

**THE 2023 INTERNATIONAL CONFERENCE ON MEDICAL DESIGN
ONE DIGITAL HEALTH: FUTURE PERSPECTIVES AND CHALLENGES
VENUE: CHANG GUNG UNIVERSITY (TAOYUAN, TAIWAN)
DATE: 2023/11/24 ~ 2023/11/27**

Full Schedule

MD2023 Conference		
Time	Topic	Place
25 November 2023 (Saturday)		
09:30-10:00	Registration	Shengen Lecture Hall 2nd Floor, Management Building
10:00-12:00	Poster Installation and Exhibition	Shengen Lecture Hall 2nd Floor, Management Building
11:00-12:00	MDA Members of General Assembly	Room2001 2nd Floor, Management Building
12:00-14:00	Lunch	Room2004 2nd Floor, Management Building
12:40-13:00	Registration	Shengen Lecture Hall 2nd Floor, Management Building
13:00-13:10	Opening and Welcome Host: Professor Chien-Lung Hsu Vice President of the Medical Design Association (MDA), Professor at the Department of Information Management & Graduate Institute of Business and Management, Chang Gung University	Shengen Lecture Hall 2nd Floor, Management Building
13:10-14:10	Invited Speech (1): Self-supporting care and AI technology application development Invited Speaker: Mr. Chin-Li Lin, Chief Executive Officer of Changtai Health Care Group Host: Professor Chien-Lung Hsu Vice President of the Medical Design Association (MDA), Professor at the Department of Information Management & Graduate Institute of Business and Management, Chang Gung University	Shengen Lecture Hall 2nd Floor, Management Building
14:10-15:10	Invited Speech (2): Innovations in Trusted Cloud Security Invited Speaker:	Shengen Lecture Hall 2nd Floor, Management Building

	<p>Tsung-Min Kuo, Ph.D, Senior Engineer & Project Manager, Chunghwa Telecom Co., Ltd.</p> <p>Host: Professor Chien-Lung Hsu, Vice President of the Medical Design Association (MDA), Professor at the Department of Information Management & Graduate Institute of Business and Management, Chang Gung University</p>	
15:10-15:30	Tea Break	Room2004 2nd Floor, Management Building
15:30-16:30	<p>Invited Speech (3): Generative AI on Smart Healthcare Application (生成式 AI 於智慧醫療應用)</p> <p>Invited Speaker: Mr. James Liu, Client Executive of Microsoft Taiwan Corporation</p> <p>Host: Professor Chien-Lung Hsu, Vice President of the Medical Design Association (MDA), Professor at the Department of Information Management & Graduate Institute of Business and Management, Chang Gung University</p>	Shengen Lecture Hall 2nd Floor, Management Building
16:30-17:00	<p>Panel discussion: Mr. Chin-Li Lin, Chief Executive Officer of Changtai Health Care Group/ Tsung-Min Kuo, PhD, Senior Engineer & Project Manager, Chunghwa Telecom Co., Ltd. Mr. James Liu, Client Executive of Microsoft Taiwan Corporation</p> <p>Host: Professor Chien-Lung Hsu, Vice President of the Medical Design Association (MDA), Professor at the Department of Information Management & Graduate Institute of Business and Management, Chang Gung University</p>	Shengen Lecture Hall 2nd Floor, Management Building
18:00	Gala Dinner	Fullon Hotel A8
26 November 2023 (Sunday)		
8:30-10:00	MD2023 Registration	Shengen Lecture Hall 2nd Floor, Management Building
9:00-9:10	<p>Opening and Welcome</p> <p>Host: Professor Ming-Je Tang, President of Chang Gung University Professor Kevin C. Tseng (MD2023 General Chair), President of the Medical Design Association (MDA)</p>	Shengen Lecture Hall 2nd Floor, Management Building
9:10-10:10	<p>Keynote Session (1): Health Information Technologies to Fight Against Emerging & Re-emerging Diseases in the future: Lesson learned from COVID-19 Pandemic</p> <p>Keynote Speaker: Emeritus Professor Suwat Chariyalertsak, MD., Dr.PH. Dean, Faculty of Public Health, Chiang Mai University (Thailand)</p> <p>Host: Professor Kevin C. Tseng (MD2023 General Chair), President of the Medical Design Association (MDA)</p>	Shengen Lecture Hall 2nd Floor, Management Building

10:10-11:10	<p>Keynote Session (2): Promoting innovations in medical education and digital healthcare delivery</p> <p>Keynote Speaker: Professor Henry L. Lew, MD, PhD Director of Rehabilitation Medicine Education Office of Medical Education John A. Burns School of Medicine, University of Hawaii at Manoa (United States)</p> <p>Host: Professor Alice MK. Wong, Superintendent at Chang Gung Memorial Hospital</p>	Shengen Lecture Hall 2nd Floor, Management Building
11:10-11:30	Tea Break	Room2004 2nd Floor, Management Building
11:30-12:30	<p>Keynote Session (3): Application of Technologies for Neurorehabilitation</p> <p>Keynote Speaker: Assoc. Professor Won-Seok Kim, MD, PhD Rehabilitation Medicine at the Seoul National University Bundang Hospital SNUBH Rehabilitation Medicine, Seoul National University College of Medicine, South Korea (Korea)</p> <p>Host: Jian-Jia Huang PhD Chief Executive Officer at Rehabotics Medical Technology Corporation Asst. Professor at MSc Program in Innovation for Smart Medicine, Chang Gung University</p>	Shengen Lecture Hall 2nd Floor, Management Building
12:30-13:30	Lunch	Room2004 2nd Floor, Management Building
12:30-13:30	<p>Appointment Scheduling for Consultation Emeritus Professor Suwat Chariyalertsak (Thailand) Professor Henry L. Lew (USA) Associate Professor Won-Seok Kim (Korean) Assistant Professor Kannikar Intawong (Thailand)</p> <p>Host: Professor Ming-Je Tang, President of Chang Gung University Professor Chin-Horng Chan, Vice Dean of the College of Management</p>	The Faculty Lounge 2nd Floor, Management Building
13:30-14:30	<p>Invited Speech: Metaverse Development for Intelligent Healthcare</p> <p>Invited Speaker: Asst. Professor Dr. Kannikar Intawong Faculty of Public Health, Chiang Mai University (Thailand)</p> <p>Host: Assoc. Professor Sherry Yueh-Hsia Chiu Head of Health Care Management, Chang Gung University</p>	Shengen Lecture Hall 2nd Floor, Management Building
13:30-15:00	<p>Parallel Session (1): Biomedical Design I</p> <p>Session Chair: Jian-Jia Huang</p> <p>ID29: Interhemispheric Coherence in Sensorimotor Cortical Areas Induced by Multiple Interventions in Healthy Participants Kuo-Cheng Liu, Jen-Wen Hung, Yu-Cheng Pei, Jian-Jia Huang</p>	Room1001 1st Floor, Management Building

	<p>ID20: Tactile Acuity Assessment Using Extended JVP Domes in Patients with Diabetes Mellitu Lei-Chi Lin, Wen-Hsin Mai, Jian-Jia Huang, Yu-Cheng Pei, Bao-Luen Chang</p> <p>ID12: Video-Based Stroke Gait Recognition and Exoskeleton Robot Rehabilitation Parameter Prediction Jhih-Jie Liou, Shih-Lin Wu, Jian-Jia Huang, Shih-Chieh Chang, Yu-Cheng Pei</p> <p>ID21: Correlation of Tactile Acuity and Nerve Conduction in Diabetic Patients: a pilot study Wen-Hsin Mai, Lei-Chi Lin, Jian-Jia Huang, Yu-Cheng Pei, Bao-Luen Chang</p> <p>ID22: Machine Learning Model in Post-stroke Ambulatory Function Prediction Shih-Chieh Chang, Jian-Jia Huang, Yu-Cheng Pei</p>	
	<p>Parallel Session (2): Digital Health Technologies and Usability Session Chair: Wann-Yun Shieh</p> <p>ID18: Application of a Usability-Based Medical Device Development Support System: A Systematic Review An-Yu Cheng, Kevin C. Tseng</p> <p>ID33: System Approach to Public Healthcare Services Based on Service Design Concept: A Systematic Review Li-Yu Tseng, Kevin C Tseng</p> <p>ID41: Specifications and Effects of Wearable Devices for the Rehabilitation of Orthopedic Postoperative: A Systematic Review and Meta-analysis Hui-Ying Hsu, Kevin C. Tseng</p> <p>ID49: Development of an Affordable and Non-Invasive Laryngeal Microphone Sensor Interface for BIOPAC Systems Mohammad Anwar Khan, Wann-Yun Shieh, Chin-Man Wang</p> <p>ID61: Systematic Review and Meta-analysis of EMG and EEG Biofeedback Interventions in Upper Extremity Rehabilitation Robots for Post-stroke Patients Chen-Kai Chiu, Kevin C. Tseng</p>	<p>Room1002 1st Floor, Management Building</p>
	<p>Parallel Session (3): Cognitive Health and Aging Technologies Session Chair: Yueh-Peng Chen</p> <p>ID62: The Impact of Emerging Technology on Physical Exercise and Cognitive Training in Older Adults with Mild Cognitive Impairment: A Systematic Review and Meta-Analysis Chia-Ching Chang, Shih-Lin Wu, Tzyh-Chyang Chang, Tsai-Hsuan Tsai</p> <p>ID46: Enhancing Cognitive Health through the Brain Gym Coaching Platform Ting-Wei Chang, Chia-Ching Chang, Shih-Lin Wu, Tsai-Hsuan Tsai, Yueh-Peng Chen</p> <p>ID65: Technological Empowerment for the Aging Workforce in Elderly Care Programs: A Systematic Review and Meta-Analysis Hsin-Yu Lo, Shih-Lin Wu, Chien-Lung Hsu, Tsai-Hsuan Tsai</p> <p>ID66: Benefits of Conversational AI and Chatbots in Integrated Care Management in Retirement Villages: A Systematic Review and Meta-Analysis Dai-Rong Wu, Shih-Lin Wu, Chien-Lung Hsu, Tsai-Hsuan Tsai</p>	<p>Room1003 1st Floor, Management Building</p>

	<p>ID63: Dcare Mobile Clinic: An AI-Driven Chatbot Platform for Transforming Personalized Health Management and Telecare Services for Patients with Chronic Diseases Thi Phuong Thanh-Le, Wei-Hua Jen, Shih-Lin Wu, Tsai-Hsuan Tsai</p>	
	<p>Parallel Session (4): Advanced Technologies in Patient Safety Session Chair: Chien-Lung Hsu</p> <p>ID17: Continuing Care for Stroke Patients by i-SMART system Chien-Lung Hsu, Yi-Ching Chen, Yu-Li LinYu-Li, Chia-Yi Lo, Chi-Wei Hsu</p> <p>ID19:-A Knowledge Management Platform with Attribute-Based Homomorphic Encryption for Regulation and Compliance of Medical Device Network Security Chien-Lung Hsu, Yu-Ting Chang, Tzu-Yin Hsiao, Fu-Sung Lo</p> <p>ID25:-A Public Key System with Forward Secrecy for Hierarchical Internet of Medical Things (H-IoMT) in a Smart Hospital Chien-Lung Hsu, Min-Hui Ting, Tien-Wei Li, Tzu-Wei Chiang, Tzu-Liang Hsu</p> <p>ID52: An External Plugin System for Automated Medical Image Acquisition and Recognition Chun-Yang Lin, Mu-Chen Hsieh, Tzuo-Yau Fan, Shih-Lin Wu, Yueh-Peng Chen</p> <p>ID36: A Feasibility Study on the Use of Smart Devices by the Public to Prevent Hypertension Yu-Ting Hou, Kevin C. Tseng</p> <p>ID68: Secure FHIR-based Medical Records Exchange Processes with Attribute-Based Encryption Mechanisms for Taiwan Cloud Telemedicine Consultation Chien-Lung Hsu, Tzu-Liang Hsu, Ting-Chen Pai</p>	<p>Room1005 1st Floor, Management Building</p>
15:00-15:30	Tea Break	<p>Room1004 1st Floor, Management Building</p>
15:30-17:00	<p>Parallel Session (5): Biomedical Design II Session Chair: Yu-Cheng Pei</p> <p>ID03: Diagnostic Accuracy of Deep Learning for Prediction of Osteoporosis Using Plain X-rays: A Meta-Analysis Tzu-Yun Yen, Chan-Hsien Ho, Yu-Cheng Pei, Yu-Cheng Pei</p> <p>ID30: Application of An Explainable HardNet-based Deep Learning Model for Osteoporosis Screening and Bone Mineral Density Inference Using Hand Radiographs Chan-Shien Ho, Yu-Cheng Pei, Yueh-Peng Chen, Szu-Yi Chang</p> <p>ID35: An Advanced Medical Concept for Enhanced Procedures in Colonoscopy Yu-Chi Chen, Wei-Cheng Chen, Yan-Ru Chen, Shih-Wei-Chen Tseng, Ming-Yao Chen, Jian-Jia Huang, Yeong-Hwa Chang</p> <p>ID45: Assessment of Ventriculomegaly Utilizing Deep Learning Approaches through Neonatal Cranial Ultrasonography Yueh-Peng Chen, Cheng-Yen Kuo, Hsiang-Yu Wu, Tzuo-Yau Fan, Chang-Fu Kuo</p>	<p>Room1001 1st Floor, Management Building</p>

	<p>ID43: A Literature Review of Current Technologies in the Field of Depression in Alzheimer's Disease Duru Acar, Keving C. Tseng</p>	
	<p>Parallel Session (6): Innovations in Medical Diagnosis and Treatment Technologies Session Chair: Meng-Huang Wu</p> <p>ID42: Literature Review of Advancements in Medical Design and Technology for Early Diagnosis and Treatment of Oral Cancer Magie Vania Halim, Kevin C Tseng</p> <p>ID44: The New Solution for Visual Clarity During Bleeding in Spine Endoscopic Surgery Meng-Huang Wu, Jowy Tani, Cheng-Chun Chang, Ching-Yu Lee, Tsung-Jen Huang, Yi-Hung Huang, Jin-Sung Kim</p> <p>ID48: The Current Advancements and Innovations in Endoscopic Lumbar Interbody Fusion Meng-Huang Wu</p> <p>ID50: Suture Embedding Acupuncture Versus Traditional Acupuncture for the Treatment of Chronic Low Back Pain: A Randomized Controlled Trial Po-Hsuan Su, Yen-Kuang Lin, Shan-Hong Wu, Ching-Yu Lee, Tsung-Jen Huang, Meng-Huang Wu</p> <p>ID55: Feasibility Study on the Prospects and Challenges of Smart Technology in Healthcare Yuan-Chien Chen, Kevin C. Tseng</p>	<p>Room1002 1st Floor, Management Building</p>
	<p>Parallel Session (7): Mental Health Technologies and Social Well-being Session Chair: Tzyh-Chyang Chang</p> <p>ID54: Technological Advancements in the Assessment, Diagnosis, and Treatment of Speech and Language Disorders in Preschool-Aged Children Sheng-Jui Kuo, Yu-Ting Wen, Kuo-Cheng Liu, Jian-Jia Huang, Tsai-Hsuan Tsai</p> <p>ID47: Exploring the Relationship between Adolescent Mental Health Problems and Smoking Behavior Woody Chi-Ying Wu, Sherry Yueh-Hsia Chiu</p> <p>ID67: SOCA Health Platform: Enhancing Occupational Health and Safety for Healthcare Professionals in Hospitals Min-Hui Ting, Tzu-Pei Chuang, Yu-Chung Tsao, Tsai-Hsuan Tsai</p> <p>ID64: Facilitating Social Connections and Promoting Healthful Dietary Behavior Among Older Adults: The Meet'n Eat Chatbot Platform Chang-Hsien Yeh, Yu-Chi Lu, Shih-Lin Wu, Chien-Lung Hsu, Tsai-Hsuan Tsai</p> <p>ID53: Forecasting Depression Based on Mobile Phone Usage Behavior via Machine Learning Pei-Chen Chung, Shih-Lin Wu, Tzyh-Chyang Chang</p>	<p>Room1003 1st Floor, Management Building</p>
27 November 2023 (Monday)		
10:00-10:30	Registration	The Faculty Lounge 2nd Floor, Management Building

10:30-12:00

Visits & Campus Tours at Chang Gung University

Chang Gung University