GOLDEN ♔ ACADEMY

Message from the organizers

Dear Colleagues and Friends,

We would like to invite all of you to join the 2020 International Interdisciplinary Conference on Materials Science & Engineering and Computational Information Technology, which will be held online and offline simultaneously, during Aug 29-31 2020.

The conference is intended to serve as an interdisciplinary platform for the exchange and networking between top scientists, experienced engineers, frontier researchers, and students across a wide spectrum of research fields.

Your active participation and discussion is the key to the success of this conference.

Yours Sincerely,

Organizing Committee

2020 International Interdisciplinary Conference on Materials Science & Computational Informatics

APSMR 2020 Annual Meeting / APSCIT 2020 Annual Meeting

GOLDEN ♛ ACADEMY

Conference organizing committee

CONFERENCE CHAIRS

Prof. Shigeo AKASHI (Tokyo University of Science)

Prof. Shih-Chieh HSU (Tamkang University)

Prof. Chia-Cheng LIN (Shin Kong Wu Ho-Su Memorial Hospital)

Dr. Yingxue SONG (Beihang University)

Prof. Yung-Kang SHEN (Taipei Medical University)

Dr. Rudder WU (National Institute for Materials Science)

CONFERENCE PROGRAM DIRECTORS

Dr. Yingxue SONG

CONFERENCE SECRETARIAT

Ms. Yaru WU (APSMR)

Ms. Alexis CHUNG (APSCIT)

GOLDEN ♔ ACADEMY

Conference topics

MATERIALS SCIENCE & ENGINEERING:
1. Structure materials and Functional Coatings (metals, ceramics, and composites)
2. Materials for energy (saving, conversion, transfer, storage) and environment plus electrochemistry
   2.1. Photovoltaics
   2.2. Batteries and Fuel Cells
   2.3. Materials for Thermal Management and Thermal Energy Utilization
   2.4. Materials for Energy and Environmental Applications
3. Optics and Photonic Materials
4. Electronic, Magnetic and Nanomaterials
5. Polymer Science and Molecular Chemistry
6. Organic Materials and Bio-materials
7. Materials Characterization and Computational Modeling

COMPUTATION AND IT:
1: Theory, Algorithms, Programming
2: Database, Cloud Computing, Data Mining, Big Data
3: Communications, Networking, Security, and Internet of Things
4: Multimedia, Image Processing and Recognition (Virtual Reality)
5: High Performance Computing and Intelligent Systems (AI, Robotics)
6: Software Engineering and Applications
7: Electronics (Analog/Digital Circuits, Signal Processing, System Architectures)

Beijing/Taipei	Tokyo	SAT, 08/29	SUN, 08/30	MON, 08/31
9:00 – 10:15	10:00 – 11:15		Oral Presentation	
10:15 – 10:30	11:15 – 11:30		Coffee & Tea Break	
10:30 – 12:00	11:30 – 13:00		Oral Presentation	
12:10 – 13:00	13:10 – 14:00		Lunch Break	
13:00 – 14:30	14:00 – 15:30	Pre-session technical and discussion forums on international collaboration (by invitation only)	Oral Presentation	
14:30 – 14:45	15:30 – 15:45		Coffee & Tea Break	
14:45 – 15:30	15:45 – 16:30		Oral Presentation	
15:30 – 17:00	16:30 – 18:00			
16:30 – 19:30	17:30 – 20:30	Conference Registration		

GOLDEN ♛ ACADEMY

Presentation List

Beijing/Taipei	Tokyo	SAT, 08/29	SUN, 08/30	MON, 08/31
9:00 – 10:15	10:00 – 11:15		**1. R. WU** **2. C.L. LIN**	**13. S.C. HSU, S.W. LUO** **14. D. ZHAO***
10:15 – 10:30	11:15 – 11:30		Coffee & Tea Break	
10:30 – 12:00	11:30 – 13:00		**3. K. KATSURADA***[†] **4. Y.J. WU** **5. H. WANG***	**15. S.H. CAI** **16. G.S. WU** **17. Z.H. XIE**
12:10 – 13:00	13:10 – 14:00		Lunch Break	
13:00 – 14:30	14:00 – 15:30	Pre-session technical and discussion forums on international collaboration (by invitation only)	**6. Y.K. SHEN** **7. K. TSUCHIYA** **8. S.H. CHANG**[†]	
14:30 – 14:45	15:30 – 15:45		Coffee & Tea Break	
14:45 – 15:30	15:45 – 16:30		**9. S. AKASHI***[†] **10. C.C. LIN*** **11. I.S. HWANG**[†] **12. W.C. LIN**	
15:30 – 17:00	16:30 – 18:00			
16:30 – 19:30	17:30 – 20:30	Conference Registration		

GOLDEN ACADEMY

SUNDAY 08/30

1. Materials for thermal insulation and thermal management (R. WU)

2. Photoelectrochromic Devices Based on Poly(hydroxymethyl 3,4-ethylenedioxythiophene) Thin Films (C.L. LIN)

3. Speech Synthesis from Articulatory Movement using Deep Neural Networks (K. KATSURADA)

4. Interfacial thermal management of inorganic thin films by machine learning (Y.J. WU)

5. Advances in Ultraprecision Micro/Nano-Machining (H. WANG)

6. Optimal processing of 4D printing on thermo-responsive composite material (Y.K. SHEN)

7. Phase Transformation in FCC High-Entropy Alloys (K. TSUCHIYA)

8. Real-Time Ransomware Detection in Industrial System Using Sandbox (S.H. CHANG)

9. Incompatibility of the ethernet frame transfer with the e-mail spoofing based on the datalink layer protocols (S. AKASHI)

10. Accuracy Analyses and Clinical Applications of Stereolithographic Surgical Guide for Dental Implant Placement (C.C. LIN)

11. Enabling SDN in Hybrid Xhaul-PON Networks for 5G (I.S. HWANG)

GOLDEN ♛ ACADEMY

12. Evaluation of cobalt-substituted hydroxyapatite for bone tissue engineering and clinical imaging (W.C. LIN)

MONDAY 08/31

13. Study on detection of glucose solution by Surface Enhanced Raman Spectroscopy (S.C. HSU, S.W. LUO)

14. Thin-Film Nanocomposite Membranes Incorporated with UiO-66-NH2 Nanoparticles for Brackish Water and Seawater Desalination (D. ZHAO)

15. Influence of BC pretreatment on microstructure and bonding strength of 8YSZ fabricated by EB-PVD (S.H. CAI)

16. Corrosion Mitigation of Magnesium Alloy via Predesigned Corrosion (G.S. WU)

17. On the thermal diffusion conditions of electroplated Pt-diffusion bond coat for thermal barrier coatings (Z.H. XIE)