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Curriculum of scientific and academic activity

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1. Brief biography

Fabio Giudice is Assistant Professor in Metallurgy at the Department of Civil Engineering and Architecture of the University of Catania.

He has been Associate Researcher in Industrial Design, Mechanical Engineering and Metallurgy at the Department of Industrial Engineering of the University of Catania, and at the Department of Civil Engineering and Architecture of the same University, and previously in Mechanical Design and Construction of Machines at the Department of Industrial and Mechanical Engineering of the University of Catania.

He graduated in Mechanical Engineering at the University of Catania, obtained a Master in Industrial Design at the Research Centre of the European Institute of Design in Milano, and a PhD in Structural Mechanics at the University of Catania.

With research interest in Mechanical Behaviour of Metallic Materials, Optimal Materials Selection, Integrated Product Development, Life Cycle Design and Design for X, Product Design for the Environment, he has published in these areas more than 60 papers (papers on national and international journals, papers on proceedings of national and international conferences, chapters on international books) and a book for a leading international publishing house.

2. Qualifications

Assistant Professor, scientific-disciplinary sector ING-IND/21 Metallurgy (from December 2017).

National Scientific Qualification to the functions of Associate Professor in Industrial Design, Mechanical Engineering and Metallurgy (2012, 2013).

Doctor of Philosophy in Structural Mechanics (March 2001).

Proclaimed expert in the following academic disciplines: Construction of Machines, Mechanical Structures Aided Design (since November 2002); Machine Design, Integrated Product Design (since January 2007).

3. Academic training

On 24th March 1997 he obtained his degree in Mechanical Engineering at the Faculty of Engineering of the University of Catania, with 108/110 marks, discussing a thesis entitled “Models for mechanical design with regards to environmental requirements”, Prof. Eng. Antonino Risitano and Prof. Eng. Guido La Rosa supervisors.

He attended the Master course in Design and Bionics at the Research Center of the European Design Institute in Milan in 1999-2000, completing his Master's degree on 5th May 2000, with the highest marks, discussing a thesis entitled “Design for Disassembly: Design Strategies for the environmental quality of the product lifecycle”, developed in collaboration with CIRIS (Interdepartmental Research Center on Environmental Sustainability Innovation) of the Polytechnic of Milano and Whirlpool Europe in Varese, Prof. Eng. Carlo Vezzoli supervisor.

He attended the doctoral program in Structural Mechanics at the Faculty of Engineering of the University of Catania in 1997-2000. On 9th March 2001 he received the title of Doctor of Philosophy, discussing a thesis entitled "Life Cycle Design for the Environmental Quality of Industrial Products: Integrated Design System", Prof. Eng. Antonino Risitano supervisor.

4. Academic assignments

From 2nd January 2002 to 1st January 2004, and from 2nd February 2004 to 1st February 2006, he was Associate Researcher at the Department of Industrial and Mechanical Engineering of the University of Catania, scientific sector Mechanical Design and Machine Construction, research program "Mechanical design for recycling and re-use of materials used in the mechanical and aeronautical industry", scientific supervisor Prof. Eng. Antonino Risitano.

From 1st September 2006 to 31th August 2010, he was Associate Researcher at the Department of Industrial and Mechanical Engineering of the University of Catania, scientific sector Mechanical Design and Machine Construction, research program "Eco-Design of Mechanical Systems", scientific supervisor Prof. Eng. Guido La Rosa.

From 2nd July 2012 to 1st July 2017, he was Associate Researcher at the Department of Industrial Engineering and at the Department of Civil Engineering and Architecture of the University of Catania, scientific sectors Industrial Design, Mechanical Engineering and Metallurgy, research program "Strategies for optimal Lifecycle of mechanical components and systems",

scientific supervisor Prof. Eng. Antonino Risitano (until October 2014) and Prof. Eng. Guido La Rosa (since November 2014).

From 1st December 2017 he is Assistant Professor in Metallurgy at the Department of Civil Engineering and Architecture of the University of Catania.

5. Scientific activity

5.1. Research themes

Applied himself to the use of numerical-experimental methods of structural analysis for integrated product design, the introduction of artificial intelligence tools for the enhancement of mechanical design tools, the functional analysis and optimization of mechanical devices for biomedical engineering, the design of mechanical systems for the exploitation of renewable sources, the study of the fatigue behaviour of mechanical materials and components by thermographic method and energy analysis, he developed a particular interest in the themes of Metallurgical and Mechanical Characterization of Metallic Materials and Materials Selection for Engineering Applications, Life Cycle Design and Design for X, Product Design for the Environment. In relation to these subjects, he performs research activities on the issues related to the effects of thermal fields due to high power moving sources on material properties, structured methods for optimal materials selection, fatigue design and the assessment of components residual life, creep and fatigue behaviour of additive manufactured metallic alloys, characterization of materials under high-rate strains, life cycle simulation, design for assembly and disassembly, design for recovery and recycling.

5.2. Participation in research projects

In the period 2000-2003 he took part as a researcher in the project "Research and innovation for the competitive development of local systems in the industrial sector - Cluster C 22 Services for Citizens and Territories", Ministry of University and Scientific and Technological Research, at the Faculty of Engineering of the University of Catania, Department of Industrial and Mechanical Engineering, department superintendent Prof. Eng. Antonino Risitano.

In the period 2001-2004 he took part as a researcher in the project "Preparation, characterization and development of technologies for the industrial use of innovative materials - Cluster C 26 Innovative Materials", Ministry of University and Scientific and Technological

Research, at the Faculty of Engineering of the University of Catania, Department of Industrial and Mechanical Engineering, department superintendent Prof. Eng. Guido La Rosa.

In the two-year period 2003-2005 he took part in the planning, formulation, development and co-ordination of a COFIN 2003 research program entitled "Design for Environmental Quality of Products" (inter-university program coordinated by the unit of the Department of Industrial and Mechanical Engineering of the University of Catania, national superintendent of the program Prof. Eng. Guido La Rosa, with Department of Mechanics and Industrial Technologies of the University of Florence, Department of Industrial Engineering of the University of Perugia, Department of Mechanics of the Polytechnic of Milano).

In the two-year period 2004-2005, he took part as a researcher and designer with innovation and product development expertise, in the formulation, planning and development of a pre-competitive research and development program for the redesign and engineering of modular frameworks for structural components in concrete, at the Department of Industrial and Mechanical Engineering of the University of Catania, with Officine Meccaniche La Prometec (Catania).

In the period 2006-2009 he took part as a researcher and designer with environmental issues of materials and production technologies expertise, in carrying out some of the activities of the MIMOSA research project (Micro-car with Ecological Propulsion, Modular and Safe with high Versatility of Use) at the Department of Industrial and Mechanical Engineering of the University of Catania, with CRF Centro Ricerche Fiat (Turin and Catania), GGG Elettromeccanica (Catania), Department of Engineering of the University of Messina.

In the period 2007-2008 he took part as a researcher and designer with innovation and product development expertise, in the formulation, planning and development of a pre-competitive research and development program for the design and prototyping of a "no metal parts" integrated system for ultra-pure fluids pumping, at the Department of Industrial and Mechanical Engineering of the University of Catania, with SAT Siciliana Articoli Tecnici (Catania) and the Scientific and Technological Park of Sicily (Catania).

In 2009, he took part as a researcher and designer with innovation and product development expertise, in the formulation and planning of a pre-competitive research and development program for the creation of a combined system of wind turbines and antifreeze fans, at the Department of Industrial and Mechanical Engineering of the University of Catania, with AAT Agroindustry Advanced Technologies (Catania).

In the period 2009-2011 he took part as a researcher, in carrying out some of the activities of the VECTOR (Eco-Friendly Vehicle for Optimized and Multi-Role Urban Transport) research

project at the Department of Industrial and Mechanical Engineering of the University of Catania, with IVECO (Turin), Fiat Research Center (Turin).

In 2010 he worked on formulating and planning a precompetitive research and development program for the design and prototyping of a wet bench system for the semiconductor industry, for SAT Siciliana Articoli Tecnici (Catania). In the period 2011-2012 he took part in the development of this program as a researcher and designer experienced in innovation and product development issues, and coordinated the technical-scientific activities as a project manager, with SAT Siciliana Articoli Tecnici (Catania), Semi Research (Catania), Xenia Progetti (Catania), Scientific and Technological Park of Sicily (Catania).

In 2012 he took part in the design and design of a precompetitive research and development program for the design and prototyping of a Spray Acid Tool system for the semiconductor industry, with SAT Siciliana Articoli Tecnici (Catania).

In 2015 he participated, as an expert researcher in integrated product design methods, to TEMPUS "Project development and innovation: a new postgraduate curriculum for engineering PDI" 530703-TEMPUS-2012-1-DE-JPCR, taking care of a training course in English, addressed to foreign university professors, entitled "Design for Manufacturing and Environment", at the Department of Industrial Engineering of the University of Catania.

In the period 2018-2020 he was responsible for the CTMAM departmental research project (Thermomechanical Characterization of Metallic Materials obtained through Additive Manufacturing processes), 2016/2018 Research Plan, Department of Civil Engineering and Architecture of the University of Catania.

From 2020 he participate as a researcher to the ARISTOTELIAN 4.0 interdepartment research project (Modelling and Controll of Sustainable Sისტems in Industria 4.0), PIAno di inCEntivi per la Ricerca di Ateneo 2020/2022, Intervention Line 2 - Department Research, University of Catania.

From 2021 he is responsible for the MESOTERMM research project (Modelling of the Effects due to High Power Mobile Thermal Sources on the Properties of Metallic Materials), PIAno di inCEntivi per la Ricerca di Ateneo 2020/2022, Intervention Line 3 – Starting Grant, University of Catania.

5.3. Other applied research experiences

The scientific activity also included other applied research experiences, carried out in collaboration with companies, design studios, research institutes, listed below.

- 1999-2001 - Industrial research for the development of new products, in collaboration with companies and design studios: Whirlpool Europe (Varese), Hitachi Europe (Milano), Orlandini Design (Milano), Ballarini (Mantova), Nicos International (Treviso), Taplast (Vicenza)
- 2001-2003 - Analysis of environmental criticalities and redesign of automotive components, with CRF Centro Ricerche Fiat (Torino)
- 2003-2004 - Development of high recycled fraction compound for compression molding of thermosetting matrix composite components, with N.T.ET. New Electrical and Telecommunication Technologies (Catania)
- 2008 - Preliminary study for the development of a system for the purification of petrochemical tanks (tank cleaning), with Nico SpA (Siracusa).
- 2012 - Development of an automated handling system for wafer carriers used in semiconductor industry processes, with SAT Siciliana Articoli Tecnici (Catania).
- 2018 (still in progress) - Mechanical characterization (static and fatigue) of Ti-6Al-4V titanium alloy specimens obtained by EBM additive manufacturing process, with Mt Ortho (Catania).

5.4. Activities in scientific publishing

Reviewer for the following international journals: *Applied Sciences* (MDPI), *Computers & Industrial Engineering* (Elsevier), *Journal of Cleaner Production* (Elsevier), *Journal of Engineering Design* (Taylor & Francis), *Journal of Industrial Ecology* (Wiley), *Materials* (MDPI), *Materials Letters* (Elsevier), *Metals* (MDPI), *Proceedings of the Institution of Mechanical Engineers Part C - Journal of Mechanical Engineering Science* (SAGE), *Proceedings of the Institution of Mechanical Engineers Part L - Journal of Material: Design and Applications* (SAGE), *Sustainability* (MDPI).

6. Teaching activity

6.1. University education

As assistant professor, he is regular teacher of the following course for the degree in Chemical Engineering for Industrial Sustainability at the University of Catania:

- Metallurgy (since academic year 2018-19)

As tutor for exercises, he has supported the following courses for the degree in Mechanical Engineering and Management Engineering at the University of Catania:

- Construction of Machines, teacher Prof. Eng. Antonino Risitano (academic years 1998-99, 2000-01, 2001-02, 2002-03, 2003-04)
- Mechanical Structures Aided Design, teacher Prof. Eng. Guido La Rosa (academic years 2000-01, 2001-02, 2002-03, 2003-04)
- Integrated Product Design, teacher Prof. Eng. Guido La Rosa (academic years 2005-06, 2006-07, 2007-08, 2008-09)
- Integrated Product Design, teacher Prof. Eng. Giovanna Fargione (academic years 2009-10, 2010-11, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, 2018-19, 2019-20)

As contributor to the teaching, he has supported the following courses for the degree in Mechanical Engineering and Management Engineering at the University of Catania, by means of seminar lessons:

- Integrated Product Design, teacher Prof. Eng. Guido La Rosa (academic year 2005-06)
- Machine Design, teacher Prof. Eng. Antonino Risitano (academic years 2005-06, 2006-07, 2008-09, 2010-11)

As proclaimed expert in academic disciplines, he conducted teaching activities in the following courses for the degree in Mechanical Engineering and Management Engineering at the University of Catania, dealing with some specific topics in the programs:

- Integrated Product Design, teacher Prof. Eng. Guido La Rosa (academic years 2006-07, 2007-08, 2008-09)
- Integrated Product Design, teacher Prof. Eng. Giovanna Fargione (academic years 2009-10, 2010-11, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, 2018-19, 2019-20)
- Construction of Machines, teacher Prof. Eng. Antonino Risitano (academic year 2012-13)
- Construction of Machines, teacher Prof. Eng. Guido La Rosa (academic years 2015-16, 2016-17, 2017-18, 2018-19)

He has been commissioned for an external collaboration to carry out preparatory and retrieval activities aimed at providing support to learning the following course for the degree in Management Engineering at the University of Catania:

- Integrated Product Design, teacher Prof. Eng. Giovanna Fargione (academic year 2016-17)

6.2. Support for graduation theses

In the period 2001-2020, at the University of Catania, as a co-examiner, he attended as a co-examiner more than 80 graduate theses of students in Industrial Engineering, Mechanical Engineering, Management Engineering, Chemical Engineering for Industrial Sustainability.

6.3. Other teaching experiences related to academic activity

In 2003 he lectured the "Material Selection" and "Modularity and Systems Disassembly" teaching modules in the advanced qualification course for graduates in scientific subjects "Designing, testing and controlling components and propulsion systems for hybrid vehicles", by Centro Ricerche Fiat (Orbassano, TO) with the support of the University of Catania.

In the academic year 2003-04, at the Interuniversity School of Specialization for Teaching in Secondary School, he lectured the "Drawing and Design" course.

In the year 2015 he lectured "Design for Manufacturing and Environment" course for foreign university teachers, under the TEMPUS project "Project development and innovation: A new postgraduate curriculum for engineering PDI", at the Department of Industrial Engineering of the University of Catania.

In the year 2018 he lectured on the subject "Integrated Product Design" at the Faculty of Mechanical Engineering of the Cracow University of Technology.

7. Publications

7.1. International monographs

1. Giudice F., La Rosa G., Risitano A., *Product Design for the Environment: A Life Cycle Approach*, CRC Press/Taylor & Francis, Boca Raton, FL, 2006, ISBN 0849327229

7.2. Chapters of international books

1. Giudice F., "A Graph-Based Approach for Modeling, Simulation, and Optimization of Life Cycle Resource Flows", in *Reverse Supply Chains: Issues and Analysis* (ed. S.M. Gupta), CRC Press/Taylor & Francis, Boca Raton, FL, 2013, ISBN 1439899021, pp. 313-342 (invited contribution)

2. Giudice F., “Eco-Packaging Development: Integrated Design Approaches”, in *Handbook of Sustainable Engineering* (eds. J. Kauffman, K.-M. Lee), Springer, Dordrecht, The Netherlands, 2013, ISBN 1402089381, pp. 323-350
3. Giudice F., “Product Design for the Environment: The Life Cycle Perspective and a Methodological Framework for the Design Process”, in *Environment Conscious Manufacturing* (eds. S.M. Gupta, A.J.D. Lambert), CRC Press, Boca Raton, FL, 2008, ISBN 0849335523, pp. 33-89 (invited contribution)
4. Giudice F., La Rosa G., Risitano A., “Product Recovery-Cycles Design: Extension of Useful Life”, in *Feature Based Product Life-Cycle Modelling* (eds. R. Soenen, G. J. Olling), Kluwer Academic Publishers, Dordrecht, The Netherlands, 2003, ISBN 1402073275, pp. 165-185

7.3. Papers in international journals

1. Giudice F., Sili A., “Weld Metal Microstructure Prediction in Laser Beam Welding of Austenitic Stainless Steel”, *Applied Sciences*, vol. 11, 2021, 1463
2. Giudice F., Missori S., Sili A., “Parameterized Multipoint-Line Analytical Modeling of a Mobile Heat Source for Thermal Field Prediction in Laser Beam Welding”, *The International Journal of Advanced Manufacturing Technology*, vol. 112, 2021, pp. 1339-1358
3. Giudice F., Barbagallo R., Fargione G., “A Design for Additive Manufacturing Approach based on Process Energy Efficiency: Electron Beam Melted Components”, *Journal of Cleaner Production*, vol. 290, 2021, 125185
4. La Rosa G., Lo Savio F., Giudice F., Clienti C., Marino Cugno Garrano A., “Energetic Analysis of Fatigue Hysteresis by Thermographic and Digital Image Correlation Methodologies”, *Fatigue and Fracture of Engineering Materials and Structures*, vol. 43, 2020, pp. 2597-2607
5. Mirone G., Barbagallo R., Giudice F., Di Bella S., “Analysis and Modelling of Tensile and Torsional Behaviour at Different Strain Rates of Ti6Al4V Alloy Additive Manufactured by Electron Beam Melting (EBM)”, *Materials Science and Engineering A*, vol. 793, 2020, 139916
6. Giudice F., Missori S., Murdolo F., Sili A., “Metallurgical Characterization of the Interfaces in Steel Plates Clad with Austenitic Steel or High Ni Alloys by Hot Rolling”, *Metals*, vol. 10, 2020, 286

7. Giudice F., Fargione G., Caponetto R., La Rosa G., “Modeling and Optimization of Multi-Component Materials Selection and Sizing Problem”, *Proceedings of the Institution of Mechanical Engineers, Part L - Journal of Materials: Design and Applications*, vol. 234, 2020, pp. 255-273
8. Aliprandi P., Giudice F., Guglielmino E., Sili A., “Tensile and Creep Properties Improvement of Ti-6Al-4V Alloy Specimens Produced by Electron Beam Powder Bed Fusion Additive Manufacturing”, *Metals*, vol. 9, 2019, 1207
9. Aliprandi P., Giudice F., Guglielmino E., La Rosa G., Sili A., “Creep Behavior of Ti-6Al-4V Alloy Specimens Produced by Electron Beam Melting”, *La Metallurgia Italiana: International Journal of the Italian Association for Metallurgy*, vol. 6, 2019, pp. 18-23
10. Mirone G., Barbagallo R., Giudice F., “Locking of the Strain Rate Effect in Hopkinson Bar Testing of a Mild Steel”, *International Journal of Impact Engineering*, vol. 130, 2019, pp. 97-112
11. Fargione G., Giudice F., Risitano A., “The Influence of the Load Frequency on the High Cycle Fatigue Behaviour”, *Theoretical and Applied Fracture Mechanics*, vol. 88, 2017, pp. 97-106
12. Giudice F., “Disassembly Depth Distribution for Ease of Service: A Rule-Based Approach”, *Journal of Engineering Design*, vol. 21(4), 2010, pp. 375-411
13. Giudice F., Ballistreri F., Risitano G., “A Concurrent Design Method Based on DFMA-FEA Integrated Approach”, *Concurrent Engineering: Research and Applications*, vol. 17(3), 2009, pp. 183-202
14. Giudice F., Kassem M., “End-of-Life Impact Reduction through Analysis and Redistribution of Disassembly Depth: A Case Study in Electronic Device Redesign”, *Computers & Industrial Engineering*, vol. 57(3), 2009, pp. 677-690
15. Giudice F., La Rosa G., “Design, Prototyping and Experimental Testing of a Chiral Blade System for Hydroelectric Microgeneration”, *Mechanism and Machine Theory*, vol. 44(8), 2009, pp. 1463-1484
16. Giudice F., Fargione G., “Disassembly Planning of Mechanical Systems for Service and Recovery: A Genetic Algorithms Based Approach”, *Journal of Intelligent Manufacturing*, vol. 18(3), 2007, pp. 313-329
17. Giudice F., La Rosa G., Russo T., Varsalona R., “Evaluation and Improvement of the Efficiency of the Seidel Humeral Nail by Numerical–Experimental Analysis of the Bone-Implant Contact”, *Medical Engineering & Physics*, vol. 28(7), 2006, pp. 682-693

18. Giudice F., La Rosa G., Risitano A., “Materials Selection in the Life-Cycle Design Process: A Method to Integrate Mechanical and Environmental Performances in Optimal Choice”, *Materials and Design*, vol. 26(1), 2005, pp. 9-20

7.4. Papers in national journals

1. Giudice F., La Rosa G., Risitano A., “Sviluppo di Imballaggi Eco-Sostenibili”, *Progettare*, n. 329, Gennaio 2009, pp. 59-63
2. Giudice F., La Rosa G., Risitano A., “Progettazione di Imballaggi Eco-Sostenibili”, *Progettare*, n. 325, Settembre 2008, pp. 51-54
3. Giudice F., La Rosa G., Risitano A., “Design for Recycling”, *Plastix*, n. 4, Maggio 2008, pp. 34-39 (invited paper)
4. Giudice F., Kassem M., “Sistemi per il Disassemblaggio di Apparecchiature Elettriche e Elettroniche”, *Progettare*, n. 318, Gennaio 2008, pp. 45-48
5. Giudice F., La Rosa G., Risitano A., “Integrazione degli Aspetti Ambientali nella Progettazione di Prodotto: Parte 1 - Dalla Parte dell’Ambiente”, *Progettare*, n. 303, Settembre 2006, pp. 123-125
6. Giudice F., La Rosa G., Risitano A., “Integrazione degli Aspetti Ambientali nella Progettazione di Prodotto: Parte 2 - Aspetti Ambientali nella Progettazione”, *Progettare*, n. 304, Ottobre 2006, pp. 57-60
7. Giudice F., La Rosa G., Risitano A., “La Scelta dei Materiali per la Progettazione del Ciclo di Vita”, *Il Progettista Industriale*, Settembre 2005, pp. 26-27
8. Giudice F., La Rosa G., Risitano A., “Prodotti Eco-Compatibili”, *Progettare*, n. 257, Giugno 2002, pp. 69-73 (invited paper)
9. Giudice F., La Rosa G., Risitano A., “Progettazione Orientata alla Qualità Ambientale: Problematiche Generali”, *Lamiera*, Giugno 2001, pp. 192-197 (invited paper, also published in: *Trattamenti e Finiture*, Ottobre 2001; *Fonderia*, Ottobre 2001)
10. Giudice F., La Rosa G., Risitano A., “Progettazione Orientata alla Qualità Ambientale: Esperienza Applicativa su un Componente Impiantistico”, *Lamiera*, Settembre 2001, pp. 300-307 (invited paper, also published in: *Trattamenti e Finiture*, Febbraio 2002; *Fonderia*, Febbraio 2002)

7.5. Papers in proceedings of international conferences

1. Barbagallo R., Fargione G., Giudice F., La Rosa G., “Thermographic-DIC Approach in Fatigue Behaviour Analysis”, *IOP Conference Series: Materials Science and Engineering*, vol. 1038, 2021, 012050
2. Fargione G., Giudice F., “An Approach to Design for Environmental Sustainability of Additive Manufactured Metal Components”, *Procedia Structural Integrity*, vol. 24, 2019, pp. 758-763
3. Giudice F., La Rosa G., Fargione G., Barbagallo R., “Fatigue Limit Assessment by Energetic Analyses in Static and Cyclic Tensile Tests”, *Procedia Structural Integrity*, vol. 24, 2019, pp. 706-711
4. Giudice F., La Rosa G., Lo Savio F., Clienti C., “Comparison between Thermal Energy and Acoustic Emission for the Fatigue Behavior of Steels”, *Procedia Structural Integrity*, vol. 18, 2019, pp. 886-890
5. La Rosa G., Basile G., Fargione G., Giudice G., “Design of a New Intervertebral Disc Prosthesis: A Numerical Approach”, *Procedia Structural Integrity*, vol. 12, 2018, pp. 274-280
6. Fargione G., Giudice F., La Rosa G., “Efficient distribution of materials in multi-component systems design”, *Procedia Structural Integrity*, vol. 8, 2018, pp. 566-572
7. Risitano A., Fargione G., Giudice F., Patanè G., “Evaluation of the Relative Plastic Work Factor during the Fatigue Test”, *Procedia Engineering*, vol. 109, 2015, pp. 346-355
8. Giudice F., Kassem M., “Analysis and Optimisation of Disassembly Depth Distribution: An Application in Electronic Device Redesign to Reduce Environmental Impact at End-of-Life”, Design 2008 - 10th International Design Conference, Dubrovnik, Croatia, May 2008
9. Ballisteri F., Giudice F., La Rosa G., Risitano A., “Sviluppo di Soluzioni Progettuali Migliorative Mediante Approccio Integrato DFMA-FEA”, XVI ADM - XIX INGEGRAF International Conference, Perugia, Italy, June 2007
10. Giudice F., La Rosa G., Russo T., Varsalona R., “Numerical-Experimental Analysis of Bone-Implant Contact for Seidel Humeral Nail”, ICEM12 - 12th International Conference on Experimental Mechanics, Bari, Italy, August-September 2004
11. Giudice F., La Rosa G., Risitano A., Strazzeri G., “Simulation of Product Life Cycle: Methodological Basis and Analysis Models”, Design 2004 - 8th International Design Conference, Dubrovnik, Croatia, May 2004

12. Fargione G., Giudice F., Risitano A., “Progettazione per il Disassemblaggio: Applicazione di Reti Neurali per l’Analisi della Profondità di Smontaggio”, XIII ADM - XV INGEGRAF International Conference on Tools and Methods Evolution in Engineering Design, Napoli, Italy, June 2003
13. Giudice F., La Rosa G., Risitano A., “An Ecodesign Method for Product Architecture Definition Based on Optimal Life-Cycle Strategies”, Design 2002 – 7th International Design Conference, Dubrovnik, Croatia, May 2002
14. Giudice F., La Rosa G., Risitano A., “Optimal Material Selection in the Design for Environment Process: Environmental Characterisation of Polymeric Materials and a Methodology of Selection”, ENTREE 2001 Environmental Training in Engineering Education, Florence, Italy, November 2001
15. Levizzari A., Giudice F., Calusi A., “Green Design: A Comprehensive Approach Making the Design Boundaries Wider in the Automotive Sector”, ENTREE 2001 Environmental Training in Engineering Education, Florence, Italy, November 2001
16. Giudice F., La Rosa G., Risitano A., Cirrone G., “Evaluation of Recyclability of Thermosetting Composites: Recycling of GRP for Pultrusion Process”, EcoComp 2001 International Conference on Eco-Composites, London, UK, September 2001
17. Giudice F., La Rosa G., Risitano A., “Optimisation and Cost-Benefit Analysis of Product Recovery-Cycles”, ICED01 International Conference on Engineering Design, Glasgow, Scotland, UK, August 2001
18. Giudice F., La Rosa G., Risitano A., “Product Recovery-Cycles Design: Extension of Useful Life”, IFIP International Conference on Feature Modelling and Advanced Design for the Life Cycle Systems, Valenciennes, France, June 2001
19. Giudice F., La Rosa G., Risitano A., “Indicators for Environmentally Conscious Product Design”, EcoDesign ’99: 1st International Symposium on Environmentally Conscious Design and Inverse Manufacturing, Tokyo, Japan, February 1999
20. Giudice F., La Rosa G., Risitano A., “Models and Indicators for the Cost-Benefit Analysis of a Green Product”, EcoDesign ’99: 1st International Symposium on Environmentally Conscious Design and Inverse Manufacturing, Tokyo, Japan, February 1999

7.6. Papers in proceedings of national conferences

1. Aliprandi P., Giudice F., Guglielmino E., La Rosa G., Sili A., “Comportamento al Creep di Provini in Lega Ti6Al4V Prodotti Mediante Electron Beam Melting”, 37° AIM Convegno Nazionale, Bologna, Settembre 2018
2. Fargione G., Giudice F., Caponetto R., “Determinazione della Curva di Wöhler dal Diagramma ciclico σ - ε Mediante Applicazione di Reti Neurali”, 47° AIAS Convegno Nazionale, Villa San Giovanni (RC), Settembre 2018
3. Mirone G., Barbagallo R., Giudice F., “Prove Miste Statico-Dinamiche per l’Analisi dell’Amplificazione Dinamica dello Stress in Metalli Duttile”, 47° AIAS Convegno Nazionale, Villa san Giovanni (RC), Settembre 2018
4. Risitano A., Fargione G., Clienti C., Giudice F., “Rilascio Energetico in Acciai Sottoposti a Sollecitazione Statica di Trazione e Sollecitazione Statica di Compressione”, XLV AIAS Convegno Nazionale, Trieste, Settembre 2016
5. Giudice F., La Rosa G., Risitano A., “Tecniche di Progettazione Integrata per lo Sviluppo di Imballaggi Eco-Sostenibili”, Primo Congresso Nazionale Coordinamento della Meccanica Italiana, Palermo, Giugno 2010
6. Giudice F., La Rosa G., Lo Savio F., “Sviluppo, Prototipazione e Sperimentazione di una Turbina Chirale per Microgenerazione Idroelettrica”, XXXVI AIAS Convegno Nazionale, Ischia, Settembre 2007
7. Giudice F., La Rosa G., Risitano A., “Integrazione degli Aspetti Ambientali nella Progettazione di Prodotto: Introduzione alle Problematiche e Impostazione Metodologica”, XXXIV AIAS Convegno Nazionale, Milano, Settembre 2005
8. Fargione G., Giudice F., “Pianificazione del Disassemblaggio di Sistemi Meccanici: Approccio mediante Algoritmi Genetici”, XIV ADM - XXXIII AIAS Convegno Nazionale, Bari, Agosto–Settembre 2004
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