

PRESS RELEASE

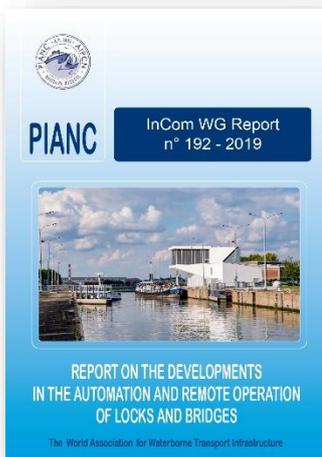


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NEW PIANC PUBLICATION AVAILABLE

PIANC

The World Association for Waterborne
Transport Infrastructure



Title: 'Report on the Developments in the Automation and Remote Operation of Locks and Bridges'

Author's: InCom Working Group 192

Price: € 120,00 (104 pages)

Available at: <https://www.pianc.org/publications/envicom/wg192>

Introduction:

The Working Group has collected recent development and case studies from different countries on remote operation of structures. The standards, guidelines and best practices in this field were reviewed critically and recommended, if and when appropriate included as part of the final report. The matters that were investigated include:

- new developments in remote operation of structures
- physical security including perimeter protection, intrusion detection technology, video analysis and access control
- network security including protection of data, intrusion prevention/detection (hackers), etc.
- integration of SCADA and process control with other systems such as traffic management, RIS, ERP, etc.
- scanning & video technology, including high-definition cameras, thermal cameras and advanced image processing such as facial recognition
- Human Factor Engineering
- simulation technology for training & certification of operators
- big data analysis
- self-learning technology

These insights were used to create this Working Group Report 192, which focuses on the developments in the automation and remote operation of locks and bridges to reflect technological advancement and new considerations related to remote operation in the last ten years. It is, however, important to remark that during the two years of existence of WG 192, other Working Groups were founded to further investigate certain topics. These topics are discussed shortly in this report, such as smart shipping and cybersecurity. Many automation projects and remote operation of movable bridges and locks have already been successfully implemented. Throughout the report, several examples and reference projects are touched upon. By providing these noteworthy examples, including the lessons learnt, WG 192 strives to give the reader an overall view on these results, trends and ideas.

PIANC Working Group report 192 on 'Developments in the Automation and Remote Operation of Locks and Bridges' is written following the principles of 'The Golden Circle':

- **'Why'** do organisations consider and implement remote operations?
- **'How'** is it implemented?
- **'What'** must be done for the implementation?

This exploration takes place from a technological point of view, but there are several interactions between technology, organisation and the implementation of work. Both conceptual issues (e.g. HMI, ICT, safety regulations, operation and maintenance procedures, etc.) as the local technological context (e.g. necessary alterations and/or expansions regarding hardware) are equally important. Given the importance and use of these practical examples and reference projects, WG 192 compiled these in dedicated brochures including additional cases, projects, best practices and technical developments concerning the latest developments in the field of automation and remote control relevant to the different members and their organisations. The brochures and further deliverables are available for all PIANC members, port authorities, waterway organisations and technology partners and can be found on the PIANC website.

NOTE: The objective of this report is to provide information and recommendations on good practice. Conformity is not obligatory and engineering judgement should be used in its application, especially in special circumstances. This report should be seen as an expert guidance and state of the art on this particular subject. PIANC disclaims all responsibility in case this report should be presented as an official standard.

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