



**'Grow2Build European Centre of Excellence' Workshop**

Date: **12<sup>th</sup> June 2015**

Place: **"Brunel University London" Kingston Lane, Uxbridge, Middlesex, England UB8 3PH**

Time-Schedule	Topics	Responsible
9:30 – 10:00	<b>'Registration and refreshments'</b> at Mead Room, Hamilton	
10:00 – 10:15	<b>'Welcome and Introduction'</b> By Bartosz Węclawski	BRUNEL
10:15 – 10:40	<b>'Natural fibre construction materials / Grow2Build'</b> By Prof Mizi Fan	BRUNEL
10:40 – 11:05	<b>'Rubber Fusion of Wood Plastic Composite (RubWPC) to Make Functional Composites for Building Applications'</b> By Younghui Zhou	RubWPC
11:05 – 11:30	<b>'Development of Styrene-free Unsaturated Polyester for Composites'</b> By Wendi Liu	BRUNEL
11:30 – 11:50	<b>Coffee break</b>	
11:50 – 12:15	<b>'Straw based construction materials'</b> By Seyed Ghaffar	STRAMITZED
12:15 – 12:40	<b>'Natural fibre SMC for construction uses'</b> By Dr Guogang Ren	STI HERTFORDSH IRE
12:40 – 13:20	<b>Discussion</b> By Prof Mizi Fan	BRUNEL
13:20	<b>Lunch and Networking</b>	

The Meeting starts at 10:00 on the 12<sup>th</sup> of June 2015, localised in the Mead Room, Brunel University London, UK and comes to an end at 15:00.



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**List of attendees:**

<b>First Name</b>	<b>Surname</b>	<b>Company</b>
Sadoon	Abdullah	Brunel University
Nuhu	Braimah	Brunel University
Mizi	Fan	Brunel University
Intisar	Gatea	Brunel University
Seyed	Ghaffar	Brunel University
Hassan	Hamad	Brunel University
Zhaohui	Huang	Brunel University
John	Hutchinson	Brunel University
Maria	Kolokotroni	Brunel University
Wendi	Liu	Brunel University
Omar Abo	Madyan	Brunel University
Iylas	Muhammad	Brunel University
Brian	Murphy	Natural Green specification
Harjit	Singh	Brunel University
Teewara	Suwan	Brunel University
Bartosz	Weclawski	Brunel University
Wasef	Yousef	Brunel University
Yonghui	Zhou	Brunel University
Nimesh	Arachchige	Brunel University
Ahmad	Al-Rifai	Brunel University
Kavitha	Nagalingham	Brunel University
Joshua	James	Brunel University
Guogang	Ren	Hertfordshire



## **Summary:**

### **1. 'Welcome and Introduction' By Bartosz Węclawski**

An Introduction is given by Bartosz Węclawski explaining the purpose of the meeting and the schedule of the day with a brief biography of each speaker.

### **2. 'Natural fibre construction materials / Grow2Build' By Prof Mizi Fan**

Prof Mizi Fan gives an introduction to Grow2Build with its development over the years from the start of the project. The partners involved in the project and their responsibilities briefly discussed. This is followed by responsibility of Brunel and its action developments of aiming to achieve a European Centre of Excellence.

He summarises with discussing the opportunities and strengths related with sustainable hemp based construction materials supply and use in the UK and Europe.

### **3. 'Rubber Fusion of Wood Plastic Composite (RubWPC) to Make Functional Composites for Building Applications' By Younghui Zhou**

Younghui Zhou starts with an introduction to the availability of wood plastic composites in construction with its limitations. He then introduces RubWPC and their developments in rubber fusion of wood plastic composites to creating functionalised construction composites for various building applications. This is followed by a comparison with other wood plastic composites and a summary into the vision of RubWPC.

### **4. 'Development of Styrene-free Unsaturated Polyester for Composites' By Wendi Liu**

Wendi Liu explains the problems arising with polyester composites with technical datas and chemical microstructures. This is followed by an explanation into one of the solutions and its development to creating styrene-free unsaturated polyester for composites and their applications. Comparisons are given through datas of chemical tests and structural properties.

### **5. 'Straw based construction materials' By Seyed Ghaffar**

A brief discussion into the works and packages of Stramitized is given by Seyed Ghaffar. This is followed by an introduction into straw as a natural fibre, detailing its widespread availability and its microstructure for use as a construction material. He then outlines the



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properties and limitations faced due to the node and internode of straw as well as facing the issues involved against different material testing. Novel sustainable pre-treatments are then presented to overcome the limitations with straw, thus optimising the utilisation of straw as a construction material.

## **6. 'Natural fibre SMC for construction uses' By Dr Guogang Ren**

Dr Ren overviews his research interests which has focused in particular on Lightweight fiber-reinforced polymer and ceramic composites, including natural fiber/fabrics and their sustainable composite materials; he then presents the use of hemp fiber as alternative to glass fibers in sheet moulding compounds and the development of natural hemp fiber sheet mould composites.

## **7. Discussion By Prof Mizi Fan**

Prof Mizi Fan discusses the life-cycle of construction materials from its natural fibre origin and how important it has become in innovation and development for construction. An overall summary is given using the topics talked about by the previous speakers and relates it all to an example, emphasising the amount of thought and detail processed into achieving great innovation.

He concludes by informing the attendees of the next workshop/conference to be held in the European Centre of Excellence in September 2015 whereby the works and developments of Grow2Build would be displayed.

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The meeting ends at 15:00.

**Pictures of the event can be found in the following link:**

[https://www.dropbox.com/home/Grow2Build/photographs/Brunel/Meeting%20\(12%20June%202015\)](https://www.dropbox.com/home/Grow2Build/photographs/Brunel/Meeting%20(12%20June%202015))