











# Digitising Health and Safety An Overview

#### **ISHCCO**

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### **Construction Sites**

### **Extraordinary workplace**

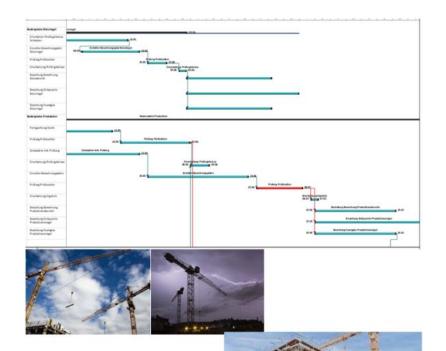
- Temporary working place
- Workplaces with changing conditions
  Progress of the construction project
  Building, traffic routes, infrastructure facilities, plant complexes
  New construction, renovation, deconstruction

  - Weather
  - Unstable safety environment
  - Protective measures must be created actively
- Several / many companies

   simultaneously at the same site

   one after the other conditions encountered
  - Different working methods, protective measures
  - Responsibility for health and safety per company Mutual hazards and risks

  - different cultures and languages
- Time and cost pressures





### **Interesting Publications**

- 1. Virtual Reality and Training Shi, Y. et al
- 2. Internet of Things and Training X. Li et al
- 3. Mixed reality and Wearable IoT Devices Li C. et al
- 4. Robotics and Artificial Intelligence Yu, H. et al
- 5. Vision Technology, IoT, Machine Learning and Big Data Khan et al
- 6. Wireless Sensor Technologies Hong, J. et al
- 7. Ontologies and BIM (IFC) Farghaly, K. et al
- 8.BIM for Hazard identification Rafindadi, A. et al
- 9. Automatic Warning System Liu D. et al



# **Limitations and Future**

- Validation challenges
- Training
- Complexity
- Comparative analysis
- Simulation
- Devices and connectivity
- Integration
- Dissemination



# Thank you!

