching Award- Student Centred Teaching – HE
2004	SET Portfolio Special Commendation for Student-Centred Teaching
1988 – 1991	Best Inventor, "PHONON" Corporation, Moscow
1984 – 1986	Best Young Scientist, "PHONON" Corporation, Moscow

UNIVERSITY COMMUNITY SERVICE

2007 – ongoing	Member, University Policy and Programs Committee
2004 – 2005	Member, University Students Committee
2001 – 2003	Member, RMIT NTEU Executive Team
1999 – 2003	Elected Member, RMIT Academic Board

PROFESSIONAL MEMBERSHIPS

Institute of Electrical and Electronics Engineers (IEEE), Senior Member, Chair of the Victorian Chapter of the Education Society
Asia-Pacific TRIZ Association (APTA), President of APTA
Australian Association in Engineering Education (AAEE)

HONORARY MEMBERSHIP

Golden Key International Honour Society: "for contribution to tertiary education at RMIT, guidance and encouragement to students for lateral thinking and devotion to the development in the area of engineering".

CONSULTANCIES/COURSES ON THINKING & PROBLEM SOLVING SINCE 2000

2008	DSO National Laboratories, Singapore Ministry of Defence, Singapore Republic Polytechnic, Singapore
2007	ACC Austria, Ministry of Defence, Singapore Singapore Technologies Engineering, Singapore Republic Polytechnic, Singapore
2006	Singapore Technologies Engineering, Singapore Singapore Institute of Manufacturing Technology, Singapore
2005	Singapore Technologies Engineering, Singapore National Institute of Education, Singapore Masterfoods, Australia Dept. of State and Regional Development, NSW, Australia
2004	Singapore Technologies Engineering, Singapore National Institute of Education, Singapore Monash Accident Research Centre Australia
2003	Shafenacker Vision Systems, Australia R. M. Williams, Australia, SA Government, Australia Singapore Technologies Engineering, Singapore National Institute of Education, Singapore
2002	Becton Dickinson, Singapore Singapore Technologies Engineering, Singapore National Institute of Education, Singapore Shafenacker Vision Systems, Australia R. M. Williams, Australia, SA Government, Australia
2001	Bosch Australia, Energy Australia, Kraft, Australia,
2000	University of Michigan, Ann Arbor, MI, USA North Carolina State University, Raleigh, NC, USA Kraft, Australia; Honeywell, Australia

BOOK

Belski, I., (2007) *"Improve your Thinking: Substance-Field Analysis"*, TRIZ4U, Melbourne, ISBN 978-0-9803293-0-8, 196p.

PEER-REVIEWED PUBLICATIONS

(12 "classified" works are not included)

Belski, I., (2009). *TRIZ Course Enhances Thinking and Problem Solving Skills of Engineering Students*, Creativity and Innovation Management, Blackwell Publishing (accepted).

Belski, I., Belski I, (2008). Cognitive foundations of TRIZ problem solving tools, *Proceedings of the TRIZ-Future Conference*, The Netherlands, 5-7 Nov., pp 95-102.

Belski, I. (2008). Acquiring a Holistic picture: the *4Screens Web-based Simulator* Helping Students to Unify Behaviours of Electronic Systems, *Proceedings of the 8th IEEE international Conference on Advanced Learning Technologies*, Santander, Spain, 1 - 5 July, pp. 154-158.

H. Qasim, A Z Sadek, R Arsat, W Wlodarski, I Belski, R B Kaner and K Kalantar-zadeh, (2007) *Optical and Conductivity dependence on doping concentration of Polyaniline nanofibers*,

Belski, I., Gray, D.C., (2007). *Enhancing Students' Systems Thinking: Four-Screen Representation of Electronic Systems*, Proceedings of the 18 Conference of the Australasian Association of Engineering Education, 9-13 December.

Belski, I., (2007). *Using Task Evaluation and Reflection Instrument for Student Self-Assessment (TERISSA) To Improve Educational Assessment and Feedback*, Proceedings of the 18 Conference of the Australasian Association of Engineering Education, Melbourne, 9-13 December.

Belski, I., (2007). *TRIZ Course Enhances Thinking and Problem Solving Skills of Engineering Students*, Proceedings of the TRIZ-future conference, Frankfurt, Germany, 6-8 Nov., pp 9-14.

Belski, I., (2007) *Improvement of Thinking and Problem Solving Skills of Engineering Students as a result of a Formal Course on TRIZ Thinking Tools*, 13th International Conference on Thinking, Norrköping, Sweden, June, Volume 1, pp11-17.

Belski, I., (2006). *Reinventing Triz Thinking Tools: Substance – Field Analysis*, 5th International Conference TRIZFutures 06, Kortrijk, Belgium, October.

Belski, I., (2005). *Improving the Skills of Engineers in Systematic Thinking*, 4th Global Colloquia on Engineering Education ASEE/AEE, Sydney, September.

Belski, I., Gray, D.C., (2003). *Four-Screen Representation Of Electronic Systems*, Proceedings of the 33rd ASEE/IEEE Frontiers In Education Conference, Boulder (CO), USA, November.

Belski, I., (2002). *Systems Thinking – The Innovators Challenge*, Proceedings of the 9th Asia-Pacific Conference of Engineering Management Educators, Brisbane, Australia, October.

Belski, I., Shapiro, V., *Contradictions and Evolution of Technological Systems*, Proceedings of the 9th Asia-Pacific Conference of Engineering Management Educators, Brisbane, Australia,

Belski, I., (2002). *Seven Steps to Systems Thinking*, Proceedings of the 13th Annual Conference and Convention Australian Association of Engineering Educators, Canberra, Australia, September, pp 33-39.

Mendis, H., Mitchell, A., Belski, I., Austin, M.W., and Peverini, O.A., (2001). *Design, Realisation and Analysis of an Apodised, Film Loaded Acousto-Optic Tunable Filter*, J. Applied Physics B, vol. 73, pp. 489-493.

Mendis, H., Mitchell, A., Belski, I., and Austin, M., (2001). *Apodised Integrated Acousto-Optical Polarisation Converters using Tilted Film-Loaded SiO₂ Acoustical Waveguides on LiNbO₃*, Proceedings of the 10th European Conference on Integrated Optics, Paderborn, Germany, April pp 4-6.

Belski, I., Shapiro, V., (2000). *"The Universal Method for Technology Forecast: Does the Panacea Exist?"*, Transactions from the 12th Symposium on Quality Function Deployment, Novi, Michigan, USA, June, pp 242-251.

Belski, I., Sengupta, D., and Payne, F., (1999). *"Experimental Laboratory Exercises at Multiple Mastery Levels"*, Proceedings of the 11th Annual Conference and Convention Australian Association of Engineering Education, Adelaide, Australia, September.

Belski, I., (1999). *"Solving problems with Method of the Ideal Result (MIR)"*, Transactions from the 11th Symposium on Quality Function Deployment, Novi, Michigan, USA, June, pp 192-203.

Belski, I., Kennedy, P., Payne, F., Gray, C., Burton, P., Wong, C.C., and Beckett, P., (1999). *"Analysing The Effectiveness Of Multimedia In Engineering Education"*, Proceedings of 2nd Asia-Pacific Forum on Engineering and Technology Education, Sydney, Australia, July, pp115-119.

Belski, I., and Sengupta, D., (1999). *"Laboratory-Oriented Approach To The Undergraduate Electronics Education"*, Proceedings of The Pacific Region Conference On Electrical Engineering Education, Hastings, Victoria, June, pp125-128.

Belski, I., (1998). *"I Wish The Work To Be Completed By Itself, Without My Involvement: The Method Of The Ideal Result In Engineering Problem Solving"*, Proceedings of the World Innovation and Strategy Conference, Sydney, August, 199-206.

Belski, I., (1990). *"An electromagnetic coupling coefficient of LiNbO₃ and layered structures on it's base"*, (see above).

Belski, I., Sorokin, V., Kandyba, P., (1990). *"SAW-Velocity monitoring in LiNbO₃ plates for TV-filters"*, Proceedings of the All-Union Conference in Acoustics, Leningrad, Russia.

Belski, I., Skirda, N., (1989). *"A new concept of a thermostable SAW-generator"*, (see above).

Belski, I., Sorokin, V., Rusakov, A., (1989). *"A high selective Ggh SAW-filter based on the optical lithography"*, Proceedings of the All-Union Conference in Solid State Physics, Kishinev.

Belski, I., Vorobiov, V., Voronov, V., Britcin, K., (1989). *"A thermo-stabilised SAW delay line"* (see above)

Belski, I., Osipenko, V., Golubski, A., (1989). *"Growing and testing of the layered structure ZnO/Si for SAW devices"* (see above).

Belski, I., Golubski, A., (1989). *"Acoustic properties of new layered structures for SAW"*, (see above).

Belski, I., Kandyba, P., (1989). *"Influence of an external electric circuit on SAW velocity under IDT"*, (see above).

Beresin, G., Belski, I., (1989). *"A method for suppression of bulk waves in SAW devices"*, (see above).

Belski, I., (1989). *"Characteristics of Surface Acoustic Waves in Piezo- crystals and Layered structures"*, Ph.D. Thesis, MIP&T.

Belski, I., Osipenko, V., (1988). *"Acoustic properties of layered structures ZnO/Si, ZnO/Al₂O₃"*, Proceedings of the All-Union Conference "Materials for Acoustoelectronics", Moscow.

Belski, I., Sorokin, V., Rusakov, A., (1987). *"Increasing of the IDT selectivity on high harmonics"*, Proceedings of All-Union Conference "Acousto-electronic devices for information processing", Cherkassy, Ukraine.

Belski, I., Golubski, A., Kandyba, P., (1986). *"Layered structure ZnO on Sapphire in SAW devices"*. (see above)

Belski, I., Kandyba, P., Osipenko, V., (1986). *"SAW-dispersion in layered structures"*, Proceedings of the All-Union Conference in Acoustics, Kiev, Ukraine.

Belski, I., Osipenko, V., (1988). *"SAW-screening effect in layered structure piezoelectric film ZnO on Si"*, Sov. Radiotechnics and Electronics, XII, No 10.

Belski, I., Bugaev, A., Kandyba, P., Osipenko, V., Sorokin, V., (1986). *"Generation of SAW in layered structures YIG-GGG by means of piezoelectric films"*, Physical Phenomenon in Electronic Devices, MIPT, No 1.

Belski, I. (1981). *"Investigation of Surface Magnetostatic Wave Delay Lines"*, MSc Thesis, MIPT.

INVENTORS CERTIFICATES AND PATENTS

Belski, I., Rusakov, A., Dombrovski, A., (1993). *"A SAW- filter for TV-sets"*, Russian Patent, No.2000037.

Belski, I., Rusakov, A., Dombrovski, A., (1993). *"A SAW-filter for TV-sets"*, Russian Patent No.2000031.

Baidak, A., Belski, I., Kondratiev, S., (1992). *"A method of SAW-velocity measurement"*, Russian Patent.

Belski, I., (1991). *"A SAW-device"*, USSR No.1651353.

Belski, I., Malahov, V., Sorokin, V., (1990). *"A SAW-sensor"*, USSR No.1629840.

Belski, I., Malahov, V., Sorokin, V., (1990) *"A SAW-sensor"*, USSR No.1629835.

Belski, I., Kiselev, S., Kondratiev, S., Sorokin, V., (1990). *"A SAW-device"*, USSR No.1627046.

Belski, I., (1990). *"A SAW-device"*, USSR No.1588248.

Belski, I., (1990). *"A SAW-device"*, USSR No.1565326.

Belski, I., (1989). *"A method for measuring the electromechanical coupling coefficient of material"*, USSR No.1545728.

Belski, I., Sorokin, V., Rusakov, A., (1989). *"A SAW-transducer"*, USSR No.1535339.

Abramov, D., Belski, I., (1989). *"A SAW-device"*, USSR No.1514219.

Belski, I., (1989). *"A method for measuring the mechanical properties of material"*, USSR No.1518779.

Belski, I., Kandyba, p., Sorokin, V., (1989). *"A method of SAW insertion loss measurement"*, USSR No. 1517706.

Belski, I., Sorokin, V., (1989). *"A method of SAW-velocity measurement"*, USSR No.1490501.

Belski, I., (1989). *"A device for measuring the SAW insertion loss"*, USSR No.1478829.

Berezin, G., Belski, I., (1989). *"A SAW-device"*, USSR No.1489549.

Belski, I., (1989). *"A method for measuring the SAW dispersion characteristics in layered structures"*, USSR No.1455969

Belski, I., (1988) *"A method for measuring the electromechanical coupling coefficient of material"*, USSR No.1421051.

Belski, I., Bozenko, V., Kandyba, P., Sorokin, V., (1989). *"A method for measuring the SAW-reflection coefficient"*, USSR No.1415866.

Belski, I., Sorokin, V., Kandyba, P., (1987). *"A method of wave insertion loss measurement"*, USSR No. 1329386.

Belski, I., Sorokin, V., (1987) *"A method of SAW-velocity measurement"*, USSR No.1298549.