CURRICULUM VITAE

Mario Mastriani, Ph.D.

Name and lastname: Mario Mastriani
Nationalty: Argentinean and European
Phone: +54-11-4015-2295, *Fax:* +54-11-4015-2018, *Mobile:* +54-9-11-4195-1585
Age: 49 years old, *Marital status:* married
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Web page: http://www.untref.edu.ar/carreras_de_grado/ing_computacion.htm

EDUCATION

Technical School:
Títle: Electronics Technician
School: E.N.E.T. Nº 12, Gral. San Martín
Specialty: Telecommunications
Date of graduation: 12/10/1980

Degree:
Títle: Electronics Engineer, Buenos Aires University
Specialty: Automatic Control
Date of graduation: 09/28/1989

Postgraduate Studies:
Títle: **Doctor of Buenos Aires University, Area: Engineering**
Thesis: Techniques of Speckle Suppression in Synthetic Aperture Radar Satellite Images
Date of graduation: 05/11//2006

Títle: **Doctor of Buenos Aires University, Area: Computer Sciences**
Thesis: Fast and High Efficiency Spatial Decorrelation for Lossy Images Compression
Date of graduation: 03/12//2009

Ph.D. Candidate of National Univ. of Gral. Sarmiento, Area: Science and Technology
Thesis: Single frame supercompression of still images, video, high definition TV, and digital
cinema, with applications to Documentology, and medical, satellital and biometrical
images.

Languages:
Reading, speaking and writing: English
Reading: French, Italian and Portuguese

Programming:
C/C++
Java
MatLab R2010b and Jacket 1.6
ENVI 4.3, IDL 6.3
Maple 14
SciLab 5.2
Octave
CUDA and OpenCL

<u>RESEARCH</u>

<u>Interest area:</u>
Digital signal and image processing. Wavelets. Image restoration filtering and compression. Fast Algorithms on FPGA. Distributed Algorithms for multi-core/multi-GPU technology with CUDA and OpenGL. Computer Modeling and Computer Simulation.

<u>Experience in (CONAE & INVAP S.E.):</u>
• *Filtering, compression, wavelets analysis and super-resolution of radar signals and images*
• *Synthetic Aperture Radar (SAR) satellite and airborne versions, Band L, Strip-Map Mode.*
  - *Besides: SCANSAR and Spotlight modes*
           Bands X and C
  - *Platforms: Radarsat (Canada), ERS 2 (Europe), SAOCOM (CONAE), SIR-C (NASA), and SARAT 1 (airborne of CONAE).*
  - *Focusing Algorithms coded: Chirp- Scaling, Range Doppler, Omega-K, etc.*
  - *Development of Speckle Supression Algorithms*
  - *I directed the CONAE's group that developed the algorithms to focusing SARAT 1 images from the raw data signals*
• *Multi and hyperspectral satellite image processing: SAC-C and Quickbird*
• *Superresolution Algorithms for Panchromatic Satellite: EROS A/B and Quickbird*
• *Primary, Secondary, and 3D Radar for INVAP S.E.*
• *Synthetic Aperture Sonar (SAS) on AUV*

<u>Current Activities (INVAP S.E.):</u>
Digital Signal and Inage Processing. Wavelets. Signal and Image Compression. Synthetic Aperture Radar (SAR) Focusing. Primary and Secondary Radar. 3D Radar.

ACTIVITIES AS REVIEWER OF INTERNATIONAL ELECTRICAL AND ELECTRONIC ENGINEERS (I.E.E.E.), NEW JERSEY, USA.

Journal: **Transactions on Neural Networks**
Associate Editor: Thomas F. Krile
E-mail: tkrile@coe2.coe.ttu.edu, nus11@ttacs1.ttu.edu, 1994

Journal: **Signal Processing Letters**
Associate Editor: Prof. Amir Asif, asif@cs.yorku.ca, 2002
Associate Editor: Prof. Truong Nguyen, nguyent@ece.ucsd.edu, 2003
Associate Editor: Prof. Vince Calhoun, vince.calhoun@yale.edu, 2005

Journal: **Transactions on Image Processing**
Associate Editor: Dr. Eli Saber, eli.saber@usa.xerox.com, 2003
Associate Editor: Dr. Christophe Molina, christophe.molina@sanofi-synthelabo.com, 2004
(http://ieeexplore.ieee.org/iel5/83/29774/01355944.pdf)
Associate Editor: Dr. Stanley Reeves, sjreeves@eng.auburn.edu, 2004
(http://ieeexplore.ieee.org/iel5/83/29774/01355944.pdf)
Associate Editor: Prof. Bruno Carpentieri, bc@udsab.dia.unisa.it, 2006

Journal: **Transactions on Signal Processing**
Associate Editor: Prof. Alex Gershman, gershman@ieee.org, 2003

Journal: **Transactions on Medical Imaging**
Associate Editor: Prof. Max Viergever, max@isi.uu.nl, 2003
Associate Editor: Prof. Murray Loew, loew@gwu.edu, 2004
Associate Editor: Prof. Michael Insana, mfinsana@ucdavis.edu, mfi@uiuc.edu, 2004, 2005
Associate Editor: Prof. Milan Sonka, milan-sonka@uiowa.edu, 2004 (2 papers)
Associate Editor: Prof. Karl Heinz Hoehne, hoehne@uke.uni-hamburg.de, 2005
Associate Editor: Prof. Vasilis Ntziachristos, v.ntziachristos@tum.de, 2010

Journal: **Transactions on Geoscience and Remote Sensing**
Associate Editor: Dr. John Richards, john.richards@anu.edu.au, 2003

Journal: **Geoscience and Remote Sensing Letters**
Associate Editor: Dr. Jocelyn Chanussot, jocelyn.chanussot@lis.inpg.fr, 2005
Associate Editor: Dr. Joong-Sun Won, jswon@yonsei.ac.kr, 2006

Journal: **Transactions on Biomedical Engineering**
 Associate Editor: Prof. Masahiko Okada, okadar@med.niigata-u.ac.jp, 2003

Journal: **Communications Letters** (2 papers)
Associate Editor: Prof. Maode Ma, emdma@ntu.edu.sg, 2004, 2006
(http://ieeexplore.ieee.org/iel5/4234/29963/01369237.pdf)
Associate Editor: Prof. Homayoun Yousefi'zadeh, hyousefi@uci.edu, 2006 (2 papers), 2007

Journal: **Transactions on Fuzzy Systems**
Associate Editor: Prof. Larry May, hall@csee.usf.edu, 2004
Associate Editor: Prof. Peng Shi, pshi@glam.ac.uk, peng.shi@unisa.edu.au, 2005, 2006
Associate Editor: Prof. Sansanee Auephanwiriyakul, sansanee@eng.cmu.ac.th,
                                                 fuzzysan@gmail.com, 2005, 2006
Associate Editor: Dr. Gang Feng, MEGFENG@cityu.edu.hk, 2006
Associate Editor: Prof. Hichem Frigui, h.frigui@louisville.edu, 2006 (3 papers), 2007

Journal: **Transactions on Multimedia**
Associate Editor: Dr. Anna Hac, hac@spectra.eng.hawaii.edu, 2005, 2007

Journal: **Transactions on Nanobioscience**
Associate Editor: Dr. Stephen Davies, stephen.davies@utoronto.ca, 2006

ACTIVITIES AS REVIEWER OF
JOURNALS OF EDITORIAL
SPRINGER VERLAG, GERMANY

Journal: **Journal of Digital Imaging**
Associate Editor: Janice Honeyman-Buck, honeyj@radiology.ufl.edu, 2004
Associate Editor: Daniel Rubin, dlrubin@stanford.edu, 2007

ACTIVITIES AS REVIEWER OF
THE INTERNATIONAL SOCIETY FOR
OPTICAL ENGINEERING (SPIE) USA.

Journal: **Optical Engineering**
Associate Editor: Giordano Beretta, oe@spie.org, 2005
Associate Editor: Andy Tescher, oe@spie.org, 2005, 2007

ACTIVITIES AS REVIEWER OF
JOURNALS OF EDITORIAL
TAYLOR & FRANCIS, UNITED KINGDOM

Journal: **Internacional Journal of Remote Sensing**
Associate Editor: Prof. Peng Gong, gong@nature.berkeley.edu, 2006
Associate Editor: Dr.Yong Xue, y.xue@londonmet.ac.uk, yx9@hotmail.com, 2006 (3 papers)
                                                                                              2007 (2 papers)
Associate Editor: Prof. José Sobrino, sobrino@uv.es, 2006
Associate Editor: Prof. Arthur Cracknell, apcracknell774787@yahoo.co.uk, 2006, 2007
Associate Editor: Prof. Ramesh Singh, ramesh@iitk.ac.in, 2007

ACTIVITIES AS REVIEWER OF
JOURNALS OF EDITORIAL
ELSEVIER, NEDERLAND

Journal: **Information Fusion**
Associate Editor: Prof. Paolo Gamba, paolo.gamba@unipv.it, 2006

ACTIVITIES AS REVIEWER OF
JOURNALS OF THE INSTITUTION OF ENGINEERING
AND TECHNOLOGY (IET) UNITED KINGDOM

Journal: **Electronics Letters**
Associate Editor: Dr. Helen Dyball, eletters@theiet.org, 2007 (3 papers)
                                                                             2009

ACTIVITIES AS REVIEWER OF
LATIN AMERICAN APPLIED
RESEARCH JOURNAL, ARGENTINA

Journal: **LAAR**
Associate Editor: Dr. Jorge A. Solsona, jsolsona@uns.edu.ar, 2008

ACTIVITIES AS REVIEWER OF JOURNALS OF EDITORIAL WILEY, USA

Journal: **International Journal of Circuit Theory and Applications**
Associate Editor: Dr. Pedro Julian, pjulian@ieee.org, 2010

ACTIVITIES AS REVIEWER OF JOURNALS OF EDITORIAL SCIENCE, SOUTH-AFRIKA

Journal: **Journal of Mathematics and Computer Science Research**
Associate Editor: Dr. John Morrison, science.journals.reviewers.dept@gmail.com, 2011

ACTIVITIES AS REVIEWER OF
INTERNATIONAL CONGRESS

Event: **13th Iberoamerican Congress of Pattern Recognition (CIARP 2008)**
Place: Havana, Cuba
Date: September 9-12th 2008
Associate Editor: Dra. Marta Mejail, marta@dc.uba.ar, 2008 (2 papers)

EVALUATOR FOR NATIONAL RESEARCH AND DEVELOPMENT PROJECT SYSTEM EVALUATION PRESENTED TO FONCYT PROGRAM IN INFORMATION TECNOLOGIES, COMMUNICATIONS AND ELECTRONIC, NATIONAL AGENCY OF SCIENTIFIC AND TECHNOLOGICAL PROMOTION, ARGENTINE.

Fondo para la Investigación Científica y Tecnológica

Evaluation

Information Technologies, Communications and Electronics Evaluators

AGAMENNONI, OSVALDO	FERNANDEZ, JOAO APARICIO	MURAVCHIK, CARLOS
AGUIAR, PAULO	FIORINI, PAOLO	MUT, VICENTE
AGUIRRE, JORGE	FITZ, CARLOS	NASISI, OSCAR
ARAMBEL, PABLO	FRANCO, HORACIO	NIEVA, GLADYS LEONOR
ARDENGHI, JORGE	FREIRE BASTOS, TEODIANO	OROZCO, JAVIER DARIO
AVALOS, DANIEL REYNALDO	FRERY, ALEJANDRO	ORTEGA, ROMEO
BAEZA YATES, RICARDO	FRONTINI, GLORIA	PASSONI, LUCIA I.
BALDA, JUAN CARLOS	FRULA, LAURA	PATIñO, DANIEL
BALLARIN, VIRGINIA	FUJISAKI, HIROYA	PELTZER Y BLANCA, EITEL LEOPOLDO
BARRETO, MARCOS	FULLANA, ROGELIO	PERACAULA, JUAN
BASAÑEZ, LUIS	GAGGIOLI, NESTOR	PERES, PEDRO LUIS D.
BATAIOTTO, PEDRO	GALIARDINI, ANTONIO	PIRO, OSCAR ENRIQUE
BAUM, GABRIEL	GALLARD, RAUL HECTO	POLIMENI, HECTOR
BENEDETTI, MARIO	GARCIA, OSCAR GUILLERMO	PULESTON, PAUL
BERTORELLO, HECTOR RAUL	GONZALEZ, PABLO	RAMIREZ, HEBERTT SIRA
BHAYA, AMIT	GRIBAUDO, LUIS MARIA JOSE	RANDALL, GREGORY
BIOUL, GERY JEAN ANTONIE	GURLEKIAN, JORGE A.	RISK, MARCELO
BLUM, BARBARA	HABER HABER, RODOLFO	ROCHA, LUIS FLORENTINO
BOEMO, ENRIQUE	HAEBERER, ARMANDO ANGEL	RODRIGUEZ, CARLOS OSVALDO
BRANCO, PABLO COSTA	HERNANDEZ, JOSE TIBERIO	RODRIGUEZ, MIGUEL
BUSTOS, OSCAR	HERRERA, MIRIAM	ROMERO, LUIS ALONZO
CABRAL DA SILVA, EDISON ROBERTO	IBAñES, ALBERTO	ROSSI, GUSTAVO HECTOR
CALVO, OSCAR	JONES, DEWI	ROSSI, RAUL EDGARDO
CAMARINHA-MATOS, LUIS M.	JORDAN, MARIO ALBERTO	SALGADO, LUIS
CANALI, LUIS	KAUFMANN, GUILLERMO H.	SANCHEZ PEñA, RICARDO
CANCELO, GUSTAVO INDALECIO E.	KELLY, RAFAEL	SANCHEZ STEIGER, ADOLFO
CANETTI, RAFAEL	KUCHEN, BENJAMIN RAFAEL	SANTOS, JORGE RODRIGO

CARDONA, MARIO	LAFFERRIERE, GERARDO	SAVINO, GUILLERMO VICENTE
CARELLI, RICARDO	LARRONDO, HILDA ANGELA	SBARBARO, DANIEL
CARNEIRO RIBEIRO, CELSO	LEFRANC, GASTON	SCHUGURENSKY, CARLOS
CARRICA, DANIEL OSCAR	LEGIZAMON, SATURNINO	SERENI, JULIAN GUSTAVO RENZO
CASTILLO, MAITE URIA DE	LEIDHOLD, R	SICRE, ENRIQUE
CASTIñEIRA MOREIRA, JORGE	LEON DE LA BARRA, BERNARDO	SILVA SUAREZ, MANUEL
CATALDO, HORACIO MAXIMO	LIRA, JORGE	SIMARI, GUILLERMO
CERNUSCHI FRIAS, BRUNO	LIU HSU,	SOLSONA, JORGE
CHRISTIANSEN, CARLOS FREDE	LLORENTE, HUGO	SOTOMAYOR MORIANO, JUAN
CIPRIANO, ALDO	MANDADO PEREZ, ENRIQUE	STEVENS, KENNETH N.
COLANTONIO, MARIA CELESTE	MANTZ, RICARDO JULIAN	TABORDA, RICARDO
COUSSEAU, JUAN	MARCHETTI, JACINTO LUIS	TACCONI, EUGENIO
DÁTTELLIS, CARLOS	MARQUEZ, DARDO	TERESA, PEDRO
DE ALBORNOZ, ALVARO	MARSHALL, GUILLERMO RICARDO	UICICH, GUSTAVO CESAR
DE GIUSTI, ARMANDO ANGEL	MARTIN , MARCELO	VALENTINUZZI, MAXIMO EUGENIO
DE LA VEGA CRESPO, SALVADOR	MARTINEZ, LORIA GUILLERMO	VALLA, MARIA INES
DE WIT, CARLOS CANUDAS	MASCARENHAS, NELSON	VELASTIN, SERGIO
DENTE, ANTONIO	<mark>MASTRIANI, MARIO</mark>	VIDAL, RICARDO ALBERTO
DESAGES, ALFREDO	MAYER, CARLOS ENRIQUE	WATANABE, EDSON
DI SCIASCIO, FERNANDO	MAYOSKY, MIGUEL	YANAGIDA, MASUZO
DISTEFANO, MARIO	MAZON GONZALEZ, ISMAEL	YEOMANS, HECTOR M
DIXON, JUAN W	MIGNONE, CARLOS FERNANDO	YU, TANG
DOORN, JORGE	MILOCCO, RUBEN HORACIO	ZANNATHA, JUAN IBARRA
FARRELL, PATRIK GUY	MIYAGI, PABLO E.	ZURIAGA, MARIANO JOSE
FELICE, CARMELO JOSE	MOIOLA, JORGE LUIS	

http://www.agencia.secyt.gov.ar/fct/evaluadores/evaluadores11.htm

MANAGEMENT AS STEERING
IN RESEARCH INSTITUTIONS

LABORATORY: of Research and Development in New Technologies (LIDeNTec)

POSITION: Director and Coordinator of Technological Innovation Area

AIMED PROJECTS:

1. Developed for ANSES:

    1.1. User Experience Project: Usability and Accessibility

    1.2. Agile Methodologies Project of Software Design

    1.3. Digitizing Documents

    1.4. High Performance Computing: Cluster and GRID

        1.4.1. Bioinformatics Algorithms for Buenos Aires Italian Hospital

        1.4.2. Brain Computer Interface for ANSES

        1.4.3. Climatological Models for National Meteorological Service

2. Buenos Aires State Government, Computer Science Agency:

    Software Development: Electronic Legal Document

3. Secretary of Industry, Commerce and Small Business

    Evaluation of 5 softwares for 5 departments

DATE: From December 1st 2006 up to day

URL: http://www.anses.gov.ar

FUNDS: LIDeNTec received 500,000 U.S. dollars

INSTITUTE: Argentine of Information Security (IASI)

POSITION: Founder and Ex Director

DATE: From March 22nd 2007 to September 22nd 2008

URL: http://www.fundacionpatagonia.org.ar/iasi.html

INSTITUTE: Sustainable Development and Environmental Law (INARDES)

POSITION: Secretary

DATE: From March 22nd 2007 to March 26th 2009

URL: http://www.fundacionpatagonia.org.ar/inardes.html

INSTITUTE: Software and Computing Services (ISSI)

POSITION: Founder and Director

DATE: From September 22nd 2008 to March 26th 2009

URL: http://www.fundacionpatagonia.org.ar/issi.html

INSTITUTE: Argentine of Bioengineering (IABI)

POSITION: Founder and Ex Director

DATE: From August 1st 2005 to November 30 2006

URL: http://www.fundesco.org.ar

Foundation: Patagonia

POSITION: Emeritus Counselor

DATE: From September 22nd 2008 to March 26th 2009

URL: http://www.fundacionpatagonia.org.ar

INSTITUTE: Argentine Chamber of Electronic Commerce (CACE)

POSITION: Vicepresident of eGovernment Commission

DATE: From July 14 2008 up to day

URL: http://www.cace.org.ar/

PROJECTS IN RESEARCH AND DEVELOPMENT

CLIENT: Investigación Aplicada (INVAP S.E.)
SITE: San Carlos de Bariloche, Argentina
POSITION: Project Manager

    PROJECT: Digital Radio
    DATE: From June to October 2008
    PERSONNEL IN CHARGE: 3
    DESCRIPTION OF POSITION AND RESPONSABILITIES:
    Development of alternative to MELP Algorithm

    PROJECT: Quick View of Airborne SAR, Band L, Mode Stripmap
    Beginning: April 2010
    PERSONNEL IN CHARGE: 5
    DESCRIPTION OF POSITION AND RESPONSABILITIES:
    Development of Fast Range Doppler Algorithm on GPGPU/NVIDIA/CUDA

    PROJECT: Distributed DSP for primary radar
    Beginning: April 2010
    PERSONNEL IN CHARGE: 5
    DESCRIPTION OF POSITION AND RESPONSABILITIES:
    Development of Parallel Implementation of FFT on GPGPU/NVIDIA/CUDA

    PROJECT: Front-end of primary radar
    Beginning: April 2010
    PERSONNEL IN CHARGE: 5
    DESCRIPTION OF POSITION AND RESPONSABILITIES:
    Front-end of primary radar on GPGPU/NVIDIA/CUDA

CLIENT: National Technological University (UTN-FRBA)
SITE: Buenos Aires, Argentina
POSITION: Project Manager

    PROJECT: Micro-satellite for ham radios
    Beginning: September 2010
    PERSONNEL IN CHARGE: 5
    DESCRIPTION OF POSITION AND RESPONSABILITIES:
    Designer of image compression algorithm employed on-board

CLIENT: Advisory Council on Digital TV and Argentine Industry
SITE: Buenos Aires, Argentina
POSITION: Project Manager

PROJECT: Codec for video compression in High-Definition TV
Beginning: November 2010
PERSONNEL IN CHARGE: 3
DESCRIPTION OF POSITION AND RESPONSABILITIES:
Designer of video compression algorithm

PROJECT: Chip for supercompresión for High-Definition TV
Beginning: November 2010
PERSONNEL IN CHARGE: 10
DESCRIPTION OF POSITION AND RESPONSABILITIES:
Designer of supercompression algorithm

CLIENT: Advisory Council on Digital TV and Argentine Industry
SITE: Buenos Aires, Argentina

INTERNATIONAL SCIENTIFIC PUBLICATIONS
WITH SEVERAL REFEREED PROCESS
IN JOURNALS

[1] M. Mastriani y A. Giraldez, "*Enhanced Directional Smoothing Algorithm for Edge-Preserving Smoothing of Synthetic-Aperture Radar Images*," Journal of Measurement Science Review, Volume 4, Section 3, pp.1-11, 2004.
[Online]. Available: http://www.measurement.sk/2004/S3/Mastriani.pdf

[2] M. Mastriani y A. Giraldez, "*Smoothing of coefficients in wavelet domain for speckle reduction in Synthetic Aperture Radar images*," ICGST International Journal on Graphics, Vision and Image Processing (GVIP), Volume 6, pp. 1-8, 2005.
[Online]. Available: http://www.icgst.com/gvip/v6/P1150517003.pdf

[3] M. Mastriani y A. Giraldez, "*Despeckling of SAR images in wavelet domain*," GIS Development Magazine, Sept. 2005, Vol. 9, Issue 9, pp.38-40.
[Online]. Available: http://www.gisdevelopment.net/magazine/years/2005/sep/wavelet_1.htm

[4] M. Mastriani y A. Giraldez, "*Microarrays denoising via smoothing of coefficients in wavelet domain*," WSEAS Transactions on Biology and Biomedicine, 2005.
[Online]. Available: http://www.wseas.org/online

[5] M. Mastriani y A. Giraldez, "*Fuzzy thresholding in wavelet domain for speckle reduction in Synthetic Aperture Radar images*," ICGST International on Journal of Artificial Intelligence and Machine Learning, Volume 5, 2005.
[Online]. Available: http://www.icgst.com/aiml/v3/index.html

[6] M. Mastriani, "*Denoising based on wavelets and deblurring via self-organizing map for Synthetic Aperture Radar images*," ICGST International on Journal of Artificial Intelligence and Machine Learning, Volume 5, 2005.
[Online]. Available: http://www.icgst.com/aiml/v3/index.html

[7] M. Mastriani, "*Systholic Boolean Orthonormalizer Network in Wavelet Domain for Microarray Denoising*," ICGST International Journal on Bioinformatics and Medical Engineering, Volume 5, 2005.
[Online]. Available: http://www.icgst.com/bime/v1/bimev1.html

[8] M. Mastriani, "*Denoising based on wavelets and deblurring via self-organizing map for Synthetic Aperture Radar images*," International Journal of Signal Processing, Volume 2, Number 4, pp.226-235, 2005.

[Online]. Available: http://www.enformatika.org/ijsp/v2/v2-4-33.pdf

[9] M. Mastriani, "*Systholic Boolean Orthonormalizer Network in Wavelet Domain for Microarray Denoising*," International Journal of Signal Processing, Volume 2, Number 4, pp.273-284, 2005.

[Online]. Available: http://www.enformatika.org/ijsp/v2/v2-4-40.pdf

[10] M. Mastriani y A. Giraldez, "*Microarrays denoising via smoothing of coefficients in wavelet domain*," International Journal of Biomedical Sciences, Volume 1, Number 1, pp.7-14, 2006.

[Online]. Available: http://www.enformatika.org/ijbs/v1/v1-1-2.pdf

[11] M. Mastriani y A. Giraldez, "*Kalman' Shrinkage for Wavelet-Based Despeckling of SAR Images*," International Journal of Intelligent Technology, Volume 1, Number 3, pp.190-196, 2006.

[Online]. Available: http://www.enformatika.org/jit/v1/v1-3-21.pdf

[12] M. Mastriani y A. Giraldez, "*Neural Shrinkage for Wavelet-Based SAR Despeckling*," International Journal of Intelligent Technology, Volume 1, Number 3, pp.211-222, 2006.

[Online]. Available: http://www.enformatika.org/jit/v1/v1-3-24.pdf

[13] M. Mastriani, "*Fuzzy Thresholding in Wavelet Domain for Speckle Reduction in Synthetic Aperture Radar Images*," International Journal of Intelligent Technology, Volume 1, Number 3, pp.252-265, 2006.

[Online]. Available: http://www.enformatika.org/jit/v1/v1-3-30.pdf

[14] M. Mastriani, "*New Wavelet-Based Superresolution Algorithm for Speckle Reduction in SAR Images* ," International Journal of Computer Science, Volume 1, Number 4, pp.291-298, 2006.

[Online]. Available: http://www.enformatika.org/ijcs/v1/v1-4-39.pdf

[15] M. Mastriani, "*Denoising and Compression in Wavelet Domain via Projection onto Approximation Coefficients*," International Journal of Signal Processing, Volume 5, Number 1, pp.20-30, 2008.

[Online]. Available: http://www.waset.org/ijsp/v5/v5-1-3.pdf

[16] M. Mastriani, "*Union is Strength in Lossy Image Compression*," International Journal of Signal Processing, Volume 5, Number 2, pp.112-119, 2009.

[Online]. Available: http://www.waset.org/ijsp/v5/v5-2-14.pdf

[17] M. Mastriani, and J. Gambini, "*Fast Cosine Transform to Increase Speed-up and Efficiency of Karhunen-Loève Transform for Lossy Image Compression*," International Journal of Engineering and Mathematical Sciences, Volume 6, Number 2, pp.82-92, 2010.

[Online]. Available: http://www.waset.org/journals/ijems/v6/v6-2-11.pdf

[18] M. Mastriani, "*Single frame supercompression of still images, video, High Definition TV and Digital Cinema*," International Journal of Engineering and Mathematical Sciences, Volume 6, Number 3, pp.146-162, 2010.
[Online]. Available: http://www.waset.org/journals/ijems/v6/v6-3-21.pdf

[19] M. Mastriani, "*Supercompression for Full-HD and 4k-3D (8k) Digital TV Systems*," International Journal of Information and Mathematical Sciences, Volume 6, Number 3, pp.186-199, 2010.
[Online]. Available: http://www.waset.org/journals/ijems/v6/v6-3-25.pdf

BOOK CHAPTERS

[1] M. Mastriani, "Interfaz Cerebro-Computadora: La nueva frontera de la Pedagogía" DEL LIBRO: *La formación de los nuevos maestros*, Editor asociado: Lino Marcos Budiño, Tomo II de la Biblioteca de la Nueva Moneda, pp.75-85, Mar del Plata, Marzo de 2008.

INTERNATIONAL SCIENTIFIC PUBLICATIONS
WITH SEVERAL REFEREED PROCESS
IN ANNALS OF CONGRESS

[1] M. Mastriani, "*Self-Restorable Stochastic Neuro-Estimation using Forward-Propagation Training Algorithm*," Proceedings of International Neural Network Society, (WCNN '93 Portland) World Congress on Neural Network, Portland, Oregon, Vol. I, pp. 404-411, July 11-15, 1993.

[2] M. Mastriani, "*Self-Restorable Stochastic Neurocontrol using Back-Propagation and Forward-Propagation Training Algorithms*," Proceedings of International Conference on Signal Processing Applications & Technology, (ICSPAT '93), Santa Clara, CA, Vol. II, pp.1058-1071, September 28 - October 1, 1993.

[3] M. Mastriani, "*Self-Restorable Stochastic Neuro-Estimation Using Forward-Propagation Training Algorithm*," VI International Symposium on Artificial Intelligence, ISAI'93 Cancúm, México, December 14-17, 1993.

[4] M. Mastriani, "*Kalmanian Delta Rule for Training a Single Adaline in Noisy Environments,*" (RPIC '93, S. M. Tucumán) *Reunión de Profesionales en Ingeniería y Computación* - S. M. Tucumán, Tucumán - ARGENTINA, pp.444-452, December 4-7, 1993.

[5] M. Mastriani, "*Pattern Recognition Using a Faster New Algorithm for Training Feed-Forward Neural Networks*" Proceedings of International Neural Network Society, (WCNN '94 San Diego, CA) World Congress on Neural Network, San Diego, California, Vol. III, pp. 601-606, June 4-9, 1994.

[6] M. Mastriani, "*A Fast and Robust Pattern Recognition Using a New Algorithm for Training Feed-Forward Neural Networks*," IEEE World Congress on Computational Intelligence, Orlando, Florida, vol.1, pp.582-587, June 26-July 2, 1994.
http://intl.ieeexplore.ieee.org/iel2/3013/8556/00374230.pdf

[7] M. Mastriani, "*Predictor of Linear Output,*" ISIE '94, *IEEE International Symposium on Industrial Electronics*, Santiago, Chile, pp.269-274, May 25-27, 1994.
http://intl.ieeexplore.ieee.org/iel2/1132/7852/00333106.pdf

[8] M. Mastriani, "*Predictor of Linear Output for Fast Pattern Recognition,*" Fifth Society Industrial and Applied Mathematics (SIAM) Conference on Applied Linear Algebra, Snowbird, Utah, June 15-18, 1994.

[9] M. Mastriani, "*An Application for the Symmetric Functions,*" Fifth Society Industrial and Applied Mathematics (SIAM) Conference on Applied Linear Algebra, Snowbird, Utah, June 15-18, 1994.

[10] M. Mastriani, "*New Adaptive-Filter for System Estimation*," 10° Congresso Brasileiro de Automática e 6° Congresso Latino Americano de Controle Automático - Rio de Janeiro, Brasil, 19 a 23 de Setembro de 1994.

[11] M. Mastriani, "*Fast Pattern Recognition Using a New Neuron*," 10° Congresso Brasileiro de Automática e 6° Congresso Latino Americano de Controle Automático - Rio de Janeiro, Brasil, 19 a 23 de Setembro de 1994.

[12] M. Mastriani, "*Predictor-Corrector Neural Network for doing Technical Analysis in the Capital Market*," VII International Symposium on Artificial Intelligence, ISAI'94 Monterrey, México, pp. 49-58, October 18-21, 1994.

[13] M. Mastriani, "*Domótica: Una propuesta para ámbitos inteligentes*", First Internacional Congress on Computation, Ushuaia, Argentina, 2 al 7 de octubre de 2000.

[14] M. Mastriani, "*Nuevas Técnicas Computacionales para el Tratamiento de Imágenes Médicas*", First Internacional Congress on Computation, Ushuaia, Argentina, 2 al 7 de octubre de 2000.

[15] M. Mastriani, "*Esteganografía Biomédica*", 47° Congreso Internacional de Radiología, Buenos Aires, Argentina, 2 al 5 de Septiembre de 2001.

[16] M. Mastriani, "*Nuevas Técnicas de Compresión de Imágenes Médicas en Base al Nuevo Formato de Archivo Gráfico JPEG 2000*", 47° Congreso Internacional de Radiología, Buenos Aires, Argentina, 2 al 5 de Septiembre de 2001.

[17] M. Mastriani, *"Automatic Systemic Models of the Earth based on Intelligent Automatas*,*"* Ref.9.44, 29th International Symposium on Remote Sensing of Environment, April 8-12, 2002, Buenos Aires, Argentina.

[18] M. Mastriani, *"Hospital Virtual Transaccional: E-Medicine",* 31 Jornadas Argentinas de Informática e Investigación Operativa, Santa Fe, Argentina, 9 al 13 de Septiembre de 2002, pp.77-80.

[19] M. Mastriani, *"Nuevas Técnicas Computacionales para el Mejoramiento de Imágenes Médicas"*, 31 Jornadas Argentinas de Informática e Investigación Operativa, Santa Fe, Argentina, 9 al 13 de Septiembre de 2002, pp.262-267.

[20] M. Mastriani, *"Imágenes Médicas sobre TCP/IP y UDP: Su problemática de implementación"*, INFORMEDICA'2002 - *e-Salud Global*, 30 de Octubre al 30 de Noviembre de 2002.

[21] M. Mastriani, *"New Technique for Compression of Multispectral Images"*, 30th International Symposium on Remote Sensing of Environments (ISRSE'2003), Honolulu, Hawaii, November 10-14, 2003.

[22] M. Mastriani, *"Enhanced Boolean Correlation Matrix Memory",* (RNL02), X RPIC Reunión de Trabajo en Procesamiento de la Información y Control, 8 al 10 de Octubre 2003, San Nicolás, Buenos Aires, Argentina, vol. 2, pp. 470-473.

[23] M. Mastriani, *E-Health: Hospital Virtual Transaccional*, aceptado para el Simposio Argentino de Bioingeniería (SABI 2003), XIV Congreso Argentino de Bioingeniería y III Jornadas de Ingeniería Clínica, 8 al 10 de Octubre 2003, Córdoba, Argentina.

[24] M. Mastriani *et al*, *"Sistema Inteligente de Adquisición de Señales Biomédicas y su Vinculación con una Historia Clínica Electrónica"*, 33 Jornadas Argentinas de Informática e Investigación Operativa, Córdoba, Argentina, 22 al 24 de Septiembre de 2004, aceptado.

[25] M. Mastriani *et al*, *"Evaluation of Children's Anthropometric Features Using Wavelet Decomposition"*, Technol Health Care, 2004. 12(5): pp.375-382, 2004.

[26] M. Mastriani y A. E. Giraldez, "*New type of thresholding neural networks for speckle reduction in SAR images*", Jornadas de Imágenes II, SPIE-FIUBA, Buenos Aires, Noviembre 14-16, 2005.

[27] M. Mastriani y A. E. Giraldez, "*Fuzzy thresholding in wavelet domain for speckle reduction in Synthetic Aperture Radar images*", Jornadas de Imágenes II, SPIE-FIUBA, Buenos Aires, Noviembre 14-16, 2005.

[28] M. Mastriani, "*Compresión rápida y eficiente de imágenes para Telemedicina*", 38 JAIIO de SADIO, Simposio Argentino de Informática y Salud 2009 (SIS'2009), Mar del Plata, Agosto 26-28, 2009, pp.214-223.

[29] M. Mastriani and J. Gambini, *"Uso de la Transformada de Haar para el incremento de la eficiencia y rapidez de la Transformada Discreta de Karhunen-Loève en la compresión de imágenes con pérdidas",* Proceedings of 39 JAIIO de SADIO, 11º Argentine Symposium of Technology (11º AST), Argentine University of Enterprise (UADE), August 30-September 3, pp.1563-1574, 2010.

PARTICIPATION IN SCIENTIFIC EVENTS

[1] M. Mastriani, "*Con qué señales estimular el nervio vago para neutralizar el foco epileptó-geno durante un ataque de pánico?*," 1ra. Jornada Argentina sobre Interfaces Cerebro-Computadora, Facultad de Ingeniería de la Universidad Nacional de Entre Rios, Oro Verde, Diciembre 13, 2006.

http://www.bioingenieria.edu.ar/extension/secretaria/jornadasfi/jorinterface.htm

[2] M. Mastriani, "*Empleo de tecnología satelital en el procesamiento de documentos digitalizados en ANSES*," Workshop on Image Processing, Computer Vision and Graphic Computing, of School of Image Sciences 2009 (ECImag 2009), Instituto PLADEMA, Facultad de Ciencias Exactas, Universidad Nacional del Centro, Tandil, September 23 and 24, 2009. http://ecimag2009.pladema.net/workshop.html

[3] M. Mastriani, "Generación de imágenes mediante Radares de Apertura Sintética (SAR) aerotransportados y/o satelitales via High Performance Computing (HPC)," Workshop on Image Processing, Computer Vision and Graphic Computing, of School of Image Sciences 2009 (ECImag 2009), Instituto PLADEMA, Facultad de Ciencias Exactas, Universidad Nacional del Centro, Tandil, September 23 and 24, 2009.
 http://ecimag2009.pladema.net/workshop.html

[4] M. Mastriani, "Procesamiento distribuído de imágenes médicas con tecnología GPGPU/CUDA," XVII Argentine Congress of Bioengineering and VI Meeting Clinic Engineering 2009 (SABI 2009), Symposum of Bioinformatics and Biological Systems, Centro Cultural Bernardino Rivadavia, Rosario, Argentina, October 16, 2009.
 http://rosario2009.sabi.org.ar

[5] M. Mastriani, "Procesamiento distribuído de imágenes médicas con tecnología GPGPU/CUDA," II Chilean Meeting of Biomedical Engineering 2009 (JCIB 2009), O'Higgins Hotel, Valparaiso-Viña del Mar, Chile, October 29 and 30, 2009.
 http://www.jcib.cl

[6] M. Mastriani, "Nuevas tendencias en Biometría: Radiobiometría, Biometría por Interfaz Cerebro-Computadora y Relaciones putativas en Biometría," IV Congreso Internacional de

Biometría de la República Argentina 2009 (CIBRA'2009), Panamericano Hotel, Buenos Aires, Argentina, November 23 and 24, 2009.

http://www.biometria.gov.ar/congresos/cibra-2009/programa.aspx

[7] M. Mastriani, "Avances en la compresión de datos de audio y video: Aplicaciones de 3D para TD Digital," UBANEX Program, Faculty of Engineering, University of Buenos Aires, Buenos Aires, Argentina, December 9, 2009.

[8] M. Mastriani, "Compresión de Imágenes Médicas y Satelitales con tecnología GPGPU/NVIDIA/CUDA," Advanced tutorial, Argentinean Symposium on Embedded Systems 2010 (SASE'2010), Faculty of Engineering, University of Buenos Aires, Buenos Aires, Argentina, March 3-5, 2010.

TEACHING OF DEGREE CHAIR IN STATE UNIVERSITIES

PLACE: **Department of Systems, National Technological University (F.R.B.A.)**
COURSES: Image Processing
              Signal Processing
POSITION: Professor
DEDICATION: Semi-exclusive
DATE: From 2002 to 2004
WEB: http://www.sistemas.frba.utn.edu.ar/Procesamiento de Imagenes/
        http://www.sistemas.frba.utn.edu.ar/Procesamiento de Señales/

PLACE: **Computer Engineering Degree**
         National University of Tres de Febrero (UNTreF)
COURSES: Image Processing
              Signal Processing
POSITION: Professor (Category 1)
DEDICATION: Exclusive
DATE: From 2007 up to day
WEB: http://www.untref.edu.ar/carreras_de_grado/ing_computacion.htm

TEACHING OF POSTGRADUATE CHAIR IN STATE UNIVERSITIES

PLACE: **Engineering College, Buenos Aires University (UBA)**
POSTGRADUATE: Master of Optoelectronics
DIRECTOR: Prof. E. Castro ecastro@citefa.gov.ar y ecastro@fi.uba.ar
COURSES: Diagnosis and Medical Treatment
                Medical Applications
POSITION: Profesor with partial dedication
DATE: From 2005 up to date
WEB: http://www.fi.uba.ar/autoridades/secretarias/posgrado/cursos carreras y maestrias 2005.pdf

TEACHING OF DEGREE CHAIR IN PRIVATE UNIVERSITIES

COURSES: Fundamentals of Artificial Intelligence

        Genetic Algorithms

        Voice, Audio and Image Processing by Computer

        Neural Networks I

        Introduction of Neural Networks

        Data Encription

PLACE: Department of Systems, CAECE University

DATE: From August 1995 to December 1997

POSITION: Professor

        Researcher

COURSES: Artificial Intelligence (Licenciature and Engineering)

        Knowledge Engineering (Engineering)

PLACE: Computer Science Technology College, Belgrano University

DATE: From September 1995 to December 1996

POSITION: Professor

        Director of Virtual University Project

COURSES: Neural Networks

PLACE: Artificial Intelligence Laboratory, Buenos Aires Institute of Technology (ITBA)

DATE: From February to April 1996

POSITION: Professor

        Researcher

COURSES: Avanced Programming

PLACE: Engineering Collage, Salvador University

DATE: From August 1998

POSITION: Professor

COURSES: Language Philosophy
　　　　　 Computer Science Seminary (1st. part)
　　　　　 Structure of Programs
PLACE: Engineering College, Catholic University of Argentina
DATE: From July 1997 to July 1998
POSITION: Professor
　　　　　　 Member of Engineering College Commission
　　　　　　 Member of Teaching in Engineering Commission

COURSES:　Computer Science in Social Communication
　　　　　　 Models and Simulation
　　　　　　 Research in Systems
　　　　　　 Systems of Data Processing
　　　　　　 Principles of Computing
　　　　　　 Elements of Computer Science
　　　　　　 Data Processing
　　　　　　 Logical Programming II
　　　　　　 Practices I
　　　　　　 Practices III
　　　　　　 Languages of Programming II
　　　　　　 Languages of Programming III
　　　　　　 Languages of Programming IV
　　　　　　 Operation Research
　　　　　　 Data Structure I
　　　　　　 Data Structure II
　　　　　　 Data Structure III
　　　　　　 Artificial Intelligence
　　　　　　 Research in Computer Science
　　　　　　 Operating Systems I
　　　　　　 Communication Systems
　　　　　　 Compilers and Interpreters
　　　　　　 Theory of Programming Languages
　　　　　　 Technology of Communication
　　　　　　 Introduction of Computer Science
　　　　　　 Information Theory
　　　　　　 Technological Tendencies
PLACE: System College, John F. Kennedy University
DATE: From August 1995 up to day
POSITION: Professor and Major of Computer Department

COURSES: Bank Teleprocessing

           Field Job II

           Programming II

PLACE: Computer Science Tecnology Collage, **Interamerican Open University**

DATE: From February 2000 to December 2002

POSITION: Professor

           Researcher

COURSES: Fundamentals of Computer Science

           Programming I

           Mathematics I

           Mathematics II

           Formal Languages and Theory of Computing

PLACE: Engineering Department, CEMA **University**

DATE: From March 2004 up to day

POSITION: Professor

TEACHING OF POSTGRADUATE CHAIR IN PRIVATE UNIVERSITIES

PLACE: **TECHNICAL MAJOR COLLEGE**
POSTGRADUATE: Master of Technological Management
COURSE: Emergent Technologies
DATE: 2006
WEB: http://www.ingenieriaest.iese.edu.ar

MEMBER OF POSTGRADUATE ACADEMIC COUNCIL IN PRIVATE UNIVERSITIES

PLACE: **TECHNICAL MAJOR COLLEGE**
POSTGRADUATE: Master of Technological Management
DATE: 2006
WEB: http://www.ingenieriaest.iese.edu.ar

PLACE: **COLLEGE OF COMPUTER SCIENCE TECHNOLOGY**
         BELGRANO UNIVERSITY
POSTGRADUATE: Course of Information Security, Management Oriented
DATE: 2007
WEB: http://www.ub.edu.ar

TEACHING OF EXTRACURRICULAR COURSES IN STATE UNIVERSITIES

COURSE: Neural Networks

PLACE: Electronic Department, **National Technological University, Córdoba City**

DATE: October 1996

POSITION: Professor

COURSE: Neural Networks

PLACE: Electronic Department, **National Technological University, Córdoba City**

DATE: June 1997

POSITION: Professor

COURSE: Genetic Algorithms and Fuzzy Logic

PLACE: Electronic Department, **National Technological University, Córdoba City**

DATE: October 1997

POSITION: Professor

COURSE: Neural Networks

PLACE: Systems Department, Engineering College, **Buenos Aires University**

DATE: From April to May 1996

POSITION: Professor

COURSE: Data Warehousing and Data Mining for Networking
        (1st part, Introduction to Genetic Algorithms)

PLACE: Engineering College, **National University of Santiago del Estero.**

DATE: December of 1997

POSITION: Professor

COURSE: Data Warehousing and Data Mining

PLACE: Engineering College, **National University of Salta.**

DATE: October 1998

POSITION: Professor

TEACHING OF POSTGRADUATE COURSES IN STATE UNIVERSITIES

COURSES: Neural Networks in the Capital Markets

PLACE: Buenos Aires Stock Exchange • Economy College, **Buenos Aires University**

DATE: May 1996

POSITION: Professor of Master of Capital Markets (agreement between Economy College of Buenos Aires University and Buenos Aires Stock Exchange)

TEACHING OF EXTRECURRICULAR COURSES IN FOREIGN UNIVERSITIES

COURSE: E-Commerce
PLACE: **Universitario Autónomo del Sur – República Oriental del Uruguay**
DATE: May 2000
POSITION: Professor

COURSE: E-Commerce and Enterprise Strategy
PLACE: **Universitario Autónomo del Sur – República Oriental del Uruguay**
DATE: June 2000
POSITION: Professor

COURSE: E-Business
PLACE: **Universitario Autónomo del Sur – República Oriental del Uruguay**
DATE: July 2000
POSITION: Professor

TEACHING OF EXTRECURRICULAR COURSES IN PRIVATE UNIVERSITIES

COURSE: Internet

PLACE: The Collage of Journalism, John F. Kennedy University

DATE: April 2000

POSITION: Professor

COURSE: E-Commerce

PLACE: Computer Department, John F. Kennedy University

DATE: August 2001

POSITION: Profesor

COURSE: Introduction to Object Oriented Programming

PLACE: Computer Department, John F. Kennedy University

DATE: September 2001

POSITION: Profesor

COURSE: Neurocomputing

PLACE: Computer Department, John F. Kennedy University

DATE: October 2001

POSITION: Professor

COURSE: Introduction to Java Programming

PLACE: Computer Department, John F. Kennedy University

DATE: October 2002

POSITION: Profesor

COURSE: Superalgorithms

PLACE: Computer Department, John F. Kennedy University

DATE: November 2002

POSITION: Profesor

TALLER: Object Oriented Programming in C/C++

PLACE: Computer Department, John F. Kennedy University

DATE: June 2003

POSITION: Profesor

TALLER: Algorithms and Data Structure in C/C++

PLACE: Computer Department, John F. Kennedy University

DATE: July 2003

POSITION: Profesor

TALLER: Java: The new Internet tool?

PLACE: Engineering College, CEMA University

DATE: June 2004

POSITION: Professor

TEACHING OF EXTRECURRICULAR SEMINARS IN PRIVATE UNIVERSITIES

WORKSHOP: New Technologies and their use in identifying commercial niches

for Small Business. Models, configurations and platforms of E-Commerce/

E-Business for Small Business. The E-Country.

PLACE: Engineering College, CEMA University

DATE: April 2004

POSITION: Speaker

SEMINAR: The Computer Science Tool inside High Schools.

PLACE: Engineering College, CEMA University

DATE: March 30 2006

POSITION: Moderator

TEACHING IN COURSES OF INTERNATIONAL ELECTRICAL AND ELECTRONIC ENGINEERS (I.E.E.E.), NEW JERSEY, USA.

COURSE: Introduction to Multimedia

PLACE: IEEE headquarters (Argentine Chapter)

DATE: June 1997

POSITION: Professor

COURSE: Introduction to Neural Networks

PLACE: IEEE headquarters (Argentine Chapter)

DATE: August 1997

POSITION: Professor

TEACHING IN COURSES OF ARGENTINE SOCIETY OF COMPUTER SCIENCE AND OPERATION RESEARCH (S.A.D.I.O.)

COURSE: Introduction to Neural Networks

DATE: September 1997

POSITION: Professor

COURSE: Introduction to Genetic Algorithms

DATE: September 1997

POSITION: Professor

COURSE: Data Warehousing and Data Mining Applied to Market Research and Strategic and Operative Marketing

DATE: November 1999

POSITION: Profesor

COURSE: Data Warehousing and Data Mining Applied to Strategic and Operative Marketing

DATE: August 2000

POSITION: Professor

COURSE: Datawarehousing and Datamining for Comercialization, Marketing and Management

DATE: June 2000

POSITION: Professor

COURSE: Internet for Marketing Global Commerce

DATE: July 2000

POSITION: Professor

COURSE: E-Commerce

DATE: May 2000

POSITION: Professor

DISERTATIONS IN PRIVATE UNIVERSITIES

SHORT COURSE: Computer Intelligence and Contraintelligence: Steganography
PLACE: CEMA University
DATE: 5 and 12 November 2003
POSITION: Speaker

TEACHING IN COURSES OF APPLIED RESEARCH (INVAP S.E.)

COURSE: Multi-core/multi-GPU programming
DATE: September 6-10, 2010
POSITION: Speaker

TEACHING OF DEGREE CHAIR IN TECHNICAL INSTITUTES

COURSE: Smart Building II

PLACE: Huergo Engineer Institute

DATE: From August to December 2002

POSITION: Professor

TEACHING IN COURSES IN TECHNICAL INSTITUTES

COURSE: Electronic Marketing

PLACE: FUVA, Salta headquarters

DATE: October 1999

POSITION: Professor

COURSE: Internet for Marketing and Global Commerce

PLACE: FUVA, Mendoza headquarters

DATE: November 1999

POSITION: Professor

COURSE: Electronic Marketing (2nd. part, Small Business Oriented)

PLACE: FUVA, Salta headquarters

DATE: March 2000

POSITION: Professor

COURSE: Programming of Internet Applications

PLACE: Center of Learning of High Technology

DATE: April 2000

POSITION: Professor

DIRECTOR OF HUMAN RESOURCES TRAINING PROGRAM IN SCIENTIFIC AND TECHNOLOGICAL RESEARCH IN PRIVATE UNIVERSITIES

PLACE: College of Computer Science Technology, Belgrano University

AREA: Artificial Intelligence and Neural Networks

PROJECT NAME: Algorithm for fast training of Back-propagation Neural Networks

NUMBER OF GROUPS: 1 (special group of research beginning)

DATE: 1995

PLACE: Systems Department, CAECE University

AREA: Artificial Intelligence and Neural Networks

PROJECT NAME: Back-propagation Neural Networks and its applications

NUMBER OF GROUPS: 6

DATE: 1996

PLACE: Systems Department, Buenos Aires Institute of Technology

AREA: Artificial Intelligence and Neural Networks

PROJECT NAME: Neuro-Fuzzy-Controllers

NUMBER OF GROUPS: 1

DATE: 1996

PLACE: Systems Design Department, John F. Kennedy University

AREA: Artificial Intelligence and Neural Networks

PROJECT NAME: Data-Mining with Multilayer Perceptrons

NUMBER OF GROUPS: 1

DATE: 1997

PLACE: Engineering College, Argentine Catholic University

AREA: Data Mining and neural Networks

PROJECT NAME: Data-Mining with genetic Algorithms

NUMBER OF GROUPS: 1

DATE: 1997

MANAGEMENT AS STEERING IN STATE UNIVERSITIES

UNIVERSITY: National University of Tres de Febrero

POSITION: Director Computer Engineering Degree

Representative at the State Universities with Informatics Degree Network (RedUNCI), from April 1 2006

Representative at the Universities with Computer Engineering Degree Network (RUNIC), from November 16 2009

Representative of Modelling and Simulation Network Sponsored by Ministry of Science, Technology and Production Innovation, from November 26 2009

Representative of Regional Council of Biomedical Engineering for Latin America (CORAL), from November 30 2009

Member of Research Commission

Member of Education Commission

Director of Image and Signal Lab (LIS) of NeoTVLabs/CPA/UVt System

URL: http://www.untref.edu.ar/carreras_de_grado.htm#

MANAGEMENT AS STEERING IN PRIVATE UNIVERSITIES

UNIVERSITY: Belgrano *POSITION:* Director of Virtual University *DATE:* From November 1996 to January 1997
UNIVERSITY: Interamerican Open *POSITION:* Director of Center of High Studies in Computer Science Technologies (CAETI) *DATE:* From July 2000 to February 2001
UNIVERSITY: John F. Kennedy *POSITION:* Delegate of Computer Department *DATE:* From July 2002 up to day
UNIVERSITY: Technical Major College *POSITION:* Member of Academic Council of Master of Technological Management *DATE:* From September 2006 up to day

MANAGEMENT AS STEERING AT FOREIGN PRIVATE UNIVERSITIES

UNIVERSITY: **Universitario Autónomo del Sur – República Oriental del Uruguay**

POSITION: Director of E-Commerce Laboratory

DATE: From March to August 2000

MANAGEMENT AS STEERING OF NO GOVERNMENT ORGANIZATIONS (NGO)

NGO: Circle of Professionals in Global Commerce

POSITION: Secretary

DATE: From February 2004 up to day

NGO: Argentine Chambero f Global Commerce (C@CE)

POSITION: Secretary of e-Goverment Commission

DATE: From June 2007 up to day

NGO: Commission of Climate Change, Argentine Department of State

POSITION: Delegate of State University of Tres de Febrero (UNTreF)

DATE: From May 2007 up to day

MANAGEMENT AS CREATOR OF DEGREE PROGRAMS IN TECHNICAL INSTITUTES

MEMBER OF THE CURRICULAR COMMISSION:

Under the agreement signed between the University Foundation Social Argentina (FUSA), the IeSeVe A-1127 Technical Institute and the National Technological University (UTN-FRA) for the teaching development and the research in:

• Bachelor in Commercial Engineering for Senior Technicians in Commercial Engineering.

• Bachelor in Electronic Marketing for Senior Technicians in Commercialization.

DIRECTOR OF DEGREE THESIS

TESISTA: Bellver, Pablo; Derbapyan, Víctor; Loiacone, Mariano

THESIS OF: Bachelor in Computer Science

AREA: New training algorithm for multilayer feedforward neural nerworks with back-propagation of errors.

UNIVERSITY: Belgrano

DATE: From March to August 1996

POSITION: Director

TESISTA: Posadas Carolina

THESIS OF: Bachelor in Computer Science

AREA: Routing in Computer Nets with Genetic Algorithms.

UNIVERSITY: Morón

DATE: From March to August 1998

POSITION: Director

TESISTA: Gustavo Henrion

THESIS OF: Bachelor in Computer Science

AREA: Training of Back-propagation Neural Networks with Genetic Algorithms.

UNIVERSITY: of **Buenos Aires.**

DATE: From May 1998

POSITION: CoDirector

TESISTA: Mariel Molina

THESIS OF: Bachelor in Systems

AREA: Study on different applications of neural networks.

UNIVERSITY: Argentine of Enterprise.

DATE: From July to November 1998

POSITION: Director

TESISTA: Luis Clusa

THESIS OF: Bachelor in Systems

AREA: Algorithm of Image Compression Applied to Print Documents.

UNIVERSITY: CEMA.

DATE: From May 2010 to April 2011

POSITION: Director

DIRECTOR OF POSTGRADUATE THESIS

TESISTA: Donald Glass

THESIS OF: Master in Telecommunications

AREA: Communications with neural netwoks

UNIVERSITY: Buenos Aires Institute of Technology

DATE: 1996

POSITION: Director

TESISTA: Karim A. Nemer

THESIS OF: Philosophical Doctor

AREA: Neural networks in Orthodonce.

UNIVERSITY: **National University of Córdoba**

DATE: 1997

POSITION: CoDirector

TESISTA: Wilver Auccahuasi Aiquipa

THESIS OF: Philosophical Doctor

AREA: Medical Images.

UNIVERSITY: **National University of South**

DATE: 2010

POSITION: CoDirector

TESISTA: Fernando Lage

THESIS OF: Philosophical Doctor

AREA: Digital Signal and Image Processing.

UNIVERSITY: **National Technological University**

National University of La Plata

DATE: 2010

POSITION: Director

JURY OF DEGREE THESIS

TESISTA: Pablo Andrés García

THESIS OF: Magister in Engineering

TITLE: Remote Sensing Nets

UNIVERSITY: State of La Plata

DATE: May 29 2008

DIRECTOR: Prof. Enrique Spinelli, Ph.D.

JURY OF MASTER THESIS

TESISTA: Diego Sica

THESIS OF: Magister in Optoelectronics

TITLE: Estudio de Factores de Riesgo Geométricos Ligados a Patologías Vasculares
Coronarias

UNIVERSITY: Engineering College of Buenos Aires University

DATE: June 2010

DIRECTOR: Prof. Damián Craiem Spinelli, Ph.D.

EX MEMBER OF INTERNATIONAL SCIENTIFIC SOCIETIES

* *IEEE (International Electrical and Electronic Engineering)* from 1990 as Member degree of following societies:

1.- Signal Processing Society
2.- Automatic Control Society
3.- Neural Networks Society
4.- Aerospace & Electronic Systems Society (desde 01/94 hasta 12/96)
5.- Information Theory Society
6.- Computers Society
7.- Communications Society

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* *INNS (International Neural Network Society)* from 07/93 to 12/96 as Member degree of the following Special Interest Groups:

1.- Economic and Financial Applications
2.- Geophysics
3.- Signal Processing
4.- Mathematics
5.- Learning Theory
6.- Optimization
7.- Automatic Control
8.- System Identification
9.- Chaos and Complexity
10.- Genetics Algorithms
11.- Fuzzy Systems

CURRENT MEMBER OF INTERNATIONAL SCIENTIFIC SOCIETIES

* *WASET (World Academy of Science, Engineering and Technology)* from 2004
  http://www.waset.org/institutional.html
  Latin America Representative
  http://www.waset.org/NaturalandAppliedSciences.php?page=15
  Member of the WASET Scientific and Technical Committee on Natural and Applied Sciences

* *CodeProject (International Society of Codification and Algorithms)* from 2003
  http://www.codeproject.com

* *Mathtools (Technical Computing Community of The MathWorks, Inc.)* from 2002
  http://www.mathtools.net

* *TechOnLine (Technology on Line, Inc.)* from 2002
  http://www.TechOnLine.com

* *EEGLAB (Swartz Center for Computational Neuroscience)* from 2002
  http://www.sccn.ucsd.edu/eeglab/

* *MEDSCAPE (Medical Scape)* from 2006
  http://www.medscape.com

* *MAPLE (Reporter)* from 2006
  http://www.maplesoft.com

* *Curvelet (Caltech)* from 2007
  http://www.curvelet.org

* *Criptored* from 2007
  http://www.criptored.upm.es
  Local Coordinator by LIDeNTec and UNTreF

SCHOLARSHIPS

IX Postgraduate Course Nuclear Engineering, *National Commission of Atomic Energy* (CNEA), corresponding to developed at Constituyentes Atomic Center, Buenos Aires, Argentina.

<u>DATE</u>: March to December 1990.

IV Peruilh Scholarship, of Peruilh Foundation, Buenos Aires, Argentina, corresponding to *Doctorate in Engineering of Buenos Aires University.*

<u>DATE</u>: From Marh 1991 to July 1994

DISSERTATIONS IN SPANISH EVENTS

1st. Congress "Mar del Plata – Virtual City", Costa Galanas Convention Center,

Mar del Plata, 5 to 8 December 1999, on INTERNET SEGURITY.

2nd. Congress "Mar del Plata – Virtual City", Costa Galanas Convention Center,

Mar del Plata, 5 to 8 October 2000, on INTERNET SEGURITY.

"New E-Commerce Model for Small Business, E-SB", Auditorium of Palermo University,

June 13 2002.

Domotic: A proposal for smart environments

Approved for the Internacional Congress of Ushuaia, Nacional University of Patagonia,

September 2000

Algorithms for Medical Images Enhancement

Approved for the Internacional Congress of Ushuaia, Nacional University of Patagonia,

September 2000

Teaching of Mathematics Across Seudocodes

Presented in the International Congress of Mathematics for Engineering, National

Technological University, Concepción del Uruguay, October 2000

MANAGEMENT OF PROJECTS IN PRIVATE UNIVERSITIES

Study of feasibility on a new format of graphic file for Internet
Pre-accepted project for FONCyT/SECyT
Funded project by VANEDUC

Study on Data Warehousing
Funded project by VANEDUC

Study on Electronic Commerce
Funded project by VANEDUC

Seudocodes as training platform in programaming for corporation professionals
Funded project by VANEDUC

Study on Data Mining
Funded project by VANEDUC

Study on Algebra
Funded project by VANEDUC

Voting for Internet
Funded project by VANEDUC

Study on Geographic Information Systems
Funded project by VANEDUC

Study on Marketing on Internet
Funded project by VANEDUC

Study on Security in Electronic Commerce
Funded project by VANEDUC

PUBLICATION OF PAPERS IN SPANISH JOURNALS

- Virtual Hospital: Medicine in Internet
Journal Contact, Vaneduc, June 2001.

- Electronic Commerce
Journal Contact, Vaneduc, August 2001.

- Electronic Commerce
Journal Engineering, Center of Argentine Engineers, September 2001.

- Domotic
Journal Contact, Vaneduc, September 2001.

- Electronic Marketing
Journal Engineering, Center of Argentine Engineers, November 2001.

- Datamining
Journal Contact, Vaneduc, October 2001.

- Datawarehousing
Journal Engineering, Center of Argentine Engineers, December 2001.

MISCELLANEOUS

REFEREED:
Reviewer of papers for CONDEX/INFOCOM/WINDOWS'98 on Neural Networks.

ACTIVITIES IN LOCAL IEEE:
President of Computer Argentine Chapter during 1997.

VicePresident of Computer Argentine Chapter during 1998.

VicePresident of Computer Argentine Chapter during 1999.

ACTIVITIES IN INTERNATIONAL IEEE:
Member of Technical Committee on Multimedia Computing.

POSTULATE FOR PRESIDENT OF ARGENTINE SOCIETY OF MULTIMEDIA AND INTERACTIVE MULTIMEDIA DEVICES (SAMMIT): During 1997

CONDEX/INFOCOM/WINDOWS'98:
MEMBER OF PROGRAM COMMITTEE AND THE TRACKS CONGRESS:
- HEALTH AND INFORMATION TECHNOLOGY
- SIMULATION, OPERATION RESEARCH AND MODELISTIC

SPEAKER IN TRACK:
- BUSINESS

CENTER OF ARGENTINE ENGINEERS:
• Member of Study Commission for Training in Engineering (CEEI) inside IV Congress of Politics of Engineering.

• Participant of 1st.Virtual Congress, Iberoamerican and Europe (in collaboration with National Technological University).

• Roundtable on E-Commerce.

• Team Leader of training in E-Commerce FUNDES and Santa Mercedes Foundations, training to Small Business Enterprises of Argentine Industrial Union and to Techint suppliers, at Siderca Campana.

Symposium: Computer Science in Health (SIS'2004), Córdoba September 22-29:
• Member of Management Group in Health (Jorge A. Guerra).
• Member of Computer Science and Health Forum (Prof. Dr.Humberto F Mandriola Brieux)

Workshop of vocational guidance:
Department of Professional Development, CEMA University, 08/31/2004

*Member of Program Committee of **Workshop on Images SPIE-FIUBA 2005**:*
Engineering Collage, Buenos Aires University (FIUBA), November 14-16 2005

Member of Program Committee of `"50 YEARS OF ARTIFICIAL INTELLIGENCE: Campus Multidisciplining in Perception and Intelligence (CMPI-2006)":`
July 10-14 2006
Tel: +34 967599200 Ext. 2406 / Fax: +34 967599224
Informatics Department
University of Castilla-La Mancha
Escuela Politécnica Superior
02071 Albacete, España
http://www.uclm.es

*Member of Program Committee of "*International Conference on Fuzzy Systems - ICFS 2005", International Enformatika Conference, http://www.ijci.org/icfs2005/committees.htm

*Member of Program Committee of "*International Conference on Enformatika Systems Sciences and Engineering - ESSE 2006", International Enformatika Conference, Prague, Czech Republic, 01-03 February 2006
http://www.**enformatika**.org/conferences/ 2006/prague/committees.htm

*Member of Program Committee of "*International **Enformatika** Conference - IEC 2006", Internacional Enformatika Conference, Prague, Czech Republic, 01-03 February 2006
http://www.**enformatika**.org/conferences/ 2006/cairo/committees.htm

Speaker of Meeting on Satellite Technology Engineeering College, Buenos Aires University, track of Satellite Images Processing, 2-3 September 2006
http://www.**fi.uba.ar**

Speaker of Meeting on Signals and Images in Remote Sensing Engineeering College, Buenos Aires University, track of Satellite Images Processing, 2-3 November 2006
http://www.**fi.uba.ar**

Speaker of Meeting on Brain Computer Interface Medical Informatics Laboratory of Hospital Buenos Aires Italian Hospital, in following tracks:
• Systems of objects recognition. Adquisition and processing of language and other symbolics signals. November 6, 2006
• Information Theory, History and Introduction. Codification and binary systems. Entropy and Information. The Cybernetics and the Modern Control Systems.
http://www.hospitalitaliano.org**.ar**

Attender to Workshop on Informatics Technician Ministry of Education, Science and Technology, November 1, 2006
http://www.**me.gov.ar**

Member and Founder of Argentine Net of Brain Computer Interface (RAICC)
From December 13 2006
http://www.bioingeniería.edu.ar/jaicc

*Member of Scientific Committee of **Argentine Meeting of Brain Computer Interface 2009***:
Paraná, Entre Ríos, Argentina, April 16 and 17 2009
 http://www.bioingenieria.edu.ar/grupos/lirins/jaicc2009.html

*Member of Academic Committee of **XV Argentine Congress of Computer Sciences 2009***: San Salvador de Jujuy, Jujuy, Argentina, October 5 to 9 2009
  http://www.cacic2009.fi.unju.edu.ar

Round table on situation of Image Processing in Argentina: School of Image Sciences 2009 (ECImag 2009), Instituto PLADEMA, Facultad de Ciencias Exactas, Universidad Nacional del Centro, Tandil, September 23, 2009.
 http://ecimag2009.pladema.net/programa.html

Argentine GRID Initiative: October 21 and 22 2009, Reconquista Garden Hotel, 675 Reconquista St., Bs. As., Argentina.

Member of Imaging Sciences Lab: Universidad Nacional del Sur, Argentina.
http://www.lci.uns.edu.ar/members.html

Member of Advisory Board for Argentine System of Digital Terrestrial TV, 2009.

Member Academic Committee of Argentine Symposium on Computing Technology (AST 2010) for 39° Argentine Meeting of Informatics and Operative Research (39 JAIIO).
http://www.39jaiio.org.ar/ast

Assistant to International Meeting of Advisory Board for Argentine System of Digital Terrestrial TV (SATVD-T), November 11 and 12, 2009, Palace-Mail, Bs. As. Argentina.

Assistant to Digital TV Course, November 6, 9-12, 2009, Palace-Mail, Bs. As. Argentina.

Assistant to Meeting for Responsibles of R&D Teams for Digital TV, November 12, 2009, LIFIA, La Plata. Argentina.

Assistant to Workshop for R&D Teams of Digital TV, November 13, 2009, Palace-Mail, Bs. As. Argentina.

3° School and Workshop on Image Sciences (ECImag 2010)
- Member Academic Committee,
- Member of Round Table on Innovation and Research in Image Sciences
- Professor of Course: Distributed Processing of Medical Images with GPGPU/NetStream
                  Technologies (I3)
Imaging Sciences Lab, National University of South, Bahía Blanca, Argentina.
July 19-23 2010.
http://www.ecimag.org/

*Member of Scientific Committee of **International Conference on Computer Science 2006**:*
CU Tech, Chaoyang, China, February 2, 2006
http://www.meeting.edu.cn/oemui/newsinfo/newsshow.asp?news_id=222&news_type_id=3

*Member of Technical Program Committee of **Sixth International Conference on Information Assurance and Security, IAS 2010***:
Atlanta, Georgia, USA, August 23 to 25 2010
http://www.mirlabs.org/ias10/org.html

*Member of Programme Committee of **3rd International Conference onComputational Intelligence in Security for Information Systems, CISIS 2010***:
Leon, Spain, November 11-12th, 2010
http://gicap.ubu.es/cisis2010/committees/committees.shtml

Assistant to Second Meeting of ISDB-T Norm International Forum
Member and Founder of Research and Development on Interactive TV Network (RDITVN)
Assistant to Workshop and Roundtable on RDITVN
Buenos Aires Sheraton Hotel, May 3 to 5, 2010
http://www.foro-isdbt-arg2010.gob.ar/home.php

*Member of Academic Committee of **XII Workshop Computer Sciences Researchers 2010***:
El Calafate, Santa Cruz, Argentina, May 5 to 7, 2010.
http://wicc2010.info.unlp.edu.ar/

Speaker of IPTV-Forum Buenos Aires 2010
SuperCompression: Algorithm of distributed compression with Multi-core/Multi-GPU/ NetStream Technology
CEMA University, Buenos Aires, Argentina, 10-11 June 2010
http://www.iptv-forum.com.ar/programa.htm

Speaker of Seminar
Advances in compression of audio and video, with applications in 3D for Digital TV
National Technological University, Buenos Aires, Argentina, June 22nd, 2010
http://www.electron.frba.utn.edu.ar/preacreditacion/actividades/index_2.php?publicacion_id=42

Speaker of Applied Microelectronics µEA2010
Embebed Software for 3DTV with Multi-core/Multi-GPU/NetStream Technology
National University of La Matanza, Buenos Aires, Argentina, July 5-7, 2010
http://utic.inti.gob.ar/uea/
http://www.ieee.org/web/publications/pubservices/confpub/AuthorTools/conferenceTemplates.html
https://www.easychair.org/login.cgi?conf=uea2010

Speaker of Argentine Congress on Informatics and Health (CAIS2010)
Compression and Super-resolution of Serial Computed Tomography
Argentine University of Enterprises (UADE), Buenos Aires, Argentine, September 1, 2010
http://www.39jaiio.org.ar/cais

Speaker of 11º Argentine Symposium on Technology (AST'2010)
Image Parallel Processing with CUDA
Member of Program Committee

Moderator
Argentine University of Enterprises (UADE), Buenos Aires, Argentine, September 3, 2010
http://www.39jaiio.org.ar/ast

Speaker of 3rd High-Performance Computing Symposium
Treatment of problems with high computational cost via multi-core/multi-GPU technology.
Examples: RSA and several primality test
Argentine University of Enterprises (UADE), Buenos Aires, Argentine, September 2, 2010
http://www.39jaiio.org.ar/hpc

Speaker of Second International Congress on Acoustics
Spectral analysis with wavelets. Part I & II
National University of Tres de Febrero, Buenos Aires, Argentina, September 10, 2010
http://www.untref.edu.ar/congreso_acustica.htm

1st Workshop of Interactive Digital TV (WTVDI)*:*
Member of Program Committee of
Reviewer of 6 papers
WebMedia 2010 - XVI Simposio Brasilero de Sistemas Multimedia y Web
Belo Horizonte/MG, 5-8 October, 2010.
http://www.ufmg.br/swib/?p=129

Research Project, during 2004
Researcher
Intelligent System of Biomedical Signal Adquisition
M. Mastriani and G. Pérez Lance
CEMA University, Buenos Aires, Argentina, 2004.
http://www.ucema.edu.ar/institucional/download/investigaciones2004.pdf

Round Table in Day of Cooperation between Europe and Argentina in Future Internet and Components TICs Field
Speaker
April 20 2010, CESSI Auditorium, 541 Paraguay st., 6º Floor, Buenos Aires, Argentina.

Seminar on Functional Analysis Applied to Image Processing with Computational Efficiency and Rapidity.
Host: Professor Carlos Cabrelli, cabrelli@dm.uba.ar
June 4 2010, Mathematics Department, Faculty of Natural Sciences, Buenos Aires University
Pavilion I, University City, Buenos Aires, Argentina.

Advisory Council of ISDB-T Norm
Member
Federal Planning Ministry and Public Services
                                        2010, Buenos Aires, Argentina

Technical Commission for Connect Equality Program
Member
Federal Planning Ministry and Public Services
Ministry of Education
National Administration of Social Security (ANSES)
Argentine Government, 2010

National Administration of Social Security (ANSES)
Member of Committee for Strategic Program of Information Technologies (PETI'2010)
Representative by GIIT-ANSES in ONTI for Digital Signature in Argentina

Evaluator of:
• Scientific Research Committee of the Province of Buenos Aires (CIC), Argentina
  For Electronics, Computer and Bioengineering
• National Commission for Evaluation and Accreditation (CONEAU), Argentina
  For Electronics, Computer and Bioengineering degrees
  http://www.coneau.gov.ar/#state=regexpertos

IPTV-Forum
Technical Advisor
http://www.iptv-forum.com.ar/staff.htm

Argentinean Symposium on Embedded Systems 2011 (SASE'2011)
National Technological University, Buenos Aires, Argentina, March 2-4, 2011.
Member of Organizing Committee
Member of Technical Committee Program
Papers reviewer

Supercompression: Compression via Super-resolution and its possible implementation inside CMOS chips
Electronic and ElectroMechatronic Systems Research Group (EESRG), Electrical Engineering Research Institute (EERI), Electrical Engineering and Computers Department (EECD), National University of South, Bahía Blanca City, Buenos Aires, Argentina, October 17-19, 2010.
Speaker

XVI Argentine Congress of Computer Sciences 2010 (CACIC'2010)
University of Moron, Moron City, Buenos Aires, Argentina, October 18 to 22, 2010
Member of Academic Committee
Speaker: Supercompression via super-resolution for audio, still images, video, HDTV, 3DTV
        and Digital Cinema

10° Regional Conferences of Free Software 2010
National University of San Luis, San Luis City, San Luis Province, Argentina, October 28 to 30, 2010
Speaker: Supercompression via super-resolution for audio, still images, video, HDTV, 3DTV
        and Digital Cinema

III Meeting NeoTVLab 2010
National University of Tres de Febrero, Buenos Aires, Argentina, November 25, 2010
Speaker: Supercompression via super-resolution for audio, still images, video, HDTV, 3DTV
        and Digital Cinema

Research and Development Network of Digital Terrestrial Television
Member

2010 Balseiro Institute, Business Plan with Technological Base Contest (IB50K)
Evaluator of Information Technology and Communications Area

National Digital Agenda, Governance Secretariat, 2010
Representative of National Administration of Social Security (ANSES)
Member of Infraestructure Commission

Forum, Tele-Communications, Argentina Conectada, 2011
25-27 April, 2011
Buenos Aires Hilton Hotel
Representative of National Administration of Social Security (ANSES)

National Digital Agenda, Governance Secretariat, 2011
Representative of National Administration of Social Security (ANSES)
Member of Infraestructure Commission

7th International Conference on Information Assurance and Security 2011
Malacca, Malaysia, December 5-8, 2011.
Member of International Programm Committee
Papers reviewer

Ph.D. in Engineering of Buenos Aires University, March 2011
Evaluation Jury

Argentine Symposium of Embedded Systems 2012 (CASE'2012)
Member Researcher of Grant Scientific Meetings (RC2011), National Scientific and
Technological promotion Agency
Sub-Responsible: Hilda Larrondo
FONCyT System: http://foncyt.mincyt.gov.ar/FONCyT2/convocatoria/

Microsoft Academic Member
[1] http://academic.research.microsoft.com/Publication/13730733/denoising-and-compression-in-wavelet-domain-via-projection-onto-approximation-coefficients

[2] http://academic.research.microsoft.com/Publication/4667846/enhanced-directional-smoothing-algorithm-for-edge-preserving-smoothing-of-synthetic-aperture-radar

[3] http://academic.research.microsoft.com/Publication/4082489/waveshrink-with-firm-shrinkage

[4] http://academic.research.microsoft.com/Publication/1559226/optimal-polarimetric-processing-for-enhanced-target-detection

[5] http://academic.research.microsoft.com/Publication/13590519/kalman-s-shrinkage-for-wavelet-based-despeckling-of-sar-images

Third National University Meeting of Computer Engineering (III EUNIC)
Chairman
April 29 2011, National University of Tres de Febrero, Buenos Aires, Argentina

12th AST Argentine Symposium on Technology, 40th JAIIO.
Member of Program Committee
August 29 and 30, 2011, UTN, Córdoba.

Course of Terrestrial Digital TV: Developments in Argentina and Latinamerica
Speaker
AFCEA Argentina, EST Argentine Army, Buenos Aires, Argentina, May 31 2011

News stories for RedUsers:
[1] La tecnología argentina que televisará el Mundial de Brasil en 4k 3D
http://www.redusers.com/noticias/conozcan-la-tecnologia-argentina-que-transmitira-el-mundial-de-brasil-en-4k-3d/?replytocom=57761

[2] Desarrollo 100% argentino: un dispositivo que convierte tu LCD en 3D
http://www.redusers.com/noticias/desarrollo-100-argentino-un-dispositivo-que-convierte-tu-lcd-en-3d/

Third Congress of Applied, Computational, and Industrial Mathematics (III MACI)
Assistant
Math Department, National University of South, Bahía Blanca, Argentina, May 9-11 2011.

Fourth National University Meeting of Computer Engineering (IV EUNIC)
Member
Faculty of Exact, Physics and Natural Sciences, National University of Córdoba, Córdoba, Argentina, May 27 2011.

Board Meeting PLATA Internet of the Future: Implementing International Cooperation European Union - Argentina, R+D in Internet of the Future, Systems and TIC Components
Assistant
Science, Technology and Productive Innovation Ministry, Bs As, Argentina, May 20 2011

__Supercompression: Compression via Super-resolution and its possible implementation inside CMOS chips__
Electronic and ElectroMechatronic Systems Research Group (EESRG), Electrical Engineering Research Institute (EERI), Electrical Engineering and Computers Department (EECD), National University of South, Bahía Blanca City, Buenos Aires, Argentina, March 17 and May 9, 2011.
Speaker

__Work Meeting with INVAP and Satellogic Spin-Off__
Projects:
- GPGPU FPGA replacement for Argentine Primary Radar
- Quick-View of Synthetic Aperture Radar, L-Band and Strip-Map Mode for UAV
- Compression of 1080p video and 640x480 infrared video for security choper
- GMTI for plane
INVAP House, Bariloche, Rio Negro, Argentina, May 16-18, 2011.

__"First Meeting ELAC'2015 Project"__
Commission of Federal Agency of Information Society (AFESIF)
Action Plan on Information Society and Knowledge of America and the Caribbean
 (eLAC2015)
Member
Chairman: Eng. Gabriel Gric
Buenos Aires, Argentina, May 16, 2011

__News stories for RedUsers:__
[1] Innovar Program (by Ministry of Science, Technology and Production Innovation
http://www.innovar.gob.ar/blog/in-blog/innovar/un-invento-argentino-logra-transformar-toda-la-television-en-3d
http://www.innovar.gob.ar/blog

[2] Canal-AR
http://www.canal-ar.com.ar/noticias/noticiamuestra.asp?Id=10757

[3] Argentine Goverment
http://www.prensa.argentina.ar/2011/05/15/19562-experimento-universitario-para-transformar-la-teve-comun-en-3d.php

[4] Ministry of Federal Planning, Public Investment and Services
http://pmcg.minplan.gov.ar/html/eventos/presentacion_universidades/untref.php

[5] Daily "The Argentine"
http://www.elargentino.com/nota-139109-Un-invento-argentino-transforma-la-television-3D.html

PROFESSIONAL ACTIVITIES

CURRENT JOB:
Institution: **Laboratory of Research and Development in New Technologies (LIDeNTec)**
Address: 353 Piedras St., 2nd. Floor, Room 228, C1070AAG, Buenos Aires, Argentina
Phone: 4015-2166
Area of business: Research and Development
Position: Director
Dependent: ANSES Chairman
Director: Pablo Fontdevila
Date of accession: December 2006

Institution: **National Administration of Social Security (ANSES)**
Address: 353 Piedras St., 2nd. Floor, Room 228, C1070AAG, Buenos Aires, Argentina
Phone: 4015-2295
Area of business: Research and Development
Position: Coordinator of innovation Area
Dependent: ANSES CIO
Director: Sandra Lia Rouget
Date of accession: June 2008

PREVIOUS JOBS:
Institution: **Argentine Institute of Bioengineering (IABI)**
Address: 1427 H. Irigoyen St. Floor 6, Room B, C1089AAA, Buenos Aires, Argentina
Phone: 4115-1296
Area of business: Research and Development in Bioengineering
Position: Director
Date of accession: August 2005
Date of discharge: November 2006

Institution: **National Commission of Space Activities (CONAE)**
Address: 751 P. Colon Av., C1063ACH, Buenos Aires, Argentina
Area of business: Research and Development in Aeroespatial Technology
Position: Specialist in airborne and satellite SAR processing
Activities: Airborne Synthetic Apertura Radar: Formation of images, super-resolution to increase the spatial resolution, *suppression of speckle, compression, interpherometry for digital elevation models, scene simulator for calibration processors, training, generation of $\sigma 0$ for terrain humidity and rugosity medition.*
Name and position of immediate supervisor: Dr. Alberto E. Giraldez, Scientific Director
Date of accession: December 2005
Date of discharge: September 2006

Institution: **Buenos Aires Italian Hospital**
Address: 650 Gascón St., C1181ACL, Buenos Aires, Argentina
Area of business: Health
Position: Project Leader, Project Smart Wire
Name and position of immediate supervisor: Dr. F. G. B de Quirós, Strategic Vice-Director
Date of accession: August 2003
Date of discharge: October 2004

Company: **BioTech**
Address: 104 24 de Noviembre St., Floor 1, Room C, C1170AAD, Buenos Aires, Argentina
Area of business: Development of Telebiometrics Equipment
Position: Development Chair
Date of accession: December 2001
Date of discharge: December 2002

Institution: **Health Sciences College, Argentine Catholic University**
Address: 1400 Alicia Moreau de Justo St., Floor 4, C1107AFB, Buenos Aires, Argentina
Area of business: Education and Research
Position: Director of Bioinformatics Institute
          Professor of Computer Science I and II
          Director of Computer Hospital
 Name and position of immediate supervisor: Dr. Carlos B. Alvarez
Date of accession: December 2000
Date of discharge: December 2001

Institution: **Argentine Social Universitaria Foundation**
Address: 146 Combate de los Pozos St., C1079AAD, Buenos Aires, Argentina
Area of business: Education, Research and Consulting
Position: Professor, Researcher of I.D.I.D., Director of Senior Technicians in E-Commerce,
          Analyst Universitario in E-Commerce, Licenciate in E-Commerce and Master in
          E-Commerce.
Name and position of immediate supervisor: Dr. Lino Marcos Budiño
Date of accession: September 1999

Institution: **Interamerican Open University**
Address: 90 Chacabuco St., C1069AAB, Buenos Aires, Argentina
Area of business: Education, Training and Consulting
Position: Director of Center in Haigh Studies in Computer Technology
          Profesor of course: Field Job II (E-Commerce)
          Researcher

Description of position and responsabilities: Management of research projects of College in Computer Technology

Name and position of immediate supervisor: Dr. Marcelo De Vincenzi, Major College in Computer Technology and Management Vicemajor.

Date of accession: July 2000

Date of discharge: February 2001

Institution: **International Electrical and Electronic Engineering (IEEE) New Jersey, USA.**

Address: 744 Córdoba Av., Floor 2 (CICOMRA), C1054AAT, Buenos Aires, Argentina

Position: VicePresident of Argentine Chapter of IEEE Computer Society

Date of accession: January 1998

Institution: **Computer School**

Address: 878 Florida St., C1005AAR, Buenos Aires, Argentina

Area of business: Information Technology

Position: Professor, Consultant and Director of E-Commerce Laboratory, Uruguay

Personnel in charge: 2

Research, development and training in: E-Commerce / E-Business, Data Ware-housing / Data Mining, E-Learning**,** etc.

Date of accession: January 2000

Date of discharge: July 2000

Reason for the discharge: Completion of specific contract

Company: **PMM Consulting**

Address: 1848 A. M. de Justo St., Floor 1, Room 1, C1107AFB, Buenos Aires, Argentina

Area of business: Market Research

Position: Managing Partner

Description of position and responsabilities: Managing Partner.

Reason for the discharge: Dissolution of company.

Company: **Extel Enginering**

Address: 275 Paraná St., C1017AAE, Buenos Aires, Argentina

Area of business: Transmission of Information Systems

Position: Senior R&D Engineer

Description of position and responsabilities: Responsible of Research and Development of Systems for Transmission for E-commerce and E-Business.

Name and position of immediate supervisor: J. A. Elman, President

Reason for the discharge: Completion of specific contract

Institution: **Belgrano University**
Address: 1947 Federico Lacroze St., C1426CPE, Buenos Aires, Argentina
Area of business: Education and Training
Position: Director of Virtual University
Description of position and responsabilities: Coordination, general direction and supervision, as head of the project in the areas of administrative and technical Videoconferencing.
Name and position of immediate supervisor: Dr. Avelino Porto, Major
Date of accession: November 1996
Date of discharge: December 1996

Institution: **International Electrical and Electronic Engineering (IEEE) New Jersey, USA.**
Address: 376 Moreno St., Floor 3, C1091AAH, Buenos Aires, Argentina
Position: President Argentine Chapter of IEEE Computer Society
Date of accession: January 1997
Date of discharge: December 1997

Company: **MAIN BYTE S.R.L.**
Address: 966 Córdoba Av., Floor 7, Room B, C1054AAV, Buenos Aires, Argentina
Area of business: Information Technology
Position: Project Leader in Marketing
Personnel in charge: 3
Description of position and responsabilities: Chairman of Base Software Development, with participation in several public terders, making budgets and tender specifications. Among the most notable achievements stand firm for the purchase of more than 200 customers and obtained the certificate of dealer firms such as Hewlett-Packard, Epson, Compaq, etc.
Name and position of immediate supervisor: Sr. Nestor Belosevich, President
Date of accession: March 1993
Date of discharge: October 1995
Reason for the discharge: By changing line of company

Company: **GOWEL**
Address: 3451 San Juan Av., C1233ABE, Buenos Aires, Argentina
Area of business: Advertising and enterprise image
Position: Consultant in Marketing
Personnel in charge: 4
Description of position and responsabilities: Designing the communication and image of various private items of construction, food and metalmechanics. Market research and management of different sectors of the company. Strategic Marketing.
Name and position of immediate supervisor: Ana M. Gómez, Director Sales and Marketing
Date of accession: May 1988
Date of discharge: February 1993
Reason for the discharge: Completion of specific contract

PROJECTS IN E-COMMERCE/E-BUSINESS

a) Development of Software for Business Intelligence with Computer (S.I.C.I.), for a Union Transient Business between Softlab S.R.L., Levy Marketing, Alemann & Asoc., among others; for a tender of Argentine State Department, in the agreement of United Nations for Development Program (PNUD) and Funding for World Bank, as CONTRAT S.I.C.I. – PROJECT PNUD ARG/97/001.

Such system consists in to put 800.000 Argentine Small Business Enterprises on Internet for generating an E-Commerce/E-Business process with bidirectional transactional traffic highlighting aspects of Security and Privacy through the generation of proprietary algorithms. Such system has a vertical search engine for a smart identification of partners designed to meet the scale in demand, as well as identifying particular niches and international stages for each type of product.

b) Development of E-Commerce/E-Business project for Argentine State Department, project known as S.I.E.T.E.S. which is primarily based on the concept of *business to business.* Such project is inside agreement of United Nations for Development Program (PNUD) and Funding for World Bank, as, CONTRAT S.I.E.T.E.S. PROJECT PNUD ARG/00/013.

c) Development of E-Commerce project for Errepar/Holistor, which consists in a subscription to its publications, consulting and auditory legal-accounting (Errepar), as well as the purchase of books (Holistor). The project consists of a portal with procedures and links. It supports wizzards and templates cargo operations for the advertising banners for direct marketing unit of those goods and services
.

CURRICULAR ACTIVITIES
DURING THE PAST FOUR YEARS

1. Course of E-Commerce/E-Business, Interamerican Open University, From 1 to 12 April 2000.

2. Roundtable on E-Commerce, Center of Argentine Engineers, From 22 yo 23 May 2000. In the same meeting shall dispose of a protocol suggestions to SECOM.

3. Course on E-Commerce in Argentine Society on Computer Science and Operation Research (SADIO):
   Part one, from 27 to 28 April and May 4
   Part two, June 15, 16 and 22.

   Course on Data Warehousing and Data Mining
   From November 27 to December 1

4. Activities for IDID-FUSA

   Course of E-Commerce:
   June 2, 9 and 16, Buenos Aires
   October 20, Buenos Aires
   September 15, 22 and 29, Buenos Aires
   November 17 and 24 and December 1, Buenos Aires (Electronic Marketing)
   November 4, San Luis (Marketing on Internet)

   Creator of Technical Studies in E-Commerce
   Creator of Specialization in E-Commerce
   Creator of Bachelor in E-Commerce
   Creator of Master in E-Commerce

   Course on E-Commerce in Commerce Chamber of Rosario and sponsored by Santa Fe State Government, Rosario, May 12 and 13 2000.

5. Mar del Plata:
   October 12 to 15
       Security to user level
       Security to Corporate level
       Virtual Hospital: Medicine on Internet
       E-Commerce

6. Córdoba:
   September 2 to 6
   FUNCER Foundation and Argentine Social Universitario Institute
       Program of Management Development in Information Technology

7. Member of Research and Training Commission of John F. Kennedy University

8 Leonardo Da Vinci Institute:
   Academic Representative

PARTICIPATION IN PROGRAMS OF STRATEGIC AREAS (PAE) OF NATIONAL AGENCY OF SCIENTIFIC AND TECHNOLOGICAL PROMOTION, ARGENTINA

1. Image's Sciences (2006)
   1.1. Presenter
   1.2. Participates in 7 sub-projects

2. Education System by Tele-Immersion (2006)

http://www.agencia.gov.ar

PARTICIPATION IN PROJECTS OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH (PICT) OF NATIONAL AGENCY OF SCIENTIFIC AND TECHNOLOGICAL PROMOTION, ARGENTINA

1. PICT-2006-02217 "Image Analyis and Segmentation. Application to Synthetic Aperture Radar and Solar Coronagraphy Images"
   Director: Marta Mejail, 2008-2010
   Deadline 03/26/2010
   http://www.agencia.gov.ar

2. Mobile TV (2007)
   Principal Researcher
   PICT 2006 - Category IV (Start-up)
   Actionable projects
   AREA: 11
   Code: PICT-2006-02332
   http://www.agencia.secyt.gov.ar/IMG/pdf/PICT_2006_Proyectos_Procesables_Cat._IV__Start-up_.pdf

3. PICT-2008-1926 "Image and Video Analysis and Segmentation. Application to Synthetic Aperture Radar images, Tracking in Video Surveilliance, Shape Matching in Image Database and Robotic Vision"
   Director: Marta Mejail, 2010-2012
   http://www.agencia.gov.ar

UBACYT PROJECT

Science Program 2008-2010 "Image Analyis and Segmentation. Application to Synthetic Aperture Radar images, Solar Coronagraphy and Computer Vision" (X142)
Director: Marta Mejail, 2008-2010
Research Project in Science and Technology

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Submitted To: Dr. Shirley B. Lee, Executive Assistant to the President/Coordinator For
Federal and State Grants and Contracts
JOVE Faculty Research Associates:
Dr. Lawrence C. Agba, Assistant Professor of Engineering
Dr. Sunil David, Assistant Professor of Physics
Dr. Narsing G. Rao, Professor of Physics
Dr. Munir A. Rahmani, Professor of Biology
October 13, 1997
http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19990116362_1997058809.pdf

[2] An Enhanced Back-Propagation Training Algorithm
Lawrence C. Agba, Division of Science and Mathematics, Bethune-Cookman College
email: agba@cookman.edu
Jerry H. Tucker, Langley Research Center, NASA
email: Tucker@larc.nasa.gov
http://ieeexplore.ieee.org/iel2/3505/10435/00488179.pdf

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[1] _Título_: Algoritmo de Supercompresión mediante Downsampling/Upsampling y
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    Género: Programa Computación
    Autor/Titular: Mario Mastriani.
    Obra publicada: 4877964, 23 Nov 2010
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Mario Mastriani, Ph.D.
Bs. As., 06/05/2011