Marie Curie Postdoc Fellowship

2026

1. Supervisor

Supervisor: Carlo Santulli, Geology Section, School of Science and Technology

CV:

Carlo Santulli is qualified as Full Professor in Materials Science and Technology at the University of Camerino, where he works since 2012. Laurea (MEng) in Chemical Engineering (Roma-La Sapienza, 1991), PhD in Materials Science and Technology (University of Liverpool, 2000), MSc in Environmental Decision Making (Open University, 2004), laurea in arts (Roma-La Sapienza, 2001). His academic lectures deal with topics as waste management, materials science and environmental sustainability. He also acts in dissemination of environmental and sustainability themes in schools and other contexts in Italy.

His research interests are on composite materials, natural fibres and sustainable materials, waste management and upcycling, and biomimetics. He has worked in Università di Roma - La Sapienza (1988-93 and 2006-2010), JRC Ispra (1994-1998), University of Nottingham (1999-2001), University of Reading (2001-2006) and Seconda Università di Napoli (2010-2012). He has been invited researcher and professor at Katholieke Universiteit Leuven, Ecole des Mines de Saint Etienne, Université de Rouen, Università di Bologna, Universiti Teknologi Malaysia, Universiti Putra Malaysia and Bangalore University. Supervisor or co-supervisor for a total of 164 PhD, MSc, BSc and BA projects. External examiner for PhD thesis for many universities around the world, mainly in India, Malaysia, France and Italy. Referee for over 80 scientific journals. He has published 287 journal papers, 46 book chapters, and 104 conference papers, with H-index 57 and i-10 index 212. ORCID: 0000-0002-1686-4271.

Some very recent publications

1. Fragassa C, Conticelli F, Francucci B, Seccacini G, Santulli C, Biocomposites for Marine Applications: A Review of Friction, Wear, and Environmental Degradation, Journal of Composites Science 9 (7), 2025, 331.
2. Palaniappan M, Palanisamy S, Murugesan T, Santulli C, Tadepalli, S. Mechanical and Sound Absorption Performance of Cashew Apple Bagasse and Mahogany Fruit-based Hybrid Composites. BioResources, 20(3), 6837–6852.
3. Fragassa C, Conticelli F, Francucci B, Seccacini G, Santulli C, Biocomposites for Marine Applications: A Review of Friction, Wear, and Environmental Degradation, Journal of Composites Science 9 (7), 331.
4. Santulli C, Goutham ERS, Hussain SS, Palanisamy S, Chandrasekar M, Senthilkumar K, Muthu Kumar ST, Parameswaranpillai J, Naveen J, Drilling parameters and post-drilling residual tensile properties of the natural fiber reinforced composites: a review, Journal of Composites Science 7(4), 2024, 136.
5. Senthilkumar K, Chandrasekar M, Jawaid M, Mahmoud MH, Fouad H, Santulli C, Zaki SA, Investigating the synergistic effect of olive trunk leaves powder and pineapple leaf fibers on the physical, tensile, and thermal properties of epoxy-based composites, Polymer Composites 44, 2024, 3416–3424.

Funded project: SEAComp (MAECI) “Marine waste for composites applications” (Italy-Montenegro networking actions)

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2. Research Group and Facilities

Laboratory & Facilities: chemistry lab. with tools for materials characterization, materials lab. for mechanical, acoustical and thermal testing

Research Network: Prof. Serena Gabrielli (organic chemist), Prof. Mirko Filipponi (acoustical engineer), Dr. Graziella Roselli (expert in restoration techniques), Prof. Luciana Mastrolonardo (Università di Chieti e Pescara) (expert in LCA), Prof. Alain Bourmaud (UBS) (expert in natural fibers)

3. Research Thematic Area/Project Idea

Title of the project: FRATOPH (From Restoration Adhesives To Passive Housing)

Macroarea: Environment and Geosciences (ENV)

Keywords: Biomaterials, bioadhesives, sustainable acoustical and thermal insulation, energy

Project Overview: Development of the use of natural adhesives from the tradition of restoration into the production of acoustic and thermal boards joining waste biomass and 100% bio-based

- Identification of natural adhesives and recipes
- Identification of waste biomass
- Production of samples and panels and relevant characterization
- Industrialization of the product
- Evaluation of energy saving performance

4. Candidate and Career Plan

Expected background of the candidate

Materials scientist (or materials chemist), with strong interest to multidisciplinarity, and focus on sustainable and circular materials.

Competences and knowledge to be developed by the candidate

Development of materials from raw matter to product industrialization

Ability to understand the issues in improving material quality and building up a database of suitable knowledge for the purpose

Expand the concept of sustainability to building materials and be able to calculate the environmental impact with the most suitable tools applied to the “passive house”