



---

# An Invitation to Secondary School Students in the Greater China Region

For the 6<sup>th</sup> Annual International Mathematical Modelling Challenge ( IM<sup>2</sup>C 2020 )

We warmly invite secondary school students from Mainland China, Taiwan, Hong Kong and Macau to participate in the 6th Annual International Mathematical Modeling Challenge-IM<sup>2</sup>C 2020. The [registration](#) for the Greater China Regional contest has started. Let's join our hands together and pursue a journey of creation and discovery in the coming season.

International Mathematical Modeling Challenge (IMMC or styled as IM<sup>2</sup>C) is an innovative contest in mathematical modeling for secondary school students all over the world. The aim of IM<sup>2</sup>C is to promote mathematical modeling education and enhance students' core competencies in mathematics and innovation, encouraging participants to explore the application of mathematical modeling in real life situations to solve problems of importance. IM<sup>2</sup>C in this Region is an inclusive and sharing platform both for secondary school students to practice mathematical modeling, and for schools to demonstrate and exchange their educational accomplishments in mathematics and STEM.

IM<sup>2</sup>C in Greater China Region is an interdisciplinary practice integrating mathematics with science, technology and engineering which reflects the essence of STEM education. The co-founder of IM<sup>2</sup>C NeoUnion ESC Organization works with the Institute of Electrical and Electronics Engineers (IEEE Asia) and Hong Kong Society of Industrial and Applied Mathematics to co-organize the IM<sup>2</sup>C 2020 in Greater China. The Problem Setting Committee and the Judging Panel consist of experts and professors from IM<sup>2</sup>C Committee (Zhonghua) and IEEE whose disciplinary fields cover mathematics, science, technology, and engineering. Prof Yang WANG, a member of IM<sup>2</sup>C International Expert Panel, Dean and Chair Professor of School of Science at The Hong Kong University of Science and Technology acts as Chairman of the Problem Setting Committee and Grand Jury of the Final Presentation Competition of IM<sup>2</sup>C 2020 Greater China.

## **IM<sup>2</sup>C 2020 and its Rules**

To cater for the diversity in school calendar across the Region, two seasonal contests, namely Autumn and Winter Contest, will be open for IM<sup>2</sup>C 2020. Teams may choose one of the seasonal contests according to their schedule to compete for the yearly awards in the region of Greater China and qualification to proceed to the international round.

IM<sup>2</sup>C encourages interdisciplinary innovation and teamwork for students and teachers. IM<sup>2</sup>C requires each team to be composed of 2-4 students from the same secondary school, and at least one teacher from the same school to serve as team advisor. Participating teams from all over the world will be selected by a national/regional selection process before they enter into the international round of IM<sup>2</sup>C. For both the national/regional and the international round of competition, winning teams will be recognized as different levels of awards.

Participating teams from Greater China region can choose: 1) to work on a problem created by the Problem Setting Committee of IM<sup>2</sup>C Greater China starting from 8:00 pm on November 21<sup>st</sup> (Thu) 2019 (GMT/UTC+8 hours), Autumn Contest, or January 16<sup>th</sup> (Thu) 2020 (GMT/UTC+8 hours), Winter Contest. During the following consecutive period of 96 hours, teams must complete and submit a solution paper of mathematical modeling; 2) alternatively,

---

香港湾仔摩理臣山道 80-82 号柏馥中心 12 楼 1202 室

Room 1202, 12/F, Valley Centre, 80-82 Morrison Hill Road, Wanchai, Hong Kong

Tel: (852) 3521 1296 Fax: (852) 3521 1297 E-mail: [immc\\_sec@126.com](mailto:immc_sec@126.com)

Website: [www.immchallenge.org.cn](http://www.immchallenge.org.cn) [www.immchallenge.org.hk](http://www.immchallenge.org.hk)



register for a self-challenging problem, i.e., the team can choose freely a problem set by the team members themselves. Note that such problem must be a real-world problem discovered and identified by the team. To work on the freely-chosen problem, teams can decide on their own about the starting time and schedule; however, they must complete and submit their solution paper of modeling on or before 8:00 pm November 25<sup>th</sup> (Mon) 2019 (GMT/UTC+8 hours), or January 20<sup>th</sup> (Mon) 2020 (GMT/UTC+8 hours), deadline of the seasonal contest in Greater China. Solution papers of the two categories will be judged separately. Teams whose papers are judged as among the top 20% of the two categories of papers respectively will automatically proceed to the International Round of IM<sup>2</sup>C 2020.

IM<sup>2</sup>C 2020 International Round in the Greater China Region will start at 8:00 pm March 10<sup>th</sup> (Tue) 2020 (GMT/UTC+8 hours), and end at 8:00 pm March 15<sup>th</sup> (Sun) 2020 (GMT/UTC+8 hours). Within a consecutive period of 120 hours, teams entering the IM<sup>2</sup>C international round will work on the problem set by the International Expert Panel, complete and submit their solution paper on or before the end of the contest period. Teams from over 30 countries and regions will be selected by their country/region to enter IM<sup>2</sup>C 2020 International Round.

### **Final Presentation Competition**

The finalist teams of IM<sup>2</sup>C 2020, both for the Greater China Regional and the International rounds, will receive invitation from the IM<sup>2</sup>C Committee to come to Hong Kong April 24 - 25, 2019, and attend the Final Presentation Competition, presenting and defending their works in front of the Grand Jury.

IM<sup>2</sup>C Committee Greater China will also select the best two papers from each of the Mainland, Taiwan, Hong Kong and Macau finalists in the International Round (totally 8 papers) for recommendation to the International Expert Panel. (Each participating country or region will select the best two papers for the International Panel's Judgement.)

### **Recognition and Award Ceremony**

The participating teams from Greater China Region will have the equal chances to be recognized with different awards at both regional and international levels. The papers will be judged as per categories of Greater-China-Committee-set problem, freely-chosen problem, and International-Expert-Panel-set problem, respectively. Each participating team, no matter whether or not they are selected into the International Round, will have the chances to compete for the awards of the Greater China Region.

An IM<sup>2</sup>C 2020 Greater China Summit cum Summer Workshop and Award Ceremony will be held in the summer of 2020. This will be a prestigious academic conference of the Region for secondary school students and teachers exclusively. Teams winning the Outstanding Award of the Regional and/or International contests will be invited to deliver plenary speeches at the Summit. Members of IM<sup>2</sup>C Committee and the Problems Setting Committee along with renowned experts in relevant fields will also be present, so as to interact and exchange with the secondary school students and teachers. Winning teams of the International Outstanding Award or Global Top 5 teams will be invited to attend the thematic activities and award ceremony on The 14th International Conference on Mathematics Education to be held in Shanghai ([www.icme14.org](http://www.icme14.org)).



---

## Languages

IM<sup>2</sup>C 2020 Greater China will adopt the bilingual policy. The solution paper and presentation for both IM<sup>2</sup>C Greater China regional and the international contests can be written and conducted in either Chinese or English. But papers which are submitted to the International Expert Panel for international final judgement must be written in English or translated into English before submission.

## Timeline of IM<sup>2</sup>C 2020

The schedule for the 6<sup>th</sup> International Mathematical Modeling Challenge ( IM<sup>2</sup>C 2020 ) Greater China Region is as follows:

*Registration* Present - Nov 21, 2019 (Autumn Contest)  
Nov 25 2019 – Jan 16 2020 (Winter Contest)

*Regional Competition* Nov 21 – 25 2019 (Autumn Contest)  
(Nov 25 is deadline for papers of self-chosen problem.)  
Jan 16 - 20 2020 (Winter Contest)  
(Jan 20 is deadline for papers of self-chosen problem.)

*International Competition* March 10 - 15 2020

*Final Presentation* April 24-25 2020, Hong Kong

*Regional Summit & Award Ceremony and International Award Ceremony* July 2020, Hong Kong/Bay Area - Shanghai

## Registration and Submission

The registration fee for IM<sup>2</sup>C 2020 Greater China is US\$ 55 per team, for either Greater China Committee-set problem or freely-chosen problem. The International Round is free of charge.

For registration, downloading problems and submission of solution papers for IM<sup>2</sup>C 2020, please visit [www.immchallenge.org.hk](http://www.immchallenge.org.hk) . To [register](#) your team, you need to login with your account and password and click “Event”. Participating teams should read carefully the contest [Instructions and Rules](#) on the website.

For sample problems and solution papers, details about IM<sup>2</sup>C 2015 through 2019, and more information on IM<sup>2</sup>C, please visit [www.immchallenge.org](http://www.immchallenge.org)

**Practice mathematical modeling, and be a pioneer for STEM!**

**Take this challenge, and you will definitely experience a different 2020!**



---

**We look forward very much to receiving registration from your school for the 6th International Mathematical Modeling Challenge- IM<sup>2</sup>C 2020!**



International Mathematical Modeling  
Challenge Committee (Zhonghua)

Appendix:

### **A Brief Introduction to IM<sup>2</sup>C**

International Mathematical Modeling Challenge (IMMC or styled as IM<sup>2</sup>C), established in 2014 in Boston, is an innovative mathematical contest in modeling for secondary school students all over the world, whose co-founders and co-sponsors are the Consortium for Mathematics and Its Applications (COMAP) and NeoUnion ESC Organization (NeoUnion). The aim of IM<sup>2</sup>C is to promote mathematical modeling education and enhance students' core competencies in mathematics and innovation, encouraging participants to explore the application of mathematical modeling in real life situations to solve problems of importance.

The adjudication, team selection, and recognition for IM<sup>2</sup>C in the Region of Mainland China, Taiwan, Hong Kong and Macau are authorized exclusively to International Mathematical Modeling Challenge Committee (Zhonghua), a non-profit organization with charity institution code 91/14657 approved by Hong Kong SAR. IM<sup>2</sup>C in this Region is an inclusive and sharing platform for secondary schools to practice mathematical modeling in promotion of teaching and learning in STEM, at both local and international level by a student-centered approach.

The official website for IM<sup>2</sup>C is [www.immchallenge.org](http://www.immchallenge.org)