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1 Academic visits to other research groups in the United Kingdom

1.1 The University of Bath

Travel Destination: The University of Bath, Bath, UK

Travel Period: 28- 30 March 2018

Purpose: Presenting my PhD research Project and meet the Academics and researchers working on bamboo structures the [BRE Centre in Innovative Construction Materials \(BRE CICM\)](#)

People who I met: [Dr. Bhavna Sharma](#), Lecturer, Department of Architecture & Civil Engineering. PhD Students and academics from the [BRE Centre in Innovative Construction Materials \(BRE CICM\)](#). [Dr Kent Harries](#), visitor academic from The University of Pittsburgh, USA.

Description: On the 28th March, I met Dr Bhavna Sharma and other researchers from the BRE Centre for Innovative Construction Materials (BRE CICM) at The University of Bath. I gave a presentation explaining my PhD research Project. After the academic session, I was given a tour to the different labs in the Civil Engineering building, and I met with other PhD candidates from the university. I was also invited to have dinner with other academics and we had the opportunity to visit several places around the university and the city centre.

1.2 The Imperial College London

Travel Destination: The Imperial College London, London, UK

Travel Period: 4 April 2018

Purpose: Presenting my PhD research Project and meet the Academics and researchers working on Fire Science and Fire Safety Engineering the [Imperial's fire research group](#).

People who I met: [Professor Guillermo Rein](#), Professor of Fire Science at The Imperial College. PhD Students from the [Hazelab group](#), Fire research group at the Department of Mechanical Engineering. Dr Panos Kotsovinos, Fire engineer at Arup, UK.

Description: After Easter, I visited the Hazelab group on the 4th April, at the Imperial College London. Once again, I presented my work to the Imperial's fire research group, led by Professor Guillermo Rein, after which I met with Hazelab's students and staff to share experiences of the diverse research areas being developed at both Imperial and The University of Queensland. I was also invited to have lunch with most of the PhD Students from this group, and with the Industry Partner from Arup, Dr Panos Kotsovinos who also attended the conference.

1.3 The University of Edinburgh

Travel Destination: The University of Edinburgh, Edinburgh, UK

Travel Period: 5-7 April 2018

Purpose: Presenting my PhD research Project and meet the Academics and researchers working on Fire Science and Fire Safety Engineering [The BRE Centre for Fire Safety Engineering at the University of Edinburgh](#).

People who I met: [Prof Luke Bisby](#), Chair of Fire and Structures at The University of Edinburgh. PhD Students and academics from the [BRE Centre for Fire Safety Engineering](#).

Description: On the 5th and 6th of April 2018, I visited The BRE Centre for Fire Safety Engineering at the University of Edinburgh. I gave a talk on my research project, before meeting in person with several academics and PhD students to discuss his latest results and analysis about laminated bamboo and timber. I was also invited to a number of experiments on the structural fire performance of CLT columns and walls at the UoE Fire Lab.

1.4 Bamboo construction task force meeting at Arup

Travel Destination: Arup Offices, London, UK

Travel Period: 9 April 2018

Purpose: Participation on the ISO 22156 update meeting with members of the [Inbar Bamboo construction task force](#).

People who I met: [Mr David Trujillo](#), Senior Lecturer at Coventry University, UK. [Mr Sebastian Kaminski](#), Senior Structural Engineer working in the Advanced Technology and Research in Arup, London, and [Dr Kent Harries](#), Professor of Structural Engineering and Mechanics at the University of Pittsburgh, USA.

Description: During this working meeting, we focused on addressing comments and discussions about the ISO Standard 22156 update. Additionally, I had the opportunity to present my views about the fire resistance chapter on the structural fire performance of bamboo, which should be included in this particular standard.

2 Presentation at the Institution of Structural Engineers at the 20th Young researchers conference

On the 10th April 2018, I presented my work entitled: “Design of fire safe bamboo structures” at the 20th Young Researchers’ conference 2018 at the Institution of Structural Engineers (IStructE) in London. This was the first time the conference had participants from countries outside the UK, and I was awarded this opportunity as the winner of the inaugural Australian

IStructE Young Researchers' Conference held in Brisbane in 2017. As I was already presented as a winner, I could not participate again in the competition.

Winners from the different categories were the following:

Oral category

First prize: Dorothy Winful, Brunel University London

Designing resistance against progressive collapse into framed structures.

Second prize: Joshua Mudie, University of Bristol

Continuous timber-concrete composites

Third prize: Nicolas Hadjipantelis, Imperial College London

Prestressed cold-formed steel beams

Poster category

First prize: Jack Denny, University of Southampton

Structural response of steel columns to long-duration blast loading – the influence of section orientation

Second prize: Elina Efthymiou, City, University of London

Cable-stayed bridges under spatially variable ground motions

Joint Third Prize:

Robert Ataria, University of Manchester

Bending and shear behaviour of RC beams with two layers of different grades of concrete

Adeyanju Teslim-Balogun, Imperial College London

Effect of blast and travelling fire on steel structures



Photo 1. Young Researchers' Conference 2018 Winners (top-left), and during my presentation at the conference.



Photo 2. Young Researchers' Conference 2018 Winners. From Left to Right: Dorothy Winful (First prize-Oral category), Mateo Gutierrez (Winner Young Researchers' Conference, Australia), Jack Denny (First prize-Poster category) and Dr Xuan-Ding Wan (Winner Young Researchers' Conference, China).

3 Personal reflection of this trip

Being selected as the Winner of the of the inaugural Australian IStructE Young Researchers' Conference and representing Australia in this conference was an unforgettable experience. This was a magnificent experience to showcase the work conducted by me and my whole research group on the fire performance of bamboo, not only to the fire research community, but also to other researchers and practitioners interested in advancing the use of bamboo as an innovative and sustainable structural material. This was also the first time I visited the UK, so I had the opportunity to meet many different places like the Roman Baths, the prehistoric monument of Stonehenge, the Edinburgh castle, and many different famous and attractive places in London. I made several contacts with many academics and practitioners working on the structural performance of timber and bamboo, and regarding the conference, the technical level of the 20th YRC was extremely high. I could talk and learn from all different colleagues who attended the event. In conclusion, I am extremely grateful with the Institution for giving me this opportunity and I will encourage all young researchers in participating on this event in the future.

4 Media releases

4.1 Posts at the Institution of Structural Engineers Website

Young Researchers' Conference 2018 Summary

<https://www.istructe.org/events-awards/conference-and-lectures/young-researchers-conference>

Young Researchers' Conference 2018 Winners

<https://www.istructe.org/events-awards/conference-and-lectures/young-researchers-conference/winners-2018>

Young Researchers' Conference presentations available

<https://www.istructe.org/news-articles/2018/member-news/young-researchers-conference-presentations-availa>

4.2 YouTube video of my presentation: "Design of fire safe bamboo structures".

<https://www.youtube.com/watch?v=xFYZh1aFsU&index=5&t=14s&list=PLiQQHjCU5tydFPbeZOU07RrtEQQwCrZV>

4.3 Photos taken at the 20th Young Researchers' Conference

<https://www.flickr.com/photos/90122896@N06/albums/72157665859111007>

4.4 Blogs from fire research group from the University of Queensland

Blog at the fire research group from the University of Queensland: Bamboo research tours around the UK

<https://uqfire-news.org/2018/04/17/uqfireatuk/>

Blog at the fire research group from the University of Queensland: IStructE YRC 2018, London

<https://uqfire-news.org/2018/03/26/istructe-yr-2018/>

Blog at the fire research group from the University of Queensland: Institution of Structural Engineers

<https://uqfire-news.org/2017/12/14/istructe/>