

## **Prof. Carlo SANTULLI**

School of Architecture and Design (SAAD), Università degli Studi di Camerino,  
viale della rimembranza 63100 Ascoli Piceno, Italy Tel. +39-0737-404287/334-1737527  
e-mail: [carlo.santulli@unicam.it](mailto:carlo.santulli@unicam.it), [info@carlosantulli.net](mailto:info@carlosantulli.net), [c.santulli@alice.it](mailto:c.santulli@alice.it)  
Website: [www.carlosantulli.net](http://www.carlosantulli.net), [biomimit.blogspot.com](http://biomimit.blogspot.com)

### **EDUCATION**

**PhD in *Materials Science and Engineering*** - University of Liverpool, 2000  
**Laurea (MSc) in *Chemical Engineering*** - Università "La Sapienza"- Roma, 1991  
**Laurea (MA) in *Arts (Modern History)*** - Università "La Sapienza"- Roma, 2001  
**MSc in *Environmental Decision Making (EDM)*** - Open University, 2004  
**BSc (Open) in *Science*** (courses in Natural Science and Environment), Open University, 2008

### **EMPLOYMENT HISTORY**

<b>9/2013-present</b>	Associate professor	Università di Camerino
<b>9/2012-8/2013</b>	Contract professor	Università di Camerino
<b>9/2006-8/2012</b>	Associate professor	Università La Sapienza – Roma Seconda Università di Napoli (2008-2010)
<b>11/2001-8/2006</b>	Senior research fellow	University of Reading
<b>11/99- 10/2001</b>	Research associate	University of Nottingham
<b>10/98 –10/99</b>	Research assistant	University of Liverpool
<b>8/96-9/98</b>	Researcher	Joint Research Centre- Ispra
<b>1/96-7/96</b>	Researcher	K.U. Leuven & Ecole des Mines -St. Etienne
<b>1/94-12/95</b>	Research grant holder	Joint Research Centre- Ispra
<b>9/88-12/93</b>	Research assistant	Università La Sapienza – Roma

### **PRINCIPAL AREAS OF INTEREST**

My research interests are particularly in the field of polymer composite manufacturing, including mechanical and damage characterisation with the use of non-destructive testing techniques, in materials sustainability (use of natural fibres, agro-waste, biopolymers and bionanocomposites, DIY bioplastics), and in biomimetics and bio-inspired design. I am a recognised expert in impact behaviour of composite materials, natural fibre composites, acoustic emission monitoring of polymer composites and materials for bio-inspired design, including DIY bioplastics.

### **LANGUAGES**

Italian (mother-tongue), excellent English and French, good German and Spanish

### **PUBLICATIONS**

3 books, 141 journal papers, 12 invited chapters, 88 conference papers/abstracts. **H-index: 24**  
**Citations: 1812 i-10: 51.**

Supervisor for 32 BSc projects and co-supervisor for 59 BSc, MSc and PhD projects, consultant for other 10 projects. External examiner for Anna University (India) and Poitiers University (France). Referee for 44 scientific journals (list below) and a wide number of international conferences. Referee on materials research projects for Department of Industry of Romania, of Poland and of Czech Republic and the Italian Ministry of Education (CINECA). Invited professor at UTM (Malaysia).

Biography in "Who's Who in Science and Engineering" and "Who's Who in the World" (from 2003)  
Editorial Board member: *International Journal of Polymers and Technologies*, *Open Journal of Composite Materials*, *Malaysian Polymer Journal* and *E-Journal of Non-Destructive Testing*. Editor of a special issue of *Journal of Biobased Materials and Bioenergy* (vol.6 n.4, 2012).

Professionally qualified as chemical engineer in Italy (1992)

Level 3 qualified in Acoustic Emission (non-destructive testing)

Co-editor of "Progetto Babele" ([www.progettobabele.it](http://www.progettobabele.it)) from 2002 to 2010.

## **RESEARCH EXPERIENCE**

### **9/2012- Università di Camerino**

From 1<sup>st</sup> September 2012 I was contract professor of “Structural properties and performance of materials” in the School of Architecture and Design, then from 27<sup>th</sup> September 2013 associate professor of Materials Science and Technology in the same university.

In addition to some research themes developed in the previous period, in particular on natural fibre composites, the use of agrowaste for the production of nanocellulose and biomimetics and bio-inspired design, some developments have been carried out on:

Thermal and mechanical characterisation of polymeric insulating materials for cables and accessories (contract with Università La Sapienza)

Characterisation of failure modes by impact and repair methods of polymer composites using acoustic emission

### **9/2006-8/2012 Università di Roma- La Sapienza**

In Rome I was working as an associate professor, lecturing on materials in different courses, for an average time of 12 hours a week, and being involved in research with two different Depts. of the University (Electrical Engineering and Materials Engineering). I am co-supervising a number of MEng and MSc students. I have a continuous collaboration from 2008 with Università di Perugia and a wide range of other collaborations with a number of universities, better detailed further down. In addition, for year 2008-09 and 2009-10, I have been contract professor in Seconda Università di Napoli (SUN), where I coordinate the research activities of the Hybrid Design Lab.

- Biomimetics and sustainable materials; bio-inspired design
- Plant fibre (flax, jute, hemp, phormium, celery, kenaf, okra, oil palm) and mineral fibre (basalt) composites (with oil-based and renewable matrices) and their hybrids with glass fibres: production, morphological, mechanical, thermal and electromagnetic characterization
- Polysaccharides (cellulose and chitin) based nanocomposites and keratin-based materials
- Use of waste for the production of sustainable materials
- Dynamical characterisation (impact, post-impact, indentation) and non-destructive testing of composites (acoustic emission, IR thermography) and metal hydrides
- Diatoms nanoindentation

### **11/2001- 8/2006 University of Reading**

In Reading my tasks included: carrying out research in different projects and disseminating the results of research through publications, presentations, conferences; demonstrating to final year students; marking and co-supervising undergrad Part 3 projects and lecturing (materials science and biomimetics).

- Air flow and frequency excitation response of mechanoreceptors on cricket cerci
- Impact properties and damage characterisation of flax fibre reinforced composites and glass/flax hybrid laminates
- Non-destructive quality control study on vegetable tissues (apples, avocados, mangoes, potatoes, tomatoes) for damage and over-ripeness control by signal analysis.
- Reconstruction of middle ear ossicular chain using Laser vibrometry (Guys & St. Thomas Hospital)
- Coupling between polyelectrolyte gels and polypropylene fibre braided structures, to reproduce worm's skin function in function of the creation of variable stiffness actuators
- Electro-active polymers for applications in artificial muscles (study for European Space Agency)
- Study of balsawood and composite materials properties using IR thermography

### **11/99 - 10/2001 University of Nottingham**

My work in Nottingham was aimed at investigating design, analysis and impact absorbing characteristics of automotive thermoplastic composites (GMT, Twintex), in particular the relation between moulding process and impact performance on automotive composite materials. I participated to the design and contributed to impact modelling of side impact beams, moulded then under my supervision by Synamit and Polynorm.

- Influence of compression moulding conditions on microstructure, void content, impact and mechanical performance of commingled thermoplastic composites
- Impact damage characterisation through the infrared thermography technique
- Hole-in plate simulation of tensile behaviour of Twintex using ABAQUS

- Moulding and testing of demonstrator components for automotive applications

**10/98 –10/99 University of Liverpool**

The main objective of my research project was the assessment of suitability of plant fibre composite (jute/polyester) for large volume applications, both in isolation and as a hybrid with E-glass fibre reinforced laminates.

My work involved comparing post-impact performance of jute fibre reinforced composites with E-glass fibre reinforced composites and experimental modelling of impact damage.

A consequent aim was developing a global method for the evaluation of impact damage on woven composites, involving the combined application of different monitoring techniques (acoustic emission, thermoelastic stress analysis and optical microscopy). The project was self-funded and self-designed over material supplied by Sistema Compositi.

- Post-impact residual properties and microscopic characterisation of impact and indentation damage of jute fibre woven composites compared with different E-glass fibre woven composites
- Impact damage assessment on composites using acoustic emission and thermal imaging (SPATE, Deltatherm)

**8/96-9/98 Joint Research Centre- Ispra**

In this period I was supervisor of a non-destructive testing laboratory. My activity included: research on materials characterisation, mainly on polymeric and metal matrix composites and shape memory alloys, using adiabatic thermal and acoustic emission; collaborations with other labs; preparation of research networks and research projects development.

I also carried out initial work on my PhD project involving impact characterisation on jute fibre and glass fibre woven composites by acoustic emission (AE) and partly sponsored by VALLEN GmbH, AE systems manufacturer.

- Thermal and acoustic emission for mechanical characterisation of shape memory alloys (Ni-Ti)
- Development and testing on a fibre optics acoustic emission sensor
- Application of acousto-ultrasonics and acoustic emission on glass/polyester bonded joints, including signal classification using neural networks
- Thermal damage analysis and acoustic emission localisation on honeycomb panels
- Real-time monitoring of tensile tests on carbon/epoxy laminates using acoustic emission and thermal emission, including measurement of yielding point of FRPC composites
- AE monitoring and SEM characterisation of normal and off-axis compression tests on titanium dental implants

**4/96-7/96 Ecole des Mines -St. Etienne**

Following the project started at K.U. Leuven, I concentrated on the use of IR thermography for damage monitoring.

- Detection of initiation and progression of delamination during fatigue tests on quasi-isotropic carbon-epoxy laminates using the infrared thermography technique
- Monitoring of damage initiation and progression on impacted quasi-isotropic carbon-epoxy plates following compression tests through infrared thermography

**1/96-4/96 K.U. Leuven**

Acquaintance and experimentation of new applications of non-destructive techniques (acoustic emission, IR thermography, edge replication, C-scan, X-rays) to characterise fatigue damage on carbon/epoxy composites.

- Fatigue monitoring on carbon/epoxy composites by acoustic emission, C-Scan and replicas
- Technical study and in-service monitoring of acoustic emission systems (work for the European Commission) with the aim to compare their reliability and performance

**1/94-12/95 Joint Research Centre- Ispra**

I was involved in a number of research projects on the use of non-destructive techniques for materials (mainly adhesive joints and metal matrix composites) characterisation.

- Experimental modelling of the cure process of Al/Al bonded joints by acoustic emission and ultrasonics

- and verified through shear lap tests (in collaboration with ALENIA)
- Mechanical behaviour of metal matrix composites (Al/Al<sub>2</sub>O<sub>3</sub>) tensile and fatigue tests monitored by acoustic emission and SEM fractographs
- Pattern recognition on acousto-ultrasonic waveforms on steel bonded joints through neural networks (in collaboration with Centro Ricerche FIAT)
- Acoustic emission evaluation of temperature effects on thin ceramic (TiN, CN) layers for cutting materials (WC-Co) layers applied by PVD (pressure vapour deposition)
- Residual fatigue performance on carbon-epoxy unidirectional (90°) specimens by acoustic emission

### **9/88-12/93 Università La Sapienza – Roma**

My research work involved experimentation in laboratory and on field with use of non-destructive techniques (acoustic emission, ultrasonics, thermography, image analysis) in support of mechanical and impact tests, and included a six-months stage in a composite materials industry (Sistema Compositi) to be trained about composite manufacturing (RTM, filament winding, pre-preg) and composite structures design (classical laminate theory)

- Impact damage and post-impact characterisation of stitched Kevlar/epoxy laminates by acoustic emission and image analysis
- VAMAS Round Robin on bending tests on yttria partially stabilised zirconia with acoustic emission energy measurements and crack localisation and SEM observations
- Group Bench Mark on acoustic emission on AE measurements during tensile tests on Carbon-BMI and Carbon/Epoxy, including measurement of Kaiser effect
- Acoustic emission and acoustoultrasonics during mechanical tests on welded composite joints
- Acoustic emission and thermography on compression tests of Al/Al perfect and defected honeycomb panels
- Atmospheric degradation monitoring by acoustic emission of two monumental statues in the Fontana di Trevi complex
- Quality evaluation on filament wound Kevlar-epoxy pressure vessels during hydraulic tests by acoustic emission and strain gauge measurements (MEng project)

### **LABORATORY ACTIVITIES AND TECHNIQUES**

Mechanical testing (tensile, fatigue, bending, interlaminar strength, compression, impact)

Composites manufacturing (hand lay-up, filament winding, RTM, compression and injection moulding, extrusion)

Polymeric gels characterisation (swelling rate, mechanical characterisation)

Adhesive joints: surface preparation to adhesion, cure cycling procedures and guidelines

Damage characterisation methods on composites (dye-penetrant enhanced radiography, edge replication technique)

Design of composite structures with finite elements software (ABAQUS, MARC)

Thermal monitoring techniques (transient and passive thermography, adiabatic thermal emission, thermoelastic stress measurement) with analysis and treatment of images

Thermal characterisation of natural fibres (FTIR, TGA, DSC, DMA)

Traditional and quantitative acoustic emission (signal analysis and treatment, pattern recognition with neural network, acousto-ultrasonics) and ultrasonic C-Scan

Vibration measurements and LASER vibrometry

Optical and scanning electron microscopy

### **COLLABORATIONS WITH INDUSTRIES**

Composite manufacturing industries (Symalit, Polynorm, Vetrotex, Parkhill Textiles, Security Composites, Sistema Compositi, NPSP, CB Compositi), plant fibres producers (Saneco, Ceres, Fidia)

End-users: aeronautical (Aermacchi, Alenia, SIAI Marchetti), automotive (Centro Ricerche FIAT, Ford), chemical (Acciaierie Bosco), electrical (Nexans) and food industries (Unilever)

Non-destructive testing systems manufacturers (Vallen, Physical Acoustic Corporation, Lambda Photometrics)

### **COLLABORATIONS WITH UNIVERSITIES AND RESEARCH CENTRES**

UK (University of Liverpool, University of Reading, University of Portsmouth), Italy (Politecnico di Milano, Politecnico delle Marche, Università di Perugia, Università di Bologna, Università dell'Aquila, Università di Roma Tor Vergata, CNR-ISMAR), Malaysia (USM), Bangladesh (Islamic University), India (Mahatma Gandhi

University, Anna University), Canada (Laval University)

## RESEARCH FUNDING

Preparation of a number of research projects (literature search, sourcing and keeping contacts with industries, structuring the project in tasks), including:

Place and year	Subject	Funding body
Rome 2011	Biocomposites for aeronautical interior components using hemp	EC – FP7
Perugia 2010	Composite materials including local agrowaste (flax fibres, wheat bran)	Italian Govt. (FIRB)
Napoli 2009	Bio-inspired design and material from renewable sources: sustainable innovation at the service of Made in Italy	Italian Govt. (FIRB)
Reading 2003-05	Quality control via vibration tests on vegetable tissue	EPSRC
Reading 2003	Impact characterisation of plant fibre composites	EPSRC/BBSRC
Nottingham 2001	Pedestrian safety	EPSRC
Ispra 1996-7	Acoustic emission applications on composites	Industry
Rome 1992-3	Metal matrix composites for transport applications	EC-DGXII
Rome 1992	Non-destructive testing on polymer composites	EC-DGXII
Rome 1990	Performance of ceramics (Round Robin)	Italian Govt.

## LECTURING EXPERIENCE

Title of module	Course	University and years	Hours/ year	Total hours
Experimentation on innovative materials	Experimentation on innovative materials	Camerino 2015-16 and 2016-17	60	70
Eco-conception	Eco-conception	Rouen 2013-14	8	8
Hybridisation and composites	Aerospace materials technology	Sapienza 2013-14	2	2
Ecocompatible technologies	Industrial design laboratory 3	Camerino 2013-14 and 2014-15	50-60	110
Shape and performance of materials	Industrial design laboratory 1	Camerino 2012-13, 2013-14, 2014-15 and 2015-16	60	240
Elements of materials science	Experimentation on innovative materials	Camerino 2014-15	4	4
Hierarchisation and biomimetic product development	International PhD course in design and innovation	Seconda Università di Napoli (SUN) 2010-11, 2011-12 and 2012-13	2-3	7
Biomimetics and sustainability	Environmental requirements for design	SUN 2011-12	6	6
Plant fibres and bio-inspired structures	International PhD course in design and innovation	SUN 2010-11	4	4
Technical issues and standards for concrete	Materials control and standards	Sapienza 2009-10	26	26
Hybridisation and manufacturing techniques in composite materials	Composites science and technology	Sapienza 2009-10	4	4
Use of biopolymers as biomaterials	Biomaterials	Sapienza 2009-10	4	4
Mechanics for industrial design	Context and tools for machine design	SUN 2009-10	30	30
Biomimetic scaffolds	Biomaterials	Sapienza 2008-09 and 2009-10	2	4
The quality of materials for design	Materials technology and configuration	SUN 2008-09 and 2009-10	30	60
Biodegradable polymers	Polymers science and technology	Sapienza 2007-08, 2008-09, 2009-10, 2011-12, 2012-13,	4-8	60

		2013-14, 2014-15 and 2015-16		
Non destructive control of electrical systems	High voltage techniques	Sapienza 2007-08, 2008-09, 2009-10, 2010-11, 2011-12, 2012-13 ad 2014-15	6	36
Use of silk as suture material and future developments	Biomaterials	Sapienza 2007-08, 2008-09 and 2009-10	2	6
Polymers durability	Materials durability	Sapienza 2006-07, 2007-08, 2008-09, 2009-10, 2010-11 and 2011-12	10	60
Plant fibre composites	Composites science and technology	Sapienza 2006-07, 2007-08, 2008-09, 2009-10, 2011-12, 2012-13, 2013-14, 2014-15 and 2015-16	4-12	76
Superconductivity and super-conductive materials	High voltage techniques	Sapienza 2006-07	4	4
Superconductive and photovoltaic materials	Electrotechnics	Sapienza 2006-07	4	4
Electrical and magnetic materials	Electrotechnics	Sapienza 2006-07	6	6
Polymer actuators	MSc in biomimetics	Reading 2004-05	4	4
Introduction to materials science	Foundation year	Reading 2003-04	12	12
Non destructive control of composite materials	Composites science and technology	Sapienza 1996-97	2	2

#### PEER REVIEW (REFEREE FOR)

*Advanced Biomaterials*  
*Aerospace Science and Technology*  
*African Journal of Biotechnology*  
*African Journal of Plant Science*  
*African Journal of Agricultural Research*  
*Arabian Journal of Science and Technology*  
*Atti della Fondazione Giorgio Ronchi*  
*Bioresources*  
*Canadian Journal of Physics*  
*Cellulose*  
*Composites Part A and Part B*  
*Composites Science and Technology*  
*Construction and Building Materials*  
*Engineering Science and Technology: an International Journal*  
*Express Polymer Letters*  
*Fibers*  
*Indian Journal of Earth Science*  
*Indian Journal of Materials Science*  
*Indian Journal of Mechanical Sciences*  
*Industrial and Engineering Chemistry Research*  
*International Journal of Biological Macromolecules*  
*International Journal of Engineering, Science and Technology*  
*International Journal of Fatigue*  
*Journal of Adhesion Science and Engineering*  
*Journal of Aerospace Engineering*  
*Journal of American Oil Chemists*  
*Journal of Applied Polymer Science*  
*Journal of Cleaner Production*  
*Journal of Composite Materials*  
*Journal of Engineering and Technology*  
*Journal of Food Engineering*  
*Journal of Materials Engineering and Performance*  
*Journal of Materials Science*

*Journal of Nanoscience and Nanotechnology*  
*Journal of Nondestructive Evaluation*  
*Journal of Pharmacognosy and Phytotherapy*  
*Journal of Polymers and the Environment*  
*Malaysian Polymer Journal*  
*Material Science and Engineering A*  
*Materials and Design*  
*Materials and Structures*  
*Multidiscipline Modeling in Materials and Structures (MMMS)*  
*Polymer Degradation and Stability*  
*Polymers*  
*Polymeros*  
*Sensors*  
*Walailak Journal of Science and Technology*  
*Wood Science and Technology*

## SUPERVISION OF PROJECTS

Year	Project	University	Title
2014-15	BSc	Camerino	Nettle bioplastics/ramie fibre based dress Clamshells/polylactic acid materials for souvenirs Didactic lamp Luffa based lamp Bicycle from upcycling of fire-proof sleeves Sustainability of wood-derived products Rucksack-dress in reused materials Design of a desk with innovative materials Assemblable and foldable seat in hemp Doors and contour frames Adaptable ceiling light Patchwork dress Adaptable and rechargeable mini-car Emergency lights using OLED Wood/Corian for bathroom furniture Multifunctional rechargeable standard lamp Seat in hemp bioplastics Rechargeable indoor/outdoor table Re-design of automotive seat Catering set in bioplastics from potato skins Smart rechargeable trolley "Green" floor tile in bioplastics with pulp and eggshells Self-production of wooden spectacle frames Auxetic shape memory lamp Multifunctional standard lamp & table Tetrahedron shaped architectural jewels Hemp wearable bags Biocomposites for interiors from oil pomace waste Bioplastics from milk waste for catering objects Zeolite-powered lunchbox Perpetual motion system for auxiliary garden lighting Development of a modular table for outdoor use Study on the improvement of a drink mixer Construction of a tricycle with cardboard frame
2013-14	BSc	Camerino	Multibrand showroom for Marche region

## CO-SUPERVISION OF PROJECTS

Year	Project	University	Title
2015-16	BSc	Sapienza	Bioplastics from cocoa waste and silicone: textural study
2015-16	BSc	Politecnico di Torino	Bioplastics from vineyard waste (grape skins, etc.)
2014-15	BSc	SUN	Introducing primary school pupils to biomimetic: a case study
2014-15	MSc	SUN	Auxetic developments of bio-inspired materials

2014-15	MSc	Camerino	Compact and foldable silicone system for cooking
2014-15	BSc	Camerino	Modular systems for flexible living Lamps with steel spirals and Gravina tuff Nomadic life bag and garment Sound absorbing panels in sopravvissana wool Clothing pleated with different geometries Luggage-wardrobe system Fair stand folding system Multifunctional storage system for nomadic life Design of educational games for children Use in fashion of hemp and wheat straw
2013-14	BSc	Camerino	Modular system for cooking Ethical compact and transportable kitchen Beauty farm/Spa (2 projects) Materials for shoes with sustainable end-of-life
2013-14	MSc	Politecnico Milano	Products from recovery of cocoa industry waste
2012-13	PhD	Poitiers-ENSMA	Fatigue and impact properties of hemp-epoxy composites
2012-13	MSc	Sapienza	Mechanical, thermal and electrical characterization of polymer joints for cable dielectrics
2012-13	BSc	SUN	Expression of sound identity
2012-13	BSc	SUN	Self-produced bioplastics for design application
2012-13	BSc	SUN	Auxetic structures for design
2011-12	BSc	SUN	Development of composite in ash wood/flax fibres
2011-12	PhD	Anna University (India)	Defect characterization and failure load prediction of composite laminates using acoustic emission monitoring
2011-12	BEng	Sapienza	Development of hybrid composite materials using wool felt and jute cloth
2010-11	BSc	SUN	Use of unrecyclable materials in design products (4 projects: wine production waste, wood waste, Corian and plastic crockery)
2009-10	BSc	SUN	Use of auxetic materials in seat design
2009-10	BSc	SUN	Development of ceramics from lava waste materials
2009-10	BSc	SUN	Bio-inspired canvas structure in hemp concrete
2009-10	BSc	Sapienza	Use of natural fibre in boat hulls production
2009-10	BSc	SUN	Lighting systems inspired to diatoms
2009-10	BSc	SUN	Bio-inspiration from fish on wind turbines
2009-10	BSc	SUN	Products in lava-derived ceramics
2009-10	MEng	Sapienza	Sustainable composites and panels using phormium fibres
2009-10	BSc	SUN	Jewel design from materials of marine origin
2009-10	BSc	SUN	Bio-inspired projects on a sustainable use of water
2009-10	BSc	SUN	Photo-luminescent disappearing wall
2009-10	BSc	SUN	Bio-inspired system as a support for fungal growth
2008-09	BSc	Sapienza	Acoustic emission study of the behaviour of nickel – lanthanum solid solutions for hydrogen storage
2008-09	BSc	SUN	Objects for transport applications inspired to diatoms
2008-09	BSc	SUN	Objects for energy generation inspired to diatoms
2008-09	BSc	SUN	Bio-inspired lunchbox
2008-09	BSc	SUN	Strategies and parasitic design for energetic autonomy
2008-09	BSc	SUN	Biomimetic junctions inspired to diatoms
2008-09	BSc	SUN	Bio-inspired jewels with shape memory alloys
2007-08	MEng	Sapienza	Phormium fibre reinforced composites
2007-08	BSc	SUN	Multifunctional tool for child disability
2007-08	BSc	SUN	Products and services for international co-operation
2006-07	BSc	SUN	Development of bio-inspired furniture concepts
2002-03	Erasmus	Reading Uni.	Impact performance of decorticated flax fibre composites and flax/E-glass fibre hybrids
2000-01	BSc	Nottingham Uni.	Compression moulding and mechanical performance of GMT/Twintex hybrids
2000-01	BSc	Nottingham Uni.	Analysis of impact damage on thermoplastic composites using thermal imaging
1999-00	Erasmus	Nottingham Uni.	Moulding optimisation of commingled E-glass polypropylene composites



1999-00	Erasmus	Nottingham Uni.	Relation between internal void content and impact energy absorption in commingled thermoplastic composites
1995-96	MEng	Politecnico Milano	Polymerisation control on Al/Al joints by acoustic emission

## CONSULTANCY ON RESEARCH PROJECTS

Year	Project	University	Subject
2013-14	BSc	Camerino	Materials for modular home
2012-13	MEng	Perugia	Nanocomposites with nanocellulose from natural fibres
2010-11	MEng	Sapienza	Hydrolysis process for poly(lactic acid) decomposition
2008-09	BSc	SUN	Autonomous watering system for domestic plants
2007-08	BSc	SUN	Lunch box for organic food with designed temporal cycles
1996-97	MEng	Sapienza	Single fibre fragmentation tests monitored by acoustic emission
1993-94	PhD	Sapienza	Mechanical performance of metal matrix composites produced by squeeze casting
1992-93	MEng	Sapienza	Acoustic emission monitoring of tensile tests on Al/Al <sub>2</sub> O <sub>3</sub> composites
1992-93	MEng	Sapienza	Acoustic emission and Weibull distribution of mechanical results during flexural tests on zirconia partially stabilised with yttria
1991-92	MEng	Sapienza	Post-impact damage monitoring on Kevlar/epoxy stitched composites by acoustic emission and image analysis

## OTHER TEACHING

Lecturing at courses for IFTS (upgrade of technical knowledge) for the Marche Region, year 2015-16 (32 hours on renewable materials and processes).

I was also lecturer in Italian technical high school (Age 15-18), as detailed below:

Year	Taught subject	School
1997-98	Mathematics	IPSIA-Busto & IPSIA- Gallarate
1993-94	Applied mechanics	ITIS "Marconi" Civitavecchia
1993-94	Thermal machines	IPSIA "Calamatta" Civitavecchia
1992-93	Mechanical technology	IPSIA "Minniti"-Guidonia
1992-93	Chemistry	IPSIA "Parodi Delfino" – Colleferro
1991-92	Industrial chemistry and chemical plants	IPSIA "Minniti"-Guidonia
1988-89	Mathematics and physics	Liceo Linguistico Paolo VI- Roma

Since **1982** private tutor of maths, physics, chemistry, Latin, French and English (~ 6000 hours total).

Also, activity as a technical translator, mainly from English to Italian, and proofreader of English and Italian texts.

## DEMONSTRATING

Year	University	Subjects
2005-06	Reading	Vibration projects
2004-05	Reading	Vibration projects
2002-03	Reading	Impact testing on composites
2000-01	Nottingham	Composites moulding, void content measurements, impact testing and IR thermography
1999-00	Nottingham	Composites moulding, void content measurements, impact testing and IR thermography
1998-99	Liverpool	Thermoelastic techniques
1997-98	Roma – Sapienza	Acoustic emission and IR thermography
1992-93	Roma – Sapienza	Acoustic emission testing
1991-92	Roma – Sapienza	Acoustic emission testing
1990-91	Roma – Sapienza	Acoustic emission testing

## PRESENTATIONS (seminars and conferences)

Member of the organising committee, invited speaker and chairman at 10<sup>th</sup> Colloque Cercle Etudes des Métaux (Saint Etienne 16-17 November 1995), 5<sup>th</sup> Course on "Smart Materials and Nanotechnologies" (Jesi, 26-29 August 2003), 6<sup>th</sup> Course on "Biomaterials, Tissue Engineering and Biomimetics" (Jesi, 31 August-3 September 2004), 2<sup>nd</sup> (Rome April 2009), 3<sup>rd</sup> (Rome October 2011), 4<sup>th</sup> (Rome October 2013) and 5<sup>th</sup> (Rome October 2015) Conference on Natural Fibre Composites (also co-editor of the proceedings).

Member of the organising committee EvoEnvironment 2009 (Tubingen April 2009) and Design in Mostra (Napoli June 2007, June 2009 and June 2010)

## INVITED SEMINARS

Month	Venue	Title
11-2016	Fermo (Riabita)	Natural fibres in the building sector
10-2016	IIS Ascoli	Natural fibres and DIY bioplastics
10-2016	Politecnico di Milano (2 seminars)	Bio-inspiration in design DIY bioplastics
5-2016	Firenze (Lorenzo de' Medici design school)	Biomimetics and bio-inspiration
4-2016	Sant'Anatolia (Museo della Canapa)	DIY materials from waste
4-2016	Fermo (ITIS Montani)	Biopolymers and composites for sustainability
2-2016	Arrone/Montefranco/Ferentillo (Primary schools)	Differentiated waste collection for children
1-2016	Pomezia (Primary school)	Differentiated waste collection for children
1-2016	Aversa (SUN)	DIY materials: bioplastics
11-2015	Camerino (Maths-UNICAM)	Lignocellulosic fibre composites applications
10-2015	Forlì (UNIBO) (2 seminars)	Lignocellulosic fibre composites
4-2015	Terni (BCT)	Design objects and sustainability
3-2015	Aversa (SUN)	Hierarchisation and the engineering of natural materials
2-2015	Johor Bahru (UTM) (2 seminars)	Plant fibre composites and agro-waste nanocomposites
2-2015	San Liberato (Primary school)	Biomimetics for children
2-2015	Alleppey (Kerala-India)	Challenges and opportunities for plant fibre composites
1-2015	Terni (BCT)	Differentiated waste collection for children (and adults): an experience
5-2014	Aquila (School of Restoration)	Hemp and other plant fibres
5-2014	Aversa (SUN)	Bio-inspiration and personality of materials
12-2013	Université de Poitiers	Plant fibre composites and other research interests
12-2013	Sealed Air (Rho)	Biomimetic packaging
11-2013	Università di Camerino (Ascoli)	Bio-inspiration as respectful knowledge of natural materials and structure personality
11-2013	Napoli (Museo della Scienza)	Bio-inspired strategies for 3R+
11-2013	Terni (BCT)	Hemp comeback
9-2013	Roma (Explora- Museo dei Bambini)	Lotus effect and gecko adhesion for children
9-2013	Rivalta Scrivia (Proplast)	Natural fibres and interface issues with polymer matrices
6-2013	Aversa (SUN)	Biomimetics and self-production of materials
6-2013	Terni (BCT)	Biomimetics: natural inspiration
5-2013	Roma – La Sapienza	Biodegradability and compostability: plastics and environment
4-2013	Aversa (SUN)	Resources from waste and the role of design
4-2013	Terni (BCT)	Waste from problem to resource
3-2013	Terni (Centro Guglielmi)	Sustainability and differentiated waste collection
1-2013	Prato (Camera di Commercio)	Sustainable, innovative and bio-inspired materials
1-2013	Terni (BCT)	The consumer between eco-packaging and zero-packaging
11-2012	Terni (BCT)	Nature and the use of waste for children (Triplaerre, la natura e gli scarti)
11-2012	Terni (BCT)	Repair is convenient
11-2012	Roma – La Sapienza	New materials based on nanocellulose extracted from plants
10-2012	Università di Camerino (Ascoli)	Biomimetics: lessons from nature
7-2012	Napoli (Biomimetics workshop) (2 lectures)	Diatoms: an engineering perspective Biomimetic formation and bio-inspiration
4-2012	Università di Camerino (Ascoli)	Bio-inspiration for sustainability from materials' culture

11-2011	Università dell'Aquila	Cellulosic fibres for structural composites
10-2011	Sant'Anatolia	Image and technical use of natural fibres
5-2011	Università di Perugia (Terni)	Plant fibre composites for impact-resistant applications
From 5-2011	Terni (various schools), Narni, Guardea, Orvieto, Acquasparta, Papigno	Differentiated waste collection for children (Triplaerre e i colori)
3-2011	Napoli (Città della Scienza)	Natural strategies and bio-inspiration
3-2011	Carsulae (Terni)	International Year of Forests and the fourth "R": repair (Triplaerre batte quattro)
3-2011	Terni (Centro Guglielmi)	Recycle and other R
2-2011	Terni (Centro Guglielmi)	Assembly/disassembly
2-2011	Terni (Centro Guglielmi)	Global production/local effect
1-2011	Terni (Centro Guglielmi)	Environmental and social sustainability
12-2010	Università di Bologna	Fibreglass degradation for presence of water or UV irradiation
6-2010	Napoli (Mostra d'Oltremare)	Biomimetic use and image of natural fibres and products
5-2010	Mestre (Centro Civico)	Natural fibres and sustainable materials
3-2010	Università dell'Aquila	Application of ligno-cellulosic fibres for manufacturing sustainable composites
2-2010	Terni (primary schools)	Biodiversity and biopolymers for children (Triplaerre, polymers and nature)
2-2010	Terni (GATR) (2 seminars)	Natural fibres for sustainable structures and materials Bio-inspired design of materials and structures
2-2010	Siracusa	Biomimetics between technology and architecture. When humans copy from nature
7-2009	Università di Bologna	Falling weight impact hysteresis curves from natural fibre composites
6-2009	Portsmouth Uni.	Activities on natural fibre composites
From 2-2009	Terni (primary schools) Venezia (primary schools)	Natural fibres for children
2-2008	Marcianise (SUN)	LCA, plant fibres, and natural design
12-2007	Senigallia	"Da D'Annunzio a Pirandello" by Mario Puccini
6-2007	Napoli (Advanced Design)	Indications from natural design
6-2007	Roma - La Sapienza	Laser vibrometry for non-destructive testing of materials
5-2007	Roma - La Sapienza	Materials for superconductive applications
3-2007	Roma - La Sapienza	Materials for superconductivity
2-2007	Marcianise (SUN)	Plant fibres for sustainable materials
2-2007	Liverpool Uni.	Selecting plant fibres for the reinforcement of impact-resistant composites
2-2006	Birmingham NEC (IPOT 06)	Laser vibrometry study of airflow sensors in crickets
11-2005	Marcianise (SUN)	Biomimetic materials design
8-2004	Jesi (Materials Science summer school) (2 lectures)	Insect nanosensors as smart biomaterials Middle ear Laser Doppler vibrometry
2-2004	Birmingham (Laser vibrometry workshop)	Laser vibrometry non-destructive testing of vegetal tissue
1-2004	Reading Uni.	Laser vibrometry non-destructive testing of vegetal tissue
9-2003	Worcester (BINDT)	Vibration tests for non-destructive control in apples and avocados
8-2003	Jesi (Materials Science summer school) (3 lectures)	Smart materials from nature: a biomimetic approach Smart gel actuators Microstructure and properties of natural fibre composites
4-2003	Reading Uni.	Impact properties of flax-epoxy laminates
3-2003	Reading Uni.	Coupling of gel and braided structures for smart actuators development
2-2003	Reading Uni.	Development of smart actuators from gel-in-braid structures
1-2003	Dante Alighieri Nottingham	Pius IX and the railways in Rome (1846-1870)
1-2002	OU – Milton Keynes	Natural fibre reinforced composites: state of the art
9-2001	NNC – Knutsford	Thermoelastic stress analysis for impact damage assessment on jute fibre reinforced laminates
2-2001	Nottingham Uni.	Some proposals to set a check-list for an Environmentally Friendly Christian
9-2000	Rutherford Appleton Lab. – Didcot	Thermoelastic investigation on impact damaged woven GRP composites

9-1999	Sheffield Uni.	Thermoelastic stress measurements on impacted glass mat/polyester woven composites
5-1999	Liverpool Uni.	Impact damage evaluation in glass and jute fibre woven composites using acoustic and thermoelastic techniques
2-1996	K.U. Leuven	Impact damage evaluation on kevlar/epoxy stitched composites using image analysis and acoustic emission monitoring during compression after impact (CAI) tests
11-1995	Università di Trento	Unrecoverable crack propagation on ceramic materials during bending tests observed by acoustic emission monitoring compared with fractography

## CONFERENCE PRESENTATIONS

Month	Venue	Title
9-2016	Poitiers (Conference on dynamic properties of natural fibre composites)	Fatigue properties of vegetable fibre composites: a review
10-2015	Rome (Sapienza: 5th Natural Fibres Conf.) (2 papers)	PCL-luffa fibre composites Basalt/flax vinylester hybrid composites
7-2015	Copenhagen (ICCM20)	Impact and post-impact properties of carbon/flax hybrid composites
10-2013	Rome (Sapienza: 4th Natural Fibres Conf.) (2 papers)	Falling weight impact of plant fibre composites Post-impact fatigue of hemp/epoxy composites
6-2012	Venezia (ECCM15)	Impact properties of different plant/basalt fibre hybrid laminates
6-2012	Torino (Nanomaterials and Composite Conf.)	Mechanical and impact properties on jute/wool felts hybrid composites
10-2011	Roma (Sapienza; 3rd Natural Fibres Conf.)	Acoustic emission analysis of hemp/aluminium fibre metal laminates
10-2011	Firenze (Conf. AIPnD)	Non-destructive characterisation of impact-damaged natural fibre composites
10-2009	Rome (Italian NDT Conference)	Indentation of hemp/PP laminates by acoustic emission Fractal profile of impact-damaged areas in woven GRP
4-2009	Rome (Natural Fibres Conference) (2 papers)	Effect of fibre architecture on impact properties of hemp/epoxy composites Lady's fingers fibres for composites
11-2008	Inverness (SDRC)	Biomimetic design for local issues
9-2008	Krakow (EWGAE)	Acoustic emission monitoring of plant fibre composites)
6-2008	Stockholm (ECCM13)	Characterization of indentation damage on carbon/epoxy laminates by means of acoustic emission
10-2007	Roma (Natural Fibres Conference) (2 papers)	Impact damage characterisation in flax/epoxy laminates Celery fibre/epoxy composites
10-2007	Milano (Italian NDT Conf.)	Detection of buried objects by IR thermography
7-2007	Brunel University (ICEM8 Conference)	E-glass/jute hybrid composites and their linearity of behaviour
9-2006	Stratford on Avon (BINDT)	Void measurement on balsawood using IR thermography
6-2006	Ancona (AIVELA Conf.)	Laser vibrometry study of airflow sensors in crickets
12-2005	London (ASAB Meeting)	Vibration of filiform hairs in house crickets ( <i>Acheta Domesticus</i> ) in response to induced airflow
10-2005	Milano (Italian NDT Conf.)	Vibration damage assessment on fruits
9-2004	Torquay (BINDT)	Vibration damage assessment on fruits
4-2003	Ravenna (Italian NDT Conf.)	Evaluation using IR thermography of post-impact damage in composites and automotive components
12-2002	Albuquerque (1 <sup>st</sup> Biomimetic Conference)	Development of smart actuators using <i>n</i> -isopropylacrylamide gels
9-2002	Reading Uni. (Biomimetics 7)	N-isopropylacrylamide gels for the creation of smart actuators
3-2002	Oxford Uni. (4 <sup>th</sup> MCM conference)	Void content measurements in thermoplastic composite materials through image analysis from optical micrographs
6-2001	Fiera di Rimini (EUROMAT Conf.)	Relation between moulding conditions and mechanical and impact properties in commingled E-glass/polypropylene composites
12-2000	Ford Auto – Dunton (ACP 2000 conference)	Impact properties of thermoplastic laminates for automotive applications
10-2000	Rome EUR (World NDT Conf.)	Characterisation of the damage area in glass fibre reinforced composites using AE planar localisation
5-1998	Vienna (European AE conf.) (2 papers)	A study of the reliability of neural network approach to manage acousto-ultrasonics results on bonded joints. Thermal damage analysis by combined thermographic inspection and AE localisation on honeycomb panels
9-1997	Padova (Italian NDT conf.)	Acoustic emission during post-impact tensile tests of woven composite laminates

9-1997	Nevers (EUROMECH 358)	Reliability of glass fibre-epoxy adhesive joints under repeated loading cycles through acoustic emission and acousto-ultrasonic technique
11-1996	Saint Etienne (Colloque CEM)	Thermal fatigue on ceramic coated cutting tips by acoustic emission
6-1996	Università di Parma (IGF conference)	Effect of transverse fatigue loading on the stiffness reduction of carbon reinforced composites
11-1995	Saint Etienne (Colloque CEM)	Correlation between fracture mechanics and acoustic emission detected during bending tests on ceramic materials by means of statistical methods
10-1995	Torino – Lingotto (Italian NDT conf.)	Structural significance of AE events distribution during tensile tests monitoring on composites
7-1995	Sundsvall (AECM5 conference)	AE monitoring during cure cycle of metal/metal (2024 T3 alloy) adhesive joint for quality assessment
7-1995	Università di Brescia (IGF conference)	Damage evaluation on metal matrix composites by acoustic emission monitoring
11-1994	CISE-Segrate (AE workshop)	Evaluation of the resistance of composite structures by acoustic emission
6-1994	Politecnico di Torino (IGF conference) (2 papers)	Bending mode fracture study with acoustic emission on yttria partially stabilised zirconia Analysis of scattering from a theoretical model in fracture mode of MMCs

## PUBLICATIONS

### Books

- Santulli C, *Biomimetica per tutti: Come far buon uso della bio-ispirazione, riappropriandosi dei materiali*, 2015, ASIN B017K8WVVG.
- Santulli C, *A thermoacoustic study of post-impact behaviour in composites*, VDM Verlag, 216 pp., 2010, ISBN 9783639223743.
- Santulli C, Milani L, *Biomimetica: la lezione della natura*, CiEsse Edizioni, 2012, 128 pp., ISBN 978-88-6660-026-8.

### Journal papers

- Suresh Kumar C, Arumugam V, Santulli C, Characterization of indentation damage resistance of hybrid composite laminates using acoustic emission monitoring, Accepted for publication on *Composites Part B*, December 2016.
- Valente M, Tirillò J, Quitadamo A, Santulli C, Paper fiber filled polymer. Mechanical evaluation and interfaces modification, Accepted for publication on *Composites Part B*, November 2016.
- Boria S, Santulli C, Sarasini F, Tirillò J, Caruso AP, Infantino M, Potential of wool felts in combination with glass fibres: mechanical and low velocity impact assessment, Accepted for publication on *Composites Part B*, October 2016.
- Zerani MF, Santulli C, Sperimentazione su biocomposito autoprodotta dagli scarti delle vongole per possibile utilizzo di design, *Scienze e Ricerche* n. 36, 1 September 2016, 54-61.
- Mat Jusoh MS, Santulli C, Yazid MY, Hussein NS, Ahmad HI, Effect of stacking sequence on the tensile and flexural properties of glass fibre epoxy composites hybridized with basalt, flax or jute fibres, *Material Science and Engineering with Advanced Research* 1 (4), 2016.
- Nisini E, Santulli C, Liverani A, Mechanical and impact characterization of hybrid composite laminates with carbon, basalt and flax fibres, Published online on *Composites Part B*, August 2016.
- Colotto G, Santulli C, Giacomucci R, Produzione di oggetti di design per il catering da plastiche a base di latte autoprodotte, *Scienze e Ricerche* n. 25, 15 March 2016, 79-88.
- Puglia D, Dominici F, Badalotti M, Santulli C, Kenny JM, Tensile, thermal and morphological characterization of Cocoa Bean Shells (CBS)/Polycaprolactone based composites, *Journal of Renewable Materials* 4 (3), 2016, 199-205
- Sfarra S, Regi M, Santulli C, Sarasini F, Tirillò J, Perilli S, An innovative nondestructive perspective for the prediction of the effect of environmental aging on impacted composite materials, *Journal of Engineering* 102, 2016, 55-76.
- Sfarra S, Ibarra-Castanedo C, Sarasini F, Santulli C, Maldague XPV, Basalt fibre laminates non-destructively inspected after low velocity impacts, *FME Transactions* 44 (4), 2016, 380-385.
- Santulli C, Use of natural fibres in the development of advanced composite materials, *Compositi Magazine* n.38, 2015, 43-47 (in Italian and in English).
- Sarasini F, Tirillò J, D'Altilia S, Valente T, Santulli C, Touchard F, Chocinski-Arnault L, Mellier D, Lampani L, Gaudenzi P, Damage tolerance of carbon/flax hybrid composites subjected to low velocity impact *Composites Part B* 91, 2016, 144-153.
- Jefferson AJ, Arumugam V, Santulli C, Effect of post-cure temperature and different reinforcements in adhesive bonded repair for damaged glass/epoxy composites under multiple quasi-static indentation loading, *Composite Structures* 143, 2016, 63-74.
- Jefferson AJ, Arumugam V, Santulli C, Jennifers A, Poorani M, Failure modes in fiberglass after multiple impacts: an acoustic emission and digital image correlation study, *Journal of Engineering and Technology* 8 (2), 2015, paper n.4.
- Sisira Sukumaran CP, Visakh PM, Santulli C,  $\beta$ -cyclodextrin nanosponges (NS) based natural rubber latex (NR) nanocomposites: tensile, thermal and morphological characterization, *Malaysian Polymer Journal* 10 (2), 2015, 75-82.
- Santulli C, Langella C, Study and development of concepts of auxetic structures in bio-inspired design, *International Journal of Sustainable Design* 3 (1), 2016, 20-37.
- Santulli C, Sajit S, Arumugam V, Failure mode discrimination in mode II fracture of glass/epoxy laminates using acoustic emission technique, *Materials Science and Engineering with Advanced Research* 1 (2), 2015, 16-25.
- Fragassa C, Santulli C, Pavlović A, Šljivić M, Improving performance and applicability of green composite materials by hybridization, *Contemporary Materials VI-1*, 2015, 35-43.
- Puglia D, Dominici F, Kenny JM, Santulli C, Governatori C, Tosti G, Benincasa P, Tensile behavior of thermoplastic films from wheat flours as function of raw material baking properties, *Journal of Polymers and the Environment* 24 (1), 2016, 37-47.
- Santulli C, Balestrieri F, Mazzetti C, De Mestres P, Thermomechanical and electrical characterisation of EVA polymer compounds for cable accessories, *European Journal of Physics B*, 88, 2015: 308.
- Jefferson Andrew J, Arumugam V, Saravanakumar K, Dhakal HN, Santulli C, Compression after impact

strength of repaired GFRP composite laminates under repeated impact loading, *Composite Structures* 113, 2015, 911-920.

Petrucci R, Nisini E, Puglia D, Sarasini F, Rallini M, Santulli C, Minak G, Kenny JM, Tensile and fatigue characterisation of textile cotton waste/polypropylene laminates, *Composites Part B* 81, Nov, 2015, 84-90.

Petrucci R, Dominici F, Santulli C, Puglia D, Kenny JM, Mechanical and thermal characterisation of poly(ethylene) and thermoplastic starch filled with keratin horn powder from bovine claws, *Materials Science and Engineering with Advanced Research* 1 (1), 2015.

Carnevale T, Santulli C, Esistono realmente materiali bio-ispirati? Uno studio in base ad alcune proprietà caratteristiche, *Scienze e Ricerche* n.7, May 2015, 109-113.

Sarasini F, Tirillò J, Puglia D, Kenny JM, Dominici F, Santulli C, Tofani M, De Santis R, Effect of different lignocellulosic fibres on poly( $\epsilon$ -caprolactone)-based composites for potential applications in orthotics, *RSC Advances* 5, 2015, 23798-23809.

Kakakasery J, Arumugam V, Abdul Rauf K, Bull D, Chambers AR, Scarponi C, Santulli C, Cure cycle effect on impact resistance under elevated temperatures in carbon prepreg laminates investigated using acoustic emission, *Composites Part B* 75, 2015, 298-306.

Fortunati E, Aluigi A, Armentano I, Morena F, Emiliani C, Martino S, Santulli C, Torre L, Kenny JM, Puglia D, Keratins extracted from Merino wool and Brown Alpaca fibres: Thermal, mechanical and biological properties of PLLA based biocomposites, *Materials Science and Engineering: C* 47, 1 February 2015, 394-406

Rognoli V, Santulli C, L'approccio della fratelli Guzzini ai materiali, *AIS Design Storia e Ricerche* 4, 2014, ID:0405.

Arumugam V, Adhithya Plato Sidharth A, Santulli C, Characterization of failure modes in compression-after impact of glass-epoxy composite laminates using acoustic emission monitoring, *Journal of the Brazilian Society of Mechanical Sciences and Engineering* 37 (5), 2015, 1445-1455.

Sferra S, Avdelidis NP, Ibarra-Castanedo C, Santulli C, Theodorakeas P, Bendada A, Paoletti D, Kouli M, Maldague X, Surface and subsurface defects detection in impacted composite materials made by natural fibers, using non-destructive testing methods, *International Journal of Composite Materials* 2014, 4(5A), 1-9.

Petrucci R, Santulli C, Puglia D, Nisini E, Sarasini F, Tirillò J, Torre L, Minak G, Kenny JM, Impact and post-impact damage characterisation of hybrid composite laminates based on basalt fibres in combination with flax, hemp and glass fibres manufactured by vacuum infusion, *Composites Part B* 69, 2015, 507-515.

Sferra S, Ibarra-Castanedo C, Santulli C, Paoletti D, Maldague X, Monitoring of jute/hemp fiber hybrid laminates by non-destructive testing techniques, *Science and Engineering of Composite Materials*, online from November 2014.

Vasconcellos D, Sarasini F, Touchard F, Chocinski-Arnault L, Pucci M, Santulli C, Tirillò J, Fatigue post-impact d'un composite à renfort tissé de fibres de chanvre et matrice époxy, *Matériaux & Techniques* 102 (3), 2014.

Arthurs B, Bull DJ, Arumugam V, Chambers AR, Santulli C, Porosity effect on residual flexural strength following low energy impact of carbon fibre composites, *Polymers and Polymer Composites* 23, 2015, 205-212.

Aluigi A, Tonetti C, Rombaldoni F, Puglia D, Fortunati E, Armentano I, Santulli C, Torre L, Kenny JM, Keratins extracted from Merino wool and Brown Alpaca fibres as potential filler for PLLA-based biocomposites, *Journal of Materials Science* 49 (18), 2014, 6257-6269.

Suvarna R, Arumugam V, Bull DJ, Chambers AR, Santulli C, Effect of temperature on low velocity impact damage and post-impact flexural strength of CFRP assessed using ultrasonic c-scan and micro-focus computed tomography, *Composites Part B* 66, 2014, 58-64.

de Vasconcellos DS, Sarasini F, Touchard F, Chocinski-Arnault L, Pucci M, Santulli C, Tirillò J, Iannace S, Sorrentino L, Influence of low velocity impact on fatigue behaviour of woven hemp fibre reinforced epoxy composites, *Composites Part B* 66, 2014, 46-57.

Fortunati E, Luzi F, Puglia D, Dominici F, Santulli C, Kenny JM, Torre L, Investigation of thermo-mechanical, chemical and degradative properties of PLA-limonene films reinforced with cellulose nanocrystals extracted from Phormium tenax leaves, *European Polymer Journal* 56, 2014, 77-91.

Santulli C, Puglia D, Rallini M, Visakh PM, Kenny JM, Thomas M, Natural rubber composites filled with a low volume of crab chitin whiskers: Mechanical and thermal characterization, *Malaysian Polymer Journal* 9 (1), 2014.18-23.

Luzi F, Fortunati E, Puglia D, Lavorgna M, Santulli C, Kenny JM, Torre L, Optimized extraction of cellulose nanocrystals from pristine and carded hemp fibres, *Industrial Crops Products*, 56, 2014, 175-186.

Dhakar HN, Arumugam V, Aswinraj A, Santulli C, Zhang ZY, Lopez-Arraiza A, Influence of temperature and impact velocity on the impact response of jute/UP composites, *Polymer Testing* 35, May 2014, 10-19.

Balan R, Arumugam V, Abdul Rauf K, Adhithya Plato Sidharth A, Santulli C, Estimation of residual flexural strength of unidirectional CFRP composite laminates under repeated impact load, *Journal of Composite Materials* 49, 2015, 713-722.

Akil H Md, Santulli C, Sarasini F, Tirillò J, Valente T, Environmental effects on the mechanical behaviour of pultruded jute/glass fibre-reinforced polyester hybrid composites, *Composites Science and Technology* 94, 2014, 62-70.

Valente M, Sarasini F, Pulci G, Marra F, Tirillò J, Santulli C, Static and dynamic behaviour of hybrid compos-



ites, JEC Composites Magazine n. 85, Dec. 2013, 51-60.

Arumugam V, Adhithya Plato Sidharth A, Santulli C, Failure modes characterization of impacted CFRP laminates under compression loading using acoustic emission, Journal of Composite Materials 48 (28), 2014, 3457-3468.

Boominathan R, Arumugam V, Santulli C, Adhithya Plato Sidharth A, Anand Sankar R, Sridhar BTN, Acoustic emission characterization of the temperature effect on falling weight impact damage in carbon/epoxy laminates, Composites Part B 56, 2014, 891-898.

Fortunati E, Luzi F, Puglia D, Terenzi A, Vercellino M, Visai L, Santulli C, Torre L, Kenny JM, Ternary PVA nanocomposites containing cellulose nanocrystals from different sources and silver particles: Part II, Carbohydrate Polymers 97 (2), 2013, 837-848.

Sarasini F, Puglia D, Fortunati E, Kenny JM, Santulli C, Effect of fiber surface treatments on thermo-mechanical behavior of poly(lactic acid)/phormium tenax composites, Journal of Polymers and the Environment 21 (3), 2013, 881-891.

Fortunati E, Puglia D, Luzi F, Santulli C, Torre L, Kenny JM, Binary PVA bio-nanocomposites containing cellulose nanocrystals extracted from different natural sources: Part I, Carbohydrate Polymers 97 (2), 2013, 825-836.

Santulli C, Sarasini F, Tirillò J, Valente M, Valente T, Caruso AP, Infantino M, Nisini E, Minak G, Mechanical behavior of jute cloth/wool felts hybrid laminates, Materials and Design 50, 2013, 309-321.

Fortunati E, Puglia D, Monti M, Santulli C, Maniruzzaman M, Foresti ML, Vazquez A, Kenny JM, Okra (*Abelmoschus Esculentus*) fibre based PLA composites: mechanical behaviour and biodegradation, Journal of Polymers and the Environment 21 (3), 2013, 726-737.

Petrucci R, Santulli C, Puglia D, Sarasini F, Torre L, Kenny JM, Mechanical characterisation of hybrid composite laminates based on basalt fibres in combination with flax, hemp and glass fibres manufactured by vacuum infusion, Materials and Design 49, 2013, 728-735.

Santulli C, Langella C, + Design - Waste: a project for upcycling refuse using design tools, International Journal of Sustainable Design 2 (2), 2013, 105-127.

Sferra S, Ibarra-Castanedo C, Santulli C, Sarasini F, Ambrosini D, Paoletti D, Maldague X, Eco-friendly laminates: from the indentation to nondestructive evaluation by optical and infrared monitoring techniques, Strain 49 (2), 2013, 175-189.

Puglia D, Santulli C, Sarasini F, Kenny JM, Valente T, Thermal and mechanical characterization of phormium tenax reinforced polypropylene composites, Journal of Thermoplastic Composite Materials 27 (11), 2014, 1493-1503.

Bismarck A, Burgstaller C, Lee KY, Madsen B, Mussig J, Santulli C, Scarponi C, Recent Progress in Natural Fibre Composites: Selected Papers from the 3rd International Conference on Innovative Natural Fibre Composites for Industrial Applications, Ecomcomp 2011 and BEPS 2011, Journal of Biobased Materials and Bioenergy 6 (4), 2012, 343-345.

Santulli C, Matrix cracking detection by acoustic emission in polymer composites and counts/duration ratio, E-Journal of Non-Destructive Testing 17 (11), November 2012.

Sferra S, Ibarra-Castanedo C, Santulli C, Paoletti A, Paoletti D, Sarasini F, Bendada A, Maldague X, Falling weight impacted glass and basalt fibre woven composites inspected using non-destructive techniques, Composites Part B 45 (1), 2013, 601-608.

Fortunati E, Puglia D, Monti M, Santulli C, Kenny JM, Extraction of cellulose nanocrystals from Phormium tenax fibres, Journal of Polymers and the Environment 21 (2), 2013, 319-328.

Fortunati E, Puglia D, Monti M, Santulli C, Maniruzzaman M, Kenny JM, Cellulose nanocrystals extracted from okra fibres in PVA nanocomposites, Journal of Applied Polymer Science 128 (5), 2013, 3220-3230.

Puglia D, Monti M, Santulli C, Sarasini F, De Rosa IM, Kenny JM, Effect of alkali and silane treatments on mechanical and thermal behavior of Phormium tenax fibres, Fibres and Polymers 14 (3), 2012, 423-427.

Santulli C, Kuan HT, Sarasini F, De Rosa IM, Cantwell WJ, Damage characterisation on PP-hemp/aluminium fibre metal laminates using acoustic emission, Journal of Composite Materials, Journal of Composite Materials 47 (18), 2013, 2265-2274

Asokan R, Arumugam V, Santulli C, Barath Kumar S, Joseph Stanley A, Acoustic emission monitoring of repaired composite laminates, Journal of Reinforced Plastics and Composites Journal of Reinforced Plastics and Composites 31(18), 2012, 1226-1235.

Asokan R, Arumugam V, Santulli C, Barath Kumar S, Joseph Stanley A, Investigation of the strength of the failure modes in GFRP laminates using acoustic emission monitoring, International Journal of Polymers and Technologies 3 (2), 2011, 57-65.

Fortunati E, Puglia D, Santulli C, Sarasini F, Kenny JM, Biodegradation of phormium tenax/poly(lactic acid) composites, Journal of Applied Polymer Science 125 (S2), 2012, E562-E572.

Santulli C, Selezione dei materiali e bio-ispirazione, Scienza e filosofia n.6, dicembre 2011, pp. 17-24.

Ghelli D, D'Ubaldo O, Santulli C, Nisini E, Minak G, Falling weight impact and indentation damage characterisation of sandwich panels for marine applications, Open Journal of Composite Materials 2 (1), 2012, 8-14.

Visakh PM, Monti M, Puglia D, Rallini M, Santulli C, Sarasini F, Thomas S, Kenny JM, Mechanical and thermal properties of crab chitin reinforced carboxylated SBR composites, Express Polymer Letters 6(5),

2012, 396-409.

- Fortunati E, Monti M, Puglia D, Kenny JM, Torre L, Santulli C, Bioplastic nano-reinforcement extracted from phormium leaf fibers, *Plastic Research Online* November 2011, DOI: 10.1002/spepro.003937
- Santulli C, Sarasini F, Acoustic emission for monitoring natural fibre composites, *JEC Composites Magazine* n.68, October 2011, 81-83.
- Santulli C, Sarasini F, Puglia D, Kenny JM, Adding plant fibers improves thermomechanical properties of poly(lactic acid) matrix, *Plastic Research Online* September 2011, DOI 10.1002/spepro.003850
- De Rosa IM, Dhakal HN, Santulli C, Sarasini F, Zhang Z, Post-impact static and cyclic flexural characterisation of hemp fibre reinforced laminates, *Composites Part B* 43 (3), 2012, 1382-1396.
- Arumugam V, Kumar S, Santulli C, Sarasini F, Stanley AJ, Identification of failure modes in composites from clustered acoustic emission data using pattern recognition and wavelet transformation, *Arabian Journal for Science and Engineering* 38 (5), 2013, 1087-1102.
- Arumugam V, Kumar S, Santulli C, Stanley AJ, Effect of fiber orientation in uni-directional glass epoxy laminate using acoustic emission monitoring, *Acta Metallurgica Sinica (English letters)* 24 (5), 2011, 351-364.
- De Rosa IM, Iannoni A, Kenny JM, Puglia D, Santulli C, Sarasini F, Terenzi A, Poly(lactic acid)/phormium tenax composites: morphology and thermo-mechanical behaviour, *Polymer Composites* 32 (9), 2011, 1362-1368.
- De Rosa IM, Marra F, Pulci G, Santulli C, Sarasini F, Tirillò J, Valente M, Post-impact mechanical characterisation of glass and basalt woven fabric laminates, *Applied Composite Materials* 19 (3-4), 2012, 475-490.
- De Rosa IM, Dell'Era A, Pasquali M, Santulli C, Sarasini F, Acoustic emission monitoring of activation behavior of LaNi<sub>5</sub> hydrogen storage alloy, *Science and Technology of Advanced Materials* 12 (4), 2011, 045004.
- Arumugam V, Kumar S, Santulli C, Sarasini F, Stanley AJ, A global method for the identification of failure modes in fibreglass using acoustic emission, *Journal of Testing and Evaluation* 39 (5), 2011, 954-966.
- Santulli C, Sarasini F, Acoustic emission for monitoring of composite laminates (in Italian and in English), *Compositi* June 2011, 40-48.
- Kuan HTN, Cantwell WJ, Md Akil H, Santulli C, The Fracture Properties of Environmental-Friendly Fiber Metal Laminates, *Journal of Reinforced Plastics and Composites* 30 (6), 2011, 499-508.
- Santulli C, Mechanical characterisation of n-isopropylacrylamide (NIPA) gels for use in smart actuators, *Malaysian Polymer Journal* 6 (1), 2011, 39-50.
- De Rosa IM, Marra F, Pulci G, Santulli C, Sarasini F, Tirillò J, Valente M, Post-impact mechanical characterisation of E-glass/basalt woven fabric interply hybrid laminates, *Express Polymer Letters* 5 (5), 2011, 449-459.
- De Rosa IM, Kenny JM, Maniruzzaman Mohd, Moniruzzaman M, Monti M, Puglia D, Santulli C, Sarasini F, Effect of chemical treatments on the mechanical and thermal behaviour of okra (*Abelmoschus Esculentus*) fibres, *Composites Science and Technology* 71 (2), 2011, 246-254.
- Santulli C, A step indentation loading procedure to monitor the effect of impact damage on E-glass/polyester woven laminates using acoustic emission, *E-Journal of Nondestructive Testing* 15 (11), November 2010.
- Santulli C, Langella C, Hybridisation between technology and biology in design for sustainability, *International Journal of Sustainable Design* 1 (3), 2010, 293-304.
- Santulli C, Langella C, Introducing students to bio-inspiration and biomimetic design: a workshop experience, *International Journal of Technology and Design Education*, 21 (4), 2011, 471-485.
- Caruso AP, De Rosa IM, Santulli C, Sarasini F, Planar indentation of jute/hemp fibre hybrid laminates monitored by acoustic emission, *E-Journal of Nondestructive Testing* 15 (7), July 2010.
- De Rosa IM, Kenny JM, Puglia D, Santulli C, Sarasini F, Tensile behavior of New Zealand Flax (Phormium tenax) fibers, *Journal of Reinforced Plastics and Composites* 29 (23), 2010, 3450-3454.
- De Rosa IM, Santulli C, Sarasini F, Mechanical characterization of untreated waste office paper/woven jute fabric hybrid reinforced epoxy composites, *Journal of Applied Polymer Science* 119 (3), 2011, 1366-1373.
- Akil Md H, De Rosa IM, Santulli C, Sarasini F, Flexural behavior of pultruded jute/glass and kenaf/glass hybrid composites monitored using acoustic emission, *Materials Science and Engineering A* 527 (12), 2010, 2942-2950.
- De Rosa IM, Santulli C, Sarasini F, Mechanical and thermal characterization of epoxy composites reinforced with random and quasi-unidirectional untreated phormium tenax leaf fibers, *Materials and Design* 31 (5), 2010, 2397-2405.
- De Rosa IM, Kenny JM, Puglia D, Santulli C, Sarasini F, Morphological and thermal characterisation of okra (*Abelmoschus Esculentus*) fibres as potential reinforcement in polymer composites, *Composites Science and Technology* 70 (1), 2010, 116-122.
- Moniruzzaman Md, Maniruzzaman Mohd, Gafur Ma, Santulli C, Lady's finger fibres for possible use as a reinforcement in composite materials, *Journal of Biobased Materials and Bioenergy* 3 (3), 2009, 286-290.
- Santulli C, Caruso AP, Effect of fibre architecture on falling weight impact properties of hemp/epoxy fibre laminates, *Journal of Biobased Materials and Bioenergy* 3 (3), 2009, 291-297.
- Santulli C, Jeronimidis G, De Rosa IM, Sarasini F, Mechanical and falling weight impact behaviour of uni-directional phormium-epoxy laminates, *eXPRESS Polymer Letters* 3 (10), 2009, 650-656.
- De Rosa IM, Santulli C, Sarasini F, Characterization of indentation damage on carbon/epoxy laminates by

means of acoustic emission and IR thermography, *E-Journal of Non Destructive Testing* 14 (5), May 2009.

De Rosa IM, Santulli C, Sarasini F, Acoustic emission for monitoring the mechanical behaviour of natural fibre composites: a literature review, *Composites Part A* 40 (9), 2009, 1456-1469.

Santulli C, Caruso AP, A Comparative Study on Falling Weight Impact Properties of Jute/Epoxy and Hemp/Epoxy Laminates, *Malaysian Polymer Journal* 4 (1), 2009, 19-29.

Dalu L, De Rosa I, Santulli C, Sarasini F, Acoustic emission monitoring of cyclic flexural tests on phormium/epoxy composites, *E-journal of Non Destructive Testing* 14 (2), February 2009.

De Rosa IM, Santulli C, Sarasini F, Valente M, Post-impact damage characterization of hybrid configurations of jute/glass polyester laminates using acoustic emission and IR thermography, *Composites Science and Technology* 66 (7-8), 2009, 1142-1150.

Donnelly N, Bibas A, Jiang D, Bamiou DE, Santulli C, Jeronimidis G, Fitzgerald O' Connor A, The effect of cochlear implant electrode insertion on middle ear function as measured by intra-operative Laser Doppler Vibrometry, *Journal of Laryngology and Otology* 123 (7), 2009, 723-729.

De Rosa IM, Santulli C, Sarasini F, Valente M, Effect of loading-unloading cycles on impact-damaged jute/glass hybrid laminates, *Polymer Composites* 30 (12), 2009, 1879-1887.

Santulli C, Marzinotto M, Mazzetti C, Thomas S, Influence of content and diameter of fibres and chemical treatment on the dielectric properties of oil palm fibres-rubber composites, *Science and Engineering of Composite Materials* 16 (2), 2009, 77-88.

Santulli C, Falling weight impact damage characterisation on flax/epoxy laminates, *International Journal of Materials and Product Technology* 36 (1-4), 2009, 221-228.

Caneva C, De Rosa IM, Santulli C, Sarasini F, Effect of untreated celery fibres on epoxy matrix composites, *International Journal of Materials and Product Technology* 36 (1-4), 2009, 21-29.

De Rosa IM, Santulli C, Sarasini F, Natural fiber composites monitored by acoustic emission, *Journal of Acoustic Emission* 26, 2008, 220-228.

Santulli C, Jeronimidis G, Microscopic lens thermography for the observation of features in light cardboard, *E-Journal of Non-Destructive Testing* 13 (6), June 2008.

Santulli C, IR thermography for the detection of buried objects: a short review, *E-Journal of Non-Destructive Testing* 12 (12), December 2007.

Johnson E, Bonser R, Jeronimidis G, Santulli C, The morphology and mechanics of Orthopteroidea mechanosensors, *Comparative Biochemistry and Physiology A* 146, 2007, S135.

Jiang D, Bibas A, Santulli C, Jeronimidis G, Fitzgerald O' Connor A, The equivalent noise level generated by drilling onto the ossicular chain as measured by laser Doppler vibrometry: a temporal bone study, *Laryngoscope* 117 (6), 2007, 1040-1045.

Santulli C, Review. Impact properties of glass/plant fibre hybrid laminates, *Journal of Materials Science* 42, 2007, 3699-3707.

Santulli C, Jeronimidis G, Development of a method for nondestructive testing of fruits using scanning laser vibrometry (SLV), *E-Journal of Non-Destructive Testing* 11 (10), October 2006.

Santulli C, Finn Seidel R, Jeronimidis G, Scanning LDV for Vibration Measurement of Filiform Hairs in Crickets in Response to Induced Airflow, *SPIE Proceedings* 645, E3450.

Santulli C, Jeronimidis G, Measurement of surface void content on balsa wood using IR thermography, *E-journal of Non-Destructive Testing* 11 (6), June 2006.

Santulli C, Post-impact flexural tests on jute/polyester laminates monitored by acoustic emission, *Journal of Materials Science* 41, 2006, 1255-1260.

Santulli C, Patel SI, Jeronimidis G, Davis FJ, Mitchell GR, Development of smart variable stiffness actuators using polymer hydrogels, *Smart Materials and Structures* 14, 2005, 434-440.

Santulli C, Janssen M, Jeronimidis G, Partial replacement of E-glass fibres with flax fibres in composites and effect on falling weight impact performance, *Journal of Materials Science* 40, 2005, 3581-3585.

Santulli C, Critical length measurements in carbon fibres during single fibre fragmentation tests using acoustic emission, *Journal of Materials Science* 39 (8), 2004, 2905-2907.

Santulli C, Impact damage characterisation of thermoplastic matrix composites using transmission transient thermography, *Nondestructive Testing and Evaluation* 19 (2), 2003, 79-90.

Santulli C, IR Thermography for impact damage evaluation of automotive composites and components, *E-Journal of Non-Destructive Testing* 9 (9), September 2003 (in Italian in *Giornale delle Prove Non Distruttive. Monitoraggio and Diagnostica* 24, 2003, n.3, 27-31).

Santulli C, Study of impact hysteresis curves on E-glass reinforced polypropylene laminates, *Journal of Materials Science Letters* 22, 2003, 1557-1562.

Santulli C, Alternatives for a hand lay-up composite structure: E-glass/epoxy adhesive joint or tapered laminate, *Journal of Materials Science Letters* 21, 2002, 1959-1963.

Santulli C, Garcia Gil R, Long AC, Clifford MJ, Void content measurements in thermoplastic composite materials through image analysis from optical micrographs, *Science and Engineering of Composite Materials* 10 (2), 2002, 77-90.

Santulli C, IR thermography study of the effect of moulding parameters on impact resistance in E-glass/polypropylene commingled laminates, *NDT&International* 35, 2002, 377-383.

Santulli C, Billi F, Normal and off-axis compression tests of biocompatible titanium dental implants monitored by acoustic emission, *Journal of Materials Science Letters* 21, 2002, 727-730.

Santulli C, Brooks R, Long AC, Rudd CD, Influence of micro-structural voids on the mechanical and impact properties in commingled E-glass/polypropylene thermoplastic composites, *Journal of Materials: Design and Applications Part L* 216, 2002, 85-100.

Santulli C, Brooks R, Long AC, Rudd CD, Warrior NA, Impact properties of compression moulded commingled E-glass/polypropylene composites, *Plastics, Rubber and Composites* 31, 2002, 270-277.

Santulli C, Post-impact damage characterisation in natural fibre reinforced composites using acoustic emission, *NDT&International* 34 (6), 2001, 531-536.

Santulli C, Cantwell WJ, Impact damage characterisation on jute/polyester composites, *Journal of Materials Science* 20, 2001, 477-479.

Santulli C, Mechanical and impact properties of untreated jute fabric reinforced polyester laminates compared with different E-glass fibre reinforced laminates, *Science and Engineering of Composite Materials* 9 (3), 2000, 177-188.

Santulli C, Thermoelastic analysis of phase transition in Ni-Ti shape memory alloys, *Journal of Materials Science Letters* 19 (12), 2000, 1071-1072.

Santulli C, Lucia AC, Relation between acoustic emission analysis during cure cycle and bonded joints performances, *NDT&International* 32 (6), 1999, 333-341.

Santulli C, Billi F, Control of tensile behaviour on shape memory alloys by means of acoustic and thermal emission techniques, *Bulletin du Cercle d'Etudes des Metaux*, 16 (16), November 1997, 12.1-12.14.

Billi F, Santulli C, Fatigue thermique sur plaquettes céramiques pour outils de coupe par émission acoustique, *Matériaux et techniques* 85 (9), 1997, 27-36.

Lucia AC, Santulli C, Study of mechanical behaviour in shape memory alloys through adiabatic thermal emission and acoustic emission technique, *Journal de Physique IV* 7, Nov. 1997, Colloque C5, C637-642.

Billi F, Santulli C, Thermal fatigue on ceramic coated cutting tips by acoustic emission, *Bulletin du Cercle d'Etudes des Metaux*, 16 (13), November 1996, 14.1-14.17.

Gariboldi E, Santulli C, Stivali F, Vedani M, Evaluation of damage in MMC's by acoustic emission technique, *Materials Science Forum*, 217-222 (3), 1996, 1461-1466.

Gariboldi E, Santulli C, Stivali F, Vedani M, Evaluation of tensile damage in particulate-reinforced MMCs by acoustic emission, *Scripta Materialia* 35 (2), 1996, 273-277.

Billi F, Santulli C, Correlation between fracture mechanics and acoustic emission detected during bending tests on ceramic materials by means of statistical methods, *Bulletin du Cercle d'Etudes des Metaux* 16 (11), November 1995, 20.1-20.22.

Caneva C, Olivieri S, Santulli C, Bonifazi G, Damage evaluation on advanced stitched composites under impact loads by means of image analysis and acoustic emission, *Composite Structures* 25 (1-4), 1993, 121-128.

### Invited chapters

Pavlovic A, Fragassa C, Santulli C, Boria S, Modelling of falling weight impact behaviour of hybrid basalt/flax vinylester composites, DRAF2016, Ischia, September 2016.

Santulli C, Nanoclay Based Natural Fibre Reinforced Polymer Composites: Mechanical and Thermal Properties. in: *Nanoclay reinforced polymer composites natural fibre/nanoclay hybrid composites*, Jawaid M, Qaiss A El Kacem, Bouhfid R. (eds.), Springer, 2016, 81-102, ISBN 978-981-10-0949-5.

Santulli C, Puglia D, Kenny JM, Biopolymers Directly Developed from Biomasses from Agrowaste Sources, *Handbook of Sustainable Polymers: Structure and Chemistry*, chapter 13 (in press).

Puglia D, Fortunati E, Santulli C, Kenny JM, Review on multifunctional ternary polymeric nanocomposites based on cellulosic nanoreinforcements, in "Nanocellulose/ Polymer Nanocomposites: From Fundamental to Applications" (in press)

Santulli C, Sarasini F, Fortunati E, Puglia D, Kenny JM, Okra Fibres as Potential Reinforcement in Biocomposites, Chap. 11 in "Biomass and Bioenergy. Applications", Hakeem KR, Jawaid M, Rashid U (Eds.), Springer, 2014, ISBN 978-3-319-07577-8.

Sarasini F, Santulli C, Non destructive testing (NDT) of natural fibre composites, Chap. 10 in "Natural Fibre Composites: Materials, Processes and Properties" Hodzic A, Shanks R (Eds.), Woodhead Publishing, 2014, 408 pages, ISBN 978-0-857-09922-8, 273-302.

Santulli C, Sarasini F, Thermosetting biopolymers reinforced with natural fibres, Chap. 6 in "New developments in polymer composite research" S. Laske and A. Witschnigg (eds.), Nova Science Publishers, New York, 2013, 197-212.

Sarasini F, Santulli C, Matrix in advanced composites: Vinylester, chap. 7 in "Advanced fibre-reinforced polymer (FRP) composites for structural applications" Woodhead Publishing: editor J Bai, ISBN 0 85709 418 1.

Santulli C, Starting from nature. Il design che guarda alla natura, in "Design intersections, il pensiero progettuale intermedio", a cura di P. Ranzo e C. Langella, Edizioni Franco Angeli, 2012, ISBN 978-8-820411442.

Santulli C, Sarasini F, Acoustic Emission for Low Velocity Impact Damage Characterization on Polymer Composites, chap. 8 in "Theory and uses of acoustic emissions", editor JK Burnett, Nova Publishers, 2011, ISBN

978-1-61209-960-6.

Santulli C, A biomimetic approach to the production of sustainable structural composites using plant fibres, chap. 5 in "Biologically inspired textiles", editors Ellison MS and Abbott AG, Woodhead Publishing 2008, ISBN 184569 247 0.

Santulli C, Biomimetics clues for tissue engineering materials, Advanced Biomaterials, Biomimetics, Tissue Engineering, 6<sup>th</sup> Summer School, Jesi, August-September 2004.

Santulli C, Biomimetic interest and possibilities for replacement of glass fibres with plant fibres in composite materials: the case of impact damage, Smart Materials and Nanotechnologies, 5<sup>th</sup> Summer School, Jesi, August 2003.

### Conference papers

Muzzu A, Santulli C, Aymerich F, Possible use of luffa fibres in composites with PCL: opportunities and challenges, 5<sup>th</sup> Int. Conference on Natural Fibre Composites, Rome October 2015.

Sarasini F, Tirillò J, D'Altilla S, Valente T, Santulli C, Touchard f, Chocinski-Arnault L, Mellier D, Lampani L, Gaudenzi P, Damage tolerance of carbon/flax hybrid composites, 5<sup>th</sup> Int. Conference on Natural Fibre Composites, Rome October 2015.

Pavlovic A, Fragassa C, Santulli C, Experimental analysis of mechanical properties of composites reinforced by flax and basalt natural fibers, 5<sup>th</sup> Int. Conference on Natural Fibre Composites, Rome October 2015.

Sarasini F, Boria S, Tirillò J, Santulli C, Caruso AP, Infantino M, Mechanical and impact properties of glass/wool felts hybrid laminates: experimental characterisation and numerical simulation, 5<sup>th</sup> Int. Conference on Natural Fibre Composites, Rome October 2015.

Kombaya Touckia Linin EM, Bourdet A, Mauer C, Chevalier L, Enders S, Turner JA, Santulli C, Esposito A, Extraction of fibres from *Jatropha Curcas Linnaeus*, 5<sup>th</sup> Int. Conference on Natural Fibre Composites, Rome October 2015.

Valente M, Tirillò J, Quitadamo A, Santulli, Use of recycled milled-paper in HDPE matrix composites, 5<sup>th</sup> Int. Conference on Natural Fibre Composites, Rome October 2015.

Sarasini F, Tirillò J, Santulli C, Valente T, Lampani L, Gaudenzi P, Falling-weight impact and post-impact flexural performance of hybrid flax/carbon laminates, ICCM20, Copenhagen, July 2015.

Fortunati E, Puglia D, Luzi F, Dominici F, Santulli C, Torre L, Kenny JM, Combined effect of cellulose nanocrystals extracted from phormium tenax leaves and limonene on the properties of PLA films, COST conference, Rome February 2014.

Santulli C, Boimau K, Tensile properties of treated and untreated borassus (*Borassus flabellifer*) fibres for composites production, 4<sup>th</sup> Int. Conference on Natural Fibre Composites, Rome October 2013.

Puglia D, Fortunati E, Luzi F, Torre L, Santulli C, Kenny JM. Effect of cellulose nanocrystals extracted from phormium leaves on the final properties of limonene modified PLA films, BIOPOL2013, Rome October 2013.

Luzi F, Fortunati E, Puglia D, Terenzi A, Vercellino L, Visai L, Santulli C, Torre L, Kenny JM, Ternary PVA nanocomposites containing cellulose nanocrystals and silver nanoparticles, 9th INSTM Conference, Bari July 2013.

Valente M, Tirillò J, Sarasini F, Santulli C, Ferrante L, Sorrentino L. Cioffi S, Toughening of carbon fibre reinforced laminates through different configurations of interlayered basalt fibre laminates, 9th INSTM Conference, Bari July 2013.

Iacobellis S, Scarponi C, Sarasini F, Santulli C, Design of a Naca Cowling in Woven Hemp Fabric Reinforced Epoxy Composite", 1<sup>st</sup> International Conference of Natural Fibers, Guimaraes, Portugal, June 2013.

Petrucci R, Santulli C, Puglia D, Sarasini F, Kenny JM, Mechanical characterisation of hybrid composite laminates based on basalt fibres in combination with flax, hemp and glass fibres manufactured by vacuum infusion, COMPOTEC 2013, Carrara, February 2013.

Santulli C, Sarasini F, Tirillò J, Valente T, Valente M, Ferrante L, Caruso AP, Infantino M (in Italian), Use of carded wool felts coupled with jute clothes for hybrid composites, AIMAT Conference, Gaeta September 2012.

Petrucci R, Nisini E, Ghelli D, Santulli C, Puglia D, Sarasini F, Minak G, Kenny JM, Mechanical and impact characterisation of hybrid composite laminates based on flax, hemp, basalt and glass fibers produced by vacuum infusion, ECCM15 Conference, Venezia June 2012.

Puglia D, Fortunati E, Santulli C, Kenny JM, Cellulose nanocrystals extracted from okra fibres as reinforcement in PVA nanocomposites, 7th International Conference on nanostructured polymers and nanocomposites, Prague April 2012.

De Rosa IM, Santulli C, Sarasini F, Non-destructive characterisation of impact damage in natural fibre composites, Italian NDT Conference, Florence October 2011.

Fortunati E, Monti M, Puglia D, Santulli C, Kenny JM, Torre L, Cellulose Nanocrystals from Phormium-tenax fibers, AIM Coinference, Terni, September 2011.

Sferra S, Ibarra-Castanedo C, Santulli C, Paoletti A, Paoletti D, Sarasini F, Bendada A, Maldague X, Effect of fiber reinforcement on the low velocity impact behavior of woven fabric reinforced composites: integrated contribution of the thermographic, interferometric and speckle inspections, ICCS16, Porto, June 2011.

Santulli C, Langella C, Concept transfer from biological junctions to end-of-life disassembly in industrial

design, Biomimicry in Higher Education webinar, January 2011, 54-58.

Langella C, Santulli C, Design around nature. Nature as inspiration and image renovation for sustainable materials. LeNS Design Conference, Bangalore (India), September 2010.

De Rosa IM, Marra F, Pulci G, Santulli C, Sarasini F, Tirillò J, Valente M, Valente T, Comportamento dinamico di laminati compositi ibridi basalto/vetro con diverse sequenze di stratificazione: risultati preliminari, AIMAT Conference, Capo Vaticano, September 2010.

De Rosa IM, Iannoni A, Kenny JM, Puglia D, Santulli C, Sarasini F, Terenzi A, Environmentally friendly poly(lactic acid)/phormium tenax composite: thermal and mechanical characterization, ECCM 14, Budapest, June 2010.

Caneva C, De Rosa IM, Santulli C, Sarasini F (in Italian), 2-D acoustic emission localisation measurements during indentation of recycled polypropylene/hemp fibre composites, AIPnD Conference, Roma, October 2009.

Santulli C (in Italian), Analysis of thermoelastic images from impact on glass fibre reinforced composites using fractal profile analysis, AIPnD Conference, Roma, October 2009.

Caneva C, De Rosa IM, Santulli C, Sarasini F, Acoustic emission monitoring of mechanical tests on plant fibre composites, EWGAE2008, Krakow, September 2008.

Caneva C, De Rosa IM, Santulli C, Sarasini F, Characterization of indentation damage on carbon/epoxy laminates by means of acoustic emission, ECCM13, Stockholm, June 2008.

Santulli C, Finn TJ, Celery hollow stem as a template for biomimetic composites and textiles, BAEC Conference, Southampton, March 2008.

Araneo R, Arrighetti W, Baccarelli P, Burghignoli P, Celozzi S, Cipri F, Frezza F, Lovat G, Maradei F, Paulotto S, Piuze E, Santulli C, Valente T, Nanomixtures for Electromagnetic Absorbers: Numerical Characterization of Effective Parameters, ISMOT Conference, Monteporzio Catone, December 2007.

Marzinotto M, Mazzanti G, Mazzetti C, Pompili M, Santulli C, Schiaffino P, Investigation on thermal endurance of PVC compounds for low voltage cable insulation, CEIDP 2007, Vancouver, October 2007.

Marzinotto M, Santulli C, Mazzetti C, Dielectric properties of oil palm-natural rubber biocomposites, CEIDP 2007, Vancouver, October 2007.

Santulli C (in Italian), Use of thermography for the detection of buried objects: opportunities and issues, 12<sup>th</sup> AIPnD Conference, Milan, October 2007.

Santulli C, Falling weight impact properties of E-glass/jute hybrid laminates and non-linearity of their behaviour, ICEM8 conference, Brunel University, July 2007.

Santulli C, Jeronimidis G, Measurement of surface void content on balsawood using transient thermography, British Non-Destructive Testing Conference, Stratford upon Avon, September 2006.

Santulli C, Measurement of impact-damaged areas in commingled E-glass/polypropylene laminates via thermographic images analysis, QIRT 2006 Conference, Padova, June 2006.

Santulli C, Jeronimidis G (in Italian), Laser vibrometry for quality control on fruits, AIPnD Conference, Milan, October 2005 (ISBN 88-89758-02-3).

Santulli C, Jeronimidis G, Damage detection in fruits using Laser Doppler vibrometry, British Non-Destructive Testing Conference, Torquay, September 2004.

Santulli C, Jeronimidis G, Vibration tests for non-destructive control in apples and avocados, British Non-Destructive Testing Conference, Worcester, September 2003.

Santulli C (in Italian), IR thermography for damage evaluation on automotive composites and components, AIPnD Conference, Ravenna, April 2003.

Santulli C, Jeronimidis G, Patel SI, Davis FJ, Mitchell GR, Development of smart actuators using *n*-isopropylacrylamide gels, Biomimetics World Conference, Albuquerque, NM, December 2002.

Santulli C (in Italian), Introduction of 3-D fibres and impact performance of commingled E-glass fibre/polypropylene composites, AIMAT Conference, Modena, September 2002 (on CD-ROM).

Warrior NA, Rudd CD, Brooks R, Long AC, Wilson MJ, Santulli C, Development of a thermoplastic composite side intrusion beam, Conf. on Materials for Lean Weight Vehicles, Gaydon, October 2001.

Santulli C, Drezet D, Brooks R, Rudd CD, Relation between moulding conditions and mechanical and impact properties in commingled E-glass/polypropylene thermoplastic composites, EUROMAT Conference, Rimini, June 2001.

Santulli C, Brooks R, Long AC, Rudd CD, Wilson MJ, Warrior NA, Impact properties of thermoplastic laminates for automotive applications, ACP2000, Dunton, December 2000.

Santulli C, Cantwell WJ, Characterisation of the damage area in glass fibre reinforced composites using AE planar localisation, World NDT Conference, Roma, October 2000.

Santulli C, Dulieu-Barton JM, Cantwell WJ, Thermoelastic investigation on impact damaged woven GRP composites, MPSV Conference, Nottingham, September 2000.

Billi F, Santulli C (in Italian), Acoustic emission during compression tests on titanium dental implants, AIMAT national conference, Cagliari, June 1998.

Billi F, Caneva C, Santulli C, Thermal damage analysis by combined thermographic inspection and AE localisation on honeycomb panels, Acoustic Emission Conference, Vienna, May 1998.

Santulli C, A study of the reliability of neural network approach to manage acousto-ultrasonics results on bon-

ded joints, Acoustic Emission Testing Conference, Vienna, May 1998.

Santulli C, Synergetic use of thermal and acoustic emission in studying tensile behaviour of fibre reinforced composites, Risø Materials Science Symposium, Roskilde, September 1997.

Billi F, Santulli C, Stivali F, Reliability of glass fibre-epoxy adhesive joints under repeated loading cycles through acoustic emission and acousto-ultrasonic technique, Euromech 358, Nevers, September 1997.

Santulli C, Billi F (In Italian), Acoustic emission during post-impact tensile tests of woven composite laminates, AIPnD Conference, Padova, September 1997.

Santulli C (In Italian), Thermographic monitoring during fatigue tests on carbon fibre reinforced composites, IGF13 Conference, Cassino, May 1997.

Tsamsakis D, Wevers M, De Meester P, Santulli C, Damage characterization of fatigue loaded quasi-isotropic carbon epoxy laminates, using acoustic emission and other non-destructive techniques, ICCE3, New Orleans, July 1996.

Billi F, Santulli C, A study on the mechanical behaviour of PSZ (5% wt. yttria) during bending tests comparing Weibull statistical model and acoustic emission results, Fracture Mechanics of Ceramics, Plenum Press, NY, 1996, **11**, 451-457.

Billi F, Santulli C (In Italian), Effect of transverse fatigue loading on the stiffness reduction of carbon reinforced composites, IGF12 Conference, Parma June 1996.

Calabrò A, Esposito C, Billi F, Sangalli D, Santulli C, Buonocore V, Giordano M, Analysis of manufacturing problems related with metal-metal aerospace structural joints through acoustic emission and differential scanning calorimetry, Acoustic Emission Testing Conference, Aberdeen May 1996.

Santulli C (In Italian), Structural significance of AE events distribution during tensile tests monitoring on composites, AIPnD Conference, Torino October 1995.

Aiello A, Caneva C, Santulli C (In Italian), Quality control of Al/Al sandwich structures by thermography and acoustic emission, AIPnD Conference, Torino October 1995.

Tatti M, Santulli C (In Italian), Fibre optic sensor for acoustic emission signals acquisition, AIPnD Conference, Torino October 1995.

Calabrò A, Santulli C, Improving structural properties of metal/metal bonding by acoustic emission and ultrasonic inspection, International Symposium on materials ageing and component life extension, Milano October 1995.

Aiello A, Caneva C, Santulli C, Stivali F, AE monitoring in fatigue tests on Al<sub>2</sub>O<sub>3</sub> reinforced aluminium alloy, AECM5, Sundsvall, July 1995.

Santulli C, Solomos GP, Calabrò A, Caneva C, D'Antonio L, AE monitoring during cure cycle of metal/metal (2024 T3 alloy) adhesive joint for quality assessment, AECM5, Sundsvall July 1995.

Gariboldi E, Santulli C, Stivali F, Vedani M (In Italian), Damage evaluation on metal matrix composites by acoustic emission monitoring, IGF11 Conference, Brescia July 1995.

Aiello A, Caneva C, Santulli C (In Italian), Quality and predictive maintenance of naval structures reliability by non-destructive control, "New material technologies and their application on naval structures", Livorno, April 1995.

Lucia AC, Solomos GP, Santulli C, Marini R, Caretta A (in Italian), Evaluation of composite structures performance by acoustic emission, Acoustic Emission CISE symposium, Milano, November 1994.

Solomos GP, Lucia AC, Santulli C, Caretta A, Adhesive joint quality assessment via Acoustic Emission monitoring, European Conference on NDT, Nice, October 1994.

Caneva C, Santulli C, Stivali F, Processing defects evaluation on metal matrix by means of acoustic emission, ICCE2, New Orleans, July 1994.

Caneva C, Santulli C, Soloni A, Stivali F (in Italian), Analysis of scattering from a theoretical model in fracture mode of MMCs, IGF10 Conference, Torino June 1994.

Billi F, Caneva C, Santulli C (in Italian), Bending mode fracture study with acoustic emission on yttria partially stabilised zirconia, IGF10 Conference, Torino June 1994.

Caneva C, Santulli C, Stivali F (in Italian), Acoustic emission for evaluation of mechanical behaviour in metal matrix composites, AIPnD Conference, Ferrara October 1993.

Caneva C, Santulli C, Stivali F (in Italian), Loads distribution in filament-wound pressure vessel during the hydraulic test, IGF9 Conference, Roma June 1993.

Caneva C, Pampallona A, Santulli C (in Italian), Acoustic Emission for structural monitoring of marble monuments. Fontana di Trevi and Basilica Palladiana, Conference for the study and conservation of artworks, Viterbo October 1992.

EAMA, Bench Mark Exercise on AE Measurements from Carbon Fiber-BMI Composites, AECM4 Seattle, July 1992.

Caneva C, Franciosa A, Mazzola M, Santulli C (in Italian), Quality evaluation by acoustic emission in filament-wound composite vessels, IGF8 Conference, Genova, May 1992.

### Conference Abstracts

Capitani D., Corradetti V., Di Girolami G., Proietti N., Roselli G., Santulli C., Valente F., Development and

analysis of gelatin-based bioplastics coloured with natural extracts, 5th Scientific Day of The School of Science and Technology, Camerino, June 2016.

Caruso AP, Infantino M, Nisini E, Ghelli D, Santulli C, Sarasini F, Minak G, falling weight impact characterisation of jute cloth/wool felts hybrid laminates, International Conference on Mechanics of Nano, Micro and Macro Composite Structures, Torino June 2012.

Marra F, Pulci G, Santulli C, Sarasini F, Tirillò J, Valente M, Static and dynamic behaviour of hybrid laminates with glass and basalt fibres: analysis of lay-up through impact tests and post-impact evaluation using acoustic emission, I meeting Assocompositi, Milano May 2011.

Santulli C, Langella C, Use of bio-inspired design in local problem solving, SDRC meeting, Inverness November 2008.

Santulli C, Langella C, Biomimetic inspiration in the design of sport items: a workshop experience, Biomimetics 12 meeting, Bath September 2007.

Donnelly N, Santulli C, Bibas T, Jiang D, Fitzgerald O'Connor A, Effect of cochlear implant electrode insertion on middle ear transfer function as measured by intra-operative laser Doppler vibrometry, ARO Mid-Winter Meeting, Baltimore, February 2006.

Santulli C, Finn TJ, Seidel R, Jeronimidis G, Vibration of filiform hairs in house crickets (*Acheta Domesticus*) in response to induced airflow, ASAB Winter meeting, London, December 2005.

Patel SI, Davis FJ, Santulli C, Jeronimidis G, Mitchell GR, Smart actuators based on n-isopropylacrylamide gels, Biennial Polymer Conference, University of Reading, September 2003

Santulli C, Jeronimidis G, Patel SI, Davis FJ, Mitchell GR, Gel/composite coupling for variable stiffness actuators, 2<sup>nd</sup> PhD mini-conference, Reading, March 2003.

Santulli C, Jeronimidis G, Patel SI, Davis F, Mitchell G, Development of smart actuators using n-isopropylacrylamide gels, Biomimetics 7 meeting, Reading September 2002.

Garcia Gil R, Santulli C, Long AC, Void content measurements in thermoplastic composite materials through image analysis from optical micrographs, Conference on Microscopy of Composite Materials, Oxford, March 2002.

Rudd CD, Brooks R, Long AC, Warrior NA, Wilson MJ, Santulli C, Development of a crashworthy composite side intrusion beam using long glass fibre reinforced polypropylene for the foresight vehicle programme, SAE Conference, Detroit, March 2002.

### **Other realisations**

Santulli C, The possible role of suture materials obtained from genetically modified silk, Report, Project Module SXN390, Open University 2007.

Brennan M, Mitchell G, Santulli C, Jeronimidis G, Davis F, Vincent JFV, Smart variable stiffness for vibration control (EPSRC smart materials and structures programme, GR/n27583/01), Final Report, October 2004.

Bonser RHC, Harwin WS, Hayes W, Jeronimidis G, Mitchell GR, Santulli C, EAP-based artificial muscles as an alternative to space mechanisms, ESA/ESTEC Contract No 18151/04/NL/MV, Final Report, June 2004.

Santulli C, Nottingham Express Transit Line 3: a tramline for Beeston and Chilwell. Opportunities and environmental issues, Project project, T860 course, Environment Decision Making: A System Approach, Open University, 2003.

Garcia Gil R, Santulli C, Microscopy technique guidelines for composites, Nottingham University, September 2001

Santulli C, Drop-weight impact on the side intrusion beam trials, Nottingham University, October 2000

Santulli C, Brooks R, Impact properties of 3-D Parkhill commingled glass polypropylene fabric, Nottingham University, July 2000

Santulli C, Side intrusion beams moulding trials, Nottingham University, May 2000

Santulli C (in Italian), Metallurgy questions, Centro Didattico Baraldi, Milano, 1997-1998.

Santulli C, Stain canker in plane trees, Final report project, U206 course, Environment, Open University, 1997-98.

Santulli C, Frequently asked questions (FAQ) on tensile tests monitored by acoustic emission, Vallen Users Group (VUG) letter no.8, June 1997

Lucchi G, Santulli C (in Italian), Materials technology (part of CD-ROM "L'arco"- "The bow"), G. Lucchi & Sons Editor, Cremona, October 1996.

Billi F, Santulli C (in Italian), Evaluation by acoustic emission of the mechanical properties of ceramic reports, ENEA Internal Report, September 1995.

Caneva C, Santulli C (in Italian), Application of acoustic emission and acousto-ultrasonic method to welded thermoplastic (Carbon/PEEK) joints, ALENIA-Univ. di Roma-La Sapienza, 1991.

### **Interviews**

TG1, 1<sup>st</sup> May 2007 on biomimetics, "Come natura crea, computer conserva", by Sandro Vannucci

La Nuova Ecologia, September 2010, on bio-shoppers. "Così l'Italia cambia busta", p.38-49, by Federico Guerrini



L'Espresso, 5 July 2012, on biomimetics "Hi Tech Modello Natura", p.124-127, by Federico Guerrini  
BBC Science, September 2012, on biomimetics "La natura sale in cattedra", p.62-69, by Alessandro Giulio Midlarz.  
RAI scuola-Nautilus, 19 November 2014, "Chiedi alla natura" (author Daniela Scotto)  
RAI Memex – "Biomimetica il meccanismo della vita", 4 February 2016 (author Silvia Bencivelli)  
D di Repubblica, 10 September 2016, author Laura Traldi, p. 130-135, "Secondo natura"  
RAI2 – Ovunque 6, 6 November 2016 (author Natascha Lusenti)

### **Theses**

Impact damage evaluation in woven composites using acoustic and thermoelastic techniques, PhD thesis, University of Liverpool, February 2000.  
Experimental study using acoustic emission and strain gauges during hydroproofs on kevlar/epoxy pressure vessels. Damage characterisation and quality control, MEng thesis, Università "La Sapienza"-Roma, 1990-91.  
Italian Popular Party and Filofascism (1923-1926), MA thesis, Università "La Sapienza"-Roma, 2000-01.  
The environmental and economic impact of using plant fibres for the production of low cost materials in developing countries, MSc dissertation (EDM), Open University, March 2005 (self-published, ISBN 978-1-4452-6122-5)

### **Italian books and other literary production**

"Ghigo e gli altri" (Simple, 2007) (ISBN 978-8-8625-9102-7)  
"Il triangolo dell'obbedienza ed altre storie" (Lulu, 2009) (ISBN 978-1-4092-3924-6)  
"Riscoperte" (Lulu, 2009) (ISBN 978-1-4452-6105-8)  
"Saggi letterari: da D'Annunzio a Pirandello" di Mario Puccini (editor with Marco Roberto Capelli, Francisco José Diaz and Giovanni Ricciotti), Fondazione Rosellini, Senigallia 2007.  
"In tram a Monteverde Nuovo", edited by Vittorio Naldini, published by ESS, 2011: "Pagine Corsare: i luoghi di Pasolini" p.141-145.  
"Meriggio italiano", articles in "Incontro, rivista del Gruppo Culturale ENI", from 2011 (6 issues a year)