

Singapore Mathematical Society Annual Report 2020

1. Membership

The membership in the various categories at the end of 2020 is shown below.

Membership	2020 figures	2019 figures
Honorary	9	9
Life	98	98
Ordinary	25	32
Institution	26	57
Junior	2	16
TOTAL	160	212

2. Officials

The officials of the Society for 2020 were:

President : A/P Victor Tan

Vice-Presidents : A/P Chan Song Heng

Dr Hang Kim Hoo

A/P Yap Von Bing

Hon Secretary : Dr Tang Wee Kee

Hon Treasurer : Mr Wang Haibin

Editor : A/P Toh Tin Lam

Asst Secretary : Dr Wang Fei

Asst. Treasurer: Dr Soon Wan Mei

Asst Editors :

A/P Adrian Roellin

A/P Toh Pee Choon

Committee Members :

Dr Winnie Gwee Hwee

Ngee

Dr Ku Cheng Yeaw

Dr Tan Liang Soon

Dr Wong Wei Pin

3. Activities

a. Publications

The Society published one volume (Volume 46) of the Mathematical Medley, and the SMO 2020 solution book (edited by Dr Ku Cheng Yeaw, A/P Tay Tiong Seng, Dr Toh Pee Choon and A/P Toh Tin Lam). Due to the pandemic, the two issues of the Medley were combined into one issue that was sent to SMS members in early 2021.

b. Lectures

Owing to the COVID-19 SMS Lecture Series which was to be held in March was postponed.

c. Singapore Mathematical Olympiad

- The Society conducted the Singapore Mathematical Olympiad (Junior, Senior and Open Sections) in September 2020. Round 2 of the competitions were cancelled due to the pandemic. A total of 5810 students from 86 secondary schools and junior colleges participated in the various sections of Round 1 of the Olympiad.
- For Junior Section, there were 2682 participants from 67 schools. For Senior Section, there were 1830 participants from 70 schools. For Open Section, there were 1298 participants from 54 schools. There were no overseas participants due to the pandemic.
- The SMO Subcommittee 2020 consists of
 - Ku Cheng Yeaw (Chairman)
 - Hang Kim Hoo (Deputy Chairman/Administration)
 - Toh Pee Choon (Junior Section Coordinator)
 - Ku Cheng Yeaw (Senior Section Coordinator)
 - Toh Tin Lam (Open Section Coordinator)

- Tay Tiong Seng (Second Round Coordinator)
- The following were contributors of competition problems in Round 1:
Toh Tin Lam, Dong Fengming, Ku Cheng Yeaw, Ngan Ngiap Teng, Toh Pee Choon, Wang Fei

d. International Mathematical Olympiad

- The 61st International Mathematical Olympiad (IMO) was held in St Petersburg, Russia from 19 to 28 September 2020. Due to the COVID-19 pandemic, each team took the competition examination at a centre in their home country.
- The Singapore team took the examination at Raffles Institution. A total of 616 contestants from 105 countries or regions participated in this IMO.
- The Singapore National Team to the 61st International Mathematical Olympiad consisted of the following members:
Team Leader: Wong Yan Loi (National University of Singapore)
Deputy Team Leader: Lu Shangyi (Raffles Institution)
Contestants: Ng Yangyi, Aloysius (Raffles Institution)
Tan Xu Chen (Raffles Institution)
Hu Xinghui (Raffles Girls' School)
Tan Wee Kean (Raffles Institution)
Toh Hui Kai, David (Raffles Institution)
Low Choo Ray (Raffles Institution)
Observers: Ma Zhao Yu (Student at MIT)
Wang Peng Jun, Bryan (Student at NUS)
- Ng Yangyi, Aloysius, Tan Xu Chen, Tan Xu Chen, Tan Wee Kean received silver medals. Toh Hui Kai, David, Low Choo Ray received bronze medals.
- The team attained a total score of 151.
- The Singapore team was ranked 16th among 105 countries.
- The Singapore International Mathematical Olympiad Committee 2020 consists of the following members and trainers:
Wong Yan Loi (Chairman), Tay Tiong Seng, Ai Xinghuan (MOE), Chua Seng Kee, Chua Seng Kiat, Denny Leung, Tay Yong Chiang, Wang Fei, Lu Shang-Yi, Thomas Teo Teck Kian, Wang Haibin, Zong Lixing, Wu Jiawei.

e. Singapore Mathematical Project Festival

- The Singapore Mathematics Project Festival 2020 attracted a total of 48 projects. Judging panels, made up of mathematicians, were formed to grade the projects and presentation of each team. The grades were used as a reference for short-listing the projects for the final round. Consequently, 5 teams from the Junior Section and 5 teams from the Senior Section were invited for online interview.
- The judges for the Festival were Ku Cheng Yeaw (NTU), Liu Yiqun, Wang Fei (NUS), Tay Tiong Seng (SMS), Teo Kok Ming, Zhao Dongsheng, Toh Pee Choon (NIE).

f. SMS Essay Competition 2020

- The Society organized the 10th SMS essay competition with the theme “Mathematics and Artificial Intelligence”. Through this competition, the society hoped that students would discover the different types of AI problems, such as search problem and representation problem, and then understand how mathematics is applied in them in various aspects of our lives, such as transport and logistics, municipal services, healthcare, education and security. The competition was officially launched on 13 March 2020. The deadline was extended from 10 July 2020 to 24 July 2020, due to the COVID-19 pandemic.

- The Society received a total of 66 entries from 17 schools with 24 entries for Category A (secondary 1 & 2 or equivalent), 23 for Category B (Secondary 3 & 4 or equivalent), and 19 for Category C (JC or equivalent).
- The judges for the competition were:

Category A: Low Leng (MOE), Tan Liang Soon (MOE)

Category B: Kevin Oh (MOE), Ai Xinghuan (MOE)

Category C: Ho Weng Kin (NIE), Cheong Kang Hao (SUTD)

g. Annual Prize Presentation Ceremony

- The Prize Presentation Ceremony was cancelled owing to COVID-19.

h. SEAMS

- SEAMS council meeting via zoom on January 6, 2021
- Von Bing represented SMS to attend the zoom meeting.
- It is reported that Asian Mathematical Conference (AMC2020), which was supposed to postponed to 2021 due to the pandemic, has been cancelled.
- SEAMS will also stop the collaboration with CIMPA due to lack of interaction between the two organizations.

i. Enrichment Programmes in Mathematics

- Primary Mathematics Olympiad Programme (PMOP)
Due to COVID19 measures PMOP was not held in June, and the November one was completely online. There were a total of 154 students in 4 groups.
- Secondary Enrichment Programme
SMS conducted 2 sessions (6 hours) for Paya Lebar Methodist Girls School.

4. SMS Prizes in Mathematics

- The **Singapore Mathematical Society Gold Medal and Book Prize 2020** at NUS was awarded to Yap Jit Wu, a student in Mathematics with First Class Honours and best overall performance in Mathematics.
- The **Singapore Mathematical Society Gold Medal and Book Prize 2020** at NTU was awarded to Camille Mau, a student in the School of Physical and Mathematical Sciences with First Class Honours and best overall performance in Mathematical Sciences.
- The **Singapore Mathematical Society Medal in Mathematical Sciences 2020** at NTU is awarded to Zhang Ruixue, a graduate student with the best PhD thesis in Mathematical Sciences in NTU.
- The **Singapore Mathematical Society Book Prize 2020** at NIE was awarded to Mr Chun Guan Yang, the best student teacher in Mathematics in the Bachelor of Science (Education)(Secondary) Programme.
- The **Singapore Mathematical Society Book Prize for Engineering Mathematics 2020** at Temasek Polytechnic was awarded to Koh Jun Hao, the best Mathematics student from Engineering School.

5. Finance

This is dealt with in the Treasurer's report. The Society wishes to record its thanks to the Honorary Auditor, To Wing Keung, for auditing the accounts.

6. Acknowledgements

The Committee wishes to express its thanks to

- The Ministry of Education and Micron Technology for their financial support;
- Department of Mathematics of the National University of Singapore
- Department of Statistics and Applied Probability, National University of Singapore
- Mathematics Society of the National University of Singapore
- Mathematics and Mathematics Education Academic Group of the National Institute of Education
- School of Physical and Mathematical Sciences of Nanyang Technological University for their support and cooperation.

Tang Wee Kee
Honorary Secretary

March 2021