

Program Book



35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society

in conjunction with

52nd Annual Conference of Japanese Society for Medical and Biological Engineering (JSMBE)

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IEEE EMB



JSMBE

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- 09:30-11:00 **SaB12.13** Comparison of Magnetic Particle Image Reconstruction Methods between a Time-Correlation Method and Inverse Problem Analysis
Shimizu, Shota Meiji University; Homma, Takumi Meiji University; Ishihara, Yasutoshi Meiji University
- 09:30-11:00 **SaB12.14** Visualisation of Intracellular Calcium Concentration Change in Tubuloglomerular Feedback in Vivo
Nakamoto, Hiroshi Kawasaki Medical School; Yada, Toyotaka Kawasaki Medical School
- 09:30-11:00 **SaB12.15** Basic Study of Electrical Impedance CT
Furuya, Norio Tokyo metropolitan college of industrial technology; Sakamoto, Katsuyuki Dept. of Clinical Engineering, Nihon Institute of Medical Science; Izawa, Takuto Tokyo metropolitan college of industrial technology
- 09:30-11:00 **SaB12.16** Effect of Picture Appearance in the TMT on Fmri Activated Areas
Kodabashi, Atsushi Fujimoto Hayasuzu Hospital, Yokakai Association.; Kamiya, Shin'iro Univ. of Tokyo; Otsubo, Toshiaki Department of Neurosurgery, Fujimoto General Hospital; Higashi, Yuji Fujimoto General Hospital; Tsuji, Miwa Daigo Hospital; Fujimoto, Toshiro Fujimoto Hayasuzu Hospital; Sekine, Masaki Osaka Electro-Communication Univ.; Nambu, Masayuki Osaka Electro-Communication Univ.; Tamura, Toshiyo Osaka Electro-Communication Univ.
- 09:30-11:00 **SaB12.17** Shorter Time Window Facilitates Accurate Analyses of Motion-Defined Pattern in MEG
Kamiya, Shin'iro Univ. of Tokyo; Kodabashi, Atsushi Fujimoto Hayasuzu Hospital, Yokakai Association.; Higashi, Yuji Fujimoto General Hospital; Otsubo, Toshiaki Department of Neurosurgery, Fujimoto General Hospital; Sekine, Masaki Osaka Electro-Communication Univ.; Fujimoto, Toshiro Fujimoto Hayasuzu Hospital; Tamura, Toshiyo Osaka Electro-Communication Univ.
- 09:30-11:00 **SaB12.18** Verification of a Foot Arch Classification Technique Using Foot Pressure Distribution Images
Iwakami, Yumi University of Electro-Communications; Anzai, Emi, Emi Ochanomizu University; Nakajima, Kanako Ochanomizu University; Inaizumi, Kazuya Tokyo Healthcure University; Yamashita, Kazuhiko Tokyo Healthcure University; Okabe, Makoto University of Electro-Communications; Onai, Rikio University of Electro-Communications
- 09:30-11:00 **SaB12.19** Discrimination of a Brain Tumor Region through Microscope Evaluation of Fluorescence Using Confocal Microscopy
Katahira, Takuma Kanazawa Univ.; Yoneyama, Takeshi Kanazawa Univ.; Feng, Tianjian Kanazawa Univ.; Watanabe, Tetsuyuki Kanazawa Univ.; Kagawa, Hiroyuki Kanazawa Univ.; Hamada, Junichiro Kanazawa Univ.; Hayashi, Yutaka Kanazawa Univ.; Nekada, Mitsutoshi Kanazawa Univ.
- 09:30-11:00 **SaB12.20** A Feasible Algorithm of Chest Shape Estimation Using Strain Gauges for a Wearable Electrical Impedance Tomography
Hifumi, So, So Kitasato University; Nebuya, Satoru Kitasato University; Kumagai, Hiroshi Kitasato University
- 09:30-11:00 **SaB12.21** Detection of Arteriosclerosis Using Multispectral Fluorescence Imaging
Umetsu, Araya Natl. Defense Medical College; Taniguchi, Hiroaki NDMC; Motomitsu, Keita Natl. Defense Medical College; Naito, Ayami Natl. Defense Medical College; Nakai, Kanji Natl. Defense Medical College; Morimoto, Yuji Natl. Defense Medical College
- 09:30-11:00 **SaB12.22** Beta-Blocker Therapy Improves Left Ventricular Stiffening Assessed with Echocardiography in Patients with Heart Failure
Nakabo, Ayumi Hyogo College of Medicine; Hirokuni, Shimichi Cardiovascular Division, Department of Internal Medicine, Hyogo; Gada, Akiko Department of Internal Medicine, Cardiovascular Division, Hyogo; Masaki, Mitsuru Cardiovascular Division, Department of Internal Medicine, Hyogo; Fujiwara, Shohei Fuku, Miho Hyogo college of Medicine; Sugahara, Masataka Cardiovascular Division, Department of Internal Medicine, Hyogo; Itohara, Kanako Cardiovascular Division, Department of Internal Medicine, Hyogo; Komamura, Kazuo Hyogo College of Medicine; Tsujino, Takeshi Department of Pharmacy, School of Pharmacy, Hyogo University of Masuyama, Tohru Department of Internal Medicine, Cardiovascular Division, Hyogo
- 09:30-11:00 **SaB12.23** Mammogram Enhancement Using Anisotropic Diffusion and Weighted K-Means Clustering
Sepliana, Iina Chung Yuan Christian Krida Wacana Christian University; Lin, Geng Hong Chung Yuan Christian University; Lin, Wen-Chen Chung Yuan Christian University; Lin, Kang Ping Chung Yuan Christian University
- 09:30-11:00 **SaB12.24** Development BCI System: Fusion of Neuroscience and Media-Art
Hori, Shota Kyoto Univ.; Mori, Koichi Doshisha Women's College of Liberal Arts; Mashimo, Takehisa Seian Univ. of Art and Design; Seiyama, Akitoshi Graduate School of Medicine Kyoto Univ.
- 09:30-11:00 **SaB12.25** Embryo Quality Assessment from Image Sequences
Bashar, Khayrul The University of Tokyo; Yamagata, Kazuo Research Institute for Microbial Disease, Osaka University; Kobayashi, Tetsuya J. The University of Tokyo
- 09:30-11:00 **SaB12.26** Possibility of Blood Glucose Measurement Using Time Domain and Frequency Domain Optical Coherence Tomography
Miyura, Taisuro Kyoto University; Seki, Junji Kansai University; Ooi, Yasuhiro Osaka University; Selyama, Akitoshi Graduate School of Medicine Kyoto University
- 09:30-11:00 **SaB12.27** Examination of an Image Reconstruction Method Using Iterative Image Processing for Time-Correlation Magnetic Particle Imaging
Homma, Takumi Meiji University; Shimizu, Shota Meiji University; Ishihara, Yasutoshi Meiji University
- 09:30-11:00 **SaB12.28** Performance Evaluation of Depth-Selective Optical Topography and Brain Activity Measurements
Furuyama, Taiki Sophia Univ.; Fujii, Mamiko Sophia Univ.
- 09:30-11:00 **SaB12.29** Visualization of Blood Flow in the Left Ventricular Short Axis View by Echocardiographic Particle Image Velocimetry
Abe, Haruhiko Osaka National Hospital; Masuda, Kasumi Osaka University Graduate School of Medicine; Asanuma, Toshihiko Osaka University; Koriyama, Hikaru Osaka University; Koretsune, Yukihiko Osaka National Hospital; Kusuoka, Hideo Osaka National Hospital; Nakatani, Satoshi Osaka University Graduate School of Medicine
- 09:30-11:00 **SaB12.30** Tongue Morphology Analysis from the Upper Airway MRI for the Diagnosis of Obstructive Sleep Apnea
Mikami, Tsuyoshi Tomakomai College of Technology; Yonezawa, Kazuya National Hospital Organization Hakodate Hospital; Kojima, Yoshichiro Tomakomai National College of Technology; Yamamoto, Masahito Hokkaido University; Furukawa, Masashi Hokkaido University
- 09:30-11:00 **SaB13.1** Measurement of Solution Parameters on Sonication Decellularization Treatment
Rahmi, Mohammad SHAFIQ UTM; Azhim, Azran University of Technology Malaysia; Morimoto, Yuji National Defense Medical College; Furukawa, Katsuko University of Tokyo; Ushida, Takashi University of Tokyo
- 09:30-11:00 **SaB13.2** Novel In Vitro Screening System for Anticancer Drugs Using Silicate Nanowoven Fabrics
Morinaga, Tetsuo, Tetsuo Morinaga Placenta-Aloe Research Institute, Japan Bio Products Co., Ltd.; HIRANO, EIICHI Japan Bio Products Co., Ltd.; Deng, DaWei JAPAN BIO PRODUCTS Co., Ltd.; WATANABE, Rie Japan Vlene Company, Ltd.; Yamaguchi, Yoshie Placenta-Aloe Research Institute Japan BIO PRODUCTS Co., Ltd.; Kawabe, Masaaki Japan Vlene Company Ltd.
- 09:30-11:00 **SaB13.3** Imaging and Effect of Transplanted Cells of Cell-Based Therapy in Regenerative Medicine
Hatori, Hidemi National Defense Medical College; Ishihara, Masayuki National Defense Medical College
- 09:30-11:00 **SaB13.4** Protective Effects of Pressurized Addition of Xenon Gas against Cold Damage in Cell Monolayer
Seino, Kanako Kitasato University; Sato, Kota School of Allied Health Sciences, Kitasato Univ.; Ujihira, Masanobu Kitasato Univ.
- 09:30-11:00 **SaB13.5** Low Frequency Ultrasound Stimulation Increases the Secretion of Glycosaminoglycan in Chondrocytes Cultures
Manousakas, Ioannis I-Shou Univ.; Sun, Chia Hong I-Shou Univ.; Kuo, Yi Chih I-Shou Univ.; Kuo, Shyh Ming I-Shou Univ.
- 09:30-11:00 **SaB13.6** Linear Elastic Behaviors of β -Catenin Revealed by AFM-Based SMFS
Maki, Koichiro Faculty of Engineering, Kyoto University
- 09:30-11:00 **SaB13.7** Orientation of Cultured Myotube on Rubbed Collagen
Uto, Sachiko Osaka Institute of Tech.; Miki, Minami Osaka Institute of Tech.; Kunwata, Yuta Osaka Institute of Tech.
- 09:30-11:00 **SaB13.8** Fabrication and Characterization of BMP-2-Tethered Scaffolds
Dang, Guo-Chung National Health Research Institutes
- 09:30-11:00 **SaB13.9** Optimization of Oxygenation Parameters in Bioreactor Based on Oxygen Carrier
Wu, Changzhe Chinese Academy of Sciences; Huo, Xiaolin Chinese Academy of Sciences
- 09:30-11:00 **SaB13.10** A Three-Dimensional Invasion Assay for Glioma-Initiating Cells in a Microfluidic Device
Fujioaka, Shingo Keio Univ.; Oltea, Sampetrear Keio Univ.; Sawa, Hideyuki Keio Univ.; Sudo, Ryo Keio Univ.
- 09:30-11:00 **SaB13.11** Fundamental Studies and Development of Micro-Porous Titanium Blood Contacting Surface Obtaining the Neointimal Formation
Sekine, Kazumitsu The University of Tokushima Graduate School; Hamada, Kenichi University of Tokushima; Naito, Yoshinori Tokushima university
- 09:30-11:00 **SaB13.12** Mechanical Stimulus Affects Mirna Expression of Mouse Embryonic Stem Cells During Differentiation Process
Fujimoto, Hiroshi Faculty of Engineering, Kyoto University
- 09:30-11:00 **SaB14.1** Reduction of Metallic Interference in MEG Signals Using AMUSE*
Migliorelli, Carolina Technical Univ. of Catalonia (UPC); Romero, Sergio Technical Univ. of Catalonia (UPC); Alonso, Joan Francesc Technical Univ. of Catalonia (UPC); Nowak, Rafal Centro Medico Teknon; Russi, Antonio Centro Medico Teknon; Marinas, Miquel Angel Technical Univ. of Catalonia (UPC)
- 09:30-11:00 **SaB14.2** Information Theoretic Optimization of Cochlear Implant Electrode Usage Probabilities
Gao, Xiao Univ. of South Australia; Grayden, David B. The Univ. of Melbourne; McDonnell, Mark Damian Univ. of South Australia
- 09:30-11:00 **SaB14.3** Optimal Stimulus Profiles for Neuroprosthetic Devices: Monophasic versus Biphasic Stimulation
Tahayori, Bahman University of Melbourne; Dokos, Socrates University of New South Wales
- 09:30-11:00 **SaB14.4** On the Objective Assessment of the Auditory Brainstem Response Measurement Quality
Corona-Strauss, Farah I. Saarland University Hospital; Strauss, Daniel J. Saarland University, Medical Faculty
- 09:30-11:00 **SaB15.1** Development of the Robot Arm System by SEMG with the Feedback to Force Is Shown to Subject
Hiramatsu, Yuuma Tokai Univ.; Magalani, Kazushige Tokai Univ.
- 09:30-11:00 **SaB15.2** Evaluation of Autonomous Mobile Robot Actions on Aisles in a Hospital by Hospital Staffs
Tamagawa, Hiroo Osaka Univ. Dental Hospital; Kobata, Mitsuhiro Osaka Univ. Dental Hospital, Division for Medical Informatics; Hirota, Eiji Osaka Univ. Dental Hospital; Taga, Yoshiaki Osaka Univ. Dental Hospital; Ikeda, Minoru Nippon Shooter, Inada, Taku Nippon Shooter; Moriguchi, Toshiaki Murata Machinery, Ltd.; Maeda, Yoshinobu Osaka Univ. Graduate School of Dentistry
- 09:30-11:00 **SaB15.3** Evaluation of Bicycle Pedaling Skills Using a Bicycle Crank Angular Velocity Irregularity Index
Kitawaki, Tomoki Okayama University; Tokuyasu, Tatsushi Fukuoka Institute of Technology; Oka, Hisao Okayama University
- 09:30-11:00 **SaB15.4** Proposal of Bioinstrumentation Using Shape Deformation of Amputated Upper Limb
Mori, Takahiko Gifu National College of Technology; Tanaka, Yuya Department of Electronic Control Engineering; Yoshikawa, Kenichi Ibaraki Prefectural University of Health Sciences Hospital; Katane, Tamotsu Chiba University; Torishima, Hiroyuki OMIYA Co., Ltd; Shimizu, Yukiyo Ibaraki Prefectural University of Health Sciences Hospital; Hara, Yuki University of Tsukuba
- 09:30-11:00 **SaB15.5** 8.1.4 Late Breaking Posters-Theme 8A (Poster Session)
Event Hall-Area C (3F)