



BRALECOMP

1st Brazilian-German Workshop on Composite Products from Alternative Lignocellulosic Resources

Pirassununga-SP, Brazil

March 5 – March 9, 2018

SPONSORED BY THE



Federal Ministry
of Education
and Research



DLR
Deutsches Zentrum
für Luft- und Raumfahrt
German Aerospace Center

PROGRAM SCHEDULE

Monday, March 5

8:00 – 9:00 a.m.	Registration
9:00 – 9:30 a.m.	<i>“Welcome speech”</i> (FZEA-USP Director & Prof. Dr. Holmer Savastano J., USP, Brazil)

Session 1

9:30 – 11:00 a.m.	<i>“Novel composite materials with vegetable fibres as sustainable engineering solutions”</i> (Prof. Dr. Holmer Savastano J., USP, Brazil)
	<i>“The state of the art of WPC from alternative resources”</i> (Prof. Dr. Andreas Krause, UHH, Germany)
11:00 – 11:15 a.m.	Coffee break
11:15 – 12:45 p.m.	<i>“Hardwood processing in Germany-Challenges and opportunities for the WBP industry”</i> (Dr. Dirk Berthold, Fraunhofer, Germany)
	<i>“Vegetable fibre reinforced composites: Elaboration and properties”</i> (Prof. Dr. Marie-Ange Arsene, UAG, French Antilles)
12:45 – 2:15 p.m.	Lunch
2:30 – 4:00 p.m.:	<i>“Application potentials of industrial cellulose”</i> (Dr. Elaine C. Ramires, Fibria, Brazil)
	<i>“The wood panel industry in Brazil: Looking for alternative and secondary resources”</i> (Johannes Ohlsson, Dieffenbacher, Germany)
4:00 – 4:15 p.m.	Coffee break
4:15 – 5:00 p.m.	Panel discussion / Wrap-up

Tuesday, March 6

Session 2

9:00 – 10:30 a.m.: *“Situation of the use of bamboo as construction material in Brazil: past, present and future”*
(Prof. Dr. Antonio L. Beraldo, Unicamp, Brazil)

“Bamboo Project: Species, Characterization and Applications for laminated bamboo lumber (BLC/LBL)”
(Prof. Dr. Marco A. R. Pereira, Unesp, Brazil)

10:30 – 10:45 a.m. Coffee break

10:45 – 12:15 p.m.: *“Engineered bamboo: Sustainable Composites for Construction”*
(Dr. Bhavna Sharma, U. Bath, UK)

“Improvement of the physical-mechanical properties of bamboo, with an adequate cellular diffusion treatment in the industrial processes of the preservation and mechanical drying”
(Prof. Dr. Jorge A. Montoya Arango, UTP, Colombia)

12:30 – 2:00 p.m. Lunch

2:00 – 2:45 p.m.: *“Alternatives for bamboo treatment and chemical modification”*
(MSc. Christian Gauss, USP, Brazil)

“Brazilian perspective for bamboo business: Yesterday, today and tomorrow - industrial, agricultural and commercial view”
(Guilherme Korte, Aprobambu, Brazil)

2:45 – 3:30 p.m. Panel discussion / Wrap-up

3:30 – 3:45 p.m. Coffee break

Session 3

3:45 – 5:30 p.m.: *“Research and application potentials of geopolymers as binder and matrix material in composites with lignocellulosics”*
(Dr. Johannes Welling, Thünen Institute, Germany)

“Nanofibrillated cellulose for cement composites reinforcement”
(Dr. Viviane Correia, USP, Brazil)

“The potentials of castor oil polyurethane for composites and impermeabilization”
(Donizetti C. Luciano, Imperveg, Brazil)

5:30 – 6:00 p.m. Panel discussion / Wrap-up

Wednesday, March 7

Session 4

9:00 – 10:45 a.m.: *“Use of fibers and residues from palm plants: Bionic inspiration for composites”*
(Prof. Dr. Ing. Jörg Müssig, Hochschule Bremen, Germany)

“Particleboards of agroindustrial wastes and castor oil polyurethane adhesive: performance evaluation in rural building”
(Prof. Dr. Juliano Fiorelli, USP, Brasil)

“Morphological characterization of cactus wood Cereus Jamacaru DC”
(Mariana N. L. da Silveira, UFLA, Brazil)

10:45 – 11:00 a.m. Coffee break

11:00 – 12:45 p.m.: *“Lignocellulosic materials reinforced with bamboo sheets”*
(Prof. Dr. Juliana Cortez Barbosa, Unesp, Brazil)

“Technological characterization of bamboo culms by non-destructive methods (NDM) - microCT and X-ray densitometry”
(Prof. Dr. Mario Tommasiello Filho, USP, Brazil)

“Physical-chemical and mechanical characterization of the Macauba endocarp as an aggregate potential for the production of lightweight concrete”
(MSc. Victor C. Candal, UFLA, Brazil)

12:45 – 2:15 p.m. Lunch

2:15 – 3:30 p.m. Poster block

3:30 – 4:15 p.m.: *“Non-conventional materials and Technologies for the 21st century”*
(Prof. Dr. Khosrow Ghavami, PUC-Rio, Brazil)

4:15 – 5:00 p.m. Panel discussion / Wrap-up

5:00 p.m. Closing remarks and farewell coffee

End of the public part

Start of the project committee part

Thursday, March 08

8:30 – 11:00 a.m.	Visit to Infibra (www.infibra.com.br)
11:00 – 12:00 p.m.	Transfer to São Carlos
12:00 – 1:30 p.m.	Lunch
1:30 – 3:00 p.m.	Visit to USP-Lamem, São Carlos (www.set.eesc.usp.br/lamem)
3:00 – 5:30 p.m.	Visit to TSCtech (www.tsctech.com.br)
5:30 p.m.	Return to Pirassununga

Friday, March 09

8:30 – 9:30 a.m.	Transfer to Piracicaba
9:30 – 12:30 p.m.	Visit to ESALQ-USP (www.en.esalq.usp.br)
12:30 – 2:00 a.m.	Lunch
2:00 – 3:00 p.m.	Follow-up session Cooperation strategies, future activities
3:30 – 5:30 p.m.	Cultural event
5:30 p.m.	Return to Pirassununga or transfer to São Paulo

SESSIONS

SESSION 1 | The state of the art of lignocellulosic composites from different perspectives

Panel discussion: Which strategies and developments have led to research, industry involvement and established industrial scale production?

SESSION 2 | Markets, Performance and Availability of bamboo and bamboo-based products

Panel discussion: How can research projects, industry and public service overcome the challenges and improve the conditions for such products?

SESSION 3 | Biogenic and non-conventional binders and matrices

Panel discussion: Which traditional and novel binders and matrices will help to overcome current challenges? Is there a future for phenolic resin? Thermoplastic polymers? Inorganic binders? Geopolymer? Polyurethane?

SESSION 4 | Products, processes, characterization and applications of materials inspired by nature

Panel discussion: Where must future research go to? Technology? Standardization? Performance? Costs? Market? Raw material accessibility? Which are our priority sectors?