

# CURRICULUM VITAE

**Corneliu Rusu**

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## Affiliation

Technical University of Cluj-Napoca  
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## Date and Place of Birth

December 9, 1960, Surduc, Salaj county, Romania

## Education

1997–2000: **Dr. Tech. (with honors) in Signal and Image Processing**  
Tampere University of Technology, Finland; Signal Processing Laboratory

1990–1996: **Ph. D. in Electronics Engineering**  
Technical University of Cluj-Napoca, Romania; Faculty of Electronics and Telecommunications

1986–1990: **M.Sc. in Mathematics**  
"Babes-Bolyai" University, Cluj-Napoca, Romania; Faculty of Mathematics and Computer Science

1980–1985: **M.Sc. in Electronics and Telecommunications**  
Technical University of Cluj-Napoca, Romania; Faculty of Electronics and Telecommunications

1975-1979: Lyceum Jibou (1975-1976), Lyceum "N. Balcescu" Cluj-Napoca (1976-1979), Lyceum Plat-forma Magurele (1978, 3rd sem.), Lyceum "Mihai Viteazul" Bucuresti (1979, 3rd sem.)

## Professional Experience

1.10.2000–present: **Professor**  
Technical University of Cluj-Napoca, Faculty of Electronics and Telecommunications

1.09.1997–14.02.2000: **Ph.D Researcher**  
Tampere University of Technology, Tampere, Finland; Signal Processing Laboratory

15.02.1991–31.08.1997, 15.02.2000–30.09.2000: **Assist. Prof., Senior Lecturer, Assoc. Prof.**  
Technical University of Cluj-Napoca, Faculty of Electronics and Telecommunications

1.09.1985–14.02.1991: **Computer Service and Debugging Engineer**  
IIRUC, Bucharest, Romania; XX Computer Systems Division, Cluj-Napoca Branch

## Professional Society Memberships

- Senior Member, Institute of Electrical and Electronics Engineers (IEEE) (March 2011– present);
- Member, IEEE (January 1995–March 2011);
- EURASIP Local Liaison Officer for Romania (March 2014– present);
- Member, European Association for Signal Processing (EURASIP) (September 1996–present);

## Editorships

- Editor of the *Novice Insights in Electronics, Communications and Information Technology*: 2006–2016
- Associate Editor of the *ACTA TECHNICA NAPOCENSIS Electronica-Telecomunicatii (Electronics and Telecommunications)*: 1997, 2005–2007

## Organizing Committees

- Co-Chair The 8th International Conference on Speech Technology and Human-Computer Dialogue SpeD 2015 (IEEE and EURASIP conference)
- Co-Chairman, International Workshop on Recent Trends in Signal Processing RTSP 2015 (EURASIP co-sponsor workshop)
- Co-Chair The 7th International Conference on Speech Technology and Human-Computer Dialogue SpeD 2013 (IEEE and EURASIP conference)
- Exhibits Chair, EURASIP European Signal Processing Conference EUSIPCO-2012
- Area Chair, EURASIP European Signal Processing Conference EUSIPCO-2012
- Chairman, Workshop on Signal Processing and Applied Mathematics for Electronics and Communication SPAMEC 2011 (EURASIP co-sponsor workshop)
- Workshop Chair, Workshop on Embedded System Design and Applications ESDA 2009
- General Chair, Workshop on Signal Processing Systems for Wireless Communications SPSWC 2008
- Technical Co-Chair, International Workshop on Recent Trends in Signal Processing RTSP 2007

## Conference/Workshop Technical Programme Committee

- Member of Technical Programme Committee, European Signal Processing Conference EUSIPCO 2009, 2010, 2015, 2016
- Member of Technical Programme Committee, ISCAS 2013, 2014, 2015, 2016
- Member of Scientific Committee, Workshop on Embedded System Design and Applications ESDA 2007, 2008, 2010
- Member of International Program Committee, International Workshop on Nonlinear Signal and Image Processing NSIP 2007

## Grants - Director

- Workshop SPAMEC 2011 ANCS 144M/8.08.2011
- Adaptive Signal Reconstruction for Compressive Sampling of Acoustic Arrays, PN\_ID.162.2008, 2008—2011
- Signal Processing Systems for Wireless Communications, CNCSIS WE\_107.2008, 2008
- Adaptive Filters with Variable Structure, CNCSIS A-722, 2001–2004

## Publications

- 14 articles in signal processing journals with Thomson Reuters (ISI) Impact Factor
- 35 papers in major signal processing and circuits conferences (ICASSP, ISCAS, ICIP, EUSIPCO, ECCTD)
- 16 books, monographs, textbooks, collections of exercises or book chapters
- 26 articles published in referred journals
- 95 papers published in referred conference and workshops proceedings

## Research Results as First Author

- Exponentiated convex variable step-size algorithm, (*Signal Processing*, Volume 90, Issue 9, Sept. 2010, pp. 2784–2791, TR-ISI Impact Factor: 2.209)
- The causal part of autocorrelation is minimum-phase (*Signal Processing*, Volume 89, Issue 6, June 2009, pp. 1032–1037, TR-ISI Impact Factor: 2.209)
- Zeros localisation using FFT (*IEEE Signal Processing Letters*, Volume 11, Issue 10, Oct. 2004, pp. 817–820, TR-ISI Impact Factor: 1.751)
- Phase approximation by logarithmic sampling of gain (*IEEE Transactions on Circuits and Systems II: Analog and Digital Signal Processing*, Volume: 50, Issue: 2, Feb. 2003, pp. 93–101, TR-ISI Impact Factor: 1.234)
- Circle fitting by weighted inversion (*J. Electron. Imaging*, Vol. 12, Jan. 2003, pp. 179–193, TR-ISI Impact Factor: 0.672)
- The phase is the series of the odd derivatives of the neperian gain (*Circuits, Systems, and Signal Processing*, Volume 21, Number 3, May 2002, pp.243–261, TR-ISI Impact Factor: 1.118)
- Variable error-exponent (*IEE Proceedings Vision, Image and Signal Processing*, Volume: 147, Issue: 6, Dec. 2000, pp. 516–526, TR-ISI Impact Factor: 0.46)
- Cost function adaptation (*Signal Processing*, Volume 80, Issue 11, Nov. 2000, pp. 2457–2473, TR-ISI Impact Factor: 2.209)
- Convex variable step-size (*IEEE Signal Processing Letters*, Volume 7, Issue 9, Sep. 2000, pp. 256–258, TR-ISI Impact Factor: 1.751)

## Talks

- *On some properties of minimum-phase and zero-phase sequences*, University Politehnica of Bucharest, February 16, 2012
- *On some properties of minimum-phase sequences*, Nokia Innovation Center, Tampere, September 17, 2009
- *Another Approach for Conversion of Analog Filters into Digital Filters* (joint work with Laura Kovacs), Tampere International Center for Signal Processing, April 1, 2007
- *Topics in Signal Reconstruction*, University of Nis, Faculty of Electronics, October 6, 2005
- *About Argument Principle in Signal Processing*, Tampere International Center for Signal Processing, February 18, 2003
- *Cost Function Adaptation for Data Echo Cancellation*, Helsinki University of Technology, Signal Processing Laboratory, August 30, 2001
- *Signal Analysis and Synthesis*, Technical University of Cluj-Napoca, Department of Mathematics, March, 2001
- *Further Developments of a Geometrical Approach to Circle Fitting*, Tampere International Center for Signal Processing, November 7, 2000
- *Towards Cost Function Adaptation for Data Echo Cancellation*, Tampere University of Technology, Signal Processing Laboratory, January, 1997

## PhD Supervisor of Defended Dissertations - Technical University of Cluj-Napoca

1. Adriana Dabacan, *Cellular Membrane Properties - Effect on Neural Network Dynamics* - December 10, 2016
2. Flaviu-Ilie Bob, *Sound Recording and Processing for Determining Source and Signal Parameters*, April 12, 2014
3. Paul-Emanuel Baru, *Research in Risk Analysis for Medical Electronics*, April 12, 2014
4. Nicolae-Cristian Pampu, *Neuronal Signal Analysis Involved in Sensorial Processing*, November 24, 2013
5. Liviu-Teodor Chira, *Sparse Blind Deconvolution in Ultrasound Imeging using an Adaptive Clean Algorithm*, October 17, 2013
6. Adrian-Gabriel Lodin, *Contributions to Iris Image Analysis for Medical Applications*, September 28, 2012
7. Lucian-Ioan Iozan, *Researches Regarding Persons and Objects Localization using Sensors*, October 10, 2011
8. Marius-Vasile Ghiurcau, *Sound Classification in Forensic Scenarios*, September 16, 2011
9. Simina Moldovan Emerich, *Application of B-Spline Wavelet Analysis in Biometrics*, February 4, 2011
10. Anca Ioana Discant, *Contributions to the Information Fusion. Application to Obstacle Recognition in Visible and Infrared Images*, October 15, 2010
11. Vasile Vlad Moca, *Methods for Analysis and Classification of Biological Signals*, June 18, 2010
12. Lacrimioara-Romana Buzan, *Researches Regarding Phase Approximation from Frequency Response Gain Samples*, May 14, 2009
13. Florin Toadere, *Contributions to the Processing of the Signals Received from the Optical Sensors*, February 2, 2009
14. Carol Rus, *Researches Regarding Digital Image Processing for Structural Extraction and 3D Models Generation*, January 17, 2009
15. Annamaria Mesaros, *Research Regarding the Modeling of Musical Signals Timbre*, November 29, 2007

## Teaching - Technical University of Cluj-Napoca

- Mathematical Methods and Algorithms for Signal Processing, 2010–present
- Adaptive Filters and Statistical Signal Modelling, 2010–present
- Optical Signal Processing and Storage, 1999–2009
- Advanced Digital Signal Processing, 1995–2009
- Digital Signal Processing, 1994–present
- Peripheral Equipments, 1992–1996
- Signals, Circuits and Systems, 1991–1996

## Leadership

- Head of Doctoral School in Electronics and telecommunications, Technical University of Cluj-Napoca (November 2014–November 2016)
- Member of CNATDCU Committee for Electronics, telecommunications and nanotechnology (September 2012–present)
- Vicepresident of CNATDCU Committee for Electronics and telecommunications (February 2011–September 2012)
- Head of Signal Processing Group, Technical University of Cluj-Napoca, 1999–present