

# Nicolae-Cristian Pampu

## Curriculum Vitae

Uzinei. nr.20 bl.18  
Sibiu, Romania 550253  
✉ nicu.pampu@gmail.com

### Education

- 2011–present **Affiliated scientist**, *Center for Cognitive and Neural Studies (Coneural)*, Cluj-Napoca, Romania.
- 2010–present **Ph.D. student**, *Technical University of Cluj-Napoca*, Romania.
- 2007–2008 **Post university studies:**, *Computed Aided Design in Electrical Engineering(CAD)*, Technical University of Cluj-Napoca, Romania.
- 2007–2008 **Diploma Medical Engineering**, *Faculty of Electrical Engineering*, Technical University of Cluj-Napoca, Romania.

### Experience

- 2009–2011 **Hardware engineer and PCB design**, *Hanna Instruments*, Cluj-Napoca, Romania.
  - Product development
  - PCB design and manufacture integration
  - Validation responsibilities
- 2008–2009 **Regional sales manager**, *Traxdata/GTS-automatizari/IMarke*, Cluj-Napoca, Romania.
  - Offer technical solutions that include the company products
  - Improve the client number through technical assistance
  - Administrative requirements for the company residence
- 2007–2008 **Field application engineer**, *Vitacom Electronics*, Cluj-Napoca, Romania.
  - Sales improvement due to projects in the field of electrical equipment and components
  - Client technical assisting
  - Sales technical support

### Research activity

- 2010–present **Ph.D. student**, *Technical University of Cluj-Napoca*, Romania.  
Research activity in neuroscience, brain connectivity, biomedical signal processing, method implementation and result documentation
- Scientific activity **Description of scientific work:**  
The scientific work is related to analysis and processing of biomedical signals like EEG, MEG in order to detect interaction between brain areas for both electrode and source level. This also includes the improvement of the actual methods.

### Publications

- Wibral, M., **Pampu, N.**, Priesemann, V., Siebenhuhner, F., Seiwert, H., Lindner, M., Lizier, J. T., Vicente, R., (2013). Measuring Information-Transfer Delays, *PLoS ONE*, 8(2), e55809.

- **Pampu, N. C.**, Vicente, R., Mureşan, R. C., Priesemann, V., Siebenhuhner, F., and Wibral, M., (2013). Transfer Entropy as a tool for reconstructing interaction delays in neural signals, in proceedings of *International Symposium on Signals, Circuits and Systems - ISSCS 2013*.
- Wibral, M., Wollstadt, P., Meyer, U., **Pampu, N.**, Priesemann, V., and Vicente, R. (2012). Revisiting Wiener's principle of causality - interaction-delay reconstruction using transfer entropy and multivariate analysis on delay weighted graphs, in *2012 Annual International Conference of the IEEE Engineering in Medicine and Biology Society* (p. 3676-3679)(EMBC), IEEE.
- **Pampu, N.**, (2011) Study of Effects of The Short Time Fourier Transform Configuration On EEG Spectral Estimates, *textitActa Technica Napocensis Electronica-Telecomunicatii*, 54(4):7-12.
- Bob, F. I., **Pampu, N. C.**, Chira, L. T. (2011). Improving analog-to-digital converter's resolution using the oversampling technique , proceedings of *Signal Processing and Applied Mathematics for Electronics and Communications-SPAMEC 2011*, Cluj-Napoca, Romania.
- **Pampu N.** (2011) Mental Stress Level Indicator Based on Physiological Measurement, *Novice Insights in Electronics, Communications and Information Technology Magazine*, 1842-6085.
- **Pampu, N.**, Munteanu, M., Rusu, C., Ciupa, R. Moga, R. (2007). Integrated System for Monitoring and Storing Biomedical Signals. in proceedings of *MediTech, Acta Electrotehnica*, pp. 277-280 .

Poster presentation:

- **Pampu N.**, Priesemann, V., Siebenhuhner, F., Vicente, R. , Wibral, M, (2012) Reconstructing neural interaction delays with information theoretic methods, the Rhine-Main Neuroscience Network, 25.06.2012, Obervesel, Germania.
- Wibral, M., Siebenhuhner, F., Priesemann, V., **Pampu, N.** Lindner, M. , Vicente, R. (2012). Estimating neural interaction delays using Transfer entropy, *18th International Conference on Biomagnetism* , BIOMAG2012 26.08.2012, Paris.

## Languages

Romanian	<b>Native</b>
English	<b>Advanced</b>
German	<b>Basic</b>

## Computer skills

Basic	C++, Assembly(Embedded), C#, HTML, PHP, Adobe Illustrator
Good	Embedded C, MATLAB
Tools	MPLAB, MATLAB, Visual Studio, L <sup>A</sup> T <sub>E</sub> X, Proteus98, SolidWorks, Autocad
Miscellaneous	Office,OpenOffice, Linux, Microsoft Windows,Computer Hardware and Support

## Other relevant skills, experiences or observations

Experience with	Microcontroller programming languages and environments; electric circuit design; validation and testing techniques; electronic devices
Personal skills	Strong understanding of low level devices; software engineer skills; electrical engineer skills; cad design skills; problem solving-skills; communication skills; eager to learn and develop new skills
Hobbies	Old objects digitization; electronics; model building; travels