

# RESUME

**Name:** Zoltán Fodróczy (male)

## **SUMMARY OF QUALIFICATIONS:**

---

Extensive knowledge of computational psychoacoustic and hard signal processing skills.

Several years of contribution in international teamwork

Experienced in project management and in usage of scientific methods.

Hold a Master, and a Bachelor Degree in Computer Science.

Member of the Institute of Electrical and Electronics Engineers Inc. (IEEE) since 2002.

Author of three technical publications and co-author of a book.

Fluent in Hungarian (native) and English, basic knowledge in German.

## **EDUCATION:**

---

**2007 – Computer and Automation Institute  
Hungarian Academy of Science**

- Planning of an artificial system based on the cognitive functions of the human hearing system that aims to understand the acoustic scene.

**06.2006 – 12.2006 Visiting scholar, Fraunhofer Institute for Digital Media Technology  
Medical Audiotechnologie Group  
Ilmenau, Germany**

- Computational neurophysiology of binaural human hearing.

**2002 – 2006 Ph.D student, Pazmany Peter Catholic University  
Multidisciplinary Technical Sciences Doctoral School  
Budapest, Hungary**

- Author of a novel sound source localization algorithm that combines the advantages of microphone arrays and computational acoustic (see [1]).
- Development of a high speed Cellular Neural Network based psychoacoustic program library (see [2]).
- Teacher of discrete mathematic and database system through five semesters.

**1996 – 2002 University of Veszprém  
Veszprém, Hungary**

- Teacher of operating systems theory through two semester.
- Developed an pre-processing algorithm for shift independent associative memory recognition. This work was awarded with the second prize on the Scientific Student Conference, Veszprém (2002).
- M. S. thesis work about the VLSI design of an emulated digital Cellular Neural Network architecture (CASTLE).

## **PUBLICATIONS:**

---

- [1] **Z. Fodrócz**i, A. Radványi "Localization of Directional Sound Sources Supported by a priori Information of the Acoustic Environment" manuscript accepted to [EURASIP Journal on Applied Signal Processing](#) (July 2007)
- [2] **Z. Fodrócz**i, A. Radványi "Computational Auditory Scene Analysis in Cellular Wave Computing Framework" International Journal of Circuit Theory and Applications Vol: 34(4) pp: 489-515, ISSN:0098-9886 (July 2006)
- [3] Á. Novák, A. Sali, K. Kis, **Z. Fodrócz**i „First Course On Database Management System" Author of three chapters entitled by "Structured Query Language"; "Be wired – Introduction into HTML and PHP"; "eXtended Markup Language" edited by Á. Novák, Pazmany Kiado, Budapest, 2005
- [4] **Z. Fodrócz**i, A. Radványi, Gy. Takács "Acoustic Source Localization using Microphone Arrays via CNN algorithms" Proceedings of 3rd International Conference on European Conference on Circuit Theory and Design (ECCTD03) 2003

## **RESEARCH INTERESTS**

---

Alternative computational architectures such as Neural networks.

Machine learning.

Data mining,

Language processing

Psychoacoustic.

Multisensor signal processing

Zoltán Fodrócz

03/08/2007