Newcastle University
School of Civil Engineering &Geosciences

Novel Structural Skins

Improving sustainability and efficiency through new structural textile materials and designs

Newcastle University
26th - 28th October, 2016

TensiNet

cost EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

NOVEL STRUCTURAL SKINS
COSTACTION TU1303

Improving Sustainability and Efficiency through new Structural Textile Materials and Design
TensiNet - COST Action TU1303 Symposium 2016

Novel structural skins - The urban built environment is being transformed by building skins derived from textile architecture. Working from a basis of tensioned membranes, these highly efficient structural forms are now being integrated with multi-disciplinary technologies to form new multi-functional systems that address the needs and global challenges of the urban built environment. The rapid emergence of lightweight building skins is in response to factors associated with climate change, energy, and workplace health and well-being, and is directly linked to advances in material development, analysis tools, and skills in design.

The three day symposium is divided into five main topics, to be introduced by keynote speakers:

- New applications of structural skins and new concepts
- Sustainability and Life Cycle Analysis of structural skins
- Building physics and energy performance of structural skins
- Materials and analysis
- From material to structure and limit states: codes and standardization

Jan Knippers: Institut für Tragkonstruktionen und Konstruktives Entwerfen, University of Stuttgart
Fibres Rethought - Towards Novel Constructional Articulation

Carl Maywald: Vector Foiltec GmbH, Bremen
Sustainability – The Art of Modern Architecture

Raul Fangueiro: University of Minho, **Martin Tamke:** School of Architecture, Royal Danish Academy of Fine Art
Bespoke Materials for Bespoke Textile Architecture

Gordon Mungall: Arup, Newcastle upon Tyne
Unlocking the Potential of Insulated Fabric

Jürgen Wacker: Wacker Ingenieure, Birkenfeld
Wind Impact on Textile Structures

An Open Session:
'Built Projects' is scheduled for the afternoon and evening of Wednesday 26 October 2016 when prominent experts in the membrane architecture and engineering world will present their inspiring built projects to demonstrate to a wider audience the potential of lightweight structures.

Patrik Schumacher: Zaha Hadid Office, London
Formfinding and Tectonic Articulation – Making Performative Logics Speak

Julian Lienhard: str.ucture GmbH, Stuttgart
Pushing the Boundaries of Textiles in Architecture

Tim Lucas: Price & Myers, London
Full Metal Jacket

Al Fisher: BuroHappold Engineering, London
How to Build Lightweight - Advances in Computational Engineering

Attendees will also have the opportunity to visit the University's building, known as The Key, the first fabric structure to be used as a heated work space in the UK.

Full details at http://conferences.ncl.ac.uk/tensinet2016/programme/
or email tensinet2016@ncl.ac.uk

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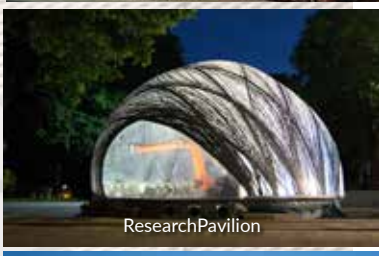
The Key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