



The
University
Of
Sheffield.

Automatic
Control and
Systems
Engineering

The Department of Automatic Control & Systems Engineering
is pleased to announce the following seminar:

Rigidity of Constrained Frameworks

Dr Anthony Nixon

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Lancaster University, UK*

Wednesday, 11 October 2017 at 14:00

LT02, Sir Henry Stephenson Building

Abstract

A bar-joint framework is the combination of a graph G and a map assigning positions in d -dimensional space to the vertices of G . The framework is rigid if every edge-length preserving deformation of the framework arises as an isometry of d -dimensional space. I will describe some theory and applications of rigidity of frameworks and then introduce linearly constrained frameworks. These are bar-joint frameworks in 3-dimensional space where each vertex is constrained to move either on a fixed line or on a fixed plane. I will describe some new results in this context and mention some possible applications.

Biography

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*Light refreshments will be served in the foyer of
the Sir Henry Stephenson Building*