

Monthly scientific and practical journal

Published since 2000
(former name Kvalifikatsiya i Kachestvo)
Registration certificate
ПИ № ФС-77-75122 от 22.02.2019
The journal is included in the list of publications,
recommended by Higher Attestation Commission (VAK)

Founder and publisher

**Academy for Standardization, Metrology
and Certification (ASMS)**

109443, Moscow, Volgogradsky pros., 90, 1
Phone: +7 (499) 172 4730. Fax: +7 (499) 742 5241
E-mail: info@asms.ru. www.asms.ru

Chief Editor

Alexander V. Zazhigalkin, FSAE FVT ASMS

Editorial board

Michael I. Lomakin, Federal Center for Science and
High Technologie, RF, Moscow

Svetlana A. Kalintseva, FSAE FVT ASMS, RF,
Moscow

Stanislav Bartusek, Technical University of Ostrava,
Czech Republic, Ostrava

Viktor Ya. Belobragin, LLC Advertising Informational
Agency Standards and Quality, RF, Moscow

Boris V. Boytsov, International Public Organization
Academy of Quality Problems, and Moscow Aviation
Institute (MAI), RF, Moscow

Fedor V. Bulygin, All-Russian Research Institute
of Metrological Service (VNIIMS), RF, Moscow

Viktor A. Vasil'ev, MAI, RF, Moscow

Vladimir V. Voronin, FSAE FVT ASMS, RF, Moscow

Tatiana V. Guseva, FSAB Research Institute
Environmental Industrial Policy Centre, RF, Moscow

Ol'ga P. Dvoryaninova, Voronezh State University
of Engineering Technologies, RF, Voronezh

Alexander V. Dokukin, Federal Center for Science
and High Technologie, RF, Moscow

Nina I. Dunchenko, Russian State Agrarian
University — Moscow Timiryazev Agricultural
Academy, RF, Moscow

Lev K. Isaev, All-Russian Research Institute
of Metrological Service (VNIIMS), RF, Moscow

Leonid V. Kolomiets, Odessa State Academy
of Technical Regulation and Quality, Ukraine, Odessa

Vladimir Yu. Korchak, Presidium of RAS, RF, Moscow

Aleksey V. Leonov, FSBI 46 Central Research
Institute, RF, Moscow

Alexandr V. Malkov, D. Mendeleev University
of Chemical Technology of Russia, RF, Moscow

Valeriy A. Novikov, FSAE FVT ASMS, RF, Moscow

Yuriy A. Pal'chun, Novosibirsk Branch FSAE FVT
ASMS, RF, Novosibirsk

Vladimir V. Pomazanov, Self-Regulatory
Organization Center Reahim, and SEI HE MO State
Humanitarian and Technological University, RF,
Moscow Region

Anatoliy I. Solyanik, Russia Voronezh Branch FSAE
FVT ASMS, RF, Voronezh

Editorial staff

I.S. Gridin, L.A. Kas'yanova,

E.V. Kirilenko, I.B. Kuskova

Phone: +7 (499) 172 7717. E-mail: komp@asms.ru

Layout and logo design

A.B. Kostrikov

Original layout

Individual Entrepreneur Shilenkova E.I.

Phone: +7 (916) 324 0613

Subscription

In the union catalog Russia Press: 87872

In the publishing department

Phone: +7 (499) 172 7717. E-mail: komp@asms.ru

Signed for printing 10.04.2023

Matte coated paper 84×108/16

Offset printing. Conv. pp. 7

2000 copies. Order number 138/T2023

Printing

Printing House LLC Polygraphic complex,

125315, Moscow,

Chasovaya str., 28, bldg. 4, fl. 3, room 42V

Authors' ideas may not always coincide

with the editorial stuff.

While using materials reference to the journal

'Kompentnost' is required

Articles' reprinting is allowed only with the editorial stuffs'

permission

Editorial stuff is not responsible for the content

of the advertisements

Materials in the category Company are published

on the rights of advertising

© Academy for Standardization, Metrology
and Certification, 2023

Content

3/2023

INNOVATION

- 6** V.Yu. Korchak
Adaptation
of Scientific
Achievements
to Implementation
in Samples
of Equipment

TOPICAL THEME

- 16** D.V. Smelkov
V.F. Kuksevich
D.V. Chernenko
Resource Saving
in the Field of IT
in the Educational
Processes Complex
Digitalization

- 22** T.N. Poddubnaya
E.A. Panina

Blockchain
Technology
Possibilities in
Tourism

METROLOGY

- 26** L.K. Isaev
Quality Infrastructure
and the Role of
Metrology



- 31** Sh.A. Kodirova
M.M. Makhmudzhonov
Mathematical
Models and
Characterization
of Errors

NEWS

- 4, 5, 36**

MANAGEMENT

- 38** S.S. Dobrolinskiy
N.G. Nikolaeva
S.M. Goryunova
R.N. Ismailova
Methods of Lean
Production in
Improving the
Activities of the
University Unit

PRODUCTION ORGANIZATION

- 44** R.N. Pigilova
Automated Systems
for Organizing and
Managing the Energy
Supply System

- 50** A.I. Shinkevich
T.V. Malysheva
D.V. Kharitonov
Product Design on
the PLM Platform:
QFD Quality
Function Structuring
Method

TRAINING

- 55**

Reviewers:

Prof. Dr. **T.V. Guseva**, Research Institute Environmental Industrial Policy Center;
Prof. Dr. **V.A. Vasil'ev**, Russian State University of Aviation Technology (MAI);
Prof. Dr. **N.I. Dunchenko**, Russian State Agrarian University — Moscow Timiryazev
Agricultural Academy; Prof. Dr. **A.I. Solyanik**, Voronezh ASMS Branch;
Prof. Dr. **V.Ya. Belobragin**, Academy for Quality Problems;
Prof. Dr. **I.A. Makeeva**, State Scientific Institution, Research Institute for Dairy Industry;
Prof. Dr. **A.V. Malkov**, D.I. Mendeleev University of Chemical Technology of Russia;
Prof. Dr. **V.Yu. Korchak**, N.E. Bauman Moscow State Technical University
Prof. Dr. **A.V. Leonov**, 46 Central Research Institute of RF Defense Ministry

Next issues

Problems of the Quality
System Effective
Functioning

Modular Approach
to Supply Chain
Management

Public Administration
and Quality Are Not Raw
Materials for Growth