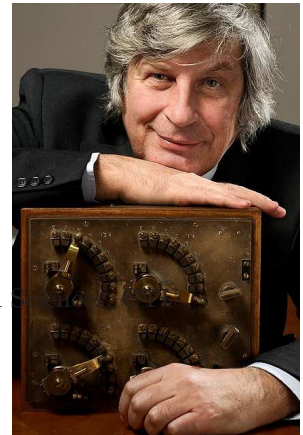


prof. RNDr. Miroslav Vlček, DrSc.

<i>status:</i>	married, 2 children
<i>credo:</i>	Non vīs sed saepe cadendō
<i>hobby:</i>	mathematics, baroque music, hiking
<i>degree :</i>	2000 - prof. in Theoretical Electrical Eng. - CTU in Prague 1994 - DrSc. in Radioelectronics - CTU in Prague 1975 - RNDr. in Theoretical Physics - Charles University
<i>profession:</i>	
2014 - recent	vice-rector for international relations CTU
2010 - 2013	vice-dean for international relations Faculty of Transportation
1995 - recent	head of department of applied mathematics
2000 - 2010	vice-rector for international relations CTU
1998 - 1999	vice-dean for science and research
1998	dean - Faculty of Transportation Sciences, CTU
1993 - 1998	vice-dean for education
1974 - 1994	research fellow - Faculty of Electrical Engineering, CTU
<i>teaching :</i>	
2009 - recent	Mathematical Tools, lectures in English
2004 - 2009	Mathematical Algorithms
1996 - 2013	Systems and Processes
1993 - recent	Digital Filter Design, lectures for PhD. students
1993 - 1999	Digital Communication Circuits
1989 - 1992	Applied Mathematics, lectures in English Junior College Msida, Republic of Malta
1989 - 1992	building a new course in mathematics, lectures in English Art and Design Center, Valleta, Republic of Malta
1976 - 1980	Theory of Transmission Lines
<i>membership in boards:</i>	
2008 - recent	editorial board of Int. Journal of Systems Signal Control and Engineering Application http://medwelljournals.com/
2008 - recent	editorial board of Neural Network World www.nnw.cz
2007 - recent	board of advisors TxIS (Texas Institute of Science) www.txis.us
2006 - recent	scientific council of Charles University
1994 - recent	scientific council of Faculty of Transportation Sciences CTU
2008 - 2009	management committee of CESAER www.cesaer.org
2005 - 2009	board of directors CESAER
2005 - 2009	T.I.M.E. Coordinator for CTU https://www.time-association.org/home
2000 - 2005	scientific council of University of Economy
1994 - 2005	scientific council of CTU, and Faculty of Electrical Engineering CTU
<i>other membership:</i>	
2009 - recent	member of panel and peer reviews, Czech Science Foundation (GACR)
2007 - 2009	expert EC Information Society and Media DG, evaluation of proposals for ICT
1999 - 2002	member of expert group of parliament council for science and universities
1998 - recent	Eisenhower Fellow Czech Republic
<i>activity abroad:</i>	
1999	Alexander von Humboldt Stiftung, Universität Erlangen-Nürnberg, SRN, Lehrstuhl für Allgemeine und Theoretische Elektrotechnik, research visit, 3 months
1998	Eisenhower Exchange Fellowship, USA, 2 months programme devoted to university top management, visiting 14 prestigious US universities and 3 governmental institutions for science and education, and Congress of the United States of America
1997	Alexander von Humboldt Stiftung, Universität Erlangen-Nürnberg, SRN, Lehrstuhl für Allgemeine und Theoretische Elektrotechnik, research visit, 6 months
1996	Institut National des Télécommunication, France Télécom, Evry, France, 1 month research visit



- 1988 Alexander von Humboldt Stiftung, Universität Erlangen-Nürnberg, SRN, Lehrstuhl für Allgemeine und Theoretische Elektrotechnik, 1 year research visit
- 1978 - 1979 British Council Scholarship, Queen Mary College, University of London, UK, Department of Electrical Engineering, 1 year research visit
- awards:*
- 2011 medal of Josef Hlávka
- languages:*
- English, Russian, German
- publications:*
- over 130 publications
- [1] P. Zahradnik, M. Susta, M. Vlcek, B. Simak: "Degree of Equiripple Narrow Bandpass FIR Filter", *IEEE Trans. Circuits Syst.*, vol. 62, no. 8, August 2015, pp. 771 -775.
 - [2] V. Climente-Alarcon, J. A. Antonino-Daviu, M. Riera-Guasp, M. Vlcek: "Induction Motor Diagnosis by Advanced Notch FIR Filters and the Wigner-Ville Distribution", *IEEE Transactions on Industrial Electronics*, vol. 61, no. 8, August 2014, pp. 4217 - 4227.
 - [3] M. Vlcek, P. Zahradnik: "Almost Equiripple Low-Pass FIR Filters", *Circuits System and Signal Processing*, vol. 32, no. 2, 2013, pp. 743-757.
 - [4] P. Zahradnik, M. Vlcek: "Notch Filtering Suitable for Real Time Removal of Power Line Interference", *Radioengineering*, vol. 22, no. 1, 2013, pp. 186-193.
 - [5] P. Zahradnik, M. Vlcek: "Perfect Decomposition Narrow-Band FIR Filter Banks", *IEEE Trans. Circuits Syst.*, vol. 59, no. 11, November 2012, pp. 805 - 809.
 - [6] M. Vlcek: "Chebyshev Polynomial Approximation for Activation Sigmoid Function", *Neural Network World*, vol. 22, no. 4(2012), pp. 387-393.
 - [7] P. Zahradnik, M. Vlcek : "Equiripple Approximation of Half-Band FIR Filters", *IEEE Trans. on Circuits and Systems*, vol. 56, no. 12, December 2009, pp. 941-945.
 - [8] P. Zahradnik, M. Vlcek, R. Unbehauen: "Design of Optimal Comb FIR Filters-Speed and Robustness", *IEEE Signal Processing Letters*, vol. 16, no. 6, June 2009, pp. 465 - 468.
 - [9] P. Zahradnik, M. Vlcek: "Note on the Design of an Equiripple DC-Notch Filter", *IEEE Trans. Circuits Syst.*, vol. 54, no. 2, February 2007, pp. 196 - 199.
 - [10] P. Zahradnik, M. Vlcek: "An Analytical Procedure for Critical Frequency Tuning of FIR Filters", *IEEE Trans. Circuits Syst.*, vol. 53, no. 1, January 2006, pp. 72 - 76.
 - [11] P. Zahradnik, M. Vlcek: "Analytic Design Method for Optimal Equiripple Comb FIR Filters", *IEEE Trans. Circuits Syst.*, vol. 52, no. 2, February 2005, pp. 112-115.
 - [12] P. Zahradnik, M. Vlcek: "Fast Analytical Design Algorithms for FIR Notch Filters", *IEEE Trans. Circuits Syst.*, vol. 51, no. 3, March 2004, pp. 608 - 623.
 - [13] V. Davidek, M. Laipert, M. Vlcek: *Analog and digital filters*, Publishing House of CTU, Praha 2004, 345 p. ISBN 80-01-03026-1, (in Czech).
 - [14] M. Vlcek, P. Zahradnik, R. Unbehauen : "Analytical Design of FIR Filters", *IEEE Trans. Signal Processing*, vol. 48, no. 9, September 2000, p. 2705 - 2709.
 - [15] M. Vlcek, R. Unbehauen, R.: "Zolotarev Polynomials and Optimal FIR Filters", *IEEE Trans. Signal Processing*, vol. 47, no. 3, March 1999, p. 717 - 730.
 - [16] P. Zahradnik, M. Vlcek, R. Unbehauen: "Almost Equiripple FIR Half-Band Filters", *IEEE Trans. Circuits and Syst.*, vol. 46, no. 6, June 1999 p. 744 - 748.
 - [17] M. Vlcek, R. Unbehauen: "Note to the Coefficients of the Chebyshev Window Function", *AEÜ - Archiv für Elektronik und Übertragungstechnik*, 1990, vol. 44, no. 6, p. 495 - 496.
 - [18] M. Vlcek, R. Unbehauen: "Note to the Window Function with Nearly Minimum Sidelobe Energy", *IEEE Trans. Circuits Syst.*, vol. 37, no. 10, October 1990, p. 1323 - 1324.
 - [19] M. Vlcek, R. Unbehauen: "Analytical Solutions for Design of IIR Equiripple Filters", *IEEE Trans. Acoust., Speech, Signal Processing*, vol. 37, no. 10, October 1989, p. 1518 - 1531.
 - [20] M. Vlcek, R. Unbehauen: "Degree, Ripple, and Transition Width of Elliptic Filters", *IEEE Trans. Circuits Syst.*, vol. 36, no. 3, March 1989, p. 469 - 472.
 - [21] A. Kufudakis, M. Vlcek: "Modification of Deflection Method for Study of Diffusion - Elastic Phenomena in Plated Layers", *Czechoslovak Journal of Physics* 1976, vol. 1976, no. B 26, p. 795 - 806.

recent projects:

- 2011 - 2013 project of GACR *Novel selective transforms for non-stationary signal processing*
- 2008 - 2009 team member of pilot project EU *GAST - Green and Safe Road Transportation*
- 2001 - 2005 national representative in the project COST Action 276 *Information and Knowledge Management for Integrated Media Communication Systems*
- 1999 - 2004 principal researcher responsible for institutional research project CEZ:J04/98:210000023
System analysis, algorithms and statistical methods for transportation and communications

contacts:

<http://vlcek.fd.cvut.cz>

miroslav.vlcek@cvut.cz

Prague, March, 2016