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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

9-2006-present	Associate professor	Università La Sapienza – Roma Seconda Università di Napoli (from 2008)
11/2001-8/2006	Senior research fellow	University of Reading
11/99- 10/2001	Research associate	University of Nottingham
10/98 –10/99	Research assistant	University of Liverpool
8/96-9/98	Researcher	Joint Research Centre- Ispra
1/96-7/96	EC consultant	K.U. Leuven Ecole des Mines -St. Etienne
1/94-12/95	Post-doc grant holder	Joint Research Centre- Ispra
9/88-12/93	Consultant engineer	Università La Sapienza – Roma

RESEARCH INTERESTS

Moving from a background in composite materials and non-destructive testing, I gradually become more involved with sustainability aspects of materials and developed extensive research in plant fibres application for structural materials, in biomimetics (application of biological concepts in engineering) and bio-inspired design. In particular, I may divide my research interest so far into:

- Biomimetics: environmentally sustainable, biological materials and natural fibre composites
- Mechanical and impact performance, composites and adhesive joints manufacturing
- Non-destructive control (acoustic emission, thermal methods, vibrations and ultrasonics)
- Smart materials (shape memory alloys, polymer gels, biological nanosensors)

LANGUAGES

Italian (mothertongue), excellent English and French, good German and Spanish

PUBLICATIONS

49 journal papers, 3 invited chapters and 56 conference papers.

Referee for *Composites Science and Technology*, *Journal of Materials Science*, *Composites Part A*, *Journal of Composite Materials*, *Journal of Adhesion Science and Engineering*, *Journal of Food Engineering*, *Canadian Journal of Physics*, *Indian Journal of Mechanical Sciences*, *Express Polymer Letters*, *Journal of Cleaner Production*, *Journal of Applied Polymer Science*, *Strain* and for a number of materials science conferences.

Biography in "Who's Who in Science and Engineering" e "Who's Who in the World" (from 2003)

Member of the Editor Advisory Board of *E-Journal of Non-Destructive Testing*

Professionally qualified as chemical engineer in Italy (1992)

Co-editor of "Progetto Babele" (www.progettobabele.it) from 2002.

RESEARCH EXPERIENCE

9/2006-present Università di Roma- La Sapienza

In Rome I am working as an associate professor on a four-year contract basis, lecturing on materials in different courses, 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, and have a wide range of collaborations with a number of universities. In addition, since year 2008-09 I am contract professor of "Materials for design" and since year 2009-10 of "Mechanics for industrial design" in Seconda Università di Napoli (SUN)

Research themes:

- Biomimetics and sustainable materials; bio-inspired design
- Plant fibre (flax, jute, hemp, phormium, celery, okra) reinforced and plant/glass fibre hybrid composites
- Mechanical characterisation and non-destructive testing of composites (acoustic emission)
- Bio-dielectrics
- Applications of IR thermography (buried objects detection, impact damage characterisation)

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 Part 3 students; marking and co-supervising undergrad Part 3 projects and lecturing (materials science and biomimetics).

Research themes:

- Air flow and frequency excitation response of mechanoreceptors on cricket cerci
- Impact properties and post-impact damage of flax fibre reinforced composites, and E-glass/flax fibre hybrid composites
- 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)

My task consisted in investigating 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 Symalit and Polynorm.

Research themes:

- 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).

Research themes:

- 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 techniques (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.

In addition, 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-Munich, AE emission systems manufacturer.

Research themes:

- 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
- Acoustic emission monitoring of normal and off-axis compression tests on titanium dental implants, including SEM observations

1/96-7/96 K.U. Leuven & Ecole des Mines -St. Etienne

My objective there was to get acquainted and experiment new applications of non-destructive techniques (acoustic emission, thermography) in combination with other techniques (edge replication, C-scan, X-rays) to characterise fatigue damage on carbon/epoxy composites.

Research themes:

- 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
- 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.

Research themes:

- 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/Al₂O₃) 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

Work as a consultant engineer for the University – Dept. of Chemical Engineering and Materials Science. 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)

Research themes:

- 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)
- Processes for composite manufacturing (filament winding, RTM, compression moulding)
- 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)
- 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), plant fibres producers (Saneco, Ceres)
- 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

UK (University of Liverpool, University of Reading, University of Portsmouth), Italy (Seconda Università di Napoli, Politecnico di Milano, Politecnico delle Marche, Università di Perugia, Università di Bologna), Malaysia (USM), Bangladesh (Islamic University), India (Mahatma Gandhi 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
Napoli 2009	Bioinspired design and material from renewable sources: sustainable innovation at the service of Made in Italy	Italian Govt.
Reading 2003-05	Quality control via vibration tests on vegetal 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

Since year 2008-09 I am contract professor of "Materials for design" and since year 2009-10 of "Mechanics for industrial design" in Seconda Università di Napoli (SUN) Contract professor of "Design materials" presso la Seconda Università degli Studi di Napoli negli anni 2008-09 e 2009-10 e di "Meccanica per il disegno industriale" nell'anno 2009-10.

Moreover, I have lectured a number of modules for different courses:

Title of module	Course	Università e anni	Ore
Uso dei polimeri biodegradabili come biomateriali	Biomaterials	La Sapienza 2009-10	4
Scaffold biomimetici	Biomaterials	La Sapienza 2008-09 e 2009-10	2
Polimeri biodegradabili	Polymers science and technology	La Sapienza 2007-08 e 2008-09	4
Controllo non distruttivo dei sistemi elettrici	Tecnica delle alte tensioni	La Sapienza 2007-08 e 2008-09	6
Uso della seta come materiale di sutura e sviluppi futuri	Biomaterials	La Sapienza 2007-08, 2008-09 e 2009-10	2
Durabilità dei polimeri	Polymers science and technology	La Sapienza 2006-07, 2007-08 e 2008-09	10
Plant fibre composites	Composites science and technology	La Sapienza 2006-07, 2007-08 e 2008-09	4
Superconduttività e materiali superconduttori	Tecnica delle alte tensioni	La Sapienza 2006-07	4
Materiali superconduttori e fotovoltaici	Elettrotecnica (ambiente)	La Sapienza 2006-07	4
Materiali elettrici e magnetici	Elettrotecnica (vari corsi)	La Sapienza 2006-07	2
Attuatori polimerici	MSc in biomimetics	Reading 2004-05	4
Introduzione ai materiali	Anno preparatorio	Reading 2003-04	12
Controllo non distruttivo dei materiali compositi	Composites science and technology	La Sapienza 1996-97	2

CO-SUPERVISION OF PROJECTS

Year	Project	University	Title
2008-09	BSc	Roma – La Sapienza	Acoustic emission study of the behaviour of nickel – lanthanum solid solutions for hydrogen storage
2008-09	BSc	Seconda Università di Napoli (SUN)	Objects for transport applications inspired to diatoms
2008-09	BSc	Seconda Università di Napoli (SUN)	Objects for energy generation inspired to diatoms
2008-09	BSc	Seconda Università di Napoli (SUN)	Bio-inspired lunchbox
2008-09	BSc	Seconda Università di Napoli (SUN)	Strategies and parasitic design for energetic autonomy
2008-09	BSc	Seconda Università di Napoli (SUN)	Biomimetic junctions inspired to diatoms
2008-09	BSc	Seconda Università di Napoli (SUN)	Bio-inspired jewels with shape memory alloys
2007-08	MEng	Roma - La Sapienza	Phormium fibre reinforced composites
2006-07	BSc	Seconda Università di Napoli (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 di Milano	Polymerisation cycle control on metal/metal joints by acoustic emission

ASSISTANCE IN EXPERIMENTATION AND ANALYSIS OF RESULTS

Year	Project	University	Subject
1996-97	MEng	Roma - La Sapienza	Single fibre fragmentation tests monitored by acoustic emission
1993-94	PhD	Roma - La Sapienza	Mechanical performance of metal matrix composites produced by squeeze casting
1992-93	MEng	Roma - La Sapienza	Acoustic emission monitoring of tensile tests on Al/Al ₂ O ₃ composites
1992-93	MEng	Roma - La Sapienza	Acoustic emission and Weibull distribution of mechanical results during flexural tests on zirconia partially stabilised with yttria
1991-92	MEng	Roma - La Sapienza	Post-impact damage monitoring on Kevlar/epoxy stitched composites by acoustic emission and image analysis

OTHER TEACHING

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)

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 – La Sapienza	Acoustic emission and IR thermography
1992-93	Roma – La Sapienza	Acoustic emission testing
1991-92	Roma – La Sapienza	Acoustic emission testing
1990-91	Roma – La Sapienza	Acoustic emission testing

Presentations (conferences and seminars)

Member of the organising committee, invited speaker and chairman at 5th Course on "Smart Materials and Nanotechnologies" (Jesi, 26-29 August 2003) and 6th Course on "Biomaterials, Tissue Engineering and Biomimetics" (Jesi, 31 August-3 September 2004)

Chairman 10th Colloque Cercle Etudes des Métaux (Saint Etienne 16-17 November 1995).

Member of the organising committee EvoEnvironment 2009 (Tubingen April 2009) and 2nd Conference on Natural Fibres (Rome April 2009)

Month	Venue	Title
10-2009	Rome (Italian NDT Conference)	Indentation of hemp/PP laminates by acoustic emission Fractal profile of impact-damaged areas in woven GRP
7-2009	Università di Bologna	Falling weight impact hysteresis curves from natural fibre composites
6-2009	Portsmouth Uni.	Activities on natural fibre composites
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
From 2-2009	Terni (primary schools) Venezia (primary schools)	Natural fibres for children
11-2008	SDRC (Inverness)	Biomimetic design for local issues
9-2008	EWGAE (Krakow)	Acoustic emission monitoring of plant fibre composites)
6-2008	ECCM13 (Stockholm)	Characterization of indentation damage on carbon/epoxy laminates by means of acoustic emission
2-2008	Marcianise (SUN) seminar	LCA, plant fibres, and natural design
12-2007	Senigallia	"Da D'Annunzio a Pirandello" by Mario Puccini
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
6-2007	Napoli (Advanced Design)	Indications from natural design
6-2007	Università di Roma - La Sapienza	Laser vibrometry for non-destructive testing of materials
5-2007	Università di Roma - La Sapienza	Materials for superconductive applications
3-2007	Università di Roma - La Sapienza	Materials for superconductivity
2-2007	Marcianise (SUN) seminar	Plant fibres for sustainable materials
2-2007	Liverpool Uni.	Selecting plant fibres for the reinforcement of impact-resistant composites
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
2-2006	Birmingham NEC (IPOT 06)	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
11-2005	Marcianise (SUN) seminar	Biomimetic materials design
10-2005	Milano (Italian NDT Conf.)	Vibration damage assessment on fruits
9-2004	Torquay (BINDT)	Vibration damage assessment on fruits
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
4-2003	Ravenna (Italian NDT Conf.)	Evaluation using IR thermography of post-impact damage in composites and automotive components
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)
12-2002	Albuquerque (1 st 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 th MCM conference)	Void content measurements in thermoplastic composite materials through image analysis from optical micrographs
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
6-2001	Fiera di Rimini (EUROMAT Conf.)	Relation between moulding conditions and mechanical and impact properties in commingled E-glass/polypropylene composites
2-2001	Nottingham Uni. (seminar)	Some proposals to set a check-list for an Environmentally Friendly Christian
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
9-2000	Rutherford Appleton Lab. – Didcot (seminar)	Thermoelastic investigation on impact damaged woven GRP composites
9-1999	Sheffield Uni. (seminar)	Thermoelastic stress measurements on impacted glass mat/polyester woven composites
5-1999	Liverpool Uni. (seminar)	Impact damage evaluation in glass and jute fibre woven composites using acoustic and thermoelastic techniques
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
2-1996	K.U. Leuven (seminar)	Impact damage evaluation on kevlar/epoxy stitched composites using image analysis and acoustic emission monitoring during compression after impact (CAI) tests
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
11-1995	Università di Trento (seminar)	Unrecoverable crack propagation on ceramic materials during bending tests observed by acoustic emission monitoring compared with fractography
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

Journal papers

- 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, Accepted for publication, Materials and Design, November 2009.
- 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) 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 unidirectional 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 n.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), 1456-1469.
- De Rosa IM, Santulli C, Sarasini F, Natural fiber composites monitored by acoustic emission, Journal of Acoustic Emission **26**, 2008, 220-228.
- 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 n.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, Jeronimidis G, Microscopic lens thermography for the observation of features in light cardboard, E-Journal of Non-Destructive Testing **13** n.6, June 2008.
- 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, IR thermography for the detection of buried objects: a short review, E-Journal of Non-Destructive Testing **12** n.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.
- Santulli C, Falling weight impact damage characterisation on flax/epoxy laminates, International Journal of Materials and Product Technology **36** (1-4): 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): 21-29.
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