Editorial

20th SICOMP Anniversary Conference

This double Special Edition of Plastics, Rubber and Composites includes a representative cross-section of the papers presented at the 20th SICOMP conference, the theme of which was ‘Manufacturing and Design of Composites’. This meeting was attended by over 120 international participants, from industry and academia. It involved state-of-the-art papers covering the composites field, with topics including graphite composites, nano-composites, bio-composites, smart composites, recycling and sustainable manufacture. There were also Keynote and Plenary presentations from several well-known authorities in the composites field, led by Professor Anthony Kelly, FRS.

The supporting activities were also very good, the conference banquet being a particular success. This included a magician, and musical entertainment provided by KompAssit, a progressive band, some of whom resembled SICOMP staff who had appeared earlier in the conference. In addition, there were visits to ABB AB/Plast, Composite Scandinavia, and a tour of the Swerea SICOMP laboratories.

The conference opened with a presentation by Anthony Kelly, FRS (Cambridge University) on the Engineering Triumph of Carbon Fibre, a historical perspective on our new industry, which included many intriguing glimpses of the personalities involved in its foundation. Lars Berglund (Royal Institute of Technology) then brought composites up to date with a timely presentation on Bioinspired Composites. Hans Folkesson (Swedish Hybrid Vehicle Centre) introduced a range of thought-provoking ideas in Vision of Vehicle Concepts 2030.

Continuing the Plenary Session, Costas Soutis (Sheffield University) spoke on Recent Advances in Building with Composites, followed by José Kenny (University of Perugia) on Processing of Composites with Nano-composite Matrices. Susanne Christianson (EADS Astrium Space Transportation) reported on Design and Verification of Composite Structures in the Ariane 5 Launcher, and Magnus Svanberg (Swerea SICOMP) spoke on the EXTEND programme on the extended use of composites.

Ralf Creemers (Dutch National Aerospace Laboratory) described a Statistical Assessment of Interlaminar Shear Strength Criteria, then Sven-Ake Schimmel (Quickstep Gmbh) discussed the use of Quickstep Processing For Exotherm Control in Thick Laminate Manufacture. Katriina Oksman Niska (Luleå University of Technology) then spoke on Novel Bio-Nano-Composites; Processing, Properties and Potential Applications.

In the final part of the Plenary Session, Peter Linde (Airbus) described the Virtual Testing of Stiffened Composite Panels, and Brian Hayman (Det Norske Veritas) gave a comprehensive account of the Present and Future use of Composites in Ships. Finally, Alexander Bismarck (Imperial College) was well received with an interesting discussion on Hierarchical Thermoplastic Composites.

In the Parallel Session 1, Mirja Andersson (KETEK Ltd) discussed Recycling of Glass Fiber Composite Waste, calling upon a Case Study from the boat industry. Then Alexander Roth (Evron Röhm GmbH) described the Determination of the Mechanical Properties of New Reinforced PMI Foams. Ralf Schledjewski (Institut für Verbundwerkstoffe) discussed in situ Consolidation in the Thermoplastic Tape Placement Process. Adrian Circiumaru (Dunarea de Jos University) reported on The Electrical Conductivity of Fabric Reinforced Filled Epoxy Composites. Patrik Fernberg (Swerea SICOMP) reported the Influence of Manufacturing Conditions on Quality of Infused CFRP. Then, Jimmy Olsson (Luleå University of Technology) described a Statistical Study of Compression Moulding Behaviour of SMC. Finally, Franck Quero (University of Manchester) reported Progress on the Use of Raman Spectroscopy to Study Bacterial Cellulose/PLLA Composite Interfaces.

Parallel Session 2 was devoted to papers from the EU MOMENTUM Marie Curie Research Training Network on Composites in Transport, in which SICOMP and Newcastle University and several other delegates had been involved. Geoff Gibson (University of Newcastle) reported Anisotropic Thermal Behaviour of Composites and Fire Damage in a CFRP Wing-box Laminate. Mirosław Wesolowski (Riga Technical University) discussed a Vibration-Based Technique for Damage Detection in Sandwich Laminates. Magdalena Szpiew (Swerea SICOMP) presented Recent Results on the Re-use of Polymer Materials and Carbon Fibre in Novel Engineering Materials, and Mariano Otheguy (University of Newcastle) discussed Recycling of Glass/Polypropylene Laminate from a Marine Craft. Andrew George (University of...
Stuttgart) examined *Permeability Issues with Carbon Fiber Preforms*, and Anthony Pickett (University of Stuttgart) described *Simulation of Composite Braiding, with Mechanical Property Prediction*.

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*SICOMP Swerea*

Geoff Gibson  
*Special Edition Editor*

Prof. Adrian Kelly, Keynote Speaker

Open house session at SWEREA