

Kafedra mudiri:

## Sattarov Xurshid Abdishukurovich

**Qabul vaqti:** Dushanba – Shanba (15:00-17:00 gacha)

**Telefon:** (+99871) 238-65-87

**E-mail:** [s.xurshid@tuit.uz](mailto:s.xurshid@tuit.uz)

“Elektronika va radiotexnika” kafedrasida 2013 yil “Elektronika va sxemotexnika” hamda «Radiotexnika va radioaloqa» kafedralarining birlashuvi asosida tashkil etilgan. Kafedraga 2013-2014 yillarda fizika-matematika fanlari doktori, professor X.K.Aripov, 2014-2016 yillarda texnika fanlari nomzodi I.R.Faziljanov, 2016-2021 yillarda texnika fanlari nomzodi (PhD), professor A.A.Tulyaganov mudirlik qildi va 2021 yil sentabr oyidan texnika fanlari nomzodi, professor A.X.Sattarov mudirlik qilib kelmoqda.

“Elektronika va sxemotexnika” kafedrasida 1969 yilda radio qabul qilish qurilmalari, hozirgi mobil aloqa tizimlari kafedrasida tashkil etildi. Kafedraga 1969 -1972 yillarda texnika fanlari nomzodi, dotsent Ye.N.Faxrutdinov, 1972-1981 yillar davomida fizika-matematika fanlari nomzodi, dotsent I.S.Andreev, 1981-1986 yillarda fizika- matematika fanlari nomzodi, dotsent N.Yu.Yunusov, 1986-1988 yillarda O‘zFA akademigi, fizika-matematika fanlari doktori, professor M.S.Yunusovlar va 1988-2013 yillarda fizika-matematika fanlari doktori, professor X.K.Aripov mudirlik qildilar. Turli davrlarda kafedrada professor A.X. Qosimov, dotsentlar: L.A. Vvedenskaya, A.G. Vishnevetskiy, I.S. Andreev, N.Balaban, I.A. Kildeev, A.M. Abdullaev, X.X. Toxirjonov, N.Yu. Yunusov, A.A. Tulyaganov, Yu. Abduraxmonov, X.X. Bustonov, Ye.V. Ob’edkov, Sh.Z. Tadjibaev, N.B. Alimova, katta o‘qituvchilar: R.I.Mansurov, O.R.Rixsimboev, Yu.P. Vaulina, Ye.G. Glininnaya, G.N. Kuzmina, G.N. Sepenok, V.Z. Pyataev, I.A. Karsevich, G.V. Kornilseva, R.K. Atametov, G.J. Axmedova, D.M. Mirxabibova, D.S. Irgashev assistentlar: N.M. Latipova, N.V. Yusupova, M.R. Alimova, N.R.Umarova, T.M. Ismoilov, B.Sh. Usmanovlar, G.X. Juraeva, Sh.T. Toshmatov, A.A. Yadgarova, A.Ya. Ashurov, S.D. Artikbaev, A.K. Ataniyazov, Ya.T. Yusupov, N.T. Xayitov va boshqalar ishladilar.

1960 yili tashkil yetilgan «Radiotexnika nazariy asoslari» nomi bilan yuritilgan kafedraning, 1964-1965 o‘quv yilida «Signallar uzatish nazariyasi va noxiziqli elektr zanjirlar nazariyasi» kafedrasida deb qayta tashkil etilishi va nomlanishi asosida, 2003-2004 o‘quv yilidan esa, ta’lim yo‘nalishlari o‘quv rejasiga mos ravishda «Radiotexnika va radioaloqa» nomi bilan yuritila boshladi. Kafedraga 1960-1964 yillarda katta o‘qituvchi V.A.Chernousov, 1964-1978 yillarda texnika fanlari nomzodi, dotsent G.Ya.Lyaxoveskiy, 1978-1993 yillarda texnika fanlari nomzodi, dotsent A.A.Kropivnitskiy, 1993-1997 yillarda texnika fanlari nomzodi, dotsent S.X.Sidiqov mudirlik qildilar.

Turli davrlarda kafedrada dotsentlar: B.N.Vorotinsev, M.A.Mendelson, V.I.Lyutin, N.N.Gulto‘raev, texnika fanlari nomzodi V.A.Pak, texnika fanlari nomzodi A.A.Yarmuxamedov, katta o‘qituvchilar: V.K.Shteyn, Ye.T.Avilkina, Ya.T.Yusupov, assistentlar: Ye.T.Jalolova (Kravchenko), A.A.Savchuk, Yu.I.Kulebyakin, O.M.Qurbonov, A.A.Kovalenko, O.G.Shatskaya, N.V.Bochkaeva, L.A.Buchok, K.B.Boymurodov va boshqalar faoliyat yuritdilar.

2003-2004 o‘quv yilida kafedra “Radiotexnika va radioaloqa” deb nomlandi. Shu davrda kafedra mudiri dotsent Abduazizov A.A. katta o‘qituvchilar I.R.Faziljanov, A.A Yarmuxamedov., N.V. Grinyuk, X.X.Shoyusupova, U.Sh.Sabirova, I. A. Saviskiy, I.V. Koralevalar faoliyat ko‘rsatganlar.

Hozirda “Elektronika va radiotexnika” kafedrasida: kafedra mudiri - texnika fanlari nomzodi, professor A.X.Sattarov; f.-m.f.d., professor A. Yusupov; t.f.n., dotsent X.S.Soatov; t.f.n, dotsent I.R. Faziljanov. Katta o‘qituvchilar: X.X. Shoyusupova, U.Sh. Sabirova, D.A.Arziev, M.P.Egamberdiev, N.A. Ragachurina(Yadgarova), S.A. Azizova, O.X. Nushtaeva, Sh.Q. Xolmonov, L.E. Bayjonova, V.A. Gazieva, assistentlar: T.U. Nurmuxamedova, X.I. Foziljonov, M.M. Yusupova, K.T. Dadamatova, A.X. Abdullaev, X.N., N.A.Musajanova faoliyat ko‘rsatmoqdalar.

## Bakalavriat quyidagi yo'nalishlari bo'yicha talabalarga mashg'ulotlar olib boriladi:

- Radio va mobil aloqa
- Telekommunikatsiya texnologiyalari
- Televizion texnologiyalar
- AKT sohasida kasb ta'limi
- Kompyuter injeniring (Kompyuter injeniring, AT servis, multimediya texnologiyalari)
- Axborot xavfsizligi
- Dasturiy injiniring
- Axborot kommunikatsiya texnologiyalari sohasida iqtisodiyot va menejment
- Pochta aloqa texnologiyasi

## Kafedra professor o'qituvchilari:

- Sattarov A.X. – kafedra mudiri, t.f.n., professor
- Yusupov A. – f.-m.f.d., professor
- Soatov X.S. – t.f.n., dotsent
- Faziljanov I.R. – t.f.n., dotsent
- Shoyusupova X.X. – katta o'qituvchi
- Sobirova U.Sh. – katta o'qituvchi
- Arziyev D.A. - katta o'qituvchi
- Egamberdiev M.P - katta o'qituvchi
- Ragachurina(Yadgarova) N.A. – katta o'qituvchi
- Azizova S.A. – katta o'qituvchi
- Nushtaeva O.X. – katta o'qituvchi
- Xolmonov Sh.Q. – katta o'qituvchi
- Bayjonova L.E. – katta o'qituvchi
- Gazieva V.A. – katta o'qituvchi
- Nurmuxamedova T.U. – assistent
- Foziljonov X.I. – assistent
- Yusupova M.M. – assistent
- Dadamatova K.T. – assistent
- Abdullaev A.X. – assistent
- Musajanova N.A – assistent

## Kafedrada bajarilayotgan davlat va chet el grantlari (fundamental, amaliy va innavatsion loyihalar) ro'yxati

- «Study of Self Heating Effect on stacked Nanosheet Field Effect Transistor», - 2020-2022 yy Yusupov A.Yu. – loyiha rahbari
- UNICAC - Markaziy Osiyo va Xitoyda bilimlarni uzatish tarmog'i – 2019-2022 yy Yusupov A.Yu. – loyiha rahbari

## Kafedra bo'yicha 2021-2022 o'quv yilida chop etilgan uslubiy qo'llanmalar

- Methodical manual for laboratory work in the discipline “Electronics and circuits1” Teshaboyev X.N., Abdullayev A.X., Nurmuxamedova T.U., Egamberdiyev M.P., Musadjanova N.A.,
- Methodical manual for laboratory work in the discipline “Introduction to the design of digital devices” Teshaboev X.N., Abdullaev A.X., Nurmuxamedova T.U., Xolmonov Sh.Q., Musadjanova N.A.,
- “Elektronika va radiotexnika kafedrasida o'qitiladigan fanlar bo'yicha mustaqil ishlarni bajarish uchun” uslubiy qo'llanma Sattarov X.A., Shoyusupova X.X., Sabirova U.Sh.

- “Raqamli qurilmalarni loyihalashga kirish fanidan elektron laboratoriyalar mashg‘ulonlar to‘plami” elektron uslubiy qo‘llanma Shoyusupova X.X., Azizova S.A.,
- “Elektronika va sxemalar 2” fani bo‘yicha laboratoriya mashg‘ulotlari uchun uslubiy qo‘llanma (sirtqi va ikkinchi oliy ta‘lim talabalari uchun) Shoyusupova X.X., Xolmonov Sh.Q., Alimjonov B.A.

#### **Kafedra bo‘yicha 2021-2022 o‘quv yilida chop etilgan uslubiy ko‘rsatmalar.**

- “Elektronika va sxemalar 1” fani bo‘yicha laboratoriya mashg‘ulotlari uchun uslubiy ko‘rsatma (sirtqi ta‘lim talabalari uchun); Sattarov X.A., Xolmonov Sh.Q., Alimjonov B.A.
- Теория электрических цепей fani bo‘yicha laboratoriya mashg‘ulotlari uchun uslubiy ko‘rsatma; Tulyaganova V.A., Gazieva V.A., Ulashov S.R.
- Теория электрических цепей fani bo‘yicha amaliy mashg‘ulotlari uchun uslubiy ko‘rsatma; Tulyaganova V.A., Gazieva V.A.

#### **2021-2022 o‘quv yilida “scopus” va “web of science” bazasiga kiruvchi ilmiy jurnallaridagi maqolalar:**

- Aripova Z.Kh., Aripov Kh.K., Toshmatov Sh. T. “Composite Cascode Injection-Voltaic Transistor”. ICISCT 2021, International Conference on Information Science and Communications Technologies: Applications, Trends and Opportunities November 3-5, 2021
- Aripov Kh.K., Aripova Z.Kh., Toshmatov Sh. T. “Cascode Photoconverter With Amplifier”. ICISCT 2021 International Conference on Information Science and Communications Technologies: Applications, Trends and Opportunities November 3-5, 2021
- Aripov Kh.K., Aripova Z.Kh., Toshmatov Sh. T. Complementary Cascode Current Source. ICISCT 2021 International Conference on Information Science and Communications Technologies: Applications, Trends and Opportunities November 3-5, 2021
- Sattarov X.A., Increasing the metrological reliability of the fiber-optic information-measuring system for monitoring the magnetic field due to the method of software engineering. 2021 International Conference on Electrotechnical Complexes and Systems (ICOECS). Ufa, Russia -
- Sattarov X.A., Organization of video surveillance at railway crossings. ICISCT 2021 International Conference on Information Science and Communications Technologies: Applications, Trends and Opportunities. November 3-5, 2021
- Sattarov X.A., Abdumalikov A. Equipment and software for energy supply monitoring and control process. ICISCT 2021 International Conference on Information Science and Communications Technologies: Applications, Trends and Opportunities. November 3-5, 2021
- Yusupov A. “Impact of the channel shape, back oxide and gate oxide layers on self-heating in nanoscale JL FINFET”. Journal “Nanosystems: Phys. Chem. Math.”, 2022, 13 (2), 148-155.
- Yusupov A. Capacitance Method for Identifying Degradation due to Electrical Stress in MOSFETs. e-Journal of Surface Science and Nanotechnology. e-Journal of Surface Science and Nanotechnology 20, (2022).
- Yusupov A. The contribution of gate and drain voltages to temperature distribution along the channel in 2D MoS<sub>2</sub> based MOSFET. ICISCT 2021 International Conference on Information Science and Communications Technologies: Applications, Trends and Opportunities. November 3-5, 2021
- Foziljonov X.I. Study of the spectrum of side electromagnetic radiations of video interface dvi. ICISCT 2021 International Conference on Information Science and Communications Technologies: Applications, Trends and Opportunities. November 3-5, 2021
- Narkulov X.Yu., Sabirova U.Sh., Shoyusupova X.X., Arziev D.A. Development of an Optimal Method for the Design of Electronic Devices, Taking Into Account the EMC. Design Engineering, 2021 Issue: 9 | Pages: 3269- 3272
- Nushtaeva O.X., Bayjanova L.E. Analysis of methods of transmission to urban networks with the use of fiber-optic transmission systems. Turkish Journal of Physiotherapy and Rehabilitation; 32(3), 2021
- Gazieva V.A. Manage rfid access to items on the internet. Journal of Management Information and

Decision Sciences. December 2021

- Abdullaev A.X. Nonlinear strain of a current-conducting annular plate in a magnetic field. AIP Conference Proceedings. Volume 2467, Issue 1. USA, 2022. –P. 060026-1-6  
<https://doi.org/10.1063/5.0092485>
- Xolmonov Sh.Q., Nurmuxamedova T.U., Today's achievements of modern intelligent robots International Journal of Health Sciences. Volume 6, Issue (S3). –P. 8678–8680.  
<https://doi.org/10.53730/ijhs.v6nS3.8092>
- Tulyaganova V.A., Azizova S.A. Frequently controlled vibratory electric drive's static stability condition. Journal of Vibration and Control JVC 22-04-15
- Gazieva V.A. Improving input control based on non-contact id card reading technology. International Journal of Mechanical Engineering. (ISSN: 0974-5823)
- Gazieva V.A. Development of input control system based on contact ID card reading technology. AIP Conference Proceedings.

## 2021-2022 o'quv yilida xalqaro ilmiy jurnallardagi maqolalar

- Арипов Х.К., Арипова З.Х., Тошматов Ш.Т. Составной каскодный инжекционно-вольтаический транзистор. ИНЖЕНЕРНАЯ ФИЗИКА №12. 2021.
- Арипов Х.К., Арипова З.Х., Тошматов Ш.Т. Каскодный фотопреобразователь с усилением ПРИБОРЫ 6 И СИСТЕМЫ. УПРАВЛЕНИЕ, КОНТРОЛЬ, ДИАГНОСТИКА. 2021. № 12
- Саттаров Х.А. Вопросы расчета магнитной цепи преобразователей токов для устройств систем электроснабжения электрического транспорта. Научный информационный сборник "ТРАНСПОРТ: наука, техника, управление". Москва – 2021. №3. DOI: 10.36535/0236-1914-2021-03-12
- Narkulov X.Yu., Arziev D.A. Prospects for the development of radio electronic systems of the armed forces of foreign countries. International Journal of Advanced Research in IT and Engineering. Vol. 10, No.11, Nov 2021
- Sabirova U.Sh., Shoyusupova X.X. Computer-aided design radio equipment assemblies for emc. ACADEMICIA An International Multidisciplinary Research Journal. Vol. 11, Issue 10, October 2021
- Юсупов А. Эффект саморазогрева в беспереходных вертикальных полевых транзисторах на основе структур кремний на изоляторе с различной формой базы. Письма в ЖТФ, 2021, том 47, вып. 11
- Sattarov X.A. The main requirements of cloud computing monitoring for primary measuring converters of the power supply system with specific loads Вестник КазАТК, №1(120), 2022. С.-106-110
- Sattarov X.A. Development of a mathematical model of a current converter with nonlinear magnetic resistance. International Journal of Advanced Logistics, Transport and Engineering. March 28, 2022, pp.1-9
- Abdullaev A.X. Simulation of magnetoelastic deformation of a plate in an alternating magnetic field ISJ Theoretical & Applied Science, 01(105) Philadelphia, USA, 2022. –P. 751-755.  
<http://s-o-i.org/1.1/TAS> <http://dx.doi.org/10.15863/TAS>
- Xolmonov Sh.Q., Nurmuxamedova T.U. Distance learning and remote laboratory in a engineering education. Journal of New Century Innovations. Volume – 4, Issue-1\_May\_2022. -P. 45-52.
- Azizova S.A. Credit module system in Uzbekistan. International Journal of Advanced Research in Management and Social Sciences ISSN: 2278-6236, Vol. 11 | No. 1 | January 2022. P. 28-30.  
[www.garph.co.uk/](http://www.garph.co.uk/)
- Ulashov S.R. The use information technologies in military higher education: doing individual tasks online. Международный научно-образовательный электронный журнал «ОБРАЗОВАНИЕ И НАУКА В XXI ВЕКЕ» (ISSN 2782-4365)
- Туляганова В.А., Газиева В.А. Исследование характеристик нелинейных элементов и их влияния на режимы работы электромагнитных вибровозбудителей. Academic Research in

Educational Sciences Scientific Journal

- Faziljanov I.R., Foziljonov X.I. The State of the Economic Aspect of the Introduction of Digital Broadcasting in the Republic of Uzbekistan. International journal of special education. Vol.37, No.3 (№ 3(37)). 2022

### **2021-2022 o'quv yilida respublika miqiyosidagi o'q e'tirof etilgan ilmiy jurnallardagi maqolalar.**

- Саттаров Х.А. Статические характеристики первичных преобразователей тока специфических нагрузок. Журнал «Проблемы энерго-и ресурсосбережения». Ташкент – 2021. Махсус сон.
- Sattarov X.A. Katta tok o'zgartgichlarning zamonaviy holati va sinflanishi. "Muhammad al-Xorazmiy avlodlari" ilmiy-amaliy va axborot-tahliliy jurnali, №1(19)/2022. - B. 118-121
- Фазилжанов И.Р., Фозилжонов Х.И. Исследование спектра побочных электромагнитных излучений видео интерфейса DVI. Мухаммад ал-Хоразмий авлодлари 4/(18), 2021. –С. 84-87. <http://alxorazmiy.uz>
- Фазилжанов И.Р., Фозилжонов Х.И. Комплементарный эмиттерный повторитель на трехструктурных инжекционно-вольтаических транзисторах. Ахбороткоммуникациялар: тармоқлар, технологиялар, ечимлар 2(58), 2021
- Газиева В.А. Разработка эффективной системы аутентификации и контроля доступа с использованием RFID. Мухаммад ал-Хоразмий авлодлари 3/(17), 2021 <http://alxorazmiy.uz>
- Holmonov Sh.Q., Nurmuxamedova T.U., Teshaboev X.N., Musadjanova N.A. Remote laboratories and technologies of a remote learning experiment in a technical university "Muhammad al-Xorazmiy avlodlari" ilmiy-amaliy va axborot-tahliliy jurnali, 2(20), 2022, <http://alxorazmiy.uz>
- Газиева В.А. Разработка эффективной системы аутентификации и контроля доступа с использованием. RFID "Мухаммад ал-Хоразмий авлодлари" илмий- амалий ва ахборот-таҳлилий журналы 3(17)2021
- Газиева В.А. Управление доступом RFID в интернет-вещей. "Мухаммад ал-Хоразмий авлодлари" илмий- амалий ва ахборот-таҳлилий журналы 1(19)/2021
- Sabirova U. Method of improving the use of radio frequency spectrum in mobile radio communication systems "Muxammad al-Xorazmiy avlodlari" ilmiy- amaliy va axborot-tahliliy jurnali 2(20)/2022
- Shoyusupova X.X. Methods of protection of modern radio receiver devices "Muxammad al-Xorazmiy avlodlari" ilmiy- amaliy va axborot-tahliliy jurnali 2(20)/2022
- Байжанова Л.Э. О классах QoS мультимедийных сетей связи. «ILM SARCHASHMALARI» журналы Урганч-4.2022, 40-48 бет.
- Bayjanova L.E., Nushtaeva O.X. FEATURES FND AREAS JF APPLICATIJN OF PLASTIC OPTICAL FIBER «ILM SARCHASHMALARI» jurnali. Urganch,3.2022, 193-195 bet.

### **2021-2022 o'quv yilida ixtiroga olingan patentlar.**

- Sattarov X.A., Azimov R., Siddikov I., Xujamatov X., Xasanov D. Tokni kuchlanishga o'zgartgich. IAP 06646
- Тошматов Ш.Т., Арипова З.Х., Хайруллаев Х.Х., Каскодный источник тока. IAP 06698

### **Kafedrada dars jarayoni.**