# PRELIMINARY PROGRAMME

Venue: Escuela Técnica Superior Ingeniería de Caminos, Canales y Puertos, Salón de Actos, Floor -2. Avenida Severo Ochoa s/n. 18071 Granada

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<tr>
<th>Monday 13th June 2022</th>
<th>Tuesday 14th June 2022</th>
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<tr>
<td><strong>9:00</strong></td>
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<td><strong>9:20</strong></td>
<td>Comprehensible investigation on wood-based bio-binders: from the bio-oil properties to the mixture performance</td>
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<td><strong>9:40</strong></td>
<td>Application of fish scale powder as bio-materials in bituminous mixtures</td>
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<tr>
<td><strong>10:00</strong></td>
<td>Biodiesel waste as biobinder for asphalt mixtures</td>
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**ARRIVAL AND REGISTRATION**

9:00: Comprehensive investigation on wood-based bio-binders: from the bio-oil properties to the mixture performance
Authors: Lorenzo Paolo Ingrassia, Xiaohu Lu, Francesco Canestrari
Affiliations: Lorenzo Paolo Ingrassia and Francesco Canestrari --> Università Politecnica delle Marche (Ancona, Italy); Xiaohu Lu --> Nynas AB (Nynashamn, Sweden)

9:20: Application of fish scale powder as bio-materials in bituminous mixtures
Authors: Ananth V Shedgeri¹, Akash¹, R Darshan¹, C K Gowda¹, G Shiva Kumar¹
¹Under Graduate Student, Department of Civil Engineering, Dayananda Sagar College of Engineering, Bengaluru-560078, India.

9:40: Biodiesel waste as biobinder for asphalt mixtures
Authors: Ana Weir Vargas¹, Ana Jiménez del Barco Carrión², Clement Uguna³, Colin Snape³, Gordon D Airey¹
¹Nottingham Transportation Engineering Centre, Faculty of Engineering, The University of Nottingham, University Blvd, Nottingham NG7 2RD, United Kingdom
²UNIVERSITY OF GRANADA– LabIC.ugr, Department of Construction Engineering and Engineering Projects, Avenida Severo Ochoa S/N, 18071 Granada, Spain
³Faculty of Engineering, The University of Nottingham, University Blvd, Nottingham NG7 2RD, United Kingdom

10:00: **INTRODUCTION**

Presentation
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<th>Time</th>
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| 10:20 | Biobinder: University Gustave Eiffel and Nantes experiences          | Emmanuel Chailleux¹ and Clemence Quettelec²                                                | ¹ University Gustave Eiffel, Nantes, France  
² University of Nantes, Nantes, France                                                               |
| 10:40 | Design and characterisation of recycled asphalt mixtures with biobinders | Ana Jiménez del Barco Carrión³  
³UNIVERSITY OF GRANADA– LabIC.ugr, Department of Construction Engineering and Engineering Projects, Avenida Severo Ochoa S/N, 18071 Granada, Spain |
|       | Bitumen beyond Oil: decentralized instant bio bitumen production     | Frank Albert  
Affiliation: ALBR3CHT Supply Concepts GmbH |
| 11:00 | Life Cycle Assessment of Bio-Recycled Asphalt Mixtures               | Davide Lo Presti⁶, Ana Jiménez del Barco Carrión³, Konstantinos Mantalovas⁴, Juliette Blanc⁵, Emmanuel Chailleux⁶, Pierre Hornycht⁵, Jean-Pascal Planche⁶, Laurent Porot⁶, Simon Pouget⁶, Christopher Williams⁶, ⁴UNIVERSITY OF GRANADA– LabIC.ugr, Department of Construction Engineering and Engineering Projects, Avenida Severo Ochoa S/N, 18071 Granada, Spain  
⁶DIING - Department of Engineering, University of Palermo, Viale delle Scienze ed 8, Palermo 90128, Italy  
⁵LUNAM Université, IFSTTAR, Route de Bouaye CS4, 44341 Bouguenais Cedex, France  
⁶WESTERN RESEARCH INSTITUTE - 365 N 9th St, Laramie, WY 82072, USA  
⁶KRATON - Transistorstraat 16, 1322 CE Almere, Netherlands  
⁶EIFFAGE Infrastructures – Direction R&D, 8 rue du Dauphiné CS74005, 69964 Corbas Cedex, France  
⁶IOWA STATE UNIVERSITY – Department of Civil, Construction and Environmental Engineering, Iowa State University, USA Town Engineering Building, 394 Town Engineering, Ames, IA 50011, USA  
⁶NTEC - University of Nottingham Faculty of Engineering, The University of Nottingham, NG7 2RD, United Kingdom |
|       | WORKSHOP. Discussion                                                 | • Small group  
• Thematic discussion  
• 1 person per group presents at the end |
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<tr>
<td>11:40</td>
<td>Multi-scale study of bio-binder mixtures as surface layer</td>
<td>Kamilla Vasconcelos(a), Leidy V. Espinosa(a), Fernanda Gadler(a), Rafael V. Mota(a), Frederico V. Guatimosim(b), Ingrid Camargo(a), Rodrigo M. de V. Barros(b), Liedi L.B. Bernucci(a) (a) Polytechnic School of the University of São Paulo, Brazil (b) Copavel Consultoria de Engenharia Ltda., Brazil</td>
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<td>12:00</td>
<td>Lunch</td>
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<td>14:00</td>
<td>Pavement performance of asphalt mixture using bio-based binder</td>
<td>Leni Leite (1), Luis Alberto Nascimento (2), Marcos Fritzen (1) and Margareth Cravo (2) Affiliations: (1) Federal University of Rio de Janeiro (2) Petrobras Research Center</td>
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<td>14:20</td>
<td>Experience of the State of Ceará/Brazil on the Use of Biomaterials for Paving Applications</td>
<td>Gondim, Lilian¹; Soares, Sandra²; Barroso, Suelly²; Brito, Mateus; Uchoa, Flavía²; Silva, Ataslina² Affiliation: ¹Federal University of Cariri, Av Ten. Raimundo Rocha 1639, Juazeiro do Norte-CE, Brazil, CEP 63048-080, <a href="mailto:lilian.gondim@ufca.edu.br">lilian.gondim@ufca.edu.br</a> ²Federal University of Ceará, Ac. Público, 728 - Pici, Fortaleza - CE, Brazil, CEP 60020-181, <a href="mailto:sas@ufc.br">sas@ufc.br</a>, <a href="mailto:suelly@det.ufc.br">suelly@det.ufc.br</a>, <a href="mailto:afj.uchoa@gmail.com">afj.uchoa@gmail.com</a>, <a href="mailto:mateus.brito@det.ufc.br">mateus.brito@det.ufc.br</a>, <a href="mailto:ataslina@det.ufc.br">ataslina@det.ufc.br</a></td>
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### Investigation of the usage of Waste Incineration Fly Ash as Fine Aggregate in Asphalt Concrete

**Authors:**
Rouba A. Joumblat¹, Zaher Al Basiouni Al Masri², Joseph Absi³, Adel ElKordi⁴

¹ PhD Candidate, Faculty of Engineering, Department of Civil and Environmental Engineering, Beirut Arab University, Beirut, Lebanon. r.joumblat@bau.edu.lb
² PhD Candidate, Faculty of Engineering and Architecture, Department of Civil and Environmental Engineering, American University of Beirut, Beirut, Lebanon. zsa14@mail.aub.edu
³ Professor, Université de Limoges, IRCER, UMR-CNRS, 7315 Limoges, France. joseph.absi@unlim.fr
⁴ Professor, Department of Civil and Environmental Engineering, Beirut Arab University, Beirut, Lebanon. a.elkordi@bau.edu.lb

### Rejuvebit Project: trends in using bio-additives for a higher recycling rate of reclaimed asphalt in Flanders

**Authors:**
Wim Van den bergh (University of Antwerp), Geert Jacobs (University of Antwerp), Ben Moins (University of Antwerp), David Hernando (University of Antwerp), Karolien Couscheir (University of Antwerp), Stefan Vansteenkiste (Belgian Road Research Centre), Tine Tanghe (Belgian Road Research Centre), Ben Duerrinckx (Belgian Road Research Centre).

### A comparative study on deformation characteristics and durability of asphalt concrete mixture containing 50 % RA and various rejuvenators

**Authors:**
Jan Valentin (Ph.D.); Pavla Vackova (Ph.D.); Majda Belhaj (MSc.); Jiri Jindra; Liang He (Ph.D.)
Affiliations: Jan, Pavla, Majda, Jiri - Faculty of Civil Engineering, Czech Technical University in Prague; Liang - Chongqing University

### Bio-oil and lignin as valid solution for bio-binders

**Authors:**
Elena Gaudenzi¹, Fabrizio Cardone¹, Xiaohu Lu², Francesco Canestrari¹
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<th>16:00</th>
<th>Closure of DAY1</th>
<th>CLOSURE</th>
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1 Department of Civil and Building Engineering and Architecture, Università Politecnica delle Marche, Via Brecce Bianche, 60131 Ancona, Italy;
2 Nynas AB, SE-149 82 Nynäshamn, Sweden Department of Civil and Building Engineering and Architecture, Università Politecnica delle Marche, 60131, Ancona, Italy