CURRICULUM VITAE

FORMATO EUROPEO/EUROPEAN FORMAT

PERSONAL INFORMATION

Nome, Cognome/Name, Surname	FRANCA GIANNINI
Address	[redacted]
Telephone	[redacted]
Fax	[redacted]
E-mail	[redacted]
Website	[redacted]
Nationality	Italiana
Place and Date of birth	[redacted]

WORK EXPERIENCE

N. MATRICOLA CNR 7545
QUALIFICA DIRIGENTE DI RICERCA
LIVELLO 01

Name and address of employer	National Council of Research Piazzale Aldo Moro 7, 00185 Roma. Office: Via de Marini 6 (Torre di Francia), 16149 Genova
Type of business or sector	Public research organisation
Period	1.1.2010 – current
Occupation or position held	Research director at Institute for Applied Mathematics and Information Technologies "Enrico Magenes"
Main activities and responsibilities	Foundational and applied research - participation in R&D projects - training of master, PhD students and young researchers – editorial activity
Period	1.1.2001 – 31.12.2009
Occupation or position held	Senior researcher at Institute for Applied Mathematics and Information Technologies "Enrico Magenes"
Main activities and responsibilities	Foundational and applied research - participation in R&D projects - training of master, PhD students and young researchers – editorial activity
Period	3.2.1997-31.12.2000
Occupation or position held	Researcher at Institute for Applied Mathematics
Main activities and responsibilities	Foundational and applied research - participation in R& D projects
Period	1.3.1994-2.2.1997
Occupation or position held	Temporary contract Researcher at Institute for Applied Mathematics
Main activities and responsibilities	Foundational and applied research - participation in R& D projects
Period	16.2.1989-15.2.1994
Occupation or position held	Temporary contract Researcher at Institute for Applied Mathematics
Main activities and responsibilities	Foundational and applied research - participation in R& D projects
Period	28.4.1988-15.2.1989

Name and address of employer	Italcad Tecnologie e Sistemi - Genova
Type of business or sector	Software company
Occupation or position held	Analyst programmer
Main activities and responsibilities	Participation in R& D projects, software development
Period	1.12.1987-27.4.1987
Name and address of employer	Italcad Tecnologie e Sistemi - Genova
Type of business or sector	Software company
Occupation or position held	Consultant Analyst programmer at Italcad Tecnologie e Sistemi
Main activities and responsibilities	Participation in R& D projects, software development
Period	1.12.1986-30.11.1987
Name and address of employer	Italcad Tecnologie e Sistemi – Genova & CNR-IMA Genova
Type of business or sector	Software company – Public research organistion
Occupation or position held	Fellowship grant between Italcad Tecnologie e Sistemi & CNR
Main activities and responsibilities	Participation in R& D projects, software development

EDUCATION AND TRAINING

Dates	1981-1986
Name and type of organisation providing education and training	University of Genova
Principal subjects occupational skills covered	Applied mathematics, programming, analysis, probability, geometry, algebraic, physics, graph theory
Title of qualification awarded	Laurea vecchio ordinamento
Level in National classification	Master

RESEARCH ACTIVITIES

Research sectors

- Semantic-driven Shape modelling for industrial design and production
- 3D Shape analysis
- 3D object classification and retrieval
- Feature recognition
- Reverse engineering
- Knowledge representation and analysis
- Shape interaction and inspection in VR
- CAD/CAM/CAE integration

Recent Scientific Activities.

- Definition of methods and systems for shape inspection and manipulation in VR/MR/AR environments
- Automatic adaptation of CAD models to scanned point clouds
- SDefinition of models and methods for the comparison and semantic interpretation of 3D CAD assemblies.
- Definition of representations and methods for the semantic modelling of 3D objects and scenes for Virtual reality applications
- Semantic interpretation and parametric model creation from car images

ADDITIONAL INFORMATION

Reviewer for the selection of the EU funded projects within FP5, FP6, FP7, H2020 programs

MIUR reviewer

Reviewer for the Council of Physical Sciences of the Netherlands Organization for Scientific Research (NWO)

Member of the review team of the following EU projects:

- COSPACES Innovative collaborative environment for Design and Engineering, IP FP6 034245
- ECOLLEG; Advanced Infrastructure for PanEuropean Collaborative Engineering, IST-1999-11746
- CE-NET: Concurrent Enterprising Network of Excellence IST-1999-2910
- ENGAGE: Engineering Emotional Design, FP6-2002-IST-510998

Representative of CNR in the Scientific and Technological board of POLITECHMED (Polo Ligure di ricerca e innovazione per le Tecnologie Medicali) 2012 -2017.

Responsible of the ICT CNR departmental project "Multimodal and Multidimensional Content and Media"

Responsible of the CNR research unit for the following projects:

- CHRONIOUS: An Open, Ubiquitous and Adaptive Chronic Disease Management Platform for COPD and Renal Insufficiency, FP7-ICT-2007–1– 216461
- FIORES II: Character Preservation and Modeling in Aesthetic and Engineering Design, CEE G1RD-CT-2000-00037
- COWORK: Concurrent project development IT tools for small-medium enterprises netWORKs, CEE ESPRIT 25360
- Factory of the future Flagship project SuFSeF: Sustainable Factiry Semantic Framework, 2013
- I-REUMA Imaging non invasivo dedicato per diagnosi precoce e follow-up delle patologie reumatiche del distretto mano-polso, AR-FAS Regione Liguria

Participation and coordination of the following projects:

- Factory of the future Flagship project Pro2Evo: Product and Process Co-Evolution Management via Modular Pallet configuration, 2014-2016.
- Factory of the future Flagship project: Pro2Refix: Product and Process Co Evolution Management via Reconfigurable Fixtures, 2016.
- Riconoscimento di componenti e sottoparti in un impianto industriale virtuale, descritto mediante strumenti CAD, CAE, PDM, al fine di evidenziare potenziali aspetti critici per la sicurezza

Preparation and participation as WP leader to the EU projects:

- Infrastructure Project VISIONAIR- A world class infrastructure for Advance 3D visualisation-based Research (2011-2015)
- AIM@SHAPE Advanced and Innovative Models And Tools for the development of Semantic-based systems for Handling, Acquiring, and Processing knowledge Embedded in multidimensional digital objects Network of Execellence CEE FP6 IST NoE 506766

In the last 5 years Co-Tutoring of 3 master students in Applied Mathematics, 5 PhD students in engineering. Responsible for 4 research fellows.

Eurograhics 2019 Conference co-chair - Paper co-chair of the conferences CAD'13, CAD'14, CAD'15, CAD'16, CAD'17, CAD'18

PUBBLICATIONS
JOURNAL

Selected Last 5 years publications:

K. Lupinetti, J-P. Pernot, M. Monti, F. Giannini, (2019) Content-based CAD assembly model retrieval: Survey and future challenges, Computer Aided Design 113: 62-"81

M. Rucco, F. Giannini, K. Lupinetti, M. Monti, (2019) Part classification with supervised machine learning, Artificial Intelligence for Engineering Design, Analysis and Manufacturing. Vol 33, (1), 100-113

S. Pellegrinelli, C. Cenati, L. Cevasco, F. Giannini, K. Lupinetti, M. Monti, D. Parazzoli, L. Molinari Tosatti, (2018 Configuration and inspection of multi-fixturing pallets in flexible manufacturing systems, Journal of Robotics and Computer Integrated Manufacturing, 2018, Volume 52, Pages 65-75

B. Wang, B-J. Li, F. Giannini, M. Monti, P. Hu, and J-C. Liang. (2018) Curve-based image editing for product styling. Computer-Aided Design and Applications ISSN: 1686-4360 CAD Solutions.. 15. DOI: 10.1080/16864360.2017.1397887

K. Lupinetti, F. Giannini, M. Monti, and J-P. Pernot. (2018) Multi-criteria retrieval of CAD assembly models. Journal of computational design and engineering [Print] ISSN: 2288-4300 Society of CAD/CA. 5. DOI: 10.1016/j.jcde.2017.11.003

K. Lupinetti, L. Chiang, F. Giannini, M. Monti, and J.-P. Pernot. (2017) Regular patterns of repeated elements in CAD assembly model retrieval. Computer-Aided Design and Applications ISSN: 1686-4360 CAD Solutions.. 14. DOI: 10.1080/16864360.2016.1257193

F. Giannini, K. Lupinetti, and M. Monti. (2017) Identification of similar and complementary subparts in B-rep CAD models. Journal of computing and information science in engineering (Online) ISSN: 1944-7078 Amer. 17. DOI: 10.1115/1.4036120

Z. Li, F. Giannini, J-P. Pernot, P. Veron, and B. Falcidieno. (2017) Reusing heterogeneous data for the conceptual design of shapes in virtual environments. Virtual reality (Lond., Springer, Internet) ISSN: 1434-9957 Springer. 21. DOI: 10.1007/s10055-016-0302-z

M. Attene, D. Cabiddu, S. Gagliardo, F. Giannini, and M. Monti. (2016) A web repository to describe and execute shape oriented workflows. Computer-Aided Design and Applications ISSN: 1686-4360 CAD Solutions.. 13. DOI: 10.1080/16864360.2016.1150710

M. Urgo, W. Terkaj, C. Cenati, F. Giannini, M. Monti, and S. Pellegrinelli. (2016) Zero-point fixture systems as a reconfiguration enabler in flexible manufacturing systems. Computer-Aided Design and Applications ISSN: 1686-4360 CAD Solutions.. 13. DOI: 10.1080/16864360.2016.1150715

S. Gagliardo, F. Giannini, M. Monti, G. Pedrielli, W. Terkaj, M. Sacco, M. Ghellere, and F. Salamone. (2015) An ontology-based framework for sustainable factories. Computer-Aided Design and Applications ISSN: 1686-4360 CAD Solutions.. 12. DOI: 10.1080/16864360.2014.962432

J-P. Pernot , F. Giannini, and C. Petton. (2015) Thin part identification for CAD model classification. Engineering computations ISSN: 0264-4401 Emerald. 32. DOI: 10.1108/EC-03-2013-0082

R. Lou, J-P. Pernot, F. Giannini, P. Veron, and B. Falcidieno. (2015) Filleting sharp edges of multi-partitioned volume finite element meshes. Engineering computations ISSN: 0264-4401 Emerald. 32. DOI: 10.1108/EC-03-2013-0074

F. Giannini, M. Monti, J. Pelletier and J-P. Pernot. (2013) A survey to evaluate how non designers perceive aesthetic properties of styling. Computer-Aided Design and Applications . 10. DOI: 10.3722/cadaps.2013.129-138

M. Attene, F. Giannini, M. Pitikakis and M. Spagnuolo. (2013) The VISIONAIR Infrastructure Capabilities to Support Research. Computer-Aided Design and Applications . 10. DOI:

10.3722/cadaps.2013.851-862

CONFERENCES

K. Lupinetti, F. Giannini, M. Monti, J-P. Pernot (2019) A 3D CAD assembly benchmark Eurographics Workshop on 3D Object Retrieval, Genova, Italy, 5-6/05/2019.

G. A. Shah, J-P. Pernot, F. Giannini, M. Monti, A. Polette (2019) Fitting parametric 2D & 3D CAD models to point clouds of digitalized mechanical assemblies for reverse engineering application The European Association for Computer Graphics 40th Annual Conference - EUROGRAPHICS 2019, pp. 11-12, Genova, Italy, 6 - 10 May, 2019.

E. Cordeiro, F. Giannini, M. Monti, D. Mendes, A. Ferreira (2018) A study on natural 3D shape manipulation in VR, STAG: Smart Tools and Applications in Graphics (2018), pp. 35-43, Brescia, October 18-19, 2018.

K, Lupinetti, F, Giannini, M, Monti, J,-P, Pernot (2017) Identification of functional sets in mechanical assembly models, , Proceeding of ICIDM2017 conference, Milan, Italy, 2017 July 17-19.

K. Lupinetti, F. Giannini, M. Monti, and J.P. Pernot. (2016) Automatic extraction of assembly component relationships and their application for assembly model retrieval. Procedia CIRP ISSN: 2212-8271. 50. DOI: 10.1016/j.procir.2016.04.148

S. Pellegrinelli, C. Cenati, L. Cevasco, F. Giannini, K. Lupinetti, M. Monti, and D. Parazzoli. (2015) Design and inspection of multi-fixturing pallets for mixed part types. Procedia CIRP ISSN: 2212-8271. 36. DOI: 10.1016/j.procir.2015.01.007

W. Terkaj, L. Danza, A. Devitofrancesco, S. Gagliardo, M. Ghellere, F. Giannini, M. Monti, G. Pedrielli, M. Sacco, and F. Salamone. (2014) A semantic framework for sustainable factories. Procedia CIRP ISSN: 2212-8271. 17. DOI: 10.1016/j.procir.2014.01.059

BOOK CHAPTER

M. Urgo, W. Terkaj, F. Giannini, S. Pellegrinelli, S. Borgo (2019) Exploiting Modular Pallet Flexibility for Product and Process Co-evolution Through Zero-Point Clamping Systems Factories of the Future, The Italian Flagship Initiative, edited by T.Tolio, G. Copani, W. Terkaj, pp. 57â€"82. CH-6330 Cham (ZG): Springer International Publishing.

M. Rucco, K. Lupinetti, F. Giannini, M. Monti, .P. Pernot. (2017) CAD Assembly retrieval and browsing, In: Ríos J., Bernard A., Bouras A., Foufou S. (eds) Product Lifecycle Management and the Industry of the Future. PLM 2017. IFIP Advances in Information and Communication Technology, vol 517. Springer, Cham

Mother tongue

Italian

OTHER LANGUAGES

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C1	C1	C1	C2
French	A2	A1	A1	A1	-

Replace with name of language certificate. Enter level if known.

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

TRATTAMENTO DEI DATI PERSONALI, INFORMATIVA E CONSENSO

Il D.Lgs. 30/6/2003, n. 196 "*Codice in materia di protezione dei dati personali*" regola il trattamento dei dati personali, con particolare riferimento alla riservatezza, all'identità personale e al diritto di protezione dei dati personali; l'interessato deve essere previamente informato del trattamento .

La norma in considerazione intende come "trattamento" qualunque operazione o complesso di operazioni concernenti la raccolta, la registrazione, l'organizzazione, la conservazione, la consultazione, l'elaborazione, la modifica, la selezione, l'estrazione, il raffronto, l'utilizzo, l'interconnessione, il blocco, la comunicazione, la diffusione, la cancellazione e la distruzione di dati, anche se non registrati in una banca dati.
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(*barrare la casella*) x☐ Si, acconsento