

Materials Science and Technology in Engineering Conference (MaSTEC 2019)

Innovative Materials Science and Technology in the Greater Bay Area Construction

17-18 October 2019

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 2019.

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

Background

Following the Framework Agreement on Deepening Guangdong-Hong Kong-Macao Cooperation in the Development of the Greater Bay Area on 1 July 2017, an outline development plan signifying the development of the Area was promulgated on 18 February 2019. The plan supports the development of the five Hong Kong R&D Centers in selected focus areas including Nano and Advanced Materials.

With the total area of 56,000 km², a population of around 70 million and a GDP of HKD12.7 trillion as at end 2017, a number of mega construction projects like Hong Kong-Zhuhai-Macao Bridge have just been successfully completed, and some are under construction such as 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 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 in the coming years.

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 2019 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 2019 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

25 or 35-minute plus 5 minute 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 2019)

Innovative Materials Science and Technology in the Greater Bay Area Construction

17-18 October 2019, 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) to Ms May Ho, Conference Secretariat, The HKIE Materials Division.

Key Dates

Deadline for abstract submission:	Sun, 30 June 2019
Notification and comments on abstract acceptance:	Wed, 31 July 2019
Deadline for submission of paper (in Microsoft Word format) or PowerPoint presentation:	Mon, 30 September 2019

Conference dates

Opening Ceremony:	Thur, 17 October 2019
Technical Programme:	Thur & Fri, 17-18 October 2019
Conference Dinner Reception:	Thur, 17 October 2019

Organized by:

The Hong Kong Institution of Engineers, Materials Division

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

Email: info@crpd-hk.com