

# INNOVATION SCIENCE AND TECHNOLOGY



Scopus || Electronic journal specializing in Scopus

**ISSUE 5**



Acceptance of papers **MAY, 2025**



**Acceptance of  
papers**

Published monthly



**Topics**

economics,  
technology, social  
sciences



**EDITOR-IN-CHIEF:**

Mirzaliev Sanjar Makhmatjon ugli

**DEPUTY EDITOR-IN-CHIEF:**

Makhmudov Nosir Makhmudovich  
DSc., Prof., Academician

**DEPUTY EDITOR-IN-CHIEF:**

Ochilov Bobur Bakhtiyor ugli – Senior  
lecturer at TSUI

THE SCIENTIFIC-POPULAR ELECTRONIC  
JOURNAL **"INNOVATION SCIENCE AND  
TECHNOLOGY"** HAS BEEN REGISTERED  
UNDER THE NUMBER **C-5669633** BY THE  
AGENCY FOR INFORMATION AND MASS  
COMMUNICATIONS (AOKA) OF THE  
REPUBLIC OF UZBEKISTAN, EFFECTIVE  
FROM OCTOBER 9, 2024.

**CONTACTS**

Phone: **97-748-70-03**

Website: <https://ist-journal.uz>

Email: [munis.iriskulova@gmail.com](mailto:munis.iriskulova@gmail.com)

The scientific electronic journal "Innovation Science and Technology" has been included in the list of scientific publications recommended for the publication of main scientific results of dissertations for the award of PhD and DSc degrees in economics and technical sciences, in accordance with the Resolution No. 370 of the Presidium of the Higher Attestation Commission of the Republic of Uzbekistan, dated May 8, 2025.

**Editorial board:**



**Sharipov Kongiratbay Avezimbetovich,**  
Doctor of Technical Sciences (DSc), Professor



**Abdurakhmanova Gulnora Kalandarovna,**  
Doctor of Economic Sciences (DSc), Professor



**Cham Tat Huei,**  
Doctor of Philosophy (PhD), Professor (Malaysia)



**Muhammad Imran Sadiq**  
Doctor of Philosophy in Economics (PhD),  
Professor, Malaysia



**Ahmed Aziz Ismail**  
Doctor of Technical Sciences (DSc),  
Professor (Egypt)



**Lee Chin**  
Doctor of Philosophy in Economics (PhD),  
(Malaysia)



**Asongu Simplicé**  
Doctor of Philosophy in Economics (PhD),  
Cameroon



**Rui Dang**  
Doctor of Chemistry (DSc), Professor, China



**Zahoor Ahmed**  
Doctor of Philosophy in Economics (PhD), Turkey



**Shujaat Abbas**  
Doctor of Philosophy in Economics (PhD), Russia



**Tina A Coffelt**  
Doctor of Philosophy in Educational Sciences  
(PhD), USA



**Judy B. Smetana**  
Doctor of Philosophy in Economics (PhD), USA

# CONTENTS

|  |     |
|--|-----|
| The development potential of ecotourism and sustainable tourism practices in the kashkadarya region.....                                     | 6   |
| <b>Khushvakhtov Ramziddin</b>  |     |
| How transport access affects housing prices.....   | 9   |
| <b>Mannonov Shahzod Istam Ugli, Ibragimov Xasan Usmonjon Ugli</b>  |     |
| Prospects and effectiveness of implementing mobile marketing technologies in higher education institutions.....                              | 18  |
| <b>Murod Batirovich Khidoyatov</b>   |     |
| Factors influencing the development of the food processing industry: an economic analysis.....   | 23  |
| <b>Urolova Sevara Bekhzod kizi</b>   |     |
| Ensuring cybersecurity in commercial banks of Uzbekistan.....  | 29  |
| <b>Erdashov Alimjan Baxramovich</b>  |     |
| University students' adoption of cashless payments in uzbekistan: behavior, trust, and challenges.....                                       | 33  |
| <b>Khikmatullaev Ismoilkhuja Khusan ugli, Asep Miftahuddin</b>   |     |
| The effects of inflation rate and investment rate toward unemployment in Uzbekistan.....   | 43  |
| <b>Ruziev Bekmurod Urol ugli, Dr.Susanti Kurniawati</b>  |     |
| The importance of using e-commerce systems in enhancing the financial potential of joint-stock companies.....                                | 47  |
| <b>Vakhobov Shokhjahan Valiyevich</b>  |     |
| Integration of optoinformatic systems and artificial intelligence for automatic quality control of video equipment.....                      | 50  |
| <b>Allamuratov Timur Koshmurat uli</b>   |     |
| The role and importance of commercial banks in the development of the capital market.....  | 53  |
| <b>Aybek Kayipbergenov, Baymuratova Zina Akilbekovna</b>   |     |
| Global trends in mobile payment adoption: a systematic literature review with insights for indonesia.....                                    | 57  |
| <b>Mukhitdinov Islomjon Jakhongir ugli, Dr. Maya Sari, S.E., M.M.</b>  |     |
| Decision-making algorithms in higher education management: application of artificial intelligence systems in indonesia.....                  | 65  |
| <b>Sattikulov Mukhammadkhon, Budhi Pamungkas Gautama</b>   |     |
| Innovation financing mechanisms for enterprises in uzbekistan: current state, systematic analysis, and strategic development directions..... | 72  |
| <b>Sukhrob Turanov</b>   |     |
| The role of the islamic financial system in financing infrastructure projects.....   | 81  |
| <b>Mamadiyarova Aziza Nuriddin kizi, Dr. Denny Andriana</b>  |     |
| Statistical analysis of total population income in the republic of Uzbekistan.....   | 85  |
| <b>Akbarova Barno Shuxratovna, Chintemirova Diyora Shuxrat kizi</b>  |     |
| Strengthening the financial resource base of commercial banks in the context of digitalization.....  | 89  |
| <b>Dilnoza Khaitboyeva</b>   |     |
| Using examples of folklore to effectively organize the process of teaching english to children through digital learning tools.....           | 94  |
| <b>Boqijonova Nargiza Jumanazar kizi, Rajabboyeva Gulchexra Foziljon kizi</b>  |     |
| Standard methodology of throwing techniques in judo and their effectiveness.....   | 97  |
| <b>Tangriyev Abdulkarim Tivoshevich</b>  |     |
| Improving marketing management at the enterprise.....  | 101 |
| <b>Musayeva Shoirazimovna</b>  |     |
| The financial-theoretical frameworks of the anti-monopoly regulation in the digital economy.....   | 106 |
| <b>Djalilova Dilnoza Raxmatovna</b>  |     |

|  |     |
|--|-----|
| Modern approaches to deposit turnover and operations in commercial banks .....   | 110 |
| <b>Olimov Abror Axadjon o'g'li</b>   |     |
| The Role of Innovation Policy in Advancing Uzbekistan's Textile Industry:<br>Empirical Evidence and Strategic Forecasting.....                                 | 115 |
| <b>Ravshan I. Nurimbetov, Khojakbar M. Karimov</b>   |     |
| Aformalized model of backward throwing technique: a methodological approach for judo .....   | 121 |
| <b>Tangriyev Abdullo Tivoshevich</b>   |     |
| The Role of External Audits in Strengthening Corporate Governance:<br>A Case Study of Aloqabank .....  | 126 |
| <b>Rustamov Muhammadyusuf Madaminjon ugli, Indah Fitriani, SE., Dr. Aristanti Widyaningsih, S.Pd.,</b>   |     |
| Comparison of mental disorders in parents of children with developmental defects with mental<br>disorders in parents of healthy children without defects ..... | 132 |
| <b>Yadgarova Nargiza Fahritdinovna, Mirzaliyeva Surmaniso Alisher kizi</b>   |     |
| inflation and the Financing of Education in Uzbekistan: A Mediation Analysis<br>of Macroeconomic and Social Channels .....                                     | 138 |
| <b>Toshpulatov Jakhongir Dilmurod ugli, Dr Arief Ramdhany</b>  |     |
| Quantitative Analysis of Financial Statement Fraud in Uzbek Banks: Patterns, Red Flags,<br>and Risk Indicators .....   | 145 |
| <b>Ismatullaev Javokhir Jahongir ugli, Toni Heryana, Elis Mediawati</b>  |     |
| Dynamics and analysis of value added tax revenues in the state budget of uzbekistan .....  | 152 |
| <b>Ergashev Ilkhomjon Obodovich</b>  |     |
| The role of green bonds in the stock market as a sustainable financial instrument .....  | 157 |
| <b>Khushvakov Islombek Mukhammadi oqli</b>   |     |
| Uzbekistan's transition to a cashless society: policy reforms and comparative analysis .....   | 162 |
| <b>Khikmatullaev Ismoilkhuja Khusan ugli, Dr. Maya Sari, S.E., M.M.</b>  |     |
| Strategic approaches to innovation process management .....  | 170 |
| <b>Togonov Ibrohimkhoja</b>  |     |

# STRATEGIC APPROACHES TO INNOVATION PROCESS MANAGEMENT

**Togonov Ibrohimkhoja**

International School of Finance, Technology and Science

Assistant Lecturer, Department of Management

[togonovibrohimxoja8@gmail.com](mailto:togonovibrohimxoja8@gmail.com)

**Abstract:** This article examines the importance of innovation management in enterprises as a key factor for maintaining competitiveness and achieving long-term success in modern organizations. It discusses the integration of innovation efforts with business strategy, the advantages of investing in innovation, and the need to adapt to dynamic market conditions. Empirical data is provided to demonstrate that innovation-oriented companies tend to show stronger financial performance. The article highlights the role of digital transformation and artificial intelligence in fostering innovation, and includes case studies such as Apple to showcase successful innovation strategies. The chapter concludes by emphasizing the importance of balancing short-term results with long-term innovation objectives.

**Key words:** innovation management, business strategy, long-term investments, competitive advantage, digital transformation, artificial intelligence, R&D investments, innovation strategy.

## INTRODUCTION

In the contemporary global economy, where technological change, market disruptions, and digital transformation are reshaping industries, innovation management has emerged as a decisive factor in determining an organization's competitiveness, adaptability, and long-term sustainability. Companies no longer survive by relying solely on cost leadership or incremental improvements; instead, they must embrace innovation as a core organizational capability.

Innovation management refers to the systematic planning, execution, and monitoring of innovation activities across all levels of the enterprise. It encompasses the identification of opportunities, the generation of creative ideas, resource allocation, risk management, and the successful implementation of innovative solutions. Strategic innovation management aligns these efforts with corporate goals, ensuring that innovation becomes an integrated part of the business model rather than an isolated initiative.

Recent research highlights that companies with strong innovation capabilities are more resilient during economic downturns and better positioned to capitalize on emerging trends. For instance, a 2023 McKinsey & Company report indicates that innovation leaders experience 2.3 times faster revenue growth and 1.5 times higher profit margins compared to industry averages. This performance gap is further widened in sectors characterized by rapid technological change such as ICT, biotechnology, and clean energy.

Moreover, technological enablers such as digital transformation, artificial intelligence (AI), and big data analytics are revolutionizing innovation processes. These tools not only accelerate product development cycles but also enhance decision-making, customer insights, and operational efficiency. Organizations like Apple, Google, and Tesla exemplify how innovation-driven cultures combined with robust strategic frameworks can result in sustained market leadership.

Innovation management also plays a critical role in navigating the complexities of globalization. As markets become more interconnected and customer preferences shift rapidly, firms must adopt agile innovation strategies that are responsive to both local and global demands. In this context, building innovation ecosystems through collaborations with universities, startups, research institutions, and even competitors has become a common strategic approach.

This chapter explores the theoretical foundations and strategic dimensions of innovation management, supported by empirical evidence, practical models, and case study analysis. Special emphasis is placed on balancing short-term performance pressures with long-term innovation objectives — a challenge that remains central to innovation leadership.<sup>1</sup>

<sup>1</sup> McKinsey & Company, The Importance of Innovation in Business Performance, McKinsey & Company, 2020.

## LITERATURE REVIEW

The management of innovative processes and the formation of strategic approaches to innovation are regarded as some of the most important directions in modern management. In recent years, considerable attention has been paid to academic research in this field, especially to approaches directly related to achieving competitive advantage, digital transformation, and the application of advanced technologies. These studies focus on the in-depth analysis of innovation as a key driver of sustainable organizational development.

M. Porter (1998), in his theory of «competitive advantage,» evaluates innovation as a fundamental basis of a company's success. He emphasizes the importance of coordinating innovation within strategic management and asserts that effective competition strategies require optimal resource utilization and adaptability to market changes in order to achieve success.

P. Drucker (2002) defines innovation as the “heart of business activity” and interprets it as a continuous process that must be embedded in strategic decision-making. In his works, innovation is not limited to technological advancements; rather, it is viewed as transformation within management, organizational structures, and information systems.

D. Teece (2009) proposed the “dynamic capabilities theory,” which highlights the necessity of increasing an enterprise's flexibility in response to both internal and external environments. According to this theory, strategic management of innovation involves the rapid adoption of innovative decisions, integration of knowledge, and reconfiguration of existing resources to meet changing demands.

Among local scholars, A. Jo'rayev (2020) explores the role of innovation policy in regional development, the strategic management of innovation-driven investments, and the implementation of monitoring systems for innovative projects. He emphasizes the importance of modern strategic mechanisms such as innovation clusters, technoparks, and venture capital financing.

In addition, reports by international organizations such as the United Nations Development Programme (UNDP) and the World Bank (2022) identify digital technologies, artificial intelligence, the knowledge economy, and open innovation as key factors in enhancing the efficiency of innovation management. These elements are increasingly seen as essential components for improving the effectiveness of strategic approaches under current global economic conditions.

Overall, the reviewed literature underscores that effective innovation management must be strategically embedded at both operational and policy levels. It also highlights that organizations need to adapt their structures and processes to support innovation ecosystems and respond proactively to technological and market dynamics.

## RESEARCH METHODOLOGY

The main methodological approach of this research is aimed at studying the theoretical foundations of strategic management in innovation processes, analyzing practical situations, and developing effective innovation management models. The study employed a combination of theoretical, practical, and statistical methods to ensure a comprehensive examination of the subject.

The theoretical framework of the research is grounded in the works of both international and local scholars in the fields of innovation management, strategic management, and competitive advantage. Particular emphasis was placed on the analysis of M. Porter's competitive strategies, P. Drucker's approaches to innovation, and D. Teece's dynamic capabilities theory, all of which provide essential insights into managing innovation in a rapidly evolving global environment.

From a practical perspective, the study examined the operational experiences of innovative enterprises, technoparks, venture capital centers, and industrial clusters currently active in the Republic of Uzbekistan. Qualitative methods such as expert interviews and surveys were used to collect empirical data from innovation project managers and enterprise leaders. These methods helped to uncover practical insights into the implementation of innovation strategies and organizational innovation behavior.

In addition, statistical analysis methods were employed to identify the key factors influencing the effectiveness of innovative activity. The analysis explored the correlation between technological innovation, financial indicators, and the scale of products and services. The primary data were obtained from the databases of the Statistics Agency of the Republic of Uzbekistan, the Ministry of Innovative Development, and international institutions such as the World Bank.

This mixed-methods approach ensured the reliability and depth of the study, enabling the development of strategic recommendations for improving innovation management practices in both public and private sector organizations.

## ANALYSIS AND RESULTS

Innovations in management organizations face coming main from problems one innovative actions far term business strategy with is coordination . Many in companies innovations often independent function or second level attention as This is considered wrong distribution the company main strategic to their goals suitable unreachable to projects resources to distribute take arrival It is possible . eliminate to grow for enterprises their own general business strategy with complete integrated innovative strategy working performances need . Good done increased strategy innovative of efforts market share expansion , operational efficiency increase or new customers solutions working exit such as business to their goals to achieve directly contribution add In fact , PwC<sup>2</sup> by held request this showed that 60 percent of global CEOs own companies competitiveness save stay for always innovations inputs They believe that they should . However , their only 20 percent innovations effective done increase to the ability confidence perfect . This is the void. innovations management for strategic to the base has to be importance emphasizes that organization to their goals suitable comes and innovations company to culture continuous integration This will do . unadapted innovative actions falling apart departure and meaningful the results not giving possible . Problem not only strategy in creating , maybe organization all degrees innovative to the process loyalty It also lies in providing .<sup>3</sup>

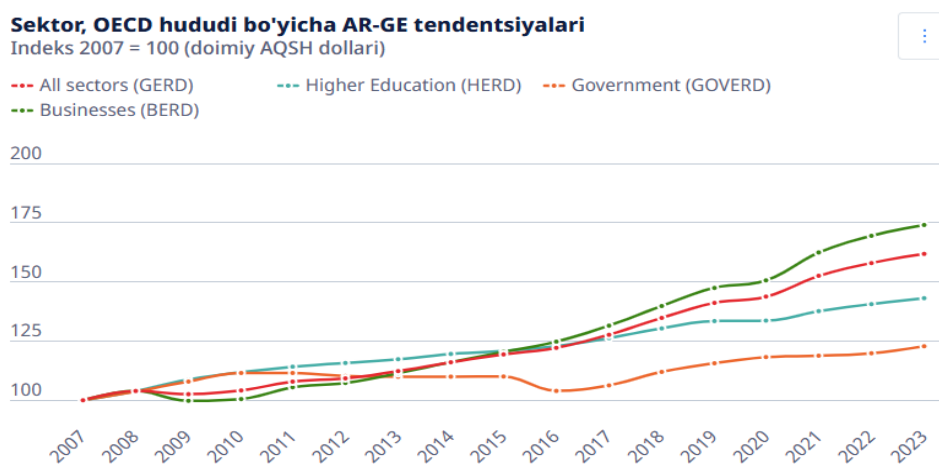


Figure 1. OECD R&D Trends (2007–2023)

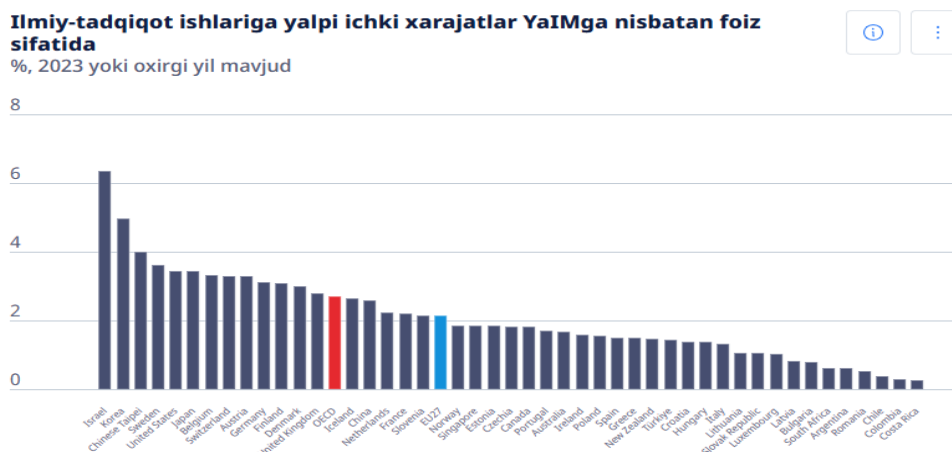


Figure 2. R&D spending ( as a percentage of GDP )

Figure 1,2: OECD, basic science and technology indicators (MSTI) data base , March 2025 , <https://oe.cd/msti>

Innovations general business strategy with successful combined the company from examples One is Apple . Apple’s to innovations attention product working exit with limited will not remain , maybe his/her corporate culture , design philosophy and business The company ‘s strategy users wonderful experience offer

2 PwC - “PricewaterhouseCoopers” consulting and audit services indicator The United States the most large from companies is one .  
 3 PwC, The CEO Survey: Innovation in the Global Economy, PwC, 2019

doer products create to the mission is based on and this look his/her of activity all in terms of marketing pull delivery to give chain up to the management reflection According to Forbes according to , in 2020 Apple's research and R&D investment of \$ 26 billion organization did , this his/her 6.5 percent of income organization This will do . big investment the company general strategy and business in success innovations importance Apple 's approach to him/her technological of progress previous in the ranks to stay and in the world the most expensive from companies one as position save to stay opportunity gave .<sup>4</sup> From this besides , innovations business strategy with coordination far term to think requires loyalty . Many organizations short term financial to the results attention Although they focus on innovation often far term requires investments and benefit immediately invisibility possible . By Accenture held research this showed that 77 % of leaders are remote term value to create to innovations of aspiration main They consider it a reason , but organizations only 22% long term the horizon in mind caught without investment This is short . term financial pressures and stable to innovations was need between tension emphasizes . This problem solution to do for companies innovations far within the period growth provision for key to admit that with immediately financial to the results was need to balance ready to be need .

From this besides , innovative strategy variable market to the environment adaptation The global economy increasingly variable is technological development , consumers of desires change and geopolitical changes market to the dynamics impact does . Example for , COVID-19 pandemic many in the fields wide on a scale to disruptions take came and companies new to the conditions quickly to adapt forced The world Economic Forum to the report According to , 84% of companies are facing a pandemic in response digital change according to efforts accelerated about message They gave this . shift innovations and consumers variable to their behavior fast answer to give necessity with related was , for example , electronic commerce and remotely work . This to changes in response fast to turn and innovation to do capable was organizations crisis during development for more comfortable it has been .<sup>5</sup> Digital technologies innovations in development increasingly important role is playing . By Deloitte held request to the results According to , 74 percent of leaders digital transformation their own of innovations main factor as they see .

Cloudy calculation , artificial intelligence (AI) and things Internet of Things (IoT) industry along innovations governing the most many to the language taken from technologies For example , artificial intellect health storage such as sectors changes , this on the ground from it more customized treatment methods working exit and diagnostics accuracy increase for used in the PwC report . It turns out that business 72% of leaders believe AI is the future five year during own in organizations of innovations main driver to be They believe that this is the future .<sup>6</sup> innovative strategies in formation technology importance increasingly increasing going confession reflection will bring .

## CONCLUSION AND OFFERS

Conclusion as telling if we are , innovations effective management innovative actions business strategy with harmonious , distant term to investments priority importance giving and variable market to the conditions suitable coming complex requires an approach . Presentation done statistic information this shows that innovations business strategy with combined companies high efficiency and far term to success achieve probability more . Innovations culture increase , strategic investments input and new technologies mastery through organizations increasingly competitive and dynamic business in the environment success their winnings possible .

### List of Used Literature

1. McKinsey & Company. (2020). The importance of innovation in business performance. McKinsey & Company.
2. Porter, M. E. (1985). Competitive advantage: Creating and sustaining superior performance. New York: Free Press.
3. PwC. (2019). The CEO survey: Innovation in the global economy. PricewaterhouseCoopers.
4. Forbes. (2021). Apple's R&D spending and its impact on innovation. Forbes. Retrieved from <https://www.forbes.com>
5. Accenture. (2018). Long-term value creation and innovation. Accenture Insights.
6. World Economic Forum. (2020). The impact of COVID-19 on digital transformation. World Economic Forum.
7. Deloitte. (2021). Global digital transformation survey: The role of AI in innovation. Deloitte Insights.
8. Tushman, M. L., & O'Reilly, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, 38(4), 8–30.
9. OECD. (n.d.). Main science and technology indicators. Retrieved from <https://www.oecd.org/en/data/datasets/main-science-and-technology-indicators.html>

<sup>4</sup> Forbes, Apple's R&D Spending and Its Impact on Innovation, Forbes, 2021.

<sup>5</sup> World Economic Forum, The Impact of COVID-19 on Digital Transformation, World Economic Forum, 2020.

<sup>6</sup> Deloitte, Global Digital Transformation Survey: The Role of AI in Innovation, Deloitte, 2021.

**Proofreader:** Zokir ALIBEKOV

**Layout and Designer:** Oloviddin Sobir ugli

---

## 2025. № 5

---

© When materials are reproduced, the INNOVATION SCIENCE AND TECHNOLOGY journal must be cited as the source. Authors are responsible for the accuracy of the information in materials and advertisements published in the journal. Editorial opinions may not always align with those of the authors. Submitted materials will not be returned to the editorial office.

To publish articles in this journal, you may submit articles, advertisements, stories, and other creative materials through the following links. Materials and advertisements are published on a paid basis.

You may subscribe to the journal at any time using the following details. Once subscribed, please send a screenshot or photo of your payment confirmation to our Telegram page @iqtisodiyot\_77. Based on this, we will send the latest issue of the journal to your address each month.

“The journal “INNOVATION SCIENCE AND TECHNOLOGY” has been registered by the Agency for Information and Mass Communications under the Administration of the President of the Republic of Uzbekistan from 09.10.2024 under the registration number №390637. License number: C-5669633. PNFL: 30407832680027

**Our address:** Tashkent city, Yunusobod district, 19th block,  
House 17.



**Acceptance of articles**

Published every  
monthly



**Directions**

Social, economic, political,  
technological, scientific

 Scopus || Scientific electronic journal specializing in Scopus

**CERTIFICATE NUMBER: №390637**

**ORDER NUMBER ACCORDING TO  
THE LICENSE REGISTER: C-5669633**

**CONTACT:**

 Contact us  
**+998 97 748 70 03**

 Telegram channel  
**t.me/scopus\_IST2100**

 Journal official website  
**<https://ist-journal.uz/index.php/IST>**