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## What is really needed for fusion with the digital society !

Auspicious day, January Reiwa 3<sup>rd</sup>  
President : SHIMIZU Sumito

The epidemic of Corona has remained unpredictable, but it is the time that we have been patient with each other for a little while. By the way, I received a comment from someone about the future of a bimetal thermostat. I will introduce it to deepen your understanding.

"I somehow have understood how bimetal thermostats should be integrated with semiconductors in the world of IT industry in the future. The reason why I used the expression "somehow" is that the field of category which is much beyond my current knowledge. I have understood that the world of mechanics can be fused into the digital world and continue to exist in the future, that is, a new era has come when both parties should coexist in terms of technology." This is his comment.

Regarding coexistence with semiconductors, originally the concentration of



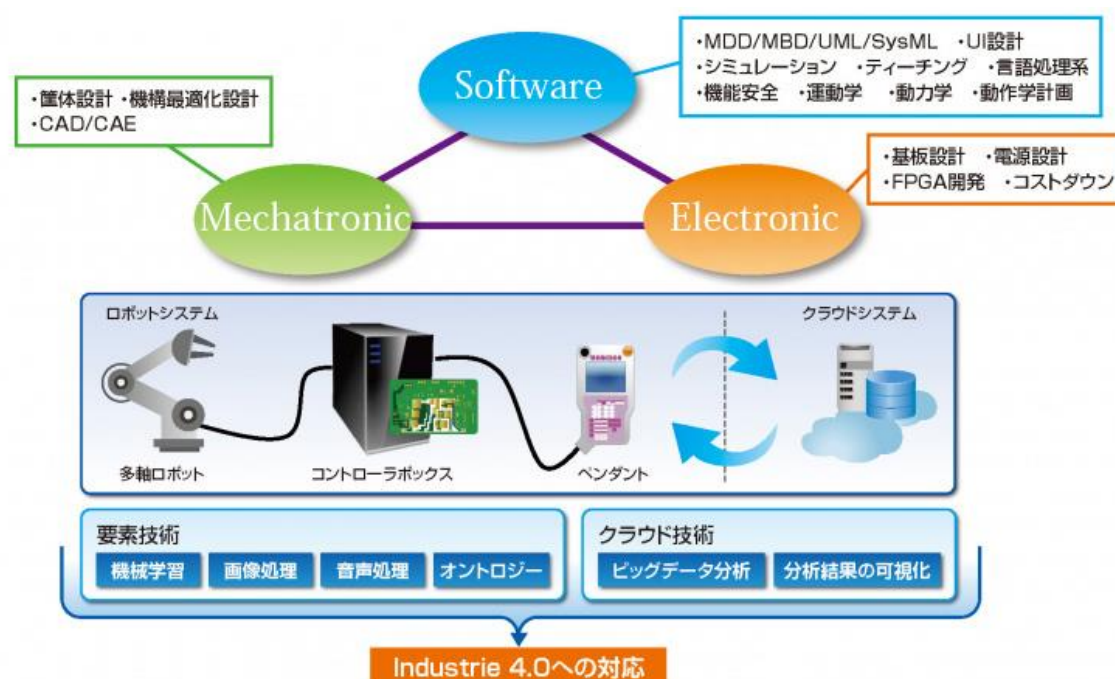
humankind's cutting-edge technology was the aerospace industry. In particular, an airplane is a fusion of a machine saving the lives of 300 to 400 people and a semiconductor, that is, a mechanism and software.

Most of the devices could be operated via semiconductors, in case these semiconductors break down, about 30

pieces of thermal protectors of Uchiya Thermostat Co., Ltd. are installed in one airplane (that is ice protection system). We have actual achievements for Airbus in Europe over 20 years and Boeing in the United States over 15 years. This is the reason why I have come to the conclusion that our products could coexist with semiconductors. Probably Uchiya is the only company in the world that has noticed it and has been cultivating this market up to now.

Due to this theory (we have persuaded) our products has been adopted by most robot manufacturers in Japan, FANUC, Yaskawa Electric, Kawasaki Heavy Industries, Mitsubishi Electric, Fujikoshi, and so on. In addition, Uchiya's thermal protector is installed as a backup next to the electronically controlled thermistor for the artificial respirator that is used as a switching power supply for medical equipment and is used for patients infected with Corona. Originally, thermistors had been replaced instead of thermal protectors as temperature protection. However because thermistors have broken and equipment has gone out of control, it has been decided that thermal protectors, which should have been taken (not used), are installed next to thermistor sensors. These are just a few examples, but Uchiya has been already making sales up in this field. I think that bimetal thermostats would be definitely eliminated worldwide and only about five companies can survive. Uchiya can't survive into them if we make sales normally.

Therefore, we will put on the market our products which can coexist with semiconductors. We are already working on a project to complete four new product developments within three years. The first of these will be on the market in April next year.



By the way, at the end of the ONDO(our monthly magazine) in January, I wrote as following. It is human beings that is carrying out digital reform as a tool, and human beings cannot be digitally reformed. Rather essential human resource development is the utmost important to Uchiya's future potential.

Recently, I strongly feel the concern that thinking ability of Uchiya staff's has been weakening. In particular because they are getting too dependent on computers, internet, mobile games, etc., they couldn't think with their own brains, grasp the essence of things accurately, and perform their work with appropriate decisions.

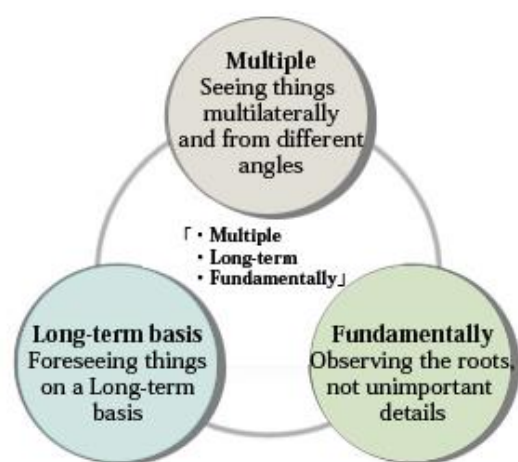
Therefore, I would like to explain the three principles of thinking capturing the essence of things that I would like you to practice. These three principles were disseminated by Masahiro Yasuoka, who is famous as a Yangming scholar of eastern philosophy, and it is said that many Japanese managers and politicians respect them.

- ① First of all, take a long view as possible as you could, not thinking about the immediate future. As a company, we tend to appreciate business person who have a

long-term perspective. That is why many of the successful people have 10 years of thinking. If you want to be a business person who can achieve success in the true sense of the word, you should aim to be a person who can sow seeds in the long run and make profits systematically without seeking for temporary results and evaluations

- ② Secondly, don't catch up only one side of things, look as multilaterally as possible, if possible, from every angle. Looking at the opposite side of what is happening, where there is shadow in the light. This is the one of the theories of Yin – Yang Thought. It means that we should look with our mind's eyes.

### Self-discipline tool to be aware of broader perspective



well-swinged, for human she is beautiful and smart.

Next one is that thinking method should be changed from knowledge to insight.

People can acquire knowledge from various experiences, and the human content of the person is important. They could decide that this is true, it should be and they should do.

When we carry out the insight, resistances and dissenting voices never fail to appear.

People struggle against many problems actually and are buffeted by contradictions & resistances. As the result they could have zippy performance capabilities and it should be called “胆識(tanshiki)”. After having cultivated themselves and been talented, it could make their knowledge become insight. Cultivating “胆識(tanshiki)” would be needed for them to make vital judgement and action. We need to think out daily to get the “胆識(tanshiki)”. If people, the wise as the wise, the foolish as the foolish, try to continue for many years, they never fail to get it. It is important for them, in any societies, in any business worlds, to contribute to other people and the world through their work.

- ③ The third one is that we should thinking fundamentally without being concerned about the end of unimportant details. You should not focus your mind on only the events that appear on the surface. For example, people tend to look at the fruits and flowers of trees, but we should recognize that the roots undergrounding and controlling the nutrition and hydration of the fruits and flowers are truly responsible for the growth and longevity of the trees.

The same is true for people. It is essential that the roots and trunks has grown up as a human-being rather than the fact that the flowers are beautiful and the branches are

### Matrix of “Action × Amount of information”

	High risk	Low risk
Action	断行： Carrying out	実行： Execution
	決断： Determination	決定： Decision
	Amount of information	

**Insight ( Knowledge + my way of thinking)  
+ Resolution + Power of carrying out  
= Tanshiki ( 胆識 )**

## Reannouncement of state of emergency for new coronavirus infection

15th, January Reiwa 3<sup>rd</sup>  
President : SHIMIZU Sumito

As the new coronavirus infection has spread, a second state of emergency was declared in 11 prefectures. Early vaccination and establishment of new therapeutic drugs have been desired, but until then, I would like to mention again the basic measures each individual, home, company should keep in the social life (Reference materials from the Ministry of Health, Labor and Welfare)

1 . Where does the new coronavirus invade and infect the human body? The virus is transmitted by invading the mucous membranes of humans' eyes, nose, mouth. First of all, we should understand it firmly. It does not invade from intact skin. If no infection control measures are taken, the infection is transmitted from the mucous membranes of the "eyes, nose, mouth," by the following route.

- 1) By talking with an infected person for a long time (about 15 minutes or more) at a short distance (within about 1 m), the virus contained in the infected person's breath and cough splash invades through the "eyes, nose, mouth". A conversation just within a few minutes has low risk. In addition, simply passing by an infected person does not cause infection. Infect by. Conversations within minutes are low risk. In addition, simply passing by an infected person doesn't cause infection.
- 2) When the air dries and the humidity drops below 39%, the virus becomes lighter and is included in the sighs and coughs of infected people. Then the virus flies far and is inhaled by humans. Ventilation and humidification need to be improved.
- 3) The virus can survive on metal or plastic surfaces for up to 3 days. When we touch doorknobs or handrails with the virus on it and unknowingly put the virus's hands on our mucous membranes of "eyes, nose, mouth and excretion part", it cause infection. (One survey tells that people unknowingly touch the mucous membranes of their "eyes, nose, and mouth" about 10 times an hour)  
Also, The possibility could be increased that they share towels and dished used by infected people.

2 . What are the symptoms when people get infected?

Similar to those of a common cold or flu, fever, malaise, sore throat, cough, muscle aches, and loss of appetite would be caused. Some people complain of abnormal smell and taste. It is said that as approximately 80% of people who are infected are asymptomatic, the infected may have spread the infection to the people around them (This is the reason why we need to wear a mask in the crowd). If the symptoms progress a little, you may feel suffocating when you move (at this time, if you do not see the doctor immediately, the risk of becoming severe increases).



### 3. How should we prevent infection ?

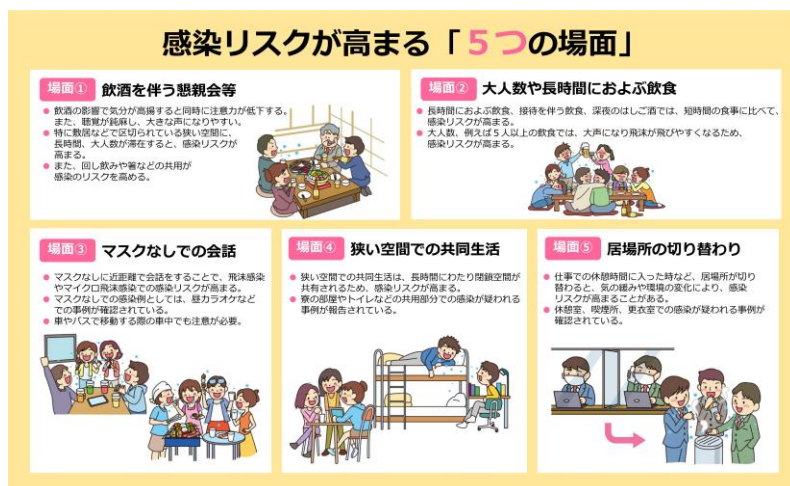
The prevention of infection is preventing the invasion of the virus from the "eyes, nose, and mouth".

- ① To avoid "three dense situations". We should live by avoiding the three "closed spaces" of "crowded places", and "close-contact settings".
- ② Never fail to wear a mask(cover your nose and chin firmly) when you enter a crowd of people(when there are other people in a short distance such as going shopping at a supermarket, getting on a train, getting on a bus, etc.,). Even if people talk at close range, you can prevent infection by wearing masks with each other. It is more helpful for preventing infection by wearing eye fever glasses in addition to a mask.
- ③ Don't touch "eyes, nose, and mouth" carelessly. Before touching "eyes, nose, and mouth," be sure to wash your hands thoroughly(It is more effective to use both medicated soap with running water and rubbing alcohol).
- ④ Try to ventilate the room(Keep windows and doors open little by little, and open them widely on a regular basis)
- ⑤ Check your physical condition by taking body temperature every day. If you have a fever or cold, avoid going out and treat yourself at home. If fever continues (about 2 days for people with underlying illness, 4 days or more for people without underlying illness), you should call nearby "Consultation Center, Returnee / Contact Counseling Center," nearest community health center" and receive advice (for PCR test) before going to a medical institution directly.
- ⑥ Try to make moderate exercise. Make sure to refrain from going out, but if you stay at home all the time, your physical strength and immunity will decline. Then try to exercise moderately, such as taking a walk around the house. You don't need to wear a mask if a number of people is not around you within 2 meters outdoors. Because there is a low possibility that people get infected.

### 4. What should we do if a member of family gets infected ?

It is recommended that the following infection control measures should be taken.

- (1) Divide the room as possible as we could.
- (2) Wear a mask in the house as possible as we could.
- (3) Gargle and wash your hands diligently.
- (4) Ventilate as possible as you could.



- (5) Disinfect doorknobs, toilet seats, etc. that the infected person touches.
- (6) Avoid sharing towels and dishes.
- (7) Let infected people take a bath last.

## Countermeasure keywords advocated by the world's top researchers for coronavirus infection countermeasures

### 1. Disinfection technology ← Uchiya has already introduced.

- ① Cleaning with water and soap → Things and fingers
- ② Hot water → Things
- ③ Alcohol disinfectant → Things(miscellaneous goods, quasi-drugs) and fingers (pharmaceuticals / quasi-drugs)
- ④ Sodium hypochlorite disinfectant (chlorine bleach) → Things (miscellaneous goods, pharmaceuticals / quasi-drugs)
- ⑤ Detergent (surfactant) → Things (miscellaneous goods, pharmaceuticals / quasi-drugs) and fingers (unevaluated)
- ⑥ Hypochlorite water (those that meet certain conditions) → Things (miscellaneous goods)

### 2. Ultraviolet rays(ultraviolet sterilizer) Japanese technology has let put into practical use in hospitals. When the wavelength 222 nanometer (this level does not cause skin cancer) is irradiated for 10 seconds, coronavirus gets detoxified. Ultraviolet rays are effective against coronavirus, for sterilization.

### 3. Inactivation of coronavirus (ozone generator and photocatalyst device) ← Uchiya has already introduced. The oxidizing power of low-concentration ozone (0.000017%) detoxifies coronavirus.

### 4. Evaporation ← Increase humidifiers

It is known that virus droplets fall to the ground quickly in high humidity conditions, but could fly far away when it is dry. When the humidity is 39% or less, the water content of the virus droplets evaporates and becomes lighter, so the falling speed becomes slower and the virus floats in the air for about 30 minutes. At a humidity of 30%, it flies twice as far as at a one of 60%. and the more dry it is, the wider the virus droplets spread.

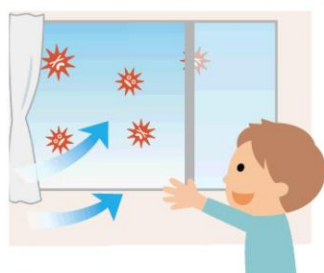
### 5. Humidifier (humidifier) ← Increase humidifiers

When the air dries, the mucous membrane of the throat also dries and it causes a decrease in blood flow. As the result it causes a decrease in immunity and gives inflammation to the throat prone. A humidity of 50% -60% removes 50% of atmospheric droplets and it activates pili in the throat, which eliminates coronavirus. In this way, the room should be humidified to 40% or more.



# 新型コロナウイルス 職場における「4つ」の対策ポイント ～ 職場での感染にご注意ください !～

**換  
気**



室内では  
こまめに換気をしましょう

**密**



席や更衣室で、人と  
適切な距離をとりましょう

**共  
用**



複数人での備品の共用は  
できる限り避けましょう

**休**



体調が悪い場合は、  
軽めの症状でも  
休みましょう・休ませましょう

また、感染防止の3つの基本である ①身体的距離の確保、  
②マスクの着用、③手洗いの徹底もお願いします。

**「接触確認アプリ」(COCOA) ご活用をお願い**



職場のみんなをまもるため、  
**新型コロナウイルス接触確認アプリ**※のインストールをお願いします。

※このアプリは、新型コロナウイルス感染症の感染者と接触した可能性について、  
通知を受け取ることができる、スマートフォンのアプリです。



詳しくは厚労省特設サイトへ



Important notice for preventing COVID-19 outbreaks.

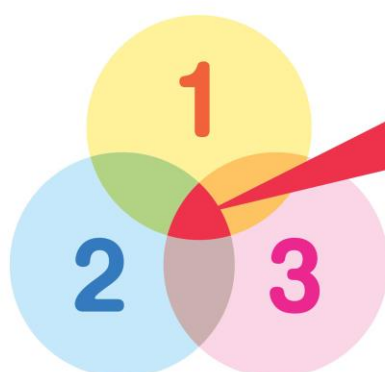
# Avoid the “Three Cs”!

- 1. Closed spaces** with poor ventilation.
- 2. Crowded places** with many people nearby.
- 3. Close-contact settings** such as close-range conversations.



One of the key measures against COVID-19 is to prevent occurrence of clusters.

Keep these “Three Cs” from overlapping in daily life.



The risk of occurrence of clusters is particularly high when the “Three Cs” overlap!

In addition to the “Three Cs,” items used by multiple people should be cleaned with disinfectant.

