

PRELIMINARY PROGRAM

CIMAC 22
CONGRESS

BUSAN, JUNE 13 –17, 2022

Meeting the Future of Combustion Engines

30th CIMAC WORLD CONGRESS

Combustion Engine Technology for Ship Propulsion | Power Generation | Rail Traction





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Join us in Busan!

Every three years, the CIMAC World Congress and an accompanying exhibition is held in one of our member countries. This is a unique opportunity to keep up to date with what is happening in the internal combustion engine industry and along the value chain, to talk to other professionals from all over the world, to stay in dialogue and to discuss the topics that interest us most or that are particularly pressing on our minds and to the industry.

This time, the CIMAC Congress welcomes us back to Asia. From June 13 to 17, 2022, Busan, South Korea will host the 30th edition of the Congress since the founding of the association back in 1951. This proud tradition alone proves how important and how indispensable this global meeting is.

South Korea is hosting the CIMAC Congress for the first time, and this choice has been made wisely. The country and its important shipbuilding industry have asserted themselves on the world market and have continuously occupied a leading position for a long time. We are very pleased to be hosted in Busan with its outstanding port: its depth and low tidal differences have helped Busan become the largest container handling port in the country and the fifth largest in the world.

The 2022 Congress is taking place under special auspices. Our industry is facing enormous, perhaps historically unique challenges, so a holistic professional exchange along the value chain about the state of the art is imperative.

A central focus of this year's Congress event will lie on identifying the best and realistic ways for the industry to quickly reduce emissions, on addressing greenhouse gas emission targets, on the onset of digitalization in shipping, on developing alternative fuels, and on bringing more clarity to the discussion about future fuels in the industry - all in all challenges that require collaboration within the industry and beyond more than ever before.

We look forward to your contribution and to seeing you at the 2022 CIMAC Congress in Busan, where the Congress will provide a perfect opportunity to meet manufacturers, component suppliers, research professionals, customers and colleagues from across the industry around the world. Presentations will highlight the latest product and technology developments and the value they bring to customers; focus on the scientific research that will form the basis for the next generation of technology solutions; and address the needs of markets to ensure a sustainable, environmentally friendly and economically viable future. In addition, the Congress provides a unique opportunity to do business and build lasting networks. Panel discussions and keynote presentations will challenge us to broaden our perspectives.

Once again – Welcome!



Marko Dekena
Vice-President Technical Program



Jonas Åkerman
Vice-President Technical Program

Welcome to Busan!

We are looking forward welcoming you to Busan, and we hope you will enjoy this wonderful city. Korea is an extremely modern country, but at the same time committed to its traditions. This is particularly evident in Busan, the country's second largest city.

The combination of old and new can be found here at every turn. Outstanding meeting facilities such as the BEXCO Convention Center, where the CIMAC Congress will be held, are just minutes from sandy beaches and historic mountain trails. Huge temple complexes that have endured for millennia are located amidst some of Asia's tallest residential skyscrapers. The city's natural features and rich history have enabled Busan to develop into a first-rate tourist city and established it as a hotspot for international conventions. Add to this the pleasant climate: Busan has four distinct seasons, but it is never too hot nor too cold.

We promise, there is a lot to see and do in Busan - be sure to check out the optional tours in the program and take advantage of what the city has to offer.

On behalf of the National Member Association of Korea – KOFCE (Korea Federation of Combustion Engines), we hope you enjoy your visit to Busan!

Kwang heon Ahn
Congress President

Ji Hyoub Cha
NMA Korea Secretary General

CONGRESS OVERVIEW

Day	Time	Acitivties
Sunday June 12, 2022	14:00 – 18:00	Congress Information Desk
	14:00 – 18:00	Speakers' Preparation (Room TBD)
Monday June 13, 2022	10:00 – 11:30	Opening Ceremony
	10:00 – 17:40	Exhibition & Poster Sessions
	12:00 – 18:00	Speakers' Preparation (Room TBD)
	12:20 – 13:20	Lunch
	13:20 – 15:00	Technical Sessions
	15:00 – 15:40	Pitch Stage / New formats
	15:40 – 16:00	Coffee Break
	16:00 – 17:40	Technical Sessions
	18:30	Welcome Reception at Paradise Hotel Busan
Tuesday June 14, 2022	08:00 – 18:00	Speakers' Preparation (Room TBD)
	09:00 – 17:40	Exhibition & Poster Sessions
	09:00 – 10:40	Technical Sessions
	10:40 – 11:20	Coffee Break
	11:20 – 12:40	Technical Sessions
	12:40 – 13:40	Lunch
	13:40 – 15:00	Technical Sessions
	15:00 – 15:40	Pitch Stage / New formats
	15:40 – 16:00	Coffee Break
	16:00 – 17:30	PANEL (TBD)
	16:00 – 17:40	Technical Sessions
	18:30	ABB Evening
Wednesday June 15, 2022	08:00 – 18:00	Speakers' Preparation (Room TBD)
	09:00 – 17:40	Exhibition & Poster Sessions
	09:00 – 10:40	Technical Sessions
	10:40 – 11:20	Coffee Break
	11:20 – 12:40	Technical Sessions
	12:40 – 13:40	Lunch
	13:40 – 14:25	COLLIN TRUST Keynote
	14:30 – 15:30	PANEL DEFOSSILIZATION
	15:40 – 16:00	Coffee Break
	16:00 – 17:30	PANEL DIGITALIZATION
	16:00 – 17:40	Technical Sessions
Thursday June 16, 2022	08:00 – 16:00	Speakers' Preparation (Room TBD)
	09:00 – 17:00	Exhibition & Poster Sessions
	09:00 – 10:40	Technical Sessions
	10:40 – 11:20	Coffee Break
	11:20 – 12:40	Technical Sessions
	12:40 – 13:40	Lunch
	13:40 – 15:00	Technical Sessions
	15:00 – 15:30	Coffee Break
	15:30 – 17:00	FINAL PANEL
Friday June 17, 2022	18:30	Gala Dinner
	09:00 – 16:00	Technical Tours (Half day/Full day)

Note: Congress Information Desk will be open from Monday to Thursday from 08:00 - 18:00.

TOPICS AND SESSIONS

1. Digitalization and Connectivity

1.1 Leveraging Vessel Connectivity

1.2 Process Optimization and Predictive Maintenance
2. System Integration and Hybridization

2.1 Ship Hybrid Propulsion

2.2 Hybrid System Engineering
3. Electrification and Fuel Cells Development

3.1 Marine Fuel Cell Applications

3.2 Energy Systems and Fuel Cells
4. Controls, Automation, Measurement & Monitoring

4.1 Controls and Sensing

4.2 Monitoring and Fault Diagnostics
5. Emission Reduction Technologies - Exhaust Gas Aftertreatment Solutions

5.1 Scrubbers

5.2. Particle Filtration

5.3. SCR Technology

5.4. GHG Reduction (ammonia combustion & slip reduction)
6. Emission Reduction Technologies - Engine Measures & Combustion Development

6.1. GHG Reduction (H2 combustion & transition outlook)

6.2. PM/BC Reduction

6.3. Engine Measures
7. Fuels - Conventional Fuels

7.1 Test methodologies to predict fuel performance
8. Fuels - Alternative & New Fuels

8.1. Energy System Integration

8.2. Storage, Supply and Handling

8.3. Biofuels

8.4. Development aspects for using ammonia as a fuel
9. Lubricants

9.1. Zero-carbon Fuel Lubricants

9.2. Gas Engine Lubricants
10. New Engine Developments – Diesel

10.1. 2-Stroke Engines

10.2. 4-Stroke Diesel Engines (1)

10.3. 4-Stroke Diesel Engines (2)
11. New Engine Developments - Gas

11.1. New Gas Engine Development

11.2. New Gas Engine Technology
12. New Engine Developments - Dual Fuel

12.1. 2-stroke Session

12.2. 4-stroke Session
13. New Engine Developments - Alternative Fuels & other New Engine Concepts

13.1. Methanol Engine Technology

13.2. Hydrogen and Ammonia Engine Technology

13.3. Alternative Fuel Concepts & Platforms
14. Engine Component Developments - Fuel Injection & Gas Admission

14.1. "LIQUID" or Conventional Diesel

14.2. "GAS" or Alternative/New Fuels
15. Engine Component Developments – Components

15.1. Advanced Component Integration

15.2. Auxiliary Equipment Systems
16. Engine Component Developments - Tribology

16.1. Bearings

16.2. Piston, Rings & Liner
17. Engine Component Developments - Turbochargers & Air/Exhaust Management

17.1. Next Generation Turbochargers & Intake Systems

17.2. Air-/Exhaust Management for Alternative Fuels
18. Basic Research & Advanced Engineering - New Concepts

18.1. Basic Research & Advanced Engineering - New Concepts
19. Basic Research & Advanced Engineering - Simulation Technologies

19.1. Engine Thermodynamics 1

19.2. Engine Thermodynamics 2

19.3. Engine System Thermodynamics & Visualization
20. Basic Research & Advanced Engineering - Mechanics, Materials Research

20.1. Mechanics and Materials
21. Basic Research & Advanced Engineering - Visualizations

21.1. Future Fuel Spray and Combustion

OPTIONAL TOURS JUNE 13 - 16, 2022

TOUR DATES: JUNE 13 – 16, 2021

Explore Busan!

Busan as a large port city, is also known for beaches, mountains and temples. Busy Haeundae Beach has a Sea Life Centre and a place for traditional games like tug-of-war. Gwangalli Beach, on the other hand, offers many bars and a view of the modern Gwangandaegyo Bridge. Beomeosa Buddhist Temple, built in 678 AD, is located at the foot of Geumjeong Mountain with its hiking trails. There is a lot to explore in Busan!

Schedule

	Monday, 13 June 2022	Tuesday, 14 June 2022	Wednesday, 15 June 2022	Thursday, 16 June 2022	
MORNING		Busan Yeongdo 09.00 - 16.00	GYEONGJU Shilla Dynasty 09.00 - 17.00	BUSAN Ancient Wall Hiking Trail 09.00 - 16.00	BUSAN Seashore Temple Tour 09.00 - 14.00
AFTERNOON	BUSAN Highlights 12.00 - 16.00				

CIMAC Congress will provide a get-together meeting room with information about the city, sightseeing tours and excursions with daily tips. You will get the chance to connect with others, to explore Busan and its surroundings together

Information to Participants

- The tours are only open for CIMA participants and their partner.
- English speaking tour guide.
- Light lunch for full day tours.
- Minimum number of participants per tour: 10 persons.
- Limited availability per tour, early booking is recommended.

Level of activity

- **Easy** - Relaxed pace for classic sightseeing
- **Moderate** - Full day of sightseeing, requiring standing and walking for longer time (natural or historical sites)
- **Active** - Tour with main active element, such as hiking or biking. Walking over uneven and mountainous terrain, biking with moderate elevations. The participant should be physically fit and comfortable to walk 5-10 km. Adequate preparation according to specified instruction per tour required: suitable shoes, clothing, sunscreen, snacks and drinks.



OPTIONAL TOURS JUNE 13 - 16, 2022

MONDAY 13 JUNE 2022

BUSAN HIGHLIGHTS (Half-a-Day / Activity Level: Easy)

Price: \$ 80 per person

Description

The Jagalchi Fishmarket is one of the largest markets of its kind, selling a dazzling array of fish, often alive. Here you can taste the famous Korean sashimi. Nearby you can visit the Kukjae Market, where you can shop for souvenirs, glasses (very cheap in Korea!) and clothing. The Gamcheon village is located on the hillside of the town of Busan. It used to be a shelter for refugees during the Korean War, however, due to its picturesque location, it attracted a lot of artists and Gamcheon became the center of arts and culture in Busan.

Inclusive: Private bus / English Guide / Admission fees

Program

- 12:00 Departure BEXCO
- 13:00 Gamcheon Cultural Village
- 14:00 Jakalchi Fishmarket / Kukjae Market / BIFF Square
- 15:00 Yongdusan Park & Busan Tower and return via Diamond Bridge
- 16:00 Arrive at BEXCO, end of tour

TUESDAY 14 JUNE 2022

BUSAN YEONGDO ISLAND (Full Day / Activity Level: Moderate)

Price: \$ 100 per person

Description

Yeongdo Island has kept its original atmosphere, nature, and culture, despite the rapid developments in Busan. Taejongdae and Oryukdo offers spectacular views of rock formations and sea, the White Village is a perfect spot to enjoy a breathtaking view. At the Korea National Maritime Museum, you can learn about the maritime history of Korea in which Busan played a vital role due to its geographical location.

Inclusive: Private bus / English Guide / Admission fees / Lunch

Program

- 09:00 Departure BEXCO
- 09:45 Via Busan Harbor Bridge to Yeongdo Island
- 12:00 Korea National Maritime Museum
- 14:00 Taejongdae National Park / White Yeoul Village
- 15:00 Via Diamond Bridge to Oryukdo Sky Walk
- 16:00 Arrive at BEXCO, end of tour

OPTIONAL TOURS JUNE 13 - 16, 2022

WEDNESDAY 15 JUNE 2022

GYEONGJU SHILLA DYNASTY (Full Day / Activity Level: Moderate)

Price: \$ 130 per person

Description

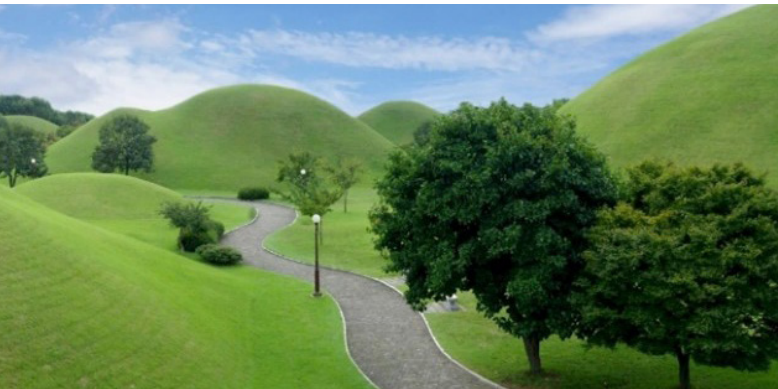
Excursion out of Busan to visit Gyeongju, the ancient capital of Shilla now known as the “open-air museum” for being home of several Unesco Heritage sites of Korea.

The royal tombs at the Tumuli Park date back to the Shilla Dynasty (600-900 AD). Artifacts found in the graves show a remarkable technological and cultural achievements. The Cheomseongdae is the oldest existing astronomical observatory in Asia. The 362 stones used to build the Cheomseongdae represent the 362 days in the lunar calendar. The Anapji Pond is an artificial pond constructed for the royal family for leisure and study.

Inclusive: Private bus / English Guide / Admission fees / Lunch

Program

- 09:00 Departure BEXCO
- 10:30 Tumuli Park & Grave of General Kim Yusin
Walk to Cheomseongdae Astronomical Observatory & Anapji Royal Pond
- 12:00 Gyeongju National Museum
- 13:00 Lunch & Free time in Hwangnamdong District / Hwangnidan-Gil
Traditional village tour with rooftop cafés, restaurants, and tiny shops
- 15:00 Woljeong Bridge
- 17:00 Arrive at BEXCO, end of tour.
- 16:00 Arrive at BEXCO, end of tour



Pictures: ©Korea Tourism Organization

OPTIONAL TOURS JUNE 13 - 16, 2022

THURSDAY 16 JUNE 2022

Option 1: BUSAN ANCIENT WALL HIKING TRAIL (Full Day / Activity Level: Active)

Price: \$ 80 per person

Description

The century old Geumjeongsan Defense Wall stretches over several mountain ridges along the city of Busan. From the natural spring of Heoshimjeong one can take a cable car to the Defense Wall and make a wonderful hike for several hours along this wall. On the way stops can be made at the South-, East- and North Gate. The city view is spectacular. The hike ends at the Beomeosa Temple.

Preparation: Good physical condition required, good quality hiking shoes (highest point approximately 800 meters), sporty clothing, sun cream, 3-4 bottles of water and energy snacks. Lunch boxes are prepared by the guide. In case of rain or other adverse weather conditions, the tour will be cancelled or postponed.

Inclusive: Private bus / English Guide / Admission fees / Lunch package

Program

- 09:00 Departure BEXCO
- 10:00 Cable Car at the Geumjeong Park
- 10:30 Hiking via East Gate to the North Gate (highest point 800 meter)
Descending to the Beomeosa Temple
- 14:30 Arrival at the Beomeosa Temple
Free time at Beomeosa Temple
- 16:00 Arrive at BEXCO, end of tour

Option 2 BUSAN SEASHORE TEMPLE TOUR (Half Day Morning Tour / Activity Level: Easy)

Price: \$ 80 per person

Description

The Haedong Yonggungsa Temple dates back to 1376 during the Goryeo Dynasty. While most temples are tucked away high in the mountains, this temple was built along the shoreline. An enormous Buddha Statue on top of the temple complex is overlooking the amazing coastline. A special site at the temple are the 108 stairs and stone lanterns lining the rocky landscape. After going down the 108 steps one can enjoy the calming sounds of waves, and view the majestic sunrise.

Inclusive: Private bus / English Guide / Admission fees

Program

- 09:00 Departure BEXCO
- 09:30 Dalmaji-gil Road
- 11:00 Haedong Yonggungsa Temple
- 14:00 Arrive at BEXCO, end of tour

MAIN SPONSORS

Platinum Sponsor

We thank our Platinum Sponsor of the 30th CIMAC World Congress for the extraordinary support!



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ABB Turbocharging is a technology and market leader in the manufacture and maintenance of turbochargers for 500 kW to 80+ MW diesel and gas engines. Having produced the world's first industrial turbocharger, it has continued to push turbocharging technology forward, providing engine builders and application operators with advanced turbocharging solutions for efficient and flexible application operations and compliance with the most stringent environmental requirements. About 200,000 ABB turbochargers are in operation across the globe on ships, power stations, gen-sets, diesel locomotives and large, off-highway vehicles.

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We thank all Media Partners for helping us making CIMAC 2022 once more a successful event.



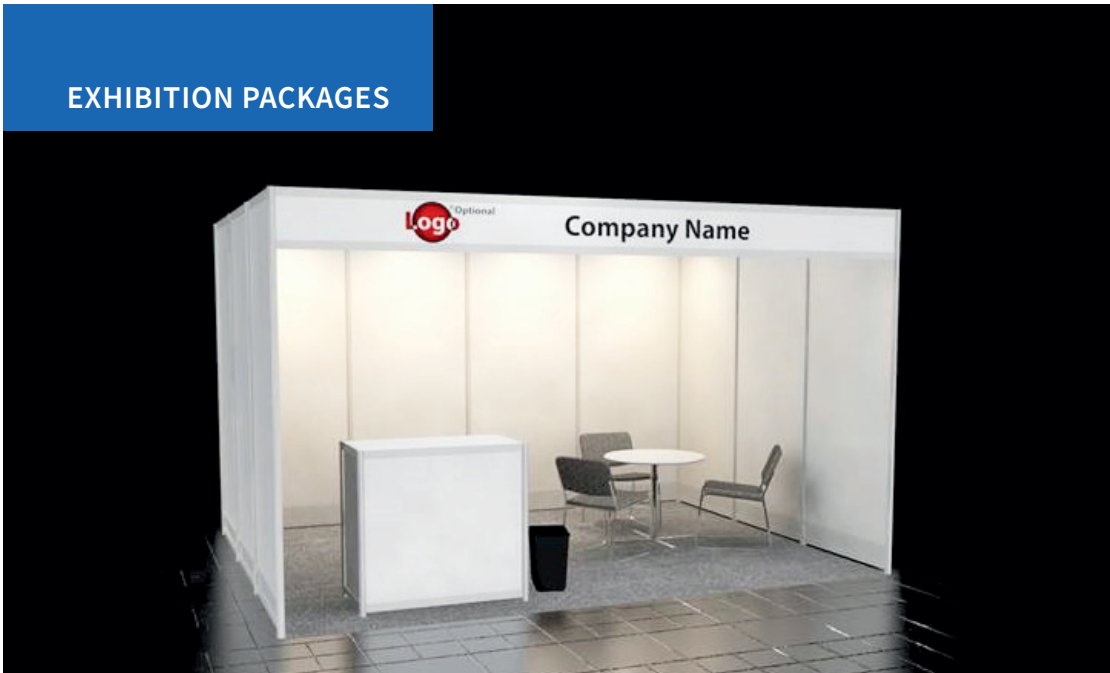
ACCOMPANYING EXHIBITION

Present your Company

We are pleased to inform you about the excellent opportunity to present your company at the accompanying exhibition of the 30th CIMAC World Congress, which will be held in the Vancouver Convention Centre, Vancouver, Canada. The exhibition takes place from **13 until 16 June 2022.**

For the application forms please visit www.cimaccongress.com

For any questions regarding the exhibition, please contact [Ms. Sybille Lang](#)
CIMAC Project Team



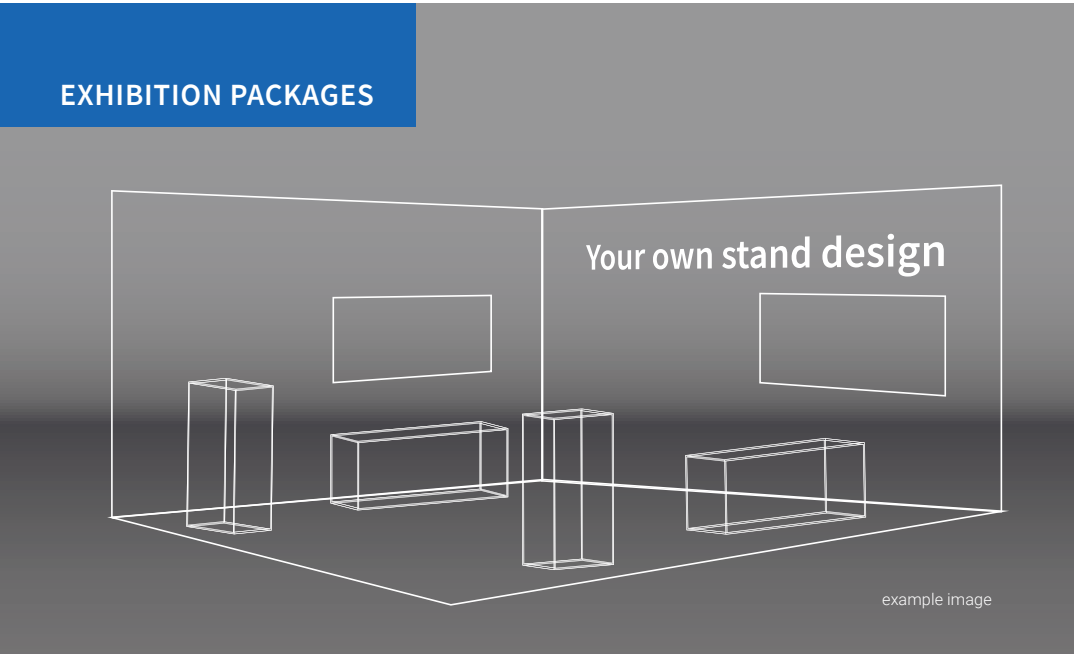
Stand Type a) – Package (min. 9 sqm)

- Provision of stand space
- Stand construction, uniform design
- Uniform floor covering
- 1 table, 3 chairs, 1 lockable sideboard, 1 waste paper basket
- Fascia board incl. company name and booth-number
- 1 power outlet, approx. 2 kW (220V)
- General stand lighting
- Daily basic stand cleaning, excl. exhibits
- Catalogue entry (CIMAC Congress publication)
- Support service by HMC prior to the event and during the show
- 2 exhibitor badges, for each additional 9 sqm you will receive 1 extra badge

EUR 425.00 /sqm incl. stand construction (excl. tax)

Exhibitor Badges

The exhibitor badges are for use of the stand staff only and do not entitle to take part in the conference.



Stand Type b) – Required exhibition raw space
excl. stand construction (min. 54 sqm)

- Provision of stand space
- Daily basic stand cleaning, excl. exhibits
- Catalogue entry (CIMAC Congress publication)
- Support service by HMC prior to the event and during the show
- 4 exhibitor badges, for each additional 9 sqm you will receive 1 extra badge

EUR 275.00 /sqm excl. stand construction (excl. tax)

Exhibitor Badges

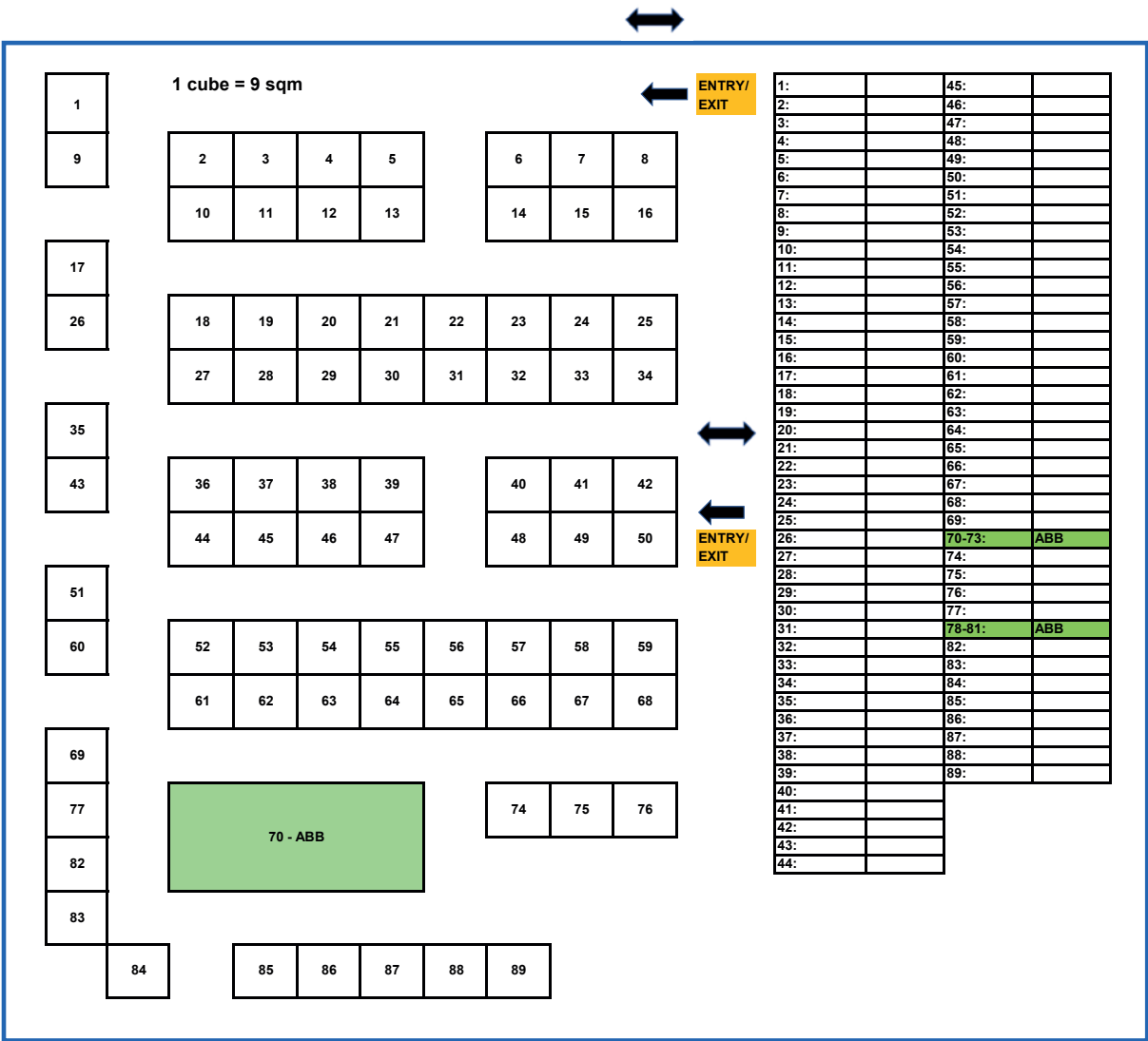
The exhibitor badges are for use of the stand staff only and do not entitle to take part in the conference.

Convention Hall 3F - Grand Ballroom

Please refer to the next page of this document to see the general hall layout. It shows the currently planned catering areas as well as the entrances. Please be informed that the overall layout is also subject to change.

You can find the latest floor plan at:

www.hamburg-messe.de/aussteller/auslandsveranstaltungen/auslandstermine-details/veranstaltung/cimac-congress-2022-0013



HALL LAYOUT

Convention Hall 3F - Grand Ballroom - General Hall Layout

More information on: <https://www.bexco.co.kr/eng/Main.do>

You can find the latest floor plan at:

www.hamburg-messe.de/aussteller/auslandsveranstaltungen/auslandstermine-details/veranstaltung/cimac-congress-2022-0013





Busan

Busan is Korea's representative tourist city with over 3 million foreign visitors a year. From the Haeundae Beach to the beautiful natural environment, visitors can enjoy all four seasons. It provides a variety of marine tour programs, shopping experiences and other cultural activities. These have all combined to make Busan a world class tourist city for lodging and relaxation.

Population: 3.429 million

Languages Spoken: Korean is the national and official language in Busan. The language is drastically different from western languages. In addition to the native language, most people below 40 years of age speak English frequently. One of the most prominent minority languages in South Korea is Chinese, which is spoken by over 1.2 million residents.

Climate: Busan is characterized by the oceanic climate with warm summers and mild winters. In winter temperatures can drop below the freezing point at night. Rainy season is from April until September. Busan has a cooler version of a humid subtropical climate. Extremely high or low temperatures are rare. Busan and the nearby area have the least amount of snow compared to other regions of Korea due to its location.

Time Zone: Busan is in the Korean Standard Time Zone.

Money: The Korean currency is Korean Won (KRW). \$ 1 = KRW 1100. Upon your arrival at the airport in Korea you can exchange cash money to Korean won at any bank at Incheon Airport – or debit card out of the ATM. You can use your debit card if it shows the Cirrus- or Maestro-logo. Credit cards (VISA or MasterCard) are widely used.

Electricity: Korea has an electric voltage capacity of 220 volts. Adapters are necessary in case of variation to the European standard 2-pin plugs.

Phone & Internet: Wifi is widely available. If you want to have continuous access without using roaming, you can either rent a phone, sim card or Pocket Wifi. These items are for rental and can be picked up upon arrival at the Incheon Airport & Gimpo Airport.

For more information about Busan please visit:
[Busan Tourism](#)

Traveling to Busan

Travel preparation

Please be aware that you have to register online for K-ETA (Korea Travel Authorization) <https://www.k-eta.go.kr/portal/apply/index.do> before travelling to Korea! You must complete your K-ETA application at least 24 hours prior to boarding your flight.

Accessibility

South Korea is extremely well-connected by land, air and sea, with a high density of airports, train/subway stations and bus terminals all over the country. Almost all stations are meticulously clean and safe, the schedules frequent and punctual, and rates reasonable. For subway, bus and taxi, the most convenient is to purchase a T-Money Card at one of the numerous convenient stores.

Domestic transportation

- **Domestic flights:** South-Korea has a convenient network of domestic airport that cover the entire country. The main domestic destinations are Seoul, Busan, Daegu, Gwangju and Jeju Island. Payment

- **Train:** South Korea is conveniently connected by high speed train between all major cities on the mainland: Seoul, Daejeon, Daegu, Gwangju, Yeosu, Busan. Commuter trains ("Mugunghwa") still run and stop at smaller towns and villages. Payment by purchase of separate tickets
- **Subway:** One of the best in the world and by far the most convenient way to transfer within the city. Seoul, Busan, Daegu and Gwangju offers state-of-the-art modern subway, with clear signage in Chinese, English and Japanese. The subway lines cross city borders and connect suburbs and nearby towns. Payment by T-Money card or purchase of separate tickets.
- **Taxi:** Uber is not the common taxi service, instead the Koreans use Kakao Taxi. The app is easy to download and convenient to use. Alternatively, the hotel staff can help you reserve a taxi, or you can stop a taxi on the road. Payment by T-Money card, credit card or cash.
- **Car rental:** Koreans drive on the right side. Driving in the big cities of Seoul and Busan is comparable with driving in Rome or Paris, so caution is advised. Car-rentals can be arranged in South Korea.

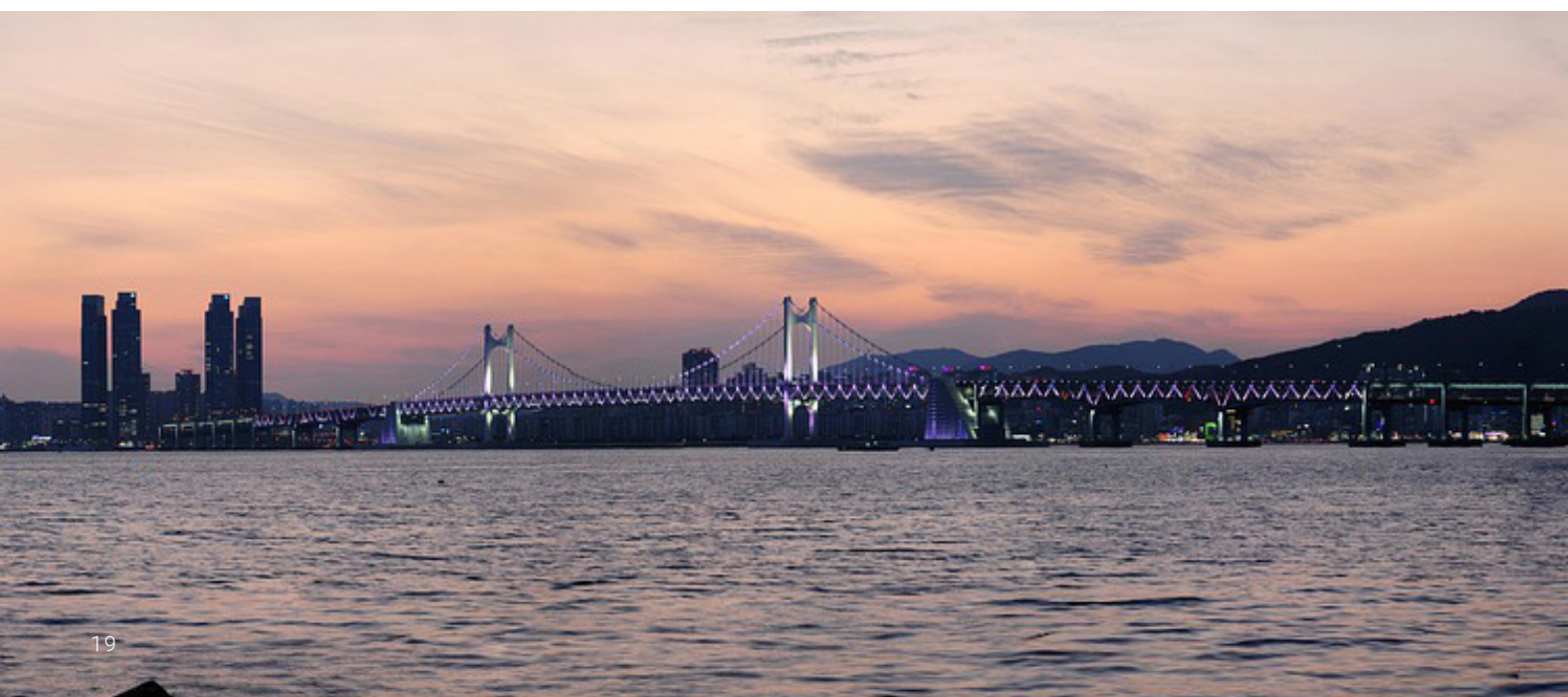


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Busan the city of international conventions - the perfect place for any event!
Korea is one of the most advanced nations in the world, yet it is also a country steeped in historically rich tradition. In Busan, this combination of the old and the new abounds at every turn. Firstclass convention facilities sit minutes from sandy beaches and historic mountain trails. Serene, thousand-year old temple sites are nestled among some of the tallest residential skyscrapers in Asia.

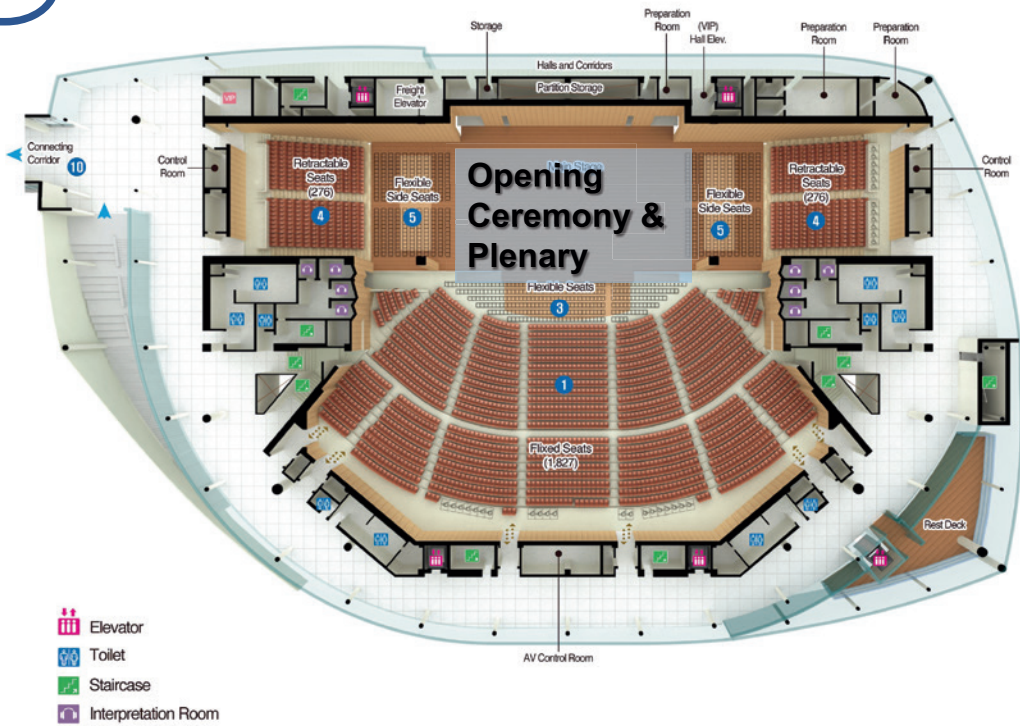
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FLOOR PLANS

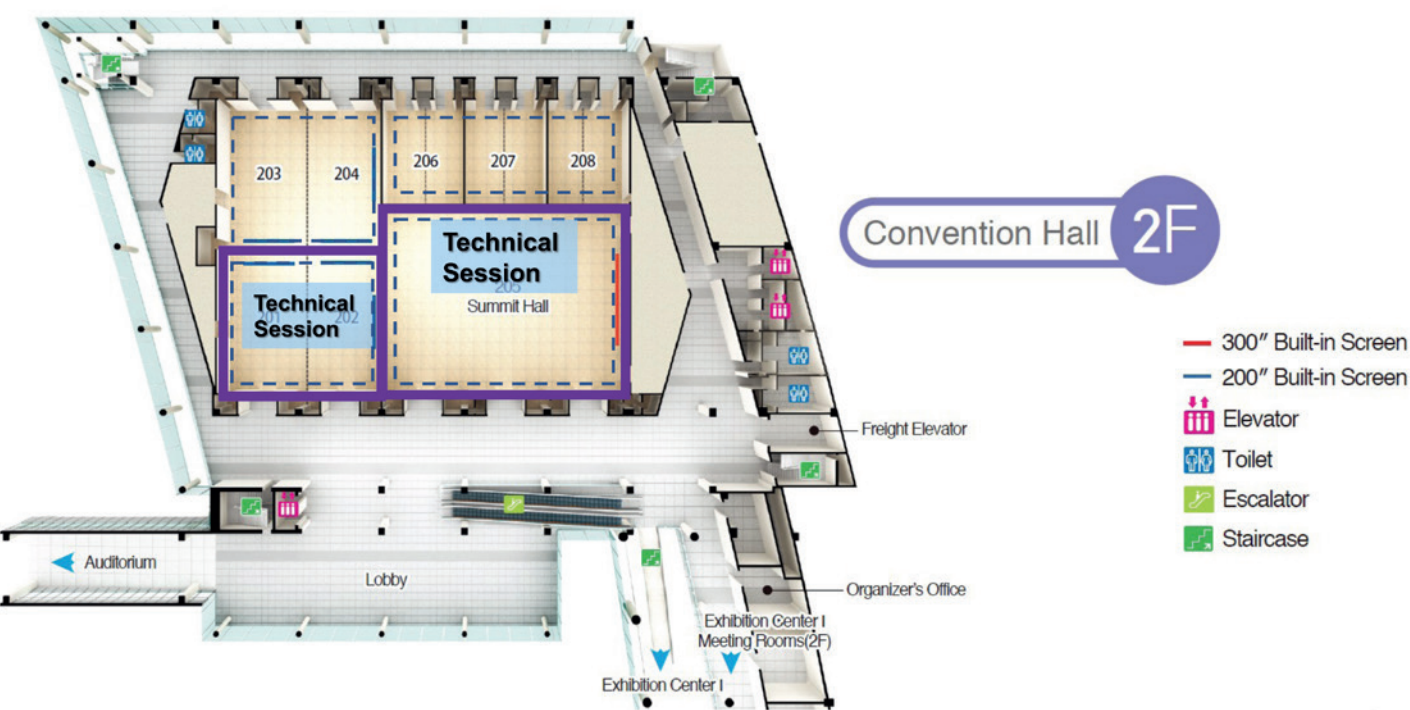
Auditorium



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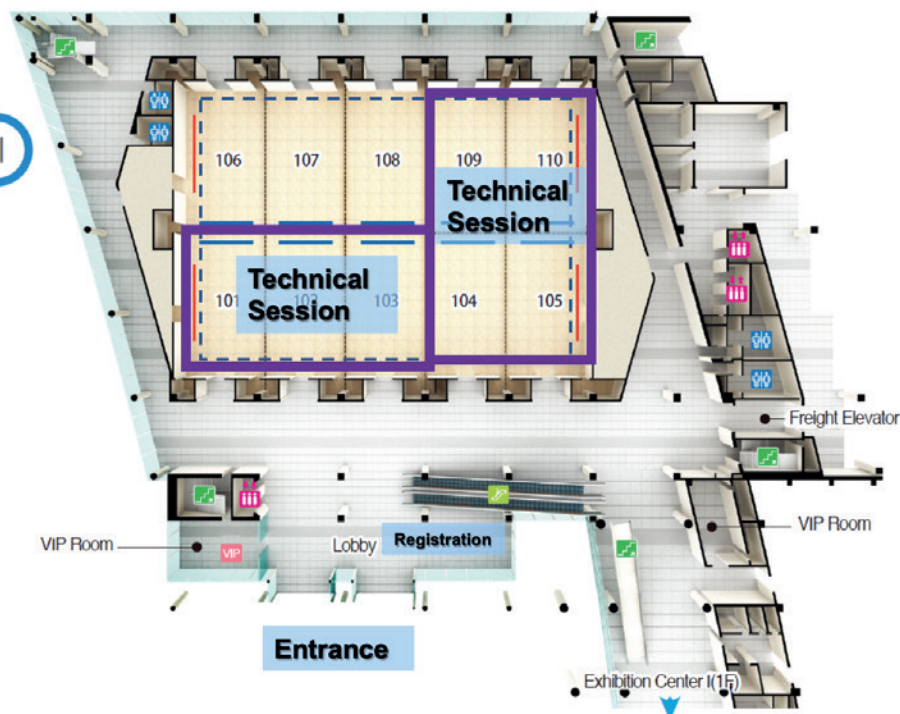
FLOOR PLANS

Convention Hall 2F

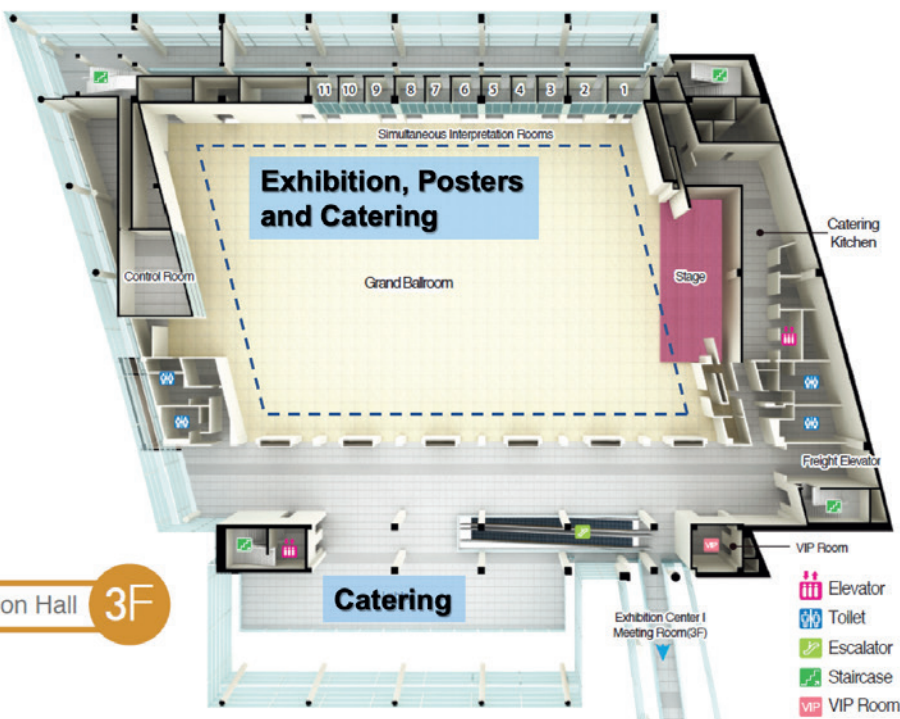


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1F Convention Hall



Convention Hall 3F



ACCOMMODATION

Selected hotels for CIMAC participants

Hotel offers:

- **Special rates** for CIMAC participants on the following website: [hotel bookings](#)
- **Close vicinity to BEXCO**, 1 to 10 min away by car.
- **Special Cancellation Policy:** in case the CIMAC Congress is cancelled your room reservation is 100% refundable.
- All rates inclusive of all taxes & breakfast
- Additional week-end charges may apply
- Rates in USD are subject to currency fluctuations and may be adjusted over time.
- Payment via international bank transfer.
- Cancellation policy according to [General Terms & Conditions KR H&E for CIMAC Congress 2022](#).



Contact



KR Hospitality & Events (KR H&E) is the official travel agent for CIMAC Congress 2022 in Busan

Mr. Don Roelofs

Info & Bookings via don@krhospitality.co

ACCOMMODATION

1 CENTUM PREMIER HOTEL 4 *



The finest business hotel within walking distance from BEXCO, and only 10 minutes drive to the famous Haeundae Beach. Located in a quiet area in the evening, and with an excellent restaurant inside the hotel. The hotel provides clean and cozy guest rooms and various facilities to ensure the best service and satisfaction for all guests.

Info & booking: <https://zurl.co/dNHP>

Room Type	Occupancy	Room size	Rate per room per night
Superior Double	Single	20 m ²	\$ 112
	Double		\$ 126
Superior Twin	Double	20 m ²	\$ 124
Deluxe Double	Single	22 m ²	\$ 122
	Double		\$ 136
Deluxe Twin	Double	27 m ²	\$ 135

2 RAMADA ENCORE BY WYNDHAM Busan Haeundae 4 *



RAMADA ENCORE BY WYNDHAM Haeundae has been opened in 2017 and is 500 meters away from the famous Haeundae Beach. In the direct vicinity of the hotel, you will find a large variety of restaurants, bars and shops, while still enjoying the tranquility inside the hotel. It only takes 10 minutes by subway to reach BEXCO.

Info & bookings: <https://zurl.co/sr6Y>

Room Type	Occupancy	Room size	Rate per room per night
Superior Double	Single	19.7 m ²	\$ 122
	Double		\$ 139
Deluxe Twin	Single	23 m ²	\$ 122
	Double		\$ 139
Corner Suite Double	Single	38 m ²	\$ 177
	Double		\$ 194
Corner Suite Twin	Single	35 m ²	\$ 177
	Double		\$ 194

ACCOMMODATION

3

THE WESTIN JOSUN Busan 5 *



The Westin Josun Busan offers luxury along the famous Haeundae Beach with true 5-star service. It definitely has one of the best city- and sea views of Busan. It is 15 minutes drive to BEXO Convention Center.

Info & booking: <https://zurl.co/9wJJ>

Room Type	Occupancy	Room size	Rate per room per night
Deluxe Park Twin	Single	29.7m²	\$ 287
	Double		\$ 320
Deluxe Beach Double	Single	29.7m²	\$ 321
	Double		\$ 363
Deluxe Beach Twin	Single	29.7m²	\$ 321
	Double		\$ 363
Executive Park Double	Single	29.7m²	\$ 289
	Double		\$ 331
Executive Park Twin	Single	29.7m²	\$ 289
	Double		\$ 331
Executive Beach Double	Single	29.7m²	\$ 331
	Double		\$ 373
Executive Beach Twin	Single	29.7m²	\$ 331
	Double		\$ 373
Suite Executive Grand (Double)	Double	44.5m²	\$ 636

4

PARK HYATT HOTEL Busan 5 *



At Park Hyatt Busan, guests will discover the traditional values of courtesy, care, comfort, and luxury with the discreet, residential, and sophisticated style of Park Hyatt. Whether guests are visiting the hotel for an important meeting or a relaxing weekend away, Park Hyatt Busan offers an array of services that are sure to make stays memorable. It is 9 minutes drive to BEXO Convention Center.

Info & bookings: <https://zurl.co/6DoC>

Room Type	Occupancy	Room size	Rate per room per night
King Bed	Single	42-47m²	\$ 309
	Double		\$ 350
King Deluxe	Single	47-49m²	\$ 345
	Double		\$ 386
Twin Deluxe	Single	48-49m²	\$ 345
	Double		\$ 386
King Ocean View	Single	41m²	\$ 405
	Double		\$ 446
Twin Ocean View	Single	41m²	\$ 405
	Double		\$ 446
Park Executive Marina Suite	Single	67m²	\$ 525
	Double		\$ 566



QUICK FACTS

Accommodation	Informations about selected Hotels in Busan please see page 25.
CIMAC	CIMAC is the non-commercial sponsor of the 30th CIMAC World Congress in Busan. For further informations on CIMAC please visit the website at http://www.cimac.com/
CIMAC Membership	If you are uncertain about your membership status or want to apply for a membership, please contact the CIMAC Central Secretariat – info@cimac.com
Congress Catering	Catering stations will be integrated in the exhibition area. During the coffee breaks and lunch break participants will be provided with food and drinks. Enjoy regional and international cuisine!
Congress Documents	Please bring your mobile ticket ready on your mobile phone or tablet with you or print out your e-ticket legibly on a sheet on paper. Your personal badge is your entrance ticket to all sessions, the exhibition and the social events. Please, remember to wear your badge at the congress and the social events at every time. Congress bags will be provided in the registration area in the Convention Centre.
Contact for Questions	For questions regarding the technical Program, please contact CIMAC Central Secretariat. For questions regarding the congress, sponsoring and exhibition, please contact the Main and the Co-Organizer of the congress. Contact details see page 31.
COVID-19	Current COVID-19 regulations will be anounced on our website https://www.cimaccongress.com/ in time before the Congress.
Cloakroom	Participants may leave their belongings in the designated area.
Language	The official language of the Congress is English. No translation will be provided.
Newsletter	For the subscription of the CIMAC Newsletter please fill out the form on CIMAC website: http://www.cimac.com/publication-press/newsletter-subscription/index.html

QUICK FACTS

Mobile App	A mobile app will be available for downloading in Goolge Play and Apple App Store for all congress participants in early spring time. The app contains the actual technical Program, general informations, floor plans and furthermore.
Optional Tours	For participating in the optional tours, please visit our hospitality room at the congress. Please see pages 7.
Registration Fees	Registration Fees for tickets will be announced on our website in January 2022.
Social Media	Fans and followers will find the CIMAC Congress on LinkedIn and Twitter .
Speakers' Preparation Room	All presentations can be checked and delivered to the speaker's preparation room at least 2 hours prior to speaker's session. Presentations being held during a morning session should be checked at the end of the day before. Speakers are kindly requested to follow the instructions of the chairperson and strictly keep to the time of their presentation.
Technical Program	Admission to all sessions of the technical Program is only possible with a valid congress ticket. The congress ticket for CIMAC members, non members, speakers and students includes: congress badge, congress bag, admission to all sessions and the exhibition, coffee breaks and lunch, Opening Ceremony, Welcome Reception, ABB Evening, Gala Dinner (except students).
	The registration for accompanying persons includes: admission to the exhibition, coffee breaks and lunch, Opening Ceremony, Welcome Reception, ABB Evening, Gala Dinner.
Technical Tours	Separate registration is required for participation in the technical tours. Registration will be available in the beginning of 2022 on the congress website.
Ticketshop	Tickets are only sold online via our Ticketshop and only payable via credit card. Print your ticket or bring it along on your mobile device. The ticketshop will be online on our website in January 2022.
WIFI	Free WIFI is available at Busan Convention Center BEXCO. Login and password will be announced on-site.

Main Organizer Congress:

VDMA Services GmbH

a VDMA group company

Lyoner Straße 18
60528 Frankfurt am Main
Germany

Contact: Nicole Potz

Phone: +49 69 6603-1143
Fax: +49 69 6603-2843
Email: congress@cimac.com
Web: www.cimaccongress.com
www.vdmaservices.de

Non-Commercial Sponsor:

CIMAC e.V.

Lyoner Strasse 18
60528 Frankfurt am Main
Germany

Contact: Anirudh Thekke Purayil

Phone: +49 69 6603-1149
Fax: +49 69 6603-2149
Email: info@cimac.com
Web: www.cimac.com



Co-Organizer Congress:

CIMAC National Member Association

Korea Federation of Combustion Engines (KOFCE)
C1-463, Marine Department,
Korea Maritime and Ocean Univ. 727,
Taejong-ro, Yeongdo-gu, Busan, Republic of Korea.

Contact: Ph.D. Ji Hyoub, Cha, Secretary General

Phone: +82-51-917-1767
Fax: +82-51-917-1766
Web: www.kofce.or.kr

Co-Organizer Exhibition:

Hamburg Messe und Congress GmbH

Messeplatz 1
20357 Hamburg
Germany

Contact: Sybille Lang

Phone: +49 40 3569-2293
Fax: +49 40 3569-692293
Email: cimac@hamburg-messe.de
Web: www.hamburg-messe.de/aussteller/auslandsveranstaltungen/auslandstermine-details/veranstaltung/cimac-congress-2022-0013



ABOUT CIMAC

Originally founded in Paris in 1951, CIMAC has become the **leading global association of the large internal combustion machinery industry**. It is a non-profit association bringing together and representing the large engine industry to regulators and standardizing bodies. In addition to promoting the work of National Member Associations, CIMAC supports information exchange and understanding across the large engine industry including:

- Builders of large diesel, gas and dual-fuel engines
- Users of large engines such as owners and operators of ships, power plants, locomotives etc.
- Systems and component suppliers
- Fuel and lubricant suppliers, including oil companies
- Classification societies and other regulatory bodies
- Academic institutions, consultant engineers, scientists
- System Integrators, shipyards and other service providers

CIMAC’s Vision:

CIMAC members currently come from **26 countries** across To promote large engine technology power solutions that are efficient, reliable, safe and sustainable and of benefit to society, in pursuit of the transition to a low-carbon future.

CIMAC’s Mission:

- › Enabling exchange on technological trends and developments among our members, with their users, associated industries along the value chain.
- › Developing and promoting globally harmonized standards and regulations that foster a competitive, safe and sustainable industry.
- › Striving for zero environmental impact of power solutions utilizing large engine technology.
- › Facilitating safe and efficient operation, leveraging digitalization, automation and system integration.
- › Promoting open markets to foster the spread and scalability of innovative large engine technology solutions.

CIMAC Membership

CIMAC members currently come from **27 countries** across America, Asia and Europe. Membership can take three forms:

- Membership of the official CIMAC National Member Association (NMA) in your country
- Membership in the respective National Member Associations (NMA)
- Corporate Membership for individual companies (in countries where there is no NMA)

Please see page [53](#) for CIMAC contact details.

ABOUT CIMAC

CIMAC Strategy Groups & Working Groups: The Consensus Seekers

CIMAC Strategy & Working Groups are the heart of CIMAC. Led by **international specialists** from CIMAC member organisations, they seek solutions to industry-wide technical issues and develop strategies to deal with pressing topics of the industry.

They interface with legislators, standards organisations, and regulators such as the classification societies to develop united CIMAC guidelines, recommendations, or positions, representing the industry on a pre-competitive, pre-legislative basis. They have a distinguished record of issuing guidance and publications on a wide range of crucial subjects relating to the operation of large engines in the maritime industry. Consequently, CIMAC Strategy & Working Group activities encompass the environmental compatibility, efficiency and safety of large engines and their applications.

The two recently established CIMAC Strategy Groups are:

- Greenhouse Gas Strategy Group
- Digitalization Strategy Group

CIMAC Working Groups currently cover these vital areas of engine technology and operation:

▪ Classification	▪ Electronics & Software Systems
▪ Crankshaft Rules	▪ Gas Engines
▪ Exhaust Emissions Control	▪ Inland Waterway Vessels
▪ Fuels	▪ System Integration
▪ Marine Lubricants	▪ Propulsion
▪ Users	

CIMAC Events

The CIMAC Congress represents the culmination of all CIMAC activities, being held every three years, each time in a different member country. The Congress is **a unique gathering of key industry decision makers**, including manufacturers of engines, components and sub-systems, engine owners and operators, classification societies, researchers and developers, and representatives from regulatory bodies.

The Congress program centres on the **presentation of technical papers** on engine research & development, application engineering on the original equipment side, and engine operation and maintenance on the end-user side. This is complemented by social programs which promotes friendship and networking within the community.

CIMAC Circles are panel discussions involving CIMAC members debating topical issues. They are hosted at key industry events around the world at least once a year. CIMAC CASCADES promote the advancement of young engineers and their careers. The events enable them to meet with leading industry experts to exchange information, network and present their projects.

CIMAC Tech-Talks and Webinars are new online events with technical presentations & live discussion sessions, chaired by distinguished experts from the industry, offering fresh insights into new and important topics pertaining to the industry today.

CONGRESS TECHNICAL PROGRAM COMMITTEE

Person	Company	Place
Aabo, Kjeld	MAN Energy Solutions	Copenhagen, Denmark
Aufischer, Rainer	MIBA Gleitlager GmbH	Laakirchen, Austria
Banck, Andreas	Caterpillar Motoren GmbH & Co. KG	Kiel, Germany
Bergmann, Dirk	ABB Turbocharging	Baden, Switzerland
Boletis, Elias	Wärtsilä	Vaasa, Finland
Boom, Rick	Woodward	Amsterdam, Netherlands
Buchholz, Bert	University of Rostock	Rostock, Germany
Chatterjee, Daniel	Rolls-Royce Power Systems	Friedrichshafen, Germany
Coppo, Marco	OMT	Torino, Italy
Engelmayer, Michael	LEC GmbH	Graz, Austria
Feng, Wang	SMDERI	Shanghai, China
Figer, Günter	AVL List	Graz, Austria
Frigge, Patrick	Siemens Energy	País Vasco, Spain
Ghetti, Stefano	FEV GmbH	Aachen, Germany
Hoogerbrugge, Marinus	AVL List	Graz, Austria
Imhof, Dino	ABB Turbocharging	Baden, Switzerland
Kawakami, Masayoshi	JICEF	Tokyo, Japan
Kendlbacher, Christoph	Robert Bosch AG	Hallein, Austria
Knafl, Alexander	MAN Energy Solutions	Augsburg, Germany
Koch, Franz	Hofer Powertrain	Nürtingen, Germany
Laiminger, Stephan	Innio Jenbacher GmbH	Jenbach, Austria
Lehtoranta, Kati	VTT Technical Research Centre of Finland	Espoo, Finland
Lehtovaara, Eero	ABB Turbocharging	Baden, Switzerland
Leitner-Audouï, Alexander	Innio Jenbacher GmbH	Jenbach, Austria
Long, Liu	Harbin Engineering University	Harbin, China
Mingfa, Yao	Tianjin University	Tianjin, China
Mohr, Hinrich	GasKraft Engineering	Hamburg, Germany
Nordrik, Rune	Rolls-Royce Power Systems	Bergen, Norway
Östman, Fredrik	Wärtsilä	Vaasa, Finland
Peitz, Daniel	HUG Engineering	Elsau, Switzerland
Pirker, Gerhard	LEC GmbH	Graz, Austria
Renaud, Philippe	CMA CGM	Marseille, France
Risse, Silvio	Kompressorenbau Bannewitz GmbH (KBB)	Bannewitz, Germany
Røjgaard, Charlotte	Bureau Veritas VeriFuel	Copenhagen, Denmark
Schneider, Dominik	Winterthur Gas & Diesel	Winterthur, Switzerland
Stiesch, Gunnar	MAN Energy Solutions	Augsburg, Germany
Takahashi, Shinsuke	IHI Power Systems	Tokyo, Japan
Takahata, Yasuyuki	Yanmar	Osaka, Japan
Takasaki, Koji	Kyushu University	Fukuoka, Japan
Thömmes, Marco	Rolls-Royce Solutions GmbH	Friedrichshafen, Germany
van der Put, Dieter	FEV GmbH	Aachen, Germany
Venkataraman, Sai	Woodward	Colorado, USA
Vlaskos, Ioannis	Winterthur Gas & Diesel	Winterthur, Switzerland
Weisser, German	Winterthur Gas & Diesel	Winterthur, Switzerland
Wik, Christer	Wärtsilä	Vaasa, Finland
Wimmer, Andreas	LEC GmbH	Graz, Austria

CONGRESS ORGANISING COMMITTEE

Donghan Jin President	Christoph Rofka Vice President Communications
Peter Müller-Baum Secretary General	Masayoshi Kawakami Member of Council
Kwang heon Ahn Congress President	Pei Yiqiang Member of Council
Jonas Åkerman Vice President Technical Program	Philippe Lecloux Member of Council
Marko Dekena Vice President Technical Program	Ji Cha Representatives of the Congress hosting organization (one of two)
Tobias Ehrhard Representative of the CIMAC host associate secretariat	

Executive Board 2019 – 2022

- Donghan Jin

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Past President
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- Switzerland

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Rofka, C. (Board Member)

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Schneiter, D.

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- United Arab Emirates

Sudalai, K.
- United Kingdom

Dodd, J.

Fooks, M.
- United Sates

Callahan, T. J.

Roecker, R. (Auditor)

Blythe, N.

National Member Associations

Country	NMA
Austria	Fachverband Metalltechnische Industrie (FMTI)
China	Chinese Society for Internal Combustion Engines(CSICE)
Denmark	CIMAC Denmark
Finland	Technology Industries of Finland
France	CIMAC France
Germany	AG Großmotoren - CIMAC Deutschland
India	CIMAC India
Japan	JICEF (Japan Internal Combustion Engine Federation)
Republic of Korea	KOFCE (Korea Federation of Combustion Engines)
Netherlands	CIMAC National Members Association Netherlands
Norway	CIMAC NMA Norway
Sweden	Svenska CIMAC-föreningen
Switzerland	Swissmem
United Kingdom	The UK National Member Association of CIMAC
United States	US CIMAC NMA

Corporate Members

Country	NMA
Belgium	Aderco Marine sprl.
	Anglo Belgian Corporation N.V.
	Chevron Belgium NV
Canada	Seaspan Ship Management Ltd.
	Teekay Shipping (Canada) Ltd.
Croatia/Hrvatska	AVL - AST d.o.o.
Czech Republic	PBS Turbo s.r.o.
Greece	Aegean Marine Fuels & Lubricants FZE
	GasLog LNG Services Ltd.
	Latsco Marine Management Inc.
	Metis Cyberspace Technology SA
Italy	O.M.T. Officine Meccaniche Torino S.p.A.
Monaco	Transocean Maritime Agencies
Singapore	Maritec Pte Ltd.
Spain	Sidenor Forgings & Castings S.L.U.
	Siemens Energy SA
United Arab Emirates	Tribocare FZC

