

編集委員長  
青木正喜

Editor in chief  
Masayoshi AOKI

編集委員  
尾崎義治  
小川隆申  
岩崎学  
滝沢國治

Editorial Board  
Yoshiharu OZAKI  
Takanobu OGAWA  
Manabu IWASAKI  
Kuniharu TAKIZAWA

成蹊大学  
理工学研究報告  
第42巻 第1号

The Journal of the Faculty of Science and Technology  
Seikei University, Vol. 42, No.1(2005)

本報告に掲載された論文、速報、解説等は、順次 Web 上で公開しています。  
このことに関しては、各文書の著作権者の許諾を得ています。  
URL は下記のとおりです。

[http://www.seikei.ac.jp/university/engineer\\_faculty](http://www.seikei.ac.jp/university/engineer_faculty)  
<http://library.seikei.ac.jp/index.jsp>

2005年6月1日 発行

発行者 成蹊大学理工学部  
〒180-8633 武蔵野市吉祥寺北町3-3-1  
Tel : 0422-37-3705, Fax : 0422-37-3871

印刷所 株式会社 大和メディアクリエイティブ  
〒162-0824 新宿区揚場町2-20

---

Faculty of Science and Technology , Seikei University  
3-3-1 Kichijoji-Kitamachi , Musashino-shi,  
Tokyo 180-8633, Japan  
Tel : + 81-422-37-3705, Fax : + 81-422-37-3871  
E-mail : kenkyujosei@jim.seikei.ac.jp

Printed by Yamato Media Creative Co. in Tokyo

# CONTENTS

1 . Manufacture of Universal-Wave-Shape Magnetic Field Generator and Magnetization/ Demagnetization of Bulk HTS Conductor ..... Keisuke KAGANOI, Takeshi ISHIGOHKA, Akira NINOMIYA	1
2 . Design, manufacturing and race activities of a battery vehicle .....Junji HORIGUCH , Kohei YUGE	7
3 . Development of a Reservation System for Japanese Style Hotels using a New Business Model ..... Yoshihisa IIDA, Reiko NAKAJIMA, Satoko MIYAMOTO	13
4 . An Application of a Software DSM to Transaction System ..... Tomoyuki NAGAO, Hiroko MIDORIKAWA and Hajime IIZUKA	19
5 . Implementation of Monitor and Editor for Autonomic Distributed ProcessingSystem ..... Daisuke OGAWA, Munenori KAI	27
6 . AgentSphere: A Mobile Agent System for Autonomous Distributed Processing .....Isao SAKAI, Munenori KAI	33
7 . Implementation of Automatic Translator from C Programs to Parallel Programs using MPI ..... Kazuhiro MINOMOTO, Munenori KAI	41
8 . Construction of Programming Learning System with Web Technologies ..... Yoshihiko INOMOTO, Munenori KAI	51
9 . On the exponential equations $a^x - b^y = C$ ( $1 \leq C \leq 300$ ) .....Masaki SUDO	57
 Short Notes	
1 . Development of e- Learning System for Remedial Program of University Education .....Toshie KAWABATA, Jun CHIBA, Hiroshi MASUDA, Yoshihisa IIDA	63
2 . Basic Research on Working Hours at Warehouse in Distribution Company .....Ryousuke ASAKURA, Kazuhito TANAKA, Masaya YANO, Munenori KAKEHI, Kenji SAKAMOTO, Ichie WATANABE	67
 Column	
Off the track note of an engineer - Rotation and Euler's formula - ..... Masayoshi AOKI	69
High-Tech Research Center 2004 Annual Report .....	79
Abstracts of Doctoral Dissertations and Reports of Dissertation Committee.....	101
Titles and Abstracts of Dissertations for Master's Degree.....	115
Research Activities (Jan. 2004- Dec. 2004) .....	129
Titles of Bachelor's Thesis .....	157