

Monthly scientific and practical journal

Published since 2000
(former name Kvalifikatsiya I Kachestvo)
Registration certificate
ПИ № ФГ-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 Technology, 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 Technology, 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, N.E. Bauman MSTU, 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 CenterReahim, 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. Kirienko, I.B. Kuskova

Phone: +7 (499) 172 7717, 172 5757

Layout and logo design
A.B. Kostrikov

Original layout
Individual Entrepreneur Shilnikova 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 5.09.2025
Matte coated paper 84×108/16

Offset printing. Conv. pp. 4,5
5000 copies. Order number ??????

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 staff.

While using materials reference to the journal
Kompetentnost' is required

Articles' reprinting is allowed only with the editorial staffs'
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, 2025

Content

7/2025

INNOVATION

- 3** **A.R. Bestugin**
I.A. Kirshina
E.M. Il'inskaya
O.A. Bizina
Synergetic Effect
of Innovative
Competencies
in Robotic
Manufacturing

RESEARCH

- 10** **A.P. Bobryshov**
S.V. Solenyy
V.P. Kuz'menko
Evaluating
the Work Quality
of Optical
Character
Recognition
Libraries

PRODUCTION ORGANIZATION

- 19** **A.A. Berezina**
N.A. Zhil'nikova
E.A. Minkinen
Organization
of Production
at Auxiliary Sites
of Pulp and Paper
Enterprises

NEWS

64, 70



QUALITY MANAGEMENT

- 29** **Yu.A. Antokhina**
E.A. Frolova
A.S. Tur
Comprehensive
Assessment
of the Quality
of Radioelectronic
Products at the
Declining Indicators
Risk
- 33** **S.A. Nazarevich**
Quality Management
of the Production
Systems in the
Organizational
Pathologies Conditions

- 38** **A.G. Chunovkina**
A.P. Yastrebov
A.V. Chabanenko
M.D. Rassykhaeva
Intelligent Maturity
Models of Quality
Management
Processes

MANAGEMENT

- 46** **S.A. Atroshenko**
L.I. Sedin
Models of Quality
Indicators for Lean
Production
Systems
- 55** **A.V. Chabanenko**
A.O. Smirnov
T.I. Komarov
Development
of a Reliability
Management System
for Enterprises
of the Mechanical
Engineering
Industry
- 60** **A.A. Shashmurin**
Development
of Indicators Process
System for the
Management System
Digitalization
- 65** **D.S. Shchukina**
Model for Assessing
the Impact of the
Product Degree
Innovation on its
Consumer
Perception

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

Technology Benchmarking:
Resource Efficiency
Aspects

Methodological Approaches
to Solving Modern
Technological Problems

Types of Green
Production System
Models