

MUHANDISLIK

& IQTISODIYOT

ijtimoiy-iqtisodiy, innovatsion texnik,
fan va ta'limga oid ilmiy-amaliy jurnal

2025
oktyabr



**TOSHKENT SHAHRIDAGI TURIN
POLITEXNIKA UNIVERSITETI**

*Xalqaro ilmiy-amaliy onlayn konferensiya
materiallari to'plami*

**“GLOBAL RAQAMLI INTEGRATSIYALASHUV:
2030-YILGACHA YASHIL IQTISODIYOTGA O'TISHDA
TEXNOLOGIK VA INDUSTRIAL SANOATNI RIVOJLANTIRISH
ORQALI MIKRO VA MAKROIQTISODIY BARQAROR
O'SISHNI TA'MINLASH DOLZARBLIGI”**

**“GLOBAL DIGITAL INTEGRATION: THE RELEVANCE OF
ENSURING MICRO AND MACROECONOMIC SUSTAINABLE
GROWTH THROUGH TECHNOLOGICAL AND INDUSTRIAL
DEVELOPMENT IN THE TRANSITION TO A GREEN
ECONOMY BY 2030”**

**«ГЛОБАЛЬНАЯ ЦИФРОВАЯ ИНТЕГРАЦИЯ:
АКТУАЛЬНОСТЬ ОБЕСПЕЧЕНИЯ УСТОЙЧИВОГО
МИКРО- И МАКРОЭКОНОМИЧЕСКОГО РОСТА ЧЕРЕЗ
РАЗВИТИЕ ТЕХНОЛОГИЧЕСКОЙ И ИНДУСТРИАЛЬНОЙ
ПРОМЫШЛЕННОСТИ В ПЕРЕХОДЕ К ЗЕЛЁНОЙ
ЭКОНОМИКЕ К 2030 ГОДУ»**

7-MAXSUS SON



74-91 xalqaro daraja
ISSN: 2992-8982



muhandislik & iqtisodiyot

ijtimoiy-iqtisodiy, innovatsion texnik,
fan va ta'limga oid ilmiy-amaliy jurnal

Elektron nashr.
2025-yil, oktyabr.

Bosh muharrir:

Zokirova Nodira Kalandarovna, iqtisodiyot fanlari doktori, DSc, professor

Bosh muharrir o'rinbosari:

Shakarov Zafar G'afforovich, iqtisodiyot fanlari bo'yicha falsafa doktori, PhD, dotsent

Tahrir hay'ati:

Abduraxmanov Kalandar Xodjayevich, O'z FA akademigi, iqtisodiyot fanlari doktori, professor

Sharipov Kongratbay Avezimbetovich, texnika fanlari doktori, professor

Maxkamov Baxtiyor Shuxratovich, iqtisodiyot fanlari doktori, professor

Abduraxmanova Gulnora Kalandarovna, iqtisodiyot fanlari doktori, professor

Shaumarov Said Sanatovich, texnika fanlari doktori, professor

Turayev Bahodir Xatamovich, iqtisodiyot fanlari doktori, professor

Nasimov Dilmurod Abdulloyevich, iqtisodiyot fanlari doktori, professor

Allayeva Gulchexra Jalgasovna, iqtisodiyot fanlari doktori, professor

Arabov Nurali Uralovich, iqtisodiyot fanlari doktori, professor

Maxmudov Odiljon Xolmirzayevich, iqtisodiyot fanlari doktori, professor

Xamrayeva Sayyora Nasimovna, iqtisodiyot fanlari doktori, professor

Bobonazarova Jamila Xolmurodovna, iqtisodiyot fanlari doktori, professor

Irmatova Aziza Baxromovna, iqtisodiyot fanlari doktori, professor

Bo'taboyev Mahammadjon To'ychiyevich, iqtisodiyot fanlari doktori, professor

Shamshiyeva Nargizaxon Nosirxuja kizi, iqtisodiyot fanlari doktori, professor,

Xolmuxamedov Muhsinjon Murodullayevich, iqtisodiyot fanlari nomzodi, dotsent

Xodjayeva Nodiraxon Abdurashidovna, iqtisodiyot fanlari nomzodi, dotsent

Amanov Otabek Amankulovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent

Toxirov Jaloliddin Ochil o'g'li, texnika fanlari bo'yicha falsafa doktori (PhD)

Qurbonov Samandar Pulatovich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

Zikriyoyev Aziz Sadulloyevich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

Tabayev Azamat Zaripbayevich, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

Sxay Lana Aleksandrovna, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD), dotsent

Ismoilova Gulnora Fayzullayevna, iqtisodiyot fanlari nomzodi, dotsent

Djumaniyazov Umrbek Iloxamovich, iqtisodiyot fanlari nomzodi, dotsent

Kasimova Nargiza Sabitdjanovna, iqtisodiyot fanlari nomzodi, dotsent

Kalanova Moxigul Baxritdinovna, dotsent

Ashurzoda Luiza Muxtarovna, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

Sharipov Sardor Begmaxmat o'g'li, iqtisodiyot fanlari bo'yicha falsafa doktori (PhD)

Sharipov Botirali Roxataliyevich, iqtisodiyot fanlari nomzodi, professor

Tursunov Ulug'bek Sativoldiyevich, iqtisodiyot fanlari doktori (DSc), dotsent

Bauyetdinov Majit Janizaqovich, Toshkent davlat iqtisodiyot universiteti dotsenti, PhD

Botirov Bozorbek Musurmon o'g'li, Texnika fanlari bo'yicha falsafa doktori (PhD)

Sultonov Shavkatjon Abdullayevich, Kimyo fanlari doktori, (DSc)

Jo'raeva Malohat Muhammadovna, filologiya fanlari doktori (DSc), professor.

muhandislik & iqtisodiyot

ijtimoiy-iqtisodiy, innovatsion texnik,
fan va ta'limga oid ilmiy-amaliy jurnal

- 05.01.00 – Axborot texnologiyalari, boshqaruv va kompyuter grafikasi
- 05.01.01 – Muhandislik geometriyasi va kompyuter grafikasi. Audio va video texnologiyalari
- 05.01.02 – Tizimli tahlil, boshqaruv va axborotni qayta ishlash
- 05.01.03 – Informatikaning nazariy asoslari
- 05.01.04 – Hisoblash mashinalari, majmualari va kompyuter tarmoqlarining matematik va dasturiy ta'minoti
- 05.01.05 – Axborotlarni himoyalash usullari va tizimlari. Axborot xavfsizligi
- 05.01.06 – Hisoblash texnikasi va boshqaruv tizimlarining elementlari va qurilmalari
- 05.01.07 – Matematik modellashtirish
- 05.01.11 – Raqamli texnologiyalar va sun'iy intellekt
- 05.02.00 – Mashinasozlik va mashinashunoslik
- 05.02.08 – Yer usti majmualari va uchish apparatlari
- 05.03.02 – Metrologiya va metrologiya ta'minoti
- 05.04.01 – Telekommunikatsiya va kompyuter tizimlari, telekommunikatsiya tarmoqlari va qurilmalari. Axborotlarni taqsimlash
- 05.05.03 – Yorug'lik texnikasi. Maxsus yoritish texnologiyasi
- 05.05.05 – Issiqlik texnikasining nazariy asoslari
- 05.05.06 – Qayta tiklanadigan energiya turlari asosidagi energiya qurilmalari
- 05.06.01 – To'qimachilik va yengil sanoat ishlab chiqarishlari materialshunosligi
- 05.08.03 – Temir yo'l transportini ishlatish
- 05.09.01 – Qurilish konstruksiyalari, bino va inshootlar
- 05.09.04 – Suv ta'minoti. Kanalizatsiya. Suv havzalarini muhofazalovchi qurilish tizimlari
- 10.00.06 – Qiyosiy adabiyotshunoslik, chog'ishtirma tilshunoslik va tarjimashunoslik
- 10.00.04 – Yevropa, Amerika va Avstraliya xalqlari tili va adabiyoti
- 08.00.01 – Iqtisodiyot nazariyasi
- 08.00.02 – Makroiqtisodiyot
- 08.00.03 – Sanoat iqtisodiyoti
- 08.00.04 – Qishloq xo'jaligi iqtisodiyoti
- 08.00.05 – Xizmat ko'rsatish tarmoqlari iqtisodiyoti
- 08.00.06 – Ekonometrika va statistika
- 08.00.07 – Moliya, pul muomalasi va kredit
- 08.00.08 – Buxgalteriya hisobi, iqtisodiy tahlil va audit
- 08.00.09 – Jahon iqtisodiyoti
- 08.00.10 – Demografiya. Mehnat iqtisodiyoti
- 08.00.11 – Marketing
- 08.00.12 – Mintaqaviy iqtisodiyot
- 08.00.13 – Menejment
- 08.00.14 – Iqtisodiyotda axborot tizimlari va texnologiyalari
- 08.00.15 – Tadbirkorlik va kichik biznes iqtisodiyoti
- 08.00.16 – Raqamli iqtisodiyot va xalqaro raqamli integratsiya
- 08.00.17 – Turizm va mehmonxona faoliyati

Ma'lumot uchun, OAK
Rayosatining 2024-yil 28-avgustdagi 360/5-son qarori bilan "Dissertatsiyalar asosiy ilmiy natijalarini chop etishga tavsiya etilgan milliy ilmiy nashrlar ro'yxati"ga texnika va iqtisodiyot fanlari bo'yicha "Muhandislik va iqtisodiyot" jurnali ro'yxatga kiritilgan.

Muassis: "Tadbirkor va ishbilarmon" MChJ

Hamkorlarimiz:

1. Toshkent shahridagi G.V.Plexanov nomidagi Rossiya iqtisodiyot universiteti
2. Toshkent davlat iqtisodiyot universiteti
3. Toshkent irrigatsiya va qishloq xo'jaligini mexanizatsiyalash muhandislari instituti" milliy tadqiqot universiteti
4. Islom Karimov nomidagi Toshkent davlat texnika universiteti
5. Muhammad al-Xorazmiy nomidagi Toshkent axborot texnologiyalari universiteti
6. Toshkent davlat transport universiteti
7. Toshkent arxitektura-qurilish universiteti
8. Toshkent kimyo-texnologiya universiteti
9. Jizzax politexnika instituti



MUNDARIJA

ASSESSING RISKS IN BANKING ACTIVITIES TO ENHANCE THE EFFICIENCY OF FINANCIAL SERVICES	21
Saidov Jasurbek Latipbayevich	
MECHANISMS OF THE IMPACT OF STATE BUDGET REVENUES AND EXPENDITURES ON ECONOMIC GROWTH.....	24
Sheraliyev Nurbek Jumanazarovich	
O'QUVCHI VA TALABALARDA HUQUQIY MADANIYATINI TA'LIM JARAYONIDA YUKSALTIRISHNING ASOSIY YO'NALISHLARI VA TAMOYILLARI	27
Mansurova Zilola Akromxonovna	
O'ZBEKISTON BANK TIZIMIDA FINTECH INNOVATSIYALARINING RIVOJI VA ULARNING SANOAT-QURILISH SEKTORIDAGI TRANSFORMATSION TA'SIRI	30
Muzayyana Beknazarova	
TURIZM SOHASIDA RAQOBAT AFZALLIKLARINI YARATISHDA MARKETINGNING ROLI	33
Shaymanov To'liqin Mahmayusupovich	
O'ZBEKISTONDA DAVLAT BUDJETI IJROSINI RAQAMLASHTIRISHNING FISKAL INTIZOM VA SHAFFOFLIKKA TA'SIRI	37
Tangrieva Farida Abdulkarimovna	
OLIY TA'LIM MUASSASALARIDA SUN'IY INTELLEKTNI TATBIQ ETISH ORQALI BOSHQARUV SAMARADORLIGINI OSHIRISH	41
Radjabov Bunyod Abdullalilovich	
XXI-ASRDA JAHON IQTISODIYOTINING RIVOJLANISH BOSQICHLARI VA ASOSIY DRAYVERLARI	45
Jalolov Umidjon Xudoyberdi o'g'li, Yegamberdiyev Shuxrat Satimbayevich	
XALQARO RAQAMLI INTEGRATSIYA JARAYONIDA O'ZBEKISTON ISHTIROKI	48
Muyassarzoda Fayziyeva	
ФИНАНСОВЫЙ КОНТРОЛЬ КАК КЛЮЧЕВОЙ ИНСТРУМЕНТ ОБЕСПЕЧЕНИЯ НАЦИОНАЛЬНЫХ ИНТЕРЕСОВ И ФИНАНСОВОЙ БЕЗОПАСНОСТИ УЗБЕКИСТАНА	52
Турсунбоева Нилуфар Отабековна	
ФИНАНСОВАЯ ГРАМОТНОСТЬ И ИНВЕСТИЦИИ	55
Ягудин Дмитрий Рустамович	
YANGI O'ZBEKISTON SHAROITIDA BARQAROR TURIZM RIVOJI: GLOBAL TAJRIBA VA MILLIY YONDASHUVLAR.....	57
Xamdullayeva Gulhayo Ergash qizi	
RAQAMLI TEXNOLOGIYALAR YORDAMIDA TO'QIMACHILIK KORXONALARIDA INVESTITSION QARORLARNI OPTIMALLASHTIRISH	59
Rustambekov Djasur Askarovich	
KORXONA POTENSIALINING MOHIYATI VA TUZILMASIGA OID NAZARIY HAMDA ILMIY YONDASHUVLAR TAHLILI.....	61
Djalilov Sardor Sadilloevich	
XALQARO IQTISODIYOTNING GLOBAL DAROMAD TENGSIZLIKLARINI SHAKLLANTIRISHDAGI ROLI: SAVDO SIYOSATLARI VA REDISTRIBYUTSIYA MEKANIZMLARINING TAQQOSLAYDIGAN TAHLILI	64
Kurolov Maksud Obitovich	
SURXONDARYO VILOYATIDA INVESTITSIYA VA YHM O'RTASIDAGI O'ZARO BOG'LIQLIK.....	73
Zaripova Muqaddas Jumaniyozovna, Normurodov Asliddin Alijon o'g'li	
SUN'IY INTELLEKT VA AVTOMATLASHTIRISHNING MEHNAT BOZORI DINAMIKASIGA TA'SIRI	77
Akmalbek Najimov Umid o'g'li, Dinara Ishmanova	
ПРАКТИКА И АНАЛИЗ КРЕДИТОВАНИЯ ПРОИЗВОДИТЕЛЕЙ СЕЛЬСКОХОЗЯЙСТВЕННОЙ ПРОДУКЦИИ	81
Шамшетьова Гульраушан	



AHOLI DAROMADLARI O'SISHI VA INFLYATSIYA DARAJASI O'RTASIDAGI BOG'LIQLIK	83
G'ayratova Zilola G'anijon qizi, Ibragimov G'anijon G'ayratovich	
KORXONALARDA MAHSULOT SAVDOSIGA OID MA'LUMOTLARNI TAHLIL QILISHNING ZAMONAVIY INTELEKTUAL YONDASHUVLARI	86
Baydullayeva Dildora Tuylibayevna, Baydullayev Ruslan Tuylibayevich	
ELEKTRON TIJORATNING MILLIY IQTISODIYOTGA TA'SIRI VA RIVOJLANISH ISTIQBOLLARI	90
Toxirov Shodibek Jo'ra o'g'li	
RAQOBATBARDOSH ELEKTROTEXNIKA MAHSULOTLARI ISHLAB CHIQRISHDA TEXNOLOGIK MODERNIZATSIYA VA INVESTITSIYA SIYOSATINING O'RNI	93
Jalolov Abbasxon Ravshanxon	
RAQAMLI TEXNOLOGIYALAR VA SUN'IY INTELLEKT ASOSIDA BUXGALTERIYA HISOB VA AUDIT TIZIMLARINI AVTOMATLASHTIRISHNING METODOLOGIK ASOSLARI	97
To'laganov Ziyovuddin Kamolitdin o'g'li	
THE IMPACT OF EXTERNAL DEBT, INVESTMENT ACTIVITY, AND CAPITAL FORMATION PROCESSES ON EXPORT VOLUME AND ECONOMIC GROWTH DYNAMICS IN CENTRAL ASIAN COUNTRIES	102
Tojiqulova Sitora Sobirjon qizi	
HUMAN CAPITAL AND DIGITAL TRANSFORMATION: DRIVERS OF SUSTAINABLE ECONOMIC DEVELOPMENT	108
Hamrokulov Mirabbos Ortiqovich	
YEVROPA ITTIFOQI DAVLATLARI SOLIQ SIYOSATINI USTUVOR JIHATLARINI MARKAZIY OSIYO MAMLAKATLARIDA QO'LLASH ORQALI SOLIQ TIZIMINI TAKOMILLASHTIRISH	110
Hakimov Feruz Xurshid o'g'li	
KAPITAL TUZILMASINI OPTIMALLASHTIRISH ORQALI TIJORAT BANKLARINING MOLIYAVIY BARQARORLIGINI OSHIRISH KONSEPSIYASI	114
Turdibayev Abdulaziz Abduvaxidovich	
O'ZBEKISTONNING 12 YILLIK TA'LIM TIZIMIGA QAYTISH ISLOHOTI	118
Ashurov Abdulaziz Rustamovich, Olimov Anvarjon Atamirzayevich, Mahmudov Ziyoviddin Shamsiddinovich, Ishmuratov Baxodir Xusanovich	
MAMLAKATNING XALQARO BAHOLASH TIZIMLARIDAGI MAVQEINI YAXSHILASHDA IQTISODIY MUSTAHKAMLIKNING AHAMIYATI	123
Berdibekova Dilfuza Xoldorbekovna	
XALQARO SAVDODA MARKETING ROLI: EKONOMETRIK MODELLASHTIRISH	125
Qurolov Maqsud Obitovich	
BANK RISKLARINING BANK FAOLIYATIGA TA'SIRI VA ULARNI BOSHQARISHNI TAKOMILLASHTIRISH YO'LLARI	130
B.Izbosarov, N.Hakimova	
OZIQ-OVQAT XAVFSIZLIGI MASALASINING JAHON IQTISODIYOTIDA TUTGAN O'RNI	132
Abdusamatov Barkamol Rustamjon o'g'li	
DYUZDO SPORTIDA MALAKALI SPORTCHILARNI TAYYORLASH JARAYONIDA TAKTIK TAYYORGARLIKNING NAZARIY ASOSLARI VA AMALIY AHAMIYATI	135
Tangriyev Abdullo Tovashovich	
SANOATDA QO'SHILGAN QIYMAT HAJMINI OSHIRISH	138
Mamurjonova Ruxshonabegim Farxodovna	
O'ZBEKISTONDA OLIY TA'LIM BOSHQARUVI UCHUN SUN'IY INTELLEKTNING KENGAYTIRILGAN BASHORATLI TAHLILI	142
Esanova Shohida O'tkirovna	
PROSPECTS OF USING CREDIT CARDS IN COMMERCIAL BANKS OF THE REPUBLIC OF UZBEKISTAN	146
Mamatova Sevara Ilhom qizi	
O'ZBEKISTONDA EKSPORTNI SUG'URTALASH MEXANIZMLARINI YANADA KENGAYTIRISH YO'NALISHLARI	151
Xalilova Feruza Jamolovna	



УЯЗВИМОСТИ В ПЛАТЕЖНЫХ ОРГАНИЗАЦИЯХ РЕСПУБЛИКИ УЗБЕКИСТАН	155
Садыков Азиз Миршарапович	
КРИТЕРИИ ОПРЕДЕЛЕНИЯ МАЛОГО БИЗНЕСА И ПРЕДПРИНИМАТЕЛЬСТВА В РЕСПУБЛИКЕ УЗБЕКИСТАН	160
Жусупова Анжим Тансыкбаевна	
SANOAT KORXONALARIDA RAQAMLI TEXNOLOGIYALAR ASOSIDA OPERATSION SAMARADORLIKNI OSHIRISH: AVTOMOBILSOZLIK SEKTORI BO'YICHA ILMIY YONDASHUV	163
Allabergenov Azamat Joldasbayevich	
SUD-HUQUQ SOHASIDA AMALGA OSHIRILAYOTGAN ISLOHOTLARNING INSON MANFAATLARIGA TA'SIRI	167
Majidov Muslimbek Maxamadjon o'g'li	
YOSHLAR TADBIRKORLIGINI MOLIYALASHTIRISHNING ASOSIY SHAKLLARI.....	170
Valiev Umid Gulamovich	
YASHIL IQTISODIYOT KONSEPSIYASI ASOSIDA AGRAR SEKTORNI MODERNIZATSIYA QILISH VA BARQAROR RIVOJLANTIRISH YO'LLARI	173
G'afurov Zohidjon	
O'ZBEKISTON RESPUBLIKASIDA TADBIRKORLIK SUBYEKTLARINING RIVOJLANISHIDA INNOVATSIYALARDAN FOYDALANISH TAHLILI	177
Karimov Nodirbek	
КЛЮЧЕВЫЕ ПОКАЗАТЕЛИ ЭФФЕКТИВНОСТИ В СИСТЕМЕ УПРАВЛЕНИЯ ГОСУДАРСТВЕННЫМИ ФИНАНСАМИ	179
Наимов Шохрух Шарофиддинович	
MAKTABGACHA TA'LIM MUASSASALARIDA AUTSORSING XIZMATLARINI MOLIYALASHTIRISHNING ZAMONAVIY MODELLARI VA ULARNING SAMARADORLIGI TAHLILI	182
Xamidov Anis Choriyevich	
PHYSIOLOGICAL CHANGES IN THE HEART IN ATHLETES OF DIFFERENT SPORTS	186
Yoldasheva Roila Jumaevna	
O'ZBEKISTON RESPUBLIKASIDA MONETAR SIYOSATNING TRANSMISSIYA MEKANIZMLARI SAMARADORLIGINING EMPIRIK TAHLILI	192
Boltayeva Nilufar Shavkat qizi	
RAQAMLASHTIRISH SHAROITIDA TURIZM TARMOQLARINI SINERGETIK RIVOJLANTIRISH YO'LLARI	197
Saidova Dilfuza Abdufattohovna	
АРХИТЕКТУРНЫЕ ПРИНЦИПЫ СОЗДАНИЯ БЕЗОПАСНЫХ И ДОСТУПНЫХ ВЕЛОДОРОЖЕК В УСЛОВИЯХ ПЛОТНОЙ ГОРОДСКОЙ ЗАСТРОЙКИ В УЗБЕКИСТАНЕ.....	200
Абдуллаева Ситорабону Хасанжон кизи	
ЗЕЛЁНАЯ СЕРТИФИКАЦИЯ ЗДАНИЙ В УЗБЕКИСТАНЕ	202
Н.Р. Аvezова, Б.Б. Гулямов, А.А. Халиков, М.Б. Шерматова	
KAPITAL BOZORI ORQALI MAMLAKAT IQTISODIYOTIGA INVESTITSIYA JALB QILISHNING BELARUS TAJRIBASI	207
Holov Sherali	
РАЗРАБОТКА ПРОСТРАНСТВЕННО-ИНФОРМАЦИОННЫХ МОДЕЛЕЙ УСТОЙЧИВОГО РАЗВИТИЯ РЕГИОНОВ С УЧЁТОМ ЭКОЛОГИЧЕСКИХ ФАКТОРОВ	212
Реймова Гулмира Полатовна	
FINANCIAL STABILITY OF COMMERCIAL BANKS IN THE CONTEXT OF DIGITAL TRANSFORMATION: OPPORTUNITIES AND RISKS	215
Abdusalomov Olimjon Eshmirzayevich	
QIMMATLI QOG'OZLAR BOZORIDA RISKLARNI BOSHQARISHNING AHAMIYATI	219
Xushvaqov Islombek Muxammadi o'g'li, Otaxonov Saidaxror Ilhomjon o'g'li	
O'ZBEKISTON MAKTABGACHA VA MAKTAB TA'LIMI SIFATINI OSHIRISHNING MUHIM SHARTLARI	225
Murodbek Boltaboyev	



USING ARTIFICIAL INTELLIGENCE IN HUMAN RESOURCE MANAGEMENT SYSTEMS.....	222
Tojjeva Shakhnoza Bobomuratovna	
VIRTUAL LABORATORIYA PLATFORMALARINING IQTISODIY XAVFSIZLIKNI TA'MINLASHDAGI O'RNI	226
A.I. Turayeva	
OLIY TA'LIM MUASSASALARINI MOLIYAVIY REJALASHTIRISHNING XORIJIY TAJRIBASI VA O'ZBEKISTONDA QO'LLASH ISTIQBOLLARI	229
Pulatova Moxira Baxtiyorovna, Amirhamzayev Abdubosit Muhammad o'g'li	
STRATEGIC RECONFIGURATION OF FOREIGN DIRECT INVESTMENT POLICY IN POST-CRISIS UZBEKISTAN: LESSONS FROM THE EU	232
Rustamov Foziljon	
THE ORETICAL BASIS OF THE ORGANIZATION OF FREE ECONOMIC ZONES IN UZBEKISTAN	235
Mamadiev Elyor Akmalovich	
TURISTIK DESTINATINATSIYALAR RIVOJLANISHIGA TA'SIR QILUVCHI "ILDIZ" OMILLAR TAHLILI.....	237
Bekberganov Izzat Hurmat o'g'li	
СУЩНОСТЬ И ЗНАЧЕНИЕ БИЗНЕС-АНАЛИЗА В СИСТЕМЕ УПРАВЛЕНИЯ ОРГАНИЗАЦИЕЙ.....	243
Отабоев Ахмед Максудбек ўғли, Рахматуллаев Сардор Афзал ўғли	
DORIVOR O'SIMLIKLARNI QAYTA ISHLASHDA KLASTER USULINI QO'LLASHNING AFZALLIKLARI	250
Usmonov Mirg'ulom Xoshim o'g'li	
O'ZBEKISTONDA PUL-KREDIT SIYOSATINING SAMARADORLIGINI TAKOMILLASHTIRISH YO'LLARI.....	253
Ishmurzoyev Akbarali Abdujabborovich	
АРХИТЕКТУРНО-ПРОСТРАНСТВЕННАЯ ОРГАНИЗАЦИЯ ГАСТРОНОМИЧЕСКИХ УЛИЦ	256
Хаитов С.И.	
TURIZM XIZMATLARI BOZORIDA EKOLOGIK MARKETING STRATEGIYALARI ORQALI TALABNI SHAKLLANTIRISH.....	259
Kutbitdinova Mohigul Inoyatovna, Tursunova Shahnoza Farxod qizi	
THE IMPORTANCE OF FINANCIAL SUPPORT BY THE BANKING AND FINANCIAL SYSTEM IN THE DEVELOPMENT OF SMALL BUSINESS	262
Annaklichev Sakhi Saparmukhamedovich	
AKSIYADORLIK JAMIYATLARIDA MOLIYAVIY RESURSLARNI BOSHQARISH SAMARADORLIGINI OSHIRISHNING USLUBIY ASOSLARINI TAKOMILLASHTIRISH	265
Jumatova Gulzar Maxmud qizi	
TOVAR-XOMASHYO BIRJASIDA QO'LLANILADIGAN SHARTNOMA TURLARI VA ULARNING HUQUQIY-IQTISODIY XUSUSIYATLARI	268
Xudayberdiyev Kamoliddin Ustemirovich	
WAYS TO ENHANCE THE IMPORTANCE OF THE STATE BUDGET IN ENSURING SUSTAINABLE ECONOMIC GROWTH.....	270
Sheraliyev Nurbek Jumanazar ugli	
SPECIFIC FEATURES OF GREEN FINANCING IN COMMERCIAL BANKS	273
Qudratov Inomjon Nemat ugli	
RAQAMLI TRANSFORMATSIYA VA BARQAROR IQTISODIY RIVOJLANISHNING ZAMONAVIY TENDENSIYALARI	277
Salayeva Dilafro'z Aybekovna	
QORAQALPOG'ISTON RESPUBLIKASIDA TURIZM XIZMATLARI RIVOJLANISHINING AMALDAGI HOLATI VA IQTISODIY POTENSIALI	279
Madaminova Sanabar Askarovna	
TIJORAT BANKLARI FAOLIYATIDA RAQAMLI TRANSFORMATSIYANI AMALGA OSHIRISH MASALALARI.....	282
Jabborov Bahridin Rashidovich	



DRIVERS AND BARRIERS OF HIGHER EDUCATION INTERNATIONALIZATION IN POST-SOVIET CENTRAL ASIA: INTERNATIONALIZATION AT HOME AND ABROAD WITH EVIDENCE FROM UZBEK UNIVERSITIES.....	285
Yunusova Shirin Adxamovna	
OLIY TA'LIM MUASSASALARIDA ZAMONAVIY BOSHQARUV MODELLARINI RIVOJLANTIRISH: XALQARO YONDASHUVLAR.....	290
Raxmatillayev Sarvarbek Botirjonovich	
KICHIK SANOAT ZONALARINI TASHKIL ETISH ORQALI HUDUDLARNING BARQAROR RIVOJLANISHINI TA'MINLASH.....	294
Rashidov Mels Karimovich, Umarov Xurshidbek Ixtiyor o'g'li	
NAVOIY VILOYATIDA IQTISODIY RIVOJLANISH VA EKOLOGIK BARQARORLIKNI UYG'UNLASHTIRISH MEXANIZMLARI.....	297
Barnoqulova Marjona Otabek qizi	
O'ZBEKISTONDA YASHIRIN IQTISODIYOTGA QARSHI KURASHISH TAJRIBASINING STRATEGIK JIHATLARI.....	301
Malikov Abdulaziz Toxirjon o'g'li	
RAQAMLI IQTISODIYOT SHAROITIDA IQTISODIY XAVFSIZLIK INDIKATORLARINI QAYTA KO'RIB CHIQISH ZARURATI.....	304
Uralov Shavkat Maxramovich	
RAQAMLI SOG'LIQNI SAQLASH DOIRASIDA TELEMEDITSINANING O'RNI.....	308
Omonov Olim Murodullayevich	
MURAKKAB LOYIHALARDA RISKLARNI BAHOLASH VA BOSHQARISH.....	310
Tursunmuratov Sherzod Turdimuratovich	
YOSHLARNI VATANGA SADOQAT ULARNI HARBIY-VATANPARVARLIK RUHIDA TARBIYALASH.....	312
G'ulomov Boburjon G'ogurjon o'g'li	
HUDUDIY INVESTISIYA SIYOSATINI SHAKLLANTIRISH TO'G'RISIDAGI NAZARIY QARASHLAR EVOLYUSIYASI.....	315
Sultanov Anvar Abdullaevich	
BANKLARNING EMISSION OPERATSIYALARINI RIVOJLANTIRISH BORASIDAGI ILG'OR XORIJ AJRIBASI.....	319
Shaymanov Mexriddin Ibragimovich	
IMPLEMENTATING INNOVATIVE SOLUTIONS IN SMALL BUSINESSES' TRANSPORT-LOGISTICS SYSTEM(UZBEKISTAN CASE).....	322
Ismoilov Narimonjon No'monjon o'g'li	
ЭКОНОМИЧЕСКАЯ СУЩНОСТЬ И ЦЕЛИ ФИНАНСИРОВАНИЯ ИНВЕСТИЦИОННЫХ ПРОЕКТОВ.....	326
Шомуродов Равшан Турсункулович	
O'ZBEKISTON IQTISODIYOTINING RAQAMLI TEXNOLOGIYALARI.....	331
Azlarova Mushtariybegim Abror qizi	
NEFT-GAZ KORXONALARIDA FOYDA SOLIG'I HISOBINI TAKOMILLASHTIRISH YO'LLARI.....	335
Jabborov Mashrab Ismoil o'g'li	
THE ROLE OF ARTIFICIAL INTELLIGENCE IN TEACHING ENGLISH AS A FOREIGN LANGUAGE TO UNIVERSITY STUDENTS: OPPORTUNITIES, CHALLENGES, AND FUTURE DIRECTIONS.....	337
Nurzhanova Zhainash, Rajapova Guldona	



THE ROLE OF ARTIFICIAL INTELLIGENCE IN TEACHING ENGLISH AS A FOREIGN LANGUAGE TO UNIVERSITY STUDENTS: OPPORTUNITIES, CHALLENGES, AND FUTURE DIRECTIONS

Nurzhanova Zhainash

Acting Associate Professor L.N. Gumilyov ENU Astana, Kazakhstan
Email: znur1611@gmail.com

Rajapova Guldon

2nd year Master's student
After named Ajiniyaz Nukus Pedagogical Institute. Nukus, Karakalpakstan
Email: guldonarazhapova@gmail.com

Abstract. This thesis explores the transformative role of Artificial Intelligence (AI) technologies in teaching English as a Foreign Language (EFL) within the higher education sector. The rapid development of Large Language Models (LLMs), Natural Language Processing (NLP), and personalized learning algorithms has contributed to the evolution of EFL pedagogy from standardized approaches toward more flexible, student-centered methodologies.

The study examines how AI-driven tools—such as automated writing evaluation (AWE) systems, intelligent tutoring systems (ITS), and virtual conversational agents—support the development of linguistic competence, learner autonomy, and student engagement in university settings. These technologies provide valuable opportunities for personalized instruction, adaptive learning pathways, and timely feedback, thereby enhancing the overall effectiveness of the educational process.

At the same time, the integration of AI into education requires careful and responsible implementation. Important considerations include ensuring fairness in algorithmic processes, protecting data privacy, maintaining academic integrity, and redefining pedagogical roles in a constructive manner. This research emphasizes that AI should function as a supportive and complementary tool that enhances, rather than replaces, the role of the teacher.

The study advocates for a balanced “human-in-the-loop” approach, highlighting the importance of developing digital literacy among both students and educators, as well as establishing a strong ethical framework for the effective and responsible use of AI technologies in higher education.

Keywords: Artificial Intelligence (AI), English as a Foreign Language (EFL), Higher Education, Personalized Learning, Natural Language Processing (NLP), Learner Autonomy, Computer-Assisted Language Learning (CALL), Educational Technology.

Annotatsiya. Ushbu dissertatsiya oliy ta'lim tizimida ingliz tilini chet tili sifatida o'qitishda (EFL) sun'iy intellekt (SI) texnologiyalarining transformatsion rolini tahlil qiladi. Katta til modellari (LLM), tabiiy tilni qayta ishlash (NLP) va individuallashtirilgan o'qitish algoritmlarining jadal rivojlanishi EFL pedagogikasining an'anaviy, standartlashgan yondashuvlardan moslashuvchan va talaba markazli metodikalarga o'tishiga xizmat qilmoqda.

Tadqiqot sun'iy intellektga asoslangan vositalar — avtomatlashtirilgan yozma ishlarni baholash tizimlari (AWE), aqlli o'qitish tizimlari (ITS) hamda virtual suhbat agentlari — universitet talabalarida lingvistik kompetensiya, mustaqil o'rganish ko'nikmalari va o'quv faolligini rivojlantirishdagi ahamiyatini o'rganadi. Ushbu texnologiyalar individuallashtirilgan ta'limni tashkil etish, moslashuvchan o'quv trayektoriyalarini shakllantirish va tezkor fikr-mulohaza taqdim etish orqali ta'lim jarayonining samaradorligini oshirishga xizmat qiladi.

Shu bilan birga, sun'iy intellektni ta'lim jarayoniga joriy etish puxta va mas'uliyatli yondashuvni talab etadi. Xususan, algoritmik adolatni ta'minlash, ma'lumotlar xavfsizligini himoya qilish, akademik halollikni saqlash hamda pedagogik rollarni zamonaviy talablarga mos ravishda rivojlantirish muhim ahamiyat kasb etadi. Mazkur tadqiqot sun'iy intellektni o'qituvchini almashtiruvchi emas, balki uning faoliyatini qo'llab-quvvatlovchi vosita sifatida qo'llash zarurligini asoslaydi.

Tadqiqot “human-in-the-loop” (inson ishtirokidagi) yondashuvni qo'llashni tavsiya etadi hamda talaba va o'qituvchilarning raqamli savodxonligini rivojlantirish, shuningdek, oliy ta'limda sun'iy intellektdan samarali va mas'uliyatli foydalanish uchun mustahkam etik me'yorlarni shakllantirish muhimligini ta'kidlaydi.

Kalit so'zlar: Sun'iy intellekt (SI), ingliz tili chet tili sifatida (EFL), oliy ta'lim, individuallashtirilgan ta'lim, tabiiy tilni qayta ishlash (NLP), mustaqil o'rganish, kompyuter yordamida til o'rganish (CALL), ta'lim texnologiyalari.



Аннотация. Данная диссертация посвящена анализу трансформационной роли технологий искусственного интеллекта (ИИ) в преподавании английского языка как иностранного (EFL) в системе высшего образования. Стремительное развитие больших языковых моделей (LLM), технологий обработки естественного языка (NLP) и алгоритмов персонализированного обучения способствует переходу от традиционных стандартизированных подходов к более гибким и ориентированным на студента методикам обучения.

В исследовании рассматривается влияние инструментов на основе ИИ — систем автоматизированной оценки письменной речи (AWE), интеллектуальных обучающих систем (ITS) и виртуальных диалоговых агентов — на развитие языковой компетенции, автономности обучения и вовлечённости студентов. Данные технологии создают условия для персонализированного обучения, формирования адаптивных образовательных траекторий и предоставления оперативной обратной связи, что повышает эффективность образовательного процесса.

В то же время внедрение ИИ в образование требует взвешенного и ответственного подхода. Особое внимание уделяется обеспечению справедливости алгоритмов, защите персональных данных, сохранению академической добросовестности и совершенствованию педагогических ролей в современных условиях. Исследование подчеркивает, что искусственный интеллект должен рассматриваться как инструмент, дополняющий деятельность преподавателя, а не заменяющий её.

В работе обосновывается целесообразность применения подхода «human-in-the-loop» (с участием человека), а также подчеркивается необходимость развития цифровой грамотности у студентов и преподавателей и формирования устойчивых этических норм использования ИИ в системе высшего образования.

Ключевые слова: Искусственный интеллект (ИИ), английский язык как иностранный (EFL), высшее образование, персонализированное обучение, обработка естественного языка (NLP), автономное обучение, компьютерное обучение языкам (CALL), образовательные технологии.

INTRODUCTION

The integration of technology into education has become a defining feature of the 21st-century pedagogical landscape. In particular, the emergence of Artificial Intelligence (AI)—including Large Language Models (LLMs) such as GPT, advanced Natural Language Processing (NLP), and adaptive learning algorithms—has contributed to a significant transformation in teaching English as a Foreign Language (EFL) within higher education.

For university students, proficiency in English plays an essential role in academic achievement, career development, and active participation in the global academic community. At the same time, traditional EFL classrooms, often characterized by large student groups, limited instructional time, and standardized curricula, may face challenges in fully addressing the diverse linguistic needs of learners. This can lead to uneven development of language skills, where receptive skills (reading and listening) are more developed, while productive skills (speaking and writing) require additional support.

Artificial Intelligence offers new opportunities to enhance the effectiveness of language education. It transforms Computer-Assisted Language Learning (CALL) from a predominantly passive experience into an interactive and adaptive process, where intelligent systems can analyze learner performance, provide personalized instruction, and support continuous improvement.

This thesis explores the multifaceted impact of AI technologies on EFL in higher education. It examines how AI tools can be effectively utilized to improve linguistic competence, encourage learner autonomy, and increase student engagement. At the same time, the study considers important aspects related to the implementation of these technologies, including ethical considerations, organizational factors, and pedagogical alignment. Through this balanced approach, the research aims to contribute to the development of effective and sustainable AI-supported language teaching practices.

The Pedagogical Evolution: Moving Toward Personalized EFL. One of the most significant contributions of Artificial Intelligence (AI) to university-level EFL is the advancement of personalized learning. Traditional standardized curricula are typically designed for the “average” learner, which may not fully address the needs of both advanced and developing students. AI technologies enhance this model by analyzing learners’ performance data, identifying recurring patterns, tracking vocabulary usage, and assessing comprehension speed, thereby enabling more individualized learning experiences.

Dynamic Curriculum Adaptation. Intelligent Tutoring Systems (ITS) utilize these data to generate dynamic learning paths. Instead of following a strictly linear progression through a textbook, AI-driven systems can adjust the complexity of reading materials and the difficulty of grammar tasks in real time based on a learner’s performance. This adaptive approach supports learning within the learner’s “zone of proximal development” (Vygotsky, 1978), thereby increasing the effectiveness of the educational process.



For university students studying English for Academic Purposes (EAP) or English for Specific Purposes (ESP), AI tools can further tailor content by prioritizing vocabulary and scenarios relevant to their academic fields, such as medicine, engineering, or international relations.

AI as a Diagnostic and Feedback Mechanism. Effective feedback is a fundamental component of language acquisition. In traditional classroom settings, providing detailed and timely feedback to a large number of students can be challenging. AI technologies enhance this process by offering immediate, detailed, and constructive evaluations across multiple language skills.

Automated Writing Evaluation (AWE). In writing instruction, Automated Writing Evaluation (AWE) tools—such as Grammarly, Hemingway Editor, and integrated learning platforms—provide comprehensive feedback beyond basic error correction. These tools utilize NLP and machine learning to analyze syntactic structure, coherence, and lexical diversity. They offer suggestions for improving grammar, vocabulary, and academic style, enabling students to revise their work iteratively. This allows instructors to focus more on higher-level aspects such as argumentation, structure, and critical thinking.

Automatic Speech Recognition (ASR). Similar progress can be observed in the development of speaking skills. Automatic Speech Recognition (ASR) technologies, used in virtual assistants such as Siri and Alexa, have been adapted for pronunciation and fluency training. AI-based platforms (e.g., Elsa Speak) analyze learners' speech in comparison with standard pronunciation models and provide immediate feedback on phonetics, stress, and intonation.

This creates a supportive and low-pressure environment where students can practice speaking and improve their skills confidently, contributing positively to overcoming language learning anxiety.

Conversational Agents and Immersive Learning. Developing fluent and spontaneous communication skills is often one of the most complex aspects of language learning. AI-powered conversational agents (chatbots) provide scalable and flexible opportunities for interactive practice.

Role of AI Chatbots. Modern AI chatbots, based on advanced Large Language Models, are capable of maintaining context-aware and natural conversations across a wide range of topics. In higher education, they function as interactive learning partners, enabling students to practice discussions, role-play scenarios, and academic communication at their own pace.

These interactions can take place through both text and speech (via ASR and Text-to-Speech technologies). The supportive nature of AI tools encourages learners to experiment with language and expand their communicative abilities. Additionally, chatbots can simulate various communication contexts and roles, enriching students' exposure to different language registers and styles.

VR and Immersive Contexts. The integration of AI with Virtual Reality (VR) technologies further enhances language learning by creating immersive environments. Students can participate in simulated academic or professional scenarios—such as conferences, presentations, or negotiations—where AI-driven avatars provide contextual feedback. This approach strengthens the practical application of language skills in real-life situations.

Redefining the Role of the EFL Instructor. The integration of AI into EFL education supports the evolution of the teacher's role from a primary source of information to a facilitator and mentor in the learning process.

Supporting Instructional Efficiency. As AI tools assist with routine tasks—such as basic assessment, feedback generation, and adaptive exercises—educators can devote more time to higher-level teaching activities. These include fostering critical thinking, guiding collaborative learning, and supporting students' academic and personal development.

AI-Supported Lesson Planning. AI technologies also assist educators in lesson planning by generating diverse teaching materials, adapting content complexity, and suggesting engaging activities. This contributes to a more flexible and responsive teaching process.

Key Considerations and Implementation Aspects. While AI offers significant opportunities for enhancing EFL education, its effective integration requires thoughtful planning and responsible application.

Academic Integrity and Independent Learning. The use of AI tools highlights the importance of promoting academic integrity and encouraging independent thinking. Educational approaches can be adapted to emphasize process-based assessment, critical analysis, and active student participation.

Cultural and Linguistic Diversity. AI systems should be used in ways that respect and support linguistic diversity, recognizing different forms of English usage and cultural contexts. This ensures inclusivity and relevance for learners from various backgrounds.

Data Privacy and Security. The use of AI in education requires careful attention to data protection and ethical standards. Institutions are encouraged to implement clear policies that ensure the secure and responsible use of student data.

Expanding Access to Technology. To maximize the benefits of AI, it is important to promote equitable access to digital tools and resources. Supporting infrastructure development and digital inclusion can help ensure that all students benefit from technological advancements.



CONCLUSION AND RECOMMENDATIONS

Artificial Intelligence represents one of the most significant technological opportunities for advancing university-level EFL education in the modern era. By providing personalized, adaptive, and timely feedback across all language skills, AI enhances the efficiency and effectiveness of the learning process, addressing the diverse needs of students in higher education. It supports the development of learner autonomy and creates expanded opportunities for interactive and immersive language practice.

At the same time, the future of EFL education is best understood not as a replacement of human instructors by technology, but as a process of constructive integration. The most effective pedagogical model is based on a “human-in-the-loop” approach, where AI complements and supports the role of the teacher. Human instructors remain essential in guiding critical thinking, fostering motivation, and providing nuanced academic mentorship that cannot be fully replicated by technological systems.

For successful implementation, higher education institutions are encouraged to invest in the development of digital literacy among both students and educators. This will enable them to use AI tools in a critical, responsible, and effective manner. In addition, it is important to modernize assessment approaches, ensure data privacy and security, and maintain a strong focus on the communicative and socio-emotional dimensions of language learning.

When integrated thoughtfully within a well-structured pedagogical framework, AI can serve as a powerful supportive tool that enhances teaching quality and enables students to achieve their academic and professional goals more effectively.

LIST OF REFERENCES

1. Ahmad, M., & Siddiqui, M. (2023). The role of artificial intelligence in English language teaching and learning: A review. *International Journal of Emerging Technologies in Learning (IJET)*, 18(2), 112–128.
2. Bennett, L., & Lockyer, L. (2020). A review of the literature on teacher digital competency and professional development. *Teachers and Teaching*, 26(1), 1–17.
3. Hockly, N. (2023). Artificial intelligence in English language teaching. In G. Dudeney & N. Hockly (Eds.), *The Routledge handbook of teaching English with technology* (pp. 34–48). Routledge.
4. Kohnke, L. (2023). Using ChatGPT to improve English writing skills. *RELC Journal*, 00336882231168923.
5. Li, Z., & Chen, J. (2023). Impacts of automated writing evaluation (AWE) on EFL learners' writing quality and self-regulation. *Computer Assisted Language Learning*, 36(5), 1102–1126.
6. O'Neill, T., & Russell, M. (2019). The automated assessment of speaking and writing. In M. Russell & T. O'Neill (Eds.), *The Routledge handbook of language testing* (pp. 312–327). Routledge.
7. Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008). Learning styles: Concepts and evidence. *Psychological Science in the Public Interest*, 9(3), 105–119.
8. Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
9. Wang, Y., & Chen, J. (2022). Automatic speech recognition (ASR) for pronunciation training: A systematic review. *Journal of Educational Computing Research*, 60(3), 633–659.
10. Zou, D., Xie, H., Wang, F. L., & Wong, G. K. W. (2022). Artificial intelligence in education: A review of literature and research trends. *International Journal of Distance Education Technologies (IJDET)*, 20(1), 1–19.

muhandislik

& iqtisodiyot

ijtimoiy-iqtisodiy, innovatsion texnik,
fan va ta'limga oid ilmiy-amaliy jurnal

Ingliz tili muharriri: Feruz Hakimov

Musahhih: Zokir Alibekov

Sahifalovchi va dizayner: Iskandar Islomov

2025

© Materiallar ko'chirib bosilganda "Muhandislik va iqtisodiyot" jurnali manba sifatida ko'rsatilishi shart. Jurnalda bosilgan material va reklamalardagi dalillarning aniqligiga mualliflar ma'sul. Tahririyat fikri har vaqt ham mualliflar fikriga mos kelmasligi mumkin. Tahririyatga yuborilgan materiallar qaytarilmaydi.

"Muhandislik va iqtisodiyot" jurnali 26.06.2023-yildan
O'zbekiston Respublikasi Prezidenti Adminstratsiyasi huzuridagi
Axborot va ommaviy kommunikatsiyalar agentligi tomonidan
№S-5669245 reyestr raqami tartibi bo'yicha ro'yxatdan o'tkazilgan.
Litsenziya raqami: №095310.

**Manzilimiz: Toshkent shahri Yunusobod
tumani 15-mavze 19-uy**





+998 93 718 40 07



<https://muhandislik-iqtisodiyot.uz/index.php/journal>



t.me/yait_2100