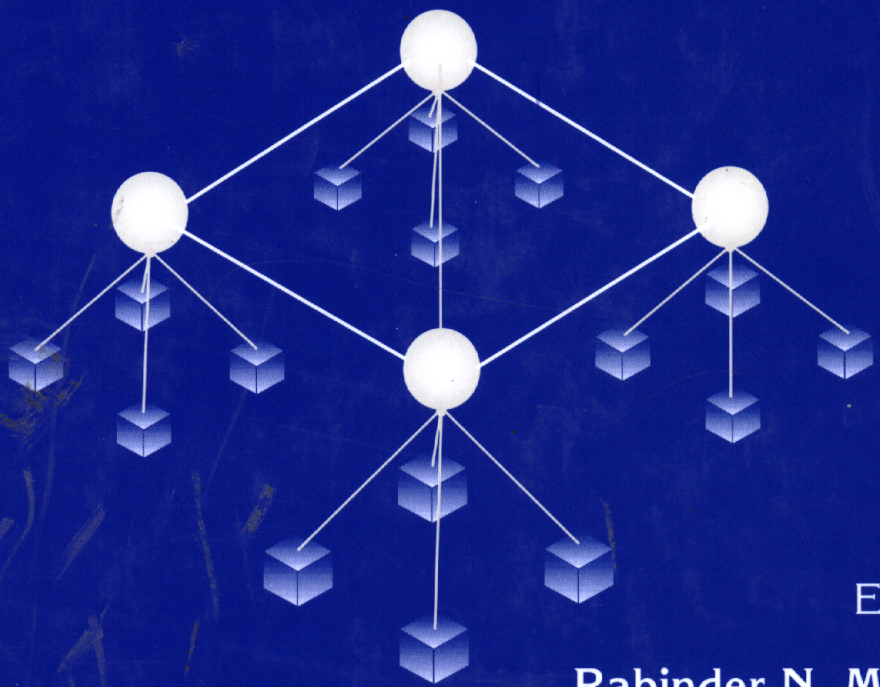
Series on Advances in Mathematics for Applied Sciences – Vol. 31

Proceedings of the Indo–US Workshop

Parallel and Distributed Signal and Image Integration Problems



Editors

Rabinder N. Madan
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World Scientific

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Pune, India 16 – 18 December 1993

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World Scientific
Singapore • New Jersey • London • Hong Kong

Published by

World Scientific Publishing Co. Pte. Ltd.

P O Box 128, Farrer Road, Singapore 9128

USA office: Suite 1B, 1060 Main Street, River Edge, NJ 07661

UK office: 57 Shelton Street, Covent Garden, London WC2H 9HE

Library of Congress Cataloging-in-Publication Data

Indo-US Workshop on Parallel and Distributed Signal and Image Integration Problems : (1993 : Pune, India)

Parallel and distributed signal and image integration problems : proceedings of the Indo-US Workshop / edited by Rabinder N. Madan . . . [et al.].

p. cm. -- (Series on advances in mathematics for applied sciences, Vol. 31)

Includes indexes.

ISBN 9810221487

1. Signal processing -- Mathematics -- Congresses. 2. Image processing -- Mathematics -- Congresses. 3. Parallel processing (Electronic computers) -- Congresses. 4. Electronic data processing -- Distributed processing -- Congresses. 5. Multisensor data fusion -- Congresses. I. Madan, R. N. (Rabinder N.) II. Title. III. Series.

TK5105.9.I53 1993

021.36'7--dc20 95-14878

CIP

This book is printed on acid-free paper.

Printed in Singapore by Uto-Print

Foreword

The next generation of engineering and computing systems will be significantly complex and distributed both in functionality and operation. The complexity arises, at least in part, due to a variety of information sources needed for the operation of complex systems. Successful development and deployment of such systems critically depends on the effective mechanisms for acquisition, coordination, communication and integration of information from various components. These mechanisms pose significant challenges in ways unprecedented in centralized single-source systems. Nevertheless, the methods of centralized single-source systems need to be fully developed, for they constitute fundamental components of the larger and more complex systems.

The Indo-US Workshop on Parallel and Distributed Signal and Image Integration Problems took place at Center for Development of Advanced Computing, Pune, India during December 16-18, 1993. The papers presented at the workshop have been edited for this volume.

This collection of papers addresses various aspects in the area of Signal and Image Integration with a specific emphasis on Parallel and Distributed solutions. A wide spectrum of issues including image and signal processing, parallel architectures/algorithms, sensor integration/fusion, and neural networks/fuzzy systems, are addressed in various papers. The treatment of the papers ranges from analytical studies to description of user tools, from single computing systems to parallel and distributed computing systems, from single sensor systems to multiple and distributed sensor systems, and from deterministic systems to stochastic/fuzzy systems. This wide spectrum of papers speaks for the richness of the problems that arise in this area, and the breadth and/or depth of the solutions of the various investigators.

I forward this volume with congratulations to the authors, organizers of the workshop, and the editors.

S. Sitharama Iyengar

Acknowledgements

The sponsorship of the Indo-US Workshop on Parallel and Distributed Signal and Image Integration Problems by the Office of Naval Research, USA and the Center for Development of Advanced Computing (CDAC), Pune, India is gratefully acknowledged. We thank the Conference Chairs, Vijay Bhatkar of CDAC, Pune, India and Rabinder N. Madan of Office of Naval Research, USA, for making the sponsorship possible. We thank the Program Chairs, S. S. Iyengar of Louisiana State University and Lalit M. Patnaik of Indian Institute of Science (IISc), and the Organizing Chair, S. C. Purohit of CDAC, Pune, India for coordinating the participation of various researchers geographically distributed throughout India and United States. We also thank the Program Committee consisting of N. Bryant of Jet Propulsion Laboratory, California Institute of Technology, B. N. Chatterji of Indian Institute of Technology (IIT), Kharagpur, B. B. Chaudhuri of Indian Statistical Institute, Calcutta, R. L. Kashyap of Purdue University, A. K. Pujari of Central University, S. C. Sahasrabudhe of IIT, Bombay, G. Seetharaman of University of Southwest Louisiana, Lafayette, V. Sinha of IIT, Kanpur, V. Umapathy Reddy of IISc, and B. Yegnanarayana of IIT, Madras. We also thank the Organizing Committee consisting of A. Basu of CDAC, Bangalore, R. Y. Deshpande of CDAC, Pune, K. Edith of CDAC, Pune, A. M. Karnik of CDAC, Delhi, A. Kaushal of CDAC, Pune, K. S. Periyanayagam of CDAC, Pune, S. Phadke of CDAC, Pune, and S. Sasi Kumar of CDAC, Pune. We thank all the participants for their valuable contributions that made the workshop a success. Finally, we thank all the authors for contributing their papers to this collection.

We thank Oscar Manley of the Basic Energy Sciences Program at the U. S. Department of Energy for providing support for the production of this volume. Additionally, we thank William Grimmell and Reinhold Mann of Oak Ridge National Laboratory (ORNL) for their comments and support, and also for making available the computational facilities of the Center for Engineering Systems Advanced Research, ORNL for the preparation of camera-ready version.

Nageswara S. V. Rao

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