

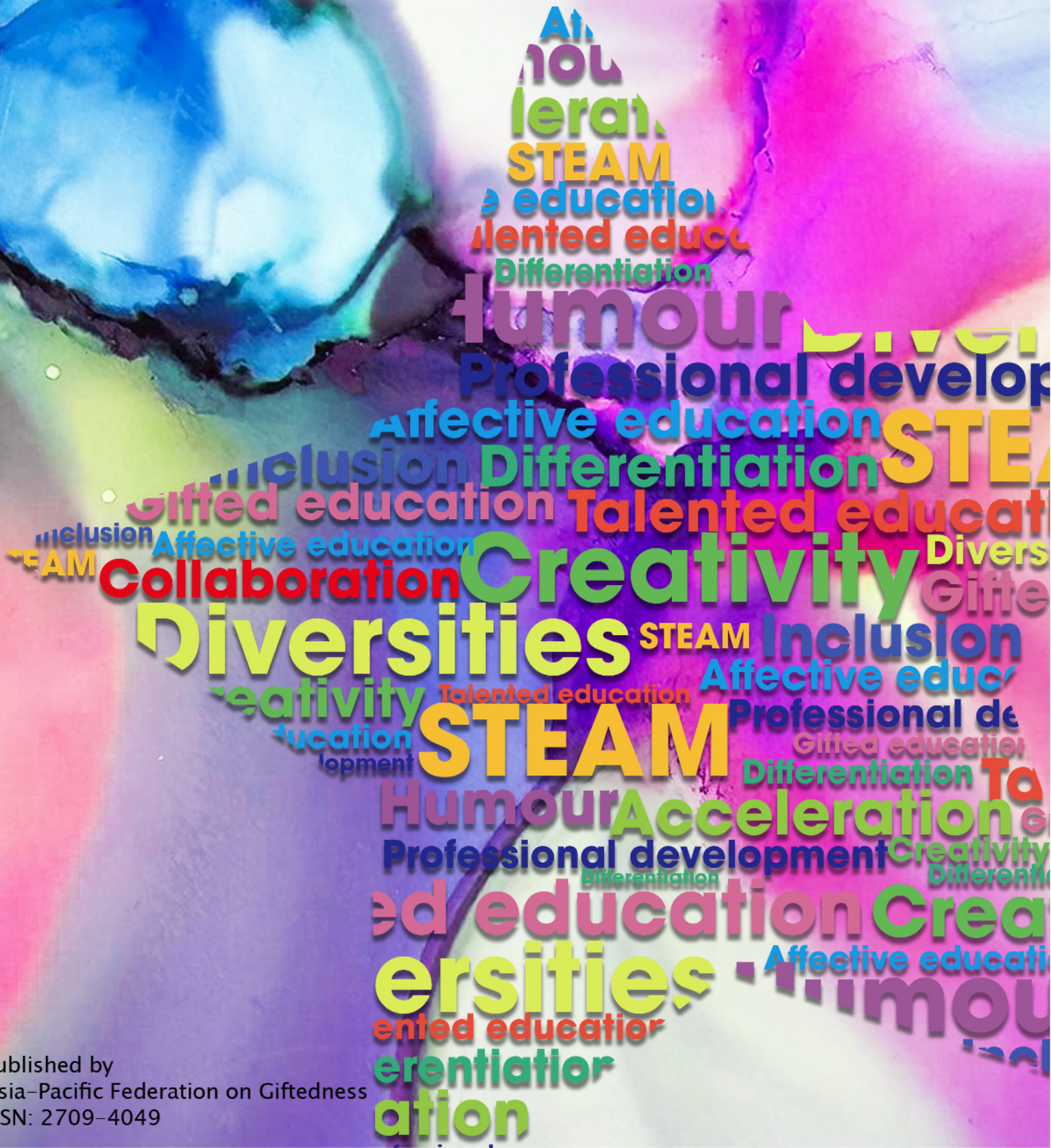


NURTURING TALENTS

APFG Newsletter 2023 Issue 10 No. 2

Editors:

Suzannie Leung, Serene Chan and Mantak Yuen



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Table of Contents

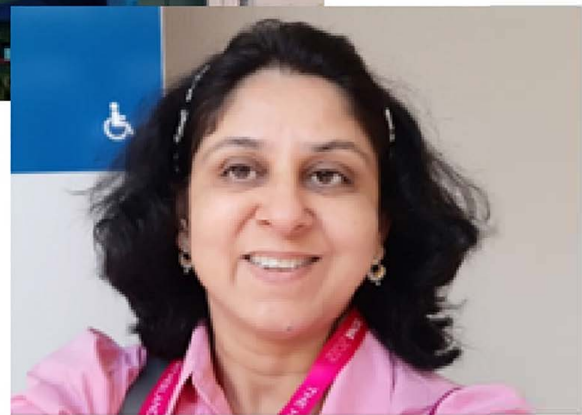
- P 1-3 Indian Conception of Giftedness and a Nurturance Program for Gifted Students
Jyoti Sharma
- P 4-6 STEAM Education for High-Ability Students at Pui Ching Middle School Macau
Chan Pong Lei
- P 7-9 Developing Future Leaders: The Honours College of the University of Macau
Elvo Sou
- P 10 APFG Executive Committee Members 2022-2024
- P 11 APFG Delegates 2022-2024
- P 12 Meetings and Conferences in Brief
- P 12 Membership
- P 12 Contacting the APFG
- P 12 Acknowledgements
- P 13 APFG Membership Application

Indian conception of giftedness and a nurturance program for gifted students

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The recently launched National Policy on Education 2020 in India is built upon principles of equity, accessibility and inclusion, with values derived from the ancient Indian Knowledge System of Jnan, Pragyaa and Satya. The Indian education system today strives for the complete realization of self and human excellence, with emphasis on the 'panchakosha' concept of education development encompassing sharirik vikas, pranik vikas, manasik vikas, baudhhik vikas and chaitsik vikas. The concept of human excellence is not new to India. We can trace it to the sacred Hindu text 'Bhagwat Gita' or to the philosophy of Vivekananda, where education aims to nurture human potential and achieve excellence.

In the present context, India is the most populous country, and the youngest nation in the world, with a median age of 32.4 years (Neill, 2023). The number of school-going children from K-12 is 265.2 million (Department of School Education and Literacy, Ministry of Education, 2021-22). The country has a vast potential to nurture talents into abilities and achievements.

Indian conception of giftedness and a nurturance program for gifted students

The concept of 'gifted children' was not evident in the traditional Indian education system and policies, but was used for the first time in the current National Education Policy (NEP)-2020. The policy recommended:

"There are innate talents in every student which must be discovered, nurtured, fostered, and developed. These talents may express themselves through varying interests, dispositions, and capacities. Students who show particularly strong interests and capacities in a given realm must be encouraged to pursue that realm beyond the general school curriculum. Teacher education will include methods for recognizing and fostering such student talents and interests." (NEP 2020; para 4.43, pp-19)

Prior to NEP 2020, there had been a few talent identification programs, particularly in science. For example, a National Talent and Search Scheme (NTSS) had been operated since 1963 by the National Council of Educational Research and Training (NCERT), a national-level autonomous organization under the Ministry of Education, Government of India. The scheme aims to identify and support academically talented students through scholarships and nurturance programs. Every year 2000 students studying in grade 10 are selected through a two-stage process. Similarly, the Department of Science and Technology (DST) under the Ministry of Science and Technology also identify bright and talented science students from grades 11 and 12 through a highly competitive scheme, Kishore Vaigyanik Protsahan Yojana (KVPY). Navodaya Vidyalayas are schools for academically bright students from rural backgrounds.

Within the existing talent search schemes, the Office of Principal Scientific Adviser to the Government of India initiated a national-level project to identify and nurture gifted students in mathematics and science. The project (2010-19) was carried out in different locations and by three project teams to address the vast demographic divide of the country. The project successfully developed identification tools for urban, rural, and tribal populations (Kurup et al., 2015; Sharma, 2016). The research team at Cluster Innovation Centre, University of Delhi (<https://cic.du.ac.in/>) developed a university outreach program to mentor the identified gifted students. The mentoring program included weekend sessions, summer camps, block mentoring, and an interactive monthly newsletter provided to all identified students (Sharma & Bapat, 2015). A dedicated team of university professors designed activities and research-based mentoring programs. Detailed learning profiles of participating students were prepared. WISC-IV intelligence test was also administered, and a correlation was calculated to validate the identification process. An activity kit was developed based on cognitive milestones to identify children in their early years (3-7 years). The learnings from the project provided valuable insights into policy-level support for gifted students in scholastic and co-scholastics domains. The Pradhan Mantri Innovative Learning Program DHRUV has been launched to identify and encourage gifted and talented students under the guidance of able mentors.

Indian conception of giftedness and a nurturance program for gifted students

The country has desired physical and academic infrastructure and a logistic roadmap to lay down an inclusive and localized gifted identification and mentoring program. The challenge remains of operationalizing giftedness potential within the diverse demographic and educational population of school-going children. Teachers' sensitization and pedagogic skill development is also a challenge the country needs to address.

India has produced great scholars like Brahmagupta, Chanakya, Madhava, Patanjali, Panini amongst others who have contributed enormously to world knowledge in fields including mathematics, astronomy, architecture, yoga, and fine arts. We hope that the efforts to help and promote gifted students will enable the nurturance and preservation of such potential talents of tomorrow. Establishing mentoring networks and investing in high-quality research in gifted education will help gifted students and raise the education standards for all.

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STEAM Education for High-Ability Students at Pui Ching Middle School Macau

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Over the past decade, Science, Technology, Engineering, Arts, and Mathematics (STEAM) education has been a crucial part of the curriculum at Pui Ching Middle School Macau. Pui Ching has been recognized as a regional leader in promoting STEAM in the Greater Bay Area, after years of experience and effort. In 2018, the school was honored by the Ministry of Education of the People's Republic of China, with the first prize in the National Teaching Achievement award for its contribution in STEAM education. At that time, Pui Ching was the only school in the entire country to receive the award specifically for STEAM education. More recently, the school has been awarded twice with the National Teaching Achievement for the inclusion of artificial intelligence (AI) into its STEAM curriculum, thus confirming the continuous success of the school's curriculum reform.

STEAM education encourages students to demonstrate their creativity, originality and innovation, which align with the school's educational philosophy. Pui Ching is dedicated to innovations in education and the holistic development of students. To accomplish such a mission, the STEAM programme provides an ideal platform to help students develop intellectually, mentally, emotionally and socially. On many occasions, students have to utilize their interdisciplinary knowledge to work in hands-on, project-based activities in STEAM courses. More importantly, the variety of STEAM courses and activities allow students with special talents to realize their potential.

In the past, students' performance at school was measured by their academic achievement. Only students who outperform their peers in tests and exams were considered "outstanding". However, the introduction of STEAM education successfully broke this traditional mindset, allowing many more hidden talents to be discovered and encouraged. Shifting from identifying high-achieving students to high-natural-ability students is one of the major goals of Pui Ching's education reform.

STEAM Education for High-Ability Students at Pui Ching Middle School Macau

A high-ability student does not necessarily perform outstandingly in academic areas, for multiple reasons. First, traditional subject assessment methods (tests/exams) are designed to measure, within a fix period of time, a student's retention of a small subset of knowledge, at a certain level of difficulty. Tests and examinations do not evaluate students' creativity and problem-solving skills in real-world contexts. In addition, traditional teaching approaches may not properly motivate students to reach their full potential. Most high-natural-ability students tend to require learning activities and tasks with greater levels of depth, complexity, abstraction and challenge. Failing to fulfill the psychological needs of these students may cause them to lose interest and willingness to work hard. Furthermore, high-ability is not confined to intellectually gifted students, but includes other students who possess exceptional talent and aptitudes in creativity, hands-on skills, communication, or analytical skills. They too should all be classified as high-ability. The attitude taken in Pui Ching is that every student can become a high-ability student.

The STEAM curriculum at Pui Ching overcomes the restrictions evident in the traditional system of teaching and assessment. Starting a decade ago, STEAM has been introduced to the regular curriculum in the junior secondary section, and was then extended later to the upper primary and secondary sections. The "Design and Technology" (DT) courses are specifically intended for delivering STEAM education. DT courses provides students opportunities to explore and specialize in natural science, computer programming, web development, robotics, 3D design, drone technology, augmented reality (AR) and virtual reality (VR) technologies, and more recently, artificial intelligence (AI) and mathematical modeling. Many of these courses take place at the school's Fabrication Laboratory (FabLab), which provides various sophisticated machines including 3D printers, laser cutters, CNC milling machines, and other fabrication tools. FabLab at Pui Ching is the first laboratory in Hong Kong and Macau to become a member of the international Fab Lab community, approved by the Center for Bits and Atoms of the Massachusetts Institute of Technology in 2016. At Pui Ching, the school facilities have enabled more highly engaging, highly creative projects to be introduced, even during regular class time. An indication of the motivation that this has created is that some students are willing to stay at the lab after school to continue working on their creative projects. This of course leads to improvement in their overall abilities. Some of our DT courses even go off campus and have regular lessons in local universities and museums. By exposing students to research and industry at a younger age, the school hopes to inspire students' interest and motivate them to dive deeper into their subjects of interest.

STEAM Education for High-Ability Students at Pui Ching Middle School Macau

Participating in competitions is another valuable part of student learning, especially for high-ability students. In the STEAM field, there are many local, regional and international competitions that take place throughout the year. STEAM competitions typically challenge students to provide creative solutions to some real-world scenarios. Students have to acquire a broad range of skills during preparation for these competitions, and demonstrate their products or solutions through essays, technical reports, oral presentation or video demonstration. In addition to the technical skills, students also develop collaboration skills and leadership—attributes essential for success in most competitions. Competitions allow more students with different strengths and special talents to showcase their abilities and uniqueness.



In this digital era, a wide range of new skills and competencies are required by today's learners. In particular, digital literacy skills are one of the areas on which Pui Ching has placed a strong emphasis. Today, people have to process and analyze information, often in a non-linear fashion. The ability to create a knowledge map or other abstract representation of information has become a necessary competency for learners in the 21st century. As AI-generated contents becomes increasingly popular, authenticating information from the Internet or from any large language model (e.g., ChatGPT) has also become more and more important. Consequently, to further support education in digital literacy, AI curriculum has been included to the already successful STEAM curriculum. In Pui Ching Middle School, new kinds of high-ability students have already been identified, in areas of machine learning and cybersecurity. Our intention is to refine the integration of AI curriculum and STEAM curriculum, to motivate even more students to become 'outstanding'. Please check the following Facebook page to learn more about updated news of our school's STEAM education program.

<https://www.facebook.com/pcmsdt/>



Developing Future Leaders: The Honours College of the University of Macau

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University of Macau

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HC students were having an Art and Craft lesson with the students of Bo Ai School in Shanxi China

The University of Macau (UM) is a leading institution of higher education in Macau SAR, committed to academic excellence, research, and community service. Founded in 1981, and originally located in Taipa, UM has developed into a comprehensive university on a new campus with a broad range of programs in various disciplines. UM attracts a diverse student body from around the world and fosters a multicultural and international learning environment. In pursuit of its mission of talent development, UM established a unique Honours College (HC) in 2009. This article will explore the distinctive features of HC and how it achieves its mission.

The Honours College at the University of Macau is a distinctive undergraduate program that provides high-achieving students with a unique educational experience focused on multidisciplinary learning, international exposure, leadership development, and social responsibility. Unlike honours colleges at other universities worldwide, the HC of UM aims to develop well-rounded future leaders, rather than simply improving the academic achievement of top students.

Developing Future Leaders: The Honours College of the University of Macau

Admission to HC is highly selective and competitive, with only approximately 100 students admitted per cohort, based on their academic merits and achievements in extracurricular activities. Applications are either from outstanding students newly admitted to the University or those who have performed well in their freshmen year.

After entering HC, students undertake an extra honours curriculum that lasts until graduation, including courses on leadership development, project of social awareness, study abroad, and an honours project. The courses on leadership and social awareness help students develop self-understanding, leadership skills in the local community, and global perspectives, as well as critical thinking skills to address social issues from a multidisciplinary approach. The study abroad program in the junior year is a significant component of the HC curriculum and is distinct from regular student exchange programs for which all students of the University could apply. This program is exclusively for HC students, covering a fully funded one-semester study at selective partner universities of HC, providing students with a high-quality and stimulating opportunity to increase their cultural awareness, gain an international perspective, and enhance their academic and personal skills. HC has collaboration agreements with nine renowned universities in the United States, the United Kingdom, and Portugal, offering students a comparative perspective on their studied disciplines and related areas, preparing them for successful careers in a globalized world.

In the final year, the honours project requires students to integrate their knowledge from their disciplines of study to address broader global issues such as innovation, entrepreneurship, and sustainability. The students are supervised by faculty advisors and complete scholarly projects in their respective fields, focusing on applying their knowledge in their areas of disciplines to real-life topics.

HC also offers various extracurricular activities, including workshops, seminars, and webinars, to help students become well-rounded leaders. Honours Forum, for example, is a signature activity. Over the past decade, the Forum has welcomed more than 40 well-known scholars and industry celebrities to share their experiences and wisdom with HC students. Prof. Rose Lai, Dean of HC, remarked: "These activities enhance students' exposure and enable them to explore how big the world is."

HC emphasizes social responsibility and requires students to step out of the classroom to understand the needs of society and take action to address social issues. Over the years, HC students have established various traditions to serve the community through

Developing Future Leaders: The Honours College of the University of Macau

their Tutor Program, Charity Talent Show, different service activities in the local community, study trips to major Chinese cities to learn about their impressive developments, and voluntary teaching in remote areas in Mainland China. The HC philosophy believes that the greatest sense of accomplishment for a leader is derived, not from personal success, but from the positive impact on the community, the nation, and the world.

Teamwork and collaboration are essential elements of the HC experience, inside and outside of the classroom. With students going through the honours program together, there is a natural and special bond that forms among HC students, leading to the establishment of the Honours College Alumni Association of University of Macau (UMHCAA). UMHCAA aims to foster connections among HC alumni, promote the development of society, and support current HC students.

HC has cultivated numerous graduates who are making a positive impact in Macau and beyond. Prof. Rose Lai has observed that, "While we do have outstanding HC alumni in academics, business, and public services, HC is only part of their making. Thus, the success of HC shall not be measured by the success of our alumni. However, I do believe in the HC education, which provides opportunities for students to develop their potential. And I am like a farmer who will continue to provide water and nutrients to my HC students."



Prof. Rose Lai met with HC students studying abroad at the University of Bristol

THE EXECUTIVE COMMITTEE 2022-2024

The Asia-Pacific Federation on Giftedness (APFG)
affiliated with The World Council for Gifted and Talented Children

The APFG consists of a President, a Vice-President, a Secretary, a Treasurer, the immediate past President and 2 more Delegates. The following Executive Committee Members were elected by the delegates on July 8, 2022 for a two-year term from 2022 to 2024:

PRESIDENT Professor Ching-Chih Kuo

National Taiwan Normal University, Taiwan

IMMEDIATE PAST PRESIDENT Dr. Usanee Anuruthwong

Association for Developing Human Potentials and Giftedness, Thailand

VICE-PRESIDENT Dr. Man Tak Yuen

The University of Hong Kong, Hong Kong China

SECRETARY Dr. Quek Chwee Geok

Ministry of Education, Singapore

TREASURER Professor Kyungbin Park

Gachon University, South Korea

EXECUTIVE COMMITTEE MEMBER Dr. Jae Yup Jared Jung

The University of New South Wales, Australia

EXECUTIVE COMMITTEE MEMBER Professor Manabu Sumida

Ehime University, Japan

APFG DELEGATES 2022 TO 2024

| COUNTRY/REGION | DELEGATES |
|-----------------|--|
| AUSTRALIA | Jae Yup Jared Jung Victoria Poulos Rebecca Napier Amanda Harper |
| CANADA | Andree Therrien |
| HONG KONG CHINA | Mantak Yuen Ricci Fong Serene Chan Joe Tsui |
| INDIA | Paromita Roy |
| INDONESIA | Fitriana Lubis |
| JAPAN | Manabu Sumida Erkki T Lassila |
| SOUTH KOREA | Kyungbin Park Ryu Jiyoung Jaeho Lee Kim, Jiseon |
| SINGAPORE | Quek Chwee Geok Letchmi Ponnusamy |
| TAIWAN | Ching Chich Kuo Hsiao-Ping Yu Tsai Ming-Fu Chien-Hong Yu |
| THAILAND | Usanee Anuruthwong Apichart Pholprasert Arunee Viriyachitra Vararom Pachimsawat |
| TURKEY | Ugur Sak Ibrahim Tasdemin Sule Gucyeter |

The above delegates were approved on July 8, 2022 for a two-year term from 2022 to 2024.

MEETINGS AND CONFERENCES IN BRIEF

18th Asia-Pacific Conference on Giftedness (APCG)

17-20 August 2024, Takamatsu, Japan

<https://www.facebook.com/apcg2024>

19th ECHA Conference

28-31 August, 2024, Thessaloniki, Greece

<https://echa2024.gr/>

26th WCGTC® World Conference

29 July – 2 August, 2025, Braga, Portugal

<https://world-gifted.org/Conferences/wcgtc25/>

MEMBERSHIP

If you are already a member we thank you for your support.

If your membership has expired(or is soon to expire) please remember to renew.

If you are not yet a member, we invite you to become part of APFG.

Membership is open to individuals who support the purpose of the APFG.

An individual seeking membership will be accepted as a member upon submission of the required application and fees.

To apply for membership, please send the completed application form to

Dr. Quek Chwee Geok (Quek_Chwee_Geok@moe.gov.sg), our secretary who will update memberships, and **Professor Kyungbin Park** (kbpark@gachon.ac.kr), our treasurer who will prepare the receipts to be issued when payment is made.

By joining the APFG you will benefit from:

- a newsletter
- opportunities to expand your expertise and broaden your horizons
- preferential member rates for a biennial APFG conference comprising keynote speeches, parallel presentations and workshops
- a voice within the organization

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APFG MEMBERSHIP APPLICATION

First Name _____ Last Name/Surname _____
Preferred correspondence Address _____
City _____ Postal Code _____
State / Country / Region _____
Tel. (work) _____ Fax (work) _____
Email _____

Organization:

Organization _____
Position _____
☐ Lecturer ☐ Lecturer ☐ Professor ☐ Assoc. Professor ☐ Assist. Professor
☐ Administer ☐ Administer ☐ Researcher ☐ Principal ☐ Teacher
☐ Student ☐ Student ☐ Coordinator ☐ Consultant ☐ Counselor
☐ Assistant ☐ Others: _____

Membership: ☐ New ☐ Renewal
☐ 2 year- individual (USD 40.00) **2022–2024**
☐ 4 year- individual (USD 80.00) **2022–2026**

| Signature of Applicant | Date |
|------------------------|------|
| | |

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