



Operations Research

Publication details, including instructions for authors and subscription information:
<http://pubsonline.informs.org>

Contributors

To cite this article:

(1987) Contributors. Operations Research 35(1):161-163. <https://doi.org/10.1287/opre.35.1.161>

Full terms and conditions of use: <https://pubsonline.informs.org/Publications/Librarians-Portal/PubsOnLine-Terms-and-Conditions>

This article may be used only for the purposes of research, teaching, and/or private study. Commercial use or systematic downloading (by robots or other automatic processes) is prohibited without explicit Publisher approval, unless otherwise noted. For more information, contact permissions@informs.org.

The Publisher does not warrant or guarantee the article's accuracy, completeness, merchantability, fitness for a particular purpose, or non-infringement. Descriptions of, or references to, products or publications, or inclusion of an advertisement in this article, neither constitutes nor implies a guarantee, endorsement, or support of claims made of that product, publication, or service.

© 1987 INFORMS

Please scroll down for article—it is on subsequent pages



With 12,500 members from nearly 90 countries, INFORMS is the largest international association of operations research (O.R.) and analytics professionals and students. INFORMS provides unique networking and learning opportunities for individual professionals, and organizations of all types and sizes, to better understand and use O.R. and analytics tools and methods to transform strategic visions and achieve better outcomes. For more information on INFORMS, its publications, membership, or meetings visit <http://www.informs.org>

CONTRIBUTORS

Stephen F. Arnold, see **Ardavan Nozari**.

Arnold Barnett is Professor of Operations Research at MIT's Sloan School of Management. His research specialty is applied probabilistic modeling; the present article is one of several he has written about using stochastic models of criminal behavior to evaluate punishment policies. Professor Barnett is Departmental Editor for Public Sector Applications for *Management Science*, and the author of the thrice-yearly "Misapplications Reviews" column in *Interfaces*.

Richard N. Burns is a Professor, and **Gerald J. Koop** an Assistant Professor, of Operations Research and Management Science at the School of Business, Queen's University, Kingston, Ontario. Their article is one in a series on the theory and practice of manpower scheduling, and is related to Gerald Koop's doctoral dissertation. The authors are currently studying the use of expert system tools in manpower scheduling, and have developed a microcomputer-based scheduling package that is now in use at several hospitals in Canada.

John A. Buzacott, see **David D. Yao**.

Richard H. Byrd is an Associate Professor of Computer Science at the University of Colorado (Boulder); **Alan J. Goldman** is a Professor of Mathematical Sciences at The Johns Hopkins University; and **Miriam Heller** is an analyst with the French firm Applications Statistiques Scientifiques Informatiques S.A. Their article arose from a discombobulating question raised by Dr. Heller during a course in integer programming given by Professor Goldman.

Malachy Carey is Associate Professor of Operations Research and Economics at Carnegie-Mellon University. His article is part of his ongoing research on modeling network flows that vary over time. Professor Carey has written several other papers on this topic that are now under review for publication and are available upon request from the author.

Bruce L. Golden is Westinghouse Professor, and Chairman of the Department of Management Science and Statistics, at the University of Maryland. His interest in vehicle routing and scheduling dates back a dozen or so years, and he has published numerous articles in this area. **Edward A. Wasil**, who is an Assistant Professor of Management Science in the

Kogod College of Business Administration at American University, has recently been very active in the application of microcomputer software to complex decision problems. The present article grew out of a project undertaken by the authors for the National Soft Drink Association.

Alan J. Goldman and **Miriam Heller**, see **Richard H. Byrd**.

T. C. Hu, whose current research interests include the application of mathematical programming techniques to the design of very large scale integrated (VLSI) circuit layouts, is a Professor in the Department of Computer Science, University of California, San Diego. With Edward S. Kuh, he coedited the text, *VLSI Circuit Layout*, published in 1985 by IEEE Press. He is also an editor of IEEE's *Transactions on Computers*.

Kuniyoshi Ichiki, see **Katsuhisa Ohno**.

Gerald J. Koop, see **Richard N. Burns**.

Y. S. Kuo, who received his Ph.D. in Computer Science from the University of California, San Diego, in 1983, is now a member of the Institute of Information Science, Academia Sinica, Taiwan. He is interested in the combinatorial aspects of very large scale integrated (VLSI) design.

Robert E. Machol was President of ORSA from 1971 to 1972, and was Editor-in-Chief of the TIMS Studies in the Management Sciences from 1978 to 1982. He has been Professor of Electrical Engineering at Purdue University, Head of the Department of Systems Engineering at the University of Illinois, Vice President of Conductron Corporation, and Professor of Systems at the Graduate School of Management, Northwestern University. After many years in system engineering and operations research, Dr. Machol recently changed professions, and is now Assistant Administrator for Science and Advance Technology at the Federal Aviation Administration. He plans to write an article on designing the aviation system of the twenty-first century.

John O. McClain received his Ph.D. in Operations Research from Yale University in 1970 and is now a Professor at the Johnson Graduate School of Management, Cornell University. He has published articles in

the areas of forecasting, production control and health services research which have appeared in *Operations Research*, *Management Science*, *IEEE Transactions*, *Health Services Research*, *Medical Care*, *The Journal of Marketing Research*, *The American Journal of Sociology*, *The Journal of Operations Management*, and several other publications. He has also coauthored a textbook on operations management. Professor McClain has consulted for a number of business and health organizations on planning issues, productivity and quality.

Ardavan Nozari, whose professional interests include operations research and the statistical aspects of computer simulation, is an analyst with Salomon Brothers, Inc., New York. **C. Dennis Pegden** is an Associate Professor of Industrial Engineering at Pennsylvania State University. He is interested in computer simulation, and is the developer of SIMAN, a general purpose simulation language. **Stephen F. Arnold**, Associate Professor of Statistics at Pennsylvania State University, is currently studying the theory of linear models and multivariate analyses. The theoretical framework of their article was established in Ardavan Nozari's doctoral dissertation, the research for which was continued and completed while Dr. Nozari was with AT&T Bell Laboratories.

Katsuhisa Ohno is a Professor in the Department of Systems Engineering, Nagoya Institute of Technology, Nagoya, Japan. He is interested in Markov processes, differential dynamic programming, queueing theory and traffic flow theory. **Kuniyoshi Ichiki** is a member of the Technical Staff, Kakogawa Works Process Control Department, Kobe Steel Ltd., Kobe, Japan. Their article is based on Mr. Ichiki's master's thesis, completed at Kyoto University.

B. John Oommen is Associate Professor in the School of Computer Science at Carleton University, Ottawa, Canada. His current research is in the areas of adaptive learning, robotics, stochastic learning and its applications, geometrical solutions, syntactic pattern recognition and image analysis; he has published papers in each of these areas. He became interested in the minimum spanning circle problem while he was considering a straight-edge-and-compass solution to Sylvester's problem, first posed over a century ago. Professor Oommen devised a solution whose convergence, though experimentally proven, always occurs in two steps. He conjectures that his solution is of linear time complexity.

C. Dennis Pegden, see **Ardavan Nozari**.

William P. Pierskalla, who was President of ORSA from 1982 to 1983, and Editor of *Operations Research* from 1979 to 1982, is Deputy Dean for Academic Affairs of The Wharton School. He is also Ronald A. Rosenfeld Professor, Chairman and Professor of the Health Care Systems Department; Director of the Graduate Program in Health Care Administration; Professor of Decision Sciences; and Professor of Systems Engineering at the University of Pennsylvania. His professional interests include operations research, operations management and the management aspects of health care delivery. Professor Pierskalla has published over 50 refereed articles in the areas of mathematical programming, transportation, inventory, maintainability and health care delivery.

M. Raghavachari, see **Vina Vani**.

Frank Ruskey is Associate Professor, Department of Computer Science, University of Victoria, British Columbia. His current research focuses on combinatorial algorithms and discrete optimization, especially the generation of elementary combinatorial objects.

Tony J. Van Roy holds a Ph.D. in operations research. His article is the last in a series coauthored with Laurence A. Wolsey concerning the description of facets of mixed integer polytopes and their implementation in solving real-life mixed integer programming problems using general purpose optimization software. The work was stimulated by Dr. Van Roy's experiences in distribution systems network design, and was carried out while he was at the Centre for Operations Research and Econometrics (CORE), Université Catholique de Louvain, Belgium.

Vina Vani, whose article with M. Raghavachari grew out of her doctoral dissertation, is a Lecturer in Statistics, Gujarat University, Ahmedabad, India. **M. Raghavachari** is on leave from the Indian Institute of Management at Ahmedabad and is now Visiting Professor at The Wharton School, University of Pennsylvania. Their article is part of their continuing research on nonregular measures in scheduling theory, and represents the first attempt to research the variance criterion when processing times are random variables.

Arthur Warburton is Associate Professor, Faculty of Administration, the University of Ottawa. His article is part of an ongoing study of some of the rather nasty problems that can occur when we attempt to compute Pareto optima in discrete multiple objective optimization.

Elliott N. Weiss is Associate Professor of Business Administration, the Darden School, University of Virginia. The problem setting for his article with John O. McClain was suggested by discussions with health care practitioners who were concerned about extensive length of stays in hospital for certain patients. The article extends the authors' previous work in the area of hospital maternity facilities, and was performed while Professor Weiss was a faculty member at the Johnson Graduate School of Management at Cornell University. Their current research is in the areas of production and operations management.

Laurence A. Wolsey is a Professor at the Centre for Operations Research and Econometrics (CORE), Université Catholique de Louvain, Belgium. He is currently on leave at the Ecole Polytechnique Federale de Lausanne, Switzerland. His recent work focuses on

the reformulation and resolution of mixed integer programs, with special emphasis on capacitated production planning problems and, most recently, sequencing problems.

David D. Yao is Associate Professor of Systems Engineering at the Division of Applied Sciences, Harvard University. **John A. Buzacott** is Professor of Management Sciences at the Department of Management Sciences, University of Waterloo, Ontario. Their article, which was motivated by the need to model and analyze flexible manufacturing systems with limited local buffers, is based on Chapter 6 of David Yao's doctoral dissertation, completed at the University of Toronto under the supervision of Professor Buzacott. Both authors have extensive research interests in the area of production systems.

EDITORIAL (continued from page 2)

contributions. Professor Samuel Karlin, in accepting the Society 1986 von Neumann Theory Prize for his research across a broad range of topics, indicated that his most recent work has been not in operations research but in genetics! Yet much of Professor Karlin's recent research has a decided OR flavor, and many problem areas in genetics might profitably be addressed using OR methods such as stochastic modeling or combinatorial optimization. Some ongoing OR work is already contributing to the physical sciences: for example, researchers are using ideas from integer programming to study the Ising problem from physics; in the domain of chemistry, OR workers are applying traveling salesman algorithms in order to sequence four-color diffractometers, and are using simulated annealing to reconstruct global polycrystalline structures from local information. These studies, and similar ones now underway, demonstrate the richness of our approaches to problem solving and remind us that we can contribute in many diverse areas.

In this spirit, we have made several major changes to the Journal's content and style during the past year that are intended to improve the readability and accessibility of our articles, to help foster new developments in the

field, and to better integrate practice and theory. I believe these initiatives are meeting with some success. For example, we now have a sufficient number of good papers for our year-old OR PRACTICE section to permit us to publish two articles per issue, beginning in May-June 1987. Also, to help meet our objective of enlarging the Journal's scope in both applications and theory, we have published papers on emerging topics such as algorithmic developments on supercomputers; future issues will feature articles in such areas as the use of heuristics and combinatorial optimization for engineering design problems. We continue to seek out good work on both traditional and emerging topics and to couple practice with theory, so that the Journal can better serve the profession as a centerpiece publication.

The Editorial Board of the Journal has been most gratified by our readers' enthusiastic response to these initiatives. I am grateful to the members of the Board for their extraordinary efforts to make these changes possible, and I look forward to working with them, and with our authors and readers, to consolidate these efforts in the months ahead.

Thomas L. Magnanti