



Final programme

# EUROMAGH INTERNATIONAL CONFERENCE

*Sustainability and Biobased Materials:*

*On the road of the bioeconomy*

Rouen, Oct 19-20 2020

# CONFERENCE PROGRAMME EUROMAGH 2020

*Sustainability and Biobased Materials: On the road of bioeconomy*

Monday 19-10-2020 (Morning session)				
8h30-9h00	<p>Conference Opening:            Marie Lummerzheim, Dean, UniLaSalle-Rouen;            Karine LAVAL: R&amp;D Director, UniLaSalle-Rouen,            Nathalie LEBLANC: Deputy Head of T&amp;A Unit, UniLaSalle-Rouen            Rezak AYAD: Professor URCA &amp; Coordinator Euromagh Network            Mohamed RAGOUBI: Associate professor &amp; Conference Manager, UniLaSalle-Rouen</p>			
9h00-9h35	<p><b>Plenary Conference :</b> Michael Carus, Bioeconomy and Bio-based Products – markets and trends, Founder and Director Manager Nova Institute, Germany,</p>			
9h35-10h10	<p><b>Plenary Conference :</b> Anne Daubresse, PARNATUR, Responsable pole prospectives methodes et formulation, Parex Group, Genesis of an innovative bio-based coating as part of a collaborative project, France</p>			
10h10-10h25	<p>Break</p>			
10h25-12h45	<p><b>Topic 1 : Agroresources, fibers, nanofibers and nanoparticles reinforcements, Morphology, Physiology-Properties,</b></p>	<p><b>TOPIC 2: Biocomposites and Nano biocomposites, Processing, Properties and Sustainability</b></p>	<p><b>TOPIC 3: Rheology, Bioprocess and Modeling</b></p>	<p><b>TOPIC 4: Plant aggregates, vegetal concrete and Industrial valorisation: Characterization - Formulation - Multiphysics Properties and Eco-conception,</b></p>
	<p><b>Chairman :</b> Pr Rezak AYAD, <b>Co-Chairman:</b> Frederic BECQUART,</p>	<p><b>Chairman :</b> Pr Patrick MARTIN, <b>Co-Chairman:</b> Dr Riadh ZOUARI,</p>	<p><b>Chairman :</b> Pr Nore-edine ABRIAK, <b>Co-Chairman:</b> Dr Richard GATTIN,</p>	<p><b>Chairman :</b> Pr Zakia RAIS, <b>Co-Chairman:</b> Dr Fouad LOUATID,</p>
10h25-10h40	<p><b>Adhesion of Bio-sourced Sporopollenin Microcapsules on Textile Structures: Perspective for Water Depolluting Textiles,</b> Nabil BOUAZIZI <i>et al.</i>,</p>	<p>Are there similarities between quasi-static indentation and low velocity impact tests for flax-fibre composites?, Adélaïde LEROY <i>et al.</i>,</p>	<p>Sensitivity analysis of a coupled hydrothermal transfer model using Morris method: application to unfibered adobe materials, Tchiotsop JUNIOR <i>et al.</i>,</p>	<p>Characterization of Earth Hemp for green building thermal insulation by taking into account the variability of locally available resources, Théo VINCESLAS <i>et al.</i>,</p>
10h40-10h55	<p><b>Analysis of the relationships between the morphology, microstructure and tensile behaviour of flax fibre bundles,</b> Komlavi GOGOLI <i>et al.</i>,</p>	<p>Damage evolution of cross-ply flax fibre reinforced epoxy composites subjected to repeated impact, Youcef hadj mihoub SIDI MOUSSA <i>et al.</i>,</p>	<p>Thermo-mechanical behaviour of flax/green epoxy composites: Evaluation of thermal expansion coefficients and application to internal stress calculation El Hadi SAIDANE <i>et al.</i>,</p>	<p>Development of Bio-Based Panels with Posidonia Oceanica's Waste for Building Thermal Insulation, Melek AYADI <i>et al.</i>,</p>
10h55-11h10	<p><b>Biosynthesis of silver nanoparticles by Rosmarinus officinalis: Evaluation of their antibacterial and nitroarenes hydrogenation catalytic activities.</b> Abderrahmane NABGUI <i>et al.</i>,</p>	<p>Effects of electron beam irradiation on 4D-printed biopolymers for bone tissue engineering, Conrad MASTALERZ <i>et al.</i>,</p>	<p>Numerical modelling of dynamic properties of porous nonwoven bio composites using a 2.5D finite element model, Hajar HADJII <i>et al.</i>,</p>	<p>Effects of porosity and hydration heat on the mechanical behaviour of foam concrete incorporating hemp shives, Abdelrahman MOHAMAD <i>et al.</i>,</p>
11h10-11h25	<p><b>Characterization and Manufacturing of 3D Warp Interlock Fabrics With Moroccan Sisal Yarns,</b> Zineb SAMOUEH <i>et al.</i>,</p>	<p>Introduction to a new method for analysing the fibre orientation distribution in plant fibre composite preforms, Victor GAGER <i>et al.</i>,</p>	<p>Low-density insulation blocks and hardboards from amaranth (<i>Amaranthus cruentus</i>) stems, a new perspective for building applications Philippe EVON <i>et al.</i>,</p>	<p>Hydrothermal treatment of hemp shives: influence on the physical and chemical properties, Reine KARAM <i>et al.</i>,</p>
11h25-11h35	<p>Break</p>			
11h35-11h50	<p><b>Chemical composition of plant particles by physical and chemical approaches,</b> Maya-Sétan DIAKITÉ <i>et al.</i>,</p>	<p><b>MECHANICAL CHARACTERIZATION OF NEEDLE PUNCHED NON WOVEN NATURAL FIBERS REINFORCED THERMOPLASTIC COMPOSITE,</b> Meriem KHALIFA <i>et al.</i>,</p>	<p>The effect of micromechanics models, 2D and 3D numerical modeling on mechanical property predictions for PP/Alfa short fiber composites, Fatima-Ezzahra EL ABBASSI <i>et al.</i>,</p>	<p>Production of waste fibre-reinforced raw earth specimens by controlled compaction, Mazhar HUSSAIN <i>et al.</i>,</p>
11h50-12h05	<p><b>Hemp shiv: how retting process influences their physicochemical properties?</b> Santiago ARUFE <i>et al.</i>,</p>	<p>Investigation on PLA/PHBHHx blends: Morphological, thermal and mechanical characterization Mustapha KACI <i>et al.</i>,</p>	<p>New process for the upcycling of cow horn by uniaxial thermocompression, Margaux JUMEAUX <i>et al.</i>,</p>	<p>Thermal conductivity of insulation material based on straw aggregates and a bio-binder extracted from straw menus and sunflower pith, Naima BELAYCHI <i>et al.</i>,</p>
12h05-12h20	<p><b>Mechanical tensile behaviour of tropical waste fibres,</b> Léo SAOUTI <i>et al.</i>,</p>	<p><b>Physico-mechanical performances of flax fiber biobased composites: Retting and process effects,</b> Morgan Lecouplet <i>et al.</i>,</p>	<p><b>Robust non-destructive method for the identification of surface weight fibres orientation based on image processing,</b> Ahmad BAKOUTI <i>et al.</i>,</p>	<p>Multiphysics properties of fired clay bricks incorporating deinking paper sludge, Hajar MAKNI <i>et al.</i>,</p>
12h20-12h45	<p><b>Poster Session (Chairman: Cesar SEGOVIA, Co-chairman: Dr Sébastien ALIX )</b></p>			
	<p><b>Poster 1: Effect of Natural Weather on the Structure and Properties of PA11/Sepiolite Nanocomposites,</b> Kahina IGGUI <i>et al.</i>,</p>			
	<p><b>Poster 2: Enhancing hydrophobicity of flax woven fabric using eco-friendly plasma jet technology,</b> Fatma Zahra SASSI <i>et al.</i>,</p>			
	<p><b>Poster 3: Industrial demonstrator to valorize agro-residues in ecoconstruction and bio renovation,</b> Hafida ZMAMOU <i>et al.</i>,</p>			
	<p><b>Poster 4: Conception of Cellulose Films Reinforced with Clay: Mechanical Properties, Thermal Stability and Hydrophobicity,</b> Wilfried KANGBODE <i>et al.</i>,</p>			
	<p><b>Poster 5: Towards bio-based PLA/TPS composites as a host matrix for embedding and release of particulate biochar fillers: exploring phase compatibility and microstructural variations,</b> Tom HAELDERMANS <i>et al.</i>,</p>			
	<p><b>Poster 6: Biocomposites based on cellulose nanofibers /unsaturated polyester resins,</b> Rihab MUSTAPHA <i>et al.</i>,</p>			



Monday 19-10-2020 (Afternoon session)				
12h50-14h00	Lunch			
14h00-14h35	<b>Natural fibres and last developments, solutions to reduce the carbon footprint of the automotive sector, Karim Behloui, General Director Manager Ecotechnilin, Pole Fibres NATUP , France</b>			
14h35-15h10	<b>Plenary Conference: Materials from plant-based reagents and fibers, Elisabete Frollini, Macromolecular Materials and Lignocellulosic Fibers Group Institute of Chemistry of Sao Carlos, University of Sao Paulo, Brazil</b>			
15h10-15h25	Break			
	Topic 1 : Agroresources, fibers, nanofibers and nanoparticles reinforcements, Morphology, Physiology-Properties	TOPIC 2: Biocomposites and Nano biocomposites, Processing, Properties and Sustainability	TOPIC 5: Bioresines, biopolymers, and Nano biocomposites, Processing, Properties and Sustainability	TOPIC 4:Plant aggregates, vegetal concrete and Industrial valorisation: Characterization - Formulation - Multiphysics Properties and Eco-conception,
	Chairman : Pr Moussa GOMINA, Co-Chairman: Dr Mohamed RAGOUBI	Chairman : Pr Ahmed KOUBAA Co-Chairman: Dr César SEGOVIA,	Chairman : Dr Richard GATTIN, Co-Chairman: Dr Sébastien ALIX,	Chairman : Dr Frederic BECQUART Co-Chairman: Dr Fouad LOUATID
15h25-15h40	Potential use of fly ashes from biomass blended with lime as hydraulic binder, Desire NDAHIRWA et al,	Eucalyptus Globulus Bark as valuable raw material to biobased development, Cecilia FUENTEALBA et al,	Application of bio-based Haematoxylum campechianum L. dye on an air-atmospheric plasma treated polyester fabric: Greener way forward a better dyeing performance, Najla KRIFA et al,	Positionning study of bio based building with environnemental regulations for new construction, Rio JEREMY et al,
15h40-15h55	Flammability, thermal stability and mechanical properties of wood flour/polycarbonate/polyethylene hybrid biocomposites, Jingfa ZHANG et al,	Mechanical properties and dimensional stability of high-fiber content biocomposites Marouan REJEB et al,	Synthesis of poly( $\epsilon$ -caprolactone)-grafted guar gum and halloysite nanotubes by surface-initiated ring-opening polymerization Mohammed LAHCHINI et al,	DENIM fabrics from virgin and recycled cotton fibers, Bechir WANNASSI et al,
15h55-16h10	Polyactide / Cellulose Acetate Blends as Potential Coatings Membrane to Control the Nutrients Release from Water-soluble Fertilizers, Taha El ASSIMI et al,	Characterisation, optimisation and viability of polylactide/layered silicate nanocomposite for fused filament fabrication, Geoffrey GINOUX et al,	Effects of clay additions on the physical/mechanical properties of $\alpha$ and $\beta$ -chitosan-based films, Abdellah MOURAK et al,	Optimization of bio-oil production and advanced characterization of pyrolysis products from creosoted wood, Khairat TURKI et al,
16h10-16h25	Granulation of paper residues with wood ash and evaluation of greenhouse gas emissions, Emna MAROUANI et al,	Improving the impact resistance of PLA matrix by adding a thermoplastic elastomer, Samir KASMI et al,	A review of microbial remediation of preservative-treated wood and reuse of the decontaminated wood, Dan XING et al,	Valorization and recycling of inert waste through smart strategy : Case of composite building materials, Aya IDRISI et al,
16h25-16h40	Screening of alternative solvents for swelling and continuous microfibrillation of cellulose fibers Pieter SAMYN et al,	Development of Dielectric Materials Based on Cellulose and Thermoplastic and / or Biobased Polymers, Asma KHOUJA et al,		Eco-composite concrete: Recycled waste glass as an alternative to sand in concrete, Ibtissam Abalouch et al,
16h40-16h55	Break			
16h55-17h25	Poster Session (Chairman: Pr Zakia RAIS, Co-chairman: Nathalie LEBLANC)			
	Poster 7: Biocomposites based on cellulose nanofibers /unsaturated polyester resins, Rihab MUSTAPHA et al,			
	Poster 8: DECONSTRUCTION OF SISAL LIGNOCELLULOSIC FIBER INTO ITS MAIN COMPONENTS FOR SUBSEQUENT FORMATION OF HYDROGELS, Bianca GUEIROZ et al,			
	Poster 9: Specific manufacturing process issues of bio-based plant fiber-reinforced composites, Antoine LEVEE et al,			
	Poster 10: The use of activated biochar as a growth support for microorganisms capable of degrading PAHs, Kalthoum ELLAFI et al,			
	Poster 11: Cellulose as polyol in the synthesis of bio based polyurethanes with simultaneous film formulation: Properties and biocompatibility, Deyvid PORTO et al,			
17h25-18h00	Day Synthesis and Review : Elisabete Frollini & Christophe Baley & Organization Committee			
18h00	End of the conference			

## WITH THE SUPPORT OF :



MATÉRIAUX de CONSTRUCTION BIOSOURCÉS



# EUROMAGH 2020

*Autumn School Programme*



## Mardi 20-10-2020

8h30-8h45	Ouverture de l'école d'automne
	<b>1<sup>st</sup> workshop : Biobased Materials for Building application,</b>
9h00-9h20	Dynamique COP21 Rouen-Normandie, Emergence d'une coalition bas carbone pour la construction durable, <b>Frederic Charrier, Direction Energie &amp; Environnement, Metropole Rouen Normandie, France</b>
9h20-9h40	Bioéconomie, une nouvelle vision du vivant, où en est on en Normandie; <b>Sophie Rabeaux, Responsable Projet AgroMatériaux Nov&amp;Tech, CRAN Normandie, France</b>
9h40-10h00	Frederic Becquart (IMT): Cure hydrothermale : une des solutions d'avenir pour le développement des bétons végétaux, <b>Frederic Becquart, Enseignant Chercheur, IMT Lille-Douai, France</b>
10h00-10h15	<b>Session Questions,</b>
10h15-10h30	<b>Pause</b>
10h30-11h50	Enjeux stratégiques pour le développement de matériaux biosourcés: de la filière agricole aux réglementation environnementales et de construction; <b>Boubker Laidoudi &amp; Guillaume Delannoy, Ingénieur R&amp;D, CODEM, France</b>
10h50-11h10	Démarche de création d'un écoproduit : exemple d'un plastique à partir de matière première secondaire locale (sédiments de dragage), <b>Julien Raynal, Ingénieur produit, NEOECO, France</b>
11h10-11h30	Valorisation de fibres naturelles pour l'isolation thermique et sonore de bâtiments; <b>Cesar Ségovia, Responsable Innovation, Cetelor &amp; Zouari Riadh, Enseignant Chercheur, ISET kSAR Hlel, Monastir, Tunisie,</b>
11h30-11h50	Produits biosourcés : évaluation environnementale et labels; <b>Yves Hustache, Co-founder Karibati, France</b>
11h50-12h30	<b>Table ronde &amp; Débats &amp; Réactions</b>
12h30-14h00	<b>Repas</b>
	<b>2<sup>nd</sup> workshop : Biobased Materials and Industrial Valorisation</b>
14h00-14h20	The sustainability group of Aachen-Maastricht institute for biobased materials (AMBIM) <b>Dr Pouya SAMANI, Senior Lecturer, Maastricht University, Netherlands</b>
14h20-14h40	Ahmed: Fabrication et caractérisation des biocomposites à base de polymères thermoplastiques et de fibres de bois, <b>Professeur Ahmed Koubaa, Laboratoire Bomatériaux, UQAT, Québec, Canada</b>
14h40-15h00	From natural polysaccharides to bio-based materials - Cellulose and Starch-based additives, plastics and composites, <b>Nicolas Joly, Professeur, Univ Artois, France</b>
15h00-15h15	<b>Session Questions,</b>
15h15-15h30	<b>Pause</b>
15h30-15h50	CP: Christophe Baley, 1910 - 2020. Évolution des arguments justifiant l'usage des fibres végétales comme renfort, <b>Professeur Christophe Baley, IRDL, Univ Bretagne Sud, France</b>
15h50-16h10	Fouad: Valorisation de la biomasse comme source pour le développement d'agents retardateurs de flamme pour biopolymères, <b>Dr Fouad Loautid, R&amp;D Manager, Centre MateriaNova, Belgique</b>
16h10-16h30	SUR une Méthodologie de modélisation comportementale de composites biosourcés, <b>Professeur Rezak Ayad, Univ URCA, France</b>
16h30-17h30	<b>Table ronde &amp; Débats &amp; Réactions &amp; Bilan de la journée</b>
17h30	Fin de la journée

For any request or information, please contact : [euro.magh2020@unilasalle.fr](mailto:euro.magh2020@unilasalle.fr)

For the organization Committee  
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Dr Mohamed RAGOUBI