

# LEPL - David Aghmashenebeli National Defence Academy of Georgia



#### Personal Information

Name/surname: Nani Arabuli

#### Education

- 1990-1995. Georgian Technical University Faculty of Information Technology. (Diploma Engineer Technician)
- 1995-2000. Georgian Technical University : Postgraduate Study. Faculty of Information Technology.
- **2004.** Georgian Technical University : Doctor of Technical Sciences.

## Workplace, experience

- 2025 present. Higher Education Authorization Expert National Center for Quality Development,
- 2022 November 2024 May. Dean of IT School Alte University.
- **2013 present.** Accreditation Expert Information Technologies, National Center for Quality Development of Education.
- **2009 present.** CISCO International Trainer, International Network Academy.
- **2011 present.** Associate Professor, National Defense Academy.
- **2021-present.** Professor, Georgian Technical University.
- **2005-2020.** Associate Professor, Georgian Technical University,
- 2003 present. Database Administrator. Programmer, Georgian Women's Employment Promotion NGO "Amagdari".
- 2006 2008. Coordinator, Information Technology Professional Training Center.
- 1999 2005. Computer Center Engineer-Programmer, Georgian Technical University.
- 1999 2005. Senior Teacher, Georgian Technical University.

# Courses and trainings taken

- **27-31 October 2025.** Workshop "Lesson planning and Curriculum Design". NATO defence education enhancement program and the partnership for peace consortium.
- 17-21 March. 2025. Workshop "Assessment and Active Learning". ". NATO military development program.
- **13.02.2025.** "Responsible Conduct of Research Research Integrity and Ethics in Georgian Universities (ETHICS)" within the framework of the Erasmus+ project. Education Quality Development Center.
- 15-19 Jule. 2024. Workshop "Student Oriented Active learning methods". ". NATO military development program
- **February 7-9, 2024**. Center for the Development of Educational Quality. Training for Education Experts.
- 11.7.2023. Profformance+ Thematic Webinar | Impact and mission with and for society. DZS I Czech National Agency for International Education and Research.
- 18-21 September. 2023. CCSA Cyber Security Train the Trainer course. Checkpoint SecureAcademy. Israel.
- **8 August 2023**. EU4Digital | ICT Innovation online session The role of the private sector in start-ups ecosystem boosting.
- 2023-08-01 2023-08-03. Workshop "Critical Thinking", NATO Military Development Program.

- **2023-07-05 2023-07-07**. Workshop "Graduate Programs Development in International Studies", Ministry of Defence of Georgia, NATO Military Development Program.
- 2023-06-12 2023-06-16. Continuing Education IPD Week, Cisco Networking Academy.
- 2023-05-02. IPD Week Technical Session CCST Cybersecurity Curriculum Webinar, Cisco Netacad.
- 2023-03-28. EU Project PROFFORMANCE+ Student-Centred Course Design ("teaching methodology").
- **2022-01-26.** National Center for Educational Quality Enhancement Development of Quality Assurance System in Higher Education.
- **2021-01 2021-02.** Training EC-Council Certified Security Specialist v9, New Horizons Computer Learning Center (ToT Certificate).
- 2020-06-09. Cisco Networking Academy Instructor Professional Development Week.
- 2019-11. Training Evaluation of Doctoral Programs, National Center for Educational Quality Enhancement.
- **2019-12.** Training Accreditation Process, Standards and Procedures, National Center for Educational Quality Enhancement.
- **2018-05.** GRENA Internet of Things Professional Training Course.
- **2018-02 2018-02.** Iowa State University & GTU Professional Development Center Teaching and Learning Program.
- **2018-02-05 2018-02-08.** NATO DEEP Georgian Faculty Development Program Workshop (National Defense Academy).
- 2014-02. NATO DEEP National Georgian Educators' Workshop.
- **2013-07 2013-07.** NATO DEEP National Georgian Educators' Workshop Assessment for Active Learning and Basic Curriculum.
- **2009-02 2009-03**. GTU Professional Development Center & Iowa State University Modern Teaching Methodologies.
- 2008-12 2009-02. Cisco Networking Academy, San Jose (USA) CCNA Exploration 5.0 Trainer Certificate.
- 2006-08 2006-09. Cisco Networking Academy, Baku (AzNet Project) Fundamentals of UNIX.

## Knowledge of languages

Georgian, English, Russian

# computer programs

Windows XP, Linux, MS Word, MS Excel, MS Access, Power Point, MS Outlook, Adobe Photoshop, Page Maker, Corel Draw, HTML, CSS, Java Script, Front Page, Macromedia Flesh, Macromedia DreamViewer, MS Sql, C#, T-Sql, Visual Basic, CCNA

## Scientific papers published in local journals (Last 10 years)

Number of Publications: 50+

#### Scientific papers published in international journals (Last 10 years)

- **2025-10-06 2025-10-07**. "Information Technology Systems for Military Unit Management" Proceedings: "Modern Challenges and Achievements in Information and Communication Technologies 2025". Status: Accepted for publication.
- 2024. AI Algorithms for Dynamic Bandwidth Management in Wireless Networks. Proceedings of IEMTRONICS2024
  International IoT, Electronics and Mechatronics Conference, Volume 2, Springer, pp. 1–10.
- **2024**. Analysis of Cybersecurity Challenges in the Context of Modern Military Conflicts. National Defense Academy Papers. DOI: 10.61446/pa.2.2024.8417.

- **2024**. Mathematical Model for Improving Secure Communication and Efficiency in WANET Network. Defence & Science, ISSN 2720-8710, E-ISSN 2960-9658. DOI: 10.61446/ds.3.2024.8480.
- 2022. Analysis of Routing Protocols in Military Networks. NDADSP Defence & Security Publications.
- **2022**. Analysis of a Model for Detecting and Preventing Vulnerabilities in Dynamic Networks. AUTOMATED CONTROL SYSTEMS, No. 1(33).
- **2021**. Energy Efficiency and Reliability of MANET. GTU Automated Control Systems, Vol. 2 No. 1(32), pp. 107–111.
- **2019**. IoT Applications in the Military. NDADSP Defence & Security Publications. Online ISSN 2587-4837 | Print ISSN 1512-0708.
- 2017. Modern Methods of Cryptographic Attack. National Defense Academy, Proceedings, pp. 36–38.
- **2016**. Creation of World Standards Educational System as One of the Main Factors of Sustainable Development of the Country. National Defense Academy, Proceedings N1(2), pp. 151–158.
- **2015**. Network Design and Arrangement for Wireless and Fiber-Optical Broadband Access Network. International Periodical Scientific Journal "INTELECT", N1(51). ISSN 1512-0333.
- 2015. The Right Approach to the Safety of Wi-Fi Networks. National Defense Academy, Proceedings N1, pp. 97–101.
- **2015**. Principles and Advantages of Wireless Network Communication National Defense Academy, Proceedings N1, pp. 117–122.

# Reports made in local scientific conferences (Last 10 years)

- **2025**. National Defence Academy. Scientific-Practical Conference "Global Challenges of Modernity". Topic: Dynamics and Trends of Development of Informatics and Telecommunications Technologies.
- 2023. On a Mathematical Model of Information Warfare. National Defence Academy. Scientific Conference.
- 2023. Green Energy for Sustainable Development. National Defence Academy. Scientific Conference.
- **2021**. International Scientific-Technical Conference "Applications and Data Security Created to Combat the Pandemic" National Defence Academy.
- **2021**. The International Scientific-Technical Conference "Information Society and Technologies for Intensification of Education".
- **2018**. Modern Methods of Cryptography in Information Security. David Agmashenebeli National Defence Academy of Georgia. Scientific Conference Dedicated to the 100th Anniversary of Georgia's Independence.
- 2018. How IOT will change our future. Member of the Organizing Committee of the International Conference
  "Digital Technologies: Present and Challenges" dedicated to the 90th anniversary of Professor K. Kamkamidze of the Faculty of Information and Communication Technologies of the Georgian Technical University.

# Reports made in international scientific conferences (Last 10 years)

- 2025. International Scientific and Practical Conference "Modern Challenges and Achievements in Information and Communication Technologies 2025". Organized by the Georgian Technical University, Batumi Shota Rustaveli State University, Dresden University of Applied Sciences (HTW) (Germany) and Bielsko-Biała University (Poland). "Information and Technological Systems for Managing Military Units".
- **2024.** AI Algorithms for Dynamic Bandwidth Management in Wireless Networks. International IOT, Electronics and Mechatronics Conference 2024, Imperial College London, United Kingdom
- **2023.** Verification Algorithm for Remote Monitoring Systems of Industrial Machine. International Congress on Contemporary Sciences. 5-7 May. Aksaray, Turkiye. Aksaray Universitu and IKSAD Institute.

# Other Participation in scientific research projects (Last 10 years)

## Monography

 2024. Cyber security, challenges, concepts and practices. With the support of Shota Rustaveli National Science Foundation.

#### **Books**

- 2023. Manual National Defense Academy (Comp. Technologies for Minorities).
- 2020. Collection of scientific reports "New challenges of cyber security in the global information space". editor.
  ISBN 978-9941-8-2048-9
- 2019. Information technologies. ISBN 978-9941-27-194-6.

## **Projects**

- **2024-present**. Manager. Clustering task in military dynamic networks, productivity assessment and analysis. David Agmashenebeli National Defence Academy.
- 2025 February. Coordinator. Within the framework of the Professional Skills Agency subprogram "Promotion of Extracurricular Activity Development", the Student Olympiad in the specialty "Information Technology Support", among students/pupils of vocational colleges/schools.
- 2024-2025. Manager. "Popularization of Science and Stimulation of Scientific Research in Schools of Mountainous Regions of Georgia" (MS) State Scientific Grant Competition. Project code № MS-24-080. "A New Era of Science Using Artificial Intelligence for Discoveries and Progress".
- 2024-2025. Field expert in the direction of smart devices. Iakob Gogebashvili Telavi State University, International Project of the Competitive Innovation Fund (CIF) "Integrating Innovative Agrotechnologies into Educational Programs".
- April 17-20, 2024. Kaspi Technology Week. USAID, GITA. Trainer in the field of IoT and AI.
- 2024. International Techathon "Teens in AI 2024" organizer and representative in Georgia;
- **2023**. Project "EmpowerHER STEM" in which socially vulnerable girls aged 15-18 participated. Trainer "Smart Homes and Devices". Funded within the framework of the FLEX program American Councils grant project.
- 2023. WorldSkills Georgia Georgian National Competition 2023 Field Expert.
- **2023-2024.** "Cybersecurity Challenges, Concepts and Practice". Shota Rustaveli National Science Foundation. Winner of the grant competition on publishing state scientific grants. Manager.
- **2023**. Project "Mestia-Chuberi Technology Week" GITA. Trainer on the topic "Managing smart network devices". September 7-10. (USAID)

https://www.facebook.com/USAIDResilientCommunitiesProgram/videos/336063555481944

- 2023. Project "Zugdidi Technology Week" GITA. Trainer on the topic "Managing wireless smart devices". July 23-28. (USAID)
- 2023. Project "Digital Security at School" Trainer on cybersecurity and cyber hygiene. February
- 2023. "Technovation Girls Sakartvelo" Member of the Competition Commission. May-June
- 2023. Youth for Sustainable Development Participant. Trainer Data Protection from Cyber Attacks. GITA Gurjaani (USAID)
- 2023. Digital Citizenship at School ALTE & STEM. Participant. Trainer on "Fundamentals of Cybersecurity".
- 2021-2023. Georgian National Defense Academy "Research on Parallel Programming Algorithms for Multidimensional Problems". Participant.

- 2020-2021. World Bank, Ministry of Education, Science, Culture and Sport of Georgia (MoESCS), National Center for Education Quality Enhancement (NCEQE) and Teacher Professional Development Center (TPDC) Strengthening Teacher Quality in Vocational Education and Training. IT Sector Expert. Development of professional IT programs; Development of assessment tools using modern approaches and methodologies in information technology modules; Training of trainers in the field of vocational education (ToT).
- 2018-2019. Shota Rustaveli National Science Foundation. Project Manager. New challenges of cybersecurity in the global information space. Organization and conduct of a seasonal school on the topic of cybersecurity.
- 2018-2019. USAID ZRDA Creation/development of electronic training programs. Project Manager.trainings.gov.ge
- 2016. Mtskheta-Mtianeti Regional Development Agency. Member of the Education Commission (http://greenregion.weebly.com/) the commission takes care of the dissemination of knowledge in our society using Western experience, methodologies and other means in education.
- 2016. Millennium Challenge Corporation Georgia. Small Grants Project: "Creation and Implementation of an Electronic Learning Course in the General Module of Information Technologies" Project Coordinator.
- 2012-2013. European Project 516613-TEMPUS-1-2011-BE-Tempus-jPHES, Project Participant, "Building Capacity for University-Enterprise Partnerships Towards Competency Based Training in Armenia, Georgia and Ukraine". The project serves to create an innovation center at GTU and universities in other participating countries, the goal of which will be to develop ties between universities and business companies.
- 2011. Promoting employment of victims of gender and sexual violence, refugee and displaced women, January / 2011 present Main developer of the software package and database administrator, creation and administration of a computer database of beneficiaries within the framework of the project on promoting employment of victims of gender and sexual violence, refugee and displaced women

### Additional information

- 2025. Expert in the field. Georgian National Competition "WorldSkill 2026".
- **2024**. Expert in the field from Georgia WorldSkills 2024 Lyon Expert Web Technology. 5-16 September 2024. Lyon.
- 2023. Representative, organizer (ambassador) of the Teens in AI international project in Georgia since 2023.
- 2022. Second degree medal for impeccable service in the system of the Ministry of Defense of Georgia.
- **2018**. Instructor Years of Service For FIVE YEARS of active participation and service in Cisco Networking Academy®.
- 2021. Member of the Dissertation Council of Samtskhe-Javakheti University since 2021
- Supervisor of four doctoral students at GTU
- Supervisor of three candidate scientific theses
- Supervisor of 25 master's theses from 2004 to present
- Supervisor of 20 bachelor's theses
- 2004-2006. Member of the Association of Young Scientists (Georgian Technical University)
- **2010**. Trainer. Certificate of Achievement. Georgian Technical University. Coach Honorable Mention. ACM ICPC 2010-2011. North Eastern European Regional Contest.