

## **Additional Notes about ISUFT 2018**

The year of 2018 is the 40th anniversary of Reform and Opening and 80th anniversary of China Science and Technology Association, China Society of Rock Mechanics and Engineering (CSRME) will hold China Rock 2018 in Beijing on 19th – 22nd November. Because ULS is developing rapidly in China, The Professional Committee of Underground Logistics affiliated to CSRME and International Society for Underground Freight Transportation (ISUFT) will jointly hold ISUFT 2018 in Beijing on November 19th – 23rd, and will be the international sub-forum of China Rock 2018. The theme is ‘Develop ULS for Goods Delivery to Make Better Living for Citizens’, to promote further ULS research and industrialization and make better living environment.

The symposium intends to form the following goals:

### **I. As a platform for consultation and communication for the planning and design of underground logistics in A New Districts and other places**

In the report of the “19th CPC National Congress”, Secretary General Xi considered “logistics” and water conservancy, railways, highways, water transport, aviation, pipelines, power grids, and information as infrastructure. In the construction planning of A New District, the planning of Smart Logistics is included, which is an integral part of the Smart City Planning. The smart logistics plan of the New District will become China's first urban logistics planning project, and the underground logistics system is an important part of it. At present, the organizing committee is seeking for the relevant government departments about organizing the symposium and making the symposium as an international consulting activity platform to realize the underground logistics planning in the New Area.

At present, traditional urban freight transport brings with it many problems such as traffic jams and environmental pollution. It also puts enormous pressure on the city's energy conservation and emission reduction work. Therefore, the development of a sustainable, energy-saving and environmentally-friendly type of urban freight transportation system——ULS is very urgently needed. In the future period, the ULS will inevitably have a broad market prospect.

### **II. Bring smart underground logistics industries to A New District and other places**

In a research report on smart logistics planning in the New District, it proposes the construction of urban infrastructure such as public logistics parks, distribution centers, terminal sites, and logistics corridors; intelligent distribution equipment systems, unmanned new energy vehicles, smart self-explanation counters, intelligent distribution robots and unmanned aerial vehicles are used for logistics distribution; and logistics data hub platform, cargo tracking and positioning, radio frequency identification, electronic data exchange,

visualization technology, mobile information services and location services and other Internet + smart logistics technology will be used to improve distribution efficiency and reduce costs. Based on the above, the proposed smart underground logistics industry will include the following contents:

1. Infrastructure, including ground facilities and underground facilities, involving construction equipment industry, such as trenchless excavation technology, deep shafts, and crossing technology. Due to the extensive implementation of underground engineering, the technology in this area has been very mature.
2. Logistics and distribution equipment, including forklifts, pallets, shelves in the traditional aspects, and the advanced logistics technology and equipment such as smart sorting equipment, automated three-dimensional library, AGV and other intelligent distribution robots, driverless new energy vehicles, smart self-shower, drone, and electric forklifts, standardized pallets, and three-dimensional library shelves are rapidly growing.
3. Information technology, including logistics data hub platform, radio frequency identification, big data and cloud computing applications, intelligent storage management, random storage, visual order operations and package tracking.

### **III. Build a basic industrialization technology framework for international underground logistics**

In response to the above mentioned three aspects of the smart underground logistics industry, the basic industrialization technical framework of international underground logistics includes:

1. Underground engineering technology, including underground trench excavation technology, underground structure technology, and waterproof, lighting, environmental control, electrical appliances, and disaster prevention technologies.
2. Logistics and distribution equipment technology, including logistics sorting equipment technology, transport equipment technology, automation control technology, artificial intelligence technology, drone technology.
3. Information technology, including Internet technology, Internet of things technology, logistics data hub platform technology, cargo tracking and positioning, radio frequency identification, electronic data exchange, visualization technology.
4. Underground logistics operation and management technology, including underground logistics design, planning and operation, convergence with traditional logistics systems, and coordinated dispatch and management of logistics equipment.

Accordingly, the work contents of the personnel and enterprises of the International Underground Logistics Association shall cover the scientific research, teaching, planning, design, construction, production and management of the above four types of industries.

## **Attachment: Current Potential Smart Underground Logistics Project**

### **Beijing:**

1. ULS of Tongzhou Sub-center
2. Increase ULS in the Pipeline of Beijing New Airport
3. ULS in A New District

### **Other in China:**

1. "Waigaoqiao Port - Jiading" underground container logistics system in Shanghai
2. Underground container rapid transit system in Shenzhen West Port
3. Underground container rapid transit system in Tianjin Port