
FRANCESCO BIANCONI

Curriculum vitae

Università degli Studi di Perugia
Department of Engineering
Via G. Duranti, 93
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PERSONAL DETAILS:

Born: 17 July 1971
Citizenship: Italian

EDUCATION

- PhD in Computer-aided Design, Università degli Studi di Perugia, 2001;
- Laurea Degree (MEng) in Mechanical Engineering, Università degli Studi di Perugia, 1997;

LANGUAGES

- English *advanced*
 - Cambridge CB CAE (grade A - 81/100, April 2013);
 - iBT TOEFL (104/120, December 2011);
- Spanish *fluent*
 - DELE interm. 95/100, May 2006)
- Italian *native*

IT & PROGRAMMING SKILLS

- Programming languages: C, C++, Java;
- Scripting: Perl
- Digital typesetting: Word, LaTeX;
- Scientific packages: Matlab, Mathematica, Minitab;
- CAD/CAE: Solid Edge, SolidWorks, ANSYS;

EMPLOYMENT

FROM	TO	POSITION	INSTITUTION / COMPANY
1 Jul 2015	present	Professore Associato (eqv.: UK = Senior Lecturer; US = Associate Professor)	Università degli Studi di Perugia (Italy)
1 Nov 2000	30 Jun 2015	Ricercatore (eqv.: UK = Lecturer; US = Assistant Professor)	Università degli Studi di Perugia (Italy)
1 Nov 1997	31 Oct 2000	Salaried PhD candidate	Università degli Studi di Perugia (Italy)
1 Oct 1998	30 Nov 1998	CAD Engineer / Internship	Umbra Cuscinetti SpA, Foligno (Italy)
1 Dec 1997	30 Jun 1998	Secondary school teacher (<i>Textile Technologies</i>)	Istituto Professionale Statale per l'Industria e L'Artigianato, Perugia (Italy)

5 Dec 1997	30 Jun 1998	Secondary school teacher (<i>Civil and Industrial Plants</i>)	Istituto Tecnico Statale per Geometri, Perugia (Italy)
25 Jun 1997	22 Lug 1998	Secondary school teacher (<i>Applied Mechanics</i>)	Istituto Tecnico Industriale Statale, Foligno (Italy)

VISITING POSITIONS

- QUEEN MARY UNIVERSITY OF LONDON, School Electronic Engineering and Computer Science
 - Academic visitor from 14-09-2015 to 18-12-2015.
- UNIVERSITY OF EAST ANGLIA (UK), School of Computing Sciences
 - Visiting research fellow from 1-10-2010 to 10-12-2010.
- UNIVERSIDADE DE VIGO (Spain), Escuela de Ingeniería Industrial
 - Visiting researcher from 15-6-2009 to 13-7-2009;
 - Visiting researcher from 9-9-2007 to 23-9-2007;
 - Visiting researcher from 10-9-2006 to 27-9-2006;
 - Visiting researcher from 4-9-2005 to 28-9-2005;

TEACHING

UNDERGRADUATE COURSES

- *Computer skills* (2 credits), Università degli Studi di Perugia, Faculty of Engineering, BEng Mechanical Engineering, 2012-present;
- *Engineering Drawing* (10 credits) + *Computer skills* (2 credits), Università degli Studi di Perugia, Faculty of Engineering, BEng Mechanical Engineering, 2008-2012;
- *Technical Drawing* (4 credits) + *Computer skills* (2 credits), Università degli Studi di Perugia, Faculty of Engineering, BEng Industrial Engineering, BEng Management Engineering, 2005-present;
- *Engineering Drawing* (6 credits) Università degli Studi di Perugia, Faculty of Engineering, BEng Mechanical Engineering, 2000-2007;
- *Technical Drawing* (5 credits) Università degli Studi di Perugia, Faculty of Engineering, BEng Materials Engineering, 2000-2004;
- *CAD Laboratory* (2 credits), Università degli Studi di Perugia, Faculty of Engineering, BEng Materials Engineering, 2003-2005.

MASTER COURSES

- *Product Design and Development* (6 credits), Università degli Studi di Perugia, Faculty of Engineering, MEng Industrial Engineering, 2008-2009 and 2009-2010..

POST-MASTER COURSES

- *Computer-aided Design* (2,75 credits), Università degli Studi di Perugia, Graduate Teacher Training Programme, 2005;
- *Computer-aided Design* (4 credits), Università degli Studi di Perugia, Faculty of Engineering post-master course in Materials Engineering, 2004;
- *Technical Drawing I* (1,75 credits), Università degli Studi di Perugia, Graduate Teacher Training Programme, 2002;
- *Technical Drawing II* (2 credits), Università degli Studi di Perugia, Graduate Teacher Training Programme, 2003;

SHORT COURSES

- *Fundamentals of Engineering Drawing: Theory and Applications*, FAIST Componenti S.p.A Montone (Italy), February 2011 (10h)

- *Fundamentals of Pattern Recognition and Image Processing*, Universidad de Vigo (Spain), Doctoral Programme in Environmental Engineering, June 2009 (10h);
- *Introduction to Technical Drawing*, Black & Decker, Perugia (Italy), Dec 2008 / Jan 2009 (15h);
- *Introduction to CAD/CAE*, Master in Virtual Engineering, ITT s.c.a.r.l, Umbertide (Italy), 2005 (10h)
- *Introduction to Object-oriented Programming in C/C++*, Università degli Studi di Perugia (Italy), Doctoral Programme in Industrial Engineering, April/May 2004 (20h);

TALKS

- *Towards a procedural model for CAD data exchange*; 5th workshop on Design Tools and Methods in Industrial Engineering, Pisa (Italy), 21-23 Mar 2005;
- *Collaborative CAD modeling and construction of augmented CAD models*; 4th workshop on Design Tools and Methods in Industrial Engineering, Erice (Italy), 29 Sep - 1 Oct 2003;
- *Approaches for integration of CAD/CAM/CAE systems*; 3rd workshop on Design Tools and Methods in Industrial Engineering, Firenze (Italy), 27 - 28 Jun 2002;
- *Interface-based methods for data exchange among CAx systems*; 2nd workshop on Design Tools and Methods in Industrial Engineering, Perugia (Italy), 5 - 6 Jul 2001;
- *Collaborative design and data exchange through STL files*; 1st workshop on Design Tools and Methods in Industrial Engineering, Parma (Italy), Sep 2000;

SEMINARS

- *Texture description through histograms of equivalent patterns: A unifying Framework for LBP and related methods* University of East Anglia (UK), School of Computing Sciences, 9 Dec 2015;
- *Texture description through histograms of equivalent patterns: A unifying Framework for LBP and related methods* Queen Mary, University of London (UK), School of Electronic Engineering and Computer Science, 22 Sep 2015;
- *Introduction to computer vision*, Universidade de Vigo (Spain), 21 Jan 2014;
- *Fundamentals of pattern recognition and colour image analysis*, Universidade de Vigo (Spain), 27 Nov 2012;
- *Introduction to pattern recognition and computer vision with applications in industry*, Universidad de Vigo (Spain), 24 Jan 2012;
- *Colour vision and pattern recognition*, Universidad de Vigo (Spain), 11 Jan 2011;
- *Automatic characterization of materials appearance through texture and colour analysis*, University of East Anglia (UK), School of Computing Sciences, 15 Oct 2010;
- *Data exchange among CAD/CAM/CAE systems: problems and perspectives*, Università degli Studi dell'Aquila (Italy), 16 Dec 2004.

SUPERVISION OF THESES AND DISSERTATIONS

- 22 master theses and bachelor dissertations within the Faculty of Engineering, Università degli Studi di Perugia;
- eight master theses within the School of Industrial Engineering, Universidad de Vigo

TEACHING ACTIVITY IN THE FRAMEWORK OF THE ERASMUS PROGRAMME

- December 2013: six hours within the module of "Expresión Gráfica" (Technical Drawing), Undergraduate Degrees in Energy Engineering and Mining and Energy Resources and Engineering, Universidade de Vigo (Spain), School of Mining Engineering.
- January 2012: six hours within the module of "Expresión Gráfica" (Technical Drawing), Undergraduate Degrees in Engineering of Industrial Technologies, Management Engineering, Electrical Engineering, Mechanical Engineering, Industrial Automation and Electronic Engineering, and Industrial Chemical Engineering, Universidade de Vigo (Spain), School of Industrial Engineering.

- April 2009: eight hours within the module of “Expresión Gráfica” (Technical Drawing), Undergraduate Degree in Industrial Engineering, Universidade de Vigo (Spain), School of Industrial Engineering.

COORDINATION AND PARTICIPATION IN SCIENTIFIC PROJECTS

TITLE *Object-based identification of greenhouse horticultural crops through satellite stereo-imagery from WorldView-3 and time series from Landsat-8* (Identificación basada en objetos de cultivos horticolas bajo invernadero a partir de stereo imágenes del satélite WorldView-3 y series temporales de Landsat-8). Ref. AGL2014-56017-R

FUNDING INSTITUTIONS Ministerio de Economía y Competitividad (Spain)

COORDINATING INST. Universidad de Almería (Spain)

PARTNERS Universidad de Vigo (Spain), Università degli Studi di Perugia (Italy)

ROLE Investigator

YEARS 2015-2018

AMOUNT GRANTED € 85.000,00

TITLE *Image processing methods and applications to the industry and other sectors*

FUNDING INSTITUTIONS Dipartimento Ingegneria Industriale, Università degli Studi di Perugia (Italy)

ROLE Principal investigator

YEARS 2013-present

AMOUNT GRANTED € 7000,00

TITLE *LIFE12 ENV/IT/000411 Enhanced material recovery and environmental sustainability for small scale waste management systems*

FUNDING INSTITUTIONS European Commission

ROLE Investigator

YEARS 2013-present

TITLE *GEOEYE1-WV2: generation of high resolution geo-referenced data from GeoEye-1 and WorldView-2 satellite images* (ref. CTM2010-16573)

FUNDING INSTITUTIONS Ministerio de Educación y Ciencia (Spain)

COORDINATING INST. Universidad de Almería (Spain)

PARTNERS Universidad de Vigo (Spain), Università degli Studi di Perugia (Italy)

ROLE Investigator

YEARS 2011-2013

TITLE *EFESO (Environmental Friendly Energy from Solid Oxide Fuel Cells)*

FUNDING INSTITUTIONS Ministero dello Sviluppo Economico (Italy), Merloni Termosanitari S.p.A. (Italy), Università degli Studi di Perugia (Italy), Università Politecnica delle Marche (Italy), Politecnico di Torino (Italy), ENEA (Italy) and other nine partners

ROLE Investigator

YEARS 2009-2011

AMOUNT GRANTED € 10.922.360,00 (total); € 528.376,00 (Università degli Studi di Perugia)

TITLE	<i>Models for the performance evaluation of the supply chain</i>
FUNDING INSTITUTION	Consorzio per lo sviluppo del polo universitario della provincia di Terni (Italy)
ROLE	Investigator
YEARS	2007
AMOUNT GRANTED	€ 45.000,00
TITLE	<i>Modeling, simulation and experimental evaluation of materials for Industrial and Civil Engineering</i>
FUNDING INSTITUTION	Consorzio per lo sviluppo del polo universitario della provincia di Terni (Italy)
ROLE	Investigator
YEARS	2007-2008
AMOUNT GRANTED	€ 73.000,00
TITLE	<i>Innovative systems for the interoperability and data exchange among CAD/CAM/CAE systems</i>
FUNDING INSTITUTION	Ministero dell'Istruzione, dell'Università e della Ricerca (Italy)
ROLE	Investigator
YEARS	2006-2007
AMOUNT GRANTED	€ 70.500,00
TITLE	<i>Flexible production systems and product diversification in natural stone industry</i>
FUNDING INSTITUTION	Mondial Marmi SpA (Italy)
ROLE	Investigator
YEARS	2003
AMOUNT GRANTED	€ 417.000,00

OTHER GRANTS AND FELLOWSHIPS FOR TEACHING AND RESEARCH ACTIVITY

FUNDING INSTITUTION	Universidad de Vigo (Spain)
TYPE	Grant for teaching activity
TITLE	<i>Introduction to computer vision</i>
YEAR	2014
AMOUNT GRANTED	€ 500,00
FUNDING INSTITUTION	Universidad de Vigo (Spain)
TYPE	Grant for teaching activity
TITLE	<i>Fundamentals of pattern recognition and colour image analysis</i>
YEAR	2013
AMOUNT GRANTED	€ 500,00
FUNDING INSTITUTION	Universidad de Vigo (Spain)
TYPE	Grant for teaching activity
TITLE	<i>Fundamentals of pattern recognition and colour image analysis</i>
YEAR	2012
AMOUNT GRANTED	€ 1200,00
FUNDING INSTITUTION	Universidad de Vigo (Spain)
TYPE	Grant for teaching activity
TITLE	<i>Colour vision and pattern recognition</i>
YEAR	2011

AMOUNT GRANTED	€ 500,00
FUNDING INSTITUTION	FAIST Componenti S.p.A (Italy)
TYPE	Grant for teaching activity
TITLE	<i>Introduction to engineering drawing</i>
YEAR	2011
AMOUNT GRANTED	€ 780,00
FUNDING INSTITUTION	Universidad de Vigo (Spain)
TYPE	Grant for teaching activity
TITLE	<i>Digital image processing and pattern recognition</i>
YEAR	2009
AMOUNT GRANTED	€ 1.800,00
FUNDING INSTITUTION	Black & Decker Italia S.p.A. (Italy)
TYPE	Grant for teaching activity
TITLE	<i>Introduction to Engineering drawing, materials and manufacturing processes</i>
YEARS	2008-2009
AMOUNT GRANTED	€ 6000,00
FUNDING INSTITUTION	Universidad de Vigo (Spain)
TYPE	Visiting fellowship for research activity
TITLE	<i>Characterization of the visual appearance of ornamental stone through combination of classifiers</i>
YEAR	2006
AMOUNT GRANTED	€ 1.200,00
FUNDING INSTITUTION	Consiglio Nazionale delle Ricerche (Italy)
TYPE	Short-term mobility fellowship for research activity
TITLE	<i>Characterization of the visual appearance of natural stones (marble and granite) through image processing and artificial intelligence.</i>
YEAR	2005
AMOUNT GRANTED	€ 1.787,87
FUNDING INSTITUTION	O.M.C. Srl (Italy)
TITLE	<i>Design and optimisation of shelters</i>
TYPE	Grant for research activity
YEAR	2005
AMOUNT GRANTED	€ 5.760,00

ADVISORY

EDITORIAL BOARDS

- *Computer Science & Engineering*, Scientific & Academic Publishing (p-ISSN: 2163-1484, e-ISSN: 2163-1492)

OCCASIONAL REVIEWER FOR:

- *Applied Mathematics and Computation* (2 manuscripts revised);
- *Archaeometry* (1);
- *Automation in Construction* (2);

- *Computers and Electronics in Agriculture* (1);
- *Computer Methods and Programs in Biomedicine* (1);
- *Digital Signal Processing* (3);
- *Dyna-Colombia* (1);
- *Energy and Buildings* (1);
- *Entropy* (1);
- *Engineering Computations* (1);
- *Expert Systems With Applications* (1);
- *Fibers and Polymers* (1);
- *EURASIP Journal on Image and Video Processing* (1);
- *IEEE Signal Processing Letters* (1);
- *IEEE Transactions on Circuits and Systems for Video Technology* (1);
- *IEEE Transactions on Image Processing* (9);
- *IEEE Transactions on Medical Imaging* (1);
- *IEEE Transactions on Signal Processing* (1);
- *IET Image Processing* (1);
- *IET Signal Processing* (1);
- *IET Computer Vision* (1);
- *Información Tecnológica* (1);
- *Integrated Computer-aided Engineering* (1);
- *International Journal of Continuing Engineering Education and Life-Long Learning* (1);
- *International Journal of Cosmetic Science* (1);
- *International Journal of Multimedia Information Retrieval* (1);
- *International Journal of Neural Systems* (2);
- *Journal of Computational Methods in Sciences and Engineering* (1);
- *Journal of Electronic Imaging* (3);
- *Journal of King Saud University* (1);
- *Journal of Medical Imaging and Health Informatics* (2);
- *Journal of the Optical Society of America – A* (1);
- *Journal of Visualization* (3);
- *Knowledge-Based Systems* (2);
- *Machine Vision and Applications* (1);
- *Measurement* (1);
- *Multidimensional Systems and Signal Processing* (3);
- *Neurocomputing* (1);
- *Optical Engineering* (4);
- *Optics and Lasers in Engineering* (7);
- *Opto-Electronics Review* (1);
- *Pattern Recognition* (1);
- *Pattern Recognition Letters* (6);
- *Photogrammetric Engineering and Remote Sensing* (2);
- *Remote Sensing* (1);
- *Surfaces & Coatings Technology* (1);
- *Sensors* (2);
- *Solar Energy Materials & Solar Cells* (1);
- *Superficies y Vacío* (1);
- *Textile Research Journal* (1);
- *Turkish Journal of Agriculture and Forestry* (1)

SCIENTIFIC AND PROGRAMME COMMITTEES:

- 1st IEEE Italy Section Summer School – Advanced course for graduated students and industrial research (IEEESS 2015);
- Knowledge-Based and Intelligent Information & Engineering Systems (KES-2015, KES-2016);
- Workshop Colour in Texture and Material Recognition (in conjunction with the 18th Int. Conf. on Image Analysis and Processing – ICIAP 2015);
- Portuguese Conference on Artificial Intelligence (EPIA 2015);
- International Conference on Systems (ICONS 2015, ICONS 2016);
- International Conference on Modelling, Simulation, and Identification (MSI 2014, MSI 2016);
- World Conference on Information Systems and Technologies (WorldCIST'13, WorldCIST'14, WorldCIST'15 and WorldCIST'16);
- International Conference on Computer Graphics and Imaging (CGIM 2013);
- Irish Machine Vision and Image Processing Conference (IMVIP 2011, IMVIP 2014 and IMVIP 2015);
- Imaging and Signal Processing in Healthcare and Technology (ISPHT 2011 and ISPHT 2012);
- Computational Photography (CPhoto 2011);
- Visualization Imaging and Image Processing (VIIP 2007, VIIP 2008, VIIP 2009 and VIIP 2012);
- Graphical Models and Imaging (GMAI 2007);
- International Conference on Information Visualization (IV07, IV08, IV09, IV10, IV2011, IV2012, IV2013 and IV2015);
- Applied Simulation and Modelling (ASM 2008, ASM 2009 and ASM 2012);
- International Joint Congress XVI ADM – XIX INGEGRAF (2007)

HONOURS AND AWARDS

- BEST PAPER AWARD: M.J. Álvarez, A. Fernández, E. González, **F. Bianconi**, F.J. Aguilar, J. Armesto; *Image segmentation using multilayer Coordinated Cluster Representation*, Proc. of the International Joint Congress XXI INGEGRAF - XVII ADM, Lugo (Spain), June 10-12, 2009;

PATENTS AND INVENTIONS

- IT PATENT no. 1413266: *Apparatus to acquire a plurality of superficial images of at least one body and related method*, assignee: Mondial Marmi S.r.l.; inventors: F. Bianconi, S.A. Saetta, A. Fernández and E. González. Filed on July 25, 2012; granted on January 16, 2015.

PUBLICATIONS

BOOK CHAPTERS

- [1] **F. Bianconi** and A. Fernández; A unifying framework for LBP and related methods; in *Local Binary Patterns: new variants and new applications*, S. Brahmam, L.C. Jain, L. Nanni and A. Lumini eds.; Vol. 506 of Studies in Computational Intelligence; Springer; pp. 17-46, 2013.

JOURNAL ARTICLES (ISI-REFERRED JOURNALS)

- [1] F. Di Maria, **F. Bianconi**, C. Micale, S. Baglioni, and M. Marionni; Quality assessment for recycling aggregates from construction and demolition waste: An image-based approach for particle size estimation; *Waste Management*, 48, pp. 344-352, 2016;
- [2] **F. Bianconi**, E. González and A. Fernández; Dominant local binary patterns for texture classification: Labelled or Unlabelled? *Pattern Recognition Letters*, 65, pp. 8-14, 2015;
- [3] **F. Bianconi**, F. Di Maria, C. Micale, A. Fernández and R.W. Harvey; Grain-size assessment of fine and coarse aggregates through bipolar area morphology; *Machine Vision with Applications*; 22(6), pp. 775-789;
- [4] L. Postriotti, G. Brizi, C. Ungaro, M. Mosser and **F. Bianconi**; A methodology to investigate the behaviour of urea-water sprays in high temperature air flow for SCR de-NOx applications; *Fuel*; 150, pp. 548-557, 2015;

- [5] **F. Bianconi**, A. Álvarez-Larrán and A. Fernández; Discrimination between tumour epithelium and stroma via perception-based features; *Neurocomputing*; 154, pp. 119-126, 2015;
- [6] E. González, A. Fernández and **F. Bianconi**; General framework for rotation invariant texture classification through co-occurrence of patterns; *Journal of Mathematical Imaging and Vision*; 50(3), pp. 300-313, 2014;
- [7] **F. Bianconi** and A. Fernández; Rotation invariant co-occurrence features based on digital circles and discrete Fourier transform; *Pattern Recognition Letters*; 48, pp. 34-41, 2014;
- [8] M.Á. Aguilar, **F. Bianconi**, F.J. Aguilar and I. Fernández; Object-based greenhouse classification from GeoEye-1 and WorldView-2 stereo imagery, *Remote Sensing*, 6(5), pp. 3554-3582, 2014;
- [9] **F. Bianconi** and A. Fernández; An appendix to "Texture databases – A comprehensive survey; *Pattern Recognition Letters*; 45(1), pp. 33-38, 2014;
- [10] **F. Bianconi**, L. Ceccarelli, A. Fernández and S.A. Sietta; A sequential machine vision procedure for assessing paper impurities, *Computers in Industry*, 65(2), pp. 325-332, 2014;
- [11] **F. Bianconi**, A. Fernández, E. González and S.A. Sietta; Performance analysis of colour descriptors for parquet sorting; *Expert Systems with Applications*, 40(5), pp. 1636-1644, 2013;
- [12] A. Fernández, M.X. Álvarez and **F. Bianconi**; Texture classification through histograms of equivalent patterns, *Journal of Mathematical Imaging and Vision*, 45(1), pp. 76-102, 2013;
- [13] **F. Bianconi**, E. González, A. Fernández and S.A. Sietta; Automatic classification of granite tiles through colour and texture features, *Expert Systems with Applications*, 39(12), pp. 11212–11218, 2012;
- [14] **F. Bianconi**, R. Harvey, P. Southam and A. Fernández; Theoretical and experimental comparison of different approaches for colour texture classification, *Journal of Electronic Imaging*, 20(4), 043006, 2011;
- [15] A. Fernández, M.J. Álvarez and **F. Bianconi**; Image classification with binary gradient contours, *Optics and Lasers in Engineering*, 49(9-10), pp. 1177-1184, 2011;
- [16] **F. Bianconi** and A. Fernández; On the Occurrence Probability of Local Binary Patterns: A Theoretical Study, *Journal of Mathematical Imaging and Vision*, 40(3), pp. 259-268, 2011
- [17] A. Fernández, O. Ghita, E. González, **F. Bianconi**, P.F. Whelan; Evaluation of robustness against rotation of LBP, CCR and ILBP features in granite texture classification, *Machine Vision and Applications*, 22(6), pp. 913-926, 2011;
- [18] M.J. Álvarez, E. González, **F. Bianconi**, J. Armesto, A. Fernández; Colour and texture features for image retrieval in granite industry, *Dyna*, 77(161), pp. 121-130, 2010;
- [19] **F. Bianconi**, A. Fernández, E. González and J. Armesto; Robust color texture features based on ranklets and discrete Fourier transform, *Journal of Electronic Imaging*, Vol. 18, 043012, 2009;
- [20] **F. Bianconi**, A. Fernández, E. González, D. Caride and A. Calviño; Rotation-invariant colour texture classification through multilayer CCR; *Pattern Recognition Letters*, 30(8), pp. 765-773, 2009;
- [21] **F. Bianconi** and A. Fernández; Evaluation of the effects of Gabor filter parameters on texture classification; *Pattern Recognition*, 40(12), pp. 3325-3335, 2007;
- [22] P. Di Stefano, **F. Bianconi** and L. Di Angelo; An approach for feature semantics recognition in geometric models; *Computer-aided Design*, Vol. 36, n. 10, pp. 993-1009, 2004.

JOURNAL ARTICLES (OTHER JOURNALS)

- [1] V. Caldarelli, L. Ceccarelli, **F. Bianconi**, S.A. Sietta and A. Fernández; Performance assessment of multi-level image thresholding for paper quality inspection; *Journal of Service and Computing Oriented Manufacturing*, 1(4), pp 281-294, 2014;
- [2] E. González, **F. Bianconi**, M.X. Álvarez and S.A. Sietta; Automatic characterization of the visual appearance of industrial materials through colour and texture analysis: an overview of methods and applications, *Advances in Optical Technologies*, vol. 2013, Article ID 503541, 11 pages, 2013;
- [3] E. González, **F. Bianconi**, A. Fernández; A comparative review of colour features for content-based image retrieval, *Anales de Ingeniería Gráfica*, 21, pp. 7-14, 2010;
- [4] M.J. Álvarez, A. Fernández, E. González, **F. Bianconi**, F.J. Aguilar, J. Armesto; Image segmentation using rotation-invariant multilayer coordinated clusters representation, *Anales de Ingeniería Gráfica*, 21, pp. 23-30, 2010;

- [5] **F. Bianconi**, S. Saetta and L. Tiacci; A web-based simulation game as a learning tool for the design process of complex systems; *Journal of Design Research*, 5(2), pp. 253-272, 2006;
- [6] **F. Bianconi**; Bridging the gap between CAD and CAE using STL files; *International Journal of CAD/CAM*, Vol 2., pp 78-91, 2002.

PEER-REVIEWED CONFERENCE PAPERS

- [1] **F. Bianconi**, R. Bello, E. González and A. Fernández; On comparing colour spaces from a performance perspective: application to automated classification of polished natural stones, in *New Trends in Image Analysis and Processing – ICIAP 2015 Workshops*, V. Murino, E. Puppo, D. Sona, M. Cristani and C. Sansone eds., Vol. 9281 of Lecture Notes in Computer Science, pp. 71-78, 2015;
- [2] J. Pardo-Balado, A. Fernández and **F. Bianconi**; Texture classification using rotation invariant LBP based on digital polygons, in *New Trends in Image Analysis and Processing – ICIAP 2015 Workshops*, V. Murino, E. Puppo, D. Sona, M. Cristani and C. Sansone eds., Vol. 9281 of Lecture Notes in Computer Science, pp. 87-94, 2015;
- [3] L. Ceccarelli, **F. Bianconi**, S.A. Saetta, A. Fernández and V. Caldarelli; *Experimental comparison of image thresholding methods for defect detection in the papermaking process*, Proc. of the 25th European Modeling and Simulation Symposium, EMSS 2013, Athens (Greece) 25—27 September 2013;
- [4] **F. Bianconi**, S. A. Saetta, G. Sacchi, F. Adrubali and G. Baldinelli; *Colour calibration of an artificial vision system for industrial applications: comparison of different polynomial models*, Proc. of the VII National Color Conference, Rome, 15-16 Sep. 2011, vol VII/B, 18-25;
- [5] F. Asdrubali, G. Baldinelli, S. Schiavoni, **F. Bianconi** and S.A. Saetta; *Evaluation of the colour rendition of protection films for glass surfaces through spectrophotometric analysis* (in Italian), Proc. of the VII National Color Conference, Rome, 15-16 Sep. 2011, vol VII/A, 15-22;
- [6] R. Harrison, **F. Bianconi**, R. Harvey and W. Wang; *A texture analysis approach to identifying Sabellaria Spinulosa colonies in sidescan sonar imagery*, Proc. of IMVIP 2011 - Irish Machine Vision and Image Processing Conference, Dublin, 8-9 Sep. 2011
- [7] M.J. Álvarez, E. González, **F. Bianconi**, J. Armesto, P. Arias and A. Fernández; *¿Y ahora cómo encuentro una tabla de granito igual a la que se ha roto?*, Proc. of the International Congress on Sustainable Mining, Santiago de Compostela (Spain), April 15-17, 2009;
- [8] **F. Bianconi**, A. Fernández and A. Mancini; *Assessment of rotation-invariant texture classification through Gabor filters and Discrete Fourier Transform*; Proc. of the 20th International Congress on Graphical Engineering, Valencia (Spain), June 4-6, 2008;
- [9] **F. Bianconi**, P. Conti, L. Di Angelo, P. Di Stefano and G. Pazzaglia; *An approach for procedural exchange of geometric models*; Proc. of the 20th International Congress on Graphical Engineering, Valencia (Spain), June 4-6, 2008;
- [10] **F. Bianconi**, A. Mancini and A. Fernández; *Tecniche per la comparazione dell'aspetto visivo di materiali lapidei ad uso edilizio: valutazione della robustezza in condizioni di illuminazione variabile*; Proc. of the 8th CIRIAF National Congress, Perugia (Italy), April 4-5, 2008;
- [11] **F. Bianconi**, A. Fernández, E. González and F. Ribas; *Texture classification through combination of sequential colour texture classifiers*; Proc. of the 12th Iberoamerican Congress on Pattern Recognition, Valparaíso (Chile), November 13-16, Lecture Notes in Computer Science, Vol. 4756, pp. 231-240, 2007.
- [12] **F. Bianconi**, P. Conti and G. Pazzaglia; *Semi-automatic modeling of reverse-engineered shapes through design-by-feature and genetic algorithms*; Proc. of the International eConference on Computer Science (IeCCS), 2007;
- [13] S. Moroni, **F. Bianconi** and P. Conti; *Concurrent evaluation of manufacturing cost in product design and simulation*; Proc. of the European Modelling and Simulation Symposium (EMSS), Bergeggi (Italy), 2007;
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