

Topics

• Survey of the German Society of Engineers

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Someiyoshino (named as Japanese cherry blossum)

It is said that it has spread rapidly by human hands since the Meiji era, and it is a representative cherry blossom that everyone in Japan knows Japan. I believe that one of the missions of engineers is to be able to preserve such beautiful scenery for the next generation.

OB

PE-0265 Takenori Baba (Machanical, Texas)

In February 2022, I was at a loss in front of my computer while Düsseldorf was full of people floating around the carnival. Why would you like to continue investigating this area in the previous article. No, I was certainly thinking of doing research when I wrote that manuscript, but some investigations to grasp the clues ended in vain, and on the other hand, the corona travel restrictions were lifted and the work was gradually done. As I got busy, the priority of my research had dropped, and it was this follow-up email that arrived. It seemed that it was time to raise the heavy hips.

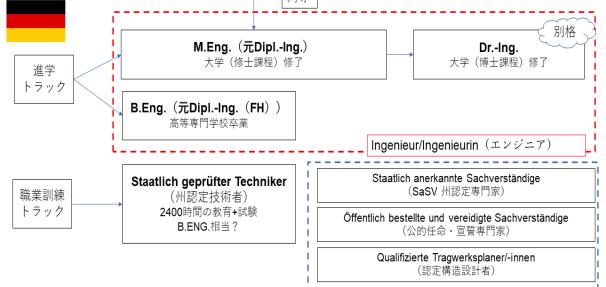
*VDI: Verein Deutscher Ingenieure (German Society of Engineers)

1. Summary of Germany's Certified Engineer System (published in the July 2022 issue) and Survey Policy

Let's sort out the contents of the previous report a little.

- In Japan, it is recognized as a certified engineer system like PE and engineer, "Dipl.-ing. "Master of Engineering (M.Eng.)" with the introduction of the Bologna Process to ensure European degree quality equivalence. It is being replaced by.
- "Dipl.-Ing. "Master of Engineering (M.Eng.)" is also a "degree" given by higher education institutions such as universities, and this "degree" is very important in Germany.
- There is a certified engineer system in the EU called European Engineer (EUR ING), which is also required to have a master's degree in basic engineering (with some exceptions, Chartered Engineer if you are registered from the UK).

European Engineer (EUR ING) 大学修士号相当以上



Based on the survey results, it is reasonable to deepen the investigation of EUR ING in relation to PE. ANI (Fédération Européenne d'Associations Nationales d'Ingénieurs / European Federation of National Engineering Associations) In Germany, the DVT (Deutsche Verband Technisch-Wissenschaftlicher Vereine e. V.: German Society for Technical Sciences), but there was little information here, and of course, when I asked my German colleagues around me, I only got a response like "What is it?"

When we examined the number of registered members (as of January 2023), the number of registered members of the Japan Professional Engineers Association was 15,823 (as of March 31, 2022). Japan The total population of EU member states is 447,207,489 (27 EU countries, as of January 1, 2021, estimate). 124.63 million, GDP of 4,940,877.78 USD, less than half, and only 2851 registered people in Germany (as of 2019).

Now, we lost our clues when the investigation in this direction was derailed, but the breakthrough came unexpectedly from the main business. In Germany, I am in charge of surveys on smart technology trends in the European manufacturing industry, such as Industrie 4.0, and related standardization and legislation. I also began to see the name VDI frequently quoted in various standards, and the solution was to find a VDI booth at an exhibition and jump in.

2. VDI (Verein Deutscher Ingenieure: German Society of Engineers)

2.1 VDI Overview

VDI, as the name suggests, is the largest engineering organization in Germany, founded on May 12, 1856, and is known as Verein Deutscher Ingenieure Satzung (VDI method)⁽¹⁾ It is an NPO with about 135,000 regular members (2021), which is an organization that is one order of magnitude different from the Japan Professional Engineers' Association. This is about 1/10 of the engineers employed in Germany, and it can be said that it is a guild of engineers. It is headquartered in Düsseldorf.



The purpose of its establishment was to "promote research in science and technology" and "promote technical education."

- © Cooperation with other scientific and technological organizations, provision of training
 - Participation in the education system, especially in the training of young technical talents
 - Investigative activities
 - © Evaluation of Engineer Experience
 - Organizing conferences and lectures
 - 2 Publication and publication of publications, magazines, and reports
 - Recognition in technical or other areas

We are actively engaged in training and engineer job matching.

One of the major achievements of VDI was the establishment of "engineering" as an academic discipline, and its degree, Dipl.-ing. In the past, in Europe, "the study of free citizens," that is, liberal arts, was the academic discipline, and τέχνη (technic knowledge), including engineering, was downgraded as a "slave-like skill." VDI was instrumental in advancing its status, and in 1899 he received a doctorate in engineering from the Technical University and Dipl.-Ing. It is not difficult to imagine that this led to the improvement of the status of engineers and became the basis for the later technological power.

Another aspect of VDI is a standards organization, which publishes and revises about 250 standards a year and currently has about 2100 valid standards.

- cs architecture
- cs mechanical engineering
- **Energy & Environment**
- vehicle and Traffic Technology
- Materials Engineering
- Measurement and automation technology
- © Product and Process Design
- C3 Production and Logistics
- cs life science
- vs Nanoelectronics, Microsystems, Precision Engineering
- social science
- Air purification
- S Process Engineering and Chemical Engineering

It is said that it has strengths especially in noise reduction and clean rooms. The publication of influential standards is also a sign of a great social impact. VDI is also involved in the establishment of DIN, Germany's national standardization organization and has great influence worldwide. Whitepaper and Positon are still leading to policy recommendations. Whitepaper and Positon It publishes many papers, and you can feel the magnitude of its influence.

2.2 Let's get into VDI!

The easiest way to proceed with the investigation is to get inside it.

Then, what are the qualifications for joining VDI?

Chapter 1 is "Conditions for Membership Membership".

"1.1 Individual members must be impeccable (unbescholten) and legally competent (geschäftsfähig), except for young members."

Oops, I'm losing confidence right away... But do you write this in the specific rules of procedure? Repeat the dictionary.

"1.1 Individual members must have no criminal record (unbescholten) and be legally liable except for young members (geschäftsfähig)." Don't do it! That's why translation software should be vigilant.

It says "except for young members" because there is a category of "young members" and the qualification for membership is 4 to 21 years old (up to 25 years old conditionally). I want to emulate the attitude of accepting and nurturing it.

Now, let's take a second look, and the qualifications for regular membership were clearly stated in the next section.

"1.2 The prerequisites for joining as a full member are as follows:

1.2.1 Pass the final examination in technology or science at a German scientific university or equivalent foreign university

or

Pass the final exam at a German state engineering school recognized by the competent ministries of the federal state and its predecessors, or at a technical college or equivalent foreign school

or

Pass the final exams at the German vocational school in technical or scientific disciplines, where

the graduate is equivalent to a graduate of the Higher School of Applied Sciences in specialized subjects

- 1.2.2 Submit 6 years of engineering experience if you do not meet 1.2.1
- 1.2.3 Persons for whom the Executive Committee seeks membership."

This is roughly consistent with the previously reported conditions for using the title "Ingenieur/Ingenieurin" as defined by the Ingenieurgesetz. It means that if you can call yourself, you can join.

In the previous report, "Ingenieur/Ingenieurin (engineer)" "We cannot find a community of registrants like the NSPE or the Japan Professional Association, and there is no provision in this Act to impose penalties for lack of professional qualifications or for such conduct." There is also a provision for expulsion on the condition that the membership fee is not paid (VDI Law 9.4).

So I wonder if I can join VDI, and this is the rule to clear.

"Pass the final examination in technology or science at a German scientific university or equivalent foreign university"

"Passing the final examination in technology or science of a foreign university" can be dealt with by having a master's degree in engineering from a Japan university.

Perhaps the biggest problem is "equivalent [to German science universities]". It can be proven that it meets the standards of the US ABET by taking NCEES Credentials Evaluations as an engineering course evaluation at the time of PE registration, but will it be recognized in Germany Japan? It is not part of the Washington Accord, an international agreement for mutual recognition of substantial equivalence of engineering education, and it would be difficult to claim compatibility from there. As an aside, Washington Accord and Bologna Process One of the participating countries is the United Kingdom.

So I emailed VDI's Membership Services Department to attach a copy of my PE registration card and NCEES Credentials Evaluations and asked if I met the eligibility requirements.

"I wonder if this could happen!" (by Shiro Sanada) is a line that an engineer would like to say at least once. This is exactly what I was at this time. At the same time as sending an inquiry email, check the membership form and confirm the necessary documents. It seems that a graduation certificate is required only for a degree. It takes a certain number of days to order from a Japan. Waiting for a reply before arranging a graduation certificate JSPE However, about 5,000 yen for the issuance of a graduation certificate and international EMS is not cheap. If you get NG with the equivalent certificate in the previous paragraph, it will be completely wasted. I received a graduation certificate from my alma mater knowing the risk. It was "fast tracking" in project management, and I "accepted" the risk of rework.

About two weeks later, the documents arrived despite the troubled Japanese-German transport. There is no reply from the VDI Member Service Department, but there is no point in turning back when you get to this point, all you have to do is shout "I wonder if this can happen!" and then send the membership application. No, if you think about it, you may not need to shout. All applications should be made online ⁽³⁾, I entered everything, completed the procedure for payment of the membership fee, pushed the send button, confirmed that the status of provisional registration was displayed on the MyVDI site, and crawled into the futon that day.

Then, in the afternoon of the next day, I was accepted with an email saying "Membership registration has ended". The characters in the temporary registration on the MyVDI site disappeared, and the membership card (Digital Card Fig. 3) was also displayed. It is now unclear whether the materials attached to the e-mail sent in advance were effective or whether they were trusted because it was a Japan university, but now they can become a member of VDI.



Fig.3 Membership card

If you write this, I think there are people who want to join, so I will add a little information. You can apply online⁽⁴⁾. The information required for application is your name, personal address, the school you have obtained or are currently attending and your graduation/enrollment certificate, and information on how to pay the membership fee.

Since the Japan can be selected as the country name, it seems that it is possible to apply from Japan.

I am a little worried about Titel, which is probably filled in Prof., Dr., etc., but this is a required input, and it is a selection format disguised as a free description. It seems that it can be Suffix even if it is not a prefix, but "PE" and "PMP" were not enterable." M.Eng" was selectable, so I chose it this time. The notation "M.Eng Takenori Baba" is uncomfortable for a moment, but I want to endure it for a moment, and I will not encounter this notation again.

You must choose whether your degree is in the natural sciences (e.g. M.Sc), technical research (e.g. M.Eng), or other.

Graduation/enrollment certificates can also be registered on this application page, but even if you forget to attach them, you can submit them from the member dashboard called MyVDI, which is generated after registration, so there is no need to rush.

The membership fee is 148 euros per year for regular members (20,809 yen [as of March 16, 2023]), 35 euros for student members, and 74 euros for career starters (under 25 years old) until the fourth year of graduation. Credit card payments are not supported, and there is a disadvantage that the remittance fee is high if you transfer from Japan. This may be difficult if you do not have a European bank account.

As for the membership fee of VDI, since VDI is an NPO for the purpose of public interest, membership fees are recognized as a donation deduction in Germany Japan.

Also note that even if you join VDI, you cannot call yourself "Ingenieur/Ingenieurin" in Germany. Even if the conditions for using the title "Ingenieur/I ngenieurin" are almost the same, it is necessary to apply and register in accordance with the laws of each state in order to actually use the title, and if you violate it, you may be fined or charged with a crime.

2.3 Benefits of VDI membership

The first thing that stands out is the large amount of information disseminated. VDI nachrichten⁽⁵⁾ publishes a biweekly newspaper on technology-related topics, which is also available in bookstores, and members can receive it free of charge in paper or electronic editions (in German, of course). From Springer-Nature, now VDI Fachmedien⁽⁶⁾ There are free or subscription discounts for its publications, about 60 technical magazines, and trade magazines, as well as insurance discounts and preferential sales of various products.

VDI also organizes a huge variety of events, including lectures, seminars, tours and networking events that are held almost every week but almost every day throughout Germany. Düsseldorf, one of Germany's leading industrial areas and headquarters, is particularly active. The members belong to one of the district associations, and I belong to the Lower Rhine District Association. I

feel that the horizontal connection between these members is also large. Young engineers and female engineers associations are also heldAs mentioned above, support activities related to job matching are also actively carried out, and it also plays a role as a large human resource pool. . In addition to the aforementioned regional associations, VDI-Netzwerk International has been established in Argentina, Australia, Brazil, China, France, Italy, North America, South Africa, Romania. It has a branch in Spain and seems to be a place for domestic and foreign engineers to interact. Unfortunately, it does not seem to be in the Japan.



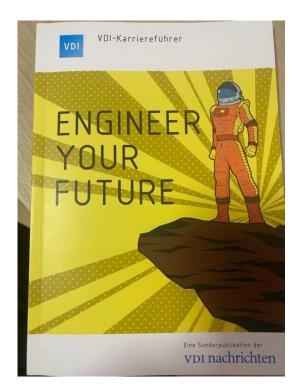


Fig.4 VDI nachrichten Fig.5 Job matching brochure

3. Conclusion

Well, now that we have finally reached the starting line of the investigation, the biggest problem is that unfortunately most of the materials are in German because it is a national association in Germany. It is not difficult to imagine that exchanges and seminars between members will also be held in German. First of all, there is an urgent need to raise my language skills. On top of that, I would like to deliver various information that VDI sends out to everyone as appropriate while struggling with German. If I can improve my language skills in that cycle, get involved in VDI activities a little more deeply, and become a bridge with JSPE... I would like to conclude this article with a distant dream.

< References>

(1) Verein Deutscher ingenieure satzung(VDI method)_

https://www.vdi.de/fileadmin/pages/vdi_de/redakteure/ueber_uns/dateien/Satzung_e.V._v_15.12. 22_clean_signed.pdf (Confirmed March 15, 2023)

(2) Verein Deutscher Ingenieure Geschäftsordnung(VDI Rules of Procedure)_ https://www.vdi.de/fileadmin/pages/mein_vdi/redakteure/Downloads/VDI_GO_19.05.2022_clean

<u>.pdf</u> (Confirmed March 15, 2023)

- (3) VDI website https://www.vdi.de (Confirmed on March 15, 2023)
- (4) VDI member registration page https://www.vdi.de/mitgliedschaft (Confirmed on March 15, 2023)
- (5) VDI nachrichte https://www.vdi-nachrichten.com (Confirmed March 15, 2023)
- (6) VDI Fachmedien https://www.vdi-fachmedien.de (Confirmed March 15, 2023)

Reports for PE registration/renewal, FE/PE exam

Members who newly registered or passed the FE/PE exam by March 202 are as follows. Congratulations to all of you.

*Autumn 2018 (Vol. 43) The text of the experience report has been posted on the web. https://www.jspe.org/member/magazine/magazine-index/

* Some browsers may not be able to open the file properly. If it fails, please reopen the file in a different browser.

(Verified browsers: Google Chrome, Microsoft Edge, Internet Explorer)

* The latest exam 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	State of registration field	Date of registratio n	Testimonial URL
PE-0325 Shunsuke Teraoka	Kentucky Civil	2022/12	https://www.jspe.org/member/wp- content/uploads/sites/2/2023/03/2022 KY Civil. pdf
PE-0327 Yuji Koga	Washington Chemical	2023/1	https://www.jspe.org/member/wp- content/uploads/sites/2/2023/03/2023 WA Chemical.pdf

PE exam

I D CHAIN								
Membership	field	Date of	Testimonial URL					
Number		examinati						
identity		on						
PEN-0235	Mechanical	2022/12	https://www.jspe.org/member/wp-					
Ryota			content/uploads/sites/2/2023/03/202212 PE Mec					
Matsumoto			<u>hanical.pdf</u>					

March/April 2019

On Ethics: You Be the Judge Signed, Sealed, Delivered?

A PE finds that someone may have tampered with his inspection reports.

Situation

S. Fujiwhara, a licensed professional engineer, is employed by engineering firm Coriolis Engineering. The firm was hired by a property insurance company to inspect and conduct structural assessments of residential properties damaged by a recent hurricane and to determine whether the damage was hurricane-related (a claim covered by insurance) or due to a preexisting structural condition (a claim not covered by insurance).

Fujiwhara visits the residential properties and, following his inspection and structural assessment, prepares a series of reports for Coriolis Engineering. The majority indicate that the damage was in fact hurricanerelated. He then signs and seals the reports. Nick Carnot, one of the principals of Coriolis Engineering and not a professional engineer, reviews the reports and asks Fujiwhara to make changes to some of the reports to indicate that the residential property damage was not hurricane-related but due to a preexisting structural condition.

Finding no factual or technical basis for the requested change, Fujiwhara refuses to 2019年 3月/4月号

倫理: あなたが審判

PE がサインし、封印し、提供する意味は?

PE は、自分が作成した調査レポートを何者かが不正に改ざんした事を発見した。

状況

PE Fujiwhara はエンジニアリング会社の Coriolis Engineering で働いている。

この会社は損害保険会社から委託を受けて、最近発生したハリケーンによる住宅の損傷を調査し、構造評価を行った。

この評価により、保険対象のハリケーンによる損傷と、 保険対象外である以前から存在していた構造的欠陥 とを区分けした。

Fujiwhara PE は各住宅を訪問し、調査と構造評価を行った後に Coriolis Engineering としての一連のレポートを作成した。

その大多数は、ハリケーンに起因する損傷との内容であった。

彼はそのレポートに PE のサイン後、封印した。

Coriolis Engineering の上級職のひとりである Nick Carnot は、PE ではないがこのレポートを読み、Fujiwhara にそれらのいくつかを、住宅の損傷はハリケーンによるものではなく、以前から存在していた構造的欠陥に起因する、という内容に書き直すことを求めた。この要求は事実とそぐわず技術的にも根拠がないので、Fujiwhara は変更を拒否した。

make the changes. Carnot takes the reports and, thereafter, sends them to the client, the property insurance company. Later Fujiwhara hears from residential property owners whose homes he had inspected and determined were damaged by the hurricane. His findings were noted in a signed and sealed report. Those residential property owners advise Fujiwhara that their property insurance damage claims were denied because the signed and sealed report he submitted indicated that the residential property damage was due to a preexisting structural condition. There is no supplemental technical or other information to indicate any basis for the apparent alteration of Fujiwhara's report.

Carnot はこのレポートを、顧客である損害保険会社に送った。

後日 Fujiwhara は、自身が調査を行い、その損傷は ハリケーンに起因すると結論した住宅の所有者たちから 連絡を受けた。

彼の調査結果は、PE のサイン後封印されたレポートに記載されていた。

それらの住宅所有者たちは Fujiwhara に、損害保険 適用は却下された、その理由はサイン後封印されたレポートに、損傷は以前から存在していた構造的欠陥に 起因する、と記されていたためであると伝えた。

Fujiwhara のレポートを明らかに変更するべきと判断できるような、いかなる追加の技術的及び他の情報も存在しない。

What Do You Think?

What are Fujiwhara's obligations under the circumstances?

What the Board of Ethical Review Said

Performing an inspection and assessment of property is one of the most fundamental activities of a professional engineer. Members of public the call upon professional engineers to perform these duties because of the technical knowledge and skill the professional engineer can provide for the client's benefit.

On different occasions the NSPE Board of Ethical Review has discussed the ethical responsibilities of professional engineers performing services after modifications or changes are made to their work.

あなたはどう考えるか?

この状況下で PE Fujiwhara の責務は何か?

NSPE 倫理審査委員会の見解

(住宅などの) 資産の検査と評価は PE の最も本質的 な活動の一つである。

公衆が PE にこれらの業務を依頼するのは、彼らの知識とスキルが彼らの利益のために必要だからである。

本事例とは別の事例で、NSPE 倫理委員会は PE の レポートの修正や変更が行われた場合の、PE の倫理 責務について議論したことがある。 The Board thinks two earlier cases (86-2 and 09-6) are very instructive because they turn on the criticality and the seriousness of a professional engineer signing and sealing engineering drawings, professional report, an analysis, or similar engineering document. Signed and sealed engineering documents signify that the documents in question were either actually drafted by the professional engineer whose signature and seal accompany them or were prepared under the "responsible charge" (direct control and personal supervision) of the professional engineer whose signature and seal accompany them. Any action to subsequently modify any aspect of the engineering documents by any party who did not actually draft the engineering documents or exercise "responsible charge" over the preparation of the engineering documents thoroughly compromises and undermines the integrity and the veracity that this preparation and approval process is intended to embody.

Under the facts of the present case, the signing and sealing of the engineering document appears to have compromised and undermined for unknown motives and intentions. Such actions cannot be permitted to stand. Fujiwhara has an obligation to take necessary steps to seek understanding as to the apparent reversing of his findings. If no other information is available that would alter his findings, then Fujiwhara should require immediate if there is correction an effort to misrepresent the conclusions contained in his report.

以前の事例である 86-2 と 09-6 には非常に学ぶところが多いと思われる。それは、PE が図面、レポート、解析等々のエンジニアリング関連の書類に、サインし封印するということが決定的に重大かつ重要である、という認識を示しているからである。

エンジニアリング関連の書類に対するサイン及び封印は、 当該書類がその PE によって実際に作成された、あるい は「義務を伴う責任」即ち直接の指示と個人的な指 導のもとで準備された、ということを示す。

エンジニアリング書類をそのような責任ある立場で作成していない者が、サイン及び封印されたエンジニアリング書類をその後、いかなる点においても変更することは、書類を作成、承認するプロセスが意図している整合性と正確さを傷つけ、且つ台無しにする行為である。

本事例の場合、サインと封印されたエンジニアリング関連書類は、不明な動機と意図により傷つけられ、且つ台無しにされた。

このような行為は許しがたい。

Fujiwhara には、彼の調査結果が明らかに改ざんされているということに理解を求めるべく、必要な段階的行動を起こす責務がある。

彼の調査結果の改ざんについてこれ以上の情報がない場合、Fujiwhara は彼のレポートの結論がねじ曲 げられている行為が見受けられるのであれば、訂正を 直ちに求めるべきである。

Conclusion

Fujiwhara has an obligation to seek an understanding of his company's actions and, if there is an effort to misrepresent the conclusion in his report, to seek an immediate correction by contacting appropriate authorities, including the state engineering licensure board and other enforcement officials, as appropriate.

結論

Fujiwhara には、会社の行為を把握し、もし彼のレポ - トの結論をねじ曲げられている行為が見受けられる のであれば、該当州の PE 資格登録局や法施行当局 を含む適切な機関に連絡を取り、直ちに訂正するよう 試みる責務がある。

NSPE Code References

Section II.1.a., Section II.1.b., Section II.1.d., Section II.1.e., Section II.1.f., Section II.3.a., Section III.2.b., Section III.3.

For more information, see Case No. 15-2.

NSPE Code References

Section II.1.a., Section II.1.b., Section II.1.d., Section II.1.e., Section II.1.f., Section II.3.a., Section III.2.b., Section III.3.

さらなる情報は事例 15-2 を参照

More You Be the Judge Articles

The Limits of Campaign Contributions (September, 2022)

A Personal Choice (May, 2022)

Eye in the Sky (January, 2022)

Conflicted Loyalties? (October, 2021)

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

Translate PE0081 H.Kanno

Translation Supervisor PE0145 Y.Suzuki

"あなたが審判の"参考記事

The Limits of Campaign Contributions (September, 2022)

A Personal Choice (May, 2022)

Eye in the Sky (January, 2022)

Conflicted Loyalties? (October, 2021)

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

翻訳 PE0081 神野

監訳: PE0145 鈴木 March/April 2019

<本 NSPE 記事に対する Ethics reviewer のコメント>

PE のサインし封印したレポートの改ざんが発覚した場合、どのように対処するかの事例である。訳者が考えたの は、レポートの改ざんに対しての PE の責務は雇用主に対してクレームをつけ、訂正させることと考えたが、NSPE 倫理委員会の結論は、法施行当局(多分警察や裁判所)に訴える事を推奨しており、PE のサインとシールさ れたレポートは法的に守られていることに驚かされた。

4

JSPE News-1: Introduction to NCEES Topics

Yu Suzuki (PE-0145, Electrical)

This time, from the February issue of NCEES' web magazine "Licensure Exchange", we will introduce topics that may be especially useful for PE and PE examinees in Japan. February-2023-LEx-flip-1.pdf (ncees.org)

NCEES has honored engineering programs since 2009 and surveying programs since 2016. Both are aimed at collaborating with students and P E and P LS (Professional Land Surveyor). This is a wonderful initiative to deepen understanding of licensing and support industry-academia partnerships.

The Surveying/Geography Program at New Mexico State University, which won in the past, invested its cash money in the program to improve and advance, earning the prize in another subsequent competition. We also give back to the community by purchasing advertising space for specialized magazines, participating in industry conferences, and visiting schools. These efforts have led to increased awareness of the program, increased enrollment, and support from New Mexico expert surveyors and the industry.

It is quite difficult to work on this scale, but it may be a reference for activities to raise awareness of P E in Japan.

Well, this time I would like to introduce this article.

- 1. Preparing each zone for the joint mid-term meeting at the end of April (p. 3 "Zones prepare for 2023 combined interim meeting")
- **2.** From President Duhamel ~ Welcoming the New Year, Progress and Change (p.6 "Progress and change for a new year")

1. Preparing each zone for the joint midterm meeting at the end of April

NCEESIntegrated Zone Midterm Meeting Scheduled for April 27~29 in Houston, TexasWe are making final preparations for this. The NCEES member's licensing board is divided into four geographic zones. Each zone meets twice a year, at the NCEES Annual Meeting in August and the Midterm General Meeting in the spring. The next Spring Meeting will be the first midterm meeting to integrate the Central, Northeastern, Southern and Western zones. "All-zone meetings are an

initiative led by the management of the Member Board," said NCEES President.Christopher Duhamel 氏 (P.E., P.L.S.) states:

Joint meetings are held for all membersboard ⅓, without nuanceListen to the committee's report in the same presentationProvide opportunities. The entire council can hear



CHRISTOPHER DUHAMEL, P.E., P.L.S.
NCEES PRESIDENT

NCEES President Duhamel talks about the significance of the

feedback and concerns directly from all member boards, It can then be deliberated separately in individual zones. This is an innovative approach to enhance the Board's vital work."

State boards bring back information in preparation for the annual meeting

The main purpose of this meeting is for representatives of the member licensing committees to hear and discuss reports from the current standing committees and task forces. Zone meeting delegates can ask questions and discuss possible motions for the annual meeting. Employees are encouraged to bring the information back to the Board for further discussion. Participants will participate in forums for engineers, surveyors, member board administrators, and law enforcement staff to discuss professional issues. In this way, the overall policy of N CEES is shared with each state, and the provincial board prepares recommendations based on the circumstances and circumstances of each state in preparation for the annual meeting in August.

2. From President Duhamel ~ Welcoming the New Year, Progress and Change

Following its November meeting, the 2022-23 NCEES Board of Directors announced that Chief Executive Officer David Cox will retire effective October 1, 2024. Davy McDowell (P.E.), Chief Operating Officer of NCEAS, succeeds David as Chief Executive Officer. The Board of Directors recognizes the commitment and leadership that Davy has shown since assuming the COO role in 2009. The Board understands how much it will benefit our organization to have David and Davi's joint commitment to advancing our mission and vision $_{\circ}$

NCEES engages in a variety of activities to protect the rights of professionals

NCEES committees are currently working on important work as an organization. This year's Joint Zone Midterm Meeting will be held April 27~29 in Houston, Texas for all zones. This year's challenges include potential significant changes to licensing, including:

- Evaluation criteria that demonstrate and track the key skills and competencies required to obtain a PE license for the first time
- PS (Professional structure) Departmental Exam Evaluation
- Motion on comity PE issued from the Western Zone, discussed at the 2022 Annual Meeting Another important licensing initiative that will continue through January 2023 is the Overlapping Activities Steering Committee of the Council of Professionals on Registration (ICOR). From NCEES, former President Christopher Knotts, P.E. and Brian Robertson, P.E. and former Western Zone Vice President Scott Bishop, P.S. is the representative. "Overlapping activities" means the overlapping scope of skills and responsibilities of separate professionals (e.g., Structural PE and other architectural and construction related qualifications). Various studies are currently underway on this.

2022–23 Board of Directors is working to advance NCEES' mission to "facilitate licensing" and its members. It encourages state boards to offer new ideas and recommend existing programs that can protect the health, safety, and welfare of the public and promote the importance of licensing, shaping the future of professional licensing.

JSPE Public Relations Subcommittee

JSPE offers various CPD seminars, but since they used to only live stream, I think there are many members who have given up on participating due to inconvenience. In order to respond to requests to watch and rewatch due to inconvenience, we <u>officially started a trial of on-demand seminars</u>, which was listed as an activity policy for FY2022, from February <u>2023</u>. As the trial says, we plan to change the appearance of the viewing site in the future, but we have incorporated the CPD issuance function, and there is no problem for members to use it for self-improvement. At this time, <u>registration has been completed for all seminars held in 2022</u>, so please take advantage of them.

If there are any other themes you would like to redistribute on demand or functions you would like to include, please contact the Public Relations Committee. Public.2007@jspe.org On-demand seminar (accessed from the QR code on the right) https://www.jspe.org/new/

<List of seminars during trial streaming> English Learning Seminar *English FY2021:

- Be an Engineer in Canada FY2022:
- Canadian Famous Engineering Projects
- Famous Canadian Engineering Projects

Onikin PMP Seminar *Japanese FY2022:

- Toward digital transformation beyond digitalization ~Case studies of breaking up from legacy systems~
- Overview of Risk Management in PMBOK® 7th Edition





Technical Seminar *Japanese

- Infrastructure management support for local governments and diagnosis technology using data science
- Engineering Ethics 2.0: For Human Well-being both at the Individual and Collective Level
- Development of ionic liquids in various fields
- Rethinking the power system for a decarbonized society = an electrified society

^{*} Members can watch for free (registration is required before viewing)

^{*} To issue CPD, you need to answer the quiz after taking the course.

Our Most Popular Courses

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

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Famous Canadian Engineering Projects

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

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Rethinking the power system for a decarbonized society = an electrified society

2050年カーボンニュートラル目標に向けては、電源の脱炭素化とエネルギー需要の電化を両輪として推進する必要があり、そのための政策課題と今後の方向性について述べます。

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Development of ionic liquids in various fields

2050年カーボンニュートラル目標に向けては、電源の脱炭素化とエネルギー需要の電化を両輪として推進する必要があり、そのための政策課題と今後の方向性について述べます。

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Infrastructure management support for local governments and diagnosis technology using data science

北陸の市町を対象としたインフラ維持管理 の支援を紹介するとともに、今後の橋梁メ ンテナンスの一役を担うであろうデータサ イエンスを適用した診断技術の研究につい て紹介します。

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English seminar about shaping up your skills by discussing the famous Canadian Topics (3)

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Toward digital transformation beyond digitalization ~Case studies of breaking up from legacy systems~

多くの場面で耳にするDXと、その前提条件 となるデジタル化の違いについて紹介しま す。加えて、国内外のDX事例を題材に、身 の回りの活動やオペレーションの将来像に ついて検討します。

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Overview of Risk Management in PMBOK® 7th Edition

多くの場面で耳にするDXと、その前提条件 となるデジタル化の違いについて紹介しま す。加えて、国内外のDX事例を題材に、身 の回りの活動やオペレーションの将来像に ついて検討します。

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Engineering Ethics 2.0: For Human Well-being both at the Individual and Collective Level

これまでの「やってはならないこと」を強調する「予防倫理」的な技術者倫理1.0から、「何を為すべきか」を考え行動する「志向倫理」を含む新しい技術者倫理2.0への転換の必要性について検討する。

Enroll Now

What we can see through NSPE's activities

PE-0002 Kazuo Takemasa

1. At first

So far, we have dealt with the problem of the long-term decline of Japan industry. He pointed out that one of the main reasons for this is the delay in the development of new technologies. As a result, many companies were forced to withdraw from their businesses, especially in the manufacturing industry. Furthermore, in the fields of information and communications, artificial intelligence, and semiconductors, it was noted that there are conspicuous cases of emerging countries such as South Korea, Taiwan, China, and India. I have emphasized the importance of facing negative situations head-on, observing the degree of badness, and taking countermeasures.

In addition, although the current system of engineering education system, such as technical education at universities and technical colleges, development of new technologies by companies, and support and encouragement by the Japan government, is maintained, I feel that it is deteriorating to the point where it is doubtful that it can maintain its position as an advanced country in a civilized society. In the exploration so far, crises similar to today's Japan have emerged many times in American society, and each time we have come up with countermeasures to overcome them. Therefore, I have continued to search for hints, hoping that they should be in American society with similar competitive situations. As a result, there has been no continuous decline in U.S. industry. As a means of exploring the causes of this difference between Japan and the United States, we searched through NSPE activities. In this process, it has become clear that the decline in companies' ability to develop new technologies is not the only cause of industrial decline. In today's global society, the minimum requirement is that the country or company that provides the products and services are at least based on the rules of a civilized society.

Currently, Japan has deteriorated to the point where it is doubtful that it will be able to maintain its position among developed countries. Here, it is necessary to examine the current Japan societies and Japan companies in comparison with those of the world's civilized and developed countries. Is Japan society a civilized country? Japan companies in developed countries? It has become necessary to reconsider the fundamentals. In previous explorations, an industrial crisis similar to today's Japan has occurred in American society in large corporations, especially in manufacturing. On the other hand, the response measures of American society have been overcome by systematically implementing them as their own problems by the citizens of the members of society. And the significance of N SPE was great in dealing with technology promotion. Where did the basic function of society as a whole exist? Why can't we handle it well in the U.S. and Japan? In this article, I would like to consider where the main causes are.

2. Failed attempts to become an advanced civilization Japan Outline of the Theory of Civilization

The economic development of the postwar Japan, typified by the 19 70s and 8 0s, seemed to have made this country one of the most advanced civilizations. It was also said that the value of land assets nationwide in Japan exceeded the value of land assets in the United States as a whole. However, there were few people in Japan society at the time who pointed out that economic size was not synonymous with developed countries. In terms of technological capabilities, we were proud that we were at the forefront of the world in Japan in each industrial field. I was proud to have it as a symbol of developed countries. No one noticed what was missing as a civilized nation as a whole. This was already clearly defined and pointed out in the book "Outline of the Theory of Civilization" (1) expressed by Yukichi Fukuzawa in Meiji 8. At the time when we were forced to dance in the bubble economy, what was the difference between a civilized nation and a barbarian state that Fukuzawa refers to? As long as we had responded calmly and sincerely to

this question, Japan society would not have become as degraded as it is today.

In his book, Fukuzawa clearly points out that "building a civil society" is important at the root of the prosperity of Western civilization. On the other hand, in the chapter on the origin of Japan civilization in his writings, he sharply points out the shortcomings of Japan society and argues that change is necessary. He pointed out that the evils of Japan society before the Meiji era were that politics, religion, and academia existed in the form of governments, for regimes, and were far from civilized societies. It has been that members of society (the people) have been placed outside the sphere of social progress. It was accustomed to it for a long time, and no civilized citizen was formed in a state where it could hardly be called a civilized people, where as long as they were given food no matter what happened to the country, they were indifferent. He pointed out that if this situation continues, it will not be possible to become a civilized country for any length of time.

Later, in the Japan society of the 8~ 90s, the leadership of the administration and bureaucracy

in politics and economics brought about positive results in some aspects. It was not led by civil society activism, but pushed forward at a speed that did not wait for discussion within society. The people lacked a sense of ownership, and the economic development of the country was not directly linked to their own civilization. As a result, society fell into a state where it did not know what to do. This situation of mismatching buttons in society was sensed sensitively by students at the time than by the business and industrial worlds. This is a social problem raised by the student movement represented by the "University of Tokyo Conflict". In some respects, it may have been the first labor pains in Japan because of the enrichment of life. At this point, it may have been better if the Japan people themselves had participated in the debate head-on about what is being asked in society. Reality had nothing to do with him, and he adopted the attitude of the people of the barbarian country that Fukuzawa said. If we had thought at that time that there would be no future if we had to change Japan society, it was possible that we could have brought the present Japan closer to a civilized civil society.



Unfortunately, the result, as we all know, was the result of the struggle for a civilized Japan state, which remained in the form of a barbarian society with only violent policing by the regime and police.

Even today, Japan society has not even examined what was gained and what was lost in response to Yukichi Fukuzawa's goal of the Meiji Restoration, which was to create a civilized civil society. In Asia, China is now aiming to become a civilized advanced country, but many citizens around the world know the outline of the "Tiananmen Square incident". His country will continue to have a social form in which it is forever impossible to become a civilized advanced country.

This article is intended for technical audiences. In Japan society, engineers only need to think and talk about technology. I hope you can understand how the attitude of not talking about corporate, social, political, and other matters as something that is not covered is harming technological and industrial development. What is important is whether Fukuzawa will use technology to realize the "civil society" that constitutes the advanced civilization that constitutes the advanced civilization that Fukuzawa aimed for in Me Japan iji 8 as a result of the Meiji Restoration in Meiji 8, using technology to realize today's Japan. This is because it is the mission of PE to use technology for the benefit of society in N SPE's Engineers Creed.

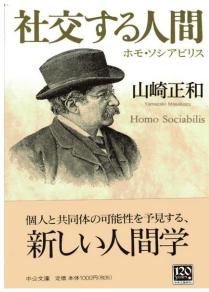
3. Engineers who misjudge the Japan society and social purpose undermined by the information and communication society

In daily life, maintaining and developing the safety, health and well-being of society is one of the basic goals of a civilized society. A professional engineer is a citizen who has the ability to provide and support his or her expertise in this civil society. Actually, I am ashamed to say that I did not know this fact at all until I obtained the PE qualification.

In Japan, around 2000 Japan the academic council notified each academic organization (academic society) under its umbrella that the purpose of the academic society was to contribute to civil society. Later, the primary purpose of the Society was changed. For the first time, professors at many universities realized that the raison d'être of the Society was not the academic development that had been the goal of the Society.

In civil society in civilized countries, what kind of relationship should citizens who are the protagonists of organizations such as governments, companies, universities, and local communities ideally have with society? The answer to this question was already in the middle of the Showa era, when playwright, Osaka University professor, and sociologist Masakazu Yamazaki published "Socializing People" (2) provides the answer in the book. In his book, he points out that today's modern society is moving in a direction that deviates from the original civilized society. Since the Industrial Revolution, industrial society has excessively demanded only efficiency from the people, and as a result, humans have destroyed the human community that humans have built up with a healthy body and mind. The human community is the very substance of citizens' lives. He argues that daily activities in life can be broadly classified into (1) purpose, (2) process (process), and (3) result (state). In it, (2) the process of passage is life itself for all human beings. However, when a goal is set, modern human behavior (2) skips the process and eliminates it, and (3) strives to obtain only the result. People have spent most of their time in the course of (2), built an important personal life community, and felt a sense of purpose in life. There, he cultivated his spirit, acquired skills, courtesy, and artistic abilities. A society in such a state is a healthy civilized society in which humans play a leading role as citizens. He states that being able to play an active role in this situation is the original way of being in an advanced civilized society.

Organizations are stages and tools for efficiently composing human life. On top of that, he created the tool of power to improve the efficiency of society's operation. Based on the instructions, the system is structured so that the results of (3) can be obtained as soon as possible. The quality of the system depends on (3) whether the result of (2) is fulfilling the course of (2). The priority is to enhance the processes for the community, which is the fruit of a civilized society. However, the more developed countries lag behind, the more they leave behind (2) the process of human life and (3) only seek results. For example, in a corporate organization, serious employees are treated as people who aim only for the results (profits) of (3) against the goals of (1) dictated by the power of the chain of command within the organization, without being able to experience the human social period in (2). Gradually, even in the corporate organization, (2) the motivation and time to hone the process technology are being lost.



In the 21st century, developed countries aimed for a post-industrial society and became an information society. As Mr. Yamazaki worried, informatization meant that surplus time and funds would be directed to building a human-centered civil society. Many of the IoT and AI technologies that will be introduced are tools that are directly linked to the results by skipping the process of elapsing from the goal at once. It is helping to destroy the emergence of a healthy society. Society is proceeding in the form of a result-first principle that "it doesn't matter what

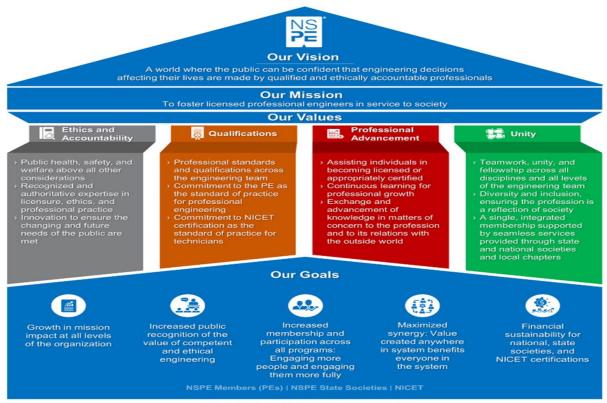
happens to human society: profit, money, money..." It has been a long time since the people of Japan lost sight of their life goals. Unfortunately, the company-centered society in the industrial society still remains, and the behavior of the power-obedient organization before the Meiji Restoration has survived even though it has been shaken. Citizens themselves have acquired the ability to play an active role in society, and they have not left the organization to play an active role in society. It seems that its appearance is not much different from the Tokugawa shogunate system, its vassals, and the townspeople who arrived with the black ships in the 19th century.

The fact that engineers working for industrial companies believe that this social system functions most efficiently is just as the shogunate of the Tokugawa shogunate considered the Tokugawa shogunate system to be the best social system that cannot be shaken. Under such circumstances, it is not yet possible to hope for civilization, let alone the advanced development of the Japan that Yukichi Fukuzawa lamented. To make matters worse, with the advancement of AI information technology, corporate organizations only demand faster results from their members in order to survive on their own. The main purpose of the employee's work is to obtain results (profits) faster, and the process of (2) is omitted. Investment also promotes it. Under these circumstances, it is feared that engineers and researchers working in Japan in particular will lose the opportunity to learn and their lives when they join a corporate organization. What kind of response can we, the specialized engineers, do? Think about it, professional engineers can set up their own social associations between engineers across professions, specialties, and companies. That would be one solution. A sample of this is N SPE, and in Japan it is J SPE. Engineers should acquire their own specialized skills, obtain P E qualifications, and establish a community of likeminded engineers in Japan. The United States is a developed civilization and a civil state. Take the U.S. N SPE as an example. Aiming for this, we will disseminate the role of technology to society toward the realization of a civilized society. It is considered the most important function in society.

Mr. Yamazaki already welcomes the gradual diminishing of the presence of coercive organizations such as Japan-type administrative organizations and companies as a natural consequence of a civilized nation. However, in order to do so, citizens need to build and provide alternative societies. Until then, the leading role of society needs to be played by people who master the necessary functions of society in all fields of society. They are professionals in all fields. Before the advent of industrialized society, it was the revival of the "masters" and "masters" who had been active as the protagonists of society. It is necessary for these people to form small cooperatives, NPOs, and NGOs, aim to contribute to society, and make efforts to revive a social society in which people play a leading role. Mr. Yamazaki states that the development of information and communication technologies such as information communication, AI, and automation equipment is progressing in modern society, and that it is "professional people" who play this role. It can be said that the direction and form of behavior of "professional people" hold the key to the future progress of society as a whole toward civilization. In today's American society, NSPE activities themselves are fostering "professional engineers," recognizing their role in society, and promoting the realization of a social society.

4. Technology Promoter of American Society: NSPE

Now, to understand the whole NSPE's activities in American society, let's take a look at the N SPE homepage site. What is NSPE's purpose and function? Surprisingly, it concisely summarizes what seafarers and engineers should do for society, which has been described in this article so far.



» Download graphic. (PNG: 2700 X 3250)

Basic structure of NSPE

1. vision

Realization of a society in which people can be confident that decisions on technical issues that affect their lives are made by responsible and professional engineers with qualifications and ethics.

2. mission

To nurture qualified professional engineers who work for the benefit of society

3. value

Ethics and Responsibility qualification Technological advancement unity

4. goal

Successful expansion of the implementation of the association's mission Expanding the social awareness of the association Membership growth and participation Maximizing synergies Economic Stability of the Association's Finances

In 2020, the content of Engineering's Creed for NSPE's PE was changed. The impetus for this was a discussion among members at a study group called "Open Forum Digest" that focused on discussions on themes set up by NSPE on the Web. The contents of N SPE's "creed," the spiritual pillar of professional engineers, were derived from the results of membership discussions. The process considers the diversity of "gender", "religion", "race", etc., which is the original state of society, and when you think about it, Engineer's They came to the conclusion that Creed's language was becoming inappropriate for it. Here, too, we can see the typical example of a civilized advanced country in which citizens (in this case, members) draw conclusions and create societies through discussions in American society.

5. Current situation of "professional engineers" in Japan society

Once again, considering the current activities of the Japan Professional Engineers Association (JSPE), which is mainly composed of professional engineers working in Japan Japan, we can see the issues. In Japan society, since the Meiji Restoration, national institutions such as the Ministry

of Economy, Trade and Industry, research institutes such as universities, and the technical departments of companies belonging to industry have been working to solve technical problems from the top down. There is no system in place in which engineers in charge are interviewed for the opinions of actual engineers who arise in general society, and the engineers in charge discuss and respond to problems occurring in the field. There is a feeling that the mass media, which serves as an observer, has abandoned its role in a process in which many conclusions can be bent for political and economic reasons. As a result, opportunities for social issues to appear as facts even to the general public are extremely rare. One book that points out current issues from the perspective of technological policy in Japan society is Toru Morotomi's book "A New Form of Capitalism" (4). In his book, he points out that in capitalist society, information technology rapidly undergoing a is "non-material transformation" and the main body of industry has changed from "manufacturing" to "creating and providing services,"



and the shortage of engineers in charge in the field has become pronounced. What is really needed in terms of corporate management resources is human resources, and Japan are extremely lagging behind not only developed countries but also developing countries in terms of human resource investment. Investments in skills conversion have also been extremely delayed within companies. He points out that this is the main reason why all organizations such as countries, companies, and technologies are lagging far behind developed countries in Japan society.

So far, NSPE activity has been benchmarked for the Japan society1 since the period of high economic growth of 970-80, and the loss of the economy3 Symbolically called "0 years", we have examined the fact that not only the economy but also civilization has regurgitated and regressed. The engines that supported Japan's rapid growth were mainly scientists and professional engineers. If a representative of science is a researcher at a university, these people have contributed to various fields and Nobel Prize winners, becoming the foundation of human society's development. These scientists have the courage to speak out and act conscientiously against the reverse currents of civilization in Japan society. On the other hand, the professional engineers are in a state of complete stagnation. It has been a long time since many professional engineers lost the spirit of contributing to society. This does not envision the future of the path to becoming an advanced country in Japan society through technology.

And patents, which are the only means of social activity for engineers, have not yet escaped the stereotype of the mass-produced industry represented by the automobile industry. It has withered to the point where it is almost impossible to apply for a patent as an individual full-time engineer, and the material is running out. This fact can also be said to be a side effect of Morotomi's proof that the industrial form cannot be changed, as pointed out in his book "The New Form of Capitalism".

7. Conclusion

Information and communication technology has brought about a global society and has entered a homogeneous competitive society in each industry. The goods and services provided by individual countries have the power to receive the support of customers around the world as high as those in human civilization. In this century Japan the long-term decline of companies and

industries, mainly in the manufacturing industry, has not stopped. The causes and countermeasures were investigated through the activities of the NSPE in the United States. As a result, the following was revealed.

- (1) First cause: Japan society has an ancient Asian civilization-type social system and institutions, and a civil civilization society has not yet been formed.
 - The current social system is in the form of a medieval despotic state, and there are many contradictions aimed at the management of a democratic state.
 - This evil is caused by people who are suspected of lacking the ability of the founding family president of the hereditary system of power (second and third generation legislators) at the top, and bureaucrats (the majority of bureaucrats of ministries and agencies and middle managers of companies) take their place to secure the basic policy authority of the country. It is also common in the social systems of many developing countries.
 - This social system is a system that prevents the revolt of the ancient people: new technological development, new business models are often eliminated as organized rebellions, and are hindered by the status quo system.
- (2) The second is the education and research system: Conversion from the current style of "selective type" to the "bottom-up type" of students
 - At present, the situation has deteriorated to the point where society is worried about the declining birthrate. The current educational system is similar to the system of the infamous "imperial examination" in history, through center examinations throughout the country. The system to protect the bureaucracy in the above social system, the cause of dislike of education from all citizens
 - This also seems to be a bad practice of the autocratic regime. This is not going to keep up with the very rapid transition of the information and communication society.

Looking at it this way, engineers who continue to work hard while suffering from Japan are carrying a big handicap against PEs who are active in Europe and the United States. When I started this article, I was worried that the decline in the ability of our full-time engineers in the world around the world was causing industrial corrosion. It's not that the Japan's engineers are declining, it's just that they're strangled by the people around them and can't move. Therefore, if you ask overseas companies for a place to play an active role, you will have the ability to work on an equal footing.

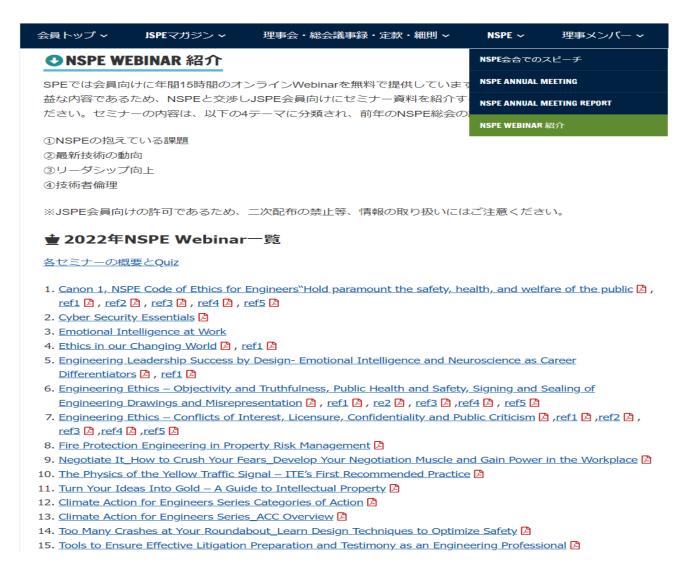
The evil customs of ancient Asia (the ritsurei system) have survived to Reiwa and become the social system of the present Japan, and are about to decline the entire population. The only way to change this is for each citizen to think for himself, come to a conclusion, and raise his or her voice in both the company and the country. In this article, I dare to take the initiative in challenging how much voice engineers need to raise their voices to society in order to form a future society.

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- 1) Yukichi Fukuzawa "Outline of the Theory of Civilization" Iwanami Bunko 1986
- 2) Masakazu Yamazaki "Fewer people socializing" Chuo Koron Shinsha, May 2006
- 3) NSPE Homepage https://www.nspe.org/
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PE-0253 (Electrical, Delaware)
Tokoh Nishikubo

Have you heard of NSPE's Free Webinar? NSPE's service is that you can take 15 PDH online seminars per year (free for members, paid for non-members). I joined NSPE about 8 years ago at the time of the Seattle General Assembly in 2015, but I took 1 5 W EBINAR classes following last year, so I would like to introduce the overview. I am aware that the percentage of JSPE members who are members of N S PE is very small, but it is very good considering that CPD seminars can be taken for about 2,000 yen per CPD. There are all kinds of things. In addition, free webinars are held regularly. NSPE annual fee of \$2 99 is required, but you can get the latest information on US PE through magazines and newsletters, P It is worth more than the cost, such as financial support for N SPE that increases the value of e-licensing, and the opportunity to learn about technical issues in the United States, so please consider joining NSPE as well as JSPE. Courtesy of NSPE, we ebinar materials (PDF slides) We have obtained permission to disclose the information. Since it is also possible to obtain the CPD necessary for PE renewal by using the disclosed materials for self-improvement, JSPE HP Please check. Q The content of uiz alone is quite informative. (https://www.jspe.org/member/nspe/webinar-intro/)



1. What is NSPE Free Webinar?

The contents of the <15 courses>

It is broadly classified into four themes, including several lectures from the previous year's NSPE General Assembly.

- > NSPE's Challenges
- ➤ Latest Technology Trends
- > Improving Leadership
- Engineering Ethics

<Course flow>

① Course Registration

From NSPE's website, click Education \Rightarrow 15 Free Course \Rightarrow Select the course you want to take \Rightarrow It will be added to your shopping cart, so log in and purchase (if you are a member, it will be discounted and free).

* Every year 1/M is replaced with the course of the following year, and now the course of 2 023 can be



2021 Free Courses

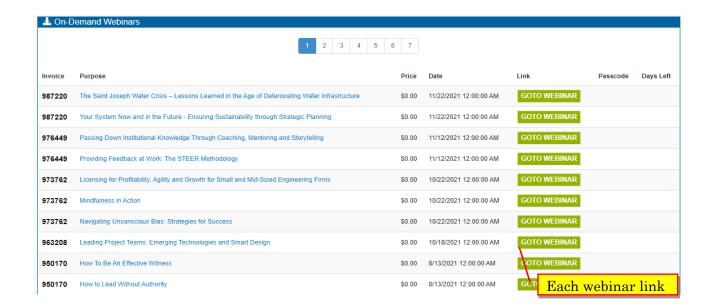
* indicates this particular webinar has been approved through NY Practicing Institute of Engineering (PIE)

- Climate Action for Engineers Series: Structural and Infrastructure Mitigation *
- Engineering Ethics and the Law *
- Ethics Forum: Conflicts of Interest Employers and Clients *
- Ethics Forum: Conflicts of Interest Vendors and Colleagues *
- Ethics Forum: Conflicts of Interest Serving the Public *
- How To Be An Effective Witness
- How to Lead Without Authority
- Leading Project Teams: Emerging Technologies and Smart Design *
- Licensing for Profitability, Agility and Growth for Small and Mid-Sized Engineering Firms
- Mindfulness in Action
- Navigating Unconscious Bias: Strategies for Success
- Passing Down Institutional Knowledge Through Coaching, Mentoring and Storytelling
- Providing Feedback at Work: The STEER Methodology
- The Saint Joseph Water Crisis: Lessons Learned in the Age of Deteriorating Water Infrastructure ★
- Your System Now and in the Future Ensuring Sustainability through Strategic Planning

(2) Watch the course

After logging in, select "Go to webinar" from the On demand webinar in My account. A dedicated webinar page will open, where you can click "View Web Content on Demand" to open the Webinar screen.

* There is no deadline for taking the course, so if you don't have time, you can just purchase it and watch it when you have time after the next year.



The Saint Joseph Water Crisis – Lessons Learned in the Age of Deteriorating Water Infrastructure

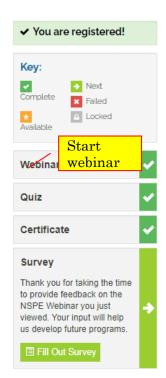


The Town of Saint Joseph, Louisiana, is a town of approximately 1,050 persons located on the western bank of the Mississippi River in sparsely populated Tensas Parish, Louisiana. The town is located in an economically disadvantaged area, and 40% of the persons in the town live below the poverty line.

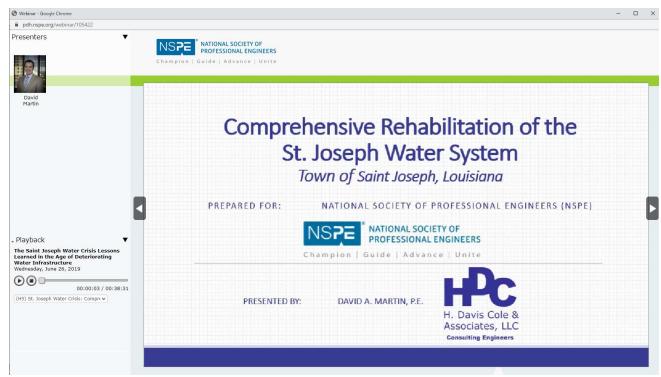
For years, the Town suffered with deteriorating water treatment and distribution infrastructure. The town's source water is produced from the alluvial aquifer and as such is high in iron and manganese content. The high concentrations of iron and manganese in the source water provided significant challenges for treatment in terms of meeting secondary standards. This also contributed to a high corrosivity of the finished water.

The water crisis in St. Joseph lends many lessons related to the difficulties faced by small and large water systems in rural environments in our time. The project team dealt with technical and design challenges, construction challenges, funding constraints, time constraints, and regulatory constraints throughout the process. Through close teamwork and coordination between the owner, engineer, construction manager, contractors, state, local, and federal agencies, the water crisis ultimately became a major success for the stakeholders in the Town and provided a blueprint for addressing such crises in the future. Lessons learned in St. Joseph will be applicable on a small and large scale throughout the United States in the era of aging water infrastructure.

In this session, participants will be presented an overview of the state of the Town's water system prior to and after construction, as well as an overview of the new treatment process and applicability to other aquifer systems. Additionally, participants will be presented with the lessons learned during the crisis, including regulatory involvement, use of multiple funding sources, early owner procurement of long lead time equipment, and alternate project delivery. Additionally, participants will be presented with an outlook of the future of small and large water systems as well as recommendations for the future of water systems.



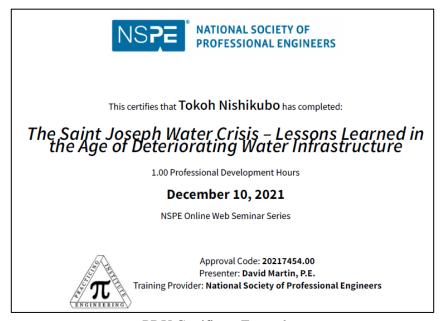
Course viewing instructions



Webinar screen

3 Applying for CPD

When you select "Quiz" from the link field on the left side of the webinar screen, a screen will open where you can enter the student's information and a quiz (True/False) or a multiple-choice quiz for the course content. (QUIZ is also posted on the website, so please read it). If you pass the Quiz with a score of 7 0% or more, a PDH certificate will be sent to your registered email address. JSPE's CPD seminar w eb distribution is also preparing a trial site with this level as a goal, so please use it. https://www.jspe.org/new/



PDU Certificate Example

2. 202 Introduction to the 1 Year Course

The title and outline of the 20 2 1 year course are listed below. For these 15 courses, NSPE kindly allowed us to publish slides for JSPE members. It is posted on JSPE member website. (https://www.jspe.org/member/nspe/nspe-webinar - Introduction/)

FY2022 NSPE Free Course Overview

Canon 1, NSPE Code of Ethics for Engineers: "Hold paramount the safety, health, and welfare of the public" "In law a man is guilty when he violates the rights of others. In ethics he is guilty if he only thinks of doing so." - Immanuel Kant (1724-1804) German philosopher and Enlightenment thinker

As an example of the Board of Ethical Review, he introduced the dilemma faced by engineers working on buildings in response to climate change and aging. If there is a possibility of compromising the safety of users and residents due to a once-in-a-century disaster or deterioration, you need to suggest improvements to the client as an engineer, and if the client opposes the proposal, you must have the project and contact the appropriate agency. Rather than the risk of losing your job, it is a good opportunity to think about who and what you are doing the work for.

Cyber Security Essentials

title



Introduces the current state of cybersecurity and business responses. He explained that there are 2.6 billion spam emails per day, and that the majority of cybercrime is aimed at money, which is inseparable from business, but the basic response and concept are as follows. Password: Make everything two-factor authentication Firewall: Use the latest Endpoint: Don't be overconfident in antivirus Email: Introduced URL blocking and spam filters, especially attention to addresses I and l URLs: Do not click links mechanically and read for strange sites Darkweb: Check haveibeenpwned.com if information is leaked Training: Understanding phishing cases through education and training Backup: Cybersecurity is essential to be able to recover at worst Insuance: When a security event occurs, consider it essential for business continuity and consult with an insurance provider Financial: Especially important, so if you are concerned about the content of the email, call the person in person

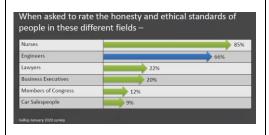
Emotional Intelligence at Work

Conclusion

- Introduction: Definition, Relevance, Aspects, Purpose, and Assessment
- Self-Awareness: ID emotion & bias, see how others see you
- Self-Management: Self-expression, impulse, well-being
- · Social Awareness: Empathy, social rules, you affect others
- · Relationship Management: Influence, coaching, teamwork

Introducing tips on how to handle and develop EQ, which is the ability to express emotions. There are four points. Self-awareness Self-management Social aawareness Relationship managementSince humans have will = emotion, it is necessary for both a leader and a manager to correctly recognize their own state and understand the emotions of others as much as possible = EQ. Since EQ is a type of skill, it is not innate and can be extended by increasing engagement with pets, children, and people who have had similar experiences. It is also important for the speaker to recognize who he is talking to by using I instead of "We" when explaining.

Ethics in our Changing World



Based on an article related to Ethics that was recently (as of 2020) published in NSPE Magazine, we introduced the role that PE should play in technological innovation and social changes. Drones, disaster preparedness and autonomous driving have been launched, all of which indicate that PEs must operate with a policy of protecting public safety, health and well-being \gg in the interests of clients and employers. Another point is that among the many occupations, engineers are highly trusted by society (three times that of lawyers).

Engineering Leadership Success by
Design- Emotional Intelligence and
Neuroscience as Career Differentiators

BRAIN SCIENCE & EI CAREER BOOSTERS



From the perspective of brain science, he explained that emotional intelligence is important for career development. Research shows that emotional intelligence is more than twice as important as experience and knowledge, and more than four times more important for senior managers. From the perspective of brain science, it is important to be aware of SCARF. Status, Certainty, Autonomy, Relatednes, Fairness₀ It is also important to recognize what you want to be and how you want the other person to feel when giving an important speech. Also, if you can't get back to normal before the speech, Box Breathing (inhale through your 4s nose→ hold your 4s breath→ exhale at 4s→ hold your 4s breath, repeat for a total of 30s) is effective.

Engineering Ethics – Objectivity and Truthfulness, Public Health and Safety, Signing and Sealing of Engineering Drawings and Misrepresentation

Seven Principles Impacting Each Obligation

- 1. Protecting the Public Health, Safety and Welfare
- Demonstrating Professional Competence
- 3. Maintaining Objectivity/Truthfulness
- 4. Addressing Conflict of Interest
- 5. Preserving Confidentiality
- 6. Receiving and Providing Valuable Consideration
- 7. Emerging Areas/Emerging Challenges

Using four examples related to Ethics as a theme, we will introduce what kind of action is necessary as a PE. 1. Formulation of reference issuance policy as a company 2. When a safety problem is discovered in past construction work due to a preliminary survey of the order received 3. Can you sign a connection diagram created by another person with the device that signed the drawing? 4. In any case, the criterion for handling the performance of independent former employees is what actions are necessary to protect public safety, health and well-being, which should not be forgotten when working as a PE.

Engineering Ethics – Conflicts of Interest, Licensure, Confidentiality and Public Criticism

Three Basic Ethical Obligations:

- (1) Public
- (2) Employer/Client
- (3) Other Professionals
 - · Never Mutually Exclusive Reciprocal
 - Not A "Zero Sum Game"
 - All Need To Be Considered At All Times
 - Should Be Complementary to Integrated With One Another
 to the Fullest Extent Possible
 - Ethical Integration = Professional Integrity

In addition to introducing the renewal of the search engine of the past case of BER (Board of Ethical Review) on the NSPE website, four BER case studies are introduced. PEs often enter into confidentiality agreements with customers and companies, but if concerns about the boom arise, they must first encourage customers to clarify their concerns, and if they still do not seek to address their concerns, they must contact the appropriate authorities.

Fire Protection Engineering in Property Risk Management

CODES & FIRE PROTECTION ENGINEERING

- Protection of Vertical Openings (smoke migration
 Interior Finishes (passive protection)
- Flame Spread Ratings
- Fire Protection Systems (active protection)
- Fire Sprinkler Suppression Systems
 Fire Alarm Systems / Notification System
- Smoke Control Systems
- Means of Egress (MOE)
- Evacuation Protection from Hazard
- Exits (quantity, location, etc.)
- Travel Distances to Exits
- Emergency Lighting (during occupant evacuation)

Unlike Mechanical and Electrical, the Code of Fire protection engineering, which is directly related to human life, began with the needs of the insurance industry and has been revised based on lessons learned from past disasters. As in the insurance industry, risk identification is based on the probability of occurrence and the degree of impact, narrowing down the areas where countermeasures are needed. In the past, the fire prevention performance of the building was used as an index, but now the suitability is judged on a room-by-structure basis in the building.

Negotiate It! How to Crush Your Fears, Develop Your Negotiation Muscle, and Gain Power in the Workplace

COMMON NEGOTIATION EXCUSES



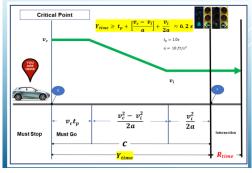




He explained that negotiation is essential to get what you want, but many people have a strange sense of resistance and need to be resolved by the 3Rs. Ready: Identify what you really want and prioritize and prepare Relatable: Build trust within your team so you can get help Reasoanable: Don't Ask Don't Get as an important way of thinking that is emotionless, life-size, and doesn't use ambiguous language. This is a point that should not be forgotten.

The Physics of the Yellow Traffic Signal – ITE's First Recommended Practice

ITE Extended Kinematic Equation - First Recommended Practice (Järlström, 2016)



Explained the change in the yellow time of traffic lights in the Institute of Transport Engineering (ITE) guidelines revised in 2020. Yellow traffic lights are stipulated in the ITE guidelines to stop when it is safe to stop, and to maintain speed or accelerate into an intersection when not. The yellow time, which is the switching time between blue which is GO and red which is stop, is designed with response delay + deceleration by braking until a person notices a yellow light while driving at 1/2 of the upper speed limit. It is a good example of how content related to human safety is appropriately designed based on engineering. Even if you notice (conventional) yellow, the yellow time is designed so that you can stop before the intersection. However, without considering the friction of the road surface and the variation in the delay until the driver notices, the system decelerates to the intersection before entering the intersection that was designed at the median (2020 version), but changes the way of thinking when entering an intersection with the deceleration stopped (speed is not 0) whether it can enter the intersection from the middle. In addition, it has been changed to take into account variations in road conditions and drivers. It is interesting that \pm 3S is considered appropriate as a variation.

<u>Turn Your Ideas Into Gold - A Guide to Intellectual Property</u>

5 Major IP Value Drivers

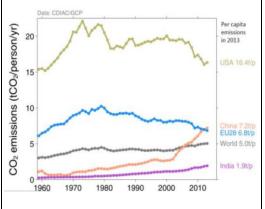
- 1. Higher Selling Price
- 2. Protect Market Share
- 3. Additional Revenue Streams
- 4. Protect Business Reputation
- 5. Greater Business Value

He explained with an example that engineers and patents are inseparable, but patents and business are also strongly linked. If the scale of the business is large, it is desirable to file with all the countries concerned, but if you are a small business and do not have enough funds, you can file an application with a country related to the distribution channel from product manufacturing to consumption, and US patents can often handle imports and exports because they also cover imports and exports. Recently, by searching on Google patents, it has become possible to check the status of patent applications for each company, and it is interesting to feel the progress of technology in this aspect as well.

Catego	ries of A	<u>ction</u>	neers Seri	
(Representative actions only)		PERSONAL	PROFESSIONAL*	POLITICAL
MITIGATION	IMMEDIATE	Try to use minimal A/C	Reduce CO ₂ e of infrastructure construction	Advocate for C redux
MITIGATION	LONG-TERM	Insulate and air seal your home	Shift to low CO ₂ e modes of transportation	Advocate for pricing of CO
ADAPTATION	IMMEDIATE	Practice natural ventilation	Emergency response aid	Increasing help storm victin
ADAPTATION	LONG-TERM (i.e. resilience)	Insulate and air seal your home	Design for higher storm surges	Improve codes resiliency

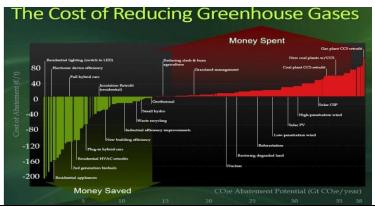
Introducing what engineers should do to deal with climate change. Since the impact of CO2 released into the atmosphere affects the future climate, he explained the actions that the general public, professionals, industry, and government should take from both the perspective of Adaption, which accepts the current situation, and the perspective of mitigation, which suppresses the impact that will occur in the future. Considering the movement of people, when the total energy of fossil fuels is 100%, airplanes require twice as much CO2 as public institutions such as buses and trains, and even engine-powered automobiles are used for moving cars, about 10% are used for moving cars, and less than 1% is used for the movement of people. In architecture, the viewpoint of heat insulation that does not allow heat to escape is important, and it is clear that it is necessary to respond in all engineering areas, as Switzerland is promoting the replacement of building

Climate Action for Engineers Series: ACC Overview



Introducing facts accompanying the increase in greenhouse gases since the Industrial Revolution.

- CO2 in the atmosphere has increased by 50% over the past 200 years
- Population growth is also one of the causes of CO2 increase, but the CO2 increase rate is more than twice that high.
- There are various greenhouse gases, but gases that did not exist in nature, such as CFC refrigerants developed for convenience, are accelerating their impact.
- The temperature has risen by 1°C and the sea level has risen by 18cm. Increased water vapor generation due to rising temperatures exacerbates the effects of hurricanes and natural fires
- There are various technologies to reduce CO2 emissions, but they have positive and negative economic efficiency.



Too Many Crashes at Your Roundabout Learn Design Techniques to Optimize Safety

Key Principles: ■ Simplify Decision-Making Clear - Concise Information Minimize detection, reading and processing time Intuitive & Easy to Understand

As a response to the frequent accidents at roundabouts, an example of road improvement design from the engineer's perspective was introduced. It is interesting that it proposes not only improvements to the road itself, such as the upper limit of the angle at which the in/out of the roundabout, the width of the road, and the entry speed, but also how to display the road from the viewpoint of ergonomics that is simple and not excessive. Certainly, when I think about it, I know intuitively that it is impossible to read the necessary information instantly with faint displays, dirty signs, and countless billboards and covers, but as an engineer who ensures public safety, I felt again that it is necessary to grasp the logic and principles rather than the senses.

Tools to Ensure Effective Litigation Prepa<u>ration and Testimony as an</u> **Engineering Professional**

Introduces what to do when an expert is asked for an opinion in a litigation. It also touches on the need to show that you are worthy of being an expert and what kind of CV you should prepare. It is important to write so that the content can be objectively corroborated, and it can be noted that it is different from a simple resume.





3. Finally, after the webinar

This year, I decided to watch the webinar on public holidays and completed it in about 6 months. NSPE's seminars focus not only on the latest technologies such as DX, but also on low-tech technologies such as infrastructure such as water supply and roads, and differ in specialties such as mechanical, electrical, and chemical. Even so, I feel that there are points that all engineers should learn. The content is also wide-ranging, including technology, ethics, and leadership, and may indicate that the era in which engineers only need to understand technology has come to an end. I felt that it was necessary to deepen my understanding by listening to the contents of the seminars I attended over and over again, which I would like to respond to in future JSPE seminars. In that sense, I feel that it has been progress to be able to look back on the seminar from the conventional method of listening to the seminar once and finishing it, even if it is a trial.

We would like to introduce the 202 3 year course that has already started to our members as well, but if you join NSPE, you can watch it freely, so we would appreciate your opinion. If you are a member who can cooperate, please contact the Public Relations Subcommittee (public.2007@jspe.org).

Variables from PEoples

Galapagos, Aiba Hideo, Shogakukan

It started with a car accident that I picked up at my favorite used bookstore during summer vacation, and at first I thought it was a run-of-the-mill suspense, but as I read on, it made me think about whether human beings and ethics can really go hand in hand. A temporary worker died several years after this accident. This person graduated from a technical college with excellent grades, but after learning about the family situation of his classmates, he handed over the recommendation slot from



the company sent to the school to his classmates, and since then, he could not become a full-time employee and repeatedly went to the dispatch destination every few years at the end of the contract period, and although he suffered from poverty, he ended up as an inspector of automobile manufacturing. One day, he noticed that the steel plate that had been inspected for quality was clearly thin from the touch and did not meet safety standards, so he consulted with closed SNS and committed suicide just as he was thinking about filing a complaint. Killed to be seen. The company sacrificed safety to reduce costs in order to recover business performance, and sacrificed temporary employees who noticed the problem. Who do you think this perpetrator was and what do you think was his reward? They were temporary employees working at the same site, and their promotion to full-time employees was remuneration. When he realizes that he has been attacked by a colleague, the cover reads, "I'll be the last to put the chain of poverty on me." The car accident mentioned at the beginning was also one of the last two cars to use problematic steel plates that had not been quietly recovered from the market.

We engineers create a wide range of products, and the impact on the market cannot be ignored. The maximum priority of public welfare is required of the EP, but whether it is possible to keep the philosophy even if there is financial hardship is a scary story for Japan who tend to neglect economic aspects such as remuneration.

(PE-0253 Tokoh Nishikubo)

10.2

Engineering close to home

This is a corner where you can introduce the excitement of discovering engineering in something casual and encountering engineering equipment and methods that make you growl.





Comparison of exhibits where you can experience bioelectric currents. Above is the Franklin Museum of Science in Philadelphia, and below is the exhibition at the Science Museum in Nakanoshima, Osaka. In the case above, when you hold the iron balls at both ends with your hands, the LED in the center glows even though the batteries are not connected. On the other hand, in the domestic exhibition below, when you put your hand on the position of the handprint, the needle of the galvanometer in the middle moves. Even if you show the same phenomenon, it seems that there is the most important thing to learn about how to show it, considering that it is easy for children to leave an impression = the opportunity to become interested in engineering. (PE-0253 Tokoh Nishikubo)



A thrilling piece at the station in front of Philadelphia Airport. It's a little hard to understand, but the dark part at the back of the platform, the platform is not continuing, and since it is the ground, the door of the train opens, but it falls when you get off. According to what I heard, the number of cars has been increased due to the increase in train users, but the old station has not yet been able to cope and is currently under construction. I feel that I have glimpsed the toughness of the United States to use it even if there is some inconvenience. (PE-0253 Tokoh Nishikubo)



There is a special exhibition of Harry Potter at the Franklin Museum of Science in Philadelphia, and one of the pieces there. Participants choose their dormitory, and the points for each activity are tallied in real time. Being able to realize a fantasy story in a movie in the real world is also the fun of engineering. (PE-0253 Tokoh Nishikubo)

10.3

Between the Senses

As the Ikoi no Plaza, it is a corner where things that are captured as "beauty" with the five senses are posted, and sketches, drawings, pictures, photographs, anything is fine. Regardless of whether it is engineering or not, please provide us with what you feel is "beautiful", such as carefully designed and manufactured equipment that makes you feel



Sunset in clouds at the summit of Mauna Kea volcano in Hawaii. As the sun sets, only yellow and red light with a long wavelength = low straightness reaches the eye, but I thought it was a good example of engineering that exists in harmony with nature. (PE-0253 Tokoh Nishikubo)

10.4

List of JSPE Library

The following list is the books held by JSPE and will be transferred free of charge to members who can contribute an introduction to the book. Some of the books are a little old, but there are many good books, so I hope you will make use of them. If you are interested in members, please contact the Public Relations Subcommittee (public.2007@jspe.org). Also, if you would like to donate a good book that you no longer need, please contact the Public Relations Subcommittee as well.

List of JSPE owned books

public	title	Author / Editor	URL
ation 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: Technological Competitiveness in Japan and the U.S.	High-Tech Strategy Study Group	https://www.amazon.co.jp/ dp/4532062810
1991	Successes and failures of macro projects	P. Morris	https://www.amazon.co.jp/ dp/4753654052
1994	International Qualification The 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	Phases of Technical Knowledge Perspectives of Process Knowledge Hiroyuki Yoshikawa https://www.amaz dp/4130651110		https://www.amazon.co.jp/ dp/4130651110
1997	Range of Technological		https://www.amazon.co.jp/ dp/4130651137
1997	The Essence of Technological 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 Nicholas Low https://www.an		https://www.amazon.co.jp/ dp/B000FBF9I2
1999	Kinmen Bridge Construction Record Video		
1999	Project Management Innovation – Optimal Use of People, 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 dangerous now	Kazuyoshi Mori	https://www.amazon.co.jp/ dp/4837803997		
2000	Industrial Technology Strategy	Industrial Technology Agency, Ministry of International Trade and Industry	https://www.amazon.co.jp/ dp/4806526347		
2000			https://www.amazon.co.jp/ dp/0890063532		
2000	PMBOK Japanese edition	PMI	https://www.amazon.co.jp/dp/1930699204		
2000	Global standard for PE technicians	PE-NET Workshop	-		
2000	Environment and Ethics of Technologists	Translated by P. Arne Vezilind Japan Engineers Subcommittee	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 Students	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.or g/bookchap/mtptitles/0262 524198.htm		
2001	Ethics of Science Students: Tokyo University of Fisheries Open Symposium	es of Science Students: o University of Fisheries			
2001	Technology in the maze	H Collins	https://www.amazon.co.jp/ dp/4759808728		
2001	First Engineering Ethics	Ryofumi Saito	https://www.amazon.co.jp/ dp/481220108x		
2002	PE Exam Manual - Aim! PE/FE	Takao Toshimitsu Wow Publishing			
2002	Introduction to Engineering Ethics	Roland Shinsinger, translated by Nishihara	https://www.amazon.co.jp.		
2002	P2M Project and Program PM Qualification		-		
2002	PE Exam Manual - Aim! PE/FE	Takao Toshimitsu Wow Publishing	https://www.amazon.co.jp/ dp/4820740881		
2002	2nd Edition Ethics of Technologists	Translated by Charles E. Harris Jr. Japan Engineers Association	https://www.amazon.co.jp/ dp/4621049992		

2003	A science expedition that interests us follows nanotechnology	rests us follows Takashi Tsujino nttps://www.amazon			
2003	American logic	https://www.amazon.c			
2003	Jefferson Arch Construction Record Video	-	https://www.amazon.co.jp/ dp/1933233044		
2003	Ethics of Engineers: Aiming to be Trusted Engineers	Ryohei Imamura	https://www.amazon.co.jp/ dp/4306023648		
2003	Ethics of Civil Engineers: Focusing on Case Analysis	Ethics Education Subcommittee, Civil Engineering Education Committee, Japan Society of Civil Engineers	https://www.amazon.co.jp/ dp/4810604497		
2003	Technical Risk Assessment	unical Risk Assessment Mark G. Stewart $\frac{h}{d}$			
2003	Engineering Ethics and Law 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 your engineering skills	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	Be a proud engineer Nagoya University	Kotaro Kuroda	https://www.amazon.co.jp/ dp/4815804850		
2004	Continued: Cases and NSPE Ethics Rev. Board Translation		https://www.amazon.co.jp/ dp/4621074458		
2004	Examples and Considerations of Ethics of Technologists	NSPE Ethics Review Board Translation, Japan Professional Engineers Association	https://www.amazon.co.jp/ dp/4621047949		
2004	Biotechnology: Its Social Impact	Yukio Karube	https://www.amazon.co.jp/ dp/4595543840		
2004	Flexible Professionals - For you who aim to become scientists and engineers	Japan Women Engineers Forum Research Group	https://www.amazon.co.jp/ dp/4883850587		
2005	Aspects of Engineering Ethics: Intellectual and Ethical Problems of Engineering	Ryofumi Saito	https://www.amazon.co.jp/ dp/488488886		
2006	Technical Literacy for Social Liberal Arts	Hiroshi Sakurai	https://www.amazon.co.jp/ dp/4486017323		
2006	Building for Professional Growth				
2011	Quotes from scientists who changed the times	Akira Fujishima	https://www.amazon.co.jp/ dp/4487805317		
2012	Algae Handbook Makoto Watanabe https://www.amazor.dp/4864690022				

2014	First Engineering Ethics	Ryofumi Saito	https://www.amazon.co.jp/ dp/4812213495
2017	Ethics of Technologists	Kanazawa Institute of Technology	https://www.amazon.co.jp/ dp/4561256997
2017	Kanazawa Institute of Technology Engineer Ethics Education PR Pamphlet	-	_
2018	PMI Japan Talent Triangle	PMI Japan Chapter	https://www.amazon.co.jp/ dp/4828205985
2018	Nikkokyo Oriented Ethics Seminar	-	-

9

Board of Directors Topics, HP / SNS News

JSPE Secretariat

Board Topics

The items deliberated at the ordinary board meetings in January and March are as follows. Details of each matter can be found on the member site – JSPE Board Meeting Minutes. https://www.jspe.org/member/report/

The Board of Directors meeting in May will be Saturday, May 13, 2023. If you are a member who wishes to participate as an observer to the Board of Directors, please contact the Secretariat managers@jspe.org.

[January Ordinary Board of Directors]

Agenda items

- ♦ Changes in the number of members
- ♦2023-2024 Officer Re-election
- ♦ Examination registration consultation
- ♦ Revision of instructor honorarium for seminars, etc.

Matters to be reported

- ♦ Payment status of annual membership fee
- ♦ Liaison meeting with JPEC
- ♦ Syllabus English translation support
- ♦Seminar Report
- ♦Status of the visit to Yokota Air Base of the U.S. Army

[March Ordinary Board of Directors]

Agenda items

- ♦ Changes in the number of members
- ♦ Confirmation of the list of candidates for the next term (FY2023-2024)
- ♦2FY023 Activity Plan Draft
- ♦ General Assembly 2023
- ♦ English translation of the Articles of Incorporation

Matters to be reported

- ♦ Payment status of annual membership fee
- ♦2023 Annual Event Plan
- ♦ PE/FE Examination Registration Consultation
- ♦ Request to prepare FY2022 summary of each subcommittee for business report
- ♦Event Report
- ♦ Forecast and actual report up to the third quarter of FY2022
- ♦Start of job board
- ♦Start of on-demand seminar trial
- ♦Start of HP update
- ♦Study Session

Homepage, SNS, Member Email

Thank you for using the JSPE website and SNS. The Public Relations Subcommittee strives to provide useful information to everyone through its website, such as updating PE exam registration, but if you have any comments or comments such as how convenient it would be to post something like this on the JSPE website or if the information posted on the JSPE website was useful, please contact the Public Relations Subcommittee public.2007@jspe.org Please do.

10

CPD Seminars and ESs by Education Subcommittee

JSPE Education Subcommittee

The 349th Onikin CPD Seminar

Date: Saturday, January 29, 2023

Participants: (Web viewing) 28 (PE 21, PEN3, AF 1, non-members) , including lecturers) Title: Toward DX beyond digitalization \sim Examples of breaking away from legacy systems in

Japan and overseas~

Lecturer: JSPE President Toko Nishikubo PE, PMP®, Ph.D

<Implementation report>

JSPE Chairman Nishikubo held a seminar on the theme of "Toward DX beyond digitalization ~Examples of breaking away from legacy systems in Japan and overseas~". Starting by reflecting on what went well and what did not go well in the IT implementation cases around each participant, I think that the benefits of the agile method deepened their understanding of the benefits of the agile method by understanding the utility of phased introduction and the importance of feedback in promoting IT and DX. After introducing examples of IT introduction in Japan and overseas, the session concluded with an exercise on thinking about the introduction of new convenience store services from an agile perspective. In the exercise, various ideas were presented from various perspectives, and I was able to finish the seminar happily.

350th Onikin CPD Seminar

Date: Saturday, February 11, 2023

Participants: (Web viewing) 20 people (PE 17 people, PEN 1 person, non-member 2 people,

including lecturers)

Title: Overview of Risk Management in the 7th Edition of the P MBOK® Guide

Lecturer: JSPE member Hiroshi Suzuki, PMP®

<Implementation report>

We held a seminar on the theme of "Overview of Risk Management in the 7th Edition of the PMBOK® Guide" with member Hiroshi Suzuki serving as a lecturer. Through the seminar, I was able to learn about the difference between risks and risk factors and their relationships. In addition, in the individual exercises, they worked on risk assessment and risk response practice, and deepened their understanding of risk identification methods, assessment methods using matrices, and judgment on the completion of risk responses. I think there are many people who are involved in risk management in their daily work, but I think that the content could be used in the work of the participants.

FY2022 2nd Engineers Salon

Date: Wednesday, March 1, 2023

Participants: (Web viewing) 15 people (PE 14 people, PEN1 person, including lecturer) Title: What is non-financial disclosure that supports sustainable finance? ~Overview of TCFD and Current Status of Corporate Responses to TCFD~

Lecturer: Masahiko Tsuchiya, JSPE Auditor

<Implementation report>

Positioned as a presentation of the results of this year's JSPE study session, JSPE Auditor PE

Tsuchiya provided a topic on the theme of "What is non-financial information disclosure that supports sustainable finance? ~Overview of TCFD and the current status of corporate responses to it~". For the first time as an engineer's salon, the lecturer provided topics for about 40 minutes, and the time allocation was divided into questions and opinions exchanged for about 50 minutes. During the exchange of opinions, participants other than the lecturers also used the ZOOM chat function to present and share materials, making it an engineer's salon that was a little different from the past.

We are coordinating to have the results of study sessions on different themes held this year at the Engineer's Salon at the Engineer's Salon after May. We look forward to a lively question-and-answer session and exchange of opinions at next year's salon.

FY2022 3rd English Seminar

Date & Time: Sunday, March 12, 2023 9:00~12:00

Participants: 16 (13 PE members, 2 PEN members, 1 non-member, including lecturers)

Format: Web delivery only

Getting an engineering job in Canada

Lecturer: Colin Dale

<Implementation report>

As in the previous year, we invited Prof. Colin as a lecturer and held the third English seminar of this year. This time, he focused on getting an engineer job in Canada. Through the exercises, I gained valuable experience in creating a Resume with a Canadian (Western) configuration. I think that the skills of creating resumes that I learned this time can be applied not only when getting a job in Canada, but also when trying to participate in international projects. I was also able to learn about what to know when interviewing. I would like to take this opportunity to thank Dr. Colin for providing us with useful information.

FY2022 Construction Site Tour

Date of the Event: March 15, 2023

Location: Construction of the underground wide-area control pond (Shakujii River section) of

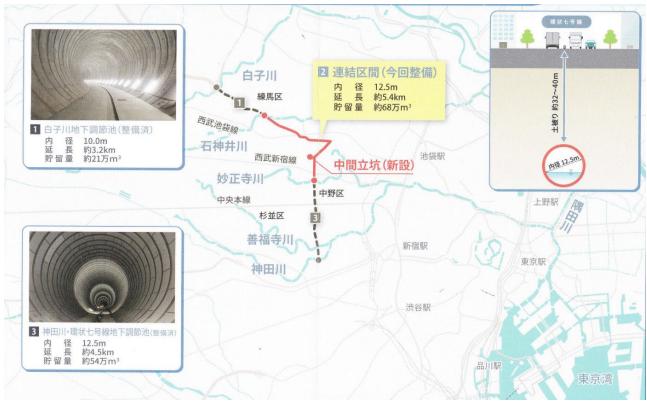
Loop Route 7

Participants: 6 (2 PE members, 1 FE member, 1 PEN member, 2 non-PE members)

With the cooperation of the Tokyo Metropolitan Government Daisan Construction Office, we visited the site of the construction of the underground wide-area control pond (Shakujii River section) of Loop Route 7. This regulating pond is a tunnel-type underground regulating pond that connects the Shirako River underground regulating pond and the Kanda River Kannachi underground regulating pond, which have already been developed, and this work will improve it. The construction period is March 2017 ~ December 2025, the inner diameter of the tunnel is 12.5m, the length is 5.4km, the shaft is 15.6m×12.1m (depth 52.4m) pneumatic caisson, and the shield tunnel wall is divided into 9 parts (1.8m wide) composite segments. It was a large-sectional tunnel that was one size larger than the shield tunnel of the Tokyo Bay Aqua Line, and all the visitors were overwhelmed by the scale. When completed, it will become a wide-area control reservoir spanning five rivers, and will become an essential social infrastructure that protects the river basin, which has frequently flooded due to heavy rains in the past, from disasters. Construction by the general contractor representing Japan (Taisei, Kashima, Obayashi, Keikyu Construction JV) is underway from south to north.







The 352nd Onikin Seminar

Date & Time: Saturday, March 18, 2023 9:30~12:30

Participants: 11 (10 PE members, 1 AF member, including lecturer)

Format: Web delivery only

Title: Management of Community Contribution Activity Projects

Lecturer: JSPE member Takeya Kawamura, PE, PMP®

Former JSPE Chairman Kawamura served as a lecturer and gave a lecture on the theme of "Management of Community Contribution Activity Projects". After introducing the lecturer's own community contribution activities, we asked each attendee whether they had any experience and the content of their activities, and at the end, a group discussion was held on the themes of "revitalization of area management," "regional support for companies," and "revitalization of local governments." There are various types of community contribution activities, but I felt that one of the difficulties of management is that the appropriate way and degree of involvement of individuals and local companies can change depending on the content of the activities and the characteristics of the region, and that it is also rewarding and fun. I was able to hear various opinions from the attendees, and I think it was a fulfilling seminar.

Coming Events

JSPE Education Subcommittee

Please check the following URL for the latest information on this year's events.

https://www.jspe.org/events/

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年月日	曜日	時間	行事名·内容	場所	問い合わせ先	備考
2023年4月1日	土	-	JSPEマガジン春号配信	会員にメール通知	広報部会 public.2007@jspe.org	
2023年5月10日	水	19:00-21:00	エンジニアズサロン (1)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	時間・時刻調整中
2023年5月13日	土	9:30-12:00	5月度理事会	東京Mixer/Zoom	事務局 webmaster@jspe.org	
2023年5月20日	±	9:00-12:00	鬼金セミナー (2022年度第5回)	関西TBD, 関東TBD/ Zoom	教育部会·鬼金分会 rep@jspe.org	
2023年6月3日	土	13:00-18:00	年次総会	東京グランドホテル/ Zoom	事務局 webmaster@jspe.org	
2023年6月17日	土	-	技術施設見学会	TBD	教育部会 education.2007@jspe.org	
2022年7月1日	土	-	JSPEマガジン夏号配信	会員にメール通知	広報部会 public.2007@jspe.org	
2023年7月8日	土	9:30-12:00	7月度理事会	東京Mixer/Zoom	事務局 webmaster@jspe.org	
2023年7月16日	В	9:00-11:00	英語セミナー (1)	関西TBD, 関東TBD/	教育部会	時間·時刻調整中
2023年7月26日	水	19:00-21:00	エンジニアズサロン (2)	Zoom 関西TBD, 関東TBD/	education.2007@jspe.org 教育部会	時間·時刻調整中
2023年8月2~4日	金~日	-	NSPE総会	Zoom Louisville, Kentucky	education.2007@jspe.org 事務局	
2023年8月23日			エンジニアズサロン (3)	関西TBD, 関東TBD/	webmaster@jspe.org 教育部会	時間・時刻調整中
2023年9月2日	±	9:00-12:00	鬼金セミナー (1)	Zoom 関西TBD, 関東TBD/	education.2007@jspe.org 教育部会·鬼金分会	時間・時刻調整中
2023年9月9日		9:30-12:00	9月度理事会	Zoom 東京・TBD/Zoom	rep@jspe.org 事務局	73,2773,273,227
2023年9月13日	水	19:00-21:00	エンジニアズサロン (4)	関西TBD, 関東TBD/	webmaster@jspe.org 教育部会	時間・時刻調整中
2023年9月23日		9:00-12:00	鬼金セミナー (2)	Zoom 関西TBD, 関東TBD/	education.2007@jspe.org 教育部会·鬼金分会	時間·時刻調整中
2023年9月23日	日	-		Zoom 会員にメール通知	rep@jspe.org 広報部会	时间, 对外则是十
		0.00.11.00	JSPEマガジン秋号配信	関西TBD, 関東TBD/	public.2007@jspe.org 教育部会	D+ 88 D+ 大川-田本女+
2023年10月14日		9:00-11:00	技術セミナー (1)	Zoom 関西TBD, 関東TBD/	education.2007@jspe.org 会員部会	時間·時刻調整中
2023年10月28日		14:00-17:00	FY2023PE/FE受験·登録相談会	Zoom 関西TBD, 関東TBD/	membership.2007@jspe.org 教育部会	
2023年11月5日		9:00-11:00	英語セミナー (2)	Zoom	education.2007@jspe.org 事務局	時間・時刻調整中
2023年11月11日	土	9:30-12:00	11月度理事会	東京Mixer/Zoom 関西TBD, 関東TBD/	webmaster@jspe.org 教育部会	
2023年11月18日	土	13:00-16:20	JSPE Day 2023 (Day 1)	Zoom	education.2007@jspe.org	時間・時刻調整中
2023年11月25日	土	13:00-16:20	JSPE Day 2023 (Day 2)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	時間・時刻調整中
2023年12月13日	水	19:00-21:00	エンジニアズサロン (5)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	時間・時刻調整中
2023年12月23日	±	9:00-12:00	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	時間・時刻調整中
2024年1月1日	月	-	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	
2024年1月13日	土	9:30-12:00	1月度理事会	東京Mixer/Zoom	事務局 webmaster@jspe.org	
2024年1月20日	土	9:00-12:00	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	時間·時刻調整中
2024年2月3日	±	9:00-11:00	技術セミナー (2)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@jspe.org	時間・時刻調整中
2024年2月17日	土	9:00-12:00	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	時間・時刻調整中
2024年3月3日	В	9:00-11:00	英語セミナー (3)	関西TBD, 関東TBD/ Zoom	教育部会 education.2007@ispe.org	時間・時刻調整中
2024年3月9日	土	9:30-12:00	3月度理事会	東京・TBD/Zoom	事務局 webmaster@jspe.org	
2024年3月23日	土	9:00-12:00	鬼金セミナー (6)	関西TBD, 関東TBD/ Zoom	教育部会·鬼金分会 rep@jspe.org	時間·時刻調整中
2024年3月30日	±	14:00-17:00	FY2022PE/FE受験・登録相談会	関西TBD, 関東TBD/	会員部会	
				Zoom	membership.2007@jspe.org	

^{*} In view of the influence of the coronavirus, we will adjust the schedule and implement it.

<OnikinSeminar>
202 3/05/20

< event> April 22, 2023 Technical facility tour June 3, 2023 General Meeting

【May Board of Directors】 Date: 202 Saturday, May 13, 3

Introduction of new members

 ○ Name: Hiroki Kurihara ○ Membership number :PEN-0236 ○ Qualification : Process Engineering, Catalyst Processing ○ Reason for joining: Because I needed support until state registration ○ Self-introduction: Graduated from the Faculty of Chemical Engineering, and was engaged in research on ammonia decomposition catalysts as a student After graduating from graduate school, he currently works as a process engineer at a specialized engineering company. Hobbies include baseball, golf, and camping. ○ What we hope for JSPE: Exchange with PEs working in the same industry and other industries
 Name: Ryota Matsumoto Membership number: PEN-0235 Qualification: High Pressure Gas Type B Machinery, Energy Manager (Heat) Small vessel pilot's license grade 1, Mechanical (Machine Design and Material)
 ○ Field of Specialization: Machinery, Mechatronics ○ Motivation for joining: Collecting PE registration information, self-improvement ○ Self-introduction: As a mechanical engineer at a material manufacturer, I am engaged in a wide range of equipment / process development, equipment design, procurement, and start-upwork. ○ What I would like from JSPE: I would appreciate it if you could give me advice on PE registration. I am also looking forward to interacting with various engineers.

13 Postface

I heard the footsteps of spring. Many things began to move at once, as if the plants that had been holding up under the snow sprouted and grew all at once. On a personal note, I moved to a new company from March and moved from Shiga to Tokyo, so not only my living environment but also my own career has reached the next step. Now, if we look at the world,

- 1. The lifting of masks in Japan was a situation that could really be said to be a manmade disaster, so it was good information. I spent the last three years at no mask without worrying at all, but living without being able to recognize the other person's face correctly was painful, especially for small children. It also takes in less oxygen to the body, so it was a double punch in terms of concentration.
- 2. In response to rising prices, many companies succumbed to wage increases. However, the increase is honestly too low for most companies. I myself have moved to a company called a foreign company, so I still feel that there is a gap between the salary level of engineers in developed countries and Japan. In November 2022, I visited Bali, Indonesia, for the E20 meeting, and as I wrote in last month's magazine, I wondered if resort prices would feel expensive even if they came from a developed country called Japan.
- 3. While many products are raising prices, many subsidies have been injected into some raw materials such as electricity, oil, and wheat, and the rate of price increases has been suppressed. It sounds pretty to say that it is to reduce the burden on the public, but is it really necessary? If prices are raised, we will respond to them, but if we distort the market economy, there will be a backlash in the future, and I often wish that the money spent on suppression could have been spent on other areas (NSPE's magazine reported that spreading subsidies in a strange way would delay necessary investments such as infrastructure renewal, resulting in disadvantages for society).

We are engineers. I felt once again that we must not be swept away by the overflowing information in society, but must always continue to think about what we must do to extract the necessary information from it and move in the direction that we think is right.

2023/04/01 Tokoh Nishikubo (Editor-in-Chief)

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

[Editorial Committee]

Nishikubo (Chief Editor)

Inaba (Board of Topics, Education Subcommittee CPD Seminar Report, Coming Events) Sato (Variables of PEople), Fujimura (FE/PE exam, PE registration experience, introduction of new members)

Kanno (Ethics), Hirose (Ethics Reviewer), Ito and Ota (editer)

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[♦] Handling of personal information in this magazine