## From classical SQC to Quality 5.0 with qcr package

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This presentation explores the powerful capabilities of the qcr package for tackling quality control challenges in the evolving landscape of Industry 5.0. As sensor-generated data becomes increasingly prevalent in modern manufacturing environments, the need for advanced tools to monitor and analyze complex processes is more critical than ever. We will demonstrate how qcr enables effective statistical process monitoring, particularly when dealing with functional data, and discuss its potential to enhance decision-making and operational efficiency in smart, interconnected industrial systems. The qcr package provides a complete set of computational free tools to implement Statistical Process Control (SPC) from complex data, in Industry 5.0 domain. Indeed, it includes a comprehensive set of control charts that allow practitioner to detect anomalies from univariate, multivariate, and even functional data, using authors' own.

**Keywords:** Functional Data, Industry 5.0, Statistical Process Control.

**References**

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