

# 建筑施工监管新模式一智慧监管

A New Model of Construction Supervision-Intelligent Supervision

5G+AI赋能远程监管

**5G+Al Enables Remote Monitoring** 

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- 产品研发背景
  - Construction background of the platform
- \_\_ 行业发展现状
- Current situation of construction industry
- 远程监管技术 Remote monitoring technology
- 未来规划展望 Future planning and vision



## 背景——科技发展提到了新高度

Background - The development of science and technology has reached a new height

# 2020年07月03日《住房和城乡建设部等部门关于推动智能建造与建筑工业化协同发展的指导意见》

Guidance on promoting the Coordinated development of intelligent construction and building industrialization, introduced by Ministry of Housing and Urban-Rural Development of China, 3<sup>rd</sup> July, 2020

2020年08月28日《住房和城乡建设部等部门关于加快新型建筑工业化发展的若干意见》

Suggestions on accelerating the new building industrialization, introduced by Ministry of Housing and Urban-Rural Development of China, 28<sup>th</sup> August, 2020





## 背景——未来已来

Background – the future has arrived

# 新一代信息技术,未来已来!

A new generation of information technology, the future has arrived



移动互 联网 Mobile Internet 物联网 Internet of things

BIM

Al





# 背景——其他领域取得了长足的进步!

Background – Great progress has been made in other fields!

## present 现在





收电费的!

**Electricity collector** 



远程付费!

**Remote paid** 



征税

Taxes collector



店

网上报税! Pay online

政务服务网上办理

**Traffic police** 

交通警察!

电子警察!

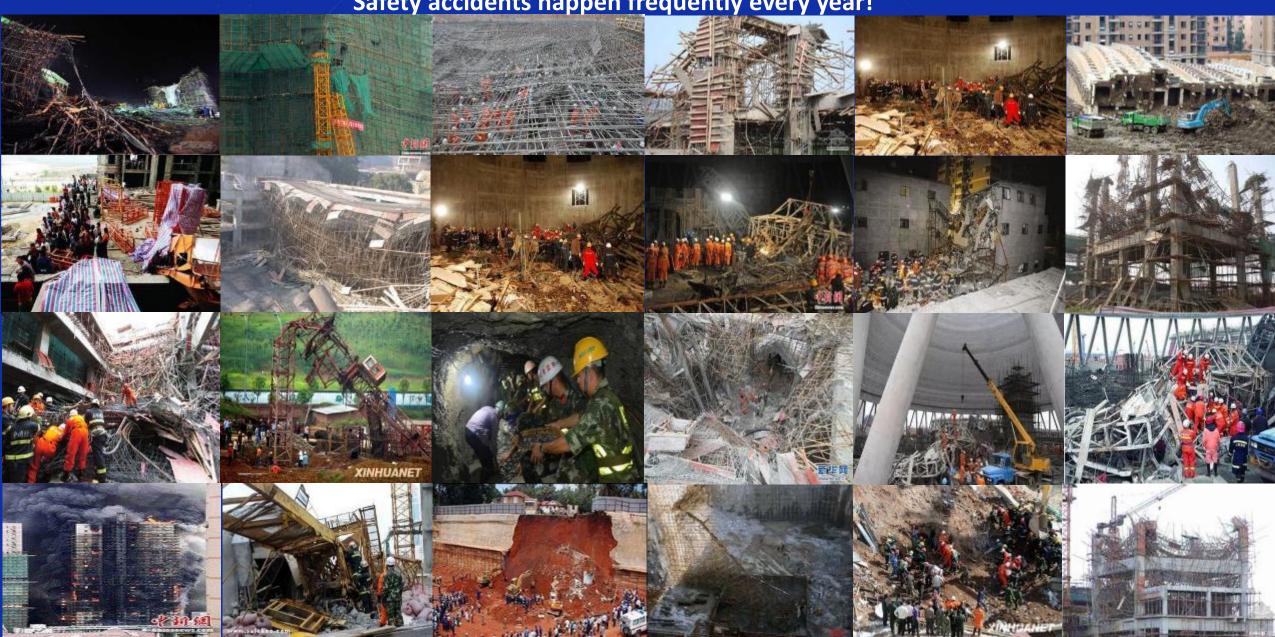
**Electronic police** 



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# 每年质量安全生产事故频繁发生!

Safety accidents happen frequently every year!



# 管理资源不足、管理手段落后

Lack of management resource, backward in management tools

■ 管理资源与工程建设规模不匹配 Management resources do not match the scale of construction project

> 监督资源 Supervision resources

工程建设规模 Construction scale ■ 监管方式落后
Backward in Methods of supervision



# 施工现场情况掌控不全面

Conditions at the construction site is not fully controlled

## 项目部填报的数据不真实、不全面!

The data reported by the project department is not true and comprehensive!

# 管理层不了解现场质量安全管理人员履责情况, 更不要说风险了!

Management does not master the accomplishment of onsite quality and safety

management, not to mention the risk!









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# 智能眼镜—实现智慧监管

#### **Micro - Smart glasses**





#### **Face recognition**

- Name
- Id number
- Type of work
- Certification

- .....

#### 人脸识别人员信息

-姓名 -身份证号 -工种 -证书 -.....





## 远程实施监管、远程技术指导、人脸自动识别、隐患自动识别

remote real-time supervision, remote technical guidance, face automatic recognition, danger automatic identification

# 智能眼镜——远程技术指导

#### **Smart Glasses-- Remote technical guidance**





#### 远程技术指导:

现场管理人员或监督人员,在现场巡视发现问题不能解决时,可通过智能眼镜与后台专家或领导请求技术指导,专家或领导通 过平台实时和现场人员进行视频和语言沟通,远程帮助现场人员解决问题。

#### Remote technical guidance:

Site managers or supervisors can request technical guidance from background experts or leaders through smart glasses when they find problems that cannot be solved. Experts and leaders can conduct video and language communication with site personnel in real time through the platform to help site personnel solve problems remotely.

## 智能眼镜——远程实施监管

## **Smart Glasses--remote real-time supervision**





#### 远程实施监管:

监督人员或企业领导在不方便到施工现场巡查时,可指派现场管理人员佩戴智能眼镜在现场巡视,发现问题可指挥现场人员整改。 也可通过平台对施工现场进行远程调度指挥。

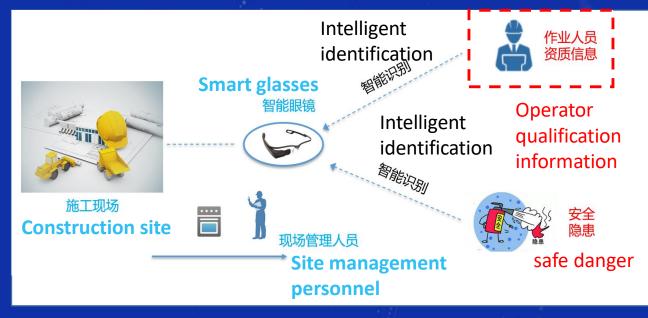
#### Remote real-time supervision:

When it is inconvenient for supervisors or enterprise leaders to inspect the construction site, on-site management can be assigned to wear smart glasses to patrol the scene and direct the personnel on site to rectify when problems are found. They can also use platform to conduct remote dispatch and command on construction site.

# 智能眼镜——人脸自动识别

#### **Smart glasses -- face automatic recognition**





#### 人脸自动识别:

现场管理人员佩戴智能眼镜现场巡视,可通过眼镜智能识别作业人员身份信息、资质信息等,及时发现现场作业人员资质不合格 情况。

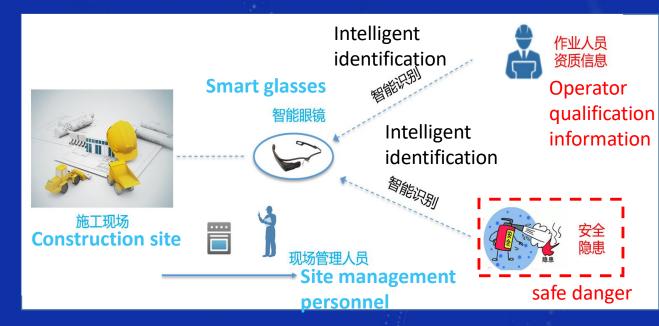
#### **Face automatic recognition:**

Site managers wear smart glasses to patrol the site, and can identify operators' identity information and qualification information through the glasses, so as to find out the unqualified conditions of the site operators timely.

# 智能眼镜——隐患自动识别

#### Smart glasses -- automatic identification of danger





#### 隐患自动识别:

作为建筑行业专用智能眼镜,现场管理人员佩戴智能眼镜现场巡视,设备通过智能识别算法实现现场人员未带安全帽、安全带等安全隐患的自动识别报警。

#### **Danger automatic identification:**

As special smart glasses for the construction industry, site managers wear smart glasses for on-site inspection. The equipment realizes automatic identification and alarm for site personnel without safety helmet, safety belt and other safety hazards through intelligent identification algorithm.



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## 安全隐患智能识别

#### Intelligent identification of security risks



脚手架扫 地杆缺失

Missing scaffold

horizontal tube

Automatic

identification of

and bottom





## 深度安全隐患识别:

对临电、安全防护、脚手架搭 设、基坑等危险源实现深度安 全识别

# Deep security risk identification:

To realize deep safety identification of danger sources such as electricity, safety protection, scaffolding, foundation pit, etc.



临时用电 不合规别

Temporary electricity is not in compliance

empliance 自动识别 安全隐患

Pedestrians climbed over the guardrail

行人翻越 护栏 s climbed

作业面吸

Smoke on the job

洞口未覆

Uncovered hole



# 质量隐患智能识别

### Intelligent identification of quality problems







#### 质量双模对比:

集成BIM模型,实时将施工现场质量和BIM模型比对,自动判断是否符合质量管理要求。

#### **Quality double mode comparison:**

Integrate BIM model, compare the quality of construction site with BIM model in real time, and automatically judge whether it meets the requirements of quality management.

# 对建科研智能眼镜感兴趣的均可以扫码预约免费体验使用,最长可以体验一年!

Anyone who is interested in Jiankeyan smart glasses can scan the code to make an appointment for free experience, which can last up to one year!



# 长按下方二维码(手机扫描下方二维码)进行预约

Long press the QR code below (the phone scans the QR code below) to make an appointment

