

**T.a. head of department:****Khaydarov Elshod Dilshod ugli coals****Reception time:** Monday-Thursday(14:00-16:00)**Telefon:** (+99871) 238-65-25**E-mail:** [e.haydarov@tuit.uz](mailto:e.haydarov@tuit.uz)

In September 2006, under the leadership of Professor M.M. Karimov, to train highly qualified personnel in the undergraduate and graduate specialty "Information Security," the Department of "Information Security" was created at the Tashkent University of Information Technologies.

On the formation and development of educational, methodological and research work at the department, Doctor of Technical Sciences, Prof. made their contribution. S.K. Ganiev, Doctor of Technical Sciences, Prof. M.M.Karimov, Ph.D., Associate Professor A.A.Ganiev, Ph.D., Associate Professor T.A. Kuchkarov, Ph.D., Associate Professor S.Yu.Yusupov, Ph.D., Associate Professor K.A.Tashev, DS, prof. D.Ya.Irgasheva, senior teacher D.G.Abdullayev and many others.

Until 2010, the department was headed by Doctor of Technical Sciences, Prof. Karimov M.M., 2010-2013 – Ph.D., Associate Professor Yusupov S.Yu., 2013-2016 – DS, prof. D.Ya. Irgasheva, 2016-2021 – Ph.D., Associate Professor A.A. Ganiev, 2021-2022 Ph.D., assistant professor Sh.R.Gulomov, 2022-2024 – Ph.D., Associate Professor A.A. Ganiev.

April 1, 2024 v.i.o. Ph.D. Khaydarov Elshod Dilshod Ugli was appointed temporary acting (t.a.) head of the department.

For many years, the faculty of the department has been teaching master's students such disciplines as "Information Theory and Coding", "Business Continuity and Disaster Recovery", "Scientific Research Methodology", "Intellectual Information Security Systems", "Computer Forensics", for undergraduate students - "Information Security", "Fundamentals of Cyber Security", "Cyber Law and Cyber Ethics", "Introduction to Information Security Risk Management", "Cyber Security Policy", "Organizational and Technical Methods of Information Security", "Information Theory and Coding", "Cloud Computing Security", "Information Security Hardware and Software", "Malware", "Cyber Security Engineering", "Network Security", "Information Systems Audit", "Attack Incidents and Responses", "Web Security" applications, "Information security in computer systems and networks", "Cryptography methods", "Information security in wireless networks", "Cryptographic protocols", "Threat intelligence" technologies, "Security of open source operating systems".

The teaching staff at the department published textbooks, methodological instructions for laboratory and practical classes, a number of lecture materials on the disciplines taught, including in 2021 a textbook in Latin "Audit of Information Systems" Sh.R. Gulomova, N.B. .Nasrullaeva, L.T.Shirinova and Sh.B. Sayfullaev, methodological guide to practical work "Audit of information systems" by A.A. Ganiev and Z.I. Azizova.

In addition, the textbook "Information Security" by S.K. Ganiev, M.M. Karimov and K.A. Tashev for university students, the textbook "Information Theory and Coding" by S.K. Ganiev and Sh.R. Gulomov were published for university students, guidelines for laboratory work in the subjects "Information security in computer systems and networks" T.A. Kuchkarova, B.M. Shamshieva and methodological instructions for practical work on the subjects "Cryptographic protocols" by K.A. Tashev, D.Ya. Irgasheva and N.B. Nasrullaev.

International organizations finance a number of practical and fundamental projects. For example, since 2020, the department has implemented a fundamental project BVF4-023 "Studying the problems of managing incidents and cyber attacks in distributed information and communication systems," into which

100 million soums were invested. A group of senior researchers and independent researchers of the department prepare doctoral dissertations (Ph.D.) on topics that are closely related to this research work.

Currently, among the teaching staff of the department, doctoral students are D.S. Faizieva, O.N. Bekmirzaev, O.T. Imomaliev, N.S. Yuldasheva, Z.Z. Kadyrov, independent applicants are B.M. Shamshieva, E.D. Khaidarov, Z.I. Azizova. All of them conduct research work on doctoral dissertations (Ph.D.). In addition, independent researchers Sh.R. Gulomov and N.B. Nasrullaev are conducting research work on doctoral dissertations (Doctor of Science).

## **BACHELOR**

Direction of education: 5330300 - Information security (by industry)

Direction of education: 60610300 - Information security (by industry)

## **MASTER'S**

Specialty: 5A330302 - Information security

Specialty: 70610302- Information security

## **TEACHING DISCIPLINES AT THE DEPARTMENT:**

### ***Bachelor:***

- Basics of Cybersecurity
- Introduction to Information Security Risk Management
- Network security
- Threat intelligence technology
- Open-source operating system security

### ***Master's:***

- Computer forensics
- Business continuity and disaster recovery
- Application of intelligent tools to protect information
- Machine learning in cybersecurity
- Information Theory and Coding
- Methodology of scientific research

## **Core teaching staff:**

1. Khaydarov Elshod Dilshod ugli - Ph.D., head of department
2. Ganiev Salim Karimovich – Doctor of Technical Sciences, Professor
3. Kuchkarov Tokhir Anvarevich – Ph.D., Associate Professor
4. Ganiev Abduhalil Abduzhaliovich - Ph.D., Associate Professor
5. Samarov Husnutdin Kamardinovich - Ph.D., Associate Professor
6. Kholimtaeva Ikbola Ubaydullaevna – senior teacher.
7. Shamshieva Barno Mahmudjonovna - senior teacher
8. Fayzieva Dilsora Salimovna - Ph.D., Associate Professor
9. Usmanbaev Doniyorbek Shukhratovich - senior teacher
10. Bekmirzaev Obidzhon Nuralievich - Ph.D., Associate Professor
11. Chunayev Norkuvvat Eshkuvat ugli - assistant;
12. KHabibullayev Jahogir Doniyorbek ugli -trainee teacher

## **PART-TIME TEACHING STAFF:**

1. Karimov Madzhit Malikovich – Doctor of Technical Sciences, Professor
2. Sagatov Miraziz Vorisovich - Doctor of Technical Sciences, Professor
3. Botirov Fayzullazhon Bakhtiyorovich - DSc., Associate Professor
4. Yusupov Bakhodir Karamatovich - Ph.D., Associate Professor
5. Turapov Sherzod Nurmatovich - Ph.D., Associate Professor
6. Bekmirzaev Obidzhon Nuralievich - Ph.D., Associate Professor
7. Abdullaev Dilmurod Gulyamovich - senior teacher
8. Gulomov Sherzod Razhaboevich – Ph.D., Associate Professor
9. Sayfullaev Sherzod Bakhtiyor coals - senior teacher
10. Shirinov Bobur Botir Ugli - assistant
11. Shukurov Orzikul Pardaevich – assistant
12. Azizova Zarina Ildarovna - senior teacher
13. Qaxramonov Elbek Quvondiq Ugli - senior teacher;
14. Korabaev Eldor Alijanovich - senior teacher;
15. Mirzayev Olim Namozovich – D., Associate Professor
16. Mamatkulov Utkurbek Burkhanovich - trainee teacher;

Currently, the department has 3 professor, 8 Associate professors, 5 senior teachers, 5 assistants, 2 teachers-trainees. Professors and teachers of the department have prepared working programs and texts of lectures on 11 subjects taught at the department.

#### **APPLICABLE STATE AND FOREIGN GRANTS (FUNDAMENTAL, APPLIED AND INNOVATIVE PROJECTS) AT DEPARTMENT "INFORMATION SECURITY"**

- Central Asia University Partnerships Program\_UniCEN “Accreditation, Assessment, and Improving Student Outcomes” \_USA (2020-2021).
- ERASMUS+ programme: project “Developing services for Individuals with Disabilities”(DECIDE)-598661-EPP-1-2018-1-RO-EPPKA2-CBHE-JP (2019-2022).
- ERASMUS+ programme: project “Modernization of Higher Education in Central Asia through New Technologies”(HiEdTech)-598092-EPP-1-2018-1-BG-EPPKA2-CBHE-SP (2019-2022).
- BVF4-023 “Research of problems of management of incidents and cyber attacks in distributed information and communication systems.” (2017-2020).
- №A5-063 " Development of a complex method of inter-screen shielding and monitoring in information and communication systems" (2015-2017).
- №A5-061 "Improving the security of the E-government system based on effective technology of unified identification" (2015-2017).

#### **SCIENTIFIC WORKS OF DEPARTMENT**

1. Gulomov, F.B.Botirov, Z.I.Azizova. “Attack incidents and response to it” (textbook). -T .: Aloqachi Publishing House, Tashkent-2021
2. Yu.Yusupov, A.A.Ganiev, O.Bekmirzaev. "Hacking and protection of computer systems and network" (textbook). -T .: Aloqachi Publishing House, Tashkent-2021
3. R.Gulomov, Z.I.Azizova, F.B.Botirov. "Attack incidents and response to it" (textbook). Aloqachi Publishing House, Tashkent-2021
4. R.Gulomov, N.B.Nasrullaev, L.T.Shirinov, Sh.B.Sayfullaev. Audit of information systems: Textbook // Aloqachi Publishing House, Tashkent-2021, 157 p.
5. K.Ganiev, Z.T.Xudoykulov, N.B.Nasrullaev. "Basics of cybersecurity" (textbook). 2021, T .: “Economy-Finance”, 240 p.
6. K.Ganiev, Z.T.Xudoykulov, N.B.Nasrullaev. "Basics of cybersecurity" textbook. 2021, T .: “Iqtisod-Moliya”, 240 p.

7. A.Abdurakhmonov, Z.I.Azizova. Methodical manual for laboratory work on the subject " Attack incidents and reactions to it". №9 (134) 27 April 2021
8. I.Azizova. Methodical manual for the implementation of practical work on the subject "Basics of cybersecurity". №10 (135) 25 May 2021
9. A.Abdurakhmanov, S.Sh.Muminova, M.Sh.Agzamova. Methodical instructions on the implementation of laboratory work on the subject "Network Security". №9 (134) 27 April 2021
10. G.Abdullaev, S.Sh.Muminova, M.Sh.Agzamova. Methodical instructions on the implementation of laboratory work on the subject "Organizational and technical methods of protection of information". № 7 (132) 23 February 2021
11. M.Shamshieva, S.Sh.Muminova, D.Sh.Usmanbaev. Methodical instructions for laboratory work on the subject "Organizational and technical methods of information protection". №9 (134) 27 April 2021
12. B.Botirov, E.D.Haydarov, L.T. Shirinov. Methodical instructions for work on the subject "Attack incidents and response to it". №9 (134) 27 April 2021
13. Yusupov S.Y, Gulomov Sh.R. Nasrullayev N.B. "Digital Forensics"(in uzbek language): study guide published by "Aloqachi", Tashkent-2020, 240 p.
14. Ganiyev A.A., Azizova Z.I . "Audit of information systems": study guide. Tashkent-2020, 124 p.
15. Yusupov S.Y., Vaade V.D., Gafarov R.I., Utkurxujayeva N.I.. "Computer forensics" (practicum): study guide. Tashkent-2020
16. Yusupov S.Y., Ganiyev A.A. "Hacking and protection of computer systems and networks" published by "Aloqachi", Tashkent-2019, 232 p.
17. Yusupov S.Y, Gulomov Sh.R. "Digital Forensics" (in russian language): study guide published by "Aloqachi", Tashkent-2018, 284 p.
18. Ganiyev S.K., Gulomov Sh.R. "Theory Information and Coding": A Course Book for University Students. Published by "Aloqachi", Tashkent-2017, 100 p.
19. Ganiyev S.K., Karimov M.M., Tashev K.A. Information Security Course Book for University Students. Published by "Aloqachi", Tashkent-2016

#### **LIST OF PUBLISHED ARTICLES OF THE PROFESSOR-TEACHING STAFF AND RESEARCHERS OF THE DEPARTMENT:**

1. Shirinov, L. (2023). Methods of Application Control in Cloud Computing Systems. In: Ranganathan, G., Fernando, X., Piramuthu, S. (eds) Soft Computing for Security Applications. Advances in Intelligent Systems and Computing, vol 1428. Springer, Singapore. [https://doi.org/10.1007/978-981-19-3590-9\\_39](https://doi.org/10.1007/978-981-19-3590-9_39)
2. Khaydarov, E. (2023). Filling the Knowledge Base of the Filtering System Algorithm Development. In: Ranganathan, G., Bestak, R., Fernando, X. (eds) Pervasive Computing and Social Networking. Lecture Notes in Networks and Systems, vol 475. Springer, Singapore. [https://doi.org/10.1007/978-981-19-2840-6\\_15](https://doi.org/10.1007/978-981-19-2840-6_15)
3. Usmanbayev, "Improving and Evaluating Methods Network Attack Anomaly Detection," 2021 International Conference on Information Science and Communications Technologies (ICISCT), 2021, pp. 1-5, doi: 10.1109/ICISCT52966.2021.9670073.
4. Gulomov Sherzod Rajabovich, Abdurakhmonov Abduaziz Abdugafforovich, and Azizova Zarina Ildarovna. Development a Model of a Network Attack Detection in Information and Communication Systems. Scopus indexed. JAIT 2022 Vol.13(4): 312-319. doi: 10.12720/jait.13.4.312-319
5. Gulomov Sherzod Rajabovich, Malikova Nodira Turgunovna, Qurbonova Kabira Erkinovna, Arzieva Jamila Tileubaevna. A method to improve the quality of service and overcome the loss of network packets. 2021 International Conference on Information Science and Communications Technologies (ICISCT). 03-05 November 2021, Tashkent, Uzbekistan. DOI: 10.1109/ICISCT52966.2021.9670120
6. Karimov Madjit Malikovich, Gulomov Sherzod Rajabovich, Tashmatova Shaxnoza Sobirovna, Elmuradov Temurmali. Differentiated Services Code Point (DSCP) Traffic Filtering Method to Prevent Attacks. 2021 International Conference on Information Science and Communications Technologies

(ICISCT). 03-05 November 2021, Tashkent, Uzbekistan. DOI: 10.1109/ICISCT52966.2021.9670203

7. Sayfullaev, S., Zaynutdinova, M. (2021). Analysis and Modeling of Information Security Systems in Industry 4.0. In: Aliev, R.A., Yusupbekov, N.R., Kacprzyk, J., Pedrycz, W., Sadikoglu, F.M. (eds) 11th World Conference "Intelligent System for Industrial Automation" (WCIS-2020). WCIS 2020. Advances in Intelligent Systems and Computing, vol 1323. Springer, Cham. [https://doi.org/10.1007/978-3-030-68004-6\\_2](https://doi.org/10.1007/978-3-030-68004-6_2).

### **INTERNATIONAL COOPERATION of department**

- USA (Kent state university)
- USA (Idaho State University)
- Japan (Advanced Institute of Industrial Technology)
- South Korea universities (KAIST, INHA)
- Germany (Dresden Technical University)
- Romania (Transylvania University of Brasov)
- Russia's leading universities

### **COOPERATION WITH ORGANIZATIONS FOR THE DEVELOPMENT OF DEPARTMENT**

- Joint stock company "Uzbektelecom"
- State unitary company "UNICON.UZ"
- LLC Mobilline
- State unitary enterprise "Cybersecurity Center"
- UzInfocom
- State customs committee of the Republic of Uzbekistan
- Spanish company "CYBERGAMP"
- Italian Company "Sababa Security"
- SOFTPROM Distribution GmbH
- American company Entrust