

# The Latest Fully Automatic Operation System Development and Application in China

## Abstract

Dr Simon Zhang

Fully automated operation system (FAO) is gathering momentum in metro construction in China. This presentation reviews the history, current status, and new development of FAO in China. From technology and system assurance side, we have seen new technologies in signalling being applied long with the development of FAO. For example, optical technology traditionally used in car industry is being applied in conventional safety critical signalling discipline helping the assure the same operation of FAO system.



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**Technical Director, CRCCI expert**

Rail professional specialised in railway system and project assurance; extensive experience with rail industry practices both at policy/regulation level and project delivery level in China, Asia and Europe. Over 20 years' experience in International rail industry engineering and consultancy firms with good knowledge and connections in China and Asia market, core competencies include:

- European and International Railway safety standards and practices
- Business development and management
- Project management
- Business accreditation management, competence management
- Advisory/consultancy and training provided to clients
- Assessment/certification of signalling system/product
- Accident/incident fault finding
- Risk analysis and risk management
- System RAM analysis/assurance/demonstration
- Corporate safety assurance/management system
- Functional safety
- Software assurance
- Signalling technology, product, system and project
- TSI/NoBo regulation and practice, ETCS and CTCS technology
- Metro system signalling, CBTC, FAO technology
- Conventional signalling, train detection, interlocking, etc technology
- Conditional assessment