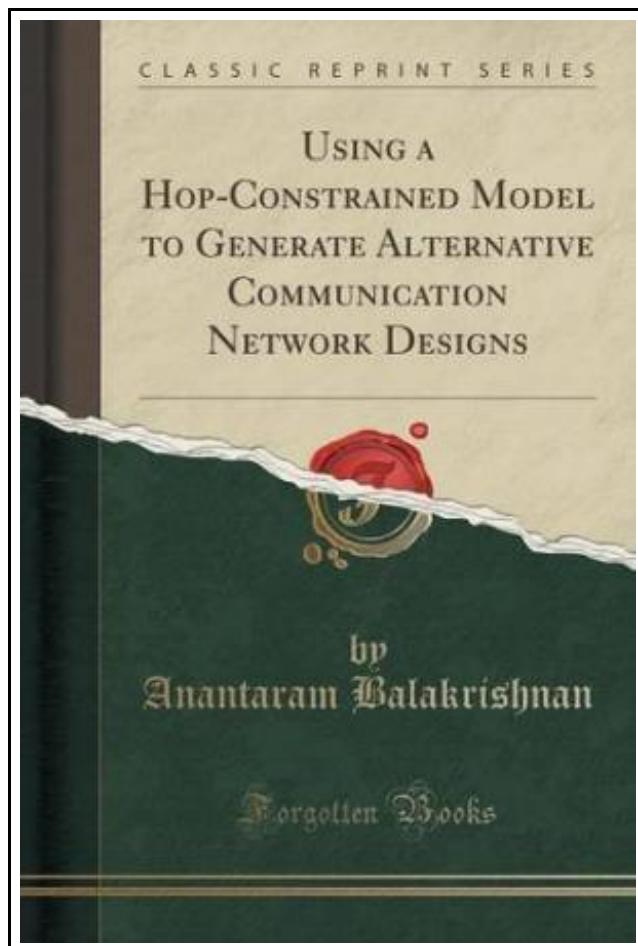


Using a Hop-Constrained Model to Generate Alternative Communication Network Designs (Classic Reprint) (Paperback)



Filesize: 2.37 MB

Reviews

This ebook is very gripping and fascinating. Sure, it is engage in, nevertheless an amazing and interesting literature. It is extremely difficult to leave it before concluding, once you begin to read the book.

(Ms. Ora Buckridge)

USING A HOP-CONSTRAINED MODEL TO GENERATE ALTERNATIVE COMMUNICATION NETWORK DESIGNS (CLASSIC REPRINT) (PAPERBACK)

[DOWNLOAD PDF](#)

Forgotten Books, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****. Excerpt from Using a Hop-Constrained Model to Generate Alternative Communication Network Designs Designing the link topology and selecting capacities in a backbone network of a communication system involves complex tradeoffs between investment and operating costs and service considerations such as network reliability and vulnerability, delays, and blocking. Incorporating all these design criteria simultaneously in a comprehensive model results in a large-scale, non-linear, discrete optimization problem that is intractable. In this paper, we propose an alternate optimization-based methodology that generates several cost-effective backbone network designs with varying cost and performance characteristics. Network planners can use the method in conjunction with detailed performance evaluation techniques to assess the cost impact of different service requirements, and select a design that achieves the proper balance between conflicting objectives. To generate different configurations, the method parametrically varies a set of hop constraints that restrict the number of links over which messages can be transmitted. Reducing the maximum number of hops increases the number of alternate routes but incurs higher total cost for the communication system. For a given set of hop constraints, we develop a Lagrangian-based algorithm to identify a cost-minimizing network design that satisfies all internode traffic requirements. We report results for extensive computational tests of the algorithm using several randomly generated test problems. Our results demonstrate that, even for relatively large problems, the method identifies good heuristic solutions and tight lower bounds that confirm the near-optimality of the selected designs. Using a 25-node example, we illustrate how the model can be used to evaluate the cost versus performance tradeoff. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at This book is a...

[Read Using a Hop-Constrained Model to Generate Alternative Communication Network Designs \(Classic Reprint\) \(Paperback\) Online](#)[Download PDF Using a Hop-Constrained Model to Generate Alternative Communication Network Designs \(Classic Reprint\) \(Paperback\)](#)

You May Also Like



The Voyagers Series - Europe: A New Multi-Media Adventure Book 1 (Paperback)

Strength Through Communications, United States, 2011. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.The Voyagers Series is a new multi-media, multi-disciplinary approach to teaching...

[Read ePub »](#)



Talking Digital: A Parent's Guide for Teaching Kids to Share Smart and Stay Safe Online (Paperback)

Createspace, United States, 2014. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book. It is time for the digital talk. Today, kids are growing up in a wired world. Their...

[Read ePub »](#)



No Friends?: How to Make Friends Fast and Keep Them (Paperback)

Createspace, United States, 2014. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Do You Have NO Friends ? Are you tired of not having any...

[Read ePub »](#)



History of the Town of Sutton Massachusetts from 1704 to 1876 (Paperback)

Createspace, United States, 2015. Paperback. Book Condition: New. annotated edition. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.This version of the History of the Town of Sutton Massachusetts...

[Read ePub »](#)



Never Invite an Alligator to Lunch! (Paperback)

Lucky Me Publishing, LLC, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****. NEVER Invite an Alligator to Lunch! delivers a fun,...

[Read ePub »](#)