book reviews

WIRELESS AD HOC AND SENSOR NETWORKS (1ST ED.)

Houda Labiod, John Wiley & Sons, Inc., 2008, \$165.00, ISBN: 1848210035

Wireless ad hoc and sensor networks remain a hot research topic, with the goal of translating abstract concepts into real-life civilian and military applications.

Interested readers can find an excellent overview of the state of the art in *Wireless Ad Hoc and Sensor Networks*. Each chapter presents cutting-edge research topics with a well-orchestrated analytical approach, underlining the interdependencies that exist between the various system components. This approach reflects the very nature of ad hoc and sensor networks, characterized by theoretical and practical capacity limitations, offering readers a down-to-earth approach to actual implementations.

As an example of the interlaced discussions found in the text, chapter 2 covers DSR (dynamic source routing), AODV (ad hoc on-demand distance vector), OLSR (optimized link state routing), TBRPF (topology dissemination based on reverse-path forwarding), ZRP (zone routing protocol), and LAR (location-aided routing) and is highly correlated to the discussion in chapter 3 of QoS extensions for routing protocols AODV and OLSR. Chapter 4 addresses the related topic of multicast ad hoc routing.

Chapters 5 and 8 provide the foundations for the development of autonomous self-organized application-oriented architectures. Chapters 6 and 7 detail service discovery protocols for mobile networks.

The remaining chapters cover fault-tolerant distributed algorithms, code mobility in sensor networks, and vehicle-to-vehicle networks.

This book provides a useful reference on the architectural aspects of ad hoc and sensor networks to both students and practitioners.

—Alessandro Berni

PRO WEB 2.0 APPLICATION DEVELOPMENT WITH GWT

Jeff Dwyer, Apress, 2008, \$44.99, ISBN: 9781590599853

This book was written for deploying GWT (Google Web Toolkit) applica-

tions. It is organized into two parts: Part 1, consisting of two chapters, is a short and proper introduction to Web 2.0; Part 2 is devoted to building and deploying a GWT application.

Any treatment of Web 2.0 and GWT should commence with RIA (rich Internet applications), as does this book; the introduction to RIA is given in terms of Ajax, DOM (document object model) scripting, and Google Maps. Speed factors, such as prefetching and background loading, are appropriately introduced in chapter 1. Advantages of GWT are demonstrated in chapter 2.

Part 2 begins with an overview of the sample domain ToCollege.net. College browser, maps, and MyList are introduced as objects of the domain. The domain is slowly developed into a larger ecosystem, with GWT and the Spring MVC (model-view-controller). The book includes a good deal of code, MVC design objects, and macros. Dwyer elaborates on site security, with discussions of GWT's security features against cross-site scripting attacks.

One chapter is dedicated to Google Maps and its API, and presents the GUI integration with Maps. Another chapter examines suggest boxes and full-text search.

Dwyer includes a lot of discussion on classes that form the building blocks of creating forums for the site. The maintenance of history and threads is the challenge, and Dwyer discusses this very well. He presents authorization and security issues, and the post-login scenario is considered for elaboration of authentication. Securing HTML is discussed in light of GWT's protection mechanism. The book explains well, with code, how GWT works with Ajax security.

Almost everyone starts with searching on the Internet, so the search engine should be properly built into the system and optimized. The book presents all the relevant technologies, such as cache and serialization.

The book ends with the tools and steps for building ToCollege.net. It includes GWT installation, building a calculator, setting up a database, and running the site.

This is a good book to be added to any Web developer's library. Dwyer's inclusion of the relevant code makes the book even more attractive.

—S. Balaraman

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