

Preface

Welcome to the proceedings of the 5th Pacific Rim Conference on Multimedia (PCM 2004) held in Tokyo Waterfront City, Japan, November 30–December 3, 2004. Following the success of the preceding conferences, PCM 2000 in Sydney, PCM 2001 in Beijing, PCM 2002 in Hsinchu, and PCM 2003 in Singapore, the fifth PCM brought together the researchers, developers, practitioners, and educators in the field of multimedia. Theoretical breakthroughs and practical systems were presented at this conference, thanks to the support of the IEEE Circuits and Systems Society, IEEE Region 10 and IEEE Japan Council, ACM SIGMM, IEICE and ITE.

PCM 2004 featured a comprehensive program including keynote talks, regular paper presentations, posters, demos, and special sessions. We received 385 papers and the number of submissions was the largest among recent PCMs. Among such a large number of submissions, we accepted only 94 oral presentations and 176 poster presentations. Seven special sessions were also organized by world-leading researchers. We kindly acknowledge the great support provided in the reviewing of submissions by the program committee members, as well as the additional reviewers who generously gave their time. The many useful comments provided by the reviewing process must have been very valuable for the authors' work.

This conference would never have happened without the help of many people. We greatly appreciate the support of our strong organizing committee chairs and advisory chairs. Among the chairs, special thanks go to Dr. Ichiro Ide and Dr. Takeshi Naemura who smoothly handled publication of the proceedings with Springer. Dr. Kazuya Kodama did a fabulous job as our Web master.

September 2004

Kiyoharu Aizawa
Yuichi Nakamura
Shin'ichi Satoh
Masao Sakauchi

PCM 2004 Organization

Organizing Committee

| | |
|-----------------------|--|
| Conference Chair | Masao Sakauchi <i>NII/The Univ. of Tokyo</i> |
| Program Co-chairs | Kiyoharu Aizawa <i>The Univ. of Tokyo</i> Yuichi Nakamura <i>Kyoto Univ.</i> Shin'ichi Satoh <i>NII</i> |
| Poster/Demo Co-chairs | Yoshinari Kameda <i>Univ. of Tsukuba</i> Takayuki Hamamoto <i>Tokyo Univ. of Science</i> |
| Financial Co-chairs | Nobuji Tetsutani <i>Tokyo Denki Univ.</i> Hirohisa Jozawa <i>NTT Resonant</i> |
| Publicity Co-chairs | Noboru Babaguchi <i>Osaka Univ.</i> Yoshiaki Shishikui <i>NHK</i> |
| Publication Co-chairs | Takeshi Naemura <i>The Univ. of Tokyo</i> Ichiro Ide <i>Nagoya Univ.</i> |
| Registration Chair | Ryoichi Kawada <i>KDDI</i> |
| Web Chair | Kazuya Kodama <i>NII</i> |
| USA Liaison | Tsuhan Chen <i>CMU</i> |
| Korea Liaison | Yo-Sung Ho <i>K-JIST</i> |
| Advisory Committee | Sun-Yuan Kung <i>Princeton Univ.</i> Hong-Jiang Zhang <i>Microsoft Research Asia</i> Masayuki Tanimoto <i>Nagoya Univ.</i> |

Mark Liao
Academia Sinica
Hiroshi Harashima
The Univ. of Tokyo

Program Committee

Masao Aizu
Canon

Laurent Amsaleg
IRISA-CNRS

Yasuo Ariki
Kobe Univ.

Alberto Del Bimbo
Univ. of Florence

Nozha Boujemaa
INRIA Rocquencourt

Jihad F. Boulos
American Univ. of Beirut

Tat-Seng Chua
National Univ. of Singapore

Chabane Djeraba
LIFL

Toshiaki Fujii
Nagoya Univ.

Yihong Gong
NEC Laboratories America

Patrick Gros
IRISA-CNRS

William Grosky
Univ. of Michigan, Dearborn

Alexander G. Hauptmann
CMU

Yun He
Tsinghua Univ.

Xian-Sheng Hua
Microsoft Research Asia

Takashi Ida
Toshiba

Hiroyuki Imaizumi
NHK-ES

Takashi Itoh
Fujitsu

Alejandro Jaimes
FX Pal Japan, Fuji Xerox

Mohan S. Kankanhalli
National Univ. of Singapore

Norio Katayama
NII

Jiro Katto
Waseda Univ.

Asanobu Kitamoto
NII

Hitoshi Kiya
Tokyo Metropolitan Univ.

Byung-Uk Lee
Ewha Univ.

Sang-Wook Lee
Seoul National Univ.

Michael Lew
Univ. of Leiden

Mingjing Li
Microsoft Research Asia

Rainer Lienhart
Univ. Augsburg

Wei-Ying Ma
Microsoft Research Asia

Michihiko Minoh
Kyoto Univ.

Hiroshi Murase
Nagoya Univ.

Chong-Wah Ngo
City Univ. of Hong Kong

Satoshi Nogaki
NEC

Vincent Oria
New Jersey Institute of Technology

Rae-Hong Park
Sogang Univ.

Helmut Prendinger
NII

Jong-Beom Ra
KAIST

Takahiro Saito*Kanagawa Univ.***Philippe Salembier***Univ. Politècnica de Catalunya***Nicu Sebe***Univ. of Amsterdam***Timothy K. Shih***Tamkang Univ.***John Smith***IBM T.J. Watson Research Center***Kenji Sugiyama***Victor***Ming Ting Sun***Univ. of Washington***Seishi Takamura***NTT***Qi Tian***Institute for Infocomm Research***Luis Torres***Univ. Politècnica de Catalunya***Marcel Worrning***Univ. of Amsterdam***Yoshihisa Yamada***Mitsubishi Electric***Naokazu Yokoya***Nara Institute of Science
and Technology***Additional Reviewers**

Frank Aldershoff

Hirofumi Aoki

Yukihiro Bandoh

Istvan Barakonyi

Stefano Berretti

Marco Bertini

Lei Chen

Keiichi Chono

He Dajun

Manolis Delakis

Takuya Funatomi

Guillaume Gravier

Keiji Gyohten

Reiko Hamada

Mei Han

Atsushi Hatabu

Ngoh Lek Heng

Xian-Sheng Hua

Lim Joo Hwee

Masaaki Iiyama

Mitsuo Ikeda

Kiyohiko Ishikawa

Hironori Ito

Yoshimichi Ito

Junko Itou

Wei Jiang

Wanjun Jin

Koh Kakusho

Masayuki Kanbara

Yutaka Kaneko

Ewa Kijak

Jonghwa Kim

Hideaki Kimata

Takahiro Kimoto

Koichi Kise

Masaki Kitahara

Takayuki Kitasaka

Zhiwei Li

Lie Lu

Yufei Ma

Keigo Majima

Takafumi Marutani

Yutaka Matsuo

Toshihiro Minami

Yoshihiro Miyamoto

Seiya Miyazaki

Kensaku Mori

Takeshi Mori

Satoshi Nishiguchi

Takayuki Onishi

Wei-Tsang Ooi

Jia-wei Rong

Tomasz M. Rutkowski

Shinichi Sakaida

Tomokazu Sato

Susumu Seki

Yuzo Senda

Fumihisa Shibata

Tomokazu Takahashi

Hung-Chuan Teh

Qiang Wang

Kaoru Watanabe

Joost van de Weijer

Jun Wu

Huaxin Xu

Keisuke Yagi

Itheri Yahiaoui

Kazumasa Yamazawa