

Background

Introduction

An estimated one billion tyres are discarded each year, each roughly comprising 8kg of rubber, 1.5kg of high strength steel cord and wire and 0.5kg of high strength textile reinforcement. These high quality materials deserve to be reused in structural applications rather than be landfilled or incinerated.

Concrete needs tensile reinforcement which can be attained by cord/wire reinforcement. Increased energy dissipation and ductility in concrete can be provided by substituting conventional aggregates with rubber tyre particles.

Aim of the work

The aim was to develop innovative solutions to reuse all tyre components in high value innovative concrete applications with reduced environmental impact.

We are developing materials and applications using confined rubberised concrete which can lead to highly deformable concrete elements and structures in particular for seismic applications ; tyre steel and textile fibres can be used as reinforcement to increase toughness and control cracking.

Aim of the event

This event will present experimental and analytical work undertaken in the European funded Anagennisi project and open discussion on potential applications in IRAN.

The participants will learn about the properties of innovative new concretes containing tyre by-products and potential industrial applications.

Who should attend?

Researchers, Engineers, Graduates or final year students, Architects, Contractors, Designers, Concrete Manufacturers, Material Suppliers, Specifiers.

Programme

11:00 - 11:15	Anagennisi - Outline Professor Kypros Pilakoutas <i>University of Sheffield, UK</i>
11:15 - 11:40	Anagennisi – Technical achievements Professor Kypros Pilakoutas <i>University of Sheffield, UK</i>
11:40 - 11:50	Discussion/Questions

www.anagennisi.org



Concrete and Earthquake Engineering Group
University of Sheffield

Sharif University of Technology

Research/Industry Seminar

“Innovative Reuse of all Tyre Components in Concrete”

University of Science and Culture

Tuesday, 10 October 2017

11:00 – 11:50

