



Azienda Mobilità e Trasporti Bari S.p.A.

Viale L. Jacobini, Z.I. – 70132 BARI
Capitale Sociale € 6.199.634,00 i.v.a.
CCIAA Bari REA n°456102

Registro Imprese di Bari e P.IVA n°06010490727
VAT: IT 06010490727

Società con unico azionista soggetta a direzione e coordinamento da parte del Comune di Bari



Ripartizione Contratti, Gare e Acquisti

Procedura aperta per l'affidamento della fornitura e posa in opera di un sistema di emissione, controllo, verifica dei titoli di viaggio e della sosta e localizzazione dei mezzi della Città di Bari. CIG 7246670D40 - CUP H99J16001040006.

AVVISO NOMINA SOSTITUTO COMPONENTE COMMISSIONE

Con il presente Avviso si rende noto che con provvedimento del Presidente del CdA, prot. 5159 del 30.03.2018, è stato nominato, in sostituzione dell'Ing. Francesco Valle, l'Ing. Donato Impedovo Associato di Sistemi di Elaborazione delle Informazioni dell'Università di Bari, quale membro della Commissione giudicatrice ex art. 77 D. Lgs. 50/2016.

Per gli adempimenti di cui all'art. 29, comma 1, D. Lgs. 50/2016, di seguito viene pubblicato il Suo cv.

Bari, 03.04.2018

Il Direttore Generale
Ing. Francesco Lucibello

IMPEDOVO Donato Prof. Eng.

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IMPEDOVO Donato Prof. Eng.

Short Biography



Donato Impedovo is associate professor at Department of Computer Science of the University of Bari (IT). He received the MEng degree cum laude in Computer Engineering and the PhD degree in Computer Engineering. His research interests are in the field of signal processing, pattern recognition and biometrics. He is co-author of more than 70 articles on these fields in both international journals and conference proceedings. He received the “distinction” award in May 2009 at the International Conference on Computer Recognition Systems (CORES – endorsed by IAPR), and the first prize of the first Nereus-Euroavia Academic competition on GMES in October 2012. Prof. Impedovo is also very involved in research transfer activities as well as in industrial research, he has managed more than 20 projects funded by public institutions as well as by private SMEs. Prof. Impedovo is Associate Editor of IEEE Access and he serves as reviewer for many international journals including IEEE T-SMC, Pattern Recognition and many others. He was the general co-chair of the International Workshop on Emergent Aspects in Handwritten Signature Processing (EAHSP 2013) and of the International Workshop on Image-Based Smart City Application (ISCA 2015). He is IAPR and IEEE Senior Member.

Experience

Sinced 30 Oct. 2015

Associate Professor

Università degli Studi di Bari “Aldo Moro”

Dipartimento di Informatica

Activities:

- Research on the following fields: Pattern Recognition, Artificial Intelligence, Signal Processing, Biometrics, Data Mining
- Coordination of Research group
- Head of the “Intelligent Systems” Lab
- Technology Transfer
- Teaching

Since 01 Jan. 2006

Freelance Professional Engineer

Listed in the Register of Engineers of the Province of Bari, no. 7979

From 26 June 2015 to 28 Oct. 2015

R&D General Manager

TERA srl, Via C. Balbo 19/D, 70014 Conversano (BA)

Activities of the SME:

- Pattern Recognition & Signal Processing;
- ICT for Energy Efficiency of Building;
- Artificial Intelligence;
- Internet of Things (IoT).

Duties:

- Planning, organization, management and coordination of research groups;
- Definition / Identification Research activities and development lines;
- Definition and review of specifications / projects / contracts;
- Head of Quality Management ISO 9001: 2008.

From 25 July 2012 to 23 June 2015

R&D General Manager

DyrectaLab srl, Via V. Simplicio 45, 70014 Conversano (BA)

Private Research Lab. Endorsed by MIUR (Italian Ministry for Research and University) D.M. n.593 8/08/2000. GU n.142 21/06/2010

Activities of the SME:

- Pattern Recognition & Signal Processing;
- ICT.

Duties:

- Planning, organization, management and coordination of research groups;
- Definition / Identification Research activities and development lines;
- Definition and review of specifications / projects / contracts;
- Head of Quality Management ISO 9001: 2008.
- Team building - recruiting;

From 16 July 2010 to 15 July 2012,

Contract Researcher

Dipartimento di Informatica, Università degli Studi di Bari, Bari
s.s.d. ING-INF/05 - Sistemi di Elaborazione delle Informazioni

Duties/Activities:

- Research on Signal Processing, Pattern Recognition, Zoning, Biometrics, etc.
- Teaching

From 01 Jan 2010 to 30 June 2010,

Research assistant

CNR 'Istituto di Studi sui Sistemi Intelligenti per l'Automazione (ISSIA), sede di Bari

Duties/Activities:

- Signal Processing, Pattern Recognition;
- Land Classification

From 25 May 2006 to 24 May 2009,

PhD Student

Politecnico di Bari

Duties/Activities:

- Signal Processing e Pattern Recognition;
- Biometrics.

From 1 Dec. 2002 to 02 April 2004,

Consultant

C.I.N.I. (Consorzio Interuniversitario Nazionale per l'Informatica).

- Management of LMS e-learning;
- Patent Development.

Research Awards

First prize of the 2012 NEREUS-EUROAVIA competition on GMES (Global Monitoring for the Environment and Security) - innovative approaches, funded by

- Nereus: network of 26 European regions which join forces with the objective to spread the use of space technologies throughout Europe,
- EUROAVIA: European Association of Aerospace Students,

Distinction Award funded by

- Chair of Systems and Computer Networks, Wroclaw University of Technology;
- **Microsoft**;
- **IAPR (International Association of Pattern Recognition)**;

for the paper "Pseudo Multi Parallel Branch HMM for Speaker verification", 6th International Conference on Computer Recognition Systems (CORES 2009), Jelenia Gora (Poland), 25-28 May 2009.

Best Student Paper Award paper: "Starting up a LMS at the University of Bari to support e-learning activities", 9th International conference on Engineering Education (EE'06), Aten (GRECIA), 11-13 July 2006.

International Research Cooperations

Corporation de L'Ecole Polytechnique de Montreal, XzeroROBUSTE software.
Ref. Person: Prof. Rejean Plamondon.
Fields: Pattern Recognition, Signature Verification, Signal Processing

Universitas de Las Palmas de Gran Canaria.

Ref. Person: Moises Diaz Cabrera Ph.D
Fields: Pattern Recognition, Signature Verification, Signal Processing

School of Information Science and Engineering, Xinjiang University, China

Ref. Person: Prof. Kurban Ubul
Fields: Pattern Recognition, Script identification

Scientific Publishing Activities

Special issues editor

- Special Issue Special Issue "eHealth and Artificial Intelligence" – MDPI Information - ISSN 2078-2489;
- Special Issue "Advancements on Handwriting Recognition and other PR applications" - **Pattern Recognition** - The Journal of the Pattern recognition Society, Elsevier Publ., ISSN:0031-3203 03/2014; 47(3):915.
- Special Issue "Handwriting Biometrics" - **IET Biometrics**, IET Digital Library Publ. 2014, ISSN: 2047-4938 (print) - ISSN: 2047-4946.

Associate Editor

- IEEE Access

Editorial Board member

- International Journal of Intelligent **Information Processing** (IJIP), AICIT, Korea. IET INSPEC indexed Journal.
- "Advances in Digital Handwritten **Signature Processing** - A Human Artefact for e-Society", Edited by: G. Pirlo, D. Impedovo, M. Fairhurst, Aug 2014. World Scientific Publisher, ISBN: 978-981-4579-62-9.
- New Trends in **Image Analysis and Processing**, ICIAP 2013 Workshops, Naples, Italy, September 2013, Proceedings. Editors: Petrosino A., Maddalena L., Pala P., Cantoni V., Ceccarelli M., Murphy R.F., Del Bimbo A., Pantic M., Grana C., Oomen J., Serra G., Leo M. Mandic D.P., Pirlo G., Fairhurst M., Impedovo D.
- "Proceedings of the XIII International Conference on Frontiers in Handwriting Recognition", IEEE Computer Society Publ., 18-20 Sept. 2012, Monopoli (Bari), Italy (ISBN: 978-0-7695-4774-9).

Conference Co-Chair

- WAIHA 2017 – Workshop on Artificial Intelligence with Application in Health, Bari 14-17 November 2017. Proc. Published by CEUR.
- ISCA2015 - Image Based Smart City Application, Genoa 8th Sept 2015. Proc. published by LNCS.
- EAHSP 2013 - International Workshop on Emerging Aspects on Handwritten Signature Processing. September 9, 2013 - Naples. Proc. published by LNCS.

Conference Session chair

- Session: Pattern Recognition, Machine Learning and Application, 03-July-2012, 10:00-11:00. At the International Conference on Information Science, Signal Processing and their Application (ISSPA), Montreal, July 2-5 2012, proceedings published by IEEE.

Reviewer activities

International journals

- Elsevier PATTERN RECOGNITION,
- IEEE Trans. on Human Machine Systems,
- Elsevier Expert Systems with Application,
- IEEE Access

- IET Journal on Image Processing,
- IET Journal on Signal Processing,
- IET Biometrics,
- International Journal on Document Analysis and Recognition (IJ-DAR), Springer,
- Pattern Analysis and Applications, Springer,
- Elsevier Applied Computing and Informatics,
- Elsevier Computer Methods and Programs in Biomedicine,
- MDPI Journal of Imaging,
- International Journal on Artificial Intelligence Tools (IJAIT), World Scientific Press,
- Journal of Computational Methods in Sciences and Engineering (JCMSE), IOS Press.
- International Journal of Intelligent Information Processing (IJ-IIP),
- Je-LKS Journal of e-Learning and Knowledge Society,
- Journal of Next Generation Information Technology (JNIT),
- Applied Intelligence, Springer,
- Information – INFOGG, ISSN 2078-2489.

Program Committee Member

- 24th **International Conference on Pattern Recognition (ICPR)**, Beijing, China, 20-24 Aug 2018. Proc. published by IEEE.
- 14th International Conference on Information Assurance and Security (IAS 2018) in Porto, Portugal during December 13-15, 2018. Proc. published by IEEE.
- International conference on Computer Applications & Information Security, ICCAIS. 04-06 April, 2018 Riyadh, Saudi Arabia
- 18th International Graphonomics Society Conference (IGS2017), GET, Italy, 18-21 June 2017.
- 23rd **International Conference on Pattern Recognition (ICPR)**, Cancun, Mexico, 4-8- Dec. 2016. Proc. published by IEEE.
- 9th International Conference on Genetic and Evolutionary Computing (ICGEC 2015), Yangon, Myanmar, 26-28 August 2015. Proc. published by IEEE.
- 10th International Conference on Information Assurance and Security (IAS 2014), Okinawa, Japan, 27-29 Nov. 2014. Proc. published by IEEE.
- 8th International Conference on Genetic and Evolutionary Computing (ICGEC 2014), Nanchang China, 18-20 Oct 2014. Proc. published by IEEE.
- 9th International Conference on **Information Assurance and Security (IAS 2013)**, Yasmine Hammamet, Tunisia, 04-06 Dec. 2013. Proc. published by IEEE.
- 7th International Conference on Genetic and Evolutionary Computing (ICGEC 2013), Prague, Czech Republic, 25-27 Aug 2013. Proc. published by IEEE.
- 2012 IEEE Symposium on **Industrial Electronics and Applications (ISIEA)**, Bandung (Indonesia), 23-26 September 2012.
- 13th International Conference on Frontiers in Handwriting Recognition (ICFHR2012), Bari (Italy), 18-20 September 2012. Proc. published by IEEE.
- 8th International Conference on Information Assurance and Security (IAS 2012), Sao Carlos, Brazil, 21-23 Nov. 2012. Proc. published by IEEE.
- 6th International Conference on Genetic and Evolutionary Computing (ICGEC 2012), Kitakyushu (Japan), 25-28 August 2012. Proc. published by IEEE.
- 37th **IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)**, March 25-30, 2012, Kyoto, Japan.
- 7th International Conference on Information Assurance and Security (IAS 2011), Malacca (Malaysia), 5-8 December 2011, proc. published by IEEE.
- 20th **IAPR International Conference on Pattern Recognition (ICPR)**, Istanbul (Turkey), 23-26 August 2010, proc. published by IEEE.
- 6th International Conference on Information Assurance and Security (IAS 2010), Atlanta (USA), 23-25 August 2010, proc. published by IEEE.

- 5th International Conference on Genetic and Evolutionary Computing (ICGEC 2011), Kitakyushu (Japan), 29 Aug. – 1 Sept. 2011. proc. published by IEEE.
- 4th International Conference on Genetic and Evolutionary Computing (ICGEC 2010), Shenzhen (China), 13-15 December 2010, proc. published by IEEE.
- 5th International Conference on Information Assurance and Security (IAS 2009), Xi'an (China), 18-20 August 2009, proc. published by IEEE.

Research Projects

Handwriting Analysis against Neuro-muscular Disease (HAND), funded by MIUR, PRIN2015.

Role: Participant

Internet Cleantech ENablers Spark (INCENSE), H2020 - Future Internet (FI - PPP Phase III Project).

Role: R&D Manager

Energy Trust Advisory 4 Buildings (ETA4B), H2020 - SME Instruments (Phase I, first call), call 'Stimulating the innovation potential of SMEs for a low carbon energy system' - SIE-01-2015-1.

Role: R&D Manager

A MULTI-DOMAIN SYSTEM FOR DOCUMENT RETRIEVAL, MIUR (ex art. 14 del 18 gennaio 2001).

Role: R&D Manager

RES NOVAE, "Smart Cities and Communities and Social Innovation", MIUR (Cod. PON04a2_E).

Role: R&D Manager

VENGO ANCH'IO LAB - PO FESR PUGLIA 2007-2013 – Asse I – Linea di Intervento 1.4. - Azione 1.4.2. (Cod. 2IXIVJ0).

Role: R&D Manager

Sistema integrato multimediale attivo per la promozione teatrale, PO FESR PUGLIA 2007-2013 – Asse I – Linea di Intervento 1.4. - Azione 1.4.2. (Cod. 5RK5JL4).

Role: R&D Manager

PUGLIA TREMOR - PO FESR PUGLIA 2007-2013 – Asse I – Linea di Intervento 1.4. - Azione 1.4.2. (Cod. ZGQ8553).

Role: R&D Manager

Municip@zione PO FESR PUGLIA 2007-2013 – ASSE I – Linea di intervento 1.4 – Azione 1.4.2. (Cod. D671MJ6).

Role: R&D Manager

HYDRO-TECH "Advanced Technologies and Decision Support Systems for Sustainable Irrigation Management". P.O. Puglia Fesr 2007-2013 Linea 1.2 - Azione 1.2.4. (Cod. 6YHTV2).

Role: R&D Manager

Visit GioiaLab. PO FESR PUGLIA 2007-2013 – ASSE I – Linea di intervento 1.4 – Azione 1.4.2. (Cod. ZQGZJ66).

Role: R&D Manager

LAYOUT BASED DOCUMENT RETRIEVAL - MIUR (ex legge 106/2011).

Role: R&D Manager

CITYMODA VIRTUALE - MIUR (ex legge 106/2011).

Role: R&D Manager

SmartCASE, A Smart CArt for customized Shopping Experiences. MIUR (ex legge 106/2011).

Role: R&D Manager

Innovation of Real Estate - PO FESR 2007-2013 ASSE I - Linea di intervento 1.1 - Azione 1.1.2.

Role: R&D Manager

SITEC IN QUALITY - PO FESR 2007-2013 ASSE I - Linea di intervento 1.1 - Azione 1.1.2.

Role: R&D Manager

AD COMPANY - PUGLIA PO FESR 2007-2013 ASSE I - Linea di intervento 1.1 - Azione 1.1.2.

Role: R&D Manager

Teaching Activities

International invited lecture

- Tutorial, lecture "Signature verification: state of the art", Tutorial "Forensic Document Examination: state of the art and open issues", October 2016.
- Invited Lecturer, "Supervised Learning Strategies in Multi-Classifer Systems" Ecole de Technologie Superieure, Montreal, Canada. July 2012.

National lectures (University degree)

Since 2005:

- Computer Architecture and Operating Systems
- Biometrics
- Programming lab
- Operating systems
- Foundations of Computer Science
- Document Management: Systems and Techniques
- Safety Systems and Advanced Computing

Education

10/2011 **Remote Sensing Master Degree (II level)** (cum laude), Università degli Studi di Bari

10/2009 **Computer Engineering PhD**, XXI-Ciclo, Politecnico di Bari

07/2005 **Computer Engineering Master Degree (II level)** (cum laude) Politecnico di Bari.

Memberships

- IEEE Member (since 2008), IEEE Senior Member (since 2017)
- IEEE Signal Processing Society Member,
- IEEE System, Man, and Cybernetics Society Member
- IAPR Member,
- GIRPR (Gruppo Italiano Ricercatori Pattern Recognition) Member
- AI*IA (Associazione Italiana per l'Intelligenza Artificiale) Member
- PMI - Project Manager Institute

Attended Conferences (Spokesman)

- ICFHR 2016 – International Conference on Frontiers in Handwriting Recognition. Shenzhen China, 23-26 October 2016.
- EAHSP 2013 - International Workshop on Emerging Aspects on Handwritten Signature Processing. September 9, 2013 - Naples. Proc. published by LNCS.
- 13th International Conference on Frontiers in Handwriting Recognition (ICFHR2012), Bari (Italy), 18-20 September 2012.

- International Conference on Information Science, Signal Processing and their Application (ISSPA), Montreal, July 2-5 2012, proceedings published by IEEE.
- IAPR International Conference on Document Analysis and Recognition (ICDAR), Beijing, China, 18-21 September 2011, proceedings published by IEEE.
- International Conference on Image Analysis and Processing (ICIAP), Ravenna, Italy, 14-16 September 2011, Proceedings published by Springer Verlag.
- IAPR International Conference on Frontiers in Handwriting Recognition (ICFHR), Kolkata, India, 16-18 Nov 2010, proceedings published by IEEE.
- IEEE Workshop on Biometric Measurements and Systems for Security and Medical Applications, Taranto, Italy, 9 September 2010
- XI Conference of the Italian Association for Artificial Intelligence, Reggio Emilia (I), 9-12 December 2009. Proceedings published by Springer Verlag.
- IAPR International Conference on Computer Recognition System (CORES), Jelenia Gora (PL), 25-28 May 2009. Proceedings published by Springer Verlag.
- 4th International Conference on Information Assurance and Security (IAS 2008), Naples (IT), 8-10 September 2008. Proceedings published by IEEE.
- IEEE International Conference on Tools with Artificial Intelligence (ICTAI 07), Patras (GR), 29-31 October 2007.
- 3rd International Symposium on Information Assurance and Security (IAS 2007), Manchester (UK), 29-31 August 2007. Proceedings published by IEEE.
- 3rd International Conference on ENGINEERING EDUCATION, Vouliagmeni (GR), 11-13 July, 2006.
- 1st International Conference on Educational Technologies, Tenerife (Canary Island – Spain), 16-18 December 2005.
- 5th International Conference on Signal Processing, Computational Geometry & Artificial Vision, Malta, 15-17 September 2005.
- Expo E-Learning 2004 – Salone Italiano della formazione in rete, Ferrara (I), 9-12 October 2004.

Patents

D. Impedovo et al., "Cattedra Multimediale per la formazione 'in presenza' ed 'a distanza' ", (Italian Patent Office-Code n.: BA2004U000016, date: 07/06/2004).

List of publications

International Journals

2017

- [J1] K Ubul, G Tursun, A Aysa, D Impedovo, G Pirlo, I Yibulayin, "Script Identification of Multi-Script Documents: a Survey", *IEEE Access*.
- [J2] M. Diaz, P. Henriquez, M. A Ferrer, G. Pirlo, J. B Alonso, C. Carmona-Duarte, D. Impedovo "Stability-based system for bearing fault early detection", *Expert Systems with Applications* 79, 65-75

2015

- [J3] G. Pirlo, V. Cuccovillo, M. Diaz-Cabrera, D. Impedovo, P. Mignone, "Multidomain Verification of Dynamic Signatures Using Local Stability Analysis," *Human-Machine Systems, IEEE Transactions on*, pp.1-6.
- [J4] A. Galiano, D. Impedovo, G. Sciannimanico, "User and Entity Interaction within Multilevel Decision Support System in Living Lab Projects", TO APPEAR in International *Journal of Applied Decision Sciences (IJADS)*, ISSN online: 1755-8085.

2014

- [J5] D. Impedovo, G. Pirlo, " Zoning methods for handwritten character recognition: A survey ", Elsevier *PATTERN RECOGNITION* 47(3), pp.969-981, ISSN: 0031-3203, 2014.
- [J6] D. Barbuzzi, D. Impedovo, G. Pirlo, "About Retraining Rule in Multi-Expert Intelligent Systems for Semi-Supervised learning using SVM classifiers", *International Journal of Signal and Imaging Systems Engineering*, ISSN: 1748-0698
- [J7] G. Pirlo, D. Impedovo, "Stability Analysis of Dynamic Signatures in Multiple

Representation Domains: Application to Automatic Signature Verification", **International Journal of Signal and Imaging Systems Engineering**, ISSN: 1748-0698

- [J8] G. Pirlo, M. Chimienti, M. Dassisti, D. Impedovo, A. Galiano, "A Layout-Analysis Based System for Document Image Retrieval", *Mondo Digitale*.
- [J9] A. Galiano, D. Impedovo, M. Pezzuto, "OpenKnowledge and OpenGovernment: the experience of the municip@zione Living Lab project", in *Journal of e-Learning and Knowledge Society Je-LKS*, v.10, n.2, 53-64. ISSN: 1826-6223, e-ISSN:1971-8829.

2013

- [J10] G. Pirlo, D. Impedovo, "Cosine Similarity for Analysis and Verification of Static Signatures", **IET BIOMETRICS**, p.1-8, ISSN: 2047-4938.
- [J11] G. Pirlo, D. Impedovo, "Verification of Static Signature by Optical Flow Analysis", In **IEEE Trans. on Human-Machine Systems**, vol 43, issue 5, pp. 499-505, ISSN: 2168-2291.
- [J12] G. Pirlo, D. Impedovo, "A New Class of Monotone Functions of the Residue Number System", in **International Journal of Mathematical Models and Methods in Applied Sciences**, ISSN: 1998-0140.
- [J13] G. Pirlo, D. Impedovo, D. Barbuzzi, "The similarity index lower and upper bounds: Theoretical considerations and Experimental Verification", in *International Journal of Mathematical Models and Methods in Applied Sciences*, ISSN: 1998-0140.

2012

- [J14] G. Pirlo, D. Impedovo, "Adaptive Score Normalization for Output Integration in Multiclassifier Systems", in **IEEE Signal Processing Letters**, vol. 19, no. 12, pp. 837-840, 2012, ISSN: 1070-9908.
- [J15] G. Pirlo, D. Impedovo, "Adaptive Membership Functions for Hand-Written Character Recognition by Voronoi-based Image Zoning.", in **IEEE Transaction on Image Processing**, vol. 21, no. 9, pp.3827-3837, 2012, ISSN: 1057-7149.

2011

- [J16] G. Pirlo, D. Impedovo, "Fuzzy Zoning based Classification for Handwritten Characters", in **IEEE Transaction on Fuzzy Systems**, vol. 19, no. 4, pp. 780-785, 2011, ISSN: 1063-6706.
- [J17] D. Impedovo, G. Pirlo, M. Petrone, "A Multi-Resolution Multi-Classifier System for Speaker Verification", Early view on the **Wiley Journal of Expert Systems**, DOI: 10.1111/j.1468-0394.2011.00603.x.
- [J18] D. Impedovo, G. Pirlo, E. Stasolla, "Integrated Virtual Environments for Collaborative Real-Time Activities: the Co.S.M.O.S. prototype" in *Journal of e-Learning and Knowledge Society*, Vol. 7, n. 2, May 2011, pp. 59 - 68, ISSN: 1826-6223.

2009

- [J19] D. Impedovo, M. Refice, "Multiple Speaker Models and their Combination in Access Control Tasks", **International Journal on Information Assurance and Security (JIAS)**, Issue 4, Vol. 4, pp. 346-355, 2009, ISSN: 1554-1010.

2008

- [J20] D. Impedovo, G. Pirlo, "Automatic signature verification The state of the art", **IEEE Transaction on Systems, Man and Cybernetics part C**, pp. 609-635, Vol. 38, Issue 5, Sept 2008, ISSN: 1094-6977.
- [J21] D. Impedovo, M. Refice, "Frame Length Selection in Speaker Verification Task", *Transaction on Systems*, pp. 1028-1037, Issue 10, Volume 7, October 2008, ISSN 1109-2777.

2006

- [J22] N. Greco, D. Impedovo, G. Pirlo., "New steps toward the effective evaluation of e-Learning activities: A Participant-Based Approach", *Transaction on Advances in Engineering Education*, Issue 7, Volume 3, July 2006, pp. 662-666, ISSN 1790-1979.
- [J23] G. Dimauro, D. Impedovo, R. Modugno, "A LMS to support e-learning activities in the University Environment", *Transaction on Advances in Engineering Education*, Issue 5, Volume 3, May 2006, pp.367-374, ISSN 1790-1979.

[J24] A. Ferrante, N. Greco, D. Impedovo, "Testing PROTEO e-Learning Platform", Transactions on Advances in Engineering Education, Issue 3, Volume 3, March 2006, pp. 231-238, ISSN 1790-1979.

[J25] D. Impedovo, M.G. Lucchese, R. Modugno, "Dedicated E-learning Infrastructure in a Metropolitan Academic Network", Transactions on Advances in Engineering Education, Issue 2, Volume 3, February 2006, pp. 80-85, ISSN 1790-1979.

2005

[J26] D. Impedovo, M. Refice, "Modular Engineering Prototyping Plan for Speech Recognition in a Visual Object Oriented Environment", Transaction on Information Science and Applications, Issue 12, Volume 2, December 2005, pp. 2228-2234, ISSN 1790-0832.

Book Chapter

2014

[BC1] R. Plamondon, G. Pirlo, D. Impedovo, "Online Signature Verification", D. Doermann and K. Tombre (eds.), **Springer**. Handbook of Document Image Processing and Recognition, 917-947.

2009

[BC2] D. Impedovo, M. Refice, "Improving Text-Dependent Speaker Recognition Performance", Tools and Applications with Artificial Intelligence, Vol. 166, pp. 199-11, Springer 2009, ISBN 978-3-540-88068-4.

2008

[BC3] D. Impedovo, G. Pirlo, M. Refice, "Handwritten Signature and Speech: Preliminary Experiments on Multiple Source and Classifiers for Personal Identity Verification", Computational Forensic, **Springer**, pp. 181-191, 2008, ISSN 0302-9743.

Conference Paper

2016

[C1] M. Diaz, P. Henríquez, M. A. Ferrer, J. B. Alonso, G. Pirlo and D. Impedovo, "Novel method for early bearing fault detection based on dynamic stability measure," *2015 International Carnahan Conference on Security Technology (ICCST)*, Taipei, 2015, pp. 43-47.

[C2] M. Diaz, M. A. Ferrer, G. Pirlo, G. Giannico, P. Henriquez and D. Impedovo, "Off-line signature stability by optical flow: Feasibility study of predicting the verifier performance," *2015 International Carnahan Conference on Security Technology (ICCST)*, Taipei, 2015, pp. 341-345.

2015

[C3] G. Pirlo, M.D. Cabrera, M.A. Ferrer, D. Impedovo, F. Occhionero, U. Zurlo, (2015), Early Diagnosis of Neurodegenerative Diseases by Handwritten Signature Analysis. ICIAP Workshops 2015: 290-297.

[C4] M.D. Cabrera, P. Cerri, G. Pirlo, M.A. Ferrer, D. Impedovo (2015). A Survey on Traffic Light Detection. ICIAP Workshops 2015: 201-208.

[C5] G. Pirlo, F. Rizzi, A. Vacca, D. Impedovo (2015). Interoperability of Biometric Systems: Analysis of Geometric Characteristics of Handwritten Signatures. ICIAP Workshops 2015: 242-249

[C6] D. Barbuzzi, B. Boussahel, F. De Carlo, A. Galiano, D. Impedovo, A. Longo (2015). CLICK TEATRO Project: Augmented Reality and Promotion of Theater Events. ICIAP Workshops 2015: 267-274

[C7] D. Impedovo, G. Pirlo, F. Rizzi, "Characteristics of Constrained Handwritten Signatures: An Experimental Investigation", in Proc. of IGS 2015 17th Biennial Conference of the International Graphonomics Society, pp. 95-98, 21-24 June 2015, Pointe-à-Pitre, Guadeloupe.

[C8] G. Pirlo, D. Impedovo, T. Ferranti, "Stability/Complexity of Dynamic Handwritten Signature", in Proc. of IGS 2015 17th Biennial Conference of the International Graphonomics Society, pp. 91-94, 21-24 June 2015, Pointe-à-Pitre, Guadeloupe.

2014

[C9] G. Pirlo, V. Cuccovillo, D. Impedovo, P. Mignone, " On-line Signature Verification

by Multi-Domain Classification ", in proc. of 14th International Conference on Frontiers in Handwriting Recognition, pp. 67-72, IEEE CPC, 2014.

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2013

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