

**2020 INTERNATIONAL CONFERENCE ON MEDICAL DESIGN
SMART HEALTH INNOVATION: CREATING NEW DIGITAL HEALTHCARE
VENUE: CHANG GUNG HEALTH AND CULTURE VILLAGE
DATE: 2020/11/20-2020/11/23**

Full Schedule

Date of update: 2020/11/17

MD2020 Conference		
Time	Topic	Place
Nov. 20, 2020 (Friday)		
13:30-14:00	報到 Registration	Chang Gung Health and Culture Village (Taoyuan) Building C Hall
14:00-17:00	醫學設計競賽最終發表 The Final Presentation of Medical Design Competition	2 nd Meeting room
Nov. 21, 2020 (Saturday)		
09:30-10:00	大會報到進場 Registration	Chang Gung Health and Culture Village (Taoyuan) Building C Hall
10:00-10:10	開場 Opening and Welcome 曾俊儒 - 健康產業創新產品設計與開發聯盟創辦人暨執行長 Prof. Dr. Kevin C. Tseng CEO of IPDD Alliance	2 nd Meeting room
10:10-11:10	主題一：生醫大數據應用與智慧長照 Speech (1): Biomedical big data application and smart long-term care 莊曜宇-工業技術研究院生醫與醫材研究所副所長 Prof. Dr. Eric Chang Deputy Head of BDL in ITRI	2 nd Meeting room
11:10-12:10	主題二：遠距復健於新冠肺炎疫期間在五十肩病患的實際應用 Speech (2): Telerehabilitation for patients with frozen shoulder during the COVID-19 pandemic 許嘉麟 - 輝馥復健專科診所院長 Mr. Allen C. L. Hsu Director of Retreat Clinic 石書璋 - 神寶醫資股份有限公司行銷經理 Mr. William Shih Marketing Manager of Shennona Co., Ltd.	2 nd Meeting room
12:10-13:30	午餐 Lunch Break	2 nd Meeting room

13:30-14:30	<p>主題三：打造幸福健康醫療照護及安養環境，以長庚為例</p> <p>Speech (1): Building a happy and healthy medical care retirement environment: Chang Gung as an example</p> <p>戴興業 – 長庚養生文化村主任</p> <p>Mr. Hsing-Yeh Tai Director of Chang Gung Health and Culture Village</p>	2 nd Meeting room
14:30-15:30	<p>主題四：中醫藥現代科學化與產業實證</p> <p>Speech (4): Scientization of Traditional Chinese Medicine and Industrial Empirical Study</p> <p>趙國鈞 – 鈞生股份有限公司總經理</p> <p>Mr. Jonathan Chao CEO of Elixir Herbarry Corporation</p>	2 nd Meeting room
15:30-16:30	<p>主題五：醫療器材設計從概念到驗證</p> <p>Speech (5): Medical device design from idea to verification</p> <p>黃建嘉 – 富伯生醫科技股份有限公司總經理</p> <p>Dr. Charles Huang CEO of Rehabotics Medical Technology Corporation</p>	2 nd Meeting room
16:30-17:00	<p>交流討論</p> <p>Panel discussion</p> <p>許建隆 – 臺灣醫學設計學會常務理事暨產學合作與教育委員會主任委員</p> <p>Prof. Dr. Daniel Chien-Lung Hsu Excurtive Director of MD Alliance</p>	2 nd Meeting room
18:00	Gala dinner	Fullon Hotel (Taoyuan Airport Access MRT A8)
Nov. 22, 2020 (Sunday)		
9:30-10:00	Registration	Chang Gung Health and Culture Village (Taoyuan) B2F Stadium
10:00-10:10	Opening and Welcome Medical Design Awards	B2F Stadium
10:10-11:00	<p>Smart Long-term Care</p> <p><i>Professor Shih-Chung Jessy Kang</i></p> <p><i>University of Alberta, Canada</i></p> <p><i>Host: Professor Kevin C. Tseng</i></p>	B2F Stadium
11:00-11:50	<p>Design for Health</p> <p><i>Professor Paul Chamberlain</i></p> <p><i>Sheffield Hallam University, UK</i></p> <p><i>Host: Professor Daniel Chien-Lung Hsu</i></p>	B2F Stadium
11:50-12:40	<p>Design for the Elderly</p> <p><i>Assoc. Professor Fariza Hanis Abdul Razak</i></p> <p><i>Universiti Teknologi MARA, Malaysia</i></p> <p><i>Host: Dr. Jowy Tani</i></p>	B2F Stadium
12:40-13:30	Lunch	B2F Stadium
12:40-13:30	The MDA members' meeting 2020	2F Presentation Room

13:30-15:10	<p>Keynote Session: Strategy, Leadership, and Management in Healthcare <i>Host: Professor Kevin C. Tseng</i></p> <p>Strategic Leadership: Managing the Minds and Hearts of Healthcare Professionals <i>Professor Carol Hooi</i> <i>Nottingham University Business School, Malaysia</i></p> <p>Business Thinking to solve Society's Problems: Focusing on the Other Side of the Evolving Business of Healthcare <i>Professor Masayoshi Toma</i> <i>Wako University, Japan</i></p>	2 nd Meeting room
	<p>Poster Presentation and Product Exhibition <i>Chair: Prof. Tien-Li Chen</i></p> <ul style="list-style-type: none"> • Design Thinking as a Tool for Interdisciplinary Collaborative Workshop in Healthcare for Innovation Chia Jung Hsieh, Tzu-Chi Hsu, Cheng-Wei Wu, Pei-Chang Hsu • Secure Medical Delivery Online Service to Reduce the Risk of Being Affected by COVID-19 Tansita Somyawakath, Le Phuong Anh Cao, Ching-Ying Lin, Jenung Deng, Pusit Kittiteeranurak, Yun-Hsiang Wang • An IoT Beacon System that Uses Instant Messaging Software to Transmission Physiological Information Yi-Shiun Lee • Application of Deep Learning Neural Network in Predicting Bone Mineral Density from Plain X-ray Radiography Chan-Shien Ho, Yueh-Peng Chen, Tzuo-Yau Fan, Chang-Fu Kuo, Tzu-Yun Yen, Yuan-Chang Liu, Yu-Cheng Pei 	Buliding C Hall
	<p>Parallel Session (1) Medical Engineering Technology in Healthcare Applications <i>Chair: Prof. Yi-Chao Wu</i></p> <ul style="list-style-type: none"> • Wearable Device for Detecting Frequency and Speed of Pace in Multiple Mobile Operating Platforms Yi-Chao Wu, Je-Chiuan Ye, Chen-Chu Pan, Hsi-Yu Niu, Yi-Ting Chen, Shu-Han Juang • Designing an NTRU-based Cryptographic Protocol for 5G-IoT Smart Healthcare Environments Chen Yujen, Chien-Lung Hsu, Tzu-Wei Lin • Digital Forensic Laboratory Investigation Process and Management Based on Internet of Medical Things (IoMT) Ai-Ning Yang, Chien-Lung Hsu, Chin-Ming Hsu, Tzu-Wei Lin • Privacy-Preserved User Authentication with Time-Bound for IoT Environment Liang-Shiun Lin, Chien-Lung Hsu, Guan-Lin Cheng • Comparison of Deep Learning and Machine Learning in Feature Selection Applications Chia-Hsun Lin 	3 rd Meeting room
15:10-15:30	Tea Break	Buliding C Hall

15:30-17:10	Poster Presentation and Product Exhibition	Building C Hall
	<p>Parallel Session (2) Health on Information Need Design <i>Chair: Prof. Wen-Lung Tsai</i></p> <ul style="list-style-type: none"> • Study on the Design of a Hospital Meal Management Procedure Using 3D Animated Film Wen-Lung Tsai, Ying-Chang Chen, Yu-Chuan Lai, Chia-Chin Luan, Wei-Chiang Hong • Study on the Design of Multimedia Learning Content for Uremia Patients' Healthy Eating Principles Wen-Lung Tsai, Che-Hao Chang, Hsuan-Ni, Lee, Chia-Chin Luan, Wei-Chiang Hong • 2D Animation Design of the Diabetic Diet Wen-Lung Tsai, Jheng-Lin Huang, Yu-Tong Chen, Chia-Chin Luan, Wei-Chiang Hong • An EHR Access Control on Medical Cloud Wen-Lung Tsai, Xin-Ying Liu, Po-Jui Li 	2F Presentation Room
	<p>Parallel Session (3) Biodesign: Innovation for Medical Technologies <i>Chair: Prof. Meng-Huang Wu</i></p> <ul style="list-style-type: none"> • Design a Framework of Time Bank for Long-term Care Service in Taiwan Ya-Chi Chin, Chien-Lung Hsu • Color-Indicating, Label-Free, Liquid Crystal-Based-Bioinspired Sensor in Smartphone Yu-Cheng Hsiao • Localizing the Stanford Biodesign Process: An Intrapreneurship Implementation in Taipei Medical University Health Care System Lex Wang, Chiao-Wei Huang, Meng-Huang Wu, Jowy Tani, Chih-Yu Chen • UNET Based Spondylolisthesis Recognition For Lumbar X-Ray Images Minh Giam Trinh, Hao-Chiang Shao, Kevin Li-Chun Hsieh, Tsung-Jen Huang, Hsiao-Wei Liu, Chen-Wei Lai, Sen-Yi Chou, Pei-I Tsai, Kuan-Jen Chen, Fang-Jie Jang, Meng-Huang Wu • Biodesign Innovation in Spine Surgery: Future Spine Care Meng-Huang Wu • Assessment of a new three-dimensional visualization system for Endoscopic Endonasal Surgery Debry C., Djennaoui I., Trau G., Yen-Yu Wang, Yi-Chu Lee, Shih-Wei Huang, Kai-Che Liu 	1 st Meeting room
	<p>Parallel Session (4) Design for Active-aging: The Mind and the Need <i>Chair: Prof. Pang-Hsiang Yu</i></p> <ul style="list-style-type: none"> • A Study on Exploring the Demands of Self-media Experience Exchange and Inheritance for the Elderly Yo-Wen Liang, Jeng Wang • The Capstone of Active Aging - Individual Cognition and Value Exploration in 55-75-year-old Segment Pang-Hsiang Yu, Chung-Chih Lin, Pin-Han Liao, Yen-Fang Zhou • Questionnaire Design and Survey Results of the Wisdom Inheritance of the Elderly-Taking Chang-Gung Health and 	2 nd Meeting room

	<p>Cultural Village as an Example Hsiu-Hsin Tsai, Ding-Yang Hsu, Chia-Yueh Yeh</p> <ul style="list-style-type: none"> • Aging Awareness in Bloomers: Concern and Correspondence Miao-Hsien Chuang, Ming-Hsien Wen, Yi-Ling Chang, You-Shan Lin • Independent Successful Aging: The Exploration in the Senior Housing Pang-Hsiang Yu, Chung-Chih Lin, Pin-Han Liao, Yen-Fang Zhou • Self-expectations of the Early Elderly: Dream and Image Miao-Hsien Chuang, Ming-Hsien Wen, Wanchu Liao, Feng-Ching Tsai & You-Shan Lin • Analysis of the Wrist Angle by Using Different Types of Handles in the Crash Cart Jin-Ting Sie, Ding-Yang Hsu, Yun-Hsuan Chen 	
	<p>Parallel Session (5) IoT-Based Innovative Health Informatics <i>Chair: Prof. Daniel Chien-Lung Hsu</i></p> <ul style="list-style-type: none"> • 5G-based FAIDM for Medical Privacy Protection Tzu-Wei Lin, Chien-Lung Hsu, Hung-Ming Chuang • Enabling Multi-Server Telecare Medical Information Systems with Three-Factor Fast Authentication and Strong User Anonymity Tuan-Vinh Le, Chien-Lung Hsu, Mei-Chen Hsieh • Privacy-Preserved Conference Key Distribution with Time-Bound for IoT Environment Guan-Lin Cheng, Chien-Lung Hsu, Tzu-Wei Lin, Tuan-Vinh Le • Design of Secure Three-Factor Identity-based Authentication Mechanism for IoT-enabled Hierarchical Healthcare Systems Bing-Yi Lin, Chien-Lung Hsu, Tuan-Vinh Le • An Automatic Wound Detection System based on Morphological Image Processing and Connected-component Labeling Yi-Hsuan Yeh, Dun-Hao Chang, Chia-Tung Lee, Yu-Ting Cheng, Pei-Jyun Lin, Yan-Zhen Lu, Yu-Wen Cheng, Cheng-Ta Huang 	3 rd Meeting room
	<p>Parallel Session (6) Smart Products and Services <i>Chair: Prof. Tsai-Hsuan Tsai</i></p> <ul style="list-style-type: none"> • Speculative Design for Self-Health Monitoring Patch Muhammad Ainul Yaqin, Vu Hong Lan, Sheng-Ming Wang • Service Design and Planning of Elderly Food Delivery System: A Case Study of Chang Gung Health and Cultural Village Yuan Chen Lin • A Study on the Design of Health Education Services for Children with Rehabilitation (Developmental Delay Children) Pohsiang Huang • Application of Intelligent Dialogue System in the Design of Nostalgic Therapy for the Elderly with Dementia Yueh-Ju Chiang, Zih-Ciang Jhang, Tsai-Shiuan Tsai, Jen-Fang Yu, An-Ting Hsia, Ying-Ying Su • AI Intelligent Dialogue System in the Use of Medical Policy Sharing: Taking the Optimization of Health Education Information for Children with Developmental Delay as an Example Yi-Chen Ke 	4 th Meeting room

	<ul style="list-style-type: none"> • Use Voiceprint Features to Establish the Evaluation Index for the Elderly with Dementia Yan-Qing Zhao 	
Nov. 23, 2020 (Monday)		
10:00-10:30	Registration	Chang Gung Health and Culture Village
10:30-12:00	Visiting: Chang Gung Health and Culture Village	Chang Gung Health and Culture Village