



“Make a better world with PM”
WORLD PM2024 in YOKOHAMA Japan



Powder Metallurgy World Congress & Exhibition 13-17 October 2024 YOKOHAMA, JAPAN

Organized by Japan Powder Metallurgy Association (JPMA) Japan Society of Powder and Powder Metallurgy (JSPM)
Supported by European Powder Metallurgy Association (EPMA) Metal Powder Industries Federation (MPIF)
Asian Powder Metallurgy Association (APMA)

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2024 Oct. Newsletter

Asian Powder Metallurgy Association



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World Congress on Powder Metallurgy Returns to Asia - Focusing on Global Challenges and Technological Innovation

After 12 years, the World Congress on Powder Metallurgy returns to Asia, taking place in Yokohama, Japan, from October 13th to 17th, 2024. Organized by the Japan Powder Metallurgy Association (JPMA) and the Japan Society of Powder and Powder Metallurgy (JSPM), this prestigious event will bring together leading experts and industry leaders from around the world for five days of technical discussions, paper presentations, and exhibitions.

The global powder metallurgy industry is undergoing unprecedented transformation, with Asia at the heart of this change. The ongoing impact of the COVID-19 pandemic, the Russia-Ukraine conflict, the Israel-Hamas conflict, the Red Sea issue, and other geopolitical tensions, combined with the rapid rise of electric vehicles, have introduced new challenges and uncertainties for the powder metallurgy industry.

In this context, the World Congress and Exhibition on Powder Metallurgy have become crucial platforms for the industry to address these challenges. Experts from around the world will come together to share successful experiences and discuss future development strategies. We believe that this congress will inject new energy into the innovation and development of powder metallurgy technology, fostering deeper collaboration across the global industry.

We sincerely look forward to this congress facilitating technological innovation and cooperation, and we are eager to build a stronger and more vibrant powder metallurgy community. Finally, on behalf of the Asian Powder Metallurgy Association (APMA), we would like to express our gratitude to JPMA and JSPM for their outstanding planning and contributions. Let us together witness this important milestone in the global powder metallurgy field.



Asia Powder Metallurgy Association
President

C. L. Chu



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Shaoming Zhang
President



Wei Han
Secretary General

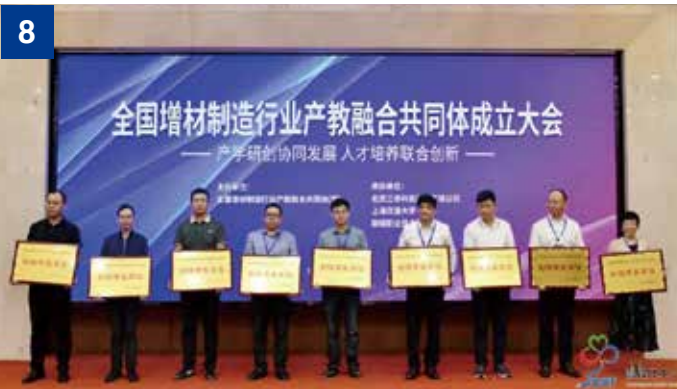
Main activities of 2023 of CPMA



- 1. The 15th Int'l Exhibition for Powder Metallurgy, Cemented Carbides and Advanced Ceramics
- 2. 2023 11th International Forum of Powder Metallurgy Technology and Powder Injection Molding
- 3. 2023 15th Shanghai Powder Metallurgy Industry Forum
- 4. 2023 Symposium on hard-facing technology
- 5. 3rd meeting of the 1st MIM committee of CPMA
- 6. China Powder Metallurgy Academic Meeting 2023



7. 2023 Powder Metallurgy Technology Business Forum



8. Establishment of National AM Industry-education integration community

9. The 2023 East China Powder Metallurgy Technology Exchange Meeting



Main activities of 2024 of CPMA



- 1. The 16th Int'l Exhibition for Powder Metallurgy, Cemented Carbides and Advanced Ceramics
- 2. 2024 16th Shanghai Powder Metallurgy Industry Forum
- 3. 2024 12th Forum of Powder Injection Molding
- 4. 4th meeting of the 1st MIM committee of CPMA





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Prof. Baiyun Huang
President



Prof. Xiang Xiong
Secretary General

Introduction of the activities in 2023

State Key Laboratory of Powder Metallurgy hosted or co-hosted 13 major academic conferences in 2023. From March 18th to 19th, 2023, the “Second National Advanced Metallic Functional Materials Preparation/Processing and Application Technology Exchange Meeting” was held in Hefei. Over 200 renowned experts, scholars, and corporate representatives in the field of metallic functional materials attended the conference, presenting and exchanging on the development of new material technologies.

The “10th International Conference on Electronic Ceramics (ICE2023),” hosted by the State Key Laboratory of Powder Metallurgy, was held in Changsha, Hunan, from August 31st to September 3rd, 2023. Over 300 representatives from China and abroad attended the conference, including more than 40 overseas scholars and 30

corporate representatives. The conference organized five parallel sessions with topics including manufacturing and processing, dielectric/piezoelectric/ferroelectric materials, electrical/optical/magnetic functional materials, energy and environment, and characterization and simulation. Many experts and scholars from China and abroad made special reports around these themes.



10th International Conference on Electronic Ceramics ICE2023

On October 17, 2023, the “2023 Autumn Academic Seminar of the State Key Laboratory of Powder Metallurgy” was held, and 31 scholars brought great academic reports. The seminar focused on the latest research results in the field of powder metallurgy, aiming to promote academic research and provide a platform for experts and scholars in related fields to exchange ideas. The conference received an active response from teachers and students across the university, with more than 200 teachers and over 500 graduate students attending the reports and engaging in in-depth discussions.



Laboratory 2023 Autumn Academic Exchange Seminar

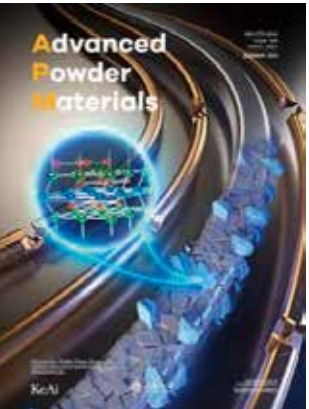
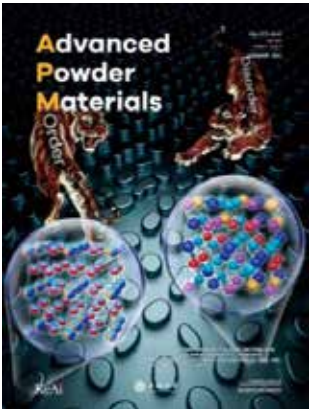
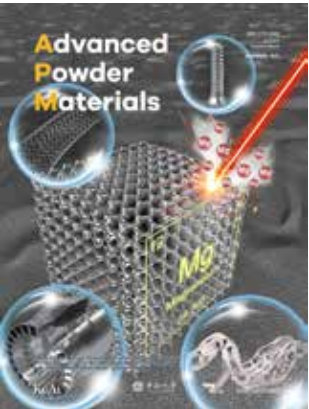
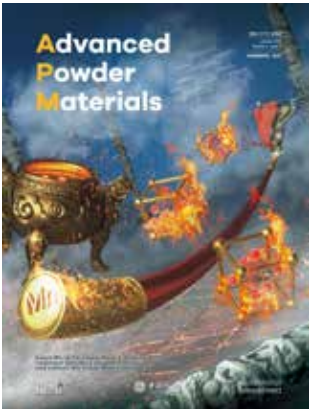


The hosting/organizing situation of the conferences in 2023

Conference Name	Type	Host/Organizer	Conference Chair	Date	Participants	Location
Second National Advanced Metallic Functional Materials Preparation/Processing and Application Technology Exchange Meeting	National	Host	Ke-chao Zhou	2023-03-17	200	Hefei City
Second National Conference on Refractory Metals and Hard Alloys Technology	National	Host	Ke-chao Zhou	2023-03-24	200	Yinchuan City
Ninth National Conference on Non-ferrous Metal Structural Materials Preparation/Processing and Application Technology and 2023 China Structural	National	Host	Bo-yun Huang, Ming-xing Jia	2023-04-07	500	Wuhan City
Conference Name	Type	Host/Organizer	Conference Chair	Date	Participants	Location
Materials Conference						
China Aluminum Industry Green and Low-Carbon Development Innovation Conference	National	Host	Ming-xing Jia, Xue-yi Guo, Ke-chao Zhou	2023-04-21	500	Zhengzhou City
Large Aircraft Advanced Materials Innovation Alliance and National Key Laboratory of Powder Metallurgy Research Exchange	National	Host	Ke-chao Zhou	2023-04-26	150	Changsha City
China Conference on Heat Treatment and Surface Engineering of Materials	National	Host	Ke-chao Zhou	2023-06-09	300	Xuzhou City
2023 Metal Additive Manufacturing and Injection Molding Technology and Application Exchange Meeting	National	Organizer	Ke-chao Zhou	2023-06-16	500	Yunnan Province
2023 National Rare Metal Technology Exchange Meeting	National	Host	Li-yuan Chai, Ming-xing Jia, Xiao-wei Huang, Ke-chao Zhou, Zhong-wei Zhao	2023-07-06	500	Guangzhou City
10th International Conference on Electronic Ceramics ICE2023	Global	Host	Dou Zhang	2023-08-31	300	Changsha City
Seventh Academic Conference on Special Powder Metallurgy and Composite Materials Preparation/Processing	National	Host	Bo-yun Huang, Ming-xing Jia, Ke-chao Zhou	2023-10-13	800	Changsha City
Conference Name	Type	Host/Organizer	Conference Chair	Date	Participants	Location
Autumn Academic Seminar of the National Key Laboratory of Powder Metallurgy 2023	National	Host	Ke-chao Zhou	2023-10-17	300	Changsha City
2023 National Powder Metallurgy Academic Conference	National	Host	Yong Gan, Bo-yun Huang, Shaoming Zhang	2023-10-27	600	Yantai City
Fourth China Advanced Materials Industry Innovation and Development Conference and 2023 Chang-Zhu-Tan Advanced Energy Materials Industry Expo, 2023 Hunan (Changsha) Battery Industry Expo	National	Host	Yong Gan, Bo-yun Huang	2023-11-16	500	Changsha City

The laboratory’s English journal Advanced Powder Materials (APM) published a total of 4 issues with 42 papers in 2023 and will change from a quarterly to a bimonthly publication starting in 2024. Within a year and a half of its inception, it was included in four major international databases: ESI, Scopus, EBSCO, and DOAJ. It received its first CiteScore of 23.4, ranking 2nd globally among 164 journals in the subject of Materials Science - Metals and Alloys, and 3rd globally among 123 journals in the subject of Materials Science - Ceramics and Composites.

From 2022 to 2023, a total of 96 articles were published online, with authors from 20 countries and regions including China, Germany, the United Kingdom, Denmark, the United States, France, and Hong Kong, China. The articles were downloaded more than 210,000 times by scholars from over 100 countries and cited more than 2,600 times by scholars from 86 countries. In 2023, it received the “Outstanding Journal Award,” “Rapid Publication Award,” and “Outstanding Paper Award” from KeAi. The research results published have been reported multiple times by the “American Association for the Advancement of Science” and the “American Physical Society,” proving that the quality of APM articles has been highly recognized internationally.



Work Plan for 2024

Strengthen academic exchanges and international cooperation. Continue to organize powder metallurgy academic salons and invite well-known domestic and international scholars to give lectures and exchanges. Ensure at least one academic exchange activity of a certain scale is carried out every two months to create an active and united academic atmosphere.

- Carefully prepare for important conferences in 2024. Continue to focus on communication and exchange with academic societies such as the Asian Powder Metallurgy Association.
- Solidly carry out the initial operation of the “Advanced Powder Materials” publication and strive to publish four high-quality issues throughout the year.



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Shuzo Sonoda
President



Yoshio Uetsuki
Executive Director

Japanese PM Products in 2023

Under the economic environment mentioned at the beginning, domestic production of automobiles, including buses and trucks, which is our key industry, increased by 14.8% from the previous year to 9 million units according to the Japan Automobile Manufacturers Association, due to the relaxation of semiconductor supply constraints. Domestic sales increased by 13.8% from the previous year to 4.78 million units. Both domestic production and sales increased for the first time in five years.

According to 2023 Trade and Industry statistics of the Ministry of Economy, the production volume of “PM Machine Parts,” which account for more than 90% of automobile parts, was 68,000 tons, down 2.5% from the previous year. The production value was 108.6 billion yen, an increase of 2.5% from the previous year. Compared to 2019, however, the production volume decreased by 21.1% and has not

reached pre-coronavirus levels yet. There are concerns about a decline in demand for some engine parts and driving system parts. The production value was a 7.6% decrease compared to 2019, due to factors such as the unit price of raw materials and energy being decreased.

On the other hand, the production volume of “PM Bearings” in 2023 decreased by 4.4% from the previous year to 4.5 thousand tons, but the production value increased by 2.4% from the previous year to 16.1 billion yen. Compared to 2019, production volume decreased by 23.0%, but production value increased by 4.5% and exceeded pre-coronavirus levels. This is thought to be due to the unit price reflection of raw material and energy prices, as well as foreign exchange gains from the weaker yen on exported goods.



18th PM Information Exchange Meeting (Mar.)

Lectures

- Outlook for the global automobile market in 2030
- About the latest materials using ultra-high pressure processes
- Commercialization of low-CO₂ blast furnace steel
- Technology development of compact mobility motors using pressed powder cores



2023 JPMA General Assembly (May.)

- 2022 business report
- 2023 business plan and budget
- Appointment of officers.



JPMA Special Session at the JSMP Spring Meeting (May.)

- The event was held at Waseda University, and seven winners for 2022 will be announced



Business Committee Factory Tour (Jun.)

- Tour of the Fukuda Metal Foil and Powder Co., Ltd. Factory



2023 JPMA Fall General Assembly (Oct.)

- FY2023 first half business overview
- Announcement of FY2023 association awards
- WORLD PM2024 preparation status report



10th Metal Japan EXPO, MIM PR Seminar. (Oct.)

- Seminar: “Mass production process for complex 3D parts: Overview of MIM and the market”



11th Human resources development seminar (Jul.)

- Basic Techniques for Work Improvement

November, 2023

41th Case Studies of Production Efficiency Improvement Meeting and the 26th Metal Powder and Equipment PR Meeting (Nov.)

- Four efficiency improvement case studies and two raw powder PRs



WORLD PM2024 YOKOHAMA (October 14th - 17th, 2024)

October 14th

- Opening Ceremony (9:00-9:30)
- Global Review (9:30-10:30)
- Plenary Talk (10:30-12:00)
- Welcome Reception (19:30-21:30)

October 15th

- APMA Board meeting (10:00-12:00)

October 16th

- Congress Party (19:30-21:30)



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Yukiko Ozaki

President

Special Appointed Professor,
Osaka University/Lecturer,
Kyushu University



Yoko Inoue

Executive Director
Secretary General

JSPM Activity of 2023

● Annual Meeting and JSPMIC2023

In 2023, the Spring Meeting was held at the International Conference Center of Waseda University. There were 132 oral presentations across eight special sessions and one general session, with about 380 participants. The session on “Research Advances in Sintering Technology and Sintering Mechanism of Powders” was the most well-attended, with 20 presentations. This is evidence that many people were interested in sintering technology, one of the main technologies in powder metallurgy.

In the fall, we held the International Conference on Powder and Powder Metallurgy, 2023 (JSPMIC2023) at Kambaikan, Doshisha University in Kyoto from October 16th to 18th. The conference was originally scheduled to take place in 2022 but was postponed for one year due to COVID-19. The conference started with two plenary talks, Dr. Hilmar Vidarsson (Höganäs AB) and Dr. Susanne Norgren (Sandvik). The general Session had 95 oral presentations including 28 invited talks and 37 poster presentations for 3 days. Seven distinguished poster presentations were given poster award from JSPM2023 organizing committee. At the conference party, poster award ceremony was held, winners were celebrated by all attendees.

Following JSPMIC2023, the Autumn Meeting was held for 2days at the same venue. It had 125 oral presentations and about 300 participants. In this meeting, 5 special sessions were held on “Hard (Tool) Materials”, “Magnetic Materials for Functional Devices”, “New Development of the Environment and Energy Related Materials Using Particle Processing for Green Science”, “PM Materials with Unique Microstructures and their Multi-functionalization” and “Materials Development for Electronic Components in the DX/GX Era”.

● Power Metallurgy Seminar

In 2023, we held “Powder Metallurgy Seminar”. It is composed of “Introduction”, “Basic”, and “Application”. Starting in 2023, “Introduction” was held four online lectures every two weeks from the end of June to early August. And “Basic” and “Application” lectures were held by high bride at the beginning of December.

● Journal of the Japan Society of Power and Powder Metallurgy

Our online journal of JJSPM is released as an open access journal on the J-STAGE website. In addition, the JSPM Editorial committee has decided to make the paper available online as an advance publication once it has been accepted. We would like to publish more excellent papers as soon as possible. Submissions are welcome from non-members of JSPM as well as from members.

● The new activity schedule for 2024

JSPM will continue with the above Annual Meeting and Powder Metallurgy Seminar events as in the previous year. The 2024 Autumn Meeting will be held in Niigata in mid-November.

In particular, in 2024, as you all know, JSPM will co-host WORLD PM2024 Congress and Exhibition (WORLD PM2024 YOKOHAMA) with Japan Powder Metallurgy Association (JPMA) from October 13th to 17th. JPMA and JSPM have prepared all the schedules to make this congress a success under the banner “Make a better world with PM”. All announcements, including the technical programs, are available on the WORLD PM2024 website. We look forward to seeing many of you from APMA.



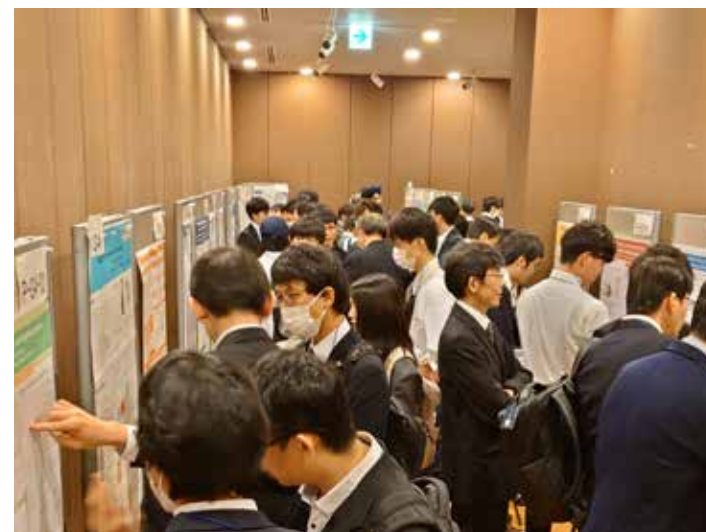
Spring Meeting



JSPMIC2023



Maiko Attraction at JSPMIC2023 Conference Party



Poster Session at JSPMIC2023



Powder Metallurgy Seminar



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KPMA was gathered for the first time in 2000 for supporting of 2006 World PM Congress and have remained,currently having 30 member firms including PM manufacturing ,Powder supplier,Equipment company.

Looking into who are the members,
PM sector include Korea Sintered Metal,Halla Stackpole,Sinteron,Korea Powder Metallurgy plus 13 more members that cover up more than 95% of entire PM Market share.
Powder production companies are with Chang Sung Corp,PoongSan Holdings,Hoganas Korea+Powder sales representatives followed by Metek(QMP),,Woolim(Kobe steel)etc.
Equipment company include Dae Hwa Press,Jung Wha Press,Korea Tamakawa. + Equipment sales office Naewai Commercial(Yoshisuga),Yangwoo(Fluidtherm).

KPMA gathering is annually scheduled to be held 4 times and one of them is Annual General Meeting. KPMA president and directors served 2 years and possibly renewed.

KPMA have been a center that help exchange market information,,introduce new technology and keep a mutual relationship among members,also help members to obtain a reliable statistical data about industry by continuing to collect the data such as Korean Iron powder shipments which provide the best barometer for the health of PM industry.
KPMA would also need to speak with a single voice when it comes to saying its demand to the States ministry.
It,however,is still an young organization and Technical activities has something to be better,though,it begun to have organized own technical session at the Joint technical symposium with KPMI and to take a part of Technical education program to be held twice a year.

Over the years,the industry has increasingly grown in parallel with the growth of the industry where it serves by welcoming and embracing new metal powder based technologies and solution.

In the future,KPMA need to work together to continue to encourage the members to participate in the development of new PM part and its technologies by promoting and sharing the industry's success stories.



General Meeting of 2024 was held on Apr. 26 and discussed WorldPM 2024 Yokohama.



Kun Jin Lee
President
President of Korea Sintered Metal Co.,ltd.

I have been serving as president of KPMA since March 2017.

Also I am a president of Korea Sintered Metal Co.,ltd and Samhan Co.,ltd. those Companies are powder metallurgy company that represents Korea in the powder metallurgy market.

I hope to continue all of us growth and development through close cooperation and assistance with who serve powder metallurgy.



Winfred OH
General secretary
Managing Director of Yangwoo Corporation

My name is Winfred OH. I am doing a general secretary work at KPMA since July 2022. I am administering sales promotion company in behalf of foreign famous machine builders and material producer whose products are involved with powder metallurgy and chemical, automotive, steel mill industries that is requiring sintering furnace and powder compacting press and ferrous & non-ferrous powder and chemicals in their production lines from European contries, Australia, USA, India since 24 years in Korea.



Annual General meeting was held on Apr. 14, Jul. 14 and Oct. 13 and discussed assistance for APMA2023.



Annual meeting on Feb. 23 2023 and invited special speaker Prof. Jincheon Kim (Ulsan Univ.)



Korea Data

Machine Parts (PM Stractural parts) and Bearings

	2021	2022	2023
Production Weight:			
Iron-base	63,265t	64,600t	69,812t
Copper-base	872t	566t	580t
Other	273t	220t	200t
Total	64,410t	65,386t	70,592t
Applied Field Ratio:			
Transportation Machine	92.0%	92.7%	92.8%
Industrial Machine	5.0%	3.1%	3.1%
Electric Machine	2.0%	1.8%	1.5%
Other Machine	1.0%	2.4%	2.6%
Number of Manufacturers:			
PM Products	About 38	About 38	About 38
Metal Powders	About 6	About 6	About 6
Equipment	About 10	About 10	about 10



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Korean Powder Metallurgy & Materials Institute Spring Conference

Period : April 6~7, 2023
Venue : Changwon Exhibition Convention Center,
Changwon, Korea



Powder Metallurgy Technician's School

Period : July 26~27, 2023
Venue : Kongju National University, Cheonan, Korea



6th International conference and Exhibition on Powder Metallurgy in Asia

Period : November 27 ~ 30, 2023
Venue : Gyeongju Hwabaek Convention Center, Gyeongju , Korea



Taek-Soo Kim

President
Korea Institute of Industrial Technology,
Vice President

Korean Powder Metallurgy & Materials Institute (KPMI) is a professional academic society consisted of over 2,300 specialists in universities, research institutes and companies on powder metallurgy technology leading the key and future advanced industries. In 2024, 18th International Symposium on Novel and Nano Materials(ISNNM 2024) at Wien, Austria.

Korean Powder Metallurgy & Materials Institute Fall Conference

Period : November 30 ~ December 1, 2023
Venue : Gyeongju Hwabaek Convention Center, Gyeongju , Korea



Korean Powder Metallurgy & Materials Institute Spring Conference

Period : March 28 ~ 29, 2024
Venue : Songdo ConvensiA, Incheon , Korea



Yeon Ho Kim

Manager

KPMI contributes to the industrial revigoration, the capability improvement and the global specialist cultivation in PM industries, with the activities of R&D, technical information exchange between academics and industries, and international cooperative network, since 1993.



18th International Symposium on Novel and Nano Materials (ISNNM 2024)

Period : June 30 ~ July 5, 2024



Powder Metallurgy Technician's School

Period : July 30 ~ 31, 2024
Venue : Korea Institute of Materials Science, Changwon, Korea



Korean Powder Metallurgy & Materials Institute Fall Conference

Period : November 7 ~ 8, 2024
Venue : Kimdaejeung Convention Center, Gwangju, Korea



Aniket Gore
President



K.S. Samant
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Powder Metallurgy Association of India

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Events conducted by PMAI FY 2023-24

1. PM - Industrial Plant Safety (12th July 2023)
2. Short Course in Powder Metallurgy (PMSC 23) (3rd – 6th October 2023)
3. PM Products – Tool Design Process (17th– 18th October 2023)
4. Heat Treatment of PM Parts (8th- 9th December 2023)
5. PMAI ARCI Workshop on Advanced X-Ray-Techniques for Powder Metallurgy & Particulate Materials (17th – 19th January 2024)
6. Geometric Design and Tolerance (GD &T) (6th February 2024)
Introductory course – Our first ever work shop for 4th Semester Metallurgy Students & Fresh Engineers from Industry

PM - 24 International Conference (25th to 28th February 2024)

The Powder Metallurgy Association of India (PMAI) had organized a Four-day International Conference on Powder Metallurgy and Particulate Materials + Exhibition 2024 (PMAI-PM24) along with golden jubilee celebration of PMAI on 25th - 28th February 2024 at Hotel Hyatt Residency, Pune, India.

Topics covered in the conference were Press & Sinter, Powder Production, Additive Manufacturing, Hard Metals, and Diamond Cutting Tools, Emerging Materials, Technical Ceramics and Composites, Surface Engineering, Battery Materials, Waste management and Simulation and Modeling. Prof. N B Dhokey asserted the fact that our conference wasn't just limited to industry professionals but also included academia and research centers, ensuring a holistic exchange of knowledge and ideas between industry, academia and R&D Institutions.

The event featured five plenary lectures, seven industrial talks, three memorial lectures, 15 invited talks, and over 110 contributory papers. Overall 250+ peoples participated in our conference.

Powder Metallurgy Association of India

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Pune 411045

Grand cultural Making music together “Symphony of 50 years” at PM 24

On all 3 evenings of the Conference, we had Commemorative Dinners. One of the Unique highlights during the Social Event, was the Invited Event “Symphony of 50 years”, an event where participants created Music Together using Drums as well as other minor instruments. In a session that lasted 40 minutes, great synchronization was achieved by the 250 participants, who created very memorable beats together.

Forthcoming Events by PMAI FY 2024-25

1. Geometric Design and Tolerance (GD &T) - July 2024
2. PMAI - Malvern Panalytical Two-day Workshop on Particle Size and Shape in Particulate Materials and Advance Manufacturing – August 2024
3. Powder Metallurgy Short Course-PMSC24 - September 2024
4. Heat Treatment of PM Parts – October 2024
5. Engineering Tool Design for PM Components – November 2024
6. Geometric Design and Tolerance (GD &T) – January 2025





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THAILAND POWDER METALLURGY ASSOCIATION

The idea of establishing Thailand Powder Metallurgy Association (ThaiPMA) has been started in 2015 when the seven major companies in Powder Metallurgy industry had an opportunity to discuss about the future of PM industry with the research institute (MTEC) and university. With that start, all the parties had a consensus to collaborate together for the mutual benefits of the industry as a whole, as stated in the objectives of the association.

ThaiPMA has been approved by the government as the association in 2016.

Sponsor for 14th Thailand Metallurgy Conference 2023



Public PM School 2023



Rujirat Rungruangkul

President

General Manager of
Thai Fine Sinter Co., Ltd.

I have the great opportunity to serve as President of the ThaiPMA since January 2024.

I am honor to be a part of ThaiPMA Association.

Also I am a Plant Manager of Thai Fine Sinter Co.Ltd. (Fine Sinter Japan Group) whose products are powder metallurgy mainly in Automotive Industrial.

ThaiPMA is strive to collaborate with academic to make this industry to be more well-known in Thailand.

I hope that the powder metallurgy industry will become more well-known both in Thailand and worldwide as well.



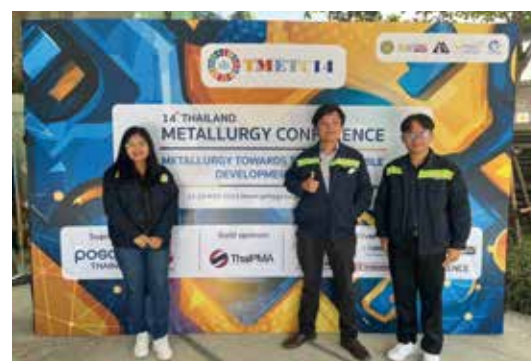
Boonyawat Teeraprawatekul

General secretary

Managing Director of Acme International
(Thailand) Ltd.

My name is Boonyawat Teeraprawatekul, but you can call me Boon. Since January 2017, I have had the privilege of serving as the Secretary of the Powder Metallurgy Association of Thailand (ThaiPMA). I am also the Managing Director of Acme-Inter Group, a leading solution provider for powder metallurgy in Thailand.

It is an honor to represent ThaiPMA and be part of both the Asia Powder Metallurgy Association (APMA) and the WorldPM community. Together, we aim to advance the powder metallurgy industry in Thailand, making it the preferred choice for metalworking processes and contributing to a more sustainable future.



Onsite meeting to introduce the association



University PM school 2024





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Opening speech presented by TPMA President Mr. Kevin Shaw in the 2023 TPMA annual general convention



TPMA President Mr. Kevin Shaw presented the Service award.

Chun-Chung(Kevin) Shaw President



I have been serving as the President of TPMA since October 2021. Previously, I served as the vice President of TPMA from 2018 to 2021. In addition, I am the President of Super Electronics CO.,LTD.. This company is specializing in the production and development of magnetic materials which is one of the most representative companies in the magnets market in Taiwan.

Super Electronics CO.,LTD. was founded in 1971. The head quarter is located in Taipei City. There are also several manufacturing sites and business bases located in Taiwan, China and Malaysia. The Super Electronics CO.,LTD. mainly consists of two systems which are Superrite Electronics CO.,LTD., and Supermax CO.,LTD. Superrite Electronics CO.,LTD. mainly focuses on the production of ferrite magnets and SrTiO₃ variable resistor for DC micro motor. The target market of these products is the traditional industry. However, Supermax CO.,LTD. specializes in processing Neodymium magnet. Both of Superrite Electronics CO.,LTD. and Supermax CO.,LTD. specialize in the development and manufacture of magnet-related products. The target market of the group is also transferred smoothly from motor and electrical machinery factories that have a long life cycle to information and electronics industries that have a short life cycle.



Speech presented by APMA President Mr. Chiu-Lung Chu in the 2023 TPMA annual general convention



TPMA Vice President professor J. K. Chen presented the excellent staff award

Ching-Shuan Liu Secretary General



Dr. Ching-Shuan Liu is a Director in the President office of Super Electronics CO., LTD. He also serves as the general secretary of Taiwan Powder Metallurgy Association (TPMA). Dr. Liu earned his PhD degree in Materials Science and Engineering in National Tsing Hua University in 1996. Dr. Liu previously worked as a researcher at Industrial Materials Labs of Industrial Technology Research Institute (ITRI) from 1988 to 1997 before joining Super Electronics CO., LTD.

His research fields are both magnetic materials and fine ceramics. In these two fields, he mainly specializes in three topics:

- (1) Soft ferrites (magnetic)
- (2) Hard ferrites (magnetic)
- (3) SrTiO₃ variable Resistor



Dr. Lin presented best paper award



Secretary General Dr. Liu presented the annual report of TPMA in the 2023 annual general convention.



A photo of 2023 general convention and a corner of the event concert of the seminar

Events of Taiwan Powder Metallurgy Association (TPMA) in 2023

The TPMA annual general convention was held at Nan-yuan Farm in southern Taiwan on 18th-19th August 2023. This was the 42nd annual meeting since the establishment of the association. In addition to our usual agenda, the meeting also included presenting awards for Outstanding Employees, Paper Awards, Innovation Awards, Service Awards, and scholarships in Powder and Powder Metallurgy. The association was about to enter its 22nd milestone, therefore, we conducted the election for the 22nd Board of Directors and Supervisors during the meeting.

3D printing technology, which converts digital models into physical objects, has been widely applied in various fields in recent years. The application research in the medical field is also very extensive,

bringing many innovations and changes to the medical sector. At the 2023 annual meeting, we were honored to have invited Associate Professor Shie Ming-You from the Department of Biomedical Engineering at China Medical University to deliver a keynote speech on "The Application of 3D Printing Technology in Clinical Medicine" to share and exchange with all members. After the general meeting, 12 insightful papers from various fields were presented at the general convention.

TPMA President Mr. Kevin Shaw took office as the 21st president of the association at the end of 2021, and soon, the association entered its 22nd term in 2023. President Shaw has been successfully re-elected and continues to lead TPMA into the 22nd term.



Dr. Wang presented Association scholarship



TPMA President Mr. Kevin Shaw presented gifts to the Keynote speaker Dr. Shie



A photo of dinner party in the 2023 TPMA annual general convention

Events of Taiwan Powder Metallurgy Association (TPMA) in 2024

The TPMA annual general convention was held on 23th-24th August 2024. This year, we have chosen to hold our annual meeting in Puli, Nantou, located in central Taiwan. This is the 43rd Annual General Meeting since the association was established. In addition to our usual agenda, the meeting also included presenting awards for Outstanding Employees, Paper Awards, Innovation Awards, Service Awards, and scholarships in Powder and Powder Metallurgy.

At the 2024 annual meeting, we are delighted to have invited Mr. Yi-Cheng Liao, General Manager of ASSAB STEELS TAIWAN, to deliver a keynote speech on “Tool Failure

Mechanisms and the Selection of Powder Compaction Tool Steel.” to share and exchange with all members. With his many years of expertise in tool steel manufacturing, Mr. Liao provided insights into tool failure mechanisms, helping us gain a deeper understanding of tool materials. After the general meeting, 12 insightful papers from various fields were presented at the general convention.

TPMA President Mr. Kevin Shaw took office as the 21st president of the association at the end of 2021, and soon in 2024, the association entered its second year of the 22nd term.



Opening speech presented by TPMA President Mr. Kevin Shaw in the 2024 TPMA annual general convention.



Speech presented by APMA President Mr. Chiu-Lung Chu in the 2024 TPMA annual general convention.



TPMA President Mr. Kevin Shaw presented the innovative award in the 2024 TPMA annual general convention.



TPMA Vice President professor J. K. Chen presented the excellent staff award in the 2024 TPMA annual general convention.



Dr. Lin presented best paper award in the 2024 TPMA annual general convention.



Director Wang of TPMA presented Association scholarship in the 2024 TPMA annual general convention.



Secretary General Dr. Liu presented the annual report of TPMA in the 2024 annual general convention.



Keynote speech was presented by Mr. Yi-Cheng Liao, General Manager of ASSAB STEELS TAIWAN.



A photo of general convention and a corner of the seminar in the 2024 TPMA annual general convention.



A group photo in the 2024 TPMA annual general convention.



A photo of dinner party in the 2024 TPMA annual general convention.



Director Chen of TPMA presented gifts to the winner of the Lotte prize during dinner party in the 2024 TPMA annual general convention.

PM Production in Asia

PM Production (Source JPMA, PMAI, KPMI, TPMA and CMPMA)

					(Metric Tons)
AREA		2021	2022	2023	23/22(%)
Japan	Iron-base	81,137	72,363	70,311	97.2
	Copper-base	2,453	2,068	2,165	104.7
	Total	83,590	74,431	72,476	97.4
China	Iron-base	188,236	163,923	174,961	106.7
	Copper-base	13,539	12,580	14,665	116.6
	Total	201,775	176,503	189,626	107.4
Korea	*Iron-base	63,538	64,820	70,012	108.0
	Copper-base	872	566	580	102.5
	Total	64,410	65,386	70,592	108.0
Taiwan	Iron-base	31,000	26,000	19,000	73.1
	Copper-base	1,800	1,000	1,000	100.0
	Total	32,800	27,800	20,000	74.1
India	Iron-base	36,000	45,000	49,000	108.9
	Copper-base	9,800	12,000	13,000	108.3
	Total	45,800	57,000	62,000	108.8
Malaysia	Iron-base	3,354	3,342	2,899	86.7
	Copper-base	132	151	174	115.2
	Total	3,486	3,493	3,073	88.0
Thailand	Iron-base	16,036	14,208	13,411	94.4
	Copper-base	60	41	40	97.6
	Total	16,096	14,249	13,451	94.4
Indonesia	Iron-base	5,433	5,825	5,584	95.9
	Copper-base	0	0	0	—
	Total	5,433	5,825	5,584	95.9
Other areas	Iron-base	1,337	1,077	922	85.6
	Copper-base	370	214	170	79.4
	Total	1,707	1,291	1,092	84.6
Total	Iron-base	425,433	396,558	406,100	102.4
	Copper-base	29,664	28,620	31,794	111.1
	Total	455,097	425,178	437,894	103.0

*Included "Others"

• World PM2024 Yokohama

Japan

(1) Organizer : JPMA (Japan Powder Metallurgy Industry Association) ,
JSPM (Japan Society of Powder and Powder Metallurgy)

(2) Date : October 13th (Sun) to 17th (Thursday), 2024

(3) Venue: Pacific Yokohama

