2021 Vol.24 No.1

Greetings from the Inauguration of the Chair and Announcement of the Next National Conference

DOWAS Chair OTSUKA Koji ··· 1

Notice of the 25th DOWAS National Conference "DOW 2021 Conference"

DOWAS National Conference Research Presentation Planning Committee Chair

SHIMIZU Katsunori ··· 2

Report: FY2021 1st DOWAS Board of Director's Meeting DOWAS Secretariat Representative ARIMA Hirofumi ···5





Greetings from the Inauguration of the Chair and Announcement of Next National Conference

DOWAS Chair OTSUKA Koji

Although it has been some time since I took office as chair, I would like to say a few words and inform you of the upcoming national convention. At the FY2020 General Assembly, I was appointed as the 3rd Chair of DOWAS. Although I cannot do the same fantastic job as the first Chair Professor SAKOU Toshitsugu and Second Chair Professor TAKAHASHI Masayuki, I hope to contribute my individuality in the development of DOW utilization, so I look forward to the opportunity.

Now, with the change of the US administration, the movement of climate change countermeasures has accelerated around the world. In order to achieve carbon neutrality in 2050, it is necessary to grow renewable energy to a level that supports industries. On the other hand, with the COVID-19 pandemic, people's consciousness of health has improved. Due to the high mortality rate of people with obesity, lack of exercise, and chronic illness, interest in maintaining daily health is increasing. Ocean Thermal Energy Conversion (OTEC) is a renewable energy capable of large-scale and stable power generation. Deep Ocean Water is also a renewable resource that can produce a variety of health-related facilities and products. Current climate change movements and improved health consciousness increase the value of DOW resources. I would like to take this opportunity to widely disseminate the resource value of DOW both domestically and internationally and contribute to the construction of a sustainable society as much as possible.

It goes without saying that the greatest opportunity of the Society to make such a statement is the national convention. Until now, we have held national conventions centered on various DOW intake areas including Taiwan and South Korea, and while last year we originally planned to hold it in Sado City, Niigata Prefecture, due to the pandemic we held it online for the first time. Furthermore, this year as well was difficult to decide, but as it is still impossible to hold an in-person event, we will hold it online for the second consecutive year. I strongly hope to hold it in Sado next year. After that, there were requests to hold the national convention and we will proceed with preparations with Muroto City, Kochi Prefecture as the host city for 2023, and Nyuzen Town, Toyama Prefecture for 2024. I sincerely hope that the COVID-19 pandemic will be resolved as soon as possible and that we will be able to have in-person discussions again.

DOWAS News 2021 Vol.24 No.1/ "Greetings from the Inauguration of the Chair and Announcement of the Next National Conference"

– DOWAS Chair OTSUKA Koji –



Notice of the 25th DOWAS National Conference "Deep Ocean Water 2021 Conference"

DOWAS National Conference Research Presentation Planning Committee Chair
SHIMIZU Katsunori

The 25th annual DOWAS National Conference will be held using a web conferencing system as in the previous year in order to prevent the spread of COVID19. Therefore, please participate from the personal computer owned by each member when viewing. In addition, we will inform you of the access code and password in advance, so please use the participation application form on the DOWAS homepage (http://www.dowas.net) as before.

1. Date: Wednesday, October 27, 2021

AM Group 10:00~12:00 PM Group 13:30~15:00 15:30~17:00

※Please note that oral presentations will be as follows: Presentation: 12 min. each / Q&A: 3 min.

*Changes are expected in the program content and time. Details will be posted on the DOWAS website as they occur.

- 2. Participation Fee: Free
- 3. Participation and Research Presentation Application Method:

Participants and research presenters at the conference should apply using the participation application form on the DOWAS website. Please note the following precautions before applying.

Participation Application: Those who wish to participate, regardless of if they wish to present their research, should fill in the items in the "[1] 2021 Conference Participation Application" column of the Participation Application form.

Presentation Application: If you wish to make a general research presentation, please fill in the items in "[2] Lecture (Research Presentation) Application" column of the Participation Application.

Deadlines: Participation Application Deadline October 20,2021

Research Presentation Application Deadline August 31, 2021

Presentation Abstract Submission Deadline September 13, 2021 (Final)

<u>Presentation Video Submission Deadline</u> October 20, 2021 (Final)

Presentation Method: Presentation via Web Conferencing System

XAs mentioned above, this year's national Conference will be held using a web conferencing system to prevent the spread of COVID19.

Special Lecture: This is the first attempt this year and we will accept only one project in the form of "lecture +

panel discussion." The maximum time is 30 minutes.

If a moderator, facilitator, etc. are required, the speaker/planner should provide them.

Others : Each lecture will have 15 minutes (12 minutes for presentation, 3 minutes for Q&A)

※The Q&A time will change depending on the number of presentations. Please check the website before the conference begins.

Research presenters should edit the content of the presentation into a video and send it to the committee secretariat/Shimizu via email by the deadline.

In addition, unlike last year, we plan to have a Q&A dialog.

The number of presentations will be limited to about 20. We will accept applications on a first come, first served basis, so please apply early.

Also, please note that only members may present.

Please contact below for details:

Executive Committee Secretariat:

Shimizu Corporation, Engineering Business Headquarters Energy Engineering Division SHIMIZU Katsunori 16-1 Kyobashi, Chuo-ku, Tokyo 104-8370, Japan

Phone +81 3-3561-4327、FAX +81 3-3561-8675 Email katsunori.shimizu@shimz.co.jp

- 4. Research Presentation Abstract Preparation and Submission Procedure (as before)
 - The abstract should be written in either Japanese or English and one A4 page in length.
 - As the submitted abstract will be used as is, please send as easy to read as possible as electronic data (PDF is strictly prohibited). We will perform a simple peer review to correct typographical errors and omissions (see sample).
 - Use A4 size paper vertically and leave a blank/margin of 25mm at the top, bottom, left, and right edges.
 - The order of content is: Title, Presenter Name, and Text as follows.

First Line: Title→Font: MS Gothic 12 point, centered

Second Line: Presenter Name→ Font: MS Mincho 10 point, centered. A "O"mark should be set left of the name. For affiliation, place the company in parenthesis "()" after the name. In case of co-authorship, link with a" · "mark. A second line may be used.

Third Line: Blank line.

Fourth Line: Main text of the abstract.

- Please describe the purpose, method, results etc. including figures and table s in the text (see submission example).
- The submitted manuscript (<u>PDF is strictly prohibited</u>) must arrive by September 15, 2021 and should be sent by email to the executive committee secretariat (Shimizu). (If the email capacity exceeds 2.5MB, we will send a separate, large-capacity attachment, so please let us know by email).
- In the past, there have been cases where posted content conflicts with intellectual property rights. Please make adjustments on the presenter side before posting or making a presentation. Please note that the



conference executive committee secretariat and the academic society secretariat cannot take responsibility.

In particular, this year's conference will utilize a web conferencing system and it is expected the research presentation data will be easily recorded and used. Please consider regarding the handling of patent pending cases and data that conflicts with copyright.

• There will be no poster session this year. Please consider a poster next year.

5. Research Presentation Video Editing Procedure

- · Presentation Duration is 12 minutes.
- The language should be English or Japanese.
- Please refer to the following for editing:
 - First 10 seconds: introduction of presenter or collaborators
 - · Remaining 12 minutes: Research Presentation Content

6. Submitting the Presentation Video File

- The content of the presentation will be watched on the screens owned by each audience member, so please make it easy to see.
- The deadline for submission to the secretariat is October 20,2021. If the capacity exceeds 5MB, a large-capacity attachment (Smooth File) will be sent separately, so please notify the secretariat by email.

7. National User Roundtable

As it will be held online, we are currently considering whether or not to hold this year. We will notify on the website at a later date.

<Conference Secretariat>

25th DOWAS National Conference Executive Committee Secretariat
Shimizu Corporation, Engineering Business Headquarters Energy Engineering Division
Secretariat SHIMIZU Katsunori (Cell: +81 90-4924-3922)

E-mail: katsunori.shimizu@shimz.co.jp

Report: 1st 2021 DOWAS Board of Directors Meeting

DOWAS Secretariat Representative ARIMA Hirofumi

The meeting was held online (Webex Meetings) on Thursday May 24, 2021 from 13:00 to 14:30. Agenda ≪Report on activities in 2020 and consideration of 2021 schedule≫

1. Society Award Judging Committee (Director Ikegami)

Based on Proposal Document 1, reported on the plan for 2021.

- At this year's general meeting, Dr. Otsuka, who won the 2019 society award, and Dr. Takahashi, who won the 2020 Award will give lectures.
- The open call for this year's awards began on April 1st.

2. Research Presentation Planning Committee (Director Shimizu)

Based on Proposal Document 2, explained the 2021 National Conference.

- 2021 will be held online.
- Regarding holding the national conference after 2021, the situation of Sado City, Muroto City, and Nyuzen Town, which had been requested, was explained.
- In FY2022, it will be held in Sado City (if COVID19 influence is reduced), and then if able to be held locally as planned, then it will be held in Muroto City in 2023 and Nyuzen Town in 2024.
- There was an explanation of expiation status of new water pipes in Nyuzen. It is expected to be completed in 2023.
- If FY2022 is postponed due to the influence of COVID19, the event will be postponed another year.
- Furthermore, if postponed a year, the venues will be reconsidered.
- After re-election of the directors next year, it will be handed over to the next person in charge.
- The FY2021 event is scheduled for October, but the schedule will be adjusted in the future.
- The budget for the national conference is 500,000 yen. Participation online will be free due to the donation of this budget from the society.
- [Director Odaka] Confirmed if the website has the schedule for the national convention for the next four years.
- [Director Shimizu] Since there was a proposal from the homepage committee that the information will be posted for two years (2021 and 2022) for the time being it is posted as is.
- [Director Odaka] Posting for two years is understood.
- [Director Otsuka] Confirmed if information about the national convention is included in the newsletter
- [Director Shimizu] There was a request to describe the contents up to the description on the homepage.
- [Director Kono] Confirmed if there was any contact with Muroto City (for the 2023 event).
- [Director Shimizu] The society has made contact under the President's name.
- [Director Odaka] Only the schedule for two years will be posted on the web, but the minutes from this board meeting will be posted separately, which includes the schedule for the next four years, so I would like to consider this.
- [Director Otsuka] As the target audience for the board meeting minutes and website information are different, there is no problem
- [Director Ouchi] The minutes of the Board of Directors will be included in the next issue of "Deep Ocean Water Research."

3. Journal Editorial Committee (Director Ouchi)

Based on Proposal Document 3, the activities of the Journal Editorial Committee last year and this year were explained.

- FY2020 Volume 1 and 2 were published.
- Volume 3 was scheduled to be published at the end of April 2021, but the schedule was moved to May due to manuscript review.
- In FY 2021, Volumes 1,2, and3 will be published as usual.
- The number of articles is decreasing overall. It was requested to actively publish original articles.

4. Homepage Editorial Committee (Director Odaka)

Based on Proposal Document 4, the activities of the homepage editorial committee last year and this year were explained.

- Report on activities in FY2020.
- In FY2021, carry out the same activities as last year.
- [Director Ouchi] Inquired on the current status of the English version of the DOWAS website.
- [Director Odaka] Explained that English versions of articles, newsletters, etc. were published.

5. Newsletter Editorial Committee (Director Imada)

Explained the activities of the newsletter committee this year.

- The inauguration greetings from Chair Otsuka will be posted in June 2021.
- Proposed announcement of October conference.

6. Utilization Promotion Committee (Director Yamada)

- a. Based on Proposal Document 5, there was an explanation of the status of writing review articles on MP.
 - Currently compiling a review article on MP, but we are in the process of editing through exchange of opinions with Director Takahashi.
- b. Based on Proposal Document 5, report on business plan for FY2021.
 - Since the event will be held on the web for FY2021 as well, a poster presentation will be given on "Diverse
 Utilization of DOW."
 - Plan to write a review article on "Diverse Utilization of DOW." Request the cooperation of directors and experts close to the directors as the contents are diverse.
 - [Director Ouchi] Should the articles be submitted to academic journals with regular peer review?
 - [Director Yamada] We would like to publish it with peer review. Also to post as the utilization promotion committee. Since the page limit (10 pages) was exceeded, consult with Director Ouchi about the source of the budget in the event of a page charge.
 - [Director Otsuka] The budget (page charge) must be paid by the Utilization Promotion Committee, and it is necessary to keep a record of the payment for accounting purposes.

7. Japan-Taiwan-Korea Exchange Committee (Directors Takahashi, Director Yasunaga)

Based on Proposal Document 6, the business plan for FY2021 was reported.

- Reported the status of national conventions in Taiwan and South Korea. Information on Korea is not yet available, but Taiwan will hold it online soon.
- At the national convention in Taiwan, President Otsuka from Japan, and the President of the South Korea DOW Society will be invited to give lectures.
- For other information on Taiwan, printed matter will be published by contributions from domestic and foreign DOW researchers. Director Takahashi will coordinate in Japan.
- [Director Ouchi] Requested information of the status of Kiribati (OTEC). (Directors Ikegami and Yasunaga replied).
- [Director Yasunaga] In a lecture by Dr. Kim of South Korea at Saga University, there was a test run off Busan in 2019, and then it was scheduled to move to Kiribati, however it has been postponed due to COVID19. After moving to Kiribati, experiments on land will be conducted.

8. Comprehensive Strategy Review Committee Proposal (Director Ikegami, Director Inoue)

Based on Proposal Document 7, report on the business plan for FY2021 (report by Director Ikegami)

- The application period for research support is scheduled to be earlier.
- Interviews with ministries and agencies cannot be held due to COVID19.
- The Secretary General of the Headquarters for Ocean Policy Cabinet Office will give an online lecture to Ocean Romantics 21.
- There is a budget for introduction and maintenance of intake facilities in Kumejima, Rausu, and Nyuzen. Specific
 information will be available in the future.

9. Industry-Government-Academia Collaboration Promotion Committee (Director Fukami)

- a. Based on Proposal Document 8, reported the change of members of the Industry-Government-Academia Collaboration Promotion Committee.
 - The director of Kochi Prefecture has changed from Director Kawakita to Director Kono, and the director of Okinawa Prefecture has changed from Director Kubo to Director Hatoma.
 - Directors Kona and Hatoma introduced themselves.
- b. Based on Proposal Document 8, explained the business plan for FY2021.
 - Continue to investigate joint research. This year, will expand the scope of joint research such as industry/academia and government/government, etc.
 - Investigate the seeds of research institutes and the need of the private sector.

10.Secretariat (Arima)

- a. Based on Proposal Document 9, reported on membership trends.
 - There has been no change since last year's 3rd Board of Director's Meeting. Reported that the number of members as of May 2021 was 117 individual and 41 group members.
 - The FY2021 General Assembly was introduced via Proposal Document 9-1.
 - The 2021 General Assembly was to be held online on May 24, 2021, from 15:00 to 15:50.
 - The draft of the General Assembly documents were introduced.
 - After the General Assembly, special lectures will be held. Reported that Professor Otsuka, who received the 2019
 Society Award, and Professor Takahashi, who received the 2020 Award will give lectures.
 - Reported the Webex Voting system will be used for voting in the General Assembly.
- b. In addition, a new means of paying membership fees was proposed.
 - Proposed payment of membership fees through PayPal.
 - Merits include payment with credit card and bank account transfer without fees (on the member side). It can also accept payment from overseas.
 - Disadvantage is that a fee will be imposed on the receiving (society secretariat) side.
 - Other methods of operating membership fees were also introduced, but there are many disadvantages when considering fees.
 - [Director Yasunaga] Is it possible to check the balance in PayPal required for accounting audits?
 - [Secretariat] According to PayPal information, the balance, etc. can be checked via a dedicated account page.
 - [Director Odaka] Regarding the handling of deposits if PayPal goes bankrupt, banks have a confirmed deposit protection system, but does PayPal have one?
 - [Secretariat] Since the head office is in Singapore, and handling may differ from Japan, we will investigate and report at a later date.

11. Other Matters

Director Otsuka proposed the society disseminate information through educational content for children

- Ocean Related academic societies have ocean education content. From DOWAS it is necessary to compile specialized children's content on DOW.
- I would like to collect and summarize ideas about the efforts of each water intake area, and in the future, create a team that can shape something like a delivery lesson.
- [Director Fukami] This proposal is important as enlightenment activities are being carried out especially for high school and younger students in other fields. I think DOWAS needs to actively do so as well.
- [Director Shimizu] I think the side using DOW can cooperate in creating an article that can introduce what kind of research and effective use is being planned by local governments and the private sector, so please let us know if needed.
- [Director Ouchi] There is not much talk about the ocean in Japan. I think DOW should also be included in textbooks. It is important for young people to understand DOW.
- [Director Odaka] I think it is better to post the collected information on the web.
- [Director Inoue] It is important for young people to understand the advantages of DOW. All three water intakes with this year's budget are expansions or extensions of existing facilities. In addition, although the response to questionnaires on interest in DOW in remote islands shows a high degree of interest, there has been no progress such as the introduction of intake pipes. Such activities are also important for DOWAS.
- [Director Yamada] The Utilization Promotion Committee is holding a round-table conference for users,

proposed planning DOW prospects for elementary, junior high, and high school students.

- [Director Fukami] Proposed setting up a new committee on education.
- [Director Otsuka] Plan to discuss establishment of a committee and formulation of a team within the Board of Directors. The team membership should not be limited to the Board but also general members that can participate.