Southern Counties Materials, Minerals & Mining Society

Affiliated with I·M3

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Sustainability in Sport

24 November 2022 | 13:00 – 14:30 (GMT)

Sustainable future

Chair: Duncan Edser MIMMM
National Physical Laboratory, UK
The development of materials and their applications have long been at the forefront of sports technology, but as many industries strive towards a more sustainable approach sport is no different. Taking inspiration from a wide variety of areas, materials and techniques are being developed to push towards sustainability without sacrificing the safety and performance that sports persons of all levels need to perform to their fullest capabilities. All the while developing the infrastructure that allows for complete participation for all abilities.

Replacing willow with bamboo in cricket bats

Ben Tinkler-Davies
John Hopkins Carey Business School, Baltimore, MD, USA
Willow has been used for cricket bat blades for over 200 years, but laminated bamboo can perform as well, if not better. Material testing on a micro and macro scale found bamboo to be significantly stiffer and stronger than willow. Scientific testing was corroborated with the manufacture of the world's first bamboo cricket bat. Initial testing was a resounding success however, further optimisation is needed.

Rwanda Cricket Stadium

Ana Gatóo
University of Cambridge / Light Earth Designs, UK
The Rwanda Cricket Stadium designed by Light Earth Designs is intended as a promotor of peace, using sport to support reconciliation and interaction across religions, ethnicities, and cultures. Whilst the language of Rwanda's first cricket stadium speaks of progression and dynamism through extreme structural efficiency, the materials speak of the natural, the hand made and the human.

Silk Cocoons as head gear

Prof. Fritz Vollrath
University of Oxford, UK
Silkworm cocoons have evolved to protect a critical and vulnerable life stage i.e., the soft larva developing into a winged and fragile moth. These functional 3D structures provide us with interesting insights into a range of composite properties. And some cocoons can be used to develop bio-inspired materials and products such as, for example, a sustainable bicycle helmet.

Organised by the
Southern Counties Materials Minerals and Mining Society (SCMMMS)

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