

Professional experience

- 2004 – ...** **Assistant Professor ENSEM – INPL**
- teaching in Signal Processing, Automatics, Instrumentation, Analog and Digital Electronics.
- Co-supervisor for engineering/MSc stages
- 2003 – 2004** **Temporary Assistant Professor (ATER) ENSEM – INPL**
- 192 teaching hours in Signal Processing, Automatics, Instrumentation, Analog and Digital Electronics.
- Co-supervisor for engineering/MSc stages
- 2000 – 2003** **French Research and Education Minister Grant (PhD) CRAN – INPL**
- 2000 – 2003** **Teaching assistant (Moniteur) EEIGM/ENSGSI – INPL**
- 196 teaching hours (during 3 years) in Informatics, Automatics, Instrumentation, Analog and Digital Electronics.
- Co-supervisor for engineering/MSc stages
- 1994 – 1999** **Engineer in automatics Sanex/Pro-Hydraulic, Cluj-Napoca, Romania**
- PLC programming / maintenance
- 1991 – 1994** **Journalist (part time)**

Languages

French (fluent) Roumain (native)
English (fluent) Italian (basic).

Publications

PhD thesis

- [1] R. Ranta. *Traitement et analyse de signaux sonores physiologiques. Application à la phonoentérographie*. Doctorat de l'INPL, spécialité Automatique et Traitement du Signal, Institut National Polytechnique de Lorraine, Nancy, 2003.

National and international journals

- [2] R. Ranta, C. Heinrich, V. Louis-Dorr, and D. Wolf. Interpretation and improvement of an iterative wavelet-based denoising method. *IEEE Signal Processing Letters*, 10(8) :239–241, 2003.
- [3] R. Ranta, V. Louis-Dorr, C. Heinrich, D. Wolf, and F. Guillemin. Débruitage par ondelettes et segmentation de signaux non-stationnaires : réinterprétation d'un algorithme itératif et application à la phonoentérographie. *Traitement du Signal*, 20(2) :119–135, 2003.

National and international conferences with review comitee

- [4] R. Ranta, C. Heinrich, V. Louis-Dorr, D. Wolf, and F. Guillemin. Wavelet-based bowel sounds denoising, segmentation and characterization. In *Proceedings of IEEE-EMBS, 23rd Engineering in Medicine and Biology Conference EMBC'01*, Istanbul, Turquie, octobre 2001.
- [5] R. Ranta, V. Louis-Dorr, C. Heinrich, D. Wolf, and F. Guillemin. Automatic segmentation and classification of bowel sounds. In *IFMBE Proceedings, 2nd European Medical and Biological Engineering Conference EMBEC'02*, volume 3, pages 454–455, Vienne, Autriche, décembre 2002.
- [6] R. Ranta, V. Louis-Dorr, C. Heinrich, D. Wolf, and F. Guillemin. Towards an acoustic map of abdominal activity. In *Proceedings of IEEE-EMBS, 25th Engineering in Medicine and Biology Conference EMBC'03*, Cancun, Mexique, septembre 2003.
- [7] R. Ranta, V. Louis-Dorr, C. Heinrich, D. Wolf, and F. Guillemin. Principal component analysis and interpretation of bowel sounds. In *Proceedings of IEEE-EMBS, 26th Engineering in Medicine and Biology Conference EMBC'04*, San Francisco, USA, septembre 2004.

Reports

- [8] R. Ranta. *Intelligent leg prothesis*. Engineering diploma report, Automatics Faculty, “Politehnica” University Bucharest, Romania, 1994.
- [9] R. Ranta. *Séparation de sources. Application aux bruits physiologiques*. Msc thesis of INPL, in Automatics et Traitement Numérique du Signal, Institut National Polytechnique de Lorraine, Nancy, 2000.

Others

- [10] R. Ranta. Diagnostic médical à partir de signaux sonores. Session posters, Doctoriales de Lorraine, La Bresse, 2001.