

Guest editorial

Special theme issue

Natural fibre reinforced cement composites

This Special Theme Issue on Natural Fibre Reinforced Cement Composites was initially suggested by Professor R.N. Swamy of the University of Sheffield in the year 2000. The timeliness of such an issue was made even more apparent by the enthusiastic interchange of ideas amongst the participants at the International Conference on Sustainable Construction Into the Next Millennium: Environmentally Friendly and Innovative Cement Based Materials, held in João Pessoa, Brazil, in November of that year. It has come to fruition at a time of continued and increasing interest in the possible applications of non-conventional products and techniques in housing and infrastructure construction. For differing reasons, both industrialised and developing countries recognise the importance of the use of ecologically friendly and cost effective materials in urban and rural buildings. In many countries, and particularly in Latin America, there is an increasing interest in the application of new technologies within the fibre-cement industry. We hope that the papers presented in this edition collectively represent a modest contribution toward the realisation of more sustainable building materials, and illustrate the scope for further research and product development.

The 13 papers of this Guest Issue include contributions from all over the world on soil and cement-based composites reinforced with vegetable fibres. Two of the papers provide overviews of the Australian and Brazilian experiences in natural fibre-cements. Several articles discuss the mechanical and physical characteristics of a variety of soil and cement-based composites, and major aspects related to their durability. Other contribu-

tions focus on the utilisation of waste raw-materials, the effects of mineral and polymer additives, and relationships between the properties of fibre-cements in the green and cured states.

We are thankful to Professor Swamy for his invitation to participate in this Special Issue, and his unstinting support and guidance during its preparation. We would like to express our gratitude to all the contributors for their work and particularly for their patience during a lengthy peer review process, and to the reviewers for their efforts toward ensuring a high quality in the final manuscripts. We acknowledge the University of São Paulo (USP), Brazil, and the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia, for their generous support of our involvement.

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