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## Introduction

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**Biographical notes:** Michael R. Bartolacci is an Associate Professor of Information Sciences and Technology at Penn State University – Berks in Reading, Pennsylvania, USA. He received an MBA and a PhD in Industrial Engineering from Lehigh University. He is widely published in the area of Telecommunications Modelling including his Connectivity Decision Support System (CDSS) concept. He also conducts research in Electronic Commerce Modeling and the Cultural Aspects of Telecommunications and Information Systems.

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### 1 Introduction

As guest Editor of this Special Issue, I realised the breadth and scope of wireless networks and their impact on society. The design of a wireless network, be it a MANET or a cellular mobile system, plays a role beyond just the transfer of voice or data traffic from point A to point B. There is a societal implication for a given network's design that impacts the users, the network providers and the governmental planners. This special issue includes not only technical papers that focus on some technical niche or aspect of a wireless network's performance, but also includes such other aspects as an analytical paper that deals with the interface between users' behaviour and the

capacity utilisation of the network. This issue also spans the gap between industry and academia somewhat in that it includes a paper from respected researchers in the wireless industry in Europe.

This papers contained in this Special Issue are from two general categories: the first being select papers from the 13th International Conference on Telecommunications Systems Modelling and Analysis, held during November 2005 in Dallas, Texas, USA and the second category being solicited papers from various researchers who frequent the INFORMS Telecommunications Conference which was also held in Dallas, Texas, USA, this March 2006.

I sincerely hope that you find this issue interesting and thought-provoking.