



Student committee NANO 360°

Newsletter highlights

Dive into our Open-Ed article that reviews last year's accomplishments of the committee members.

On **page 2**, you'll get to know our valuable members, including our new faces! Learn about the innovative research topics they're exploring.

Student Committee Coffee Break

Dr. Mohamed Naceur Belgacem
Professor at Grenoble INP
Pagora
Jan 31st, 2024 11:30 AM (ET)

[Meet the speaker on page 3](#)

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Open-Ed

Celebrating Achievements and Welcoming New Beginnings

By Ariane Fernandes



As we step into a new academic year, it's a perfect moment to celebrate the outstanding achievements of our student committee in the past year. Eupidio Scopel received well-deserved recognition through the NanoDivision's Student Award for his exceptional contributions. Furthermore, Anderson Veiga, another valuable committee member, secured the TAPPI Diversity, Equity, and Inclusion Scholarship, representing underrepresented students in the pulp and paper industry.

These remarkable accomplishments are a testament to the dedication and hard work exhibited by our committee members. They have not only made us proud but also exemplified the positive impact we can have on the academic community.

As we begin this new academic year, we're excited to embrace fresh energy and perspectives with the arrival of new committee members. Their skills and innovative ideas are ready to bring new energy to the committee. We encourage our existing members to extend a warm welcome and offer mentorship to these newcomers, recognizing the pivotal role mentorship plays in fostering growth and leadership within our group. Together, we'll continue our journey of making a lasting difference in the academic community.

Meet the committee



Emillien Freville,
Chair
Grenoble INP-Pagora



Anderson Veiga,
Engagement Chair
University of British Columbia



Ariane Fernandes,
Engagement Chair
University of British Columbia



Gregory Moore,
Co-Vice Chair
University of Washington



Sydney Brake,
Co-Vice Chair
Auburn University



Mariana Frias,
Secretary
University of British Columbia



Javier Rodriguez,
Secretary
University of Birmingham



Eupídio Scopel,
Member at Large
University of Campinas



Yufei Nan,
Member at Large
Auburn University



Xia Sun,
Member at Large
University of British Columbia



Giuliana Franco,
Member at Large
Federal University of São Carlos

Sustainable Nanotechnology and Innovation Unveiled by the Student Committee

By Mariana Frias

Our committee members bring diverse expertise to the table, each contributing uniquely to the mission of advancing nanotechnology in the forest products industry. Let's explore a little of what is being produced by our students!

In packaging, advancements involve the use of cellulose nanofibrils, employing cutting-edge techniques like twin-screw extrusion and thermocompression. The production of microfibrillated cellulose is also being enhanced through mechanical processing and enzymatic hydrolysis. Students are exploring the application of 3D computerized tomography in paper technology to understand the material's physical properties more deeply.

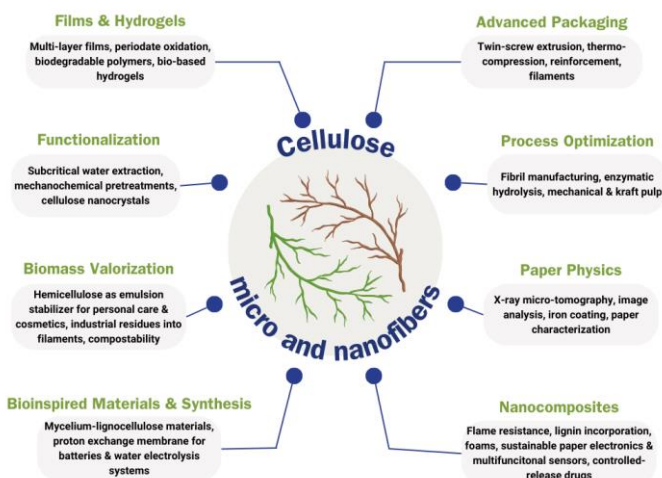
In composite materials, research includes the development of flame-resistant foams from lignocellulose and the integration of paper electronics with multifunctional sensors. Innovations extend to water treatment, with studies on mycelium-lignocellulose composites.

The committee is also breaking ground in biomass valorization and the functionalized use of nanocellulose. This includes work on hydrogels, multilayer films based on natural polymers, and various applications of cellulose nanocrystals (CNCs) in health and agricultural fields. Research is even being conducted on proton exchange membranes

from cellulose and lignin, with potential applications in fuel cells and water electrolysis systems.

Together, these studies and projects constitute a rich tapestry of knowledge, innovation, and sustainable solutions, propelling the new generation of our industry forward. Collaborating with relevant companies in the paper and nanocellulose sector, our initiatives aim to bridge the gap between academia and industrial applications.

Join our journey towards a sustainable future, marked by innovation and collaboration.



Student Committee Coffee Break



Dr. Mohamed Naceur Belgacem
Professor at Grenoble INP
Pagora

[Register now](#)

Meet our next speaker

Join us for a coffee break with Professor Belgacem, a highly regarded expert in the fields of wood science and material engineering.

Professor Belgacem received his Engineering diploma in wood science from Saint Petersburg's Forest Academy in 1986. He furthered his studies in France, earning a PhD in Material Engineering and Science from the Polytechnic Institute of Grenoble in 1999. He was then awarded a fellowship from the National Research Council of Canada to carry out post-doctoral training at the Polytechnic School of Montreal, he delved into surface and interface phenomena in cellulose-based composite materials.

After his post-doctoral training, Professor Belgacem ventured into the industry's R&D sector, contributing significantly for five years. His academic path then led him to the University of Beira Interior in Portugal, where he was an associate professor from 1997 to 2000. Dr. Belgacem was nominated full professor in 2000 at the Polytechnic Institute of Grenoble, France.

Professor Belgacem's research is highly regarded, with over 350 scientific papers to his name, including three books and approximately 25 book chapters. His work has garnered around 20,000 citations, reflecting an H-Index of 70, a testament to his impact in the field.

In addition to his academic and research pursuits, Professor Belgacem has made significant editorial contributions. He was one of the three Editors-in-chief of the Elsevier Journal "Industrial Crops and Products" from 2007 to 2020, a role that underscores his expertise and influence in the field.

Don't miss the opportunity to gain insights from this distinguished scholar!

Information and Recap About Future Events!

- The next [TAPPI Nano Conference 2024](#) is taking place on June 10th – 14th, in Westin Buckhead Atlanta, Georgia. The early bird registration deadline is 13th May!
- **Do not forget you can join our committee. Reach us and we will give you all the information!**

Stay connected!

We hope to meet you soon!
but in the meantime, follow us on social media to get the latest information.



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