



The
University
Of
Sheffield.

Department of Mechanical
Engineering

Mechanical Engineering Departmental Seminar

Thursday 2nd July 20

**10.30 am, St Georges Lecture Theatre 6
Sir Frederick Mappin Building**

**“The development of a traction system for the world's
fastest elevator”**

**Professor Seung-Ki Sul,
Fellow IEEE, Seoul National University**

Abstract

In this talk, I will introduce the system structure of world's fastest elevator which is under development with SNU power electronics Lab. and Hyundai Elevator Co., Korea. The characteristics of 9 phase Permanent magnet motor, whose peak power is 1.2MW, will be discussed together with its drive system.

The top speed of the elevator is 1080m/min. To test the ultra high speed elevators, the new test tower, which is the tallest test tower in the world, has been recently constructed and now several elevators are under test in the test tower.

In this talk, I will focus on the electric machine drive technologies which are developed by my group. If the time is allowed, I can briefly introduce our other R&D activities.