

Final Technical Program

*This list is only for viewing. If you want to click the hyperlink, please download the [CME 2020 CD-ROM](#).

Plenary Talks

session1 Neurophysiology

- 1 [The effects of transcranial static magnetic field stimulation on the accuracy of tachystoscopically presented line bisection](#)
Department of Sensorimotor Neuroscience, Graduate School of Biomedical and Health Sciences, Hiroshima University
Keisuke Yunoki
- 2 [Does transcranial static magnetic field stimulation over the supplementary motor area influence anticipatory postural adjustments?](#)
Department of Sensorimotor Neuroscience, Graduate School of Biomedical and Health Sciences, Hiroshima University
Takayuki Kuwabara
- 3 [Laterality of intracortical inhibition in the ipsilateral primary motor cortex during unilateral finger movement](#)
Department of Sensorimotor Neuroscience Graduate School of Biomedical and Health Sciences, Hiroshima University
Takuya Matsumoto
- 4 [Effect of muscle fatigue on dorsal premotor cortex and supplementary motor area](#)
Rehabilitation and Physical Medicine, Kagoshima University
Atsuo Maruyama
- 5 [Changes in corticomuscular and intermuscular coherences associated with visuomotor control](#)
Department of Sensorimotor Neuroscience, Graduate School of Biomedical and Health Sciences, Hiroshima University
Tatsunori Watanabe

session2 Neuroscience and Neural Technology

- 6 [Diagnosis of thoracic outlet syndrome using ultrasound equipment: A case report](#)
Department of Neurology, Tokushima University Hospital
Hiroki Yamazaki
- 7 [Lower-limb muscle mass and diabetic polyneuropathy in patients with type 2 diabetes](#)
Okayama Healthcare Professional University
Hiroaki Kataoka

[Monitoring System for L4/L5 Compression Force during Assistive Motion using Single Inertial Measurement Unit](#)

8

Kyushu Institute of Technology

Kodai Kitagawa

session3 Miscelaneous

[Species differences in bilirubin photoisomer formation by blue fluorescent lamp](#)

9

Department of Pediatrics, Kagawa University

Hitoshi Okada

[Estimation of Disease Code from Texts in Discharge Summaries](#)

10

Department of Medical Informatics Faculty of Medicine, Shimane University

Shusaku Tsumoto

[Noninvasive observation of sensory action currents in the cervical cord by biomagnetic measurement](#)

11

Tokyo Medical and Dental University

Miho Akaza

[Validation of the accuracy of portable urinary flowmeter Freeflow in clinical practice](#)

12

Department of Urology, Continence Center, Dokkyo Medical University

Tomohiko Kamasako

Organized Session

Innovation for Medical Engineering from Kagawa University (Medical engineering cooperative seminar)

session4

Organizer

Kagawa university Takashi Kusaka

Kagawa university Satotu Takahashi

[Endoscopic suturing device, Over-The-Scope Clip System: A literature review](#)

13

Department of Gastroenterology and Neurology Faculty of Medicine, Kagawa University

Hideki Kobara

[Development of the novel program to diagnose atrial fibrillation using automated blood pressure monitor](#)

14

Department of Cardiorenal and Cerebrovascular Medicine, Faculty of Medicine, Kagawa University.

Makoto Ishizawa

15 [Diverting E-Learning Environment for Research Activity](#)
Faculty of Engineering and Design, Kagawa University Toshihiro Hayashi

16 [Transition mechanism between transient and steady EADs in a mathematical cardiac model](#)
Department of Information Systems Engineering, Kagawa University Hiroyuki Kitajima

17 [New strategy of the neuroprotection for neonatal hypoxic ischemic encephalopathy using hydrogen gas ventilation](#)
Department of Pediatrics, Faculty of Medicine, Kagawa University Shinji Nakamura

18 [Formation of Calcium Phosphate in Nanotube Oxide on Ti-6Al-7Nb Alloy and Characterization of the Products using Cross-Sectional Observations](#)
Department of Advanced Materials Science
Faculty of Engineering, Kagawa University Yasuhiro Tanaka

session5 Organized session
Shikoku islamd seminar
Organizers
Kagawa university Kazushi Deguchi

19 [Network analysis of brain FDG-PET in dystonia](#)
Department of Neurology, Tokushima University Hospital Koji Fujita

20 [Light exercise without lactate elevation induces ischemic tolerance through the modulation of microRNA in the gerbil hippocampus](#)
Department of General Medicine, Kagawa University Tadayuki Takata

21 [Apomorphine treatment targeting neuronal insulin signaling in Alzheimer's disease](#)
Department of Neurology and Geriatric Medicine, Graduate School of Medicine, Ehime University Yasumasa Ohyagi

22 [Development and implementation of a database containing detail bedside neurological examination and final diagnosis of patient.](#)
Department of Neurology, Kochi Medical School, Kochi University Hirokazu Furuya

Organized Session
session6
Advanced Micro Electro Mechanical Devices for Bio/Medical Applications
Organizer
Kagawa university Hidekuni Takao

23
[Single Cell Analysis using Nano-Micro Devices](#)
Department of Advanced Materials Science
Faculty of Engineering, Kagawa University
Kyohei Terao

24
[Implementation and Evaluation of Highly Sensitive Silicon Slip Sensing Imager on Laparoscopic forceps](#)
Department of Advanced Materials Science
Faculty of Engineering, Kagawa University
Kanakano Ando

25
[High Performance "Nano-Tactile" Sensors and Their Applications to Biomedical Engineering](#)
Micro-Nano Structure Device Integrated Research Center, Kagawa
University
Hidekuni Takao

26
[Fully wireless and multimodal sensing on flexible endoscopic surgery using structural color-based microsensor](#)
Micro-Nano Structure Device Integrated Research Center, Kagawa
University
Yusaku Maeda

Organized Session
session7
Recent nursing researches for care skill acquisition
Organizer
Kagawa university Yasuko Maekawa

27
[Comparison of attitude factors for elderly patients with dementia before and after a serious game that simulates care scenarios for the elderly with Alzheimer dementia for nurses and caregivers](#)
Health Science, School of Nursing, Faculty of Medicine, Kagawa
University
Miwa Yamamoto

28
[Effect of using CG characters in role-playing on dementia-care education](#)
Osaka Prefecture University
Riki Hashimoto

29
[Nursing students' attitudes on role-playing through CG characters in dementia care education](#)

Health Science, School of Nursing, Faculty of Medicine, Kagawa
University

Yasuko Maekawa

30 [Evaluating nursing student study habits and practices with regard to skill acquisition in an adult acute phase practicum](#)

Department of Nursing, Osaka shin-ai college

Sachiko Matsui

31 [Effects of transcranial magnetic stimulation with maximum voluntary muscle contraction \(TSM with MVC\) on chronic hand paresis caused by cerebral stroke](#)

Health Science, Faculty of Medicine, Kagawa University

Kentaro Sugawara

session8

Organized Session

Topics of human-care research methodology

Organizer

Kagawa university Hiroko Shimizu

32 [Measuring Thermal Sensation Using the Semantic Differential Technique with Brain Base](#)

Faculty of Medicine, Kagawa University

Hiroko Shimizu

33 [Measuring gastric peristalsis in the patients with gastrostoma using ultrasonic inspection equipment](#)

Health Science, Faculty of Medicine, Kagawa University

Kunihiko Tsutsui

34 [Evaluation of Motor Function for Residents Living in Local Communities by Measuring Pinching Muscle Force; Influences of Age and Lifestyle](#)

Health Science, Faculty of Medicine, Kagawa University

Tomomitsu Morinaga

35 [A Study of the Guidance of Psychiatric Nursing Practice from the SOC score of the third-year Undergraduate Nursing Students](#)

School of nursing, Faculty of Medicine, Kagawa University

Aya Kuramoto

36 [Trial for the clarification of caregivers' skills using the Eyelink-type Transparent Kana Board](#)

Faculty of Nursing, Toyama Prefectural University

Marina Yamamoto

Organized Session
session9 Driving support and Human Factors in driving
Organizer
Kagawa university Keisuke Suzuki

37 [Development of Infrared Blood Pressure Monitoring System and Detection of Increasing Blood Pressure with Changepoint Method](#)

Aichi University of Technology Toshiya Arakawa

38 [Effect of Alcohol consumption on driving performance levels](#)

Nippon Institute of Technology Hironori Suzuki

39 [Driving Restart Criteria based on Neuropsychological Test and Driving Behavior](#)

Faculty of Engineering and Design, Kagawa University Naohiko Shibayama

40 [Model analysis of influence of difficulty levels of mental tasks on driver's vestibulo-ocular reflex](#)

Ritsumeikan University Takuya Kono

Organized Session
session10 Cognitive Science and Information Technology for Neurological Disorder
Organizer
Graduate School of Natural Science and Technology, Okayama University
Jing-long Wu

41 [Effects of interval-training on tactile raised-angle discrimination](#)

Graduate School of Natural Science and Technology, Okayama University Wu Wang

42 [The influence of visual and haptic bottom-up information on haptic exploration](#)

Graduate School of Interdisciplinary Science and Engineering in Health Systems, Okayama University Huazhi Li

43 [Age-related cognitive gains from visual working memory training](#)

The Graduate School of Natural Science and Technology, Okayama University Ting Guo

Organized Session
session11 Innovative technologies for imaging and visualization of human brain structure and function
Organizer
Kyoto University Tetsuo Kobayashi, Yosuke Ito

44 [Improvement of sensitivity of magnetic nanoparticle imaging using pickup coil array for human-sized imaging](#)

Kyushu University Teruyoshi Sasayama

45 [Non-cryogenic magnetoencephalography with optically pumped magnetometers](#)

Kyoto University Yosuke Ito

46 [Spin-lock techniques toward low-field functional MRI](#)

Kyoto University Hiroyuki Ueda

47 [Toward fine anatomically-informed functional analyses using ultra-high field MRI: Quantitative evaluation of artifact corrections in 7-T functional MRI data](#)

National Institute for Physiological Sciences Tetsuya Yamamoto

Organized Session
session12 Early detection and therapy of Alzheimer's dementia
Organizer
Okayama university Koji Abe

48 [Touch panel screening test for early Alzheimer's disease.](#)

Departments of Neurology, Faculty of Medicine, Okayama University Toru Yamashita

49 [Clinical benefit of a new dietary supplement Twendee X for MCI](#)

Departments of Neurology, Faculty of Medicine, Okayama University Koh Tadokoro

Organized Session
session13 Near-infrared optical approaches for human physiology and biochemistry beyond conventional CW measurement

Organizer

Hamamatsu University School of Medicine Yoko Hoshi

50 [The new management of the labor by a finger-mounted fetal tissue oximetry using near-infrared spectroscopy](#)

Hamamatsu University School of Medicine

Toshiyuki Uchida

51 [Skeletal muscle and brown adipose tissue characteristics determined by near-infrared time-resolved spectroscopy in humans](#)

Tokyo Medical University

Takafumi Hamaoka

52 [Detection of tissue metabolic rate of oxygen: a combined near-infrared spectroscopy and diffuse correlation spectroscopy study](#)

Meiji University

Yumie Ono

53 [Toward the development of reliable ultra-compact continuous-wave near infrared spectroscopy for brain function measurement](#)

Human Informatics Research Institute, National Institute of Advanced Industrial Science and Technology

Hiroshi Kawaguchi

54 [Motion-artifact-free multi-spectral spatial frequency domain imaging with ambient light suppression based on multi-tap and multi-aperture cameras](#)

Shizuoka University

Keiichiro Kagawa

Organized Session

Medical Robots and New Applications

session14

Organizer

Kagawa university Shuxiang Guo

Kagawa university Takashi Tamitya

55 [Management of intraoperative MRI, neuronavigation system using PET, and 5-aminolevulinic acid-induced fluorescence image-guided surgery for glioblastoma](#)

Department of Neurological Surgery, Kagawa University

Keisuke Miyake

56 [Transarterial embolization using Onyx™ for transvers-sigmoid junction and the other location of dural arteriovenous fistulas](#)

Department of Neurological Surgery, Kagawa University

Masahiko Kawanishi

[The Exoscope; A new relationship between Neurosurgery and Optical engineering.](#)

57

Department of Neurological Surgery, Kagawa University

Daisuke Ogawa

[A novel endovascular interventional robotic system with haptic force interface](#)

58

Faculty of Engineering and Design, Kagawa University

Peng Shi

[Development and Characteristics Evaluation of a New Type of Slave Robot for Vascular Interventional Surgery](#)

59

Faculty of Engineering and Design, Kagawa University

Xiaoliang Jin

[A sEMG-based Active Intention Bilateral Training System for Elbow Joint Motor Rehabilitation](#)

60

Faculty of Engineering and Design, Kagawa University

Ziyi Yang

Organized Session

Sophisticated Researches in Clinical Neurophysiology

session15

Organizer

International University of Health and Welfare

Yoshinobu Goto

[Contribution of clinical neurophysiology for individuals with severe motor and intellectual disabilities](#)

61

International University of Health and Welfare

Daisuke Hirano

[A new touch panel system for early detection of cognitive impairment: Use of optic flow motion](#)

62

Kyushu University

Takao Yamasaki

[The influence of binocular disparity on motion perception](#)

63

Saga University

Kazuhiko Goto

[Effects of visual function on postural control](#)

64

Organized Session
Application of Nano molecular Imaging and Computer-Aided Medical Diagnosis
session16 Organizer
Taiyuan University of Technology
Jie Xiang

65 [Epileptic Seizure Detection Based on EEG Signals and CNN](#)
Taiyuan University of Technology Jie Xiang

66 [Screening of cancerous cells based on the fluorescent probe of unmodified carbon quantum dots](#)
Taiyuan University of Technology Shengbo Sang

67 [Predicting the Survival time of NSCLC Using Radiomic Signature Derived from Pre-Treatment PET and CT Images](#)
Shanxi Medical University Zhifang Wu

68 This paper was excluded from this program

Organized Session
Power Rehabilitation Systems
session17 Organizer
Department of Electrical Engineering, National Taipei University of Technology
Yo-Ping Huang

69 [A Fuzzy Watershed Based MRI Thresholding Segmentation Assessment of Parkinson's Disease](#)
Department of Electrical Engineering, National Taipei University of Technology Kanika Bhalla

70 [A neutrosophic-clustering based approach for MRI segmentation of Parkinson's disease](#)
Department of Electrical Engineering, National Taipei University of Technology Pritpal Singh

[CLDNet: Cervical Lesion Detection Net](#)

71

College of medicine, Huaqiao University

Peizhong Liu

[A pneumatic artificial muscle actuator-driven upper limb exoskeleton robot for rehabilitation](#)

72

Department of Mechatronic Engineering, National Taiwan Normal University

Chun-Ta Chen

Organized Session

Workshop on Human Factors for Safety and Comfortable Driving

session18

Organizer

Ritsumeikan University Wada Takahiro

Kagawa university Keisuke Suzuki

[Workshop on Human Factors for Safety and Comfortable Driving](#)

73

Ritsumeikan University

Takahiro Wada

Organized Session

Recent advances of Neuroimaging techniques

session19

OrganizerKyoto university Hidenao Fukuyama

[The challenge of mapping the human brain connectome](#)

74

Brain Connectivity Lab, Institute of Neuroscience, National Yang-Ming University

Ching-Po Lin

Institute of Science and Technology for Brain-inspired Intelligence

(ISTBI), Fudan University

[Fifty shades of gray matters: The next step towards a more reliable functional MRI](#)

75

RIKEN Center for Biosystems Dynamics Research

Toshihiko Aso

[PET Imaging in Drug Development for Neurodegenerative Diseases](#)

76

Department of Clinical and Experimental Neuroimaging, Center for Development of Advanced Medicine for Dementia, National Center for Geriatrics and Gerontology

Yasuyuki Kimura

Organized Session
session20 Topics of medical engineering in gastroenterology
Organizer
Kagawa university Hideki Kobara

77 [Development of a novel endoscopic method for removing gastrointestinal residue](#)

Department of Gastroenterology and Neurology Faculty of Medicine,
Kagawa University Kazuhiro Kozuka

78 [Three cases of insertion into the gallbladder by POCS](#)

Department of Gastroenterology and Neurology Faculty of Medicine,
Kagawa University Hiroki Yamana

79 [Endoscopic transpapillary gallbladder drainage \(ETGBD\) : Tips and Tricks](#)

Department of Gastroenterology and Neurology Faculty of Medicine,
Kagawa University Hideki Kamada

Organized Session
session21 Cognitive neuroscience
Organizer
Department of Psychology, Faculty of Education, Hubei University, Weiping Yang

80 [The Time Characteristics of Different Facial Expression by An ERP Study](#)

The Graduate School of Natural Science and Technology, Okayama
University Jiajia Yang

81 [Improving forecasting accuracy of high air pollution with attention network](#)

Department of Computer Science and Information Engineering National
Taipei University Yu-Ren Zeng

82 [Enhanced theta-band functional connectivity for older adults during audiovisual integration: an EEG study](#)

Guizhou University of Traditional Chinese Medicine Yanna Ren

83 [Audiovisual integration in older adults under high and low stimulus intensity : evidence from behavior and ERPs](#)

Department of Psychology, Faculty of Education, Hubei University,
Wuhan, China Weiping Yang

