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Jun Zheng · Cheng Li · Peter Han Joo Chong ·
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Ad Hoc Networks

11th EAI International Conference, ADHOCNETS 2019
Queenstown, New Zealand, November 18–21, 2019
Proceedings

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Preface

An ad hoc network is a wireless system for a specific purpose, in which mobile or static nodes are connected using wireless links and dynamically auto-configure themselves into a network without the requirement for any infrastructures such as access points or base stations. Ad hoc networking covers a variety of network paradigms, including mobile ad hoc networks, sensor networks, vehicular networks, unmanned aerial vehicle (UAV) networks, underwater networks, airborne networks, underground networks, personal area networks, device-to-device (D2D) communications in 5G cellular networks, home networks, etc. It promises a wide range of applications in civilian, commercial, and military areas. In contrast to the traditional wireless networking paradigm, this new networking paradigm is characterized by sporadic connections, distributed autonomous operations, and fragile multi-hop relay paths, which have introduced many formidable challenges, such as scalability, quality of service, reliability and security, and energy-constrained operations. Thus, while it is essential to advance theoretical research on the fundamental aspects and practical research on efficient architectures and protocols for ad hoc networks, it is also critical to develop useful applications, experimental prototypes, and real-world deployments to achieve immediate impacts on society for the success of this wireless networking paradigm.

The annual International Conference on Ad Hoc Networks (AdHocNets) aims at providing a forum to bring together researchers from academia as well as practitioners from industry to meet and exchange ideas and recent research work on all aspects of ad hoc networks. As the 11th edition of this event, AdHocNets 2019 was successfully held in Queenstown, New Zealand, during November 18–21, 2019. The conference featured one keynote speech by Prof. Shiwen Mao from Auburn University, USA, who is a leading researcher in the area of ad hoc networks. The technical program of the conference included 28 regular papers that were selected out of 64 submissions through a rigorous review process.

This volume of proceedings includes all the technical papers that were presented at AdHocNets 2019. We hope that it will become a useful reference for researchers and practitioners working in the area of ad hoc networks.

November 2019

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