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DATABASE MACHINES AND KNOWLEDGE BASE MACHINES

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KLUWER ACADEMIC PUBLISHERS
Boston/Dordrecht/Lancaster

Distributors for North America:
Kluwer Academic Publishers
101 Philip Drive
Assinippi Park
Norwell, Massachusetts 02061 USA

Distributors for the UK and Ireland:
Kluwer Academic Publishers
MTP Press Limited
Falcon House, Queen Square
Lancaster LA1 1RN, UNITED KINGDOM

Distributors for all other countries:
Kluwer Academic Publishers Group
Distribution Centre
Post Office Box 322
3300 AH Dordrecht, THE NETHERLANDS

Library of Congress Cataloging-in-Publication Data

Database machines and knowledge base machines / edited by Masaru Kitsuregawa.
p. cm. — (The Kluwer international series in engineering and computer science ; 43. Parallel processing and fifth generation computing)
Contains papers presented at the Fifth International Workshop on Database Machines.
ISBN-13: 978-1-4612-8948-7 e-ISNB-13: 978-1-4613-1679-4
DOI: 10.1007/978-1-4613-1679-4
1. Electronic digital computers—Congresses. 2. Data base management—Congresses. 3. Expert systems (Computer science)--Congresses. I. Kitsuregawa, Masaru. II. Hidehiko Tanaka. III. International Workshop on Database Machines (5th : 1987 : Tokyo, Japan) IV. Series: Kluwer international series in engineering and computer science ; SECS 43. V. Series: Kluwer international series in engineering and computer science. Parallel processing and fifth generation computing.
QA76.5.D2687 1988 87-29646
004—dc19 CIP

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Softcover reprint of the hardcover 1st edition 1988

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PREFACE

This volume contains the papers presented at the Fifth International Workshop on Database Machines. The papers cover a wide spectrum of topics on Database Machines and Knowledge Base Machines. Reports of major projects, ECRC, MCC, and ICOT are included. Topics on DBM cover new database machine architectures based on vector processing and hypercube parallel processing, VLSI oriented architecture, filter processor, sorting machine, concurrency control mechanism for DBM, main memory database, interconnection network for DBM, and performance evaluation. In this workshop much more attention was given to knowledge base management as compared to the previous four workshops. Many papers discuss deductive database processing. Architectures for semantic network, prolog, and production system were also proposed.

We would like to express our deep thanks to all those who contributed to the success of the workshop. We would also like to express our appreciation for the valuable suggestions given to us by Prof. D. K. Hsiao, Prof. D. J. DeWitt, and Dr. H. Boral. The workshop was sponsored by the Information Processing Society of Japan and the Institute of New Generation Computer Technology, with the support of Japan Electronic Industry Development Association, in cooperation with the Association for Computing Machinery, Japanese Society for Artificial Intelligence, and Japan Society for Software Science and Technology. We would like to thank all those who gave us their support, including many companies which supported us financially. We are grateful for the assistance we received from the Mampei Hotel. We wish to thank Miss Y. Tasaku of Inter Group for taking care of all the arrangements for the workshop and also Mr. D. Childress and Mr. Y. Yamamoto of Kluwer Academic Publishers for publishing the proceedings. We, on behalf of the program committee, wish to express our gratitude to the many others who contributed to the success of the workshop.

Program Chairman *M. Kitsuregawa*
General Chairman *H. Tanaka*