Model F17 - Memoriul științific al studentului doctorand

MEMORIU ȘTIINȚIFIC
Drd. Cezar-Gabriel DUMITRACHE

Studii de doctorat

Perioada: 2020 - 2025
Conducător științific: Conf.dr.ing. Constantin Viorel MARIAN
Domeniu: Inginerie Electronică Telecomunicații și Tehnologii Informaționale
Titlul tezei de doctorat: Contribuții în securizarea IoT utilizând sisteme inteligente de securitate

Activitate științifică

A. Lista de lucrări științifice (articole în reviste sau volume)

1. Cezar-Gabriel Dumitrache, Gabriel Predusca , Flavia Maria Barbu, Mihnea Neferu, Constantin Viorel Marian, „*Wireless Authentication System for Internet of Things Using FreeRadius and Blockchain*", Revue Roumaine des Sciences Techniques. Série Électrotechnique et Énergétique, nr. 70(4), 2025;
2. Cezar Gabriel Dumitrache, Anghelescu Petre, „*Design and Implementation of a Secure Communication Architecture for IoT Devices",* Journal of Sensor and Actuator Networks, nr. 14(4), 64, 585–590, 2025;
3. Cezar-Gabriel Dumitrache, Gavriloaia Gheorghe, Predușcă Gabriel, Gavriloaia Mariuca-Roxana, „Device For Securing IoT In The Wireless Environment", Proceedings of the International Conference on Electronics, Computers and Artificial Intelligence (ECAI), 2024;
4. Cezar-Gabriel Dumitrache, Cosmin Alexandru Ghita, Gabriel Predusca, Liana Denisa Circiumarescu, Nicoleta Angelescu, „*The Efficiency of Routing Protocols, OSPF and EIGRP, Using Graphical Network Simulator-3 and Python*", *Proceedings of the International Conference on Systems, Theory, Control and Computing* (ICSTCC), 2024.
5. Cezar-Gabriel Dumitrache, Gabriel Predusca, Gheorghe Gavriloaia, Nicoleta Angelescu, Denisa Circiumarescu, „*Comparative analysis of routing protocols using GNS3, Wireshark and IPerf3*", *Proceedings of the International Conference on Electronics, Computers and Artificial Intelligence (ECAI)*, România, 2022.
6. Cezar Gabriel Dumitrache, G. Predusca, L. D. Circiumarescu, N. Angelescu, and D. C. Puchianu, "*Comparative study of RIP, OSPF and EIGRP protocols using Cisco Packet Tracer*," in 2017 5th International Symposium on Electrical and Electronics Engineering (ISEEE), Galati: 2017.
7. Andrei Frâncu, Gabriel Predușcă, Liana Denisa Cîrciumărescu, Nicoleta Angelescu, Dan Constantin Puchianu, Cezar-Gabriel Dumitrache, „*Examining Ip Network Routing Protocols With Packet Tracer And Cisco Equipment*", Scientific Bulletin of the Electrical Engineering Faculty SCIENDO Nr.1 (52), 2025.
8. Stanescu Cristian, Predusca Gabriel, Circiumarescu Denisa, Angelescu Nicoleta, Puchianu Dan, Cezar-Gabriel Dumitrache, „*Analysis of web traffic using MPLS technology*", Proceedings of the International Symposium on Electronics and Telecommunications (ISETC), 2022.
9. Gabriel Predușcă, Denisa Circiumarescu, Cezar-Gabriel Dumitrache, Cristian Stănescu, „*Analysis of a Fiber Optical Link using Octave*", Scientific Bulletin of the Electrical Engineering Faculty SCIENDO, Nr.1 (46), 2022.
10. Cristian Stănescu, Gabriel Predușcă, Denisa Circiumarescu, Cezar-Gabriel Dumitrache, „*Determination of Distance in Fiber Optical Communications Networks*", Scientific Bulletin of the Electrical Engineering Faculty SCIENDO, Nr.1 (46), 2022.
11. Dan Constantin Puchianu, Cezar-Gabriel Dumitrache, Cristian Stanescu, Gabriel Predusca, Liana Denisa Circiumarescu, Nicoleta Angelescu, „*Evaluation of Service Assurance in MPLS Networks for Medical Image Transfer*", Proceedings of the International Conference on Electronics, Computers and Artificial Intelligence (ECAI), 2025.

B. Participări la conferințe/workshop-uri

1. International Conference on Electronics, Computers and Artificial Intelligence ECAI, Târgoviște, 27.06.2025
2. International Conference on System Theory, Control and Computing – ICSTCC, Sinaia, 12.10.2024
3. International Conference on Electronics, Computers and Artificial Intelligence ECAI, Iași, 28.06.2024
4. International Conference on Electronics, Computers and Artificial Intelligence ECAI, Ploiesti, 01.07.2022
5. International Symposium on Electrical and Electronics Engineering ISEEE, Galati, 22.10.2017;

C. Proiecte de cercetare științifică

1. Cercetări privind consolidarea rezilienței entităților critice la amenințări cibernetice.
2. Tehnici actuale de securitate împotriva atacurilor cibernetice.
3. Metode propuse pentru limitarea atacurilor cibernetica.
4. Simularea modului de securizare IoT în infrastructuri critice.

Student-doctorand

DUMITRACHE CEZAR-GABRIEL