

編集委員長  
工藤 正博

Editor in chief  
Masahiro KUDO

編集委員  
青木 正喜  
久富 寿  
笠原 和夫  
渡邊 一衛

Editorial Board  
Masayoshi AOKI  
Hisashi HISATOMI  
Kazuo KASAHARA  
Ichie WATANABE

成蹊大学  
理工学研究報告  
第44巻 第1号

The Journal of the Faculty of Science and Technology  
Seikei University, Vol. 44, No.1(2007)

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/st/>  
<http://www.seikei.ac.jp/university/library/st/journal/>

2007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

<b>1. Quench Characteristics of High Temperature Superconducting Transformer for Inrush Current</b> ..... Sakio NISHIMIYA, Takeshi ISHIGOHKA, Akira NINOMIYA, Kazuaki ARAI	1
<b>2. Measurement of Quench Characteristics of HTS Tape and Coil</b> .....Hiroyuki MATSUURA, Takeshi ISHIGOHKA, Akira NINOMIYA	11
<b>3. Task Granularity Analysis for Task Scheduling Taking Account of Communication Overhead</b> ..... Akira ODAKA, Munenori KAI	17
<b>4. A Code Transformation Method Implementing Strong Migration Mobile Agent</b> ..... Masatoshi TAKUBO, Yasuki SAKURAI, Fumiaki KATOH, Munenori KAI	25
<b>5. An Extension of Automatic Parallelizing Translator for C Program Using Macro Task</b> .....Yasuyuki TANAKA, Jyun MIURA, Munenori KAI	35
<b>6. Evaluation of the influence of packet discarding pattern on the perceptual video quality in streaming media distribution services</b> ..... Hiroki KURODA , Kenichi HATAKEYAMA, Shin-ichi KURIBAYASHI	45
<b>7. Search for Suitable Rock-Salt Mine for Detection of Ultra-High Energy Neutrinos</b> .....Tadashi KON, Yuichi CHIKASHIGE, Yutaka SHIMIZU, Yoshito TAKEOKA, Akio AMANO, Satoshi MORI, Sohsuke NINOMIYA, Masami CHIBA, Toshio KAMIJYO	49
<b>8. Music CD Sales Forecast Analyzed by Logistic Model</b> .....Fumiko KOYANAGI, Tadashi KON, Yuzo KASEDA	55
<b>9. Design considerations of a slick camera for detection of images of oil slicks floating on the ocean surface</b> ..... Kuniharu TAKIZAWA, Kazuya YONEKURA, Lianhua JIN	63
<b>10. Simultaneous Measurement of Both Birefringence and Azimuth Angle Using a <math>y</math>-Cut <math>\text{LiNbO}_3</math> Phase Modulator</b> ..... Kazuya YONEKURA, Lianhua JIN, Kuniharu TAKIZAWA	77
<b>11. Composite Majorana Neutrino in <math>e\gamma</math> Collision</b> .....Iku ITO	83
<b>Short Notes</b>	
<b>Development of Learning Support System for Web at Abacus School</b> ..... Toshio KATSUMATA, Tomoaki MORITA, Munenori KAKEHI, Yoshihiro FUTATSUIISHI, Ichie WATANABE	89
<b>Column</b>	
<b>Off the track notes of an engineer - Geostationary satellite -</b> .....Masayoshi AOKI	91
<b>High-Tech Research Center 2006 Annual Report</b> .....	97
<b>Abstracts of Doctoral Dissertations and Reports of Dissertation Committee</b> .....	109
<b>Titles and Abstracts of Dissertations for Master's Degree</b> .....	137
<b>Titles of Bachelor's Thesis</b> .....	147