

## DIGITALIZATION AND AUTOMATION OF CERTIFICATION PROCESSES

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**Abstract:** This article examines the main purpose of certification - the requirements for certification of products and services and their quality management, the content, nature and history of development of the regulatory and legal framework of certification, international standards and national legislation.

**Keywords:** Certification, GOST standards, Automation, Product safety, Certification process, Regulatory documents, Accreditation Certification system, Quality assessment

**Introduction.** The basics of certification and quality management include the organizational, methodological and legal aspects of certification in international organizations and in the Republic of Uzbekistan, as well as certification rules, implementation mechanisms and quality management sections. It should be noted that certification and the issues of implementing the quality system and certification and research practices of accreditation bodies are directly related. The design of automated machine systems is based on their structural and layout options, principle schemes, calculations of efficiency, reliability, and cost-effectiveness. The level of automation of mechanical engineering is currently aimed at creating automated machine systems, covering various stages of production - from the preparation of blanks to assembly.

Various products manufactured in industrial enterprises must meet certain indicators. These indicators must comply with certain established requirements. Conformity, in turn, requires that products or services comply with the indicators specified for these products or services in a certain standard or other regulatory documents.

Conformity certification is possible. So what is the concept of certification? Certification is understood as an activity that confirms the compliance of a product with a specific standard or technical document with the required reliability. The term conformity includes compliance with all the requirements established for a product, process, service. There are three types of conformity 23 - declaration of conformity, attestation of conformity, certification of conformity. The certification process is understood as an activity carried out to confirm that a product / item, good / or service meets the requirements of a specific standard or technical condition, and as a result of this activity, an appropriate document is issued - a certificate, which assures the consumer that the product / item, good / meets the established requirements. A certification system is a system that has rules of procedure and management for conducting certification activities of conformity. A national certification system is a system operating at the state level, which has its own rules of procedure and management for conducting certification. The "Uzstandar" Agency is the national certification body of the Republic of Uzbekistan and, in accordance with current legislation, carries out the following activities: - implements state policy in the field of certification; - establishes general rules for conducting certification, publishes official information about them; - develops draft programs for improving the certification system

and submits them for discussion by the Government; - adopts decisions on joining international certification systems in agreement with the Cabinet of Ministers of the Republic of Uzbekistan; - concludes agreements on mutual recognition of certification results; - acts on behalf of the Republic of Uzbekistan in relations with other countries and in international organizations on certification issues, - determines the list of products subject to mandatory certification. Basic rules for the national certification system (UzDst 5.0) The terms and definitions used in this course are in accordance with the standards ISO/IES 2, Uz DSt ISO 9000:2016, Uz DSt 5.0, and the following terms and definitions are used in proportion:

Certification is a process in which an intermediary, a third party, provides written testimony and acknowledges that a product, process, or service meets a specified level of requirements. Various products manufactured in industrial enterprises must meet certain performance criteria. These performance criteria must be in accordance with/correspond to certain specified requirements. Conformity, in turn, requires that products or services meet the performance criteria specified for these products or services in a specific standard or other regulatory document.

The design of automated machine systems is based on their structural and layout options, principle diagrams, and calculations of efficiency, reliability, and cost-effectiveness.

The level of automation is currently aimed at creating automated machine systems, covering various stages of production - from the preparation of blanks to assembly. In this case, the focus of automation is based on the transition from mass production to serial production. This, in turn, is associated with the automation and mechanization of auxiliary technological processes and the solution of economic, organizational and management system issues. Complex automation involves the use of common methods at each stage of their automation, using methods of constantly improving technical equipment (control systems and programs in a digital program; from simple mechanisms to electronic control systems). This, in turn, makes it possible to design several types of automatic lines. Thus, the scientific basis of research in the design and operation of machines and mechanisms in mechanical engineering, which determines the development of technical progress, is manifested.

## **Conclusion**

National certification system of the Republic of Uzbekistan The following types of certification of the certification system are implemented in the Republic of Uzbekistan: - Mandatory certification; - Voluntary certification; Mandatory certification includes products that are manufactured, imported and exported, and are subject to certification, included in a special list approved by the Cabinet of Ministers of the Republic of Uzbekistan. The above list includes products or services for which requirements are established in regulatory documents on the safety of life, health and property of citizens, environmental protection, interoperability and compatibility. In addition to this list, similar requirements may be imposed on certain services and products in accordance with the Laws adopted by the Oliy Majlis, and on the basis of presidential decrees. Voluntary certification may include services or products not included in the list in accordance with the Laws of the Republic of Uzbekistan, Presidential Decrees, and Government Resolutions, in which case certification is carried out voluntarily at the initiative of

the manufacturer, supplier or consumer (hereinafter referred to as the applicant). The expression "digitalization and automation of certification processes" is understood as follows: Meaning: This expression means the conversion of processes performed to confirm the quality (certification) of products, services or systems into digital form using computer technology (digitization) and making them automatically controlled by software tools (automation). In simpler terms: Certification work (for example, submitting documents, conducting inspections, issuing results) is carried out on a computer, not on paper, and is performed automatically, as far as possible, without human intervention.

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