

Updated Announcement & Call for Papers

# 20<sup>th</sup> WCNDT

20<sup>th</sup> World Conference on Non-Destructive Testing

Songdo Convensia, Incheon, Korea

27-31 May 2024

Exclusive Sponsor

**EVIDENT™**

ICNDT

The World Organisation for NDT

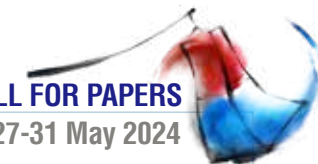
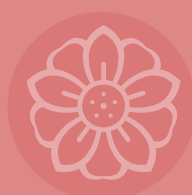
**KSNT**

[www.20thwcndt.com](http://www.20thwcndt.com)



# Contents

- WELCOME MESSAGE: CHAIR OF ICNDT\_03
- WELCOME MESSAGE: PRESIDENT OF WCNDT\_04
- WELCOME MESSAGE: CHAIR OF ORGANIZING COMMITTEE\_05
- ORGANIZING COMMITTEE & STEERING COMMITTEE\_06
- ADVISORY COMMITTEE & SCIENTIFIC COMMITTEE\_07
- IMPORTANT DATES & PRESENTATION TYPES\_09
- CONFERENCE TOPICS & PRELIMINARY PROGRAM\_10
- SPECIAL SESSIONS\_11
- SHORT COURSE\_12
- KEYNOTE SPEAKERS & INVITED SPEAKERS\_13
- ABSTRACT SUBMISSION GUIDELINES\_14
- SCIE JOURNALS LIST\_15
- REGISTRATION FEES & CANCELLATION POLICY\_16
- SOCIAL PROGRAMS & SONGDO CONVENIA\_17
- CONFERENCE AREA & EXHIBITION AREA\_18
- EXHIBITION FLOOR PLAN\_19
- ACCOMMODATION\_20
- TOURIST ATTRACTIONS\_21
- SPONSORSHIP\_26



## WELCOME MESSAGE

### CHAIR OF ICNDT

On behalf of the International Committee for NDT (ICNDT), I am delighted to have the honor of inviting the world of NDT to gather in Incheon for the 20<sup>th</sup> WCNDT next year. The conference was postponed several times due to covid-19 pandemic, now we all been back to normal and the preparations to receive everyone to Korea by KSNT is in top priority. The conference and exhibition are now set between May 27-31, 2024.

Amidst the economic adversity, extreme weather and conflict across nations, we see great growth opportunity in the digitalization, remote sensing, industrial 4.0 and unconventional testing, interpretation & inspection methods. We remain optimistic towards brighter days as we continue to bring global minds together to set the new norm and standard.

For Korea & KSNT, this is the first time to host the world conference although Korea has hosted the Asia Pacific conference twice. We are confident that the Korean Society for NDT (KSNT) will organize one of the greatest World Conferences ever with the very best advanced technology from all around recovering from this pandemic. The conference will be a fully in person event which will provide great networking opportunity between manufacturers, distributors, and customers under one roof.

The conference is still expected to attract over 2,000 delegates and over 200 exhibitors from all over the world to showcase the best of the latest innovations and technologies. Visit to South Korea is normal and open to the world without any quarantine. The team from KSNT would advise for any travel queries. We invite delegates from around the world to present your papers, organize workshops, participate in the conference, meet professionals from all around the globe in a new beginning of mankind. Let us support the manufacturers of NDT Equipment and Systems who expect to showcase the cutting edge technologies for our implementation to the industry.

We invite delegates from around the world to present your papers, organize workshops, participate in the conference, meet professionals from all around the globe in a new beginning of mankind. Let us support the manufacturers of NDT Equipment and Systems who expect to showcase the cutting-edge technologies for our implementation to the industry.

I would urge ICNDT member countries, regions and new fledging societies to attend the ICNDT General Assembly, which is being scheduled during the conference.

See you in South Korea.



Dr. Sajeesh K. Babu  
Chair of ICNDT



## WELCOME MESSAGE

## PRESIDENT OF WCNDT

Dear Distinguished Guests, Colleagues and Friends in NDT and Related Fields,

It has already been 7 years since we met at the 19<sup>th</sup> WCNDT in Munich, Germany, and I am truly thrilled that the 20<sup>th</sup> WCNDT in Incheon, South Korea is just a year away now.

On behalf of ICNDT and KSNT, the hosting society, I would like to welcome all of you to the 20<sup>th</sup> WCNDT, one of the world's largest academic and technical conferences with highly renowned tradition and history for over 60 years.

KSNT is proud and honored to host the conference on behalf of ICNDT, as the conference will be an opportunity to show KSNT's maturity and capability with rich experience and technical depth that have been built over its 43 years of endless endeavors to the global NDT community. In that spirit, KSNT is vigorously gearing up to welcome all of you to the 20<sup>th</sup> WCNDT.

KSNT has recently celebrated its 40<sup>th</sup> anniversary under the catchphrase "NDT for Peace and Prosperity" to reflect its many years of hard-working efforts to reach the goals in the Korean Peninsula, which had been a symbolic icon of conflict and poverty. South Korea is now one of the few unique developing models, leading edge technology-based industrialization as well as advanced democracy.

KSNT was born in 1980, with the advent of the industrial boost of South Korea and has grown up to be the backbone of its economic prosperity. The "Act for NDT Promotion" was legislated by the Korean Government and National Assembly in 2005, presumably the first case in the global NDT community, showing the weight and significance that NDT industry carries in Korea.

KSNT sometimes identifies the term, NDT as "Never Dying Technology" or "Newly Developing Technology" to enlighten people about its significance. I cordially invite you to come and be a part of this fabulous academic and technical event in the Land of Morning Calm.

KSNT and the 20<sup>th</sup> WCNDT Organizing Committee are looking forward to meeting you in Incheon, Korea, May 2024!

Thank you.



Prof. Younho Cho  
President of WCNDT

## WELCOME MESSAGE

## CHAIR OF ORGANIZING COMMITTEE

On behalf of the organizing committee, it is my great honor and pleasure to invite you to the 20<sup>th</sup> World Conference on Nondestructive Testing (20<sup>th</sup> WCNDT) hosted by the Korean Society for Nondestructive Testing (KSNT), which will be held from May 27 to 31, 2024, at Songdo Convensia Incheon, Korea under the auspice of the International Committee for Non-Destructive Testing (ICNDT). We have been waiting for such a long time for this prestigious world conference to take place in Korea, and are now ready to provide a revitalized conference and exhibition.

The Organizing Committee will offer a dynamic technical program that will be highly informative to every participant. The conference will be the place for a continuous interchange of ideas and integration of professional colleagues from all around the world with an interest in this field. We are so confident that the 20<sup>th</sup> WCNDT will turn out to be the most successful platform for networking and inspiring new technical ideas with the support from all of you.

The venue, Songdo Convensia, is located at the center of the Songdo International Business District, a smart and newly developed town built along the Incheon's waterfront in recent years. As one of the next generation global towns in Incheon, it creates a modernized atmosphere to its signature feature with a number of cutting-edge facilities including many international research centers and bio- and ICT-industries in addition to residential areas and arts & cultural attractions. It can be reached by public transportation in an hour from Seoul and within 30 minutes by taxi from the Incheon International Airport (IATA: ICN).

The city of Incheon, located on the central west coast of the Korean Peninsula, is the second largest port city in Korea and has been a major gateway for trade and cultural exchanges since the late 19<sup>th</sup> century. It is the city which looks for the future, embracing "smart" urbanization to ensure that technological developments are in balance with historical background of the way how Korea was originally introduced to western civilization.

The 20<sup>th</sup> WCNDT Organizing Committee is committed to having a very safe and much more fruitful conference which will definitely provide unforgettable experiences to all of the participants.

We are very much looking forward to meeting you all at Songdo Convensia in May 2024 during Korea's most glorious time of the year in the historical and vibrant city of Incheon.



Dr. Dong-Jin Yoon  
President of KSNT



## ORGANIZING COMMITTEE

### • CHAIR

Dong-Jin Yoon (KRISS, KR)

### • WCNDT President

Younho Cho (Pusan National University, KR)

### • Scientific Committee Chair

Kyung-Young Jhang (Hanyang University, KR)

### • Exhibition Committee Chair

Bon-Woo Ku (NAWOO Ltd., KR)

### • Steering Committee Chairs

Seung-Seok Lee (KRISS, KR)

Kyookun Koh (ANSCO, KR)

Taesoon Sohn (KANDT, KR)

### • CO-CHAIR

Ik-Keun Park (SeoulTech, KR)

### • Strategic Planning Committee Chair

Donghoon Kang (KRRI, KR)

### • Scientific Committee Vice-Chair

Chungseok Kim (Chosun University, KR)

### • Meetings and Workshops Committee Chair

Cheul Muu Sim (KAERI, KR)

### • Advisory Committee Chair

Ohyang Kwon (Inha University, KR)

## STEERING COMMITTEE

### CHAIRS

International : Seung-Seok Lee (KRISS, KR)

Domestic : Kyookun Koh (ANSCO, KR)

Taesoon Sohn (KANDT, KR)

### MEMBERS

- Cesar Belinco (CNEA, AR)
- Leonard J. Bond (Iowa State University, US)
- Patrick Brisset (IAEA, AT)
- Pierre Calmon (LIST CEA, FR)
- Scott Cargill (MISTRAS, US)
- Peter Cawley (Imperial College London, GB)
- Fu-Kuo Chang (Stanford University, US)
- Chih-Hung Chiang (CYUT, TW)
- Manyong Choi (KRISS, KR)
- Yuris A. Dzenis (UNL, US)
- Arthur Every (University of the Witwatersrand, ZA)
- Uwe Ewert (BAM, DE)
- Fermin Gomez Fraile (EFNDT, ES)
- Chengbin Guo (CAS, CN)
- Soichi Hirose (Tokyo Institute of Technology, JP)
- Nam Ho (WCI, KR)
- Ikuo Ihara (Nagaoka University of Technology, JP)
- Harold Jansen (SAIW, ZA)
- Kyungcho Kim (KINS, KR)

- Teruo Kishi (University of Tokyo, JP)
- Vjera Krstelj (University of Zagreb, HR)
- Tribikram Kundu (University of Arizona, US)
- Jong Po Lee (ANSCO, KR)
- Joon Hyun Lee (Pusan National University, KR)
- Xavier Maldague (Université Laval, CA)
- Alexander Mullin (RTC Testing and Diagnostics, RU)
- Takamasa Ogata (JSNDI, JP)
- Morio Onoe (University of Tokyo, JP)
- Norikazu Ooka (JSNDI, JP)
- Joseph L. Rose (Pennsylvania State University, US)
- Kamal Sahaimi (Qualite Controle Mesure, MA)
- Takahide Sakagami (Kobe University, JP)
- Gongtian Shen (ChSNDT, CN)
- Peter Trampus (University of Dunaujvaros, HU)
- Michael Turnbow (ASME, US)
- B. Venkatraman (IGCAR, IN)
- Tsung Tsong Wu (National Taiwan University, TW)
- Chunguang Xu (BIT, CN)

## ADVISORY COMMITTEE

### CHAIR

Ohyang Kwon (Inha University, KR)

### MEMBERS

- Gerhard Aufricht (ÖGfZP, AT)
- Hwa Mook Chae (Hanyang I&E, KR)
- Younho Cho (Pusan National University, KR)
- Joao Conte (ABENDI, BR)
- Mike Farley (ICNDT, GB)
- Rong Sheng Geng (BATRC, CN)
- David Gilbert (BINDT, GB)

### CO-CHAIR

Sajeesh K. Babu (ICNDT, SG)

- Manfred Johannes (CSIR, ZA)
- Sekyung Lee (KRISS, KR)
- Douglas Marshall (CINDE, CA)
- Giuseppe Nardoni (Academia NDT International, IT)
- Un Su Park (SEOULTECH, KR)
- Matthias Purschke (DGZfP, DE)

## SCIENTIFIC COMMITTEE

### CHAIR

Kyung-Young Jhang (Hanyang University, KR)

### VICE CHAIR

Chungseok Kim (Chosun University, KR)

### DIVISION CHAIRS

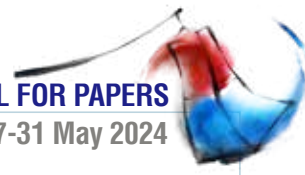
- Sungho Choi (Jeonbuk National University, KR)
- Donghoon Kang (KRRI, KR)
- Dae-Hyun Kim (SEOULTECH, KR)
- Hak-Sung Kim (Hanyang University, KR)
- Ki-Bok Kim (KRISS, KR)
- Kyungcho Kim (KINS, KR)
- Wontae Kim (Kongju National University, KR)

- Byeong-Ha Lee (GIST, KR)
- Jung-Ryul Lee (KAIST, KR)
- Choon-Su Park (KRISS, KR)
- Seunghee Park (Sungkyunkwan University, KR)
- Cheul Muu Sim (KAERI, KR)
- Hoon Sohn (KAIST, KR)
- Chang Jae Yim (ANSCO, KR)

### MEMBERS

- Yun-Kyu An (Sejong University, KR)
- Seil Baek (KIST, KR)
- Krishnan Balasubramanian (IIT, IN)
- Shiro Biwa (Kyoto University, JP)
- Seung Hwan Chang (Chung-Ang University, KR)
- Zhenmao Chen (Xi'an Jiaotong University, CN)
- Seung Hyun Cho (KRISS, KR)
- Yong Jin Cho (Dong-Eui University, KR)
- Hajin Choi (Soongsil University, KR)
- Kyungwho Choi (Korea Aerospace University, KR)
- Manyong Choi (KRISS, KR)
- Min Joo Choi (Jeju National University, KR)

- Wonjae Choi (KRISS, KR)
- Jean Dumoulin (University Gustave Eiffel, FR)
- Uwe Ewert (BAM, DE)
- Xiaorong Gao (Southwest Jiaotong University, CN)
- Xingwang Guo (Beihang University, CN)
- Vitalyi Gusev (Le Mans Université, FR)
- Tae-Young Han (Fraunhofer Institute, DE)
- Takahiro Hayashi (Osaka University, JP)
- Chao Hu (Iowa State University, US)
- Nam-Su Huh (SEOULTECH, KR)
- Yong-Hak Huh (KRISS, KR)
- Peter Huthwaite (Imperial College London, GB)



## MEMBERS (Continued)

- Jeong-Beom Ihn (Boeing, US)
- Laurence J. Jacobs (Georgia Institute of Technology, US)
- Jae Hwa Jin (KIGAM, KR)
- Kisoo Kang (Korea Polytechnics, KR)
- Lae-Hyong Kang (Jeonbuk National University, KR)
- Seong-Hoon Kee (Dong-A University, KR)
- Chang Kuen Kim (Doosan Heavy Industries & Construction, KR)
- Chang-Seok Kim (Pusan National University, KR)
- Chun Young Kim (ENESG, KR)
- Dong-Hyun Kim (Rectuson, KR)
- Gun Kim (UNIST, KR)
- Hokyung Kim (Pusan National University, KR)
- Hyonny Kim (University of California San Diego, US)
- Jeong Guk Kim (KRRI, KR)
- Junkyeong Kim (AICT, KR)
- Ju Won Kim (Dongguk University, KR)
- Kwang-Soo Kim (KARI, KR)
- Su-Un Kim (Hansun ST, Inc., KR)
- Taek-Soo Kim (KAIST, KR)
- Yong Tae Kim (KRISS, KR)
- Tribikram Kundu (University of Arizona, US)
- Hyock Ju Kwon (University of Waterloo, CA)
- Changgil Lee (KRRI, KR)
- Dooyoul Lee (Korea National Defense University, KR)
- Jaesun Lee (Changwon National University, KR)
- Jung Ki Lee (NAWOO Ltd., KR)
- Tae Hun Lee (KHNP, KR)
- Yoon Ho Lee (NAWOO Ltd., KR)
- Youngseok Lee (NFRI, KR)
- Dominique Lesselier (L2S, FR)
- Hui Li (Harbin Institute of Technology, CN)
- Weibin Li (Xiamen University, CN)
- Bu Taek Lim (KEPCO E&C, KR)
- Hyung Jin Lim (Kyonggi University, KR)
- Hyung Taek Lim (ANSKO, KR)
- Cliff Lissenden (Pennsylvania State University, US)
- Ken Loh (University of California San Diego, US)
- Xavier Maldague (Université Laval, CA)
- Kyong Mahn Min (UMI, KR)
- Yoshihiro Mizutani (Tokyo Institute of Technology, JP)
- Peter B. Nagy (University of Cincinnati, US)
- Nobutomo Nakamura (Osaka University, JP)
- Boohyun Nam (Kyung Hee University, KR)
- Yi Qing Ni (Hong Kong Polytechnic University, HK)
- Hwa-suk O (Wonkwang University, KR)
- Seung Jae Oh (Yonsei University, KR)
- Tae Keun Oh (Incheon National University, KR)
- Yoshikazu Ohara (Tohoku University, JP)
- Wieslaw Ostachowicz (IMP, PL)
- Chan Yik Park (ADD, KR)
- Chin Kun Park (Techvalley, KR)
- Duck-Gun Park (KAERI, KR)
- Gyuhae Park (Chonnam National University, KR)
- Hyoung Geun Park (DNVGL, KR)
- Kyung-Hyun Park (ETRI, KR)
- John S. Popovics (UIUC, US)
- Jianmin Qu (Tufts University, US)
- Jong Eun Ryu (North Carolina University, US)
- Sung Woo Ryu (ENESG, KR)
- Hogeon Seo (KAERI, KR)
- Gongtian Shen (ChSNDT, CN)
- Tomoki Shiotani (Kyoto University, JP)
- Sung-Han Sim (UNIST, KR)
- Igor Solodov (University of Stuttgart, DE)
- Markus Strobl (PSI, CH)
- Zhongqing Su (University of California San Diego, US)
- Toshiyuki Takagi (Tohoku University, JP)
- Kosuke Takahashi (Hokkaido University, JP)
- Gui Yun Tian (Newcastle University, GB)
- Michael D. Todd (University of California San Diego, US)
- Mike Turnbow (ASME, US)
- Lalita Udpa (Michigan State University, US)
- Satish Udpa (Michigan State University, US)
- B. Venkatraman (IGCAR, IN)
- Chunguang Xu (Beijing Institute of Technology, CN)
- Hyungchul Yoon (Chungbuk National University, KR)
- Byeng Dong Youn (Seoul National University, KR)
- Shengfang Yuan (NUAA, CN)
- Hong-Hu Zhu (Nanjing University, CN)

## IMPORTANT DATES

|                                                      |                   |
|------------------------------------------------------|-------------------|
| Abstract Submission                                  | 30 September 2023 |
| Notification of Abstract Acceptance                  | 31 October 2023   |
| Submission of Camera-ready Abstract (Mandatory)      | 31 December 2023  |
| Submission of Extended Abstract or Paper* (Optional) | 31 December 2023  |
| Registration and Payment of Presenting Authors       | 31 December 2023  |
| Preliminary Program Announcement                     | 31 January 2024   |

\*For the Conference proceedings (NOT for the SCIE journal submission)

\*\*Authors who have already submitted abstracts and camera-ready abstracts are rolled over to a postponed schedule and do not need to resubmit.

## PRESENTATION TYPES

During the abstract submission process, you must select only one preferred presentation type from the three options listed below, but the final decision will be made by the scientific committee. You can choose among:

### ORAL PRESENTATION

- Power Point presentation
- 20 minutes including discussion
- 15 parallel sessions

### POSTER PRESENTATION

#### Option 1 Poster Board Presentation

- Poster in A0 portrait format
- Poster show is open during a given period of time
- Special attention during the poster and exhibition evening

#### Option 2 Poster Board with Short Presentation

- Poster board presentation and additional Power Point presentation (max. 3 slides)
- 5 minutes to announce your poster to the audience for following discussions
- Special attention during the poster and exhibition evening



## CONFERENCE TOPICS

The main topics of interest include (but not limited to):

- Acoustic Emission
- Acoustic Methods
- Additive Manufacturing
- Aerospace & Defense
- Art & Cultural Heritage
- Biomedical Technology
- Certification & Qualification
- Civil Infrastructures (Smart NDT for Bridges and Buildings)
- Composite Materials
- Diffraction & Residual Stress
- Digital Radiography & Computed Tomography\*
- Eddy Current & Electromagnetics\*
- Electronic Parts
- Food & Agriculture
- Green & Echo Technology
- Infrared Thermography\*
- Materials Characterization
- Micro & Nano Technology
- Industry 4.0 & NDE 4.0
- NDT Reliability
- Oil & Gas
- Optics & Vision Systems
- Power Plants\*
- Public Security & Human Safety
- Sensor & Materials
- Structural Health Monitoring & Prognostics and Health Management
- Terahertz
- Transportation (Automotive, Marine, Railway)
- Ultrasonics\*
- Vibration & Condition Monitoring
- Academia NDT International

\*Some main topics have subtopics. Please refer to the official website for more information.

## PRELIMINARY PROGRAM

| Date/Time | 26 May (Sun)                               | 27 May (Mon)                                         | 28 May (Tue)                    | 29 May (Wed)                    | 30 May (Thu)                    | 31 May (Fri)                    |
|-----------|--------------------------------------------|------------------------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| All-Day   | Registration                               | Registration                                         | Registration                    | Registration                    | Registration                    | Registration                    |
| Morning   | · Short Course<br>· Exhibitor Registration | Opening Ceremony                                     | Plenary Speech                  | Plenary Speech                  | Parallel Sessions<br>Exhibition | Parallel Sessions<br>Exhibition |
|           |                                            | Plenary Speech                                       | Parallel Sessions<br>Exhibition | Parallel Sessions<br>Exhibition |                                 |                                 |
| Afternoon | · Booth Set-up<br>· Meetings & Workshops   | Exhibition Opening Lunch                             | Lunch                           | Lunch                           | Lunch                           | Lunch                           |
|           |                                            | Parallel Sessions<br>Exhibition                      | Parallel Sessions<br>Exhibition | Parallel Sessions<br>Exhibition | Parallel Sessions<br>Exhibition | Closing Ceremony                |
| Evening   | Booth Set-up                               | Welcome Reception<br>(Poster and Exhibition Evening) |                                 | Cultural Night                  | Gala Dinner                     | Exhibitor Move-out              |

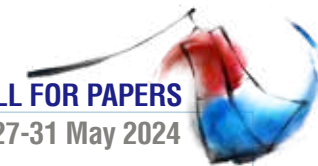
\*The program is subject to change.

\*Meetings & Workshops will be held throughout the 20<sup>th</sup> WCNDT. Details will be announced separately.

\*ISO/TC 135 Meeting will be held concurrently with the 20<sup>th</sup> WCNDT.

## SPECIAL SESSIONS

- **Academia International Research Day (AIRD)**  
Organizer: Peter Trampus (Academia NDT International, HU)
- **AE and Relevant Technologies to Assess Infrastructures**  
Organizer: Tomoki Shiotani (Kyoto University, JP)
- **Artificial Intelligence in Medical Imaging**  
Organizer: Hwiyoung Kim (Yonsei University College of Medicine, KR)
- **ASME/ANDE-1 NDE Personnel Certification Standard and Program Implementation**  
Organizer: Kyung-Cho Kim (KINS, KR), Mike Turnbow (ASME, US)
- **Characterization of Material Degradation: Advanced Techniques**  
Organizer: Jin-Yeon Kim (Georgia Institute of Technology, US)
- **ICNDT International Qualification & Certification workshop in Non-Destructive Testing**  
Organizer: Kyung-Cho Kim (KINS, KR), Sajeesh K. Babu (ICNDT, SN)
- **International Thematic Workshop**  
Organizer: Cheul Muu Sim (Korea Atomic Energy Research Institute, KR)
- **In Vivo Imaging for Drug Discovery and Development**  
Organizer: Sang Hyun Park (Korea Atomic Energy Research Institute, KR)
- **NDE 4.0 - Past, Present, and Future**  
Organizer: Johannes Vrana (Vrana GmbH, DE)
- **NDT of Civil Engineering Materials and Structures**  
Organizer: Jin-Yeon Kim (Georgia Institute of Technology, US)
- **Nondestructive Sensing for Agriculture and Food Materials**  
Organizer: Byoung-Kwan Cho (Chungnam National University, KR)
- **Nondestructive Testing for Archeology and Cultural Heritage**  
Organizer: B. Venkatraman (Indira Gandhi Centre for Atomic Research, IN)
- **Nondestructive Ultrasound Techniques in Medicine and Biology**  
Organizer: Jae Youn Hwang (Daegu Gyeongbuk Institute of Science & Technology, KR)
- **Nonlinear Ultrasonic Testing**  
Organizer: Igor Solodov (University of Stuttgart, DE)
- **Performance Demonstration**  
Organizer: Ik-Keun Park (SEOULTECH, KR)
- **Remote NDT Techniques for Structural Health Monitoring**  
Organizer: Peter W. Tse (City University of Hong Kong, HK)
- **SHM/NDT on AI**  
Organizer: Yoshihiro Mizutani (Tokyo Institute of Technology, JP), Dae-Hyun Kim (SEOULTECH, KR)
- **Welding**  
Organizer: Sehun Rhee (Hanyang University, KR)



## SHORT COURSE

### Overview

- Title: Structural Health Monitoring Using Statistical Pattern Recognition
- Date: Sunday, 26 May 2024
- Venue: Songdo Convensia (Specific room number TBA)
- Instructors: Charles R. (Chuck) Farrar, Ph. D., PE / Michael Todd, Ph. D

The 20<sup>th</sup> WCNDT Organizing Committee invites all interested participants to attend the Short Course which will be held on Sunday, 26 May, the day before the 20<sup>th</sup> WCNDT. This program will introduce participants to the field of damage assessment (detection, location, severity) in structures as determined from changes in their measured dynamic response. In addition to the historical motivation and development of the methods, the course will cover the theory, application, and implementation of this technology. Real-world examples and results will be presented from the fields of aerospace, civil, and mechanical engineering. Additionally, the application of statistical pattern recognition techniques will be emphasized throughout the course as well.

### Registration Fees

|         | Pre-registration | On-site registration |
|---------|------------------|----------------------|
| Regular | 500              | 600                  |
| Student | 350              | 400                  |

\*All fees will be charged in USD.

\* Registration fee includes the **lunch, coffee and tea during session break, short course book and short course conference kit.**

\* More detailed information including program schedule, venue and on-line registration will be available at the website soon.

## KEYNOTE SPEAKERS

- Hoda Azari (Federal Highway Administration, US)
- Paolo Bison (CNR, IT)
- Leonard J. Bond (Iowa State University, US)
- Fu-Kuo Chang (Stanford University, US)
- Zhenmao Chen (Xi'an Jiaotong University, CN)
- Jean Dumoulin (University Gustave Eiffel, FR)
- Manabu Enoki (University of Tokyo, JP)
- Uwe Ewert (BAM, DE)
- Xiaorong Gao (Southwest Jiaotong University, CN)
- Vitalyi Gusev (Le Mans Université, FR)
- Sohichi Hirose (Tokyo Institute of Technology, JP)
- Jeong-Beom Ihn (Boeing, US)
- Ken Loh (University of California San Diego, US)
- Xavier Maldague (Université Laval, CA)
- Giuseppe Nardoni (Academia NDT International, IT)
- John S. Popovics (UIUC, US)
- Takahide Sakagami (Kobe University, JP)
- Gongtian Shen (ChSNDT, CN)
- Tomoki Shiotani (Kyoto University, JP)
- Igor Solodov (University of Stuttgart, DE)
- Pavel Trtik (Paul Scherrer Institute, CH)
- Michael Turnbow (ASME, US)
- Lalita Udpa (Michigan State University, US)
- B. Venkatraman (IGCAR, IN)

## INVITED SPEAKERS

- Krishnan Balasubramanian (IIT, IN)
- Shiro Biwa (Kyoto University, JP)
- Guillaume Haiat (CNRS, FR)
- Takahiro Hayashi (Osaka University, JP)
- Ikuo Ihara (Nagaoka University of Technology, JP)
- Jae Hwa Jin (KIGAM, KR)
- Kodo Kawase (Nagoya University, JP)
- Moon S. Kim (Agricultural Research Service, US)
- Young-Jin Kim (KAIST, KR)
- Marc Kreutzbruck (University of Stuttgart, DE)
- Se-Gon Kwon (Korail Research Institute, KR)
- Cliff J. Lissenden (Pennsylvania State University, US)
- Gerd Manthei (TH Mittelhessen, DE)
- Yoshihiro Mizutani (Tokyo Institute of Technology, JP)
- Sarmishtha Palit (National Metallurgical Laboratory, IN)
- Kyung Hyun Park (ETRI, KR)
- Christophe Reboud (CEA LIST, FR)
- Michael Ruszkowski (EPRI, US)
- Juergen Schreiber (FRAUNHOFER IKTS, DE)
- Henry Stephens (ASME, US)
- Zhongqing Su (Hong Kong Polytechnic University, HK)
- Gui Yun Tian (Newcastle University, GB)
- Chunguang Xu (Beijing Institute of Technology, CN)
- Robert Zboray (EMPA, CH)



## ABSTRACT SUBMISSION GUIDELINES

You are invited to submit abstracts in accordance with the following guidelines:

- Authors who have already submitted abstracts and camera-ready abstracts are rolled over to a postponed schedule and do not need to resubmit.
- Authors whose abstracts have already been accepted can modify their abstracts including title, contents and author information except for conference topics until the camera-ready abstract submission deadline (31 December 2023). If the author would like to change the topic, the abstract must go through the review process again; therefore, authors may change the conference topic only by the abstract submission deadline (30 September 2023).

- Registration of papers will only be considered if they are submitted completely together with all requested data and abstracts.
  - If a student wants to present two papers or more, then the full registration is required.
  - Contributions have to be submitted and presented in English as translation into other languages will not be provided.
  - All abstracts have to be submitted online at [www.20thwcndt.com](http://www.20thwcndt.com) by **30 September 2023**, and the abstract must have a minimum of 200 words.
  - Authors have to classify their abstracts into the given topics (page 10); two topics can be selected in order of priority.
  - Authors who wish to submit abstracts to special sessions can select the abstract type as a special session on the online submission page.
  - Authors should indicate their preference for oral presentation or poster presentation. However, the final decision will be made by the scientific committee.
  - Authors will be informed about the acceptance of their contributions by **31 October 2023**.
  - Authors whose abstract was accepted have to register via the online form and pay the registration fee, which is non-refundable; The contributions from authors who have not paid the registration fee by **31 December 2023** will be deleted.
  - The Camera-ready version of accepted abstracts is mandatory and must be submitted by **31 December 2023**.
  - The extended abstract or paper of accepted abstracts is optional and must be submitted for inclusion in the conference proceedings by **31 December 2023**.
- \* The abstracts, extended abstracts, and papers submitted to the 20<sup>th</sup> WCNDT may be published on NDT.net. Details will be finalized and announced before the deadline for camera-ready abstract submission (31 December 2023).

### ABSTRACT SUBMISSION PROCESS

| STEP 1                          | STEP 2                                   | STEP 3                                 | STEP 4                    | STEP 5                                    | STEP 6                                |
|---------------------------------|------------------------------------------|----------------------------------------|---------------------------|-------------------------------------------|---------------------------------------|
| Sign up on the official website | Go to 'Abstract Submission' after log in | Read through the submission guidelines | Click 'Online Submission' | Complete the form to submit your abstract | Your abstract submission is completed |

## SCIE JOURNALS LIST

The 20<sup>th</sup> WCNDT has arranged special issues with the following SCIE international journals. Authors who wish to submit full length papers that will be peer-reviewed for publication in a special issue of archival journals, please refer to the instructions that is posted on the conference website.

| No. | Journal Title                                                                                                   |  | Journal Rating | Impact Factor |
|-----|-----------------------------------------------------------------------------------------------------------------|--|----------------|---------------|
| 1   | Structural Health Monitoring<br>Editor: Jung-Ryul Lee (KAIST, KR)                                               |  | SCIE           | IF: 6.583     |
| 2   | Smart Structures and Systems<br>Editor: Hoon Sohn (KAIST, KR)                                                   |  | SCIE           | IF: 3.525     |
| 3   | Materials<br>Editor: Donghoon Kang (KRII, KR)                                                                   |  | SCIE           | IF: 3.436     |
| 4   | Advanced Composite Materials<br>Editor: Jung-Ryul Lee (KAIST, KR)                                               |  | SCI            | IF: 2.860     |
| 5   | Nuclear Engineering and Technology<br>Editor: Cheul Muu Sim (KAERI, KR)                                         |  | SCIE           | IF: 2.747     |
| 6   | Journal of Intelligent Material Systems and Structures<br>Editor: Gyuhae Park (Chonnam National University, KR) |  | SCIE           | IF: 2.650     |
| 7   | Measurement Science and Technology<br>Editor: Jung-Ryul Lee (KAIST, KR)                                         |  | SCI            | IF: 2.441     |
| 8   | Noise Control Engineering Journal<br>Editor: Nohyu Kim (KOREATECH, KR)                                          |  | SCIE           | IF: 0.357     |



## REGISTRATION FEES

| Registration Fee   | Early<br>~ 31 DEC 2023 | Standard<br>01 JAN~10 MAY 2024 | On-site<br>26~31 MAY 2024 |
|--------------------|------------------------|--------------------------------|---------------------------|
| Participants(Full) | 1,250                  | 1,350                          | 1,400                     |
| Student/Retiree    | 750                    | 800                            | 850                       |
| Companion          | 450                    | 500                            | 550                       |

\*All fees will be charged in USD.

Access to the conference venue including the exhibition area will not be permitted for those who have not paid their registration fee.

- The conference fee includes access to the scientific program sessions, lunches, refreshments, program package, e-proceeding, and tickets for exhibition, welcome reception, Cultural Night and gala dinner.
- Retirees and students are required to submit the proof of enrollment\* or retirement while registering online.
- Presenting authors must complete their registration (including payment) by 31 December 2023.
- The companion fee includes lunches, refreshments, and tickets for welcome reception, Cultural Night and gala dinner. Participation in the scientific program is not permitted. Reservations for companions are available only after the conference registration.

\*Student must be currently enrolled in a college or university as an undergraduate or graduate student. Applicants for student rates must send a scanned copy of their valid enrollment status or student ID card in ENGLISH. It must also be presented on-site when collecting registration material.

## CANCELLATION POLICY

1. For Presenting Authors: No Refunds
2. For Other Participants:
  - Until 29 February 2024: 50% of the paid registration fee
  - From 1 March 2024: No refunds
3. All refunds will be made by 4 weeks after the end of the conference (28 June 2024).

## SOCIAL PROGRAMS

### Welcome Reception (Poster and Exhibition Evening) - Songdo Convensia Exhibition Hall 1+2+3

Monday, 27 May 2024

### Cultural Night (TBD) - Songdo Convensia Exhibition Hall 4

Wednesday, 29 May 2024

### Gala Dinner - Songdo Convensia Grand Ballroom

Thursday, 30 May 2024

## SONGDO CONVENSIA

123 Central-ro, Yeonsu-gu, Incheon

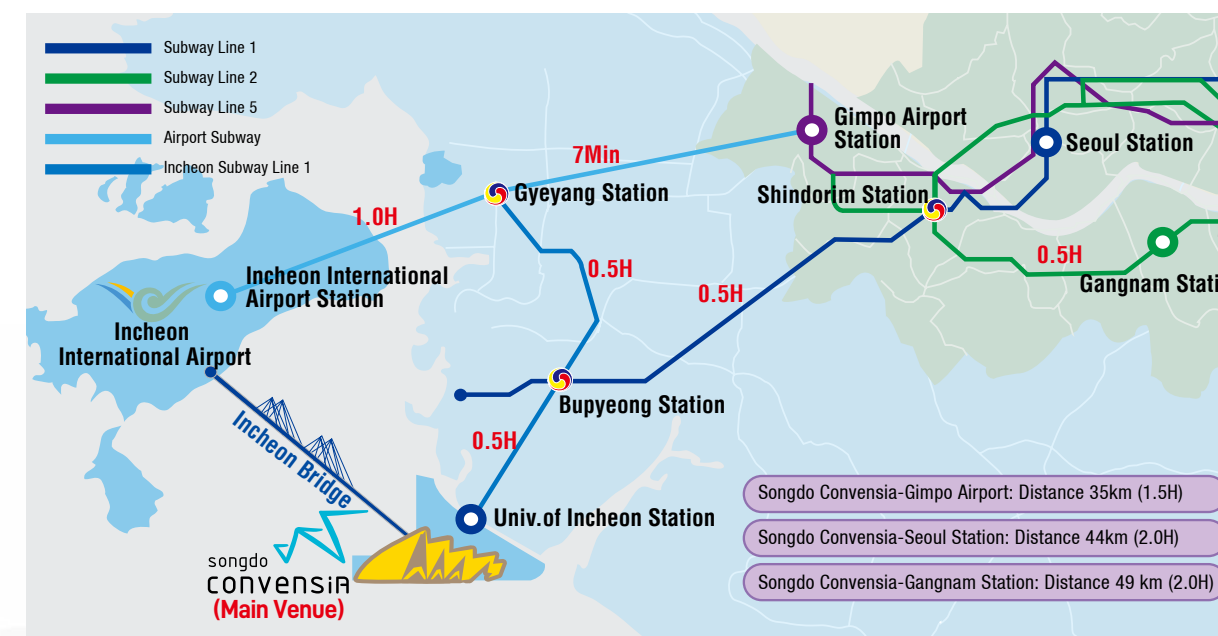
<http://www.songdoconvensia.com>



Songdo Convensia is an international exhibition and convention center located in the center of Songdo Town that can be reached in 20 minutes from Incheon International Airport and 50 minutes from Seoul. Newly expanded two years ago, Songdo Convensia is now equipped with a state-of-the-art ubiquitous system, making it an ideal place for exhibitions and conferences.

Songdo Convensia has all the necessary elements of a world-class convention destination, including easy accessibility, adequate tourism resources, high-quality hotels and restaurants and the existence of an active support network consisting of both public and private organizations.

### Easy Access To Songdo Convensia



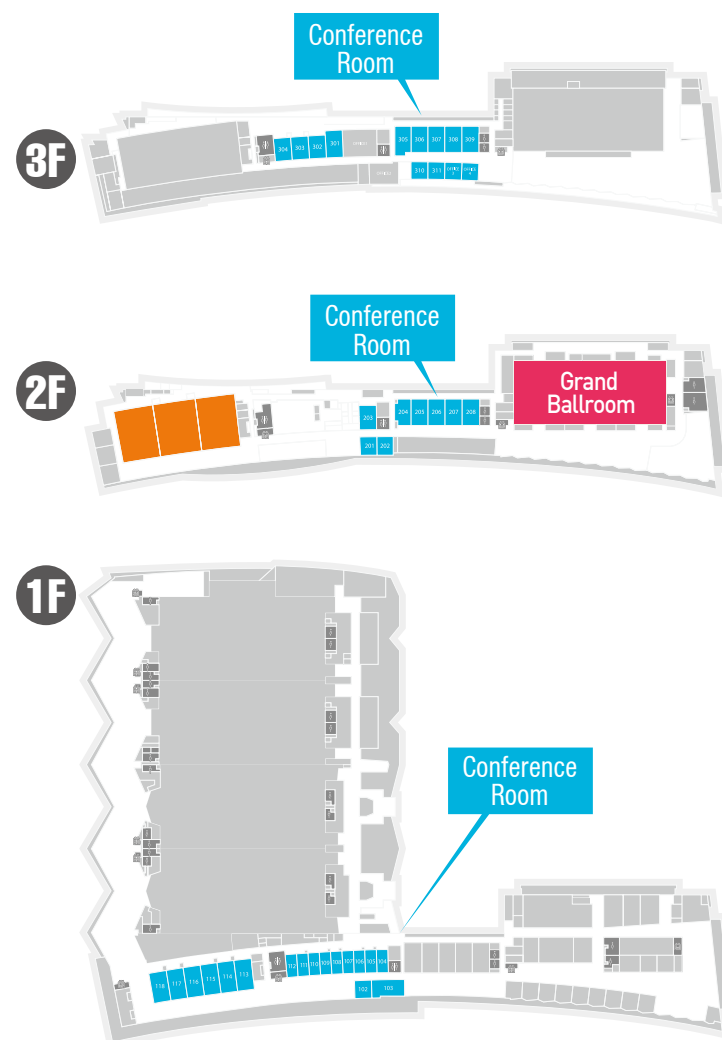


## CONVENSIA AREA

Songdo Convensia is comprised of three stories above ground with 17,021m<sup>2</sup> of exhibition space and a floor area of 117,163m<sup>2</sup>.

Four exhibition halls can accommodate up to 900 booths and 20,000 people and conference facilities boast 35 meeting rooms, equipped with state-of-the-art equipment and operated by a cutting-edge building management system.

The 20<sup>th</sup> WCNDT will use all the conference rooms in Songdo Convensia, including Premier Ballroom and Grand Ballroom.

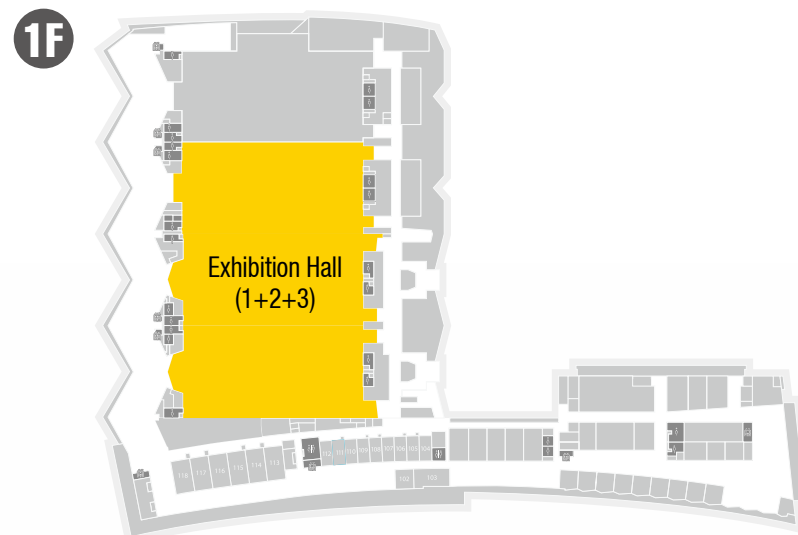


## EXHIBITION AREA

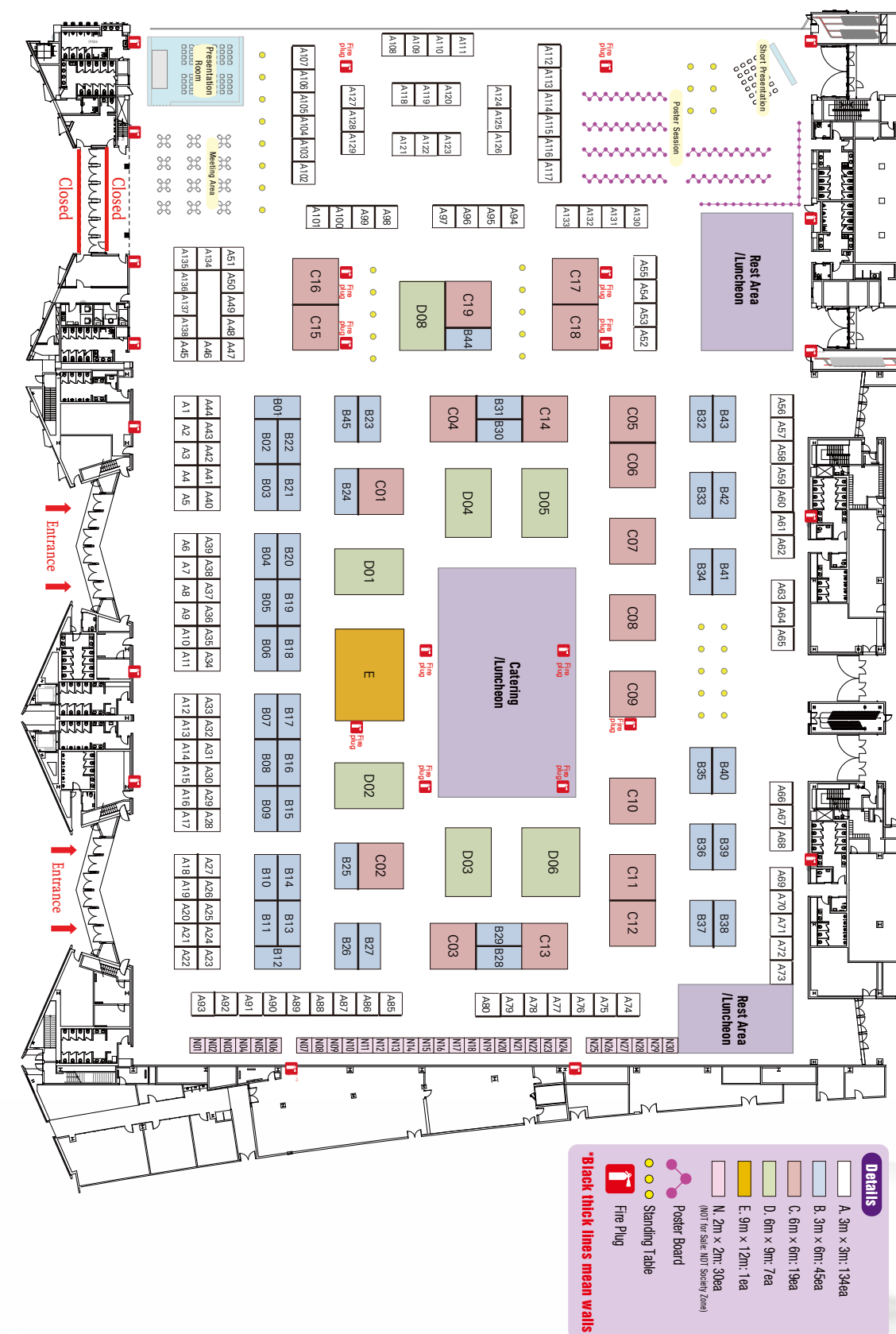
### Songdo Convensia 1<sup>st</sup> Floor\_Hall (1+2+3)

Exhibition Hall (1+2+3) is 12,581m<sup>2</sup> and is an optimal exhibition hall with a capacity of 352 booths and columnless facilities.

In addition, poster sessions, lunches, and showcase presentations are all located in the exhibition hall.



## EXHIBITION FLOOR PLAN





## ACCOMMODATION

Incheon offers a wide range of accommodation at different locations and prices. We are glad to announce the list of hotels that have special rates exclusively for the WCNDT participants.

\*Special rates for the 20th WCNDT participants will be released in November 2023.



| No | From Songdo Convensia | Hotel Rating | Hotel                         |
|----|-----------------------|--------------|-------------------------------|
| 1  | 0.1 km (2 min)        | ★★★★★        | Sheraton Grand Incheon Hotel  |
| 2  | 0.1 km (2 min)        | ★★★★★        | Oakwood Premier Incheon       |
| 3  | 1.2 km (19 min)       | ★★★★★        | Gyeongwonjae Ambassador Hotel |
| 4  | 0.9 km (14 min)       | ★★★★         | Orakai Songdo Park Hotel      |
| 5  | 1.1 km (17 min)       | ★★★★         | The Central Park Hotel Songdo |
| 6  | 1.2 km (19 min)       | ★★★★         | Bridge Hotel Incheon Songdo   |
| 7  | 1.7 km (30 min)       | ★★★          | Holiday Inn Incheon Songdo    |

\*Time refers to the travel time by walk from the hotel to the main entrance of the exhibition hall.

## HOST CITY: INCHEON

### Incheon, Hub of Tradition and Technology



Incheon is a model of commercial port city in South Korea. There is a very modern and large international airport, making it a hub for transportation. Also there is a lively degree of exchange and cooperation with most Chinese cities.



The Incheon Landing Operation Memorial Hall and Chinatown are located, so it is a historically meaningful area. Recently, it has been designated as an international trade city and has been rapidly developing and growing scientifically and technologically.

We recommend you to see historic attractions during the day and the night view of Incheon Bridge. Incheon will be a special place where you can feel the different atmosphere of classical and modern times at once.

## TOURIST ATTRACTIONS

To make your stay in Korea more enjoyable and memorable, 20<sup>th</sup> WCNDT Organizing Committee is pleased to introduce you to the following tourist attractions in which you and your companions can join to have fun together.

\*The introduction of tour program is for your information only. It is up to individual participants to make reservations for the tour.

### Incheon & Near Songdo Convensia



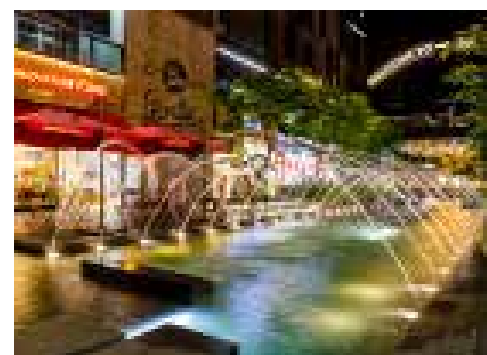
#### Songdo Central Park

**Address :** 160, Convensia-daero, Yeonsu-gu, Incheon

**Time :** All day

**Website :** <https://english.visitkorea.or.kr/enu/ATR/mapInformation.kto>

Located between the skyscrapers of Songdo, Songdo Central Park is a Korea's first seawater park. As a Songdo's representative tourist attraction, it enables visitors to enjoy a water taxi, water sports experience and cycling. At night, you can enjoy the wonderful night view of Songdo International City surrounded by skyscrapers.



## NC Cube Canal Walk

**Address :** 87, Art Center-daero, Yeonsu-gu, Incheon

**Time :** 10:30-22:00

**Website :** <https://eng-itour.incheon.go.kr>

Delicious food, colorful sights, and satisfying shopping are indispensable pleasures of travelling. Canal Walk is a premium outlet shopping mall in Songdo, a designed shopping place divided into themes of the four seasons along the artificial waterway.



## Wolmido Island

**Address :** 36, Wolmimunhwa-ro, Jung-gu, Incheon

**Time :** 10:00-21:00 (Weekdays) / 10:00-23:00 (Weekends)

**Website :** <https://wolmi-do.co.kr>

Wolmido Island was transformed into a resort back in 1920s, a very popular destination at the time. Wolmi Culture Street opened in July 1989 and rapidly rose to become one of Incheon's most representative tourist attractions enabling visitors to enjoy the sea, sunset, theme parks, cruises and musical fountains.



## Chamseongdan Altar

**Address :** Heungwang-ri, Ganghwa-gun, Incheon

**Time :** All day

**Website :** <https://english.visitkorea.or.kr/enu/ATR/mapInformation.kto>

Chamseongdan Altar is where Dangun (the founder of Korea) is said to have offered sacrifices to the heavens. The path leading up to the altar has an especially spectacular view of the mountain and the sea, and from the summit, you will have a clear view of entire Gyeonggi area at a glance.



## Seokmodo Island

**Address :** Samsannam-ro, Samsan-myeon, Ganghwa-gun, Incheon

**Time :** All day

**Website :** <https://english.visitkorea.or.kr/enu/ATR/mapInformation.kto>

Seokmodo Island is where the citizens of Seoul metropolitan area frequently visit to enjoy the mineral hot spring with a famous open-air bath overlooking the sea and a natural recreational forest. Minmeoru Beach, Bomunsa Temple, and the driving courses are especially famous.

## Seoul & Its Vicinity



## Cheong Wa Dae Tour

**Address :** 1, Cheongwadae-ro, Jongno-gu, Seoul

**Time :** 09:00-18:00 (Closed on Tuesdays)

**Website :** [www.opencheongwadae.kr](http://www.opencheongwadae.kr)

Cheong Wa Dae, also known as the Blue House in English, is a public park that formerly served as the executive office and official residence of the president of South Korea from 1948 to 2022. It is located in the Jongno district of the South Korean capital Seoul.



## Gyeongbokgung Palace

**Address :** 531, Bongeunsa-ro, Gangnam-gu, Seoul

**Time :** 09:00-18:00

**Website :** [http://www.royalpalace.go.kr:8080/html/eng\\_gbg/main/main.jsp](http://www.royalpalace.go.kr:8080/html/eng_gbg/main/main.jsp)

Gyeongbokgung Palace was the first and largest of the royal palaces built during the Joseon Dynasty. Visitors to Gyeongbokgung can also visit the National Palace Museum of Korea and the National Folk Museum of Korea as they are located on the palace grounds.



## Bukchon Hanok Village

**Address :** 37, Gyeongdong-gil, Jongno-gu, Seoul

**Time :** 10:00-18:00 (Wed & Sat : 10:00-21:00)

**Website :** <https://hanok.seoul.go.kr/front/eng/index.do>

Bukchon Hanok Village reflects 600 years of Seoul's history. There are also art galleries, traditional workshops, and restaurants that have been built out from from hanok, making these spaces both traditional and unique.



## Bongeunsa Temple

**Address :** 531, Bongeunsa-ro, Gangnam-gu, Seoul

**Time :** 05:00-22:00

**Website :** <http://www.bongeunsa.org/>

Bongeunsa is a Buddhist temple founded in 794 during the Silla period. The temple has more than 1,000 years of history and has many interesting historic and cultural features, including woodblock carvings of the Avatamsaka Sutra (Flower Garland Sutra).



## Namsan Seoul Tower

**Address :** 105, Namsangongwon-gil, Yongsan-gu, Seoul  
**Time :** 12:00-22:00 (Weekdays) / 11:00-22:00 (Weekends)  
**Website :** <https://www.seoutower.co.kr/en/>

Namsan Seoul Tower was the first multipurpose tower to be established in Korea, effectively incorporating a sightseeing observatory to a broadcasting tower. The tower's observatory offers an unobstructed view of the whole city. Another highlight of the tower is the Namsan Cable Car.



## Cheonggyecheon Stream

**Address :** 37, Mugyo-ro, Jongno-gu, Seoul  
**Time :** All day  
**Website :** <https://www.sisul.or.kr/global/main/en>

Cheonggyecheon Stream is an 11 km-long stream that runs through downtown Seoul. Created as part of an urban renewal project, Cheonggyecheon Stream is a restoration of the stream that was once there during the Joseon Dynasty (1392-1910).



## Lotte World Tower SEOUL SKY

**Address :** 300, Olympic-ro, Songpa-gu, Seoul  
**Time :** 10:30-22:00 (Fri & Sat : 10:30-23:00)  
**Website :** <https://www.lwt.co.kr/en/main/main.do>

SEOUL SKY is located on floors 117-123 of Lotte World Tower, the nation's tallest and the world's fifth tallest building. The observatory offers a panoramic view of Seoul, beautiful both day and night. The Sky Deck, located at 478 meters, holds the Guinness World Record as the highest glass-floored observatory in the world.



## The National Museum of Korea

**Address :** 137, Seobinggo-ro, Yongsan-gu, Seoul  
**Time :** 10:00-18:00 (Wed & Sat : 10:00-21:00)  
**Website :** <https://www.museum.go.kr/site/eng/home>

The National Museum of Korea houses a vast collection of over 420,000 artifacts from ancient times to the modern era in a wide range of topics, including art and culture. The museum houses a Children's Museum, where visitors can learn more about the nation's history through educational programs and experiences.



## Hongdae

**Address :** 160, Yanghwa-ro, Mapo-gu, Seoul  
**Time :** All day  
**Website :** [https://english.visitseoul.net/tours/Nighttime-Adventures-in-Seoul\\_/32](https://english.visitseoul.net/tours/Nighttime-Adventures-in-Seoul_/32)

Hongdae is a neighborhood known for its youthful ambience, with shops selling everything from clothing and cosmetics to living goods and books, as well as unique cafés and restaurants. The streets are also filled with buskers and dance performances, making a walk here quite entertaining.



## Korean Folk Village

**Address :** 90 Minsokchon-ro, Giheung-gu, Yongin-si, Gyeonggi-do  
**Time :** 10:00-19:00  
**Website :** <https://www.koreanfolk.co.kr/multi/english/>

Korean Folk Village introduces traditional culture from the late Joseon period to both local and international visitors through cultural classes experience, shaman faith, seasonal customs and others. It recreated the past through the restoration of houses from the Joseon dynasty.



## DMZ Tour

**Address :** Je3ttanggul-ro, Paju-si, Gyeonggi-do  
**Time :** 09:00-15:00 (Closed on every Monday, Holiday)  
**Website :** <https://www.dmz.go.kr/english/>

A visit to DMZ offers a unique glimpse into the complex history and politics of Korea, and is a must-see destination for anyone interested in international relations. Visitors can also explore the underground tunnels dug by North Korea in an attempt to infiltrate South Korea, and witness the abandoned villages that remain frozen in time since the war.



## SPONSORSHIP

We are ready to provide you with professional assistance in the implementation of your sponsorship concepts and advertising strategy to make the best use of the world's biggest NDT event.

We would be pleased to show you the different and effective ways of sponsoring at the 20<sup>th</sup> WCNDT upon your inquiry via email or a virtual meeting.

### EXCLUSIVE SPONSOR



### GOLD SPONSOR

100,000

Gala Dinner 10 passes & Other Evening Event 10 passes  
Welcome Reception 10 passes  
Exhibition Visit 20 day passes  
One Room for presentation or discussions & More benefits

### SILVER SPONSOR

50,000

Gala Dinner 5 passes & Other Evening Event 5 passes  
Welcome Reception 5 passes  
Exhibition Visit 15 day passes & More benefits

### BRONZE SPONSOR

10,000

Exhibition Visit 10 day passes & More benefits

\*All fees will be charged in USD.

### Contact Us

The Korean Society for Nondestructive Testing

- KOFST Center Suite 903, 22 Teheran-ro 7-gil, Gangnam-gu, Seoul 06130, Korea
- Tel: +82-2-6257-7568
- Fax: +82-2-582-2743
- Email: [secretariat@20thwcndt.com](mailto:secretariat@20thwcndt.com)
- Website: [www.20thwcndt.com](http://www.20thwcndt.com)



## Inspection and Measurement Solutions

Evident designs and manufactures a range of innovative NDT products and solutions developed with a commitment to technology, design, and user friendliness.

We partner with our industrial customers to help them solve complex inspection challenges using our wide variety of technologies. Our products are used in a broad range of applications in markets including:

- aerospace
- chemical
- manufacturing
- power generation
- transportation
- mining
- oil & gas
- welding
- recycling

Our commitment to designing quality products is directly linked to our customers' responsibility to ensure safety, quality and reliability by complying with the highest industry standards and regulations, to help people lead safe and productive lives.





[www.20thwcndt.com](http://www.20thwcndt.com)

## The Korean Society for Nondestructive Testing

KOFST Center Suite 903, 22 Teheran-ro 7-gil, Gangnam-gu, Seoul 06130, Korea

Tel: +82-70-4421-7369, Fax: +82-2-582-2743

For general inquiry, please e-mail to  
[secretariat@20thwcndt.com](mailto:secretariat@20thwcndt.com)

For conference inquiry, please e-mail to  
[conference@20thwcndt.com](mailto:conference@20thwcndt.com)

For exhibition, please e-mail to  
[exhibition@20thwcndt.com](mailto:exhibition@20thwcndt.com)

For registration, please e-mail to  
[registration@20thwcndt.com](mailto:registration@20thwcndt.com)

### Exclusive Sponsor



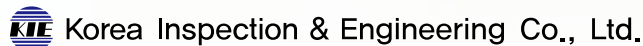
### Silver Sponsor



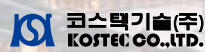
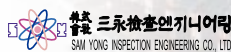
### Bronze Sponsors



Seeing beyond



### Supporting Companies



### Supporting Organizations



Ministry of Science and ICT



Incheon  
Metropolitan City