ANDRANIK KASIAN



Network & Fiber-Optic Technician | IoT & Electronics

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PROFESSIONAL SUMMARY

Network technician with hands-on experience in LAN maintenance, structured cabling, and workstation administration. Trained in fiber-optic splicing, splice closure and cabinet installation, and OTDR testing; passed the WorldSkills-standard demonstration exam. Builds IoT prototypes with ESP32 and ESP8266; won 2nd place at a university hackathon. Co-authored a published conference paper on XGS-PON access network design. Full-time student in Infocommunication Technologies at Russian-Armenian University, available for full-time work, and developing skills in PCB design.

WORK EXPERIENCE

System Administrator — Stelmakh Polyus Research Institute, Moscow, Russia | 2022 – 2023

- Maintained around 30 Windows workstations in the department: OS and software installation, configuration, and troubleshooting.
- Installed structured cabling: routed twisted-pair cables and terminated RJ-45 wall outlets in offices.
- Configured D-Link routers and switches to keep the local network running reliably.
- Set up antivirus software and Windows Firewall to protect workstations.

Computer Repair Technician — Orange Service Center, Moscow, Russia | 2019 – 2020

- Diagnosed and repaired laptops.
- Installed and configured Windows and application software for customers.

PROJECTS

Open Manhole Detection Sensor — University Hackathon, 2nd place

- Joint RAU & YSU team of 3; responsible for firmware development and hardware assembly.
- Designed an inductive sensor based on an LC circuit and ESP32-C3 that detects an open manhole by measuring resonant frequency shifts caused by the cast-iron cover.

- Sent real-time alerts over Wi-Fi to an Android app; presented a working prototype to the jury.

RF Direction Finder — Personal project

- Built and tested a prototype using ESP32-C3 and ESP32-S3 modules with external antennas that locates a target object within a defined area using triangulation and RTT (Round-Trip Time) measurements.

EDUCATION

Russian-Armenian University, Yerevan, Armenia | 2025 – 2029 (expected)

Bachelor's degree, Infocommunication Technologies and Communication Systems (full-time, 2nd year)

College of Programming and Cybersecurity, RTU MIREA, Moscow, Russia | 2018 – 2023

Diploma, Infocommunication Networks and Communication Systems

- Thesis: Design of a Local Area Network for the First Structural Division of JSC "Stelmakh Polyus Research Institute" with Implementation of Print and Document Services.
- Completed coursework on fiber-optic networks and structured cabling: fusion splicing (Fujikura), splice closures, optical distribution cabinets, OTDR testing.
- Passed the WorldSkills-standard demonstration exam: installation of an optical distribution cabinet and a splice closure.

RTU MIREA, Moscow, Russia | 2021 – 2022

Vocational qualification: Cable Line Installation and Repair Electrician

PUBLICATIONS

Design of a Fiber-Optic Backbone Based on XG-PON and XGS-PON Technologies for Providing Multiservice Access — A. Kasian, E. Sivolenko. International Student Annual Scientific Conference, Russian-Armenian University, Yerevan, April 2026. Proceedings Vol. I, pp. 41–50 (ISBN 978-9939-67-421-6).

- Compared access network architectures and justified a passive optical network (PON) design, identifying XGS-PON (symmetric 10 Gbps) as the preferred technology.
- Calculated the optical link budget, accounting for fiber attenuation and splice, connector, and splitter losses, and confirmed the technical feasibility of the network design.

- Modeled the network in Cisco Packet Tracer: VLANs with 802.1Q trunking, inter-VLAN routing, static routing, DHCP, and IP telephony (Cisco CME) for data and voice services.

SKILLS

- **Networking:** TCP/IP, LAN design, VLANs (802.1Q), inter-VLAN routing, static routing, DHCP, IP telephony (Cisco CME), Cisco Packet Tracer, D-Link routers and switches, Windows Firewall
- **Fiber Optics & Cabling:** PON design (GPON, XG-PON, XGS-PON), optical link budget calculation, fusion splicing (Fujikura), fiber cable preparation, splice closure and optical cabinet installation, basic OTDR testing, twisted-pair cabling, RJ-45 termination
- **Systems:** Windows 10/11, Ubuntu Linux (daily use), Windows Server (Active Directory, DNS, DHCP — lab experience), VirtualBox, laptop hardware repair
- **Electronics & IoT:** ESP32 (C3, S3), ESP8266, Arduino IDE, KiCad, Altium Designer, Proteus
- **Software:** Android app development, HTML5, CSS3, JavaScript, AI-assisted development

LANGUAGES

Armenian — Native · Russian — Native · English — Elementary (A2)