UNIVERSIDAD DE GRANADA

Laboratorio de Ingeniería de la Construcción

BIOPAVING

INTERNATIONAL ASSOCIATION ON THE USE OF BIOMATERIALS IN PAVEMENTS

WELCOME TO BIOPAVING!

BIOPAVING is the International Association on the Use of Biomaterials in Pavements. This association was created in 2022 after the 1st International Workshop of the Use of Biomaterials in Pavements, which took place at the University of Granada in Spain. The funding committe was formed by academics from all over the world, including Europe, America and Asia.

Our association welcome academics, industry, and any professional working or willing to work on the use of this type of materials in pavements.

AIM

Our aim is to create a COMMUNITY of experts working on the use of biomaterials in pavements to:

- Share experience in the use of this type of materials to **advance scientific knowledge**, **encourage transfer and application** of this knowledge world-wide
- Understand the limitations and hopes arising from this new way of thinking about the pavement construction technology
- Be updated about the current state-of-the-art and practice about the use of

NEWS

STEERING GROUP

	Prof. Ana Jiménez del Barco Carrión University of Granada, Spain PRESIDENT	Prof Jiménez del Barco Carrión is an Associate Professor at the Construction Engineering and Engineering Projects at the University of Granada in Spain. Her expertise is on sustainable engineering, focused on transport infrastructures. Her research lines involve the development of effective techniques for the recycling of wastes and the use of alternative materials in transport infrastructures, including their sustainability assessment. Her career has always been developed in an international context with her participation in European projects including partners from all over the world. She developed her PhD thesis on the design and characterisation of reclaimed asphalt mixtures with biobinders, and has worked in international projects dealing with biomaterials such as BIOREPAVATION and BioROAD, working with biomaterials at decreased temperatures. She is author of more than 25 indexed publications.

	Dr. Emmanuel Chailleux Gustave Eiffel University, France VICE-PRESIDENT	Dr Chailleux has been in permanent position at University Gustave Eiffel in the pavement department since 2004. His current instigations deal with bituminous binder performances, including rheological properties, viscoelastic modelling, ageing and cracking phenomena. He also conducts research to develop and characterise alternative binder from biomass. He is the chairman of the RILEM technical committee PIM (Phase and Interphase behaviour of bituminous Materials). He is the coordinator of several national and international projects dealing with Bio Bitumen, ALGOROUTE and BIOREPAVATION. He is the author of 43 research papers.

Prof. Kamilla Vasconcelos

Universityof SaoPaolo, Brazil

Prof. Kamilla Vasconcelos is Associate Professor at the Polytechnic School of the University of São Paulo, Department of Transportation Engineering. Dr. Vasconcelos has published more than 100 technical papers in journals and conferences. She is peer reviewer in several international journals, part of the Editorial Board of RMPD, Transportes, and Associate Editor of IJPE. She is chair of the Task Group ´Degree of Binder Availability´ of the Technical Committee 308 PAR of RILEM, member of the TRB Committee ´Binders for Flexible Pavements (AKM20) and Director-at-Large of ISAP. She is involved in different research projects related to Transportation Infrastructure with focus on sustainability and resilience in the past years.

	Prof. Davide Lo Presti University of Palermo, Italy	Prof. Lo Presti’s background is civil engineering with a focus on transport infrastructure. His research is both applied and fundamental and focuses on developing solutions for engineering sustainability to preserve existing transport infrastructures as well as envisioning the future ones. This is done in constant collaboration with international multi-disciplinary researchers, from both academia and private sector, and with a two-fold approach: implementing new technologies and circular economy into material science, product development and infrastructure management, while tailoring life cycle analyses techniques for assessing the actual sustainability of the proposed solutions. He is now **Associate Professor** at the “Engineering Department” of University of Palermo, where he leads the **SMARTIlab** (http://smartilab.unipa.it), and teaches two courses on “Sustainable Transport infrastructure” and “Smart road, airports and railways”.

	Prof. Chris Williams Iowa State University, USA	Prof. Williams has nearly 25 years of experience in asphalt materials and pavements research experience. He has served on numerous pavements and materials research projects, which includes being a co-PI for a chip seal design project with the Oregon Department of Transportation. Dr. Williams is also serving as a co-PI on an Iowa Department of Transportation project on pavement holding strategies (where more than preventive maintenance is needed but rehabilitation is not viable) that includes the use of chip seals and other similar pavement alternatives. He has worked on numerous projects associated with sustainability, including development and use of biomaterials in asphalt materials as rejuvenators, warm mix asphalt, biopolymers, and other applications.

Prof. Mayca Rubio

University of Granada, Spain

Prof Rubio Gámez is a full Professor specialized on the design and mechanical performance of materials for transportation infrastructures. Since 2010 she is the Head of the Research Group “Laboratory of Construction Engineering” (LabIC) at UGR and since January 2017 she is the Coordinator of the Civil Engineering Doctoral Programme. She has 25 years of experience on research for the development of innovative materials for road pavements. She is author of more than 75 JCR publications and co-author of 3 patents, managing more than 6 M€ research budget. She is a member of EATA Steering Committee, RILEM Technical Committees and ASEFMA, among other prestigious associations related to transport infrastructures and asphalt industry.

Prof. Clemence Queffelec

University of Nantes, France

Prof Clémence Queffélec is an associate professor at the University of France since 2010. Dr. Queffélec is an organic and material chemist and she has been working on the topic of valorization of biomass for roads for a decade in close collaboration with Dr. E. Chailleux at the University of Gustave Eiffel. She is well experienced in the chemical analysis of products obtained after hydrothermal liquefaction such as liquid and solid state NMR, elemental analysis, GC-MS, GPC, FT-IR and Raman spectroscopies and FT-ICR-MS. She is involved with several projects dealing with bio-bitumen.

	Prof. Liang He Chongqing Jiaotong University, China	Liang He, Professor of Road Engineering at Chongqing Jiaotong University, Director of China-Poland Joint Research Center for Sustainable Pavement Innovative Materials, Young Leading Talent of International Highway Transportation Science and Technology, Chongqing Young Bayu Scholar, CSC National Senior Research Scholar, China Association for Science and Technology Science and Technology Talent Award Review Expert, Leader F5000 Paper Winner, the main research directions are asphalt pavement materials and maintenance methods, road material multi-scale simulation, road infrastructure sustainable analysis, etc. He is the PI of 4 projects of the National Natural Science Foundation of China and 2 intergovernmental scientific and technological cooperation projects of the Ministry of Science and Technology, published 1 English book, authorized 5 invention patents, published more than 50 journal papers, served as the young editorial board member of the Journal of Transportation Engineering (EI), the executive editor of Materials Review (EI), the editorial board member of Archives of Civil Engineering (EI), and the guest editor of the RCR special issue Sustainable pavements and circular economy: Future challenges toward a zero waste society.

WORKSHOPS

1st International workshop on the Use of Biomaterials in Pavements, 2022, Granada, Spain

The first edition of this event was held on the 13th and 14th of June 2022 at the University of Granada (Spain). The event was held in hybrid version (in person and online). More than 70 professionals from academia and industry from all over the world gathered to discuss about their experience and development of different biomaterials to be used in pavements.

The event was such a success that it fostered the creation of BIOPAVING – "The International Association on the Use of Biomaterials in Pavements".

The progamme, abtracts and presentations shared during the event can be downloaded here:

1ST INTERNATIONAL WORKSHOP ON THE USE OF BIOMATERIALS IN PAVEMENTS

2nd International workshop on the Use of Biomaterials in Pavements, 2024, Sao Paolo, Brasil

ALL INFO HERE

JOIN US!

Like all other large industries, the pavement sector has to move towards more sustainable manufacturing technologies. One possible solution is to replace conventional materials by bio-sourced materials. More and more studies are published every day, all over the world. Different experiments have already been undertaken: in lab, full-sclae, on field, using local biomass, employing different ways and processes to adapt these biomaterials to pavement material specifications. Now is the time to share experiments to compare solutions, understand the limitations and hopes arising from this new way of thinking about road construction technology.

BIOPAVING brings together experts, researchers, and practitioners from around the globe to explore innovative approaches to sustainable pavement construction and maintenance. This association serves as a platform for sharing cutting-edge research, breakthroughs, and practical applications related to the integration of biomaterials in pavement engineering.

CONTACT

For any question about BIOPAVING you can contact Prof Ana Jiménez del Barco Carrión at ajbc@ugr.es