

Head of the department:

## Sadikov Rustamjon Toxirovich

**Reception:** Monday-Friday (15:00-17:00)

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"Multimedia Technologies" department was established in accordance with the Decree № 1070 of the Tashkent University of Information Technologies on November 21, 2011, in order to implement the Resolution of the Academic Council of the Tashkent University of Information Technologies (Decision # 3 (609) of 27 September 2011).

Every year about 100 undergraduate students on "Multimedia Engineering" fields related to the Department of "Multimedia Technologies" will be able to complete their internship, practice and course works. More than 50 undergraduate and 10 graduate theses are defended under the guidance of professors.

## Bachelor degree

60610500

[Computer engineering \(Multimedia technologies\)](#)

## Master's degree

70610501

Computer engineering (Information Multimedia technologies)

70610504

Data Science

## DISCIPLINES TAUGHT AT THE DEPARTMENT

Bachelor:

- Introduction to web programming
- Computer animation
- Development mobile application
- Specialization in an elective subject (Multimedia Data Base)
- Web design
- Specialization in an elective subject (Computer Vision)
- Specialization in an elective subject (Multimedia design)
- Specialization in an elective subject (3D technology)
- Specialization in an elective subject (Virtual reality)
- Specialization in an elective subject (Social media marketing)
- Specialization in an elective subject (Development of computer games)

**Master's:**

- Research scientific methodology

- Specialization in an elective subject (Data analysis)
- Specialization in an elective subject (Mathematical foundations of video processing)
- Specialization in an elective subject (Big Data Visualization Methods)
- Specialization in an elective subject (Mathematical analysis in Data Science)
- Data Engineering
- Specialization in an elective subject (Computer Vision)
- Specialization in an elective subject (Multimedia methods in visualization of information and reflection)

## DEPARTMENT'S PROFESSORS

- Sadikov Rustamjon Tohirovich- PhD, Head of department
- Ne'matov Abdug'ani - f-m f.n., professor
- Artikova Muazzam Axmedovna - Candidate of Technical Sciences (PhD), dotsent
- Abidova Shaxnoza Baxodirovna - PhD, dotsent
- Ismailov Shixnazar Rashid o'g'li - PhD Senior Lecturer
- Abidova Shaxnoza Baxodirovna - PhD
- Ganiev Akmal Abdukhalilovich - Senior teacher
- Talipova Ozoda Xabirovna - Assistant
- Maxmudova Moxiniso Mizrof qizi -Assistant
- Xolmuminov Yusuf Xolbuta o'g'li - intern - Lecturer

## SCIENTIFIC AND PRACTICAL COURSES OF THE DEPARTMENT

- National Agency "Uzbekkino"
- AmayaSoft
- Vronika
- Vatanparvar
- Robotics lab future technology company
- Military department of TUIT
- Geoinnovation Center
- Next Reality

## CURRENT MAIN AND INNOVATIVE PROJECTS OF THE DEPARTMENT MULTIMEDIA TECHNOLOGIES

- №. BV-ATEX-2018 (399 + 487) "DEVELOPMENT OF THREE-DIMENSIONAL MODELS OF HYDROGEOLOGICAL PROCESSES AND NUMERICAL SIMULATION OF DIFFUSION PROCESSES IN A TWO-COMPONENT MEDIUM. Sadullaeva Sh.A., Nazirova E.Sh.
- CREATING NEW GENERATION DICTIONARIES AND THEIR MOBILE APPLICATIONS. Nazirova E.Sh.

## SCIENTIFIC-METHODICAL WORKS OF THE DEPARTMENT

- Nematov A., Sadikov R.T. METHODOLOGICAL INSTRUCTIONS FOR THE COURSE WORK ON THE TOPIC "CREATION OF WEB APPLICATIONS" LLC "ZUKRA BARAKA BUSINESS" - 2020. 42s.

- Khashimkhodzhaeva M.D., Ganiev A.A., Rayimkulov O.M., Dauletov O.M. Methodical manual for laboratory work on the topic "Model of audiovisual perception".
- Ganiev A.A., Azimov S.R. Creating computer games" is a guide to the implementation of laboratory work.
- Nazirova E.Sh., Abidova Sh.B., Sadikov R.T. "MULTIMEDIA DATABASE" (Textbook) Tashkent - "Alokachi" - 2020 ISBN 978-9943-5899-5-7. 108b.
- Artikova M.A. Spline and wavelet analysis methods for seismic signal processing. Monograph. LAP LAMBERT Academic Publishing 2020-07-13
- Artikova M.A. Aripova Z.D. Manual on virtual reality for TUIT students LAP LAMBERT Academic Publishing Germany Lambert-2021 292 pages

## LIST OF PUBLISHED ARTICLES OF PROFESSORS-TEACHERS AND RESEARCH STAFF OF THE DEPARTMENT

N <sup>o</sup>	FULL NAME. (group of authors)	Academic degree	Title of scientific article	Name of the published scientific journal, N <sup>o</sup> , year
1	Nazirova E.Sh., Nematov A., Sadikov R.T.	Phd	"On numerical method for modeling oil filtration problems in piecewise-inhomogeneous porous medium"	INTERNATIONAL SCIENTIFIC CONFERENCE OF COMMUNICATIONS, INFORMATION, ELECTRONIC AND ENERGY SYSTEMS
2	Nazirova E.Sh., Nematov A., Sadikov R.T., Nabiev I.M.	Phd	"One-dimensional mathematical model and a numerical solution accounting sedimentation of clay particles in process of oil filtering in porous medium"	12th International Conference on Intelligent Human Computer Interaction(IHCI) 2020 24-26 November 2020, EXCO-Daegu, South Korea
3	Sadullaeva S., Talipova O., Fozilov F., Mirxodjaeva N.	DSc	Automated Control of the Process of Formation Individualized Trajectories Students Preparation in the Credit System	(2020) 4 <sup>th</sup> International Symposium on Multidisciplinary Studies and innovative Technologies, ISMSIT 2020-Proceedings, статья
4	Nazirova E.Sh., Abidova Sh.B.	Phd	Mathematical Model and Algorithm for Calculating Complex Words in Uzbek Language	Blind Peer Review Referred journal "Solid State Technology". Volume: 64, Issue 2. 2021 y. – P. 4347-4359.
5	Siddikov I. X., Umurzakova D. M., Baxrieva X. A.	Senior Lecturer	Adaptive system of fuzzy-logical regulation by temperature mode of a drum boiler	IIUM Engineering Journal, Vol. 21, No. 1, 2020 Xakimovich et al. <a href="https://doi.org/10.31436/iiumej.v21i1.1220">https://doi.org/10.31436/iiumej.v21i1.1220</a>
6	Sharipov D.K., Ergasheva D., Kasymbetova S., Aynakulov Sh., Xamraeva Sh.	Phd	Development a mathematical model of a water-salt balance on irrigated lands of the Sirdarya area	IOP Conf. Series: Materials Science and Engineering 896 (2020) 012050 IOP Publishing doi:10.1088/1757-899X/896/1/012050
7	Sharipov D.K., Abdukadyrov A., Khasanov A., Xafizov O.	Phd	Mathematical model for optimal siting of the industrial plants	International Conference on Information Science and Communications Technologies (ICISCT), 2020, pp. 1-3, doi: 10.1109/ICISCT50599.2020.9351476.
8	Sharipov D.K., Abdullaev Z., Xafizov O.	Phd	The process of distribution Computer modeling of hazardous substances in the atmosphere taking into account the terrain relief	E3S Web of Conferences. – 2021. – Vol. 264, 10037. – <a href="https://doi.org/10.1051/e3sconf/202126401037">https://doi.org/10.1051/e3sconf/202126401037</a>

N <sup>o</sup>	FULL NAME. (group of authors)	Academic degree	Title of scientific article	Name of the published scientific journal, N <sup>o</sup> , year
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1	Nazirova E. Sh., Saurbaev A., Nematov A.	Head of Department	Mathematical and computer simulation of the processes of two-phase joint gas filtration and water in a porous environment	Bulletin of TUIT: Management and Communication Technologies: Vol. 2 , Article 4. Available at: <a href="https://uzjournals.edu.uz/tuitmct/vol2/iss1/4">https://uzjournals.edu.uz/tuitmct/vol2/iss1/4</a>
2	Ravshanov N Nazirova Elmira	Head of Department	Modeling and analysis of nonstationary gas filtration under gas dynamic parameters variation	Bulletin of TUIT: Management and Communication Technologies: Vol. 4 , Article 3. Available at: <a href="https://uzjournals.edu.uz/tuitmct/vol4/iss2/3">https://uzjournals.edu.uz/tuitmct/vol4/iss2/3</a> (2021)
3	Ravshanov Normaxmad; Nazirova Elmira; Aminov Sabur	Head of Department	Numerical Study of the Process of Unsteady Filtration of a Fluid in Interacting Porous Pressure Layers	Bulletin of TUIT: Management and Communication Technologies: Vol. 4, Article 3. Available at: <a href="https://uzjournals.edu.uz/tuitmct/vol4/iss2/3">https://uzjournals.edu.uz/tuitmct/vol4/iss2/3</a> (2021)
4.	Varlamova L.P., Ganiev A.A., Fayzullaev U.	Phd	Removing Noise During the Filtering Images	International Journal of Recent Technology and Engineering (IJRTE), 2020 Volume-9, Issue-1, -pp. 2584-2587. ISSN:2277-3878
5.	Varlamova L.P.	Phd	Convolution of Images Using Deep Neural Networks in the Recognition of Footage Objects	<b>Springer</b> , part of Springer Nature. Vol. 912, Aboul-Ella Hassanien et al. (Eds): Artificial Intelligence for Sustainable Development: Theory, Practice and Future Applications, 978-3-030-51919-3, 493719_1_En, -p. 171-191(Chapter 9)
6.	Maraximov A.R., Varlamova L.P.	Phd	Application of a convolutional neural networks for images recognition	Google scholar/ <a href="https://uzjournals.edu.uz/cgi/preview.cgi?article=1163&amp;=&amp;context=ijctcm">https://uzjournals.edu.uz/cgi/preview.cgi?article=1163&amp;=&amp;context=ijctcm</a>
7.	Varlamova L.P., Artikova M.A., Xashimxodjaeva M.D., Aripova Z.D.	Phd	FUZZY LOGIC TRAFFIC MANAGEMENT MODEL	SCIENCE, EDUCATION, INNOVATION: TOPICAL ISSUES AND MODERN ASPECTS TALLINN, ESTONIA. 16-18.12.2020, Volume-1, -P.1264-1273.
8.	Varlamova L.P., Mirzoalimov A.K.	Phd	РАЗРАБОТКА СИСТЕМЫ «СПЕЦИАЛЬНОГО ИНЖЕНЕРНОГО ОБРАЗОВАНИЯ»	SCIENCE, EDUCATION, INNOVATION: TOPICAL ISSUES AND MODERN ASPECTS TALLINN, ESTONIA. 16-18.12.2020. Volume-1, -P.1280-1284.
9	Siddikov I. X., Baxrieva X. A.	Senior Lecturer	Algorithm for the synthesis of the optimum control of the steam heater	Bulletin of TUIT: Management and Communication Technologies submitted an article to the journal. In print
10	Nabiev Timur.E Varlamova Lyudmila., Aripova Zulfiya D.	Phd	ORGANISM REHABILITATION AFTER COVID-19 WITH GENERAL PHYSICAL TRAINING METHODS	ijournals: International Journal of Social Relevance & Concern (IJSRC) ISSN-2347-9698 Volume 9 Issue 2 February 2021 DOI: 10.26821/IJSRC.9.2.2021.9216
11	Siddikov I.X. Ganiev A.A.	Senior Lecturer	Bulletin of TUIT: Management and Communication Technologies”	Development of a technological modeling system for refining processes