



DAY 1: 9th June 2013

9.00-9.15	Opening Session – Room <i>Flores</i>						
9.15-10.00	Keynote Lecture 1: Synthetic Biology as a powerful tool in the development of bioinspired smart materials <i>Margarida Casal</i> University of Minho Portugal						
	Parallel session 1 - Room <i>Flores</i>			Parallel session 2 - Room <i>Santa Maria</i>		Parallel session 3 - Room <i>Sete Cidades</i>	
10.00-10.15	Session 1a: Agriculture, production and extraction of natural fibres Chair: Malgorzata Zimniewska	ID 68 Evaluation of cottonised hemp fibre produced using a new catalytic degumming system Christopher Hurren Deakin University Australia	Session 6a: Green Composites Chair: B. L. Deopura	ID 61 Development of new ecological composites: chamotte reinforced with basalt fibers for thermal insulation applications Jean-François Silvian Institute of Condensed Matter Chemistry of Bordeaux France	Session 7a: Natural fibre based nanocomposites Chair: Amar Mohanty	ID 150 Cellulose nanofibers: unique materials for the development of innovative nanocomposites Armando Silvestre CICECO - University of Aveiro Portugal	
10.15-10.30		ID 64 Acetosolv pulping of unripe coconut fibres Diego Nascimento Federal University of Ceará Brazil		ID 41 Nonwoven flax fibre reinforced PLA biocomposites Shah Alimuzzaman University of Manchester United Kingdom		ID 136 Nanocomposites of polyvynil alcohol and banana fibre nanocellulose André Pereira Federal University of Ceará Brazil	
10.30-10.45		ID 102 Anaerobic process for the extraction of quality plant fibres Manilal Balakrishnan National Institute for Interdisciplinary Science and Technology India		ID 42 Packaging produced from natural fibers and <i>mycelium</i> : optimizing biomass blends to meet performance specifications Gregory Holt US Department of Agriculture United States of America		ID 168 Polylactic acid (PLA) composite films reinforced with wet milled jute nanofibres Vijay Baheti Technical University of Liberec Czech Republic	
10.45-11.00		ID 113 Process-technological evaluation of harvesting hemp in winter Jörn Budde Leibniz-Institute for Agricultural Engineering Potsdam-Bornim Germany		ID 63 Giving added value to fibres and seeds of flax : a prospective toward new flax composites Claudine Morvan University of Rouen France		ID 125 Cellulose nanowhisker content flexible thin composite films Kazi Md Zakir Hossain The University of Nottingham United Kingdom	
11.00-11.30	Coffee-break						



11.30-11.45	Session 2a: Properties and Characterization of natural fibres Chair: Mário de Araújo	ID 14 Anaerobic biodegradability of agricultural renewable fibers Bo Shi Kimberly-Clark Corporation United States of America	Session 8a: Natural fibre based polymeric composites Chair: António Torres Marques	ID 8 Characterization of stiffness components of medium density fiberboard panels by heterogeneous plate bending tests José Xavier University of Trás-os-Montes e Alto Douro Portugal	Session 5a: Nano-dimensional natural fibres Chair: Seeram Ramakrishna	ID 27 Production of feather nanoparticles by enzymatic hydrolysis Fatemeh Dadashian University of Technology Iran
11.45-12.00		ID 278 Surface morphology and physical properties of wool fibres of selected polish breeds Jan Broda University of Bielsko-Biala Poland		ID 87 Mechanical and thermal properties of epoxy resins reinforced with natural fibers Angela Daniela la Rosa University of Catania Italy		ID 67 Preparation and characterization of aerogel based on microfibrillar cellulose from banana fibre André Pereira EMBRAPA Brazil
12.00-12.15		ID 97 Near infra-red analysis of wool products Steve Ranford AgResearch Limited New Zealand		ID 11 Microstructural characterization of jute/epoxy quasi-unidirectional composites John Summerscales University of Plymouth United Kingdom		ID 37 Cellulose nano whiskers from oil palm fibers Nagila Souza EMBRAPA Brazil
12.15-12.30		ID 282 Development and validation of an experimental set for tensile testing strands of plant fibres Antoine Barbulée University of Caen France		ID 57 Resin Transfer Moulding (RTM) fins production with natural fibres-AHM Aitor Michelena University of Plymouth United Kingdom		ID 40 Optimization of acid hydrolysis process to obtain banana pseudostem nanocellulose Niedja Vasconcelos EMBRAPA Brazil
12.30-12.45		ID 106 Characterization of the viscoelastic behaviour of flax fibres Karine Charlet University of Clermont France		ID 20 Variability in, and property prediction for natural fibre composites John Summerscales University of Plymouth United Kingdom		ID 43 Production of bacterial cellulose using <i>Gluconacetobacter hansenii</i> (ATCC 1431) strain in synthetic medium Maria Borges EMBRAPA Brazil
12.45-13.00		ID 108 Studies on the thermal stability of modified natural fibers Arunjunai Mahendran Kompetenzzentrum Holz GmbH Austria				
13.00-14.00	Lunch					



14.00-14.15	Session 3a: Natural fibre modification Chair: Carlos Orrego Alzate	ID 184 Protic ionic liquids – Interactions with biomolecules towards functional materials Nolene Byrne Deakin University Australia	Session 4a: Innovative and functional natural fibres Chair: Raul Figueiro	ID 259 Development and characterization of novel natural fibre based solid polymer electrolytes Sohel Rana University of Minho Portugal	Session 8b: Natural fibre based polymeric composites Chair: Rajesh Anandjiwala	ID 50 Calcium carbonate growth controlled by chitin and ionic liquids Maria Gonçalves University of Trás-os-Montes e Alto Douro Portugal
14.15-14.30		ID 24 Recent research advances on human hair Artur Cavaco-Paulo University of Minho Portugal		ID 276 Natural fibers with self-cleaning performance Sílvia Carvalho University of Minho Portugal		ID 33 Rheological properties of natural fibres-thermoplastic composites Tatiana Budtova MINES ParisTech France
14.30-14.45		ID 36 Interfacial properties of jute-PP composites – influence of coupling agents Ramasamy Alagirusamy Indian Institute of Technology Delhi India		ID 270 Antibacterial activity and cell viability of hyaluronan fiber with silver nanoparticles Abdel-Mohsen Brno University of Technology Czech Republic		ID 49 Mechanical properties of flax woven preform reinforced epoxy composites Muralidhar B A Anna University India
14.45-15.00		ID 76 Influence of rice/wheat husk surface treatments on mechanical properties of polylactide (PLA)/husk biocomposites Thi Thao Tran Ales School of Mines France		ID 263 Nanocoating sisal fibers with TiO ₂ nanoparticles for photocatalytic application José Heriberto Nascimento Federal University of Rio Grande do Norte Brazil		ID 55 Analytical prediction of elastic properties in triaxially braided regenerated cellulose composites Isaam Qamhia University of Wisconsin-Milwaukee United States of America
15.00-15.15		ID 80 Natural fibers chemical modification - flammability and compatibility in polyurethane composites Ryszard Gąsiorowski Institute of Natural Fibres & Medicinal Plants Poland		ID 101 <i>In-situ</i> TiO ₂ coated poly (lactic acid) nanofibres for wound & UV-protection Kamal Gupta Indian Institute of Technology Bhubaneswar India		ID 72 Preparation, characterization and performance of pultruded kenaf fiber reinforced composites (PKFRC) Akil Hazizan University Sains Malaysia Malaysia
15.15-15.30		ID 81 Development of jute fiber composites using chemical & plasma treatments Abhinav Hazra Indian Institute of Technology Kharagpur India		ID 164 Durable insect repellent behaviour of cotton fabric by permethrin capsules Gizem Türkoğlu Dokuz Eylül University Turkey		ID 78 Polymer composites reinforced with basalt fibers Deesy Pinto University of Coimbra Portugal
15.30-15.45		ID 91 Surface modification of flax fibers and characterization by thermal decomposition Gaelle Dorez Ales School of Mines France				
15.45-16.15	Coffee-break					



16.15-16.30	Session 12a: Innovative applications of natural fibres Chair: Uday Javali	ID 244 Comparison of flexural properties of biocomposites and plaster board panels João Velosa University of Minho Portugal	Session 11a: Textile wet processing of natural fibres Chair: Luís Almeida	ID 54 pH assisted low temperature dyeing of angora fibers Riza Atav University of Namik Kemal Turkey	Session 2b: Properties and Characterization of natural fibres Chair: Jan Broda	ID 74 Basalt fibre: present and opportunities Qing Li Deakin University Australia
16.30-16.45		ID 15 Antibacterial properties of neem extracts Marziyeh Khatibzadeh Amirkabir University of Technology Iran		ID 269 An efficient color removal system for wool dyeing mill effluents: polyamidoamine dendrimers Yalçın Güneş Namik Kemal University Turkey		ID 153 Detection of natural additives in composite filaments by using fluorescence microscopy Ümit Halis University of Dokuz Eylül Turkey
16.45-17.00		ID 31 Gellan gum: A new approach in biomolecules purification Luís Rocha University of Beira Interior Portugal		ID 120 The use of walnut rind first as a natural dye for wool, then as a natural adsorbent for color removal of basic dye effluents Elçin Güneş Namik Kemal University Turkey		ID 165 Re-inventing the wheel? A comparison of the odor-preventive properties of natural fibers and the odor-control technology applied to synthetic textiles. Ingun Klepp National Institute for Consumer Research Norway
17.00-17.15		ID 45 Study of mechanical properties and chemistry of the coconut fiber green for use in footwear Célia Costa University of São Paulo Brazil		ID 139 The technology of dry-cleaning of woolen garments with essential oils Svitlana Karvan Khmelnitsky National University Ukraine		ID 166 Reproducibility over 3 years of mechanical properties of fibres: one variety, many in one location, le plateau du Neubourg (France) Anaëlle Lefeuvre University of Rouen France
17.15-17.30						ID 90 Optimizing a cell factory system for the bioproduction of silk-elastin-like polymers Tony Collins University of Minho Portugal
17.30 – 18.00	POSTER SESSION / Natural FIBRENAMICS Award					
18.00	Visit to Guimarães					
20.00	Musical Concert – Convento de Santo António dos Capuchos					



DAY 2: 10th June 2013

9.00-9.45	Keynote Lecture – Room Flores Electrospun Nanomaterials and Societal Challenges Seeram Ramakrishna National University of Singapore Singapore					
	Parallel session 1 - Room Flores		Parallel session 2 - Room Santa Maria		Parallel session 3 - Room Sete Cidades	
9.45-10.00	Opportunities and threats of natural fibers (Organized with DNEI – Discover Natural Fibers Initiative)	ID 291 Opportunities and threats to natural fibers in technical applications	Session 2c: Properties and Characterization of natural fibres Chair: Bo Shi	ID 193 Application of the zeta potential for surface characterization of natural fibers Irena Petrinic University of Maribor Slovenia	Session 1b: Agriculture, production and extraction of natural fibres Chair: Grzegorz Szychalski	ID 124 A novel method for the extraction of short and fine pineapple leaf fiber and maximum utilization of leave waste for plastic reinforcement Taweechai Amornsakchai Mahidol University Thailand
10.00-10.15		Rajesh Anandjiwala Council for Scientific and Industrial Research South Africa		ID 195 Physicochemical study of textile potential of brazilian species - <i>Sidastrum paniculatum</i> and <i>Sida rhombifolia</i> - <i>Malvaceae</i> family Bárbara Guimarães University of São Paulo Brazil		ID 144 The effect of agronomy and growing condition on flax fiber yield and its quality Krzysztof Heller Institute of Natural Fibres & Medicinal Plants Poland
10.15-10.30		ID 250 Overview of World Fiber Production		ID 197 Characterization of cellulose and holocellulose obtained from wine making byproducts of <i>Vitis Vinifera</i> L. Sónia Prozil Polytechnic Institute of Viseu Portugal		ID 145 Utilization of hemp fibre obtained from plants grown on remediated land Jerzy Mankowski Institute of Natural Fibres & Medicinal Plants Poland
10.30-10.45		Terry Townsend International Cotton Advisory Committee United States of America		ID 200 Study of durability of natural fibres for geotechnical applications Raquel Carvalho University of Minho Portugal		ID 156 Synthesis and processing of recombinant silk and elastin copolymers Raul Machado University of Minho Portugal
10.45-11.00		Discussion		ID 209 Characterization of textile by-products from three different regions of Coahuila, Mexico Paul Suárez University of Coahuila Mexico		ID 163 Spanish broom (<i>Spartium junceum</i> L.) as new fiber for biocomposites: the effect of crop age and microbial retting on fiber quality Luciana Angelini University of Pisa Italy
11.00-11.30	Coffee-break					



11.30-11.45	Opportunities and threats of natural fibers (Organized with DNFI – Discover Natural Fibers Initiative)	ID 275 Opportunities and threats of natural fibres: a wool industry perspective	Session 5b: Nano-dimensional natural fibres Chair: Sohel Rana	ID 279 Antimicrobial activity of carboxymethyl chitosan/ polyethylene oxide nanofibers embeded silver nanoparticles Moustafa Fouda King Saud University Saudi Arabia	Session 10a: Natural fibre based textiles and clothing Chair: Mário de Araújo	ID 16 Some comfort properties of denim fabrics from nettle fiber Umut Kivanc Sahin Istanbul Technical University Turkey
11.45-12.00		Paul Swan Australian Wool Innovation Limited and International Wool Textile Organization Australia		ID 128 Environmental impacts of cellulose nanowhiskers obtained from tropical vegetal fibers Maria Figueiredo EMBRAPA Brazil		ID 17 Flame retardant finishing of cotton: progress and challenges Charles Yang University of Georgia United States of America
12.00-12.15		ID 285 Accelerating the application of Natural Fiber Composites through product design		ID 258 A review on nanocellulose composites: preparation, properties and applications Shama Parveen University of Minho Portugal		ID 173 Complex shape forming of flax fabrics: analysis of the solutions to prevent defects Pierre Ouagne University of Orléans France
12.15-12.30		Dilip Tambyrajah International Natural Fibers Organization The Netherlands		ID 227 Crystalline nanocellulose from non-fiber sources You-Lo Hsieh University of California United States of America		ID 243 Wool and alpaca knit fabrics: does the proportion of each fibre affect selected properties? Raechel Laing University of Otago New Zealand
12.30-12.45		Discussion		ID 65 Characterization of cellulose nanowhiskers from brazilian cotton linter João Morais EMBRAPA Brazil		ID 251 Performance and durability of thermoregulation and moisture management finishes applied to cotton fabrics Juliana Cruz University of Minho Portugal
12.45-13.00						ID 262 A comparative study of the quality of conventional, compact, and hybrid doubled yarns Subramaniam Venkataraman Jaya Engineering College India
13.00-14.00	Lunch					



14.00-14.15	Session 8c: Natural fibre based polymeric composites Chair: John Summerscales	ID 93 Adhesion of metal coating to biocomposites Larry Pershin University of Toronto Canada	Session 9a: Natural fibre based cementitious composites Chair: Daniel Oliveira	WINNER OF NATURAL FIBRENAMICS AWARD	Session 12b: Innovative applications of natural fibres Chair: Júlia Baruaque	ID 167 Fabrication and mechanical properties of hydroxypropyl cellulose blends nanofibers and their use as drug delivery system Mohamed El-Newehy King Saud University Saudi Arabia
14.15-14.30		ID 112 Recycling process of wood reinforced polypropylene composites Lata Soccalingame Ales School of Mines France		ID 149 Natural fibre nonwovens as reinforcements for cement mortar composites Josep Claramunt Polytechnic University of Catalunya Spain		ID 196 Non-yellowing bra cups made of natural fibers Hannelore Staeb Reutlingen Research Institute Germany
14.30-14.45		ID 118 Mechanical properties of pineapple leaf fiber reinforced nitrile rubber Ukrit Wisittanawat Mahidol University Thailand		ID 287 Use of textile fibres in the reinforcement of a gypsum-cork based composite material Graça Vasconcelos University of Minho Portugal		ID 202 Partial characterization of typical Mexican agro industrial residues for possible use in solid-state fermentation processes Dulce Flores-Maltos Autonomous University of Coahuila Mexico
14.45-15.00		ID 132 Shear viscosity data for flax fibre reinforced polypropylene through reverse engineering Frederik Desplentere Catholic University KU-Leuven Belgium		ID 110 Cement mortar composites reinforced with nano and micro-scale cellulose fibers Monica Ardanuy Polytechnic University of Catalunya Spain		ID 152 Design of a naca cowl in woven hemp fabric reinforced epoxy composite Sara Jacobellis Sapienza University of Rome Italy
15.00-15.15		ID 141 Innovative cork composite solutions for new generation of very high speed trains Carlos Ribeiro PIEP – Innovation in Polymer Engineering Portugal		ID 73 Experimental behavior of natural fiber-based composites used for strengthening masonry structures Rosamaria Codispoti University of Calabria Italy		ID 254 Paper solid state batteries Isabel Ferreira Institute of Nanostructures, Nanomodelling and Nanofabrication Portugal
15.15-15.30		ID 170 Coir fibre reinforced composites B.L. Deopura Indian Institute of Technology Delhi India		ID 261 Optimizing the formulations of cementitious composites reinforced with flax fibers Sawsen Chafei University of Caen France		ID 255 Cellulose-based bio-batteries Ana Baptista Institute of Nanostructures, Nanomodelling and Nanofabrication Portugal
15.30-15.45		ID 289 Poly (lactic acid) (PLA) based bioplastic blends and hybrid natural fibre composites Manju Misra University of Guelph Canada		ID 274 Concrete with abaca fibres and bacteria to improve sustainability and performance of irrigations canals in Ecuador Mercedes Beltran Delft University of Technology The Netherlands		
15.45-16.15	Coffee-break					



16.15-16.30	Session 3b: Natural fibre modification Chair: Sohel Rana	ID 116 Modification of linen fabrics with polycarboxylic acids Dorota Wesolek Institute of Natural Fibres & Medicinal Plants Poland	Session 4b: Innovative and functional natural fibres Chair: João Moraes	ID 171 A solution to limit the degradation of antibacterial PLA/ZnO nanocomposites Manuela Ferreira National Graduate School of Arts and Textiles Industry France	Session 8d: Natural fibre based polymeric composites Chair: Mark Staiger	ID 205 A mechanical analysis of a polypropylene copolymer reinforced by alfa fibers Hervé Laurent Laboratory of Engineering of Materials of Bretagne France
16.30-16.45		ID 121 A method for improving wood cellulose fibre compatibility with thermoplastic bio-based polymers Kirsi Immonen VTT Technical Research Centre of Finland Finland		ID 208 Textile fibers produced from cellulose, chitosan, and cellulose/chitosan hybrid Sirlene Costa University of São Paulo Brazil		ID 180 Fire retardant characteristics of polypropylene/kenaf short natural fibre composites Raj Das University of Auckland New Zealand
16.45-17.00		ID 122 Short pineapple leaf fiber (palf) reinforced polypropylene composites: effects of palf surface modifications and compatibilizer Nanthaya Kenghetkit Mahidol University Thailand		ID 177 Novel high aspect ratio wood fibres for polymer reinforcement: wood force Ana Rita Campos University of Minho Portugal		ID 178 Development and assessment to environmentally friendly natural fiber composites João Nunes University of Minho Portugal
17.00-17.15		ID 123 Influence of hydroxyethyl cellulose treatment on the mechanical properties of jute composite Ranajit Nag The University of Nottingham United Kingdom		ID 75 Biological activity of flax fibers in contact with human skin Malgorzata Zimniewska Institute of Natural Fibres & Medicinal Plants Poland		ID 218 Natural fibre composites for automotive interiors - a systematic study Sangeetha Ramaswamy RWTH Aachen University Germany
17.15-17.30		ID 130 Comparison of chemical and DBD plasma treatments of banana-plantain (<i>Musa paradisiaca</i>) pseudo-stem fibers Carlos Orrego Alzate National University of Colombia Colombia		ID 257 Hybrid Clay Functionalized Biofibres for Composite Applications Carl Lange Åbo Academic University Finland		ID 219 Fabrication and characterization of agrowaste – polystyrene composites Hosam Aleem University of Manchester United Kingdom
17.30–18.00	POSTER SESSION / Natural FIBRENAMICS Award					
20.00	Conference Dinner					



DAY 3: 11th June 2013

9.00-9.45	Keynote Lecture - Room Flores Natural Fibre Composites for a Sustainable and Low-carbon Economy: Where We are and Our Future Directions! Amar K. Mohanty University of Guelph Canada					
	Parallel session 1 - Room Flores		Parallel session 2 - Room Santa Maria		Parallel session 3 - Room Sete Cidades	
9.45-10.00	Session 2d: Properties and Characterization of natural fibres Chair: Raechel Laing	ID 220 Estimation of Vitamin D and Erythema Production when the Skin is Covered by Fabric Cheryl Wilson University of Otago New Zealand	Session 1c: Agriculture, production and extraction of natural fibres Chair: Malgorzata Zimniewska	ID 199 Preparation of cellulosic fibers from sugarcane for a textile application Davina Michel University of Haute-Alsace France	Session 6b: Green Composites Chair: Raj Das	ID 185 All-cellulose composites – microstructure to manufacturing Mark Staiger University of Canterbury New Zealand
10.00-10.15		ID 221 FTIR characterization of Amazonian vegetal extracts for textile process Barbara Leonardi University of São Paulo Brazil		ID 206 Extraction and characterization of fibers and fibrous residues from coffee industry wastes Lina Ballesteros University of Minho Portugal		ID 248 Viscoelastic and thermal properties of PLA composite reinforced with a new natural fabric from <i>Manicaria saccifera gaetner palm</i> Alicia Porras University of the Andes Colombia
10.15-10.30		ID 236 A method to identify fibres within 3D images of natural cellulosic fibrous media Viguié Jérémie Grenoble Alpes University France		ID 214 Linseed as a source of short fibers Marie Bjelková AGRITEC Czech Republic		ID 240 Nonwoven-based thermoplastic biocomposites for automotive: influence of fiber quality and polymer resin on mechanical and sound absorption properties Philippe Vroman National Graduate School of Arts and Textiles Industry France
10.30-10.45		ID 246 Characterization of cellulose microfibrils obtained from hemp Anna Putnina Riga Technical University Lithuania		ID 169 Effect of cultivar and agronomic conditions on the fibre yield and quality of flax grown in South Africa Sunshine Blouw Council for Scientific and Industrial Research South Africa		ID 9 Natural aligned fibers and textiles in composites for structural applications Jovana Džalto Institute for Composite Materials Germany
10.45-11.00						
11.00-11.30	Coffee-break					



11.30-11.45	Session 3c: Natural fibre modification Chair: Carlos Orrego Alzate	ID 133 Epichlorohydrin and acetic anhydride modification of banana-plantain (<i>Musa paradisiaca</i>) pseudo-stem fibers Lady Rodriguez National University of Colombia Colombia	Session 12c: Innovative applications of natural fibres Chair: Cavaco-Paulo	ID 157 Modification and magnetization of alginate for removal of anionic dye Fatemeh Khari Amirkabir University of Technology Iran	Session 8e: Natural fibre based polymeric composites Chair: Manju Misra	ID 264 Investigation of flammability properties for flax fibre reinforced epoxy composites Raj Das University of Auckland New Zealand
11.45-12.00		ID 223 Effect of MDI pretreatment on peach palm fibers in mechanical performance of polyester composites Rafael Steuernagel University of Joinville Region Brazil		ID 277 Innovative way to prepare Eri silk nonwovens Uday Javali Central Silk Technological Research Institute India		ID 268 Application of flax fibre based fabrics to reinforcements of laminates with thermoplastic matrices Malgorzata Zimniewska Institute of Natural Fibres & Medicinal Plants Poland
12.00-12.15		ID 252 Surface modification of natural fibers for application in composite materials: a review Juliana Cruz University of Minho Portugal		ID 151 Intensification of the physical degumming of flax fibres Wanda Konczewicz Institute of Natural Fibres & Medicinal Plants Poland		ID 82 Development of green composite using rice husk as natural filler Ajoy Chanda Indian Institute of Technology Kharagpur India
12.15-12.30		ID 273 Characterization of natural cork agglomerate functionalized by plasma treatment Etienne Silva University of Minho Portugal		ID 226 Dyeing of silk Fabrics with Buckthorn and Their Analyses Gökhan Erkan Dokuz Eylül University Turkey		ID 222 A mechanical analysis of in-situ polymerized poly(butylene terephthalate) flax fiber reinforced composite produced by RTM Cristina Romão Polytechnic Institute of Viseu Portugal
12.30-13.00	Closing ceremony					
13.00-14.00	Lunch					
14.00-17.00	Visit to Porto					