



宮崎大学工学部紀要 第49号表紙等

メタデータ	言語: ja 出版者: 公開日: 2020-10-29 キーワード (Ja): キーワード (En): 作成者: メールアドレス: 所属:
URL	http://hdl.handle.net/10458/00010062

**MEMOIRS OF FACULTY OF ENGINEERING
UNIVERSITY OF MIYAZAKI
No.49, September 2020
CONTENTS**

Original Articles

Asri saputra HENDRA, Chihiro MORITA, Shunsuke FUKAMI, Motohiro OSHIKATA Mechanical Characteristics of the Butterfly Bridge Using the Finite Element Method	1
Yutaka DOTE, Keisuke HAYASHIDA, Kenichi ITO, Tomoo SEKITO Consideration of the Deodorization Effect on Ammonia Gas from Caw Barn and Factors Influencing Deodorization	7
Hiroki TAMURA, Chihiro MORITA, Yasuhiro BONKOBARA, Masakazu ARAI, Kazuhiro SUGAMOTO, Makoto SAKAMOTO, Takahiro ISHIZU Evaluation and Issues of “Period for Inquiry-Based Cross-Disciplinary Study” for High School Student at Faculty of Engineering, University of Miyazaki	17
Ryusei CHIBU, Hiroki TAMURA Research on possibility of tracking pig herd using a camera	23
Yusuke WAKAMATSU, B. SHIN Observation of the Effect of Input Frequencies on Turbulent Scale by Random-Phase Method	29
Zhu HAN, Yusuke WAKAMATSU, B. SHIN Numerical Analysis of the Effect of Different Inlet Condition to Cavitation in an Turbopump Inducer	33
Naoki HASHIMOTO, Yoshinori NAGASE, Shigeki TOMOMATSU, Fumiya NOMURA, Masatoshi KIMURA Examination of transfer method for heat storage particle in solar receiver to heat exchanger	39
Taiga TERAHARA, Yasuhiro BONKOBARA, Takayuki HAMAHATA, Takahiro KONDOW A Study on the Reduction Mechanism of Piping Vibration by Using Two Flexible Joints	45
Hiroki SADAKATA, Yasuhiro BONKOBARA, Takayuki HAMAHATA, Shinichi TERAZONO, Takahiro MAEDA Fabrication and Evaluation of Nonlinear Springs for a Velocity Seismometer	51
Koki KAMIMIZUTARU, Akira NAGAOKA, Kenji YOSHINO Seebeck properties of $\text{Sr}_8\text{Ti}_7\text{S}_{21}$ crystal	57
Naoya KODAMA, Kazuma MATSUMOTO, Hirosumi YOKOYAMA, Kentaro SAKAI, Koji MAEDA Mechano-luminescence properties of rare-earth doped strontium aluminate phosphor prepared by gel-combustion method	61

Kazuma MATSUMOTO, Naoya KODAMA, Hirosumi YOKOYAMA, Kentaro SAKAI, Koji MAEDA Correlation between mechano-luminescence and activation energy of trap level in sulfur and fluorine doped strontium aluminate phosphor	65
Taiki ASO, Yuki OHISHI, Yuki IMAMURA, Masakazu ARAI, Koji MAEDA The layer thickness dependence of InAs/GaSb superlattices grown by metalorganic chemical vapor deposition evaluated by Raman scattering method	69
Yudai MIYAUCHI, Taiju NAKAMURA, Kosuke KAWABATA, Takaaki MANO, Takeshi NODA, Tetsuo IKARI, Atsuhiko FUKUYAMA Effect of Bimodal Size Distribution on the Temperature Dependence for Photoluminescence Peak Energy in Droplet-Epitaxy-fabricated GaAs Quantum Dots	73
Myat Thiri Wai, Thi Thi Zin, Mitsuhiro YOKOTA, Khin Than Mya Recognition Based Segmentation of Handwritten Alphanumeric Characters Entry on Tablet PC	79
Nann Hwan Khun, Thi Thi Zin, Mitsuhiro YOKOTA, Hninn Aye Thant Classification of People's Emotions during Natural Disasters	85
Katsuya YAMASHITA, Tatsuya SAKODA Study on Location Accuracy of Partial Discharge Locator for Electric Power Cable	91
Katsuya YAMASHITA, Tatsuya SAKODA Study on Propagation Characteristics of High Frequency Pulse Current in Electric Power Cable	95
Yuhei YAMASAKI, Katsuya YAMASHITA, Tatsuya SAKODA Partial Discharge Characteristics of XLPE Cable with Water Tree	101
Hiroshi ODA, Tatsuya SAKODA, Takeru AISHIMA, Takeshi NISHIMURA Characteristics of Partial Discharge in Epoxy Resin with a Void	105
Hiroshi ODA, Issei HAZAMA, Tatsuya SAKODA, Katsutaka KUBO, Manabu MIZUTANI, Yasunori KASUGA, Takato FUKANO Affecting Factors to $V-t$ Characteristics of Impulse Discharge	111
Shunsuke KINOSHITA, Yoichiro TADA, Tatsuya SAKODA, Kazutoshi TAZAWA, Hiroyuki ICHIKAWA Sterilization of Stem-end Rot of Mango using Dielectric Barrier Discharge Source and Influence of Operating Gas on sterilization	115
Kyaw Myo WIN, Yasuyuki OTA, Kensuke NISHIOKA, Tatsuya SAKODA, Noriyuki HAYASHI Multivariate Analysis Using R for Various Climatic Effects on the Output Performances of CIGS and Multi-Crystalline Si Photovoltaic Systems Installed in Miyazaki, Japan	119
Shogo MIYAZAKI, Hiromu KUNIFUSA, Kentaro ABURADA, Hisaaki YAMABA, Naonobu OKAZAKI Amidakuji-type Gaze Authentication Using Gaze Features.....	129
Shogo MIYAZAKI, Kayoko TAKATSUKA, Hisaaki YAMABA, Kentaro ABURADA, Naonobu OKAZAKI Research on a Support System for Project Risk Management.....	135

Maria TAKEGUCHI, Takaharu YANAI, Hisaaki YAMABA, Kentaro ABURADA, Naonobu OKAZAKI Evaluation of CAPTCHA for Mobile Devices against Bots Using Hough Transform	159
Ryusei FUJI, Ken'ichiro GOMI, Kentaro ABURADA, Hisaaki YAMABA, Naonobu OKAZAKI An Improved Method of "CloneSpot" for Detecting Repackaged Applications Using Metadata	165
Karin HONDA, Ryusei IWAMURA, Kentaro ABURADA, Hisaaki YAMABA, Naonobu OKAZAKI Proposal of Audio Based CAPTCHA with Mouse Using Environmental Sound	171
Takahiro SHINODA, Makoto SAKAMOTO A Study on Participatory Projection Mapping that can be Enjoyed by Performers	177
Takahiro ISHIZU, Makoto SAKAMOTO A Study on Hidden Surface Removal for Manipulation of Virtual Objects with Bare Hands in Augmented Reality	189
Kenji SAKOMA, Taketo KAMASAKA, Makoto SAKAMOTO Attempt of Cloth Animation by Considering the Collision with the Object II	199
Kenji SAKOMA, Taihei MIYAZAKI, Taketo KAMASAKA, Makoto SAKAMOTO Prototype of Video-Related Application for Supporting Chemistry Education by Virtual Reality	203
Kenji SAKOMA, Kodai MIYAMOTO, Taketo KAMASAKA, Makoto SAKAMOTO Basic Study on Video Production for Educational Support by Virtual Technology	207
Kenji SAKOMA, Masaya YAMASHITA, Taketo KAMASAKA, Makoto SAKAMOTO Verification of CG Character Operation by EEG Discrimination	211
Kenji SAKOMA, Masashi YAMASHIRO, Taketo KAMASAKA, Makoto SAKAMOTO The Experiment of Program for Designing of the Hula Dresses by Mele II	215
Kenji SAKOMA, Shota MORI, Taketo KAMASAKA, Makoto SAKAMOTO Basic Study on Colorization using Template Matching	219
Kenji SAKOMA, Yusei NARAKI, Taketo KAMASAKA, Makoto SAKAMOTO A Consideration on "Sweetness" by 3D CG with Fruits as an Example	223
Kenji SAKOMA, Noritaka SETO, Taketo KAMASAKA, Makoto SAKAMOTO Approach for Tourism Support by Aerial Video using CG	229
Hisaaki YAMABA, Yuki Nagatomo, Kentaro ABURADA, Naonobu OKAZAKI Evaluation of a Set of Manual Alphabets Based Gestures for a User Authentication Method Using s-EMG	233
Kyi Myo Zaw, Kunihito YAMAMORI, Masaru AIKAWA, Aye Min Myat Fast Retinex Image Enhancement Using CUDA	239
Yasuhiro SHIGYO, Tetsuro KATAYAMA Proposal of an Approach to Generate VDM++ Specification from Classified Lists of the Natural Language Specification by Machine Learning	245

Shotaro USUZAKI, Yuki SUNAMOTO, Naonobu OKAZAKI, Hisaaki YAMABA, Kentaro ABURADA A Study on Improving the Usability and Machine Resistance of Color Constancy CAPTCHA	251
Shogo MIYAZAKI, Shogo TANABE, Kayoko TAKATSUKA, Naonobu OKAZAKI, Hisaaki YAMABA, Kentaro ABURADA An Analysis Method of Project Schedule Delay Risks	257
Ryoma IKEDA, Masami MORI, Naonobu OKAZAKI, Hisaaki YAMABA, Kentaro ABURADA A Proposal of an IoT Bot Detection Method Using n-gram Analysis and One-Class SVM	263
Ryoma IKEDA, Yasutaka TSUCHIDA, Naonobu OKAZAKI, Hisaaki YAMABA, Kentaro ABURADA Analysis of Near Miss Accidents of Trac in Rainy Weather	269
Ryusei FUJI, Naonobu OKAZAKI, Hisaaki YAMABA, Kentaro ABURADA A Study on a Blockchain-based Collaborative Malware Detection System	275
Karin HONDA, Hisaaki YAMABA, Kentaro ABURADA, Naonobu OKAZAKI A Proposal of a Shelter Determination Method Considering Walking Speed of Evacuees in Aoshima Area	295
Arief Eka TIRTAKUSUMA, Keisuke MURAKAMI, Yori HERWANGI Statistical Analysis on Coastal Tourism for Sustainable Development	301
Widjaya CHRISTIAN, Keisuke MURAKAMI Efficient Transportation of Disaster Waste in Jetis Region, Bantul Regency, Yogyakarta	307
Noriko KAWASAKI Investigation on Disaster Risk and Resilience of the Republic of Vanuatu with a Focus on World Risk Report	313
List of Master's Thesis	321
Others	325