

The Institution of Engineers in Scotland



Considering a career in Science/ Engineering?

Thursday 7th June 2018, 11.00 hrs St Andrews Secondary School, Glasgow

“Algorithms, what’s that then?”

Dr Patrick Prosser

School of Computing Science

University of Glasgow

How do Google, Twitter, Facebook, Instagram, Snapchat and other worldwide data and communication systems work within your mobile phone and laptop? They all operate using a type of mathematical process called an **“algorithm”**. (Algorithms are presently hugely topical in the world’s press.)

In this talk Patrick will plot the history of computing, from the 1960s to the 2010s, measuring performance using the time and country independent currency, the Happy Meal. He will then look at an algorithm for a common problem, sorting data into order. He will show how much data we can sort per hamburger using a simple algorithm. Then switch algorithms, sorting our data in an entirely different way and move into a new dimension. We can then reflect ... “Where’s the performance coming from, and where might it go?”

Patrick recently featured in the BBC4 documentary “The Secret Rules of Modern Living: Algorithms”. His research interests are in algorithms, combinatorial optimisation understanding why some problems are hard and why some are easy.

For important information about careers in professional engineering see www.profeng.org the “*one stop website*” for student and teacher guidance.