

Materials Science and Technology in Engineering Conference (MaSTEC 2021)

## **Innovative Materials Science and Technology in the Greater Bay Area Construction**

21-22 October 2021 (Thursday-Friday)

Multi-Purpose Hall & Exhibition Area A, Zero Carbon Building,  
8 Sheung Yuet Road, Kowloon Bay, Kowloon, Hong Kong

### **Calls for Papers**

The Materials Division of the Hong Kong Institution of Engineers is pleased to call for papers for the Materials Science and Technology in Engineering Conference, MaSTEC 2021.

The theme of the conference is **Innovative Materials Science and Technology in the Greater Bay Area Construction**.

### **Background**

With the total area of 56,000 km<sup>2</sup>, a population of over 72 million, a GDP of HKD13.1 trillion and GDP per capita of HKD181,210 as at end 2019, the economic growth of the Greater Bay Area in recent three years well proved the significance of implementing innovation-driven development. On 18 February 2019, the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area further promulgated five Hong Kong R&D Centers in selected focus areas which include Nano and Advanced Materials.

Despite the unprecedented pandemic and prevailing whatever restrictions, notable progresses at many mega construction projects are achieved in the Area. For instances, the Third Runway System project at a construction cost of HKD141.5 billion in Hong Kong, the Shenzhen-Zhongshan Bridge valued at HKD59 billion and the Zhujiang Delta Water Resources Allocation project costing nearly HKD40 billion. More projects are under planning. The estimated construction expenses on public works alone in the Greater Bay Area are more than HKD750 billion in 2019, and expected to keep increasing in the coming years. Material costs normally account for more than 50% of the overall construction cost in typical building project, but less in infrastructure projects, i.e. 30%. Hence, the market demand for various construction materials in the Greater Bay Area will be at least HKD250 billion per annum.

At the same time, innovation and technology are designated by the Government of Hong Kong as major contributing factors to boost sustainable development, enhance competitiveness and provide new momentum for economic development. Mega construction projects provide not only challenges to materials scientists, engineers, technologists and other professionals working or planning to work in the Area, but also unprecedented opportunities for the application of leading edge innovative materials and technologies towards more sustainable built environments.

MaSTEC is a classic event hosted by the HKIE Materials Division, but as distinct from previous conferences, MaSTEC 2021 aims to provide a platform for engineers, researchers, business leaders, industry experts and government officials working or planning to work in the Greater Bay Area, to promulgate their latest innovations or pioneering applications of construction related materials, share information and experiences, and explore collaboration opportunities.

## **Conference Themes and Topics**

Conference scheme: **Innovative Materials Science and Technology in the Greater Bay Area Construction.**

MaSTEC 2021 will include plenary keynote lectures and topics that cover all kinds of construction related materials such as:

- Materials science such as materials genome and alkali-aggregate reaction
- Steel and other metallic materials such as coupler
- Cement-based materials such as 3D printing materials and their additives like fiber and admixtures
- Glass, ceramic and other nonmetallic materials
- Coating materials such as paints
- Functional materials having construction related applications but not listed above
- Materials testing, quality control and big data in manufacturing or construction applications

### **Presentation time**

35 or 25 minutes plus 5 minutes Q & A.

### **Who will attend?**

Scientists, engineers, technologists, business leaders and others from government, universities, developers, consultants, contractors, testing laboratories, materials manufacturers and suppliers, and government organizations are all welcome to attend the conference.

Materials Science and Technology in Engineering Conference (MaSTEC 2021)

## **Innovative Materials Science and Technology in the Greater Bay Area Construction**

21-22 October 2021 (Thursday-Friday), Hong Kong

### **Call for Papers – Abstract Guidelines**

#### **Abstracts Guidelines:**

- Files should be compatible with Microsoft Word.
- **Language:** Official language will be English.
- **Abstract Length:** 1×A4 (one page maximum)
- **Margins:** 1 inch
- **Line Spacing:** 1.5 lines
- **Type and Font Size:** Times New Roman; 12 point
- **Title:** UPPER CASE letters
- **Authors and Affiliations:** All authors and respective affiliations should be included. Please underline the presenting author in case with multiple authors.
- Full papers will not be required. Abstract of accepted papers will be published in the conference proceedings.
- All submissions will be peer-reviewed before inclusion in the conference program and proceedings.
- Abstract and presentation materials should be sent via email ([info@crpd-hk.com](mailto:info@crpd-hk.com)) to Ms May Ho, Conference Secretariat, The HKIE Materials Division.

#### **Key Dates**

Deadline for abstract submission:	31 March 2021 (Wed.)
Notification and comments on abstract acceptance:	30 April 2021 (Fri.)
Deadline for submission of paper (in Microsoft Word format) or PowerPoint presentation:	30 June 2021 (Wed.)

#### **Conference dates**

Opening Ceremony:	Thur, 21 October 2021
Technical Programme:	Thur & Fri, 21-22 October 2021
Conference Dinner Reception:	Thur, 21 October 2021

#### **Organized by:**

The Hong Kong Institution of Engineers, Materials Division

Website: <http://mt.hkie.org.hk/>

Email: [info@crpd-hk.com](mailto:info@crpd-hk.com); Tel: (852) 2796 1638