Editors' Message on Selected Translations from IPSJ Transactions

SHUJI DOSHITA* and TSUTOMU KAMIMURA**

This is a special section on selected papers from the Transactions of the IPSJ. The IPSJ celebrated its 30th anniversary in 1990. Since its formation in 1960, its membership has grown from 353 to over 32,000. During this time, the society has played a major role in advancing information system technology in Japan. It offers various opportunities for presenting and exchanging new ideas neccessary for the vitality of our profession. Currently, these include two semi-annual conventions, various research symposia and workshops by over 20 special interest groups, and publication of the IPSJ Journal and the Transactions (both in Japanese), and the Journal of Information Processing (JIP) (in English).

A large number of research results are disseminated every year through these events and publications. In particular, the Transactions of the IPSJ publishes about 180 journal papers a year through the normal scientific review process. The papers published are probably good representatives of current research efforts in Japanese information system technology. The Journal of Information Processing, on the other hand, currently publishes a significantly smaller number of papers. A large number of research efforts in Japan, consequently, are known only within the domestic community. In the past, the society has made various attempts to increase the number of papers published in the JIP, but there are still many efforts that have had limited international exposure.

To alleviate the problem, we decided to publish a special section consisting of translations of selected papers that recently appeared in the Transactions of the IPSJ. We examined papers published in the journal from June to December of 1990, and selected twenty-nine papers that had high referee reviews when their original versions were reviewed. We then asked the authors of these selected papers to provide us with English versions. The English versions were reviewed only from the point of view of accuracy of translation and relevance to a wide range of readers. As seen from the selection, these papers deal with a large variety of subjects in computer and information sciences.

Following the previous issues, this issue concludes the section with last nine such translated papers. Their titles and respective subjects in this issue are as follows.

Natural Language Processing
 • An Efficient Sentence Analysis Method for General Phrase Structure Grammars by T. Hayashi
 • Methods for Analyzing Japanese Predicate Idioms and Function Verb Expressions by M. Oku
Sorting
 • A Multiway Merge Sorter for Sorting of Large Databases by T. Sato, H. Takeda and N. Tsuda
Image Processing and Visualization
 • An Image Retrieval Method Using Inquiries on Spatial Relationships by T. Takahashi, N. Shima and F. Kishino
 • A Program Design Visualization System by I. Ichikawa, E. Ono and T. Mohri
Numerical Computation
 • Real Fast Fourier Transform on Quasi-Equidistant Sample Points by H. Sugiura and T. Torii
Software Development
 • Experimental Evaluation of Team Performance in Program Development Based on a Model—Extension of a Programmer Performance Model—by K. Matsumoto, S. Kusumoto, T. Kikuno and K. Torii
Multiprocessors
 • Efficient Execution of Fine-Grain Parallelism on a Tightly-Coupled Multiprocessor by T. Matsumoto
 • A Method for Analyzing the Mutual Exclusion Overhead of Tightly Coupled Multiprocessors by M. Iwasaki, Y. Takamoto and S. Yoshizumi

*Kyoto University.
**IBM Japan, Ltd.