El-Hadi DJERMOUNE

Born in 1974, Amizour (Algeria)

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ACADEMIC AWARDS

Year	*Award*	*Mention*
2003	**Doctor in Automatic control and Signal processing**: Signal processing *CRAN – Université Henri Poincaré (UHP), Nancy 1*	None[1]
1999	**Master in Automatic Control and Signal processing**: Signal processing *CRAN – Université Henri Poincaré (UHP), Nancy 1*	Major, Good
1998	**Engineer in Eletronics,** branch Communication *Bejaia University – Algeria*	Major, Very good
1992	**Bachelor in Mathematics** *Amizour High School – Algeria*	Good

TEACHNING ACTIVITIES

Year	*Place*	*Courses*	*Nb. hours*
2003-2004	Dep. Telecom. &	Signal processing	32 hours
ATER	Networks – UHP	Java programming	162 hours
2002-2003	Dep. Electrical	Automatic control	96 hours
½ ATER	Engineering –		
	UHP		
1999-2002	Dep. Electrical	Fault diagnosis	67 hours
Professor	Engineering –	Automatic control	20 hours
assistant	UHP	Signal processing	54 hours

RESEARCH ACTIVITIES

Laboratory : CRAN (Centre de Recherche en Automatique de Nancy), CNRS UMR 7039

Director : Pr. Alain Richard

Key words: Spectral analysis, high resolution methods, adaptive subband decomposition, damped sinusoid, NMR spectroscopy, adaptive filtering, detection, abrupt changes.

Years	*Object*
2003	Industrial contract: detection and classification of arc welding faults (CRAN – Air Liquide).
1999-2003	Thesis: estimation of the parameters of damped exponentials via an adaptive subband decomposition. Application to NMR spectroscopy.

[1] PhD commitees of the University Henri Poincaré Nancy 1 do not attribute mentions since January 1st 2003.

1999	Industrial contract: development of an adaptive filter for noise reduction in nonstationary flow signals (CRAN – Endress-Hauser Flowtec).
1999	Master: adaptive filtering of nonstationary flow signals.

FOREIGN LANGUAGES

English	Read, written, spoken
Arabic	Read, written, spoken
Kabyle	Mother language

PROGRAMMING LANGUAGES

Matlab/Simulink	Current use
Pascal, C, C++, Java	Good control

LIST OF PUBLICATIONS AND RELATED WORKS

1. PUBLICATIONS

Journal articles

E. DJERMOUNE, M. TOMCZAK, P. MUTZENHARDT, *A new adaptive subband decomposition approach for automatic analysis of NMR data*. Journal of Magnetic Resonance, 2004, in press.

M. TOMCZAK, **E. DJERMOUNE**, *A subband ARMA modeling approach to high resolution NMR spectroscopy*. Journal of Magnetic Resonance, vol. 158, no. 1, pp. 86-98, 2002.

Conference papers

E. DJERMOUNE, M. TOMCZAK, *Statistical analysis of the Kumaresan-Tufts and Matrix Pencil methods in estimating a damped sinusoid*. 12th European Signal Processing Conference (EUSIPCO'04), Vienna, Austria, september 2004, to appear.

E. DJERMOUNE, M. TOMCZAK, *An adapted filterbank for frequency estimation*. 12th European Signal Processing Conference (EUSIPCO'04), Vienna, Austria, september 2004, to appear.

E. DJERMOUNE, M. TOMCZAK, *SNR enhancement of damped exponential signals in noise*. 11th European Signal Processing Conference (EUSIPCO'02), pp. 139-142, Toulouse, september 2002.

E. DJERMOUNE, M. TOMCZAK, *An adaptive subband decomposition method for high resolution nuclear magnetic resonance spectroscopy*. 3rd International Symposium on Physics in Signal and Image Processing (PSIP'03), pp. 193-196, Grenoble, january 2003.

2. PH. D. DISSERTATION

E. DJERMOUNE, *Estimation of the parameters of damped exponentials via an adaptive subband decomposition. Application to NMR spectroscopy*. Ph. D. dissertation, Université Henri Poincaré Nancy 1.

PhD commitee : Régis Lengellé (foreman), Pascal Larzaba, Eric Moreau, Pierre Mutzenhardt (examinator), Alain Richard (research director), Marc Tomczak (supervisor).

3. OTHER RELATED REPORTS

Technical reports

E. DJERMOUNE, D. BRIE, F. BRIAND, F.-P. RICHARD, *Detection and classification of arc welding faults. Experimental approach* (in french), Technical report, Centre de Recherche en Automatique de Nancy – CTAS/Air Liquide, convention n°2003/046, 28 pages, december 2003.

E. DJERMOUNE, M. TOMCZAK, A. RICHARD, *Adaptive filtering of nonstationary flow signals* (in french), Technical report, Centre de Recherche en Automatique de Nancy – Endress-Hauser Flowtec, convention n°98/085, 25 pages, april 1999.

Master dissertation

E. DJERMOUNE, *Adaptive filtering of nonstationary flow signals*, Master report, Centre de Recherche en Automatique de Nancy, 1999.