Dear fellows of the industry,
who are willing to participate for learning more
Experts are here. Please feel free to ask
The introduction can help everyone
to improve inappropriate ways and enrich knowledge when they work on site
also helps tosupervise frontline contractors and workers
to achieve work safety
Do you have any questions?
It is very good that HA held regular seminars
We allow communication among the floors,
for example, the audit mentioned by Mr. Fong
and the safety design mentioned by us
If you have any comments, please feel free to raise up
Brainstorming is very important to enhance work safety
Good practices and improvement on
safety design or audit
Comments are welcomed
Regarding the site safety innovative measures,
it would not be designed by ourselves
but designed by contractos youselves
The performance is very good during the audit
For safety innovation, we can pass the time for Mr. Fong to supplement,
Mr. Fong had introduced one design only,
maybe he would like to elaborate more
For the current practices
There was only one innovative design in the 2nd and 3rd quarters
It seems rare, but there were a lot of designs approved in the past
It was the result of collaborative efforts
It was designed by industry
The innovative safety design belongs to everyone
HA encourages development in this area
If you have a good design, please recommend it to the auditor,
then submit a proposal to us
If we agree with the proposal,
we will suggest it to the HA
The innovative design deserves recognition
and will be rewarded by HA
Recently, there were innovative designs developed based on

the Building Information Modeling (BIM),
Radio frequency identification (RFID) etc.
Each contract can be rewarded six times
I hope everyone will continue to work hard
I want to enquire about innovative design,
is there any catalogue for reference?
Which projects were been approved in the past?
The second question is about the use of virtual reality,
if I use the virtual reality next time, would it still be considered as an innovative design?
We have related records
We recorded the relevant items in recent years
There are around 20 items
For better promotion in the industry
Our colleagues are collecting
the data in the past which is worthy of a reference by the contractors
We would continue to collect the respective information in the catalogue
We are studying how to publish the catalogue
Thank you for your question
The application of virtual reality could be diversified
For example, the reality is simulated by wearing glasses and using a program
You may experience virtual reality in a shopping mall
After putting on the glasses, you could watch a movie with 360-degree view
with the purpose of simulating the real environment
This was the initial application of virtual reality
Some contractors got preliminary ideas in the research and development process
He could go deeper for it
For example, a cave-based automated virtual environment
The University of Hong Kong and Vocational Training Council
have conducted related research
You can try imagining you were in a room,
screens were installed around you on the four sided walls,
the exit was located at the back
There were four screens with four projectors
This virtual design is immersive
I participate in the research of the Innovation and Technology Commission and City University of Hong Kong regularly
In these two aspects, the University of Hong Kong and City University of Hong Kong

have done a lot of work in virtual reality development
For implementation, virtual reality development is immersive
You have to go into the scene and experience the dangerous situation,
you will immerse yourself into the scene
Such as working at height,
The screen on the floor would function
along with the projector at the top
It lets you experience by simulating the actual environment
with a dynamic platform
I conducted a research at the Somatosensory Training Centre recently
Development Bureau and Hong Kong Construction Industry Council (CIC)
had many ideas
We had visited Korea and Japan
The development of virtual reality requires our participation
For the somatosensory training in Korea,
there was a 3 to 4 meters high platform, like a guillotine
The floor of the high platform opened suddenly and the person fell down from the top to the cushion protection at the bottom
These somatosensory trainings,
might not be suitable,
for those having high blood pressure or other hidden diseases
Can we achieve the same in the development of virtual reality?
With the technology nowadays, the 3D glasses could not achieve the same effect
However the cave-liked virtual environment may be feasible
I note that some contractors are developing their own design of the virtual reality such as Building Information Modeling (BIM)
In the past, contractor used to outsourced the research and development
Right now, they have their own research and development team
More ideas can be further developed from virtual reality technology
There is always more than one option
Augmented reality (AR) was another topic
We call VR as virtual reality
AR is augmented reality
Being different from virtual reality,
Augmented Reality could achieve better simulation to the actual environment then the virtual reality
Adding virtual person in the actual scene,
might be interesting

No matter virtual reality or augmented reality,
Building Information Modeling (BIM)
or other ideas, your comments and ideas are appreciated
The auditor would advise the Housing Authority after vetting,
and we would then review it together
to decide which method would be applied
Then we would recommend it to the Housing Authority
We can work together to figure out the best solution
Another example, there was an idea on the design of helmet
Fellows of the industry had outstanding performance on it
Years ago, for the straps of the helmet
The Housing Authority had stated clearly on January 1st,
that Y-type chin strap should be used for helmet
In the past, workers expressed that they didn't feel comfortable with I-type chin strap of helmet
Now, the Y-type chin strap of helmet has improved a lot
Earlier research on helmet,
covered the ventilation and materials
There were different types of helmet strap
Is it feasible to add strap
on the helmet?
We are studying to add the straps on the helmets
Test is undergoing
This process is necessary to comply with the safety requirements
BSEN397 clearly stated the safety requirement of the helmet's strap
We should be prudent on this
The standard width of the strap must not be less than 10mm
The impact force should not be less than 150N,
20N is added per minute,
The most important point is that the strap should be broken once the impact force reaches 250N
It is important
In the market, there are helmet straps with metal buckles
These are dangerous as the buckles would hardly be broken
The most important about the helmet's strap is that it could be disconnected
Otherwise the subject worker will be strangled
EN397 was the basic standard
complying with the impact force requirements of 150N

Even the helmet strap is not broken, the metal buckle should be able to loosen
We were considering whether we can provide funding for the helmet strap in the future
The standards also clearly stated
that the strap should come from the same manufacturer of the helmet
unless the helmet is produced without the strap
If the factory may authorize other factories to produce the helmet strap,
the requirement of EN397 must be complied with
General helmet strap could not pass the test
Helmet strap not complying with the requirement of EN397 is unacceptable
We hope to make more effort in this aspect
We need the support from all of you and we have to promote it in our work as well
Initially, the data was given by the Labour Department
An analysis of the difference between wearing a helmet strap or not
in a falling of helmet from 2 to 3 meters above the ground floor was analysed
In the absence of strap, the helmet will come off
Once hitting the ground, it is very dangerous
You cannot look down the height of 2 to 3 meters
It can lead to be a fatal accident, if the person falls with his head hitting the ground first
The strap plays an important role at this time
I hope to promote the usage of the helmet strap to the industry
This needs to be considered in both New Works projects and Maintenance jobs
Innovation is also important
Maintenance is far less than new contracts
Maintenance involves a lot of tedious works
Safety design is applicable to all kinds of projects disregarding the value of contracts
I hope to build an innovative culture in all aspects
Especially in terms of maintenance
Let's work together!
Any questions?
If not, let’s take a break first