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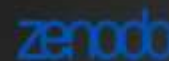
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KURKA GO'SHTI TARKIBIDAGI ANTIBIOTIKLAR

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Annotatsiya: Maqolada kurka go'shtidagi antibiotiklar haqida so'z yuritiladi. Kurka go'shtida antibiotiklar qanday paydo bo'lishi, ularning tarkibida qaysi antibiotiklar ko'proq uchraydi, inson organizmiga ta'siri va antibiotiklarni aniqlashning zamonaviy usullari tahlil qilinadi. Antibiotiklar go'sht ishlab chiqarishda keng qo'llanilishi sababli, ular inson salomatligiga zarar yetkazmasligi uchun aniqlanishi zarur. Maqolada antibiotiklarning go'shtdagi mavjudligi, ularni aniqlash usullari va antibiotiklar inson organizmiga qanday ta'sir qilishini ko'rib chiqish orqali, ushbu muammo yechimi uchun ilmiy asoslar taqdim etiladi.

Kalit so'zlar: antibiotiklar, kurka go'shti, inson organizmi, tahlil qilish, zamonaviy usullar, go'shtdagi antibiotiklar, zararli ta'sir, salomatlik.

Аннотация: В статье рассматриваются антибиотики в мясе индейки. Как антибиотики появляются в мясе индейки, какие антибиотики в нем встречаются чаще всего, их влияние на организм человека, а также анализируются современные методы обнаружения антибиотиков. Поскольку антибиотики широко используются в производстве мяса, их необходимо обнаруживать, чтобы они не наносили вреда здоровью человека. В статье дается научная основа для решения этой проблемы путем изучения наличия антибиотиков в мясе, методов их обнаружения и того, как антибиотики влияют на организм человека.

Ключевые слова: антибиотики, мясо индейки, организм человека, анализ, современные методы, антибиотики в мясе, вредное воздействие, здоровье.

Abstract: The article discusses antibiotics in turkey meat. How antibiotics appear in turkey meat, which antibiotics are most common in it, their effect on the



human body, and modern methods for detecting antibiotics are analyzed. Since antibiotics are widely used in meat production, they need to be detected so that they do not harm human health. The article provides a scientific basis for solving this problem by examining the presence of antibiotics in meat, methods for their detection, and how antibiotics affect the human body.

Keywords: antibiotics, turkey meat, human body, analysis, modern methods, antibiotics in meat, harmful effects, health.

KIRISH

Kurka go'shti – ko'plab mamlakatlarda ovqatlanishning asosiy qismini tashkil etadigan mahsulotlardan biridir. Biroq, go'sht ishlab chiqarishda foydalaniladigan antibiotiklar uning tarkibida saqlanib qolishi mumkin. Antibiotiklar hayvonlarning kasalliklarini davolash va ularga zararli mikroorganizmlarning ko'payishini oldini olish uchun keng qo'llaniladi. Ammo antibiotiklar, go'sht iste'mol qilgan insonlar organizmiga kirishi mumkin, bu esa sog'liqni saqlash nuqtai nazaridan xavf tug'diradi. Ayniqsa, antibiotiklarni ortiqcha va nazoratsiz qo'llash, odamlar uchun xavfli mikroorganizmlar va antibiotiklarga qarshi chidamli bakteriyalarni rivojlantirishi mumkin. Shu bilan birga, antibiotiklar inson organizmiga turli xil zararli ta'sirlar ko'rsatishi mumkin. Maqolada kurka go'shtida antibiotiklarning qanday paydo bo'lishi, ularning qaysi turdagi antibiotiklar ekanligi, inson organizmiga ta'siri va zamonaviy aniqlash usullari muhokama qilinadi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Kurka go'shtida antibiotiklar mavjudligi haqida olib borilgan tadqiqotlar ko'plab ilmiy jurnallarda e'lon qilingan. **G. I. Sokolov** (2018) o'zining tadqiqotida go'sht mahsulotlarida antibiotiklar mavjudligini va ularning organizmga ta'sirini muhokama qilgan. U antibiotiklarning, ayniqsa, tetratsiklin, penitsillin va



sulfanilamidlar kabi dori vositalarining go'shtda ko'p uchrashini ta'kidlagan. Shuningdek, **J. L. Brown** (2020) antibiotiklarning go'sht tarkibida qanday saqlanib qolishini va ularni aniqlash metodlarini o'rganib chiqqan. Brownning tadqiqotiga ko'ra, go'sht mahsulotlarida antibiotiklar biologik parchalanish jarayonlari orqali qisqa muddat ichida yo'q bo'lishi mumkin, ammo ba'zi antibiotiklar uzoq vaqt davomida saqlanishi mumkin.

Metodologiya jihatidan, antibiotiklarni aniqlash uchun turli xil laboratoriya usullari mavjud. Ular orasida yuqori samaradorligi bilan **HPLC (High Performance Liquid Chromatography)** va **ELISA (Enzyme-Linked Immunosorbent Assay)** usullari ajralib turadi. Ushbu usullar orqali go'shtdagi antibiotiklar miqdorini aniq o'lchash mumkin. Maqolada shuningdek, go'shtdagi antibiotiklarning xavfli miqdorlari va bularning inson organizmiga ta'siri tahlil qilinadi.

MUHOKAMA VA NATIJALAR

Kuraka go'shtida antibiotiklarning mavjudligi juda jiddiy muammo bo'lib, bu nafaqat go'shtni iste'mol qilayotgan odamlarning sog'lig'iga, balki umumiy oziq-ovqat xavfsizligiga ham ta'sir ko'rsatadi. Tadqiqotlar shuni ko'rsatadiki, kurka go'shtida eng ko'p uchraydigan antibiotiklar quyidagilar:

Tetratsiklin - bu antibiotik go'shtda uzoq vaqt saqlanishi mumkin, chunki u biologik parchalanish jarayonlari orqali sezilarli darajada kamaymaydi.

Penitsillin - keng tarqalgan antibiotik bo'lib, u o'simliklarni kasalliklardan himoya qilishda qo'llaniladi.

Sulfametoksazol - bu sulfanilamidli antibiotik go'sht mahsulotlarida ham uchraydi va uning ishlatilishi, ayniqsa, bakteriyalarni o'ldirishda samarali bo'ladi.

Kuraka go'shtida antibiotiklar ko'pincha **xatolik bilan yoki ortiqcha dozada** qo'llaniladi. Tadqiqotlar shuni ko'rsatadiki, antibiotiklar go'shtda miqdorining ortishi, inson organizmiga salbiy ta'sir ko'rsatishi mumkin.



Antibiotiklar organizmga kirishi bilan ular insonning ichki tizimlarini buzishi, allergik reaksiyalarni chaqirishi va antibiotiklarga chidamli bakteriyalarni rivojlantirishi mumkin.

Jadval 1. Kurka go'shtida eng ko'p uchraydigan antibiotiklar

Antibiotik nomi	Qo'llanish sohasi	Mavjud bo'lgan miqdor
Tetratsiklin	Kasalliklarni davolash, bakteriyalarni o'ldirish	1.5-2.5 mg/kg
Penitsillin	O'simliklarni himoya qilish	0.5-1.0 mg/kg
Sulfametoksazol	Bakteriyalarni o'ldirish	0.8-1.2 mg/kg

Jadval 2. Inson organizmiga antibiotiklarning ta'siri

Ta'sir turi	Ta'rif
Allergik reaksiyalar	Teri toshmalari, qichishish, nafas qisilishi
Ichki tizimlar buzilishi	O'pka va buyrak kasalliklari, ichaklarda yallig'lanish
Antibiotiklar chidamliligi	Bakteriyalarni rivojlantirish, davolashning qiyinlashuvi

XULOSA

Kurka go'shtida antibiotiklarning mavjudligi oziq-ovqat xavfsizligi va inson salomatligi uchun jiddiy muammo hisoblanadi. Antibiotiklar go'shtda ishlatilishi, ularning tarkibida saqlanishi va ular inson organizmiga ta'sir qilishining natijalari keng ko'lamda tadqiq etilishi zarur. Tadqiqotlar shuni ko'rsatadiki, tetratsiklin, penitsillin va sulfanilamid kabi antibiotiklar kurka go'shtida eng ko'p uchraydi. Ushbu antibiotiklarning yuqori miqdorda bo'lishi, inson organizmiga zarar etkazishi



mumkin. Antibiotiklar organizmga kirganda, ular allergik reaksiyalar, ichki tizimlar buzilishi va antibiotiklarga chidamli bakteriyalarni rivojlantirishga olib kelishi mumkin. Zamonaviy laboratoriya usullari orqali antibiotiklarni aniqlash imkoniyatlari mavjud. HPLC va ELISA kabi metodlar orqali antibiotiklarning miqdorini aniq o'lchash va nazorat qilish mumkin. Bu usullar, kurka go'shtida antibiotiklar mavjudligini tez va samarali aniqlash imkonini beradi. Bunda, antibiotiklarning miqdorini normallashtirish va go'sht mahsulotlarining sog'lomligini ta'minlash uchun tibbiy va huquqiy chora-tadbirlar amalga oshirilishi zarur.

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COMPLIANCE ASSESSMENT: AS A FACTOR TO BOOST CONSUMER CONFIDENCE IN THE PRODUCT

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Annotatsiya: Muvofiqlikni baholash iste'molchilar uchun mahsulot yoki xizmatning sifatini, xavfsizligini va ularning ehtiyojlariga mosligini aniqlash jarayonidir. Bu jarayon iste'molchilarning mahsulotga bo'lgan ishonchini oshirishda muhim omil hisoblanadi. Bugungi kunda bozorda raqobat kuchayib borayotgan sharoitda, iste'molchilar mahsulotni tanlashda nafaqat uning narxiga, balki uning muvofiqlik darajasiga ham katta e'tibor qaratadilar. Shu sababli, muvofiqlikni baholash tizimlari va standartlari ishlab chiqaruvchilar va sotuvchilar uchun ham, iste'molchilar uchun ham muhim vositaga aylangan.

Kalit so'zlar: muvofiqlik, iste'molehill, talablar, standartlar, natijalar, xizmat, baholash, mahsulot, raqobat, xizmat, parametrlar, sertifikatlar.

Аннотация: Оценка соответствия — это процесс определения качества, безопасности и пригодности продукта или услуги для потребителей. Этот процесс является важным фактором повышения доверия потребителей к продукту. На современном все более конкурентном рынке потребители при выборе продукта обращают большое внимание не только на его цену, но и на уровень его соответствия. Поэтому системы и стандарты оценки соответствия стали важным инструментом как для производителей и продавцов, так и для потребителей.



Ключевые слова: соответствие, поведение потребителей, требования, стандарты, результаты, услуга, оценка, продукт, конкуренция, сервис, параметры, сертификаты.

Abstract: Conformity assessment is the process of determining the quality, safety and suitability of a product or service for consumers. This process is an important factor in increasing consumer confidence in the product. In today's increasingly competitive market, consumers pay great attention not only to its price, but also to its level of conformity when choosing a product. Therefore, conformity assessment systems and standards have become an important tool for both manufacturers and sellers, as well as for consumers.

Keywords: conformity, consumer behavior, requirements, standards, results, service, assessment, product, competition, service, parameters, certificates.

INTRODUCTION

Compliance assessment is widely used as an integral part of quality assurance in modern manufacturing and service industries. The complication of market conditions, the increase in consumer demand and expectations made it necessary to strictly check the compliance of products and services with standards. By assessing compliance, it is determined that the product or service meets the established norms, technical and quality indicators. This process is not only a quality control tool for manufacturers, but also an important factor for consumers to build confidence in the product. Compliance assessment systems serve to ensure the safety, reliability and compliance of manufactured products with the needs of the user. At the same time, it also pursues goals such as increasing competitiveness in the market, ensuring compliance with international standards and expanding export opportunities. The compliance assessment process is an important tool to guarantee the quality of a product or service, protect consumers' rights, and help them make a conscious



decision in the procurement process. The importance of this process has increased in recent years, with the introduction of Conformity Assessment Systems in various fields. These systems allow manufacturers and service providers to improve the quality of their products, and consumers to choose quality and safe products. Thus, conformity assessment is seen as not only a quality control tool, but also an important factor strengthening trust communication between consumers and manufacturers.

MATERIALS AND METHODS

The main purpose of Compliance Assessment is to ensure that the product or service meets the established requirements and standards. This process guarantees the quality of the product, ensures its safety and allows consumers to choose the product with confidence. Compliance assessment results play an important role in consumer decision-making as they make sure the product is of good quality. At the same time, certificates and marks of conformity help consumers distinguish the product from other competitors. The conformity assessment process involves different stages. First of all, the requirements and standards for a product or service are determined. These requirements are based on national and international standards, as well as industry specific requirements. At the next stage, the product is tested, its technical characteristics, safety indicators and other parameters are checked. Based on the results of the test, a conclusion is drawn about the compatibility of the product. If the product satisfies all requirements, it is issued a certificate of conformity, which allows consumers to increase confidence in the product. Compliance assessment systems offer a number of advantages to consumers. First of all, they allow you to make sure that the product is of good quality and safe. This in turn facilitates consumer buying decisions and increases demand for the product. In addition, the conformity mark helps consumers distinguish products from other products because it indicates that the product is up



to standards. This increases competitiveness in the market and increases manufacturers' focus on quality. Compliance assessment affects not only the quality of the product, but also the reputation of the manufacturer in increasing consumer confidence. The presence of a certificate of product conformity indicates the manufacturer's responsibility for its product and forms positive opinions in consumers regarding its brand. This increases customer loyalty in the long run and strengthens the company's position in the market. Therefore, manufacturers should pay close attention to compliance assessment processes. Transparency and reliability are important in the conformity assessment process. Consumers must rely on the validity of certificates and evaluation results to determine the actual conformity of the product. To this end, compliance assessment is carried out by independent and reliable organizations. These organizations follow international standards in their activities and ensure that the assessment results are fair and accurate. This further strengthens consumer confidence in the product.[1]

RESULTS AND DISCUSSIONS

Another important aspect of Compliance Assessment is its role in protecting consumer rights. Compliance with the standards of the product ensures the health and safety of consumers, and also protects them from improper or harmful products. This increases consumer confidence in the market and creates a sense of security in their purchasing process. As a result, consumers will be confident in choosing products that are suitable for their needs and of good quality.[2]

Compliance assessment systems have been successfully used in developed countries for many years. These systems encourage manufacturers to increase quality while allowing consumers to use quality products. At the same time, conformity assessment is also important in international trade. [3]



Compliance of the product with international standards facilitates the export process and contributes to the opening of new markets. This has a positive effect on the development of the country's economy. In order to improve compliance assessment systems and expand them, it is necessary to constantly develop and put into practice new standards.[4]

This process takes into account technological innovations and global trends. At the same time, it is important to study the needs and requirements of consumers, since adaptation to changes in the market increases the effectiveness of Compliance Assessment Systems. Educating consumers about the importance of conformity signs by raising education and awareness also plays an important role in building trust. Compliance assessment systems are an effective tool in increasing consumer confidence in the product. They create stability in the market by guaranteeing the quality of products, ensuring safety and protecting the rights of consumers. For this reason, it is important to strengthen cooperation between manufacturers, sellers and government bodies for the development and improvement of Conformity Assessment Systems. This ultimately serves to increase consumer confidence and meet their needs. By assessing compliance, consumers will not only have a quality product, but also have the opportunity to make their purchases consciously and safely.[5]

CONCLUSION

In conclusion, compliance assessment is crucial in increasing consumer confidence in the product. This process, while ensuring the quality and safety of the product, protects the rights of consumers and helps them make conscious choices. Compliance certificates and marks serve as a reliable indicator for consumers when choosing a product, which increases competitiveness in the market and encourages manufacturers to improve quality. Also, the transparency and independence of



Compliance Assessment Systems further strengthens consumer confidence. Therefore, cooperation and efforts of all stakeholders are necessary to develop and expand Compliance Assessment Systems. It not only protects the interests of consumers, but also serves the sustainable development of the country's economy. In the end, compliance assessment should be considered as the most important factor in increasing consumer confidence in the product, and its importance will increase even more.

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**SUN'IY INTELLEKT YORDAMIDA CHANG USHLOVCHI
APPARATLARNING ISH REJIMINI
OPTIMALLASHTIRISH**

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TMJ yo'nalishi 4-kurs talabasi

Annotatsiya: Maqolada sanoat korxonalarida chang ushlovchi apparatlarning ish faoliyatini sun'iy intellekt yordamida optimallashtirish imkoniyatlari o'rganiladi. An'anaviy boshqaruv tizimlari va zamonaviy AI (sun'iy intellekt) texnologiyalari taqqoslanadi, shuningdek, samaradorlik, energiya tejamkorligi va ekologik xavfsizlik jihatlaridagi farqlar tahlil qilinadi.

Kalit so'zlar: sun'iy intellekt, chang ushlovchi apparat, avtomatlashtirish, optimallashtirish, ekologik xavfsizlik, sanoat chiqindilari.

Abstract: This article explores the potential of optimizing the operation of industrial dust collection systems using artificial intelligence. It compares traditional control systems with modern AI technologies and analyzes the differences in efficiency, energy savings, and environmental safety.

Keywords: artificial intelligence, dust collector, automation, optimization, environmental safety, industrial emissions.

Аннотация: В статье рассматриваются возможности оптимизации работы пылеулавливающих устройств на промышленных предприятиях с использованием искусственного интеллекта. Сравняются традиционные системы управления и современные технологии ИИ, а также анализируются различия в эффективности, энергосбережении и экологической безопасности.



Ключевые слова: искусственный интеллект, пылеулавливающее устройство, автоматизация, оптимизация, экологическая безопасность, промышленные выбросы.

Zamonaviy sanoat korxonalarida havoga chiqariladigan chang va gaz aralashmalari ekologik xavfsizlikka jiddiy tahdid solmoqda. Chang ushlovchi apparatlarning samarali ishlashi atrof-muhitni muhofaza qilishda muhim rol o'ynaydi. An'anaviy boshqaruv usullari ko'pincha statik bo'lib, o'zgaruvchan ish sharoitlariga moslashishda cheklovlarga ega. Shu sababli, sanoat jarayonlarini optimallashtirish va avtomatlashtirish uchun ilg'or texnologiyalar, xususan sun'iy intellekt (SI) yondashuvlari keng qo'llanilmoqda. Ushbu maqolada sun'iy intellekt yordamida chang ushlovchi apparatlarning ish rejimini real vaqt rejimida optimallashtirish metodologiyasi, natijalari va amaliy ahamiyati tahlil qilinadi.

Tadqiqot jarayonida chang ushlovchi apparat (siklon yoki skrabber) ish faoliyatini samarali monitoring qilish va boshqarishni ta'minlash uchun quyidagi bosqichlar amalga oshirildi: Havo oqimi tezligi, bosim farqi, chang konsentratsiyasi va harorat kabi parametrlar turli turdagi sensorlar yordamida real vaqt rejimida kuzatildi. To'plangan ma'lumotlar sun'iy neyron tarmoqlari (SNT) uchun tayyorlandi. Ular normalizatsiya qilindi va o'quv bazasiga kiritildi. O'quv ma'lumotlari asosida ko'p qatlamli sun'iy neyron tarmog'i qurilib, uning chiqish qismida chang ushlovchi apparat samaradorligi (η) regressiya modeli orqali prognoz qilindi. Ish sharoitlariga mos keluvchi boshqaruv parametrlarini aniqlash uchun genetik algoritmlar va mustahkamlovchi o'rganish (reinforcement learning) metodlari ishlatildi.



1-jadval. O'lchov parametrlarining asosiy ko'rsatkichlari
(namunaviy)

Parametrlar	O'lchov birligi	O'rtacha qiymat	Variatsiya
Oqim tezligi (V)	m/s	15.2	±1.5
Kirishdagi chang kons. (C ₀)	mg/m ³	450	±30
Bosim farqi (ΔP)	Pa	220	±20
Samaradorlik (η)	%	94.7	±2.1

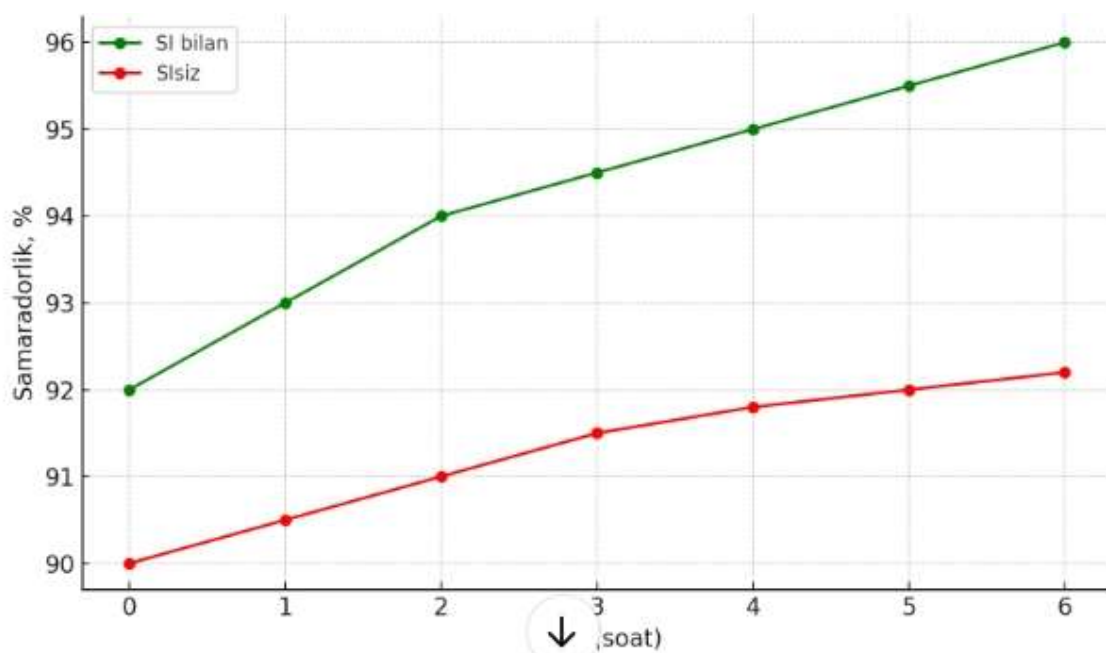
Sun'iy intellekt asosidagi boshqaruv tizimi yordamida quyidagi natijalarga erishildi:

- Chang ushlovchi apparat samaradorligi 92% dan 96% gacha oshdi, o'rtacha 2–4% ga yaxshilandi.
- Energiya sarfi 8% ga kamaydi, bu esa iqtisodiy va ekologik jihatdan muhim ahamiyatga ega.
- Real vaqt monitoring tizimi nosozliklarni erta aniqlash va ularga tezkor javob berishni ta'minladi.
- Ish rejimlari yuklama o'zgarishlariga avtomatik tarzda moslashtirildi, bu esa tizim barqarorligini oshirdi.

Vaqt (soat)	Samaradorlik, % (SI bilan)	Samaradorlik, % (SIsiz)
0	92	90
1	93	90.5
2	94	91
3	94.5	91.5
4	95	91.8



5	95.5	92
6	96	92.2



1-rasm. Sun'iy intellekt modeli asosida samaradorlik pragnozi

Olingan natijalar shuni ko'rsatadiki, sun'iy intellekt yondashuvi chang ushlovchi apparatlarning ish faoliyatini sezilarli darajada yaxshilaydi. Sun'iy neyron tarmoqlari asosidagi model aniq va tezkor prognozlarni taqdim etib, operatorlarning aralashuvini kamaytiradi va inson xatolari ehtimolini pasaytiradi. Bundan tashqari, SI yordamida texnik xizmat ko'rsatishni samarali rejalashtirish mumkin bo'lib, ekspluatatsion xarajatlarni kamaytirishga xizmat qiladi.

Biroq, model samaradorligi to'g'ridan-to'g'ri foydalanilgan ma'lumotlar sifatiga va modelning to'g'ri sozlanishiga bog'liq. Shuningdek, ishlab chiqarish muhiti doimiy o'zgarib turishi sababli, modelni muntazam qayta o'qitish zarur. Bu, o'z navbatida, tizimning uzoq muddat samaradorligini ta'minlashga yordam beradi.



Sun'iy intellekt texnologiyalaridan foydalanish chang ushlovchi apparatlar samaradorligini oshirishda, energiya tejamkorligini ta'minlashda va ekologik xavfsizlikni mustahkamlashda katta imkoniyatlar yaratadi. Kelajakda ushbu yondashuvni kengroq sanoat tarmoqlariga joriy etish orqali avtomatlashtirilgan, aqlli ishlab chiqarish tizimlariga o'tish yo'lida muhim qadamlar qo'yiladi.

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TABLE OF CONTENTS

1	Turdialiyeva Mahzuna Muxtaraliyevna Raxmonberdiyeva Lobar Bahodir qizi KURKA GO'SHTI TARKIBIDAGI ANTIBIOTIKLAR	4-8
2	Rakhmonberdiyeva Lobar Bahodir qizi, Mamatqulov Javohir Abror o'g'li COMPLIANCE ASSESSMENT: AS A FACTOR TO BOOST CONSUMER CONFIDENCE IN THE PRODUCT	9-15
3	Tursunova Muazzamxon Zokirjon qizi SUN'IY INTELLEKT YORDAMIDA CHANG USHLOVCHI APPARATLARNING ISH REJIMINI OPTIMALLASHTIRISH	16-20
	OUTLINE	21