## Message from the organizers

Dear Colleagues and Friends,

We would like to invite all of you to join the 2018 International Interdisciplinary Conference on Materials Science & Engineering, Biology & Medical Science and Computational Information Technology, which is held in Hangzhou, China, during August 19-22 2018.

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** 

2018 International Interdisciplinary Conference on Materials Science & Engineering, Biology & Medical Science and Computational Informatics IFMR 2018 (APSMR) / CITR 2018 (APSCIT) / CBMS 2018 (APSBMS)

## **Conference organizing committee**

#### **CONFERENCE CHAIRS**

**MATERIALS SCIENCE & ENGINEERING:** 

Prof. Xingmao JIANG (Changzhou University)

Prof. Weidong HE (University of Electronic Science and Technology of China)

COMPUTATION & IT:

Prof. Qing PAN (Zhejiang University of Technology)

Prof. Wen-Tsung LIN (Minghsin University of Science and Technology)

**BIOLOGY & MEDICAL SCIENCE:** 

Prof. Fan LIN (Nanjing Medical University)

Prof. Yu-Cheng KUO (Taipei Medical University)

#### **CONFERENCE PROGRAM COORDINATOR**

Dr. Yingxue SONG

#### **CONFERENCE SECRETARIAT**

Ms. Yaru WU (APSMR)

Ms. Yangjun HU (APSCIT)

Mr. Chen-Huan HSU (APSBMS)

## **Conference topics**

#### MATERIALS SCIENCE & ENGINEERING:

 Structure materials and Functional Coatings (metals, ceramics, and composites)
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)

### **BIOLOGY & MEDICAL SCIENCE:**

- 1: Biology
- 2: Life Sciences
- 3: Medical Sciences
- 4: Paramedical Science
- 5: Animal Sciences
- 6: Health Sciences
- 7: Food Science & Nutrition

## **Conference program**

	SUN, 8/19	MON, 8/20	TUE, 8/21	WED, 8/22	
9:00 - 10:20		Plenary Presentation			
10:20 - 10:30	Pre-session technical and discussion forums	Coffee & Tea Break			
10:30 - 12:00		Oral Presentation			
12:10 - 13:00		Lunch Break			
13:10 - 14:40		Oral Presentation	Discussion &		
14:40 - 14:50		Coffee & Tea Break	Networking		
14:50 - 16:30				Conference Excursion	
17:00 -18:30	Conference Registration		Poster Session		
19:00 –20:30	Reception		Conference Banquet (Approx. 1.5 hrs)		

## **Presentation List (Meeting Room A)**

	SUN, 8/19	MON, 8/20	TUE, 8/21	WED, 8/22	
9:00 - 10:20		1. Q. CHEN 2. W.D. HE	12. S. N. YOON 13. L. LUO	23. J.W. JIANG 24. J.L JIANG	
10:20 _ 10:30	Pre-session technical and discussion forums	Coffee & Tea Break			
10:30 - 12:00		3. S.H. CAI 4. L.M. CHEN 5. X.F. DAI	14. L. ZHANG 15. L.H. WU 16. F. LIN	25. W.H. LI 26. M. LIU 27. R.C. LI	
12:10 - 13:00		Lunch Break			
13:10 _ 14:40		6. H.C. SUNG 7. K.C. HSU 8. S.Q. LIANG	Discussion & Networking		
14:40 - 14:50		Coffee & Tea Break	Discussion & Networking		
14:50 _ 16:30				Conference Excursion	
17:00 - 18:30	Conference Registration		Poster Session		
19:00 - 20:30	Reception		Conference Banquet (Approx. 1.5 hrs)		

## **Presentation List (Meeting Room B)**

	SUN, 8/19	MON, 8/20	TUE, 8/21	WED, 8/22
9:00 - 10:20		1. Z.Z. XU 2. Q.J. SUN	12. Z. LI 13. Y. YANG	
10:20 - 10:30	Pre-session technical and discussion forums			
10:30 - 12:00		3. K.H. CHI 4. H.M. WU 5. J.Y. CHEN	14. G.Q. ZHANG 15. M.Y. HE 16. Y.T. XIE	
12:10 - 13:00		Lunch Break		
13:10 - 14:40		6. W.T. LIN 7. C.Y. LIU 8. Y.C. KUO	Discussion & Networking	
14:40 - 14:50		Coffee & Tea Break	Discussion & Networking	
14:50 _ 16:30				Conference Excursion
17:00 - 18:30	Conference Registration		Poster Session	
19:00 - 20:30	Reception		Conference Banquet (Approx. 1.5 hrs)	

### MONDAY 08/20

### Meeting Room A

- 1. Metamaterial Microfluidic Sensors (Q. CHEN)
- 2. TBA (W.D. HE)
- 3. Tailored microstructure of thermal barrier coatings by EB-PVD (S.H. CAI)
- 4. Na+/HCO3- cotransporters in renal physiology (L.M. CHEN)
- 5. Cold atmospheric plasma: an emerging oncotherapeutic approach for breast cancer treatment (X.F. DAI)
- 6. Clinical treatment of andrographis panic in the cause of physical and mental health problems caused by chronic pharyngitis (H.C. SUNG)
- 7. Synthetic Amphoteric Copolymer as a Dispersant for Aqueous Barium Titanate Suspensions (K.C. HSU)
- 8. Development of High-performance Cathodes for Aqueous Zinc-ion Battery (S.Q. LIANG)

### Meeting Room B

- 1. Full Parameter Detetion of Linear Objects (Z.Z. XU)
- 2. Piezopotential Modulated Graphene Semiconductor Devices (Q.J. SUN)
- 3. A Deep Learning-Based Technique for Detecting Facade Tile Degradation (K.H. CHI)

- 4. Deep Learning Driven Wireless Communications (H.M. WU)
- 5. Research on adversarial attack based on evolutionary mechanism (J.Y. CHEN)
- 6. An Architecture for Intelligent Security Predictive System (W.T. LIN)
- 7. Key technology for real-time and long-term wearable ECG monitoring (C.Y. LIU)
- 8. Meridian leads West and East meet at Quantam Medicine (Y.C. KUO)

### **TUESDAY 08/21**

### Meeting Room A

- 12. Sealing Surgical Orthotopic Implantation of Human Colon Cancer Cells in Nude Mice Induces Tumor Foci in All Clinically Relevant Metastatic Sites without Early Peritoneal Carcinomatosis (S.N. YOON)
- Single-Moleucle Photodynamic Theranostics: From Mechanism to Application (L. LUO)
- 14. TBA (L. ZHANG)
- 15. Meridian Medicine on Pharmacology (L.H. WU)
- 16. Targeting Core Mutated Pathways of Glioblastoma (F. LIN)

### Meeting Room B

12. TBA (Z. LI)

- 13. Hybridized triboelectric nanogenerators and energy storage devices (Y. YANG)
- 14. Construction of Purely Organic Room-Temperature Phosphorescent Materials via sp3 linkers (G.Q. ZHANG)
- 15. Deep Learning Approach for Hyperspectral Data Classification (M.Y. HE)
- 16. Continuous-Valued Annotations Aggregation for Heart Rate Detection (Y.T. XIE)

### WEDNESDAY 08/22

### Meeting Room A

- 23. Metal-Organic Frameworks as Adsorbents, Membranes and Catalysts: A Computational Perspective (J.W. JIANG)
- 24. Interdiffusion behaviour and lifetime prediction of Co-Al coating on Ni-based superalloy (J.L. JIANG)
- 25. Study of TGO residual stress using PLPS (W.H. LI)
- 26. Study on Al2O3 modified YSZ thermal barrier coating mitigate volcanic ash corrosion prepared by EBPVD method (M. LIU)
- 27. On the mechanisms and mitigation of rare earth doped YSZ against molten volcanic ash attack (R.C. LI)