

# HOW IS THE NEW CODE OF ETHICS OF JSCE GOING TO CHANGE CIVIL ENGINEERS' ATTITUDE?

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# JSCE INDEPENDENT FROM JFES

Japan Federation of engineering societies  
Established in 1879

JSCE was Independent from JFES in 1914.  
Differentiation was natural tendency

1<sup>st</sup> President of JSCE, **Kimitake Furuichi**

Negative in differentiation of Academic societies

**Civil engineer :**

**Engineering should not be fragmented.**

**The commander leading commanders**



# FIRST CODE OF ETHICS FOR ENGINEERS IN JAPAN

Established in 1938 by JSCE

Era of China-Japanese War

Everything was controlled for the execution of the war

Forward code of ethics established with the leadership of

Akira AOYA,

23<sup>rd</sup> President of JSCE



# CODE OF ETHICS REVISED IN 1999

- Code of Ethics newly established in 1999 .
- Correspondent to occurrence of disgraceful affairs such as bid riggings.
- East Japan Great Earthquake  
The most important occurrence since 1999.
- About 20 thousand casualties
- Opportunity to deeply think about their-own role and to change in sense of values.



# FROM OVER-EXPLANATION TO ABSTRACT EXPRESSION

**COMPOSITION**

**NOTIONAL AND SIMPLE  
“ETHICAL PRINCIPLE” AND  
“CODES OF CONDUCT”**

**CONTENTS**

**FROM PREVENTIVE  
TO ASPIRATIONAL**

**EXPRESSION**

**FROM OVER-EXPLAINED  
TO ABSTRACT EXPRESSION**

**FOR AUTONOMOUS THINKING**

# COMPOSITION / CONTENTS

1999

**PREAMBLE**

**BASIC PERCEPTIONS**

**CODE OF ETHICS(15)**

**GENERAL(3)**

**PROJECT EXECUTION(3)**

**PROFESSIONAL DUTIES(4)**

**PROFESSIONAL CAPABILITY(5)**

2014

**ETHICAL PRINCIPLE**

**CODE OF CONDUCT(9)**

**PROJECT EXECUTION(3)**

**PROFESSIONAL DUTIES(3)**

**PROFESSIONAL CAPABILITY(3)**

## Ethical Principle

Ever cognizant of the profound interrelationship of their profession with both human society and Nature, civil engineers shall work for the development of technology, deepen and consolidate their knowledge, contribute by means of their wisdom, skills, and virtues to both the peace and prosperity of the people and the nation and to the welfare and sustainable development of the humanity.

### 倫理綱領

土木技術者は、  
土木が有する社会および自然との深遠な関わりを認識し、  
品位と名誉を重んじ、  
技術の進歩ならびに知の深化および総合化に努め、  
国民および国家の安寧と繁栄、  
人類の福利とその持続的発展に、  
知徳をもって貢献する。

# ETHICAL PRINCIPLE

- Ethical Principle describes fundamental roles and ideal states of civil engineers
- The principle is composed of three components of
  - characteristics of civil engineers,
  - way of existence of civil engineers,
  - mission of civil engineers.

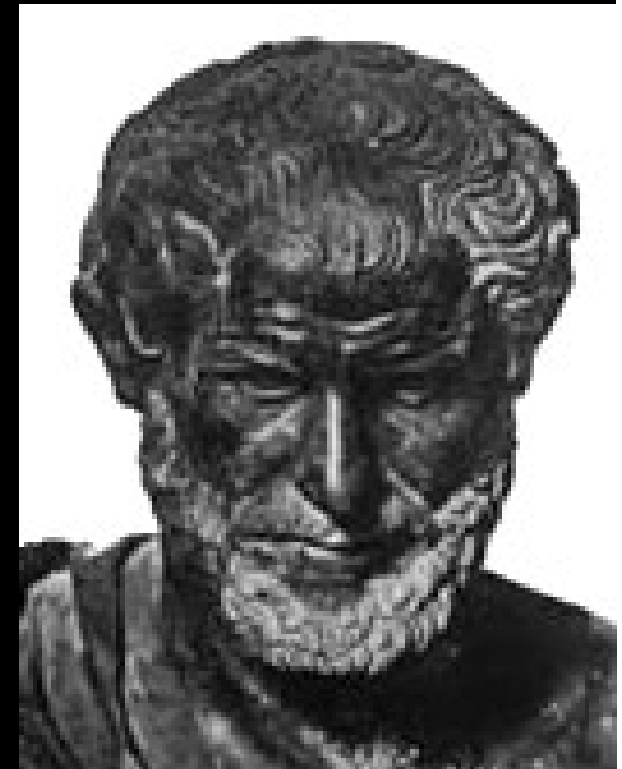


“CONTRIBUTE . . . TO THE PEACE  
AND PROSPERITY AND . . . TO THE  
WELFARE . . . OF THE HUMANITY.”

“**Happiness** is the meaning and  
the purpose of life, the whole  
aim and end of human  
existence.”

“The greatest virtues are those  
which are most **useful to other  
persons**”

“Pleasure in the job puts  
perfection in the work”



**ARISTOTLE**  
(áerəstə`tl)



**“Ever cognizant of the profound interrelationship of their profession with both human society and Nature, . . .”**

The profession of civil engineering is much more closely related to **human society and nature** compared to other discipline of engineering

The word of “profound” (“深遠” in Japanese) expresses that **the relation can not be easily explained.**

“... , civil engineers shall work for the development of technology, deepen and consolidate their knowledge, ...”

**Consolidation** is an essential characteristic of civil engineering.

Especially, consolidation is the idea emphasized by **Dr. Kimitake FURUICHI**, the 1<sup>st</sup> president of JSCE.



# The Code of Professional Conduct

## PROJECT EXECUTION

1. Contribute to society.
2. Respect both Nature and the fabric of civilization and (culture.)
3. Ensure the security of society and mitigate disasters.

## PROJECT EXECUTION

4. Fulfill their professional responsibilities.
5. Guard their integrity and avoid any conflicts of interest.
6. Openly provide information and engage in public dialog.

## PROFESSIONAL CAPABILITY

7. Make known the results of their research endeavors.
8. Strive for self-improvement and human-resource development.
9. Comply with established norms.

# The Code of Professional Conduct

## Project Execution

Civil engineers shall:

### **1. Contribute to society.**

Utilize their expertise and experience to develop and implement comprehensive solutions to issues of public interest, keeping in mind the peace and prosperity of the people and the development of society as their constant concern.

### **2. Respect both Nature and the fabric of civilization and culture.**

Respect Nature indispensable to the survival and development of humanity while holding in esteem diverse civilizations and cultures.

### **3. Ensure the security of society and mitigate disasters.**

Be committed to aiding in protecting the life and property of the people, working with colleagues across a broad range of disciplines, while looking beyond their professional expertise to the concerns of the people, realizing both the capabilities and the limitations of technology with the people.

### 3. ENSURE THE SECURITY OF SOCIETY AND MITIGATE DISASTERS.

Based on the research on “Social Security” done by JSCE.

How should civil engineers change and behave after the East Japan Great Earthquake?

Recognition that civil engineers are private citizens at the same time.

They should have the viewpoints as "the general public".



# “REALIZING BOTH THE CAPABILITIES AND THE LIMITATIONS OF TECHNOLOGY WITH THE PEOPLE”

accountability of scientists or  
civil engineers.

Importance of the viewpoint of  
the public.

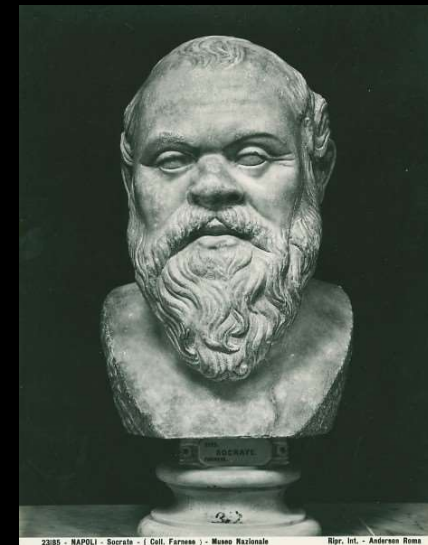


Decision making by "the  
public"?

Civil engineers should know the  
limitations of themselves.

## Socrates

(sɒkrəˈtiːz)



**“The only true wisdom  
is in knowing you know  
nothing.”**

# “WORKING WITH COLLEAGUES ACROSS A BROAD RANGE OF DISCIPLINES”

Maintaining their own specialties definitely.

Great importance to the cooperation with professionals in other fields.

Comprehensive point of view.

Make an effort for the safety of citizens and social security.



Tokyo Electric Power Co. Ltd.,  
**Fukushima** 1<sup>st</sup> Nuclear power  
plant  
<http://photo.tepco.co.jp/cat2/01-j.html>



# The Code of Professional Conduct

## PROFESSIONAL DUTY

Civil engineers shall:

### **4. Fulfill their professional responsibilities.**

Recognize the essentially social significance of their work and thus endeavor to fulfill their duty to society.

### **5. Guard their integrity and avoid any conflicts of interest**

Be fair and unbiased in all their interactions with the people, their clients, the organizations for which they work, as well as themselves, faithfully and honestly discharging their duties and avoiding any conflicts of interest.

### **6. Openly provide information and engage in public dialog.**

For the sake of the general welfare, be pro-active in sharing their expertise and knowledge in their endeavors and communicate in an open exchange of views with the people.

## PROFESSIONAL CAPABILITY

### **7. Make known the results of their research endeavors.**

Publish their findings and **policy recommendations** with research papers and reports in conformity with both their scientific convictions and their own consciences, **sharing these with both their professional colleagues and the people**, always mindful of objective facts and the intellectual achievements of others.

### **8. Strive for self-improvement and human-resource development.**

Cultivate and nurture their virtues, general knowledge and professional competence, **pursue scientific endeavors in the realms of both scientific and practical theories** for the sake of technological advances, and put to use their individual abilities, experience, and merits for the education and training of engineers.

### **9. Comply with established norms.**

Carry out their work in **full understanding of all laws, rules, and regulations** as well as of well-founded principles, actively and willingly taking the lead in the observance of societal standards and seeking to improve them in response to both social and technological change.

# 9. COMPLY WITH ESTABLISHED NORMS

Engineers for society or citizens **proactively** have to follow social norms.

Full understanding of “**well-founded principles**”

From Heteronomous obey to Autonomous understanding and comply with the society.



From Preventive ethics to **Aspirational Ethics**  
(Dr. Fudano)

“FULL UNDERSTANDING OF ALL LAWS,  
RULES, AND REGULATIONS AS WELL AS  
OF WELL-FOUNDED PRINCIPLES, . . .”

We avoid this code of conduct being a kind of  
manual correcting prohibited matters.

“actively and willingly taking the lead in the  
observance of societal standards.”

Policy recommendations can be the mission of  
civil engineers.

# CONCLUSION

- Civil engineers as engineers for society or citizens **proactively have to follow** social norms.
- Engineers **must not uncritically obey** laws, rules and code of conducts. Autonomous understanding is important to comply with norms.
- Therefore, civil engineers **should understand the meaning and importance of this code of ethics**, and act with compliance to the society without accepting uncritically heteronomous rules.



THANK YOU FOR  
KINDLY ATTENTION

# COMPOSITION

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# 行動規範

1. 社会への貢献
2. 自然および文明・文化の尊重
3. 社会安全と減災
  
4. 社会への貢献
5. 自然および文明・文化の尊重
6. 社会安全と減災
  
7. 成果の公表
8. 自己研鑽および人材育成
9. 規範の遵守

# 行動規範(社会的使命)

土木技術者は、

## 1 (社会への貢献)

公衆の安寧および社会の発展を常に念頭におき、専門的知識および経験を活用して、総合的見地から公共的諸課題を解決し、社会に貢献する。

## 2 (自然および文明・文化の尊重)

人類の生存と発展に不可欠な自然ならびに多様な文明および文化を尊重する。

## 3 (社会安全と減災)

専門家のみならず公衆としての視点を持ち、技術で実現できる範囲とその限界を社会と共有し、専門を超えた幅広い分野連携のもとに、公衆の生命および財産を守るために尽力する。

# 行動規範（職務のあり方）

土木技術者は、

4（職務における責任）

自己の職務の社会的意義と役割を認識し、その責任を果たす。

5（誠実義務および利益相反の回避）

公衆、事業の依頼者、自己の属する組織および自身に対して公正、不偏な態度を保ち、誠実に職務を遂行するとともに、利益相反の回避に努める。

6（情報公開および社会との対話）

職務遂行にあたって、専門的知見および公益に資する情報を積極的に公開し、社会との対話を尊重する。

# 行動規範（技術者個人のあり方）

土木技術者は、  
7（成果の公表）

事実に基づく客観性および他者の知的成果を尊重し、信念と良心にしたがって、論文および報告等による新たな知見の公表および政策提言を行い、専門家および公衆との共有に努める。

8（自己研鑽および人材育成）

自己の徳目、教養および専門的能力の向上をはかり、技術の進歩に努めるとともに学理および実理の研究に励み、自己の人格、知識および経験を活用して人材を育成する。

9（規範の遵守）

法律、条例、規則等の拠って立つ理念を十分に理解して職務を行い、清廉を旨とし、率先して社会規範を遵守し、社会や技術等の変化に応じてその改善に努める。

# EAST JAPAN GREAT EARTHQUAKE

The East Japan Great Earthquake caused the disaster with the frequency of once in 1,000 years.

The tsunami of the height more than assumptions by engineers and scientists was generated and caused a little less than 20,000 victims as a result.

## 8. STRIVE FOR SELF-IMPROVEMENT AND HUMAN-RESOURCE DEVELOPMENT.

**“Those that know, do.**

**Those that understand, teach” (Aristotle)**

The importance of consolidation of knowledge especially in the field of civil engineering is emphasized again.

The word of “practical theories (“Jitsuri” in Japanese) means any theories provided based on real experience.

“Jitsuri” is intentionally used as the antonym to “scientific theories”.

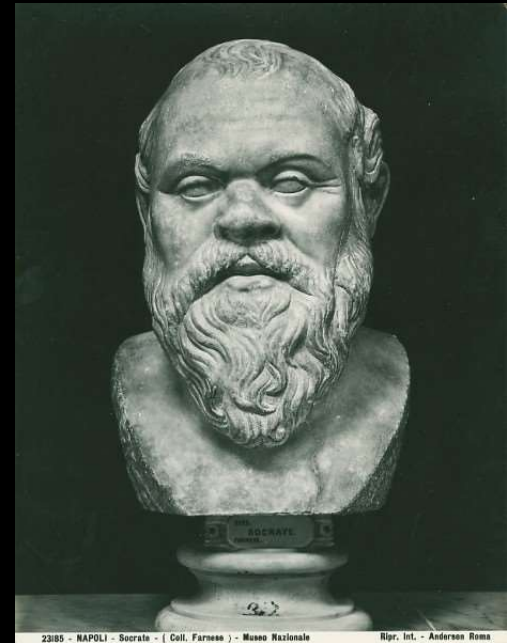
It is one of the important characteristics of civil engineering as the practical science to recognize that “practical theories” is included in theories used in engineering works.

# SOCRATES

(səkɹətɪːz)

“It’s to live through the best life that I keep looking for the way where **I live better**”

“When it tries to **be happily**, I have to behave so that oneself may have **moderation and the justice**”



2385 - NAPOLI - Socrate - ( Coll. Farnese ) - Museo Nazionale Ripr. Int. - Andersen Roma