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JSPE Magazine Quarterly

The Japan Society of Professional Engineers



Topics

- Attendee's report of PEPCON2022
- Workshop report about regeneration energy in FY2021

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Autumn leaves

Every autumn, the colorful autumn leaves will soothe your heart.
Some of them are heart-shaped.



1. Summary

This year, the conference portion was separated from the NSPE General Assembly (HoD: House of Delegate in June) and was split off from NSPECON and was held with a new name. The fact that the U.S. has steered toward WITH CORONA also provided a tailwind, and it was held on-site for the first time in three years. In addition to the invitation from the NSPE from J SPE, we participated in order to realize more exchanges than before corona. The outline of the plenary session is as follows.

Date: 2022/8/1 ~ 8/3 *From this year, PE Day on 8/3 will be included in this period

Location: Sheraton Downtown Hotel, Philadelphia, Pennsylvania, USA

Participants: 253 (from the participant list on the official app of N SPI)

JSPE Participants: (Chairman) Higashi Nishikubo



Current NSPE president Britt Smith (left)
immediate past president Rick Guera (right)*



Speech by Nishikubo at Closing ceremony*



Order of Engineers Awarding Ceremony



* PE Day

2. Philadelphia City of American Origin

Philadelphia, located in southeastern Pennsylvania, USA, is the state's largest city, located halfway between New York City and Washington, D.C., and is one of North America's most populous global cities, second on the East Coast and sixth most populous in the United States.



Founded in 682 as the first city in human history to guarantee freedom of religion, in 1776 the Founding Fathers of the United States gathered here and unanimously voted on the Declaration of Independence, making it the birthplace of America. Since then, the United States has prospered as one of America's premier ports, agricultural, commercial and industrial cities, leveraging the strengths of the Keystone Corridor connecting the Northeastern, Southern, and Midwestern parts of the continent, the world's largest freshwater port, rich surrounding agricultural areas, highly skilled manufacturing, and extremely high levels of education. Today, the company continues to develop as the second largest healthcare industry in the United States (such as GlaxoSmithKline) and one of the world's leading video imaging technologies and communications services industries (such as Comcast). It is also an academic city with the University of Pennsylvania and the Curtis School of Music.

In 2015, it was also registered as the first World Heritage City in the United States (the entire city is a World Heritage Site). Symbols of the birth of the nation, such as the Liberty Bell and Independence Hall, as well as the many churches built for the first time in the United States by each religion, denomination, and ethnicity, the first bank in the United States, the Mint, public hospitals, medical schools, business schools, art colleges, electronic computers, monuments on the site where Benjamin Franklin used kites to capture electricity, the Masonic Temple of the Mainland, A huge number of national monuments and historical sites, such as the Noguchi Hideyo Statue, are scattered throughout the city.



It will be personal, but in addition to what I visited as a student, it is also a place that can be said to be the birthplace of electricity, and it is a city that I am deeply moved by. From Japan, it is a little difficult that you will need to fly more than 20 hours including transit.

3. Overview of NSPECON 2022

Similar to PECON19 held onsite in Kansas City in 2019, reception the day before, seminar and networking on the 2nd, and finally PE Day It consisted of three days that doubled as an event for the event. The difference with PECON19 is that there is no tour, but instead the meeting ends at 17 o'clock on any day, and from there you can go out to town as free time. The emphasis was on securing time for interaction between the participants.

At the welcome reception, they were reunited with former NSPE presidents Tom Roberts and Samuel Grossman, who had visited Japan in the past. In particular, Mr. Grossman was very grateful for the invitation to the JSPE General Assembly in 2010, and Mr. Uemura (current Auditor) at the time. I received a message asking JSPE stakeholders to convey their message

to me. It is easy to see that JSPE exchanges are being utilized across generations.

A total of 26 seminars, including general sessions including Opening/Closing, were held as follows. For the sake of convenience, the lectures are classified as Education for those with a deep relationship with technology, Leadership for those related to management, and Education and Leadership consist almost 1:1.

Outline of NSPECON 2022 Schedule

Time	8/1	8/2	8/3
8:30	/	Opening session	General session
9:00		Seminar - 1	Seminar – 5
10:15		Seminar - 2	Seminar – 6
11:30			
12:00	Networking brake	Recognition and Installation Luncheon	PE Day Luncheon
14:00		Seminar - 3	Seminar – 7
15:30		Seminar - 4	Closing session
16:00	First time attendee mixer	Order of Engineer ceremony	/
18:00	Welcome reception		



Welcome reception venue atmosphere*



Reunion with Tom Roberts, who have visited Japan in the past*
Classification and Title of Lectures at NSPECON2022

Sessions	Presentation titles
General	<ul style="list-style-type: none"> • Opening keynote session: Implementing the Infrastructure Investment and Jobs Act (IIJA) • Defending the License • Recognition and Installation Lunch • PE Day Luncheon & Panel Discussion: Engineering Challenges of the 21st Century • Closing Keynote Session: Winning the Talent War
Education	<ul style="list-style-type: none"> • The Professional Engineer's Coexistence with Artificial Intelligence and Machine Learning • Civil Engineering & Construction on the Moon • Management Strategies from the Emergency Services... for Professional Engineers • Artificial Intelligence in Critical Infrastructure Systems • Hard Conversations - An Ethics Case Study in the Destructive Power of Conflict Avoidance and the Redemptive Power of Honesty • Escalating Excellence: Implementing a GREAT framework into your QA/QC Program • Reliability and Resilience of Energy Systems under Extreme Weather Events • Pathogen Mitigation Solutions for the Post Pandemic Office • Career Development in Practice, Not Theory • The Diversity of Professional Engineers • Setting and Verifying Corporate Sustainability Goals Across Environmental, Social, and Governance Topics
Governance	<ul style="list-style-type: none"> • Order of the Engineer Ceremony
Leadership	<ul style="list-style-type: none"> • You Want Me to Lead WHO to do WHAT? Lessons from the Frontlines of Engineering Leadership • Opening Door #3: Launching a Forensic Engineering Practice • Roots and Wings - Leadership and Construction Mega Projects - A Fresh Look at the Basics • Lessons Learned on Leading Through Crisis • Arbitration, Litigation, Dispute Avoidance-What Are the Best Steps for Managing My Risk? • Passing Down Institutional Knowledge • The 6 Stages of Any Crisis, Challenge, or Change, the 5 Steps to P.I.V.O.T. for Success, and 7 Leadership Reminders To Lead Through It • Leadership at All Levels • Generation Next: Engaging Multi-Generational Engineers • Three Coaching Skills to Develop Your Leadership Capability

4. General Session Overview

4-1. Opening / PE Day / closing session

The Opening session began with an address from former Chairman Rick Guera and ended with A ward and NSPE Fellow for 2021 In addition to the awards, the 2022-23 Board of Directors was introduced. This year, the conference was split from the NSPE General Assembly, and the 2021 summary was omitted because it was reported at the general meeting.

On 8/3 PE Day (the Wednesday of the 1st week of August), a PE Day ceremony was held, and a panel discussion was held by four people, including former President Rick Guera. We discussed the role that engineers should play in responding to changes in the environment.

In the Closing Session, engineers covering mathematics, economics, and engineering (P. E.) is under Talent War in a state of affairs where not only the engineering industry but also the banking and business communities are competing for talent, and what strategies can be effectively recruited. He also introduced what is necessary to effectively develop one's own career. At the end of Closing, we JSPE, who were not scheduled for the conference, but who had been participating to continue the exchange from afar, were introduced, and NSPE's P. E. I was given the opportunity to express my support for licensing and my gratitude for this

invitation. It was a short speech with a lot of improvisation, but I could clearly see that the NSPE side attaches importance to JSPE.



NSPE 2022-23 Board of Directors*



PE Day Luncheon *



Closing session*

4-2. Order of Engineers

The ceremony was held as usual for the Order of Engineer. Engineer Ring is a steel ring worn on the little finger of the dominant hand and is a ritual of wearing iron, the most familiar symbol of engineering. The details of the award conditions are as follows: Participants from JSPE must be equivalent to a U.S. engineering graduate, and for JSPE participants, basically (1) pass the NCEES academic qualification examination, (2) P. E. There are three patterns that apply: license possession, and (3) not passing the NCEES assessment but having enough work experience to be exempt from the educational qualification requirements in a particular state. JSPE members face significant time and money hurdles to attend the NSPE General Assembly, but we would like as many people as possible to receive the ring. <http://www.order-of-the-engineer.org>

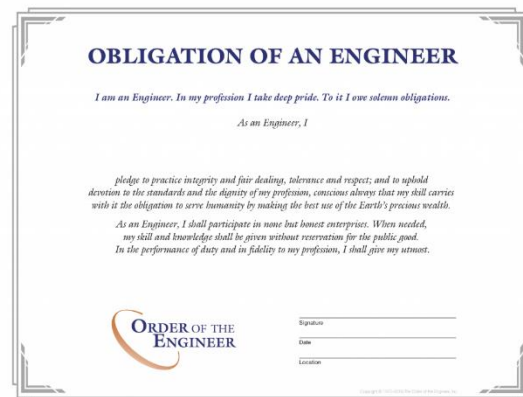
According to the engineering website, the ring ceremony itself can also be held at JSPE. There are many issues, including religious considerations, the timing of holding the meeting (as part of the JSPE Annual General Meeting's member commendation, etc.), and the burden on the director in charge, but I would like to continue to consider it. In addition, Nishikubo himself was awarded the ring at the NSPE Dallas General Assembly in 2016, but it seems that his physique was updated a little along with his six-year career, and the ring at that time was starting to feel tight, and this time, I had it updated to a new ring that is a little bigger.

<Conditions for awarding the Engineer Ring>

- Have graduated in engineering from engineering programs accredited by the Engineering Accreditation Commission of ABET, Inc. (EAC of ABET);
- Seniors in EAC of ABET-accredited engineering programs within one academic year of graduation;
- Graduate Students in EAC of ABET accredited programs, and graduate students enrolled in other engineering programs housed in departments that administer EAC of ABET accredited undergraduate programs;
- Licensed professional engineers;
- Members of the Canadian Calling by reciprocity;

Obligation of an Engineer><

I am an Engineer. In my profession I take deep pride. To it I owe solemn obligations. As an Engineer, I pledge to practice integrity and fair dealing, tolerance and respect;



Chanting of the Obligation of an ENgineer by the Grantee*

and to uphold devotion to the standards and the dignity of my profession, conscious always that my skill carries with it the obligation to serve humanity by making the best use of the Earth's precious wealth. As an Engineer, I shall participate in none but honest enterprises. When needed, my skill and knowledge shall be given without reservation for the public good. In the performance of duty and in fidelity to my profession, I shall give my utmost.

5. Short Meeting with NSPE

In between conferences on August 1, Mr. Britt Smith, President of NSPE, Mr. Monica Schulz, CurrentC EO, Former chairman Mr. Rick Guera and Mr. Nishikubo held a short meeting to discuss why Japan engineers are trying to obtain a P E license and what the hurdles are in doing so. We had a discussion.

In the United States, a license is required to claim to be an engineer or to engage in engineering work, except in the case of an industrial exception. Since license = job, even if it costs money to acquire and maintain a license, it can be regarded as a kind of investment. However, in Japan, even if you do not have a public license such as an engineer, you can engage in engineering. So what is the motivation and significance for engineers in Japan to obtain a PE license? The background to this question is that P. E. I think that the desire of NSPE to increase the number of members of NSPE by incorporating engineers from Japan, where the number of potential members is on par with that of one U.S. state, was also behind the desire as NSPE to increase the number of members. With the exception of some JSPE members, who are involved in some U.S. operations, I believe that many JSPE members have a personal identification and self-improvement agenda for the purpose of self-improvement. E. I replied

that I was aiming for a license. Self-proof means that the system is still inadequate if proof as education, knowledge, and experience as an individual, not as a person organized by the company, is Japan. In terms of educational background, the Washington Accord recognizes ABET and JABEE as equivalent. It is only about JABEE, and the majority of other curricula do not have the foundation of international standards in the United States etc. (in fact, even if you graduate from the Japan engineering program, you do not meet the ABET standards and are treated as high school graduates when obtaining licenses). = Some members require long-term work experience.) In terms of knowledge and experience, CPD (Continuous Personal Development) also means that you are progressing in the sense that you are progressing in accordance with the rapidly advancing technology. Possession and maintenance of the required PE license is also an important objective indicator. This means that for many JSPE members, P. E. It can be said that license = proof of self-improvement. In the future, if employment mobility progresses in Japan, P. E. License possession = proof as a high-level engineer who can play an active role globally = preferential treatment in terms of salary, about 250,000 yen for obtaining a license + maintenance cost I think that it will be excellent cost effectiveness even if it is necessary, but at the moment I told you that one of the hurdles is the financial burden that is higher than other domestic qualifications. NSPE as well as Japan P. E. Recognizing that the purpose of obtaining a license is self-improvement, we concluded by continuing to discuss what NSPE can support. The issue of the doubling of the annual membership fee of the NSPE for JSPE members, which former President Kawamura raised at the Alexandria Conference, is also one of the hurdles, and this is also NSPE is also discussing the corona disaster, and we will also have them share their progress.

6. Other Impressions of the Seminar

The following is an overview of the interesting themes of the seminars I attended. Some of the NSPECON themes will be released free of charge to NSPE members as the next year's 15 hr free webinar, so if you're interested, you should definitely consider joining NSPE.

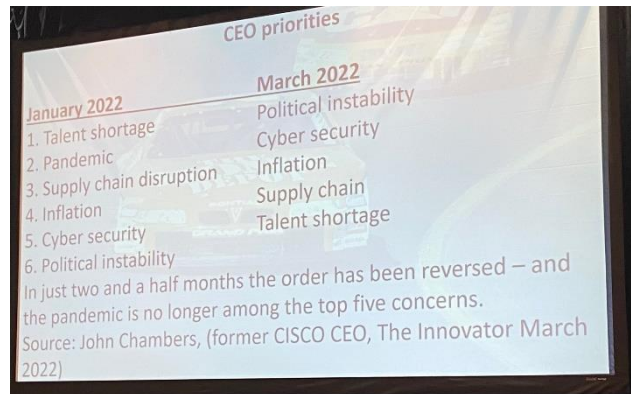
<Artificial Intelligence in Critical Infrastructure Systems>

This time, several themes related to AI were lectured, and this one made me think about it. "If autonomous driving advances and there are no more pilots in airplanes, will you ride?" Are all members who have read this report Yes? Or no? What is the reason for that? In the questionnaire at the venue, almost 100% of the participants were No, and the reason is that they are afraid that there will be no people = pilots when something happens. But even now, the fact is that airplane takeoffs, patrol flights at designated altitudes, and landings are all no longer piloted by autopilots, or pilots. In addition, the collection of data on autonomous driving of cars has revealed that humans make more than 10 times as many mistakes as machines. After communicating these two points, I asked the same question again, and more than half of the participants turned to Yes. This means that human beings have a characteristic of feeling a stronger fear of the unknown, and it is possible to make correct perceptions by presenting objective indicators. In other words, the ability to convey what you do not understand in a way that makes sense is called P. E. I strongly felt that it is one of the skills that are required as such.



<Lessons learned on leading through crisis>

In response to the recent COVID-19 and Russian invasion of Ukraine, he explained that the priorities of the CEO have changed significantly in recent months. Specifically, the social situation and the priority of cybersecurity are soaring, and conversely, the infection situation of COVID-19 is said to be due to the fact that infected people are still occurring in the United States, but the economy is still experiencing the risk of the economy. It is no longer ranked because it is now treated as an element that does not affect it. The Japan is still behind the curve and is swayed by the number of infected people. I felt that the difference between the United States being the first to prepare a vaccine and normalize the economy based on data was becoming clearer.



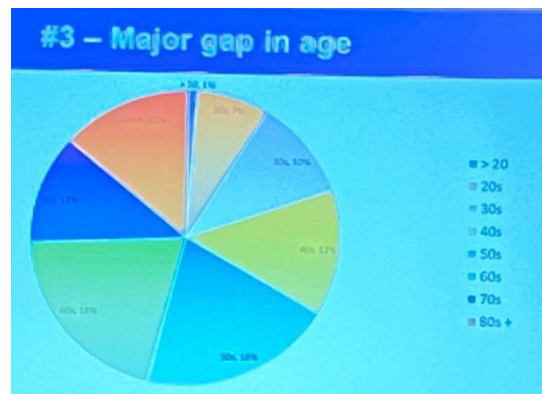
CEO Addresses Priorities

(2022/1) Shortage of talented people, Infectious Diseases, Supply Chains, Infrastructure, Cyber Security, Social Situation

(2022/3) Social conditions, cybersecurity, infrastructure, supply chain, shortage of talented people

<The Diversity of Professional Engineers>

About 2. From the database of 20,000 NSPE members, it is an objective arrangement of the major factors that make up the current NSPE, such as gender, race, age, etc., and the degree of diversity. The result is that white people over the age of 60 and men make up the majority, but when I saw this distribution, I was envious. There are many members who are older than 70 and 80 years old who are still participating in NSPE and are active. At JSPE, the number of members in their late 60s who retire from the company is close to zero, and they are struggling in terms of knowledge transfer, so where is the difference? One is that in the United States, the concept of retirement age itself does not exist in the first place, but since we have received support from the association for many years, I think that even if there is some burden, it does not feel so burdensome to pass it on to the next generation. I strongly felt that JSPE needs to be an organization that people want to remain members even if they retire.



7. Impressions and Lessons Learned

This was the sixth time I participated in NSPECON2022. The purpose of participating in the General Assembly has been to strengthen the network, expand the base of knowledge, and improve one's own motivation, but this time in particular, in addition to being the first JSPE chairman to participate, face-to-face exchanges had been suspended for the past three years due to the corona disaster, so the participation focused on the network. After all, when the three-year period was over, many state representatives were replaced at the end of their terms, and it became necessary to build a new network. While it was a great shame that I was not able to meet with former NSPE presidents Austin, Bearhelen and Aitkin, I am also very pleased to have been able to build a relationship with Mr. Grossman over the course of

more than a decade. I was the only participant from overseas, but I felt that adding my newly constructed network to the network that my predecessors had built and connecting it to the next generation was also one of my important missions as JSPE President.

In addition, I visited Philadelphia City, the host city of this year, as part of a presentation at an academic conference as a student, and this was my second visit in about 15 years. As I walked around the town in my spare time, I could feel something like the breath that the city itself has made great progress over time. The East Coast of the United States is far away, and including transit, it was quite hard with 30 hours for the outbound journey and 20 hours for the return journey, but by controlling the arrival time to some extent, I was able to concentrate on the meeting without jet lag and I think it is my own progress. Yes, it does.

I also felt that it was important not to forget to be playful even when I became an adult.

The photo below is a portion of the Tags affixed to the participant's name tag, but if you look closely, you will see "I'll shake with a picture of a dog holding a hand" and "Oneday, I'll Be your boss", "Big cheese", etc., there are some pretty interesting words. If we are not rigid with conferences and emphasize exchanges, I thought that if we could add this perspective to JSPE, it would be more invigorating.



Since the decision to hold this conference on-site was made just before June, I was the only participant from JSPE. I understand that business coordination is one of the hurdles to

participation because it is held in August before Obon Day, but I would like other directors and members to participate in the meeting and act as JSPE in the future. In that sense, next year's conference will have the same schedule as 8/1 ~ 3, but I heard that Hawaii is rich even though the venue is undecided, so the travel time is relatively It is short and can also be used as a family service, so I hope that the hurdle to participation will be lowered. (Although it seems that hurdles remain in terms of cost due to the high season + yen depreciation).

Although no conclusion has yet been reached on the issue of annual dues for the NSPE, the JSPE has concluded that P. E. For licensed members, joining NSPE is a P. E. It made me think for a moment that it is a necessary expense in the sense of supporting N SPE, which maintains and increases the value of the license itself. There is a separate debate as to whether the amount is reasonable, but P. E. Considering that there is no source or child if the license itself becomes meaningless, P. E. However, I think that participating only in JSPE is a one-sided oversight. In that sense, I feel that the issue of NSPE annual membership fees was a good opportunity.

Lastly, I have received assistance from JSPE for participating in the NSPE General Assembly this time, but it was originally a membership fee of JSPE people, and I would like to take this opportunity to express my deepest gratitude for giving me this opportunity.



* Photographs with * in the text indicate that they were provided by NSPE and Corpora Studios.

1. summary

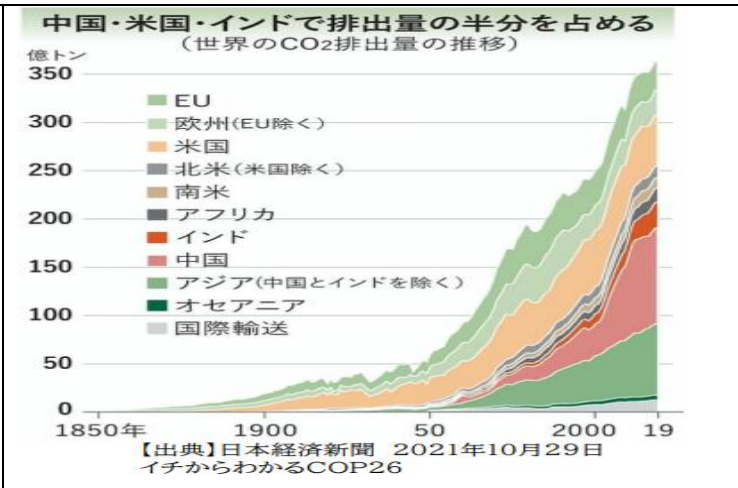
The renewable energy study group began as a new project for the 2021 academic year, and 10 volunteers gathered and held study sessions five times. Unlike regular seminars, the following themes were taught by each of the 10 participants, and interactive discussions were actively exchanged.

date	Event Name	Places	time	participant	Supply PDH
Study Sessions					
2021/9/2	1) Challenges in the Japan Renewable Energy Business ~Focusing on Offshore Wind Power~ 2) How is renewable energy talked about in the media?	Web	2.0	10	20
2021/9/16	1) Renewable energy and ammonia 2) Solar Power and Retail	Web	2.0	9	18
2021/9/30	1) hydraulic power 2) biomass	Web	2.0	9	18
2021/10/14	1) Emissions Trading 2) General Policy	Web	2.0	9	18
2021/10/28	1) Load control of combustion power generation 2) Trends in the Air Conditioning Field	Web	2.0	9	18

After the study session, rather than discussing within a team what themes are appropriate for the report of results and introducing individual technologies, we recognized that a broad perspective is meaningful for engineers, and "International Trends on Climate Change" related to renewable energy, "Finesse" and "Digital Technology" were selected as the three themes. The 10 members will be divided into 3 teams, and once a month, while sharing progress with everyone, they will prepare report materials in about 3 months, 2 March 19, 021 A report meeting on the results was held on the day.

Please refer to the materials of the debriefing session below.

International Trends on Climate Change
https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/JSPE_Magazine_2022Oct_REW_CP26.pdf



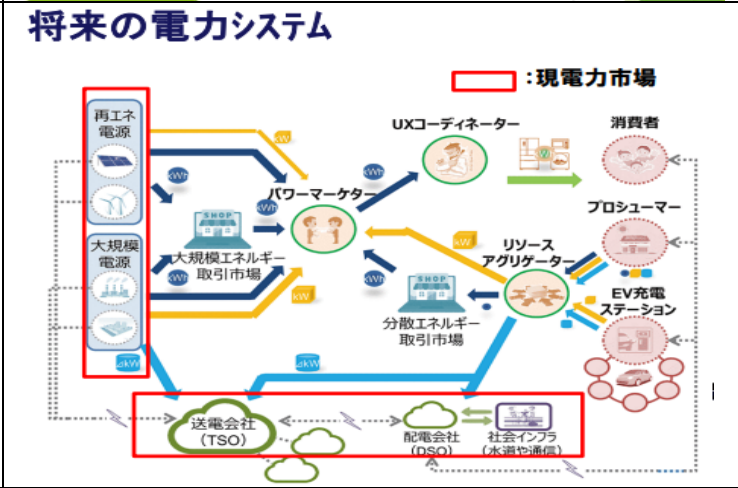
finance
https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/JSPE_Magazine_2022Oct_REW_Finance.pdf

Key Takeaways

企業も個人も自ら判断し、自らとるべき行動を決める

- ファイナンスをテーマに取り上げたのは？
 - 世界の技術の潮流は理念そのものが決めるのではなく、資金の流れ次第と考えた
 - 一方で理念に裏打ちされた技術には資金が集まりやすいと考え、その検証を試みた
 - 結果として想像以上に、グリーン関連投資の流れは加速していた
- ファイナンスの流れから国・企業は何をすべきか？
 - グリーン「名目」の資金調達が加速。企業は再エネ電源の使用をアピールする流れが強まる
 - 国際公約を守るため様々な施策が国から用意されている。企業はうまく活用すべき
 - 日本は近視眼的施策が多く後手を踏みがち。ニッチでも大局観ある方向性を打ち出すべし
- PEとしての個人は何をすべきか？
 - 再エネは既に先端技術ではない。変化の速い時代にキャリアを通じ1分野が先導ではありえない
 - 「グリーンアピール=企業イメージup」はもう古い！時代の流れを自ら判断することが肝要
 - 資金が集まる分野では充実した活動ができる可能性が高いが、何を重視するかは考え次第

Digital Technology
https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/JSPE_Magazine_2022Oct_REW_DX.pdf



2. Results obtained through the results debriefing session

- In regular seminars, there are few opportunities to know what engineers are doing, but by working together for the results report meeting, we were able to deepen exchanges between engineers.
- Even in fields where knowledge was limited so far, and even on themes that would take time to work on alone, we were able to acquire knowledge efficiently by working on them as a team.
- The fact that the study group that started with themes specific to each power source, policy, and technology that we started at the beginning was able to select themes related to renewable energy from a broader perspective for the results report meeting is proof that we have grown as a team.

3. Results of the Questionnaire and Future of the Achievement Report Meeting

- In the future, about 45% of people would like to participate in study sessions other than renewable energy, depending on the theme, so we will continue to hold study sessions in fiscal 2022. For the 2022 study session, please refer to "Contact from JSPE-3: Outline of the 2022 JSPE Study Group" in the second section.
- Regarding the content of the report on the results of the study session, there were opinions such as that the viewpoint of the engineers was good, and that the efforts of the members were evaluated among themselves.
- There was an opinion that the structure of the study session could deepen the exchange of members. As the environment where communication is easily weakened due to the corona disaster continues, I think that the mechanism of study groups itself was highly evaluated.
- Members participating in the Renewable Energy Study Group have been selected for the 2021 Membership Awards, and have received their own comments and personal impressions in the "Contact from JSPE-1: Comments from the 2021 Members' Awards" in this issue. Please refer to the realizations you have made while participating in the study group.

The following members have newly registered as PE or passed the FE/PE exam by September 2022. Congratulations to all of you.

*Fall 2018 issue (Vol. From 43), the text of the experience report is posted on the web.

<https://www.jspe.org/member/magazine/magazine-index/>

* Some browsers may not be able to open the file normally. If you have problems, please reopen the file in a different browser.

(Browsers verified to work: Google Chrome, Microsoft Edge, Internet Explorer)

* The latest examination information and the path to passing and registering are very valuable information, so if you are a member who can provide information, please contact the Public Relations Subcommittee (public.2007@jspe.org).

PE Registration

Membership Number identity	Registered State field	Date of Registration	Testimonials URL
PE-0321 Yusuke Kimoto	Kentucky Mechanical	2022/6	https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/2022_KY_Mechanical.pdf
PE-0322 Yuki Muramatsu	Texas Mechanical	2022/7	https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/2022_TX_Mechanical.pdf
PE-0323 Nobuyuki Narisawa	Kentucky Mechanical	2022/8	https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/2022_KY_Mechanical-2.pdf
PE-0324 Tsuyoshi Enokimura	Texas Civil	2022/8	https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/2022_TX_Civil.pdf

PE Exam

Membership Number identity	field	Exam Date	Testimonials URL
PEN-0229 Shunsuke Teraoka	Civil	2022/6	https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/202206_PE_Civil.pdf

FE Exam

Membership Number Identity	field	Exam Date	Testimonials URL
FE-0428 Yoshio Ogawa	Civil	2022/5	https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/202205_FE.pdf

EIT Registration

Membership Number identity	Registered State	Date of Registration	Testimonials URL
FE-0424 Shinya Takeuchi	Electrical and Computer	2022/7	https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/202207_EIT.pdf

Summer 2022

2022年 夏号

On Ethics: You Be the Judge
A Personal Choice

倫理： あなたが審判
個人の裁量

Does a PE have an obligation to tell an employer about a neurodevelopmental disorder?

PE は神経発達障害で有ることを雇用主に説明する義務はあるか。

Situation

Engineer Miller, a professional engineer licensed in four states, specializes in air pollution control and air emissions permitting and has practiced professional engineering successfully for 25 years for multiple employers. He is on the autism spectrum. Engineer Miller has kept this fact not only from his current employer but also from previous employers.

状況

PE Miller は 4 州の PE ライセンスを保有している。彼は汚染防止及び大気排出の専門家として 25 年間 PE として優秀な成績で活動している。

彼は自閉症である。Miller はこの事実を今の雇用主ばかりで無く、以前の雇用主にも開示していない。

Engineer Miller recently attended an autism support conference. One of the speakers presented on self-advocacy, which encourages autistic individuals to share who they are and what they can do. The speaker noted that a person with his needs to be treated with respect and not as someone with "special needs."

PE Miller は最近、自閉症サポート会議に参加した。発表者の一人は、自分の主張として、自閉症者同士のつながりや、自閉症者が出来ることの勇気付けの発表を行った。

発表者は自閉症者に必要なのは援助ではなく気遣であると、主張した。

Engineer Miller would like to be open about his autism, but because he obtained his employment without disclosing his autism, he is concerned that doing so might place his career in jeopardy. At the least, disclosure could limit his career options if his employer and potential future

PE Miller は彼が自閉症であることを開示したいが、彼が自閉症であることを開示せずに、雇用されているので、開示することで彼の雇用に支障をきたすのではないかと心配している。もし彼の雇用主及び将来の雇用主が偏見を持つか、客との意思の疎通に関して心配する場合、少なくとも、彼の病気の開示は進路に障害となる可能性がある。

employers have biases or concerns about his interactions with clients.

What Do You Think?

What are Engineer Miller's ethical obligations under the circumstances?

What the Board of Ethical Review Said

As the Board of Ethical Review has stated on numerous occasions, the obligation to provide full and complete disclosure to employers or clients is a critical one for professional engineers. The scope of this obligation is sometimes subject to examination depending on the issues involved and other factors.

For example, in BER Case 97-11, a client retained an engineer to perform design services and provide a critical path method schedule for a manufacturing facility. During the rendering of services, the state board of professional engineers contacted the engineer about an ethics complaint filed by a former client. The engineer did not believe that it was necessary to tell the current client about the pending complaint. The current client learned about the complaint engineer that he was upset about not being informed of the allegations. The BER noted that while an engineer clearly has an ethical obligation to act as a faithful agent and trustee for the benefit of a client and to avoid deceptive acts, such obligations would not compel an engineer to disclose that a complaint had been filed with the licensing board. A complaint is a mere allegation and does not amount to a finding

あなたはどうか考えるか？

この状況下で PE Miller の技術者倫理の責務は有るか？

NSPE 倫理審査委員会の見解

倫理審査委員会は数限りなくこのような事例に対して対応している。PE の雇用主もしくは顧客に対し完全無欠の開示の責務は危険である。

この責務の範囲は関係のある問題と他の要因を加味する必要が有る。

例えば BER 97-11 の事例では、設計と製造工場のクリティカルパス計画法を作成する為に顧客が PE を雇用した。

役務の提供段階で、州の PE 委員会が前雇用主の倫理訴状に関して彼にコンタクトして来た。

その PE は係属中の訴状に関して現雇用主に連絡する必要が有るとは考えなかった。

その雇用主は他のグループからその訴状を知り、その PE に対して、雇用主に対して訴状の件を連絡しないことに対して、憤慨している事を伝えた。

その PE が信頼できる代理人としてまた顧客の利益のための受託者として行動するために、そして人を欺く行動を避けるために、明確に倫理的義務をもつ一方、その義務はその PE に、訴状が州のライセンス局に提出されていたことを開示するよう強制するものではない、と倫理審査委員会は指摘した。訴状は単なる申し立てであり事実の認定や判決ではない。

of fact or conclusion of law.

In BER Case 75-5, an engineer was charged with, tried, and convicted of the offense of filing fraudulent income tax returns to the Internal Revenue Service. The newspaper accounts of the case noted that he was an engineer. The BER stated that personal misconduct of the kind indicated in this case is subject to the Code of Ethics and may be dealt with accordingly under the code, in addition to whatever action may be taken by legal authorities.

The Board finds a clear distinction between the earlier BER cases examining the deception issue and the present case. The earlier cases indicate an effort to conceal conduct on the part of the individual or associates relating to the practice of engineering. In contrast, the facts of the present case demonstrate no effort to conceal conduct relating to the practice of engineering. Instead, the facts relate to a personal condition with little if any apparent impact on the individual's ability to successfully practice engineering. Engineer Miller functioned as a professional engineer and had a successful professional career. Nonetheless, Engineer Miller perceived the potential for bias from his employer and clients despite the fact that someone with his diagnosis is protected under the Americans with Disabilities Act. This demonstrates the relevance of the newest addition to the Code of Ethics Section III.1.f.: "Engineers shall treat all persons

BER75-5 の事例では、PE が国税庁に支払うべき所得税の虚偽で起訴され有罪判決を受けた。

新聞はこの事例は PE が関与していたと報道した。

この事例のような個人の不正行為は倫理規範の対象となり、倫理規範にもとづき適切に取り扱われると倫理委員会は考える。

さらにこの問題は法律家に委ねられることになる。

倫理委員会は最初の BER の事例と今回の事例とは明らかに異なると判断する。

最初の BER の事例は個人もしくはエンジニアリング業務に関連した団体に対して事実を隠す活動を行っている。

一方、今回の事例はエンジニアリングの業務に関連する行為の隠蔽工作の意図は見受けられない。

それどころか、彼の優秀なエンジニアリング実績についてもほとんど開示していない。

PE Miller は優秀な実績を持っている PE である。

米国障害者法により、彼の障害は守られているにもかかわらず、PE Miller は彼の雇用者や顧客をからの偏見の可能性を懸念した。

本事例は最新の倫理規範 III.1.f.:に以下の内容が追記された。

with dignity, respect, fairness, and without discrimination.” The essence of this case is more a personal matter than an ethical matter.

Conclusion

Engineer A is certainly free to disclose his autism diagnosis if he so chooses. However, the Code of Ethics does not compel disclosure nor does a failure to disclose somehow constitutes a “deception.”

NSPE Code References

I.5., I.6., and III.1.f.

For more information, see Case No. 19-1.

More You Be the Judge Articles

A Personal Choice (May, 2022)

Eye in the Sky (January, 2022)

Conflicted Loyalties? (October, 2021)

The Ethics of Extending, Receiving Credit (July, 2021)

Elected Officials Make Questionable Decision (April, 2021)

Translate PE0081 H.Kanno

Translation Supervisor PE0010 H.Hirose

PE は品位を高く持ち、法令を遵守し、公正で目つ人を差別しない。

本件の基本は、倫理問題より個人情報に関連する問題である。

結論

もし彼が選択するのであれば、自閉症について開示の要否は自由である

しかし、倫理規範は開示を強要することもなく、開示しなければ詐欺に関連するとも述べていない。

NSPE Code References

I.5., I.6., and III.1.f.

さらなる情報は事例 19-1 を参照。

“あなたが審判の” 参考記事

A Personal Choice (May, 2022)

Eye in the Sky (January, 2022)

Conflicted Loyalties? (October, 2021)

The Ethics of Extending, Receiving Credit (July, 2021)

Elected Officials Make Questionable Decision (April, 2021)

翻訳 PE0081 神野

監訳 : PE0010 廣瀬

<本 NSPE 記事に対する Ethics reviewer のコメント>

今回の事例と、BER Case 97-11 とは違いがあると倫理委員会は述べているが、結論は両方の事例とも開示の責務は無いとの見解であり矛盾がある。Case 97-11 では州の PE 委員会へ申し立てがあり、Client B に対して説明すべきであるとの見解である。一方今回の事例の場合は、説明する必要は無いとの見解であり、BER Case 97-11 とは異なる。今回の事例は、個人情報保護の問題も考慮したのではないか？

Regarding the 2021 Member Awards, the following eight people received the awards for the reasons for the awards: "Sharing the results of the Renewable Energy Study Group" and "Contribution to the CPD Seminar." It was. In this issue, we would like to take this opportunity to share the comments we received from the winners.

<Theme: Sharing the results of the Renewable Energy Study Group>

① Shigeya Furuya (PE-0165, Civil)

Thank you very much for this award. I would be very happy if I could be of any use to you.

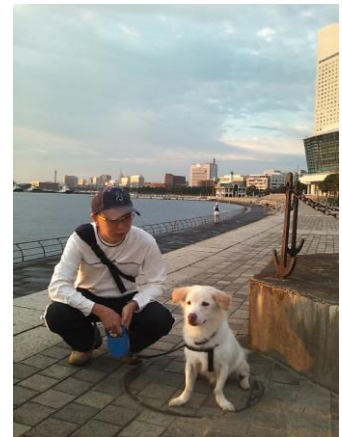
This time, members with different specialties and experiences investigated their respective areas of expertise, shared them with the members, and discussed them, so that the content was refined, and we believe that the presentation was balanced by taking a bird's-eye view of the whole picture.

We encourage all of you to participate in many such study groups. There is a limit to how much you can study alone, and even if it takes a few days to research by yourself, if a member who is familiar with the field asks a question, it may be found out in a few minutes. Also, by coming into contact with opinions that differ from your own, your own thoughts will become more sophisticated. In addition to renewable energy, new study groups will be launched, so please join us with enthusiasm.



② Hidemi Yanagi (PE-0083, Civil)

Thank you for this member recognition. As part 1 of the "Study Group on Renewable Energy," I presented about my own construction experience and trends at the International Hydropower Association's annual international conference, as part of the first part of the "Study Group on Renewable Energy." So far, so good, but then in the second part, it was difficult after we were divided into three teams: COP26, Finance, and DX. I was on the DX team, but there were so many things I didn't know, so I decided to start by studying the words used. Without the support of the other teams, I don't think we would have been able to report on our achievements. What I felt while participating in the study session was the narrowness and shallowness of my own knowledge. It was not news-level information, but I realized that as an engineer, I needed to gather and understand more in-depth information. The off-site meeting was also fun. The stimulation I received from the participants was very good, and I would like to participate again this year.



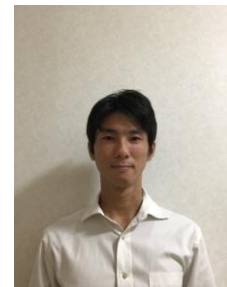
③ Yoshihide Shinkawa (PE-0279, Mechanical)

This time, in the course of holding study sessions on renewable energy, I had no idea that I would receive an award. Thank you very much for hosting the awards. In the first place, the study session on renewable energy was promoted by Mr. Ito as a promoter, and I wanted to make it fruitful as a future engineer, including self-improvement, so I participated in it. More than what I personally researched, there was a lot to be gained from the members who participated in the study session (more than a few times more?). It was a fruitful study session. The reason why I was able to get such joy is thanks to the good members who are happy to participate in study groups. I owe it to my family for their cooperation. I would like to express my sincere gratitude.



④ Yuta Sasaoka (PE-0292, Mechanical)

It is true that I gained knowledge through the study sessions, but I also feel that it is very meaningful that I was able to interact with professionals from different industries, which was my motivation for joining JSPE.



⑤ Manabu Homareda (PE-0268)

It is a great honor to receive such an award. I hope to continue to devote myself to self-improvement and contribute to the activities of JSPE.



⑥ Yu SUZUKI (PE-0145, Electrical)

Thank you very much for the annual recognition. I feel very honored and grateful for that.

I have a P. E. Thanks to my interest in and the acquisition, I have been able to lead a fulfilling career life and have had many wonderful encounters. As a way to repay this favor, I would like to continue to do my best to help everyone who follows in my future enjoy the PE community.

Last year, under the theme of "renewable energy," we learned a lot from knowledgeable people.

I hope that JSPE will continue to develop as an organization where ambitious engineers study and stimulate each other and build a better future.

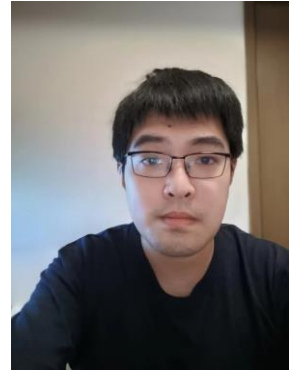
The photo is of my garden. Yuzu is bearing a lot of fruit, and now mini tomatoes and peppers are growing more and more. Manufacturing is good, but growing vegetables is also fun! I'm sorry that my picture is somehow old, but...



⑦ Fan Tianfeng (PN-0203, Mechanical)

Thank you very much for the commendation from JSPE. Through activities such as the Renewable Energy Study Group, I was able to see the industry I work in from various specialized perspectives, so it was a lot of fun.

We are sorry that we have not been able to participate in the activities for personal reasons since March this year, but we are currently concentrating on the operation of computer vision and AI in the industry. As soon as it is ready, I would like to enjoy interacting with everyone again.



<Theme:Contribution to CPD Seminars>

⑧ Masao Ishihama (PE-0305, Mechanical)

On May 8, 2021, I was invited to the Technical CPD Seminar to talk about "Performance Regulation of Automotive Tires and Focus on Technology Development".

In order to solve the current social problems of fuel economy, safety, and noise of automobiles, I have been working on tire research for about 10 years, so I created a presentation material that makes sense as a "summary work" as my own "summary work" I am honored to have the results evaluated. E. We look forward to the success of our members.



(Mr. Suzuki has also received an award for his contribution to the CPD seminar, but we will omit comments.))

This time, from the August issue of NCEES' web magazine "Licensure Exchange", we will introduce topics that are particularly useful for PE and PE examinees in Japan.

[August-2022-LEx-flip.pdf \(ncees.org\)](#)

On August 23~26, NCEES' annual meeting will be held in Carlsbad on the outskirts of San Diego, California. It was done in. The minutes seem to have not been made public as far as I have examined, but it seems that the spotlight was on the fact that they were not financially secure at all, inspired by the temporary decrease in the number of examinees due to the introduction of CBT in exams. In addition, the question of whether the conventional subject framework (mechanical, electrical, chemical, etc.) is suitable for the coming AI era has been raised. Efforts in the United States, a technologically advanced country, are something that we would like to pay close attention to.

JPEC president Mr. Oka who participated in the event said, "It is a high price in the United States, which is a hot topic even in Japan such as 3,000 yen for a cup of ramen, but it seems to be a particularly remarkable situation in California, where this time was held ... For example, as breakfast at a convenience store, a pack of salads, milk, water, sandwiches, etc., what seems to be 6 ~ 700 yen in Japan becomes about 3000 yen ... At the same time as being surprised by the high prices in the United States, I was also concerned about the weakening of the yen and the decline in the national power of Japan." I would like to grasp this fact and devote myself to my studies with an even greater sense of urgency.

Well, this time I will introduce this article.

1. **F. E. New initiatives to encourage students to take the exam** (p p.1, 3 "New initiatives promote F. E. and F. S. exams")
2. **2 Priority Initiatives for 2021-22 that have yielded significant results** (p p.2-3 "2021-22 brings significant progress on priority initiatives")
3. **Commandments against False Statements** (p.6, 9 "Truth or consequences")

1. New Initiative to Encourage FE Exams

NCEES' primary goal in marketing and outreach activities is to encourage **college students to pass the FE exam by graduation. We are promoting that you can differentiate yourself in your job hunting by doing so.** CEO David Cox of NCEES said, "When we talk to students, we often say, 'I don't know if I need it or not, until I get it and I can't get it.' and as part of this effort, we offer digital badges and honor codes.



Digital badges that can be used for SNS,

Digital Badges

It's a new initiative launched in July. F. E. (F. S. well) It is offered to candidates who have passed the exam. **You can display it on your SNS, email signature, or digital resume to show that you're in the process of getting a license.** Anyone who sees the digital badge can click on it to learn more about its importance and the value of the license.

Honor Code

We provide an "honor cord" for students to wear during graduation ceremonies (author's note: I think it is a string-like decoration that can be attached to clothes and the like). We hope to be **able to offer it to all students who pass the exam during the graduation season**, which begins in December.

This kind of initiative is also used in Japan F. E. , P. E. I felt that it would be a hint to increase the number of examinees. I would like to think of a way to make good use of the cool image of the qualification and to appeal the value.

2. 2 Priority initiatives for 2021-22 that have produced significant results

NCEES President Brian Robertson, P.E. from 「He raised his position at the time of his inauguration. **3Big Progress has been made in all of the "big changes"**」 There was a report. **①Thorough spring cleaning.** No need to organize committees and processes And if so It was to be consolidated and abolished. This is Done Right. **②P.S. (Professional Surveyor) Exam format change.** Looking ahead to the completion of the assignment next year, the first research results were presented. **③「engineering · Licensing Model ·**



BRIAN ROBERTSON, P.E.
NCEES PRESIDENT

NCEES Chairman Brian Robertson, P.E., discusses the results of this year's initiative.

task force According to P.E. license of Basic model Modernization and change suggestion. The current model is It has served for the past century, From now on Some find themselves in traditional professions, while others Dealing with technical content that spans multiple fields Some people. task force ☞ Consider a little more to better define the core framework first I plan to continue. **One More Thing (4) Mobility Dalen** (Author's note: Efforts to make it easier to register in multiple states) It is currently well underway and is expected to be completed in 2023.

NCEES' decisive and advanced initiatives

In addition to these, there is an ongoing deregulation movement on the public protections provided by licensed professionals, but they are also being countered or overlapped between professions, e.g. engineering and architecture, landscape. · Various initiatives and examinations have begun, such as researching how to collaborate with architecture, interior design, etc.

In particular, in (3) above, the initiatives are advanced and fast. Times are changing from moment to moment, so I hope that similar initiatives will begin in Japan as soon as possible.

3. Commandments against statements that are contrary to the facts



BOB HERBERT
ALABAMA STATE BOARD OF LICENSURE
FOR PROFESSIONAL ENGINEERS AND
SURVEYORS CHIEF SPECIAL INVESTIGATOR

"If there is any doubt, a thorough investigation will be conducted," said Bob Herbert, chief special investigator at the Alabama State Board.

This is a post by Bob Herbert, Chief Special Investigator of the Alabama State Board. In the past, applications for exams and state registration were submitted on paper and a large number of pages were evaluated by hand. Because there was no field for additional information on the application form, the **applicant sometimes incorrectly answered "no" even though he or she actually had a history of misdemeanor or felony arrest.**

Historical review of all applicants The process is Standardized, Board of Trustees staff Prescribed Process through each applicant and to determine whether the applicant has committed a crime or disciplinary action. And Provided by the applicant substance and is

compared to Doubtful case for a more detailed assessment. The Board of Directors will be forwarded to investigators. Investigators will also contact competent authorities, government agencies, and interview the parties concerned.

Only fill in the truth in the application form

The state board purchased a new database system that went live in October 2021. Currently, the application process is fully automated. **False or false statements, even if unintentional, will automatically result in the rejection of the application for one year.** I am sure that you all remember being asked, "Have you ever been disciplined?" when applying for the entrance examination. Punishments here include drunk or reckless driving, drunken intoxication in public, Acts of discontrol, destruction of warehouses, possession of narcotics or narcotics-related equipment, purchase of alcohol for minors, or giving to minors This includes serving alcohol, violating the place and quantity of hunting and fishing, etc.

Not all disciplinary action or criminal conduct will prevent the applicant from obtaining a license. If you make false entries, the worst case scenario is that a formal investigation will be initiated and the punishment could be heavier. Above all, it is important to fill in the truth. For those of you who will be taking the exam and registering in the state from now on, there are aspects that it is unlikely that you will be able to investigate the criminal history in Japan, but let's never make false entries as part of engineering ethics.

FY2022, the study sessions in the second academic year are held on the following four themes. We are still recruiting members, so if you wish to participate, please send your name, theme you want to participate in, and e-mail address to the Planning Subcommittee (plan.2007@jspe.org) Please contact us.

1) Innovation Management

- Understanding the theoretical system of innovation management
- Analysis of success and failure examples
- Target: Those who want to know the organization and environment in which innovation occurs, and those who want to see the technology from a broad perspective

2) New Energy Areas and Energy Conservation

- Areas not covered in the renewable energy study group in general (CCS, energy conservation, etc.)
- Target: Those who are interested in new energy technologies and energy conservation in Japan and overseas

3) Initiatives by Advanced Companies toward Carbon Neutrality

- TCFD and GX League Latest Trends Survey
- Target: Those who want to grasp the latest cases in a timely manner, those who are interested in the movement of each company in the future of carbon neutrality

4) Renewable energy

- Efficient use of electricity, trends in new electric power, and the role of renewable energy aggregators
- Target: Those who are concerned about the soaring spot price of JEPX, those who are interested in distributed power supply and energy management, those who are interested in home electricity management

As you know, the NSPE annual membership fee continues to double to the previous 150 USD → 299 USD.

This is due to a new membership scheme in which the annual dues of state associations and NSPEs are collectively charged \$299 and the proportion of NSPE and state associations is changed according to the contribution of NSPE support.

* Previously, NSPE annual membership fee of 150 USD + annual membership fee of the state association to which you belonged was paid individually

JSPE members are basically Japan nationals and not affiliated with U.S. state associations, so they did not need to pay the annual membership fees of state associations, but with the switch to the new system, a flat 299 USD is being charged.

JSPE also requested that NSPE reduce its membership fee to see if it could realize an option that does not have the existing state associations, and although it has gained the understanding of some states, it has not yet been realized. We believe that the establishment of a new option to reduce the annual membership fee will require a change in the NSPE membership system itself, so it will take time to realize it.

It is important for JSPE as a whole to gather the latest information on NSPE, which is the main body of the PE system. Therefore, in consideration of reducing the burden on those who are also NSPE members, we will subsidize half of the annual membership fee through an external information collection subsidy system for members who collect NSPE information and report it in the form of magazines and other forms (for details, please refer to the following conditions).

* The purpose of this guide is to subsidize NSPE membership fees, but the "External Information Collection Subsidy System" provides assistance to members who collect and report information that will be useful to JSPE members. Therefore, members who plan to collect information such as exhibitions, lectures, museums, etc. can also apply under the same system. For details, please refer to JSPE Magazine vol. 48.

<https://www.jspe.org/member/wp-content/uploads/sites/2/2019/12/JSPEmagazine2001.pdf>

<Conditions for applying for the NSPE Membership Fee Subsidy System using the External Information Collection Subsidy System>

- Be a JSPE member and NSPE member

Current NSPE members are the main target, but members who join NSPE as a result are also eligible.

- Submit the prescribed form to the JSPE Planning Committee (plan.2007@jspe.org) and obtain approval for the subsidy
- Summarize the results of information collection in a report and submit it to the Planning Committee (published in magazines and on the website)
- The subsidy rate is 50% of NSPE membership fees
- The number of applicants is about 15
- The theme of information gathering is free (see below for the proposed theme presented by JSPE)

- **Application Deadline: 11/27 (Sun)**

- Application Form:

<https://www.jspe.org/member/wp-content/uploads/sites/2/2020/06/JSPE-06-08-Application-of-support-for-gathering-Eng-info.docx>

< Theme Proposal >

* Depending on the content, one theme with multiple people is also possible.

- Introduction of SPE's COVID-19 response
<https://www.nspe.org/resources/coronavirus-covid-19-resources>
 - History and recent trends in the Board of Ethical Review
<https://www.nspe.org/resources/ethics/board-ethical-review>
 - Organize the NSPE Ethics Resource
<https://www.nspe.org/resources/ethics/ethics-resources/other-ethics-resources>
 - Insurance system for PE
<https://www.nspe.org/resources/professional-liability/insurance>
 - NSPE Information Dissemination - NSPE Speaks
<https://www.nspe.org/resources/podcasts>
 - NSPE Information Dissemination - Daily Design (Business News for PE)
<https://www.multibriefs.com/briefs/nspe/>
 - NSPE Information Dissemination _Open Forum in NSPE's Communities
<https://community.nspe.org/home>
 - NSPE webinar introduction-15 free course in 2022
<https://www.nspe.org/membership/member-benefits/fifteen-free-courses>
 - NSPE Update
http://www.magnetmail.net/newsletter/index_nspe.cfm?user_id=NSPE&subid=1676
 - Introduction of NSPE Student Chapter
<https://www.nspe.org/resources/students/student-chapters>
- Threats to Professional Licensure: State Watch
<https://www.nspe.org/resources/issues-and-advocacy/state-watch>
- Organizing information for student members
<https://www.nspe.org/resources/students/student-resources>
 - Introduction of PE day and Global Engineer day
<https://www.nspe.org/resources/professional-engineers-day>
 - Introduction of examples of job placement to PE
<https://careers.nspe.org/jobs/?showMoreOptions=true>
 - Topics in the state in which the PE member himself is registered
PE board HP in each state

JSPE offers various CPD seminars, but since it was only live streamed in the past, I think that there are many members who have given up on participating due to inconvenience. The English language learning seminar started in 2021, but in addition to many requests to watch it because it was not convenient and voices that want to watch it again, we are considering continuing from 2021 academic year. Taking into account preparations for on-demand seminars, we have decided to distribute the following two seminars on a trial basis in an on-demand format. The official start date of the trial is scheduled for early October, and will be announced via member email and seminar contact.

If you have any other themes you would like to see redistributed on demand, or if you have any features you would like to include, please contact the Public Relations Subcommittee. Public.2007@jspe.org

< Seminars scheduled for trial distribution >

- English Learning Seminars

For FY2021: Be an Engineer in Canada

For FY2022: Canadian Famous Engineering Projects

- * Members can watch in free.

- * Includes quiz after viewing the video

- * CPD is not issued because it is under trial, but we are preparing to be able to respond in the production environment.

Learn from Industry Experts

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam maximus tortor at diam gravida posuere. Curabitur et malesuada mi.

View All Courses

Actionable Training

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English seminar FY2022

English seminar about shaping up your skills by discussing the famous Canadian Topics

Participants: (Web viewing) 2 people (On site) 6 people
(8 P.E., including lecturer)

A renewable energy study session was held on June 25, 2022.

In this study session, Baba P.E., who is stationed in Germany, reported on his participation in Hannover Messe and gave a lecture about global warming countermeasures in Europe.

Lead theme of Hannover Messe 2022 was "Industrial Transformation Focuses on Digitalization and Decarbonization". While exhibits on energy-saving solutions and carbon emissions by each company and an introduction of projects to tackle carbon emissions jointly by industry, government, and academia were introduced, examples of data ecosystem competing for supremacy to realize carbon emissions data trading, etc. were introduced.

In Europe, environmentally-friendly technologies are regarded as a business opportunity, and it has already started with rule-making, and lively questions were exchanged with Baba P.E., who is engaged in the business as a rule-maker, such as why international standards are important and the significance of participating as a side that creates international standards.

This time, with the kindness of the Baba P.E., we decided to share the materials of the participation report meeting with the members.

Please refer to the link below (Japanese version only).

https://www.jspe.org/member/wp-content/uploads/sites/2/2022/09/JSPE-Magazine_2022Oct_HM22_PCF.pdf



What we can see through NSPE's activities

PE-0002 Kazuo Takemasa

1. Introduction

In this series, which considers the causes of the decline of Japan society, which has been taken up by the mass media and surfaced even in today's Japan society, based on information obtained from the activities of the American Society of Engineers, we will consider "social change" this time.

Many people are paying attention to Russia's invasion of Ukraine. This war is understood in the context of a confrontation between democratic states and despotist states (or liberal versus conservative fundamentalism). However, the world has already become internationalized, and it is no longer possible for each country to be able to establish itself in terms of industrial materials and energy. Therefore, it is necessary to consider the role and contribution of Japan society in the international community.

The invasion of Ukraine has caused a shortage of energy such as natural gas in Japan society, a delay in the production of industrial materials such as semiconductors, and a shortage of food such as wheat. As a result, U.S. inflation led to a surge in interest rates from rising prices. On the other hand, the fiscal situation of Japan is that the debts of the national and local governments have already accumulated to astronomical figures, and the measures implemented by advanced countries to raise interest rates to contain inflation are Japan. There is a danger of national bankruptcy due to the rise in interest on national finances, and interest rates cannot be raised.

In response to the decline in national power, the earning power of Japan, which has scarce resources, is still considered to be the power of the manufacturing industry, scientific exploration, and technological development power of Japan. However, the decline in its power is remarkable. The cause is as follows.

- 1) The third arrow in the "Three Arrows" of the conservative government's economic policy at the turn of the century, the strengthening of industrial strength, and the strengthening of the infrastructure equipment industry as a pillar of Japan industry, specifically, infrastructure exports such as the construction of nuclear power plants and equipment exports, and the export of coal-fired power plants and the Shinkansen (bullet train). This was often derailed by high costs and environmental issues.
- 2) In the information and communications industries such as mobile phones, semiconductor businesses, personal computers, and video equipment, there were no suitable people who could promote them who could adapt to the current Japan society. As a result, it lost the competition with neighboring countries, and now even reconstruction is in danger.
- 3) In the automobile industry, which is positioned at the center of the Japan industry, there are concerns about the commoditization of products due to the shift to electric vehicles.

Apparently, one of the main causes of the decline of Japan society is that it is neglecting the science and technology of the Japan it has built up by the year 2000 (technological capabilities are also one of the national resources) and eating up assets built up in the past. In addition, it has become clear that the science and technology system as a country that Japan has built up since the past Showa era is no longer viable to global competition.

In the information and communication society and AI technology society, the conventional Japan bureaucracy mechanism itself is no longer valid.

In a politically driven science and technology planning system, a group of amateur scholars of science and technology who claim to be consulted experts can avoid real problems with aloofness, and the council compiles irrelevant reports.

Unfortunately, there are now no talented people who worked on industrial policy to rebuild the country after the war. The most serious situation is that there is no one among the Japan politicians (ruling and opposition parties) the Bank of Japan. The decline in scientific and technological capabilities at the national level and the consequent decline in industrial power have occurred on several occasions in the United States. And each time it succeeds in regeneration. I would like to explore how it has been regenerated while searching based on NSPE's information materials this time.

2. Value is not born better than the exploitation of labour

In this century, with the "intellectual value revolution," "information society," and "DX revolution," Japan companies have been called upon to transform their businesses from labor-intensive industries. Undoubtedly, the transformation of social information methods that have expanded from the Internet is now changing the lifestyles and intervening mechanisms of people around the world.

Therefore, as the majority of the 20th century consumers are corporate workers, the style advocated by Marx in which they receive paid salaries by selling personal time to companies can no longer be maintained, and there is a growing possibility that it will collapse.

In Japan society, labor unions by company are still the main entity, and social systems have not separated from work patterns based on working hours. It is at the root of the company itself, and it is a mechanism that makes it impossible to reform the company.

As an interim solution, young people with low wages are continuing to work in a low-cost working environment mainly in Southeast Asia. And that slight rise is being repelled as a corporate profit. This is due to the fact that the old Japan-type corporate form has not yet been reformed. This is because the original form of this form is found in the offices of Kasumigaseki and the municipalities of the Savings Act.

Already, the United States and other developed countries have found that the "value" of society is not something that is created from working hours. We have promoted reforms in the social, corporate, and educational systems. The basis of this theory is the theory advocated by the Austrian economist Schumpeter in the second half of the 20th century, "The source of value is innovation." This proposal was well suited to the general society towards the information society that followed, and together with the progress of information and communication technology, it became the basis of value creation systems in developed countries. Especially in Europe and the United States, many new distribution and service companies were created from here.

The circumstances of this transition are described in detail in the book "The Universe of Economics" by Katsuto Iwai, a former professor at the Faculty of Economics at the University of Tokyo. And the historical course is well explained. The author studied abroad at MIT and Harvard University while a student at the Faculty of Economics at the University of Tokyo, and the fact that the real and social economy that was questioned while studying in Japan at first, such as its "imperfections" and "theoretical construction" regarding capitalist economy, are not developing on the basis of a completed theory. It is said that it was possible to know in the United States by starting to improve the degree of its badness. If that happens, research on economic growth in the real world will also begin, and theories will advance.

In practice, even if you wish to study the theory of social phenomena not only in engineering but also in Japan, not only theories but also actual examples are hidden in a long way, and even if you try to apply the theory, there are many cases where you can not think empirically in light of actual examples. In this book Japan it can be seen that in society, the government, bureaucrats, industry, and universities evaluate social phenomena and make policy decisions in a collective system, but this part is deteriorating, and it is very troublesome even outside the engineering department. It is clear from the footprints of Katsuto Iwai's research that innovation is the driving force behind the industrial development of American society.

The book also notes that the innovations advocated by Schumpeter can be created by transforming work and corporate processes into social forms, rather than being created by working hours as capitalism matures. Therefore, innovation is a fundamental reform of the old ways.

Why hasn't Japan society stopped declining? In the question, the government-bureaucrat-industry association- This is because the convoy-based social management of academic societies has become a system that does not generate any added value in an internationalized society. From university and other old-fashioned elementary school education to the examination system education system, human resources cannot be nurtured. In the industrial world, the management cannot be changed due to the side-by-side policy of the participating companies. Bureaucrats are completely untouchable about the relocation of ministries and agencies in their self-preservation and self-preservation. Politics has become a place of continued employment for the sons and grandchildren of the second and third generations. In this way, it is clear to everyone that the business of the Japan company will continue to decline. Japan society as a whole seems to be reacting negatively to change.

But innovation itself isn't that hard. In the 1970s and 1980s, small manufacturing workplaces were often part of a group activity. Innovation is the fundamental transformation of existing business forms. In workplace improvement activities, proposals have changed workplace processes and personnel overnight.

In recent years, information issued by NSPE has pointed out that "change management" is in vogue as a management method. There are many articles related to project management. Many domestic companies are also beginning to know that Schumpeter's innovation theory is the source of value-added creation. So, does it mean that you can't do it, but you want to acquire only the knowledge of spearing? The source of this "change management" began in the United States when corporate change management was advocated, adopted, and implemented.

3. The Origins of Change Management

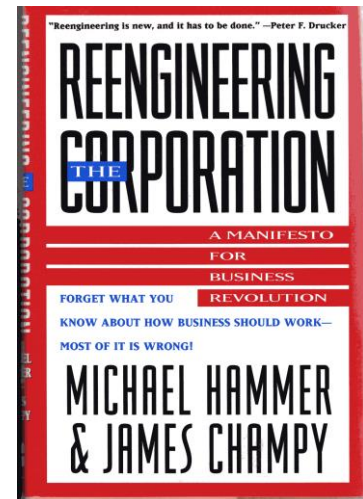
In the 1980s and early 90s, industry in the United States was in turmoil. In particular, the lag in the manufacturing industry was serious, lagging far behind the world standard. Japan manufacturing hastened to transfer manufacturing sites to low-wage China and Southeast Asia. In the U.S. manufacturing industry, in order to relearn from the manufacturing of Japan, they formed a Japan manufacturing tour group and tried to actually relearn it. From there, "black belt", "3σ", "improvement", etc. were adopted as international terms in the field of quality control. There was a completely different movement in the United States. The mass production method of the manufacturing industry, which had been developed from the T-type Ford, became mainstream in the middle-income class that had actually emerged in society and society, and it became impossible to respond to diversifying needs. The tour of the Japan manufacturing industry is simply an extension of the production system of the old system.



In 1993, Michael Hammer and James Champy published a book called Reengineering Corporation. This is largely wrong for most of your idea that "this is how you have to work in business!" Throw it away. With the slogan, he listed and called for specific action items in the "Manifesto for Business Innovation."

It can be said that it is the prescription that is most needed in today's Japan society and companies. This principle has become the "change management" mentioned above, and it is being taken up in today's society.

- 1) Let's take a look at Reengineering Corporation's Table of Contents
- 2) The Crisis That Will Not Go Away
- 3) Reengineering-The path to Change
- 4) Rethinking Business Process
- 5) The New World of Work]
- 6) The Enable Role of Information Technology
- 7) Who will Reengineer ?
- 8) The Hunt for Reengineering Opportunities.
- 9) The Experience of Process Redesign
- 10) Embarking on Reengineering



It is surprisingly described how to approach the current Japan society and the prescription for the deterioration of Japan companies that I have described earlier.

In this book, it is already stated that society actually diversifies customer needs and that "PROCESS Change" that conforms to it is inevitable that business based on the principle of competition is stationary in society. However, the social structure and corporate structure in Japan country have not changed for 1,500 years since the introduction of the rule of law system from China in the Great Treasure Rule Ordinance of 701. There is a minister (Omi) and the Ministry of Finance and others are in charge of taxes and the national budget. In companies, on the other hand, section managers, department managers, etc. hold their seal of approval, and employees sit in the guard's chair to prevent them from doing things that have no precedent on their own accord and follow the process. This social system will work best only in rice planting since the Yayoi period. Speaking of which, the manufacturing sites of automobiles, home appliances, and precision machinery that supported the post-war Japan were similar to this rice planting work. In a short period of time, while workers lined up in a row and the rice fields were filled with water, it was necessary for all the workers to catch their breath and finish the work deftly.

Can we change the work processes of people in this system?

(References)

- 1) Katsuto Iwai and Hiroyuki Maeda The Universe of Economics Japan Economics Publishers 2016
- 2) Michel Hammer & James Champy Reengineering Corporation Harper Bussiness 1993

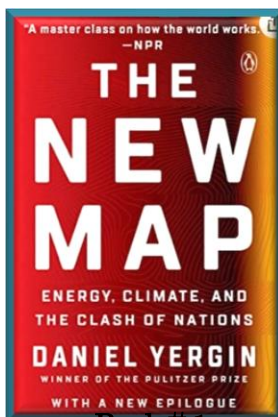
12.1 Books

This is a corner where J SPE members introduce books in fields that are deeply involved. We look forward to your contributions.

[The New Map – Energy, Climate, and the Clash of Nations, Daniel Yergin, 2020 & "This Is How the Brzezinski World Works: A Geopolitical Strategy Game in the 21st Century", Nikkei, 1997](#)

Here are two books: 524-page English (Book #1) written by Daniel Yergin, Vice Chairman of S&P Global, in 2020, and "The World Moves This Way" (Book #3), written by the late Professor Brzezinski in 1997.

The former Japanese translation was published by Toyo Keizai in January 2022 as a 693-page book titled "New World Resource Map". I first learned about the author, Mr. Yergin, when I read the Puritsa Prize-winning Century of Oil volume (Book #2). This book, which depicts the oil industry that emerged in the United States at the end of the 19th century quickly became enormous, swept the whole of human life in the 20th century, and depicted entrepreneurs and dictators from Rockefeller to Hitler fighting for control of oil, and it left a very fresh impression on me about 10 years after participating in the overseas plant business at that time.



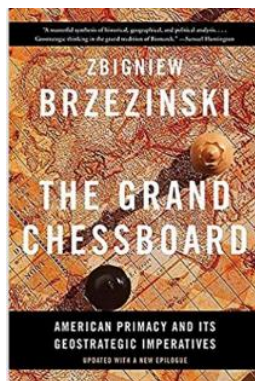
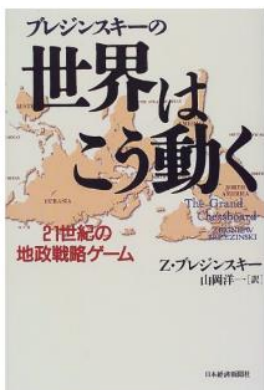
Book # 1



ダニエル・ヤーギン



Book # 2



Book # 3



Brzezinski in 1977

Thirty years have passed since then, and the main theme of the 21st century has become climate change countermeasures, and just when we thought that the future would be the era of renewable energy or decarbonization, the invasion of Ukraine by Russia occurred. The shutdown of natural gas supplies from Russia has thrown Europe into chaos and has led to soaring global energy prices. A situation is now emerging in which we wonder if the 21st century will also return to the "century of oil."

The resource map that Mr. Yagin preaches in his new book consists of Part 1: United States, Part 2: Russia, Part 3: China, Part 4: Middle East, and Part 5: Climate Action, and the history of resource strategy from each player's point of view, so it was easy to read through despite the fact that it was a large book of more than 500 pages. In particular, the U.S. shale Revolution, which I wrote about in Part I, was a major shift that overturned the world's energy problems and was the epicenter of all socio-economic changes. In Part II, Russia, Vladimir Putin's ambition to recover from the collapse of the Soviet Union following the fall of the Berlin Wall will be another theme. Oil prices have been stagnant for a long time since the end of the Cold War in 1990, but since 2000, when Putin appeared in politics, oil prices have risen sharply, so I think this has been a major driving force behind Russia's resurgence. In addition, since 2010, the United States has achieved the world's No. 1 position in both crude oil and natural gas production due to the shale revolution, and has become an exporter of both energies, which gives the U.S. a great deal of freedom in its diplomatic strategy. This is also the effect of being able to impose economic sanctions on energy superpowers such as Iran and Russia.

In the space between the East and West camps during the Cold War following World War II, pro-U.S. or neo-Russian governments were born in many developing countries, and it was often the scene of proxy wars, and the conflict that is currently taking place in Ukraine is exactly like this. From around 2004, as in other Eastern European countries, the pro-democracy movement began to emerge in Ukraine, and the anti-Russian government won elections. For Russia, Ukraine is a breadbasket and a center of the heavy and chemical and space industries, and is an important ally. In addition, when Ukraine, through which 80% of its natural gas pipelines to Europe pass through it, comes into conflict with Russia over natural gas prices and other issues, it is not just a matter of Russia versus its allies, but it is a security issue for Europe as a whole, as evidenced by the fact that natural gas to Europe has already been shut down twice, in 2006 and 2009. Since the conflict between Russia and its allies has been caused by U.S. intelligence activities that have fueled the democratization movement and NATO expansion movement in Ukraine and other Eastern European countries since 2004, it seems that Russia thought that it must exercise strong power at some point. The annexation of Crimea in 2014 was the first phase.

The following is not included in this book, but it is a moment of my own consideration of U.S. diplomacy during this period. The current U.S. President, Biden, has spent most of his long time as a Democratic lawmaker in the diplomatic field, and since he was chairman of the Senate Foreign Relations Committee during the Republican Bush administration from 2001 to 2008, I believe he was deeply involved in NATO Eastern expansion and espionage activities for Ukraine at that time. At the time of the annexation of Crimea in 2014, he was vice president of the Obama administration. And when he became president himself last year, Brinken, whom he elected Secretary of State, is a Ukrainian-born Jewish-American, and the Under Secretary of State is Victoria Nuland, also a Ukrainian Jewish-American. Ms. Nuland's State Department career has been consistent. In the Clinton administration, he was in charge of Russia at the State Department, in the Bush administration he was ambassador to NATO, in the Obama administration he was the assistant secretary for Ukraine, and she is truly a Ukrainian line, and her husband, Dr. Robert Kagan, is a Brookings Institution researcher who is a "neoconservative" who admits to himself and others. Biden and I have probably been close friends for a very long time. After Biden became president, the Russian invasion of Ukraine began, such as President Biden's son was once an executive

of a resources company in Eurasia, and that one of the complaints in President Trump's impeachment trial was related to Ukraine. I can imagine that there was a consistent and deep flow in U.S. policy in Eastern Europe and tensions with Russia.

When I think about the East-West confrontation around here, I am reminded of a book I once read in Brzezinski's "The World Moves This Way" (Book #3). Brzezinski, a Polish-born Jewish-American professor of international politics at Columbia University, was appointed National Security Advisor to Democratic President Carter around 1980 and is considering how to contain Russia on the Eurasian continent in order to stabilize U.S. hegemony since the Cold War. The English title is *The Grand Chessboard*, which talks about a strategy that likens the Eurasian continent to a chessboard. Russia is carrying out the development of natural gas in Eastern Siberia with Chinese funding in parallel with the supply of Western Siberian natural gas to Western Europe, and the eastern and western Ural Mountains. We are promoting development with an eye on both the West and the Far East. Prime Minister Abe also attended the Eastern Economic Forum, which is held every year in Vladivostok, without fail. In addition, since China is also promoting the Belt and Road Policy of Eurasia through the Shanghai Treaty Organization, I feel that both China, China, and Russia are fighting for dispatch from the east to the west of the Eurasian continent with an awareness of the chessboard advocated by Brzezinski. And Mr. Brzezinski's son, Mark Brzezinski, has been elected a member of President Clinton's National Security Council, a diplomatic adviser to President Obama, and President Biden has appointed him ambassador to Poland.

I didn't introduce it this time because of the paper, but the third part of Mr. Yagin's book, *China, and the Middle East*, the fourth part, were also very interesting. Mr. Yagin's new book is a good book that gives us a bird's-eye view of energy issues from the perspective of world history. The Japanese edition of the book was 3,520 yen, but the English Kindle version was only 508 yen. PE, I encourage you to read the original English version.

(The two books introduced here were presented at the Engineers' Salon "Energy Issues and Geopolitics" on September 14, 2022.)

(PE-0025 Masahiko Tsuchiya)

12.2 Engineering close at hand

It is a corner where you can introduce the excitement when you discover engineering in something casual, and how you encounter engineering equipment and methods that make you roar.



One photo at Cinderella Castle at Tokyo Disneyland. Everyone knows glass shoes. I had an image that glass is brittle = breaks, so I decided to take this opportunity to look into it. If you talk to women about their weight, they will get angry, but if it is 50 kg, the compressive stress applied by the weight \ll the yield force born in ordinary glass (about 50 MPa is nearly triple digit larger), so it can withstand the weight. Considering that dancing at a ball = walking, there seems to be a study result that if the height of the heel is 1.3 cm or more, it will crack. However, there seems to be a material called safety glass with a strength of 200 MPa or more, and it seems that it is actually sold as a product from the point that it is okay to dance with the prince. It was not possible in the past, but it can be said that it is an example that has become possible with the progress of technology. (PE-0253 Tokoh Nishikubo)



One piece while admiring the interior while waiting for a flight at Itami Airport. Inside the glass bottle is a perfume and a core, and the perfume sucked up by the capillary action gradually vaporizes and becomes an air freshener for the room. When we think of perfume, we tend to think of it as a set with clothes, but when we think of it as a fragrance, I thought it was a good example of expanding the range of uses. (PE-0253 Tokoh Nishikubo)



One piece on the sidewalk near the nuclear power plant museum in Fukushima Prefecture. It is a power source of solar power generation as a power source for street lights, and although there is an initial cost, it can be said that it is one of the recent sustainable investments because it reduces running and maintenance costs due to long-term use and the service life is much longer than fluorescent lamps.

(PE-0253 Tohko Nishikubo)

12.3 Between the Five Senses

As a plaza of Ikoi, it is a corner that posts things that are captured as "beauty" with the five senses, sketches, drawings, drawings, photographs, anything is fine. Whether or not there is engineering, please provide what you feel is "beauty" regardless of whether there is engineering or not, such as equipment carefully designed and manufactured to make you feel the beauty of function, man-made objects that are integrated with nature that feel the beauty of form, or nature that has not been touched by humans at all.

The following list is a collection of books held by JSPE, and we will **transfer them free of charge to members who can contribute articles introducing the books**. There are some books that are a little old, but there are many good books, so I hope you will make use of them. If you are a member who is interested, please contact the Public Relations Subcommittee (public.2007@jspe.org). In addition, **if you would like to donate a good book that is no longer needed**, please inform the Public Relations Subcommittee as well.

JSPE-owned book list

publication	title	Author and Editor	URL
1987	Managing Technology	F. Betz	https://www.amazon.co.jp/dp/0135508495
1990	Construction Business Law and Engineer System	Construction Industry Division, Construction Economics Bureau, Ministry of Construction	https://www.amazon.co.jp/dp/4802876998
1990	Thorough Verification of the Technological Competitiveness of Japan and the United States	High-Tech Strategy Study Group	https://www.amazon.co.jp/dp/4532062810
1991	Macro Project Successes and Failures	P. Morris	https://www.amazon.co.jp/dp/4753654052
1994	International Qualification Path to Professional Engineer	Japan PE Council	https://www.amazon.co.jp/dp/4478800243
1996	Sociology of Construction	Tomoya Shibayama	https://www.amazon.co.jp/dp/4381009371
1997	Phase of Technical Knowledge: Viewpoint of Process Knowledge	Hiroyuki Yoshikawa	https://www.amazon.co.jp/dp/4130651110
1997	Scope of Technical Knowledge: Artifact Environment and Knowledge	Hiroyuki Yoshikawa	https://www.amazon.co.jp/dp/4130651137
1997	The Essence of Technical Knowledge: Contextuality and Creativity	Hiroyuki Yoshikawa	https://www.amazon.co.jp/dp/4130651129
1998	What it means to be an engineer	Hiroyuki Iino	https://www.amazon.co.jp/dp/4841902414
1999	Global Ethics and Environment	Nicholas Low	https://www.amazon.co.jp/dp/B000FBF9I2
1999	Kinmen Bridge Construction Record Video	-	-
1999	Project Management Innovation: Optimal Use of Human Resources, Processes, and Tools	Yoshiaki Shibao	https://www.amazon.co.jp/dp/4820116649
1999	Illustrated International Standard Project Management – PMBOK and EVMS	Toru Nozawa	https://www.amazon.co.jp/dp/4817103213

2000	Engineer Your Way to Success	Shawn P. McCarthy	https://www.amazon.co.jp/dp/0915409178
2000	Ethics and the Built Environment (Professional Ethics)	Warwick Fox	https://www.amazon.co.jp/dp/0415238781
2000	Engineers are in danger now	Kazuyoshi Mori	https://www.amazon.co.jp/dp/4837803997
2000	Industrial Technology Strategy	National Institute of Industrial Technology, Ministry of International Trade and Industry	https://www.amazon.co.jp/dp/4806526347
2000	Reengineering Yourself and Your Company	H. Eisner	https://www.amazon.co.jp/dp/0890063532
2000	PMBOK Japanese	PMI	https://www.amazon.co.jp/dp/1930699204
2000	The Global Standard for PE Engineers	PE-NET Workshop	-
2000	Environment and the Ethics of Technologists	P. Aan Vegillind, Environmental Subcommittee of the Japan Society of Engineers	https://www.amazon.co.jp/dp/4621047795
2001	Engineers View of Human Error	Trevor Kletz	https://www.amazon.co.jp/dp/B07D18VWZQ
2001	Ethics Tools and Engineers	Raymond Spier	https://www.amazon.co.jp/dp/B001EHDNFC
2001	Advice from FEPE Successful Applicants	PE Education Kato Ore	
2001	Taking Technical Risks: How Innovators, Managers, and Investors Manage Risk in High-Tech Innovations	Lewis M. Branscomb	https://econpapers.repec.org/bookchap/mtptitles/0262524198.htm
2001	The Ethics of Science Learners: Tokyo University of Fisheries Open Symposium	Etsuo Watanabe	https://www.amazon.co.jp/dp/4425981014
2001	Technology in the Maze	H Collins	https://www.amazon.co.jp/dp/4759808728
2001	Engineering Ethics for the First Time	Ryofumi Saito	https://www.amazon.co.jp/dp/481220108x
2002	PE Exam Manual - Aim for it! PE/FE	Takao Toshimitsu Wao Publishing	https://www.amazon.co.jp/dp/4820740881
2002	Introduction to Engineering Ethics	Roland Singsinger, translated by Nishihara	https://www.amazon.co.jp/dp/4621070088
2002	P2M Project and Program Management	PM Accreditation Center	-
2002	PE Exam Manual - Aim for it! PE/FE	Takao Toshimitsu Wao Publishing	https://www.amazon.co.jp/dp/4820740881
2002	2nd Edition Ethics of Scientists and Engineers	Charles E. Harris Jr. Japan Translated by the Society of Engineers	https://www.amazon.co.jp/dp/4621049992

2003	Scientific expedition to follow nanotechnology	Takashi Tsujino	https://www.amazon.co.jp/dp/4822281582
2003	American Logic	Tatsuhiko Yoshizaki	https://www.amazon.co.jp/dp/410610007X
2003	Jefferson Arch Construction Record Video	-	https://www.amazon.co.jp/dp/1933233044
2003	Ethics of Engineers: Aiming to Become Trusted Engineers	Ryohei Imamura	https://www.amazon.co.jp/dp/4306023648
2003	Ethics of Civil Engineers: Focusing on Case Studies	The Japan Society of Civil Engineers, Japan Civil Engineering Board of Education Ethics Education Subcommittee	https://www.amazon.co.jp/dp/4810604497
2003	Technical Risk Assessment	Mark G. Stewart	https://www.amazon.co.jp/dp/462794571X
2003	Engineering Ethics and Law and Engineering	Katsuhiko Shimizu	https://www.amazon.co.jp/dp/4320071530
2003	Technological knowledge of Japan nurtured by the climate	Yoshio Osaka	https://www.amazon.co.jp/dp/4925085689
2004	Introduction to Technology Management	Kenzo Fujisue	https://www.amazon.co.jp/dp/4822243877
2004	How to improve the skills of engineers	Atsuo Mizushima	https://www.amazon.co.jp/dp/B012WC9VQM
2004	Creative Technology and Product Development	Kazuo Takemasa	https://www.amazon.co.jp/dp/4434046721
2004	Let's become a proud engineer Nagoya University	Kotaro Kuroda	https://www.amazon.co.jp/dp/4815804850
2004	Continued: Examples and Considerations of Ethics for Scientists and Engineers	U.S. NSPE Ethics Review Board Japan Translated by the Association of Certified Engineers	https://www.amazon.co.jp/dp/4621074458
2004	Examples and Considerations of Ethics for Scientists and Engineers	U.S. NSPE Ethics Review Board Japan Translated by the Association of Certified Engineers	https://www.amazon.co.jp/dp/4621047949
2004	Biotechnology: Its Impact on Society	Yukio Karabe	https://www.amazon.co.jp/dp/4595543840
2004	Flexible and professional - to you who aim to become a scientist and engineer	Japan Working Group of the Women's Engineers Forum	https://www.amazon.co.jp/dp/4883850587
2005	Aspects of Engineering Ethics: Intellectual and Ethical Issues in Engineering	Ryofumi Saito	https://www.amazon.co.jp/dp/4888488886
2006	Technological literacy for social literacy	Hiroshi Sakurai	https://www.amazon.co.jp/dp/4486017323
2006	Building for Professional Growth	Paul H. Robbins	https://www.amazon.co.jp/dp/B072B8ML55
2011	Quotes from Scientists Who Changed the Times	Akira Fujishima	https://www.amazon.co.jp/dp/4487805317

2012	Algae Handbook	Shin Watanabe	https://www.amazon.co.jp/dp/4864690022
2014	Engineering Ethics for the First Time	Ryofumi Saito	https://www.amazon.co.jp/dp/4812213495
2017	Ethics of Scientists and Engineers	Kanazawa Institute of Technology	https://www.amazon.co.jp/dp/4561256997
2017	Kanazawa Institute of Technology Engineering Ethics Education PR Pamphlet	-	-
2018	PMI Japan Talent Triangle	PMI Japan Branch	https://www.amazon.co.jp/dp/4828205985
2018	Nikko Kyokyo Oriented Ethics Seminar	-	-

Board Topics

The matters discussed at the July and September ordinary meetings of the Board of Directors were as follows: Details of each matter are posted on the member site – JSPE Board of Directors minutes. <https://www.jspe.org/member/report/>

The November Board meeting will be held on Saturday, November 12, 2022. If you are a member who wishes to participate as an observer on the Board of Directors, please contact the [Secretariat managers@jspe.org](mailto:Secretariat_managers@jspe.org).

【July Ordinary Board of Directors】**Agenda items**

- ◇ Changes in the number of members
- ◇ About benefits for member commendators
- ◇ Benefits for directors and department members
- ◇ Confirm who is scheduled to participate in NSPECON and review the subsidy amount for participants
- ◇ About the 2022 Onikine Seminar

Matters to be reported

- ◇ Procedures after the General Meeting
- ◇ Status of FY2021 Business Report
- ◇ Payment status of annual membership fee
- ◇ Outsourcing of business
- ◇ Mailing of business reports to members
- ◇ Task Force kick-off of HP revision
- ◇ Study Sessions
- ◇ External Lectures

【September General Board of Directors】**Agenda items**

- ◇ Changes in the number of members

Matters to be reported

- ◇ Procedures after the General Meeting
- ◇ Sending business reports for fiscal 2021 to cooperating organizations, etc.
- ◇ Examination registration consultation meeting
- ◇ Payment status of annual membership fee
- ◇ Status of study sessions
- ◇ Participation in NSPECON 2022
- ◇ Advertising trial on Twitter and request cooperation for promotional text
- ◇ Preparation for publication of the autumn issue of JSPE Magazine
- ◇ Introduction of JSPE at the Shinjuku NPO Collaboration Promotion Center

Homepage, SNS, Member E-mail News

Thank you for always using the JSPE website and SNS. The Public Relations Subcommittee strives to provide useful and up-to-date information on the website such as updating PE exam registration, etc., but if you have any comments or comments such as whether it would be convenient if this was posted on the JSPE website or the information posted was useful, please contact the Public Relations Subcommittee public.2007@jspe.org Thank you.

【CPD Seminar】

34th Onijin CPD Seminar 1st English Seminar

Date: Saturday, August 21, 2022

Participants: (Web viewing) 41 (37 PE, 3 PEN, 1 FE)

Title: Famous Canadian engineering projects

Lecturer: Colin Dale

Abstract of the Lecture

By using topics related to engineering in Canada as subjects, we aim not only to learn English, but also to deepen your understanding of the actual situation of overseas engineering as a PE. Online lectures will be given by native speakers from Canada, but the lecturers are also proficient in Japanese, so please use it as an opportunity for self-improvement.

As a future plan, this year's English learning seminar is scheduled to be held regularly and intensively for about three months.

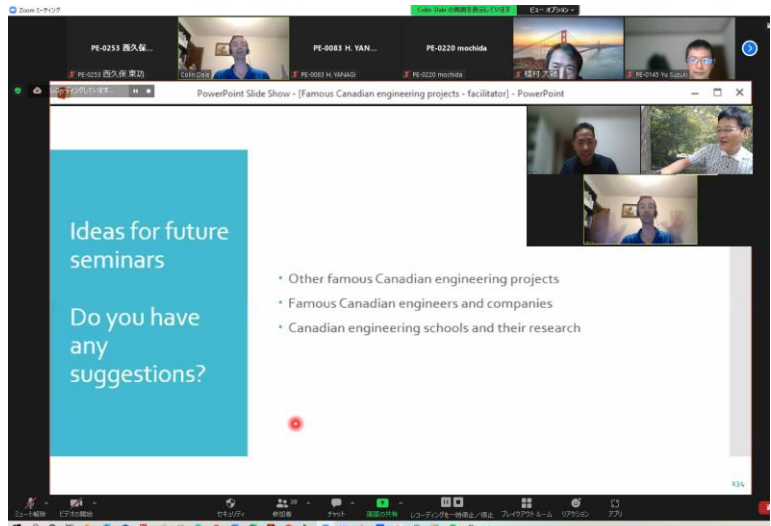
< themes: 4>

- 1) Transportation engineering
- 2) Structural engineering
- 3) Tele-communication engineering
- 4) Civil/Mechanical/Power engineering

<Implementation Report>

Following the English seminar we held last year, Colin Dale served as a lecturer and spoke on the theme of "Famous Canadian engineering projects". He introduced a variety of projects in the fields of construction, machinery, and communications, and learned a lot about Canadian history.

It was a long time of 3 hours, but I think I was able to enjoy listening to the lecture while interspersing group work with breakout sessions along the way. We are planning to hold a few more English seminars this year, so we would be grateful if those who were unable to attend this time would consider attending from now on.



【Engineer's Salon】

Date: Wednesday, September 14, 2022

Participation: (Web viewing) 27 (23 PE members, 3 PEN members, 1 non-member)

Title:

Energy issues and geopolitics: "The New Map – Energy, Climate and the Clash of Nations" by Daniel Yergin

Lecturer: Masahiko Tsuchiya P.E., Auditor

Abstract of the Lecture

Daniel Yergin, winner of the Pulitzer Prize for his publication of *The Century of Oil* in 1992, has announced a new author in 2020. In the previous game, almost everything that happened in the 20th century could be explained by the competition for oil. With the end of the Cold War in 1990, oil prices had slumped below \$20 a barrel. Rather, in the 21st century, measures against global warming were about to become a global concern, but when I look at the surge in energy prices caused by the recent Russian invasion of Ukraine, I sometimes think, "Is the 21st century also the century of oil?"

This large-scale book of more than 500 pages explains each strategy from the five perspectives of the United States, Russia, China, the Middle East, and global environmental measures. This time, I am thinking of providing topics mainly from the viewpoint of "Russia" from among these.

<Implementation Report>

JSPE Auditor Masahiko Tsuchiya P. E. He gave a lecture on the geopolitics surrounding energy sources, with a particular focus on the United States and Russia. He explained how the practical application of shale gas drilling technology and the resulting increase in U.S. natural gas production affected U.S. foreign policy, and the history of gas pipelines leading up to the ongoing Ukraine conflict. I think it was an engineer's salon that gave people who usually work in fields other than the energy field to think about whether having their own energy source is important for security and how the energy shift will occur in the future.



For the latest information on this year's events, please check the following URL.
<https://www.jspe.org/events/>

年月日	曜日	時間	行事名・内容	場所	問い合わせ先	備考
2022年10月1日	土	-	JSPEマガジン秋号配信	会員にメール通知	広報部会 public.2007@jspe.org	
2022年10月15日	土	9:30-12:00	JSPE Day	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	
2022年10月29日	土	13:00-17:00	FY2022PE/FE受験・登録相談会	関西TBD, 関東TBD/ Zoom	会員部会 membership.2007@jspe.org	
2022年11月5日	土	10:00-12:10	鬼金セミナー (2)	関西TBD, 関東TBD/ Zoom	教育部会・鬼金分会 rep@jspe.org	日程・時間調整中
2022年11月12日	土	9:30-12:00	11月度理事会	東京Mixer/Zoom	事務局 webmaster@jspe.org	
2022年11月20日	日	9:00-11:00	英語セミナー(2)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	日程・時間調整中
2022年11月26日	土	-	技術施設見学会	TBD	教育部会 education.2007@jspe.org	日程・時間調整中
2022年12月4日	日	9:00-11:00	英語セミナー(3)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	日程・時間調整中
2022年12月18日	日	9:00-11:00	英語セミナー(4)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	日程・時間調整中
2022年12月24日	土	9:00-12:00	技術CPDセミナー (2)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	日程・時間調整中
2022年1月1日	日	-	JSPEマガジン冬号配信	会員にメール通知	広報部会 public.2007@jspe.org	
2023年1月14日	土	9:30-12:00	1月度理事会	東京Mixer/Zoom	事務局 webmaster@jspe.org	
2023年1月21日	土	10:00-12:10	鬼金セミナー (3)	関西TBD, 関東TBD/ Zoom	教育部会・鬼金分会 rep@jspe.org	日程・時間調整中
2023年2月8日	水	19:00-21:00	エンジニアズサロン (2)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	講師募集中
2023年2月18日	土	10:00-12:10	鬼金セミナー (4)	関西TBD, 関東TBD/ Zoom	教育部会・鬼金分会 rep@jspe.org	日程・時間調整中
2023年3月1日	水	19:00-21:00	エンジニアズサロン (3)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	講師募集中
2023年3月5日	日	9:00-11:00	英語セミナー(5)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	日程・時間調整中
2023年3月11日	土	9:30-12:00	3月度理事会	東京・TBD/Zoom	事務局 webmaster@jspe.org	
2023年3月18日	土	10:00-12:10	鬼金セミナー (5)	関西TBD, 関東TBD/ Zoom	教育部会・鬼金分会 rep@jspe.org	日程・時間調整中
2023年3月25日	土	14:00-17:00	FY2022PE/FE受験・登録相談会	関西TBD, 関東TBD/ Zoom	会員部会 membership.2007@jspe.org	

* In light of the impact of the coronavirus, we will adjust the schedule and implement it.

< Onikine Project Management Seminar >

Saturday, November 5, 2022

Saturday, December 4, 2022

Saturday, December 18, 2022

<JSPE Day>

Saturday, October 15, 2022

< Technology CPD Seminar >

Saturday, December 24, 2022

<PE/FE Examination and Registration Consultation Meeting>

Saturday, October 29, 2022

< technical facility tour >
Saturday, November 26, 2022

<English Learning Seminar >
Sunday, November 20, 2022
Sunday, December 4, 2022
Sunday, Decemver 18, 2022

【November Board of Directors】
Saturday, November 12, 2022

16 New Member Introduction

- Name: Hiroki Gotanda
- Membership number: PEN-0230
- Qualification held: Master's degree (Engineering)
- Specialized field :
Process design of plants, mechanical equipment design
- Motivation for joining:
P. E. Gathering information for state registration and interacting with people from various fields



- Self-introduction:
As an owner's engineer, I am engaged in the design of production facilities. I have been involved in construction P.J. mainly in the U.S. and Europe, and have been working on the desks of high-ranking people at local design companies. E. I saw the registration certificate of the book and aimed to acquire qualifications. From now on, I would like to hold seminars and interact with members and deepen my insight as an engineer. Thank you.
- What we want from JSPE:
To provide a place for interaction with members, and to P. E. Registration Guidance

In this issue, we have covered two special topics. As the first topic, NSPECON was held on-site for the first time in three years. From the JSPE, Chairman Nishikubo took the time to participate as NSPECON's only overseas participant, gave a speech as JSPE, and talked about his energetic activities such as reunion and discussion with people who have been associated with JSPE for a long time. After the COVID-19 pandemic, online communication became the mainstay, but online communication is time-constrained, making it difficult to communicate outside of side talks and meetings. Personally, I feel that unplanned things are less likely to happen. On-site is possible to interact with people even outside of formal meetings, and connections and re-exchanges occur in such places, and I felt that on-site interaction was highly valuable. I strongly felt that JSPE would also consider and implement on-site events for the resumption of events.

As the second topic, I have brought a report on the renewable energy study session for the 2021 academic year. It is also one way of being a new form of member exchange that we tried as JSPE last year. Each member who participates voluntarily learns their own learning, and although it is a limited member, it is a format that gathers and interacts intensively with a purpose, so you can get a stronger connection between members than in a regular CPD seminar. I have a feeling that it was. JSPE is planning a similar study session for 2022, and the information on it is also posted in this issue. Since the results of last fiscal year are made public, I think that even those who did not participate in the achievement report meeting can understand what kind of activities were carried out. It is a study group that has various possibilities such as sharing one's own experience as an engineer beyond companies and industries, acquiring new knowledge, and acquiring new human networks, so readers should consider participating. I made it a feature of this issue in the hope that it will motivate you to do so. We look forward to your participation as many as possible.

25 Sep 2022

Hisakazu Sato (Magazine Editor)

If you have any concerns, suggestions, questions, or contributions, please contact the Public Relations Committee public.2007@jspe.org.

【Editorial Committee】

Nishikubo (Planning Editor)

Inaba (Board of Trustees Topics, Report on the CPD Seminar of the Education Subcommittee, Coming Events)

Sato (Variable from PEple), Fujimura (FE/PE pass, PE registration experience, introduction of new members)

Jinno (Ethics), Hirose (Ethics Reviewer), Ito, Ota (general editing)

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