Report on Distinguished Lecture at Ottawa Joint Chapter, IEEE Communications Society

John Thompson

The abstract and title for this talk are given at the end of the report. There were 41 people registered to attend the talk and approximately 25 people attended the presentation at Algonquin College in Ottawa. Prof Almuhtadas chairman introduced the talk and gave an overview of the activities of the local section. Prof Thompson then gave an overview of the Green Radio Project that he had participated in, describing some of the key research directions and approaches to understanding the overall benefits in terms of energy consumption. The talk lasted about 45 minutes and was well received by the audience, with 15 minutes of follow up questions and discussion that included the following topics:

- How small, low power base stations would affect energy consumption;
- Discussion of the current wide-scale use of diesel fuels for developing countries and how this could be reduced through increased use of renewable energy sources such as solar and wind;
- Future research directions on green communications technology.

Talk Title: Overview of Green Wireless Communications Research at Edinburgh

Abstract:

The Recent Green Radio Research Programme in the UK was a major collaboration between academic and industrial researchers. The main aim of the project was to try to reduce the carbon footprint of mobile wireless networks. Recent work has shown that mobile base stations account for a significant portion of the energy consumed in such networks. Therefore the programme focussed on designing more efficient base station designs as well as new concepts to reduce energy in networks as a whole. This talk will give an overview of the research and some of the key findings as well as describing future directions, specifically relating to a new project in the area of smart grid technology.