
Editorial

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Biographical notes: Claudio Scarponi is a Professor in Aerospace Engineering. In more than 20 years of teaching, his interests involved materials and structures. He is author of more than 50 publications on the most important international reviews (*Meccanica, Journal of Reinforced Plastics and Composites, Journal of Composite Materials, Composites, Composites Science and Technology, International Journal of Materials and Products Technology*). Actually he teaches Aerospace Technologies and Aerospace Systems in the Engineering Faculty of the University of Rome 'Sapienza'.

The special issue is based on a selection of papers from the first international conference organised in the Engineering faculty of 'Sapienza Università di Roma' whose subject was Natural Fibres Composites in October 2007. Contributions are from five continents: France, Germany, GB, Netherlands and Lithuania from Europe; Kenya and Tanzania from Africa; Texas from USA; Brazil and Argentina from South America; China, India, Bangladesh and Japan from Asia and New Zealand from Oceania.

Sustainable development is increasingly becoming a priority of governments and businesses. Driven by this growing environmental awareness, much academic research and industrial development explores new ways to create greener and more environmentally friendly materials for a variety of applications (aeronautics, automotive, buildings ...). In recent years, a significant interest has been shown in the potential of natural fibre composites as a viable and competitive alternative to glass fibre reinforced composites. There remains a general consensus about the main advantages of natural fibre reinforcements such as lightweight, availability, ease of recycling, sustainability, renewability, thermal and acoustic insulation properties, energy saving in the fabrication process and carbon dioxide neutrality. The advantages of natural fibre composites are becoming more quantifiable through the use of Life Cycle Analysis methodology. Life Cycle Assessment (LCA) considers the environmental aspects and potential impact at every stage of a product's life from initial synthesis through to ultimate disposal or recycle, including processing and incineration. This Conference was aimed towards composite users, leading suppliers, producers, environmentalists, engineers, researchers and technicians from industries and universities to share their experience, to show their results, to discuss the advantages

and disadvantages of the use of natural fibres, to highlight the state-of-the-art and future applications. A particular importance was given to the state of the art of the biopolymer matrices and to the concept of sustainable development of natural fibre composites in order to show the current state of development and the challenges for the future.