

Autorul tezei de abilitare: Conf. Dr. Ing. Titus Constantin Bălan

Titlul tezei de abilitare: Cercetări în vederea integrării sistemelor de calcul și comunicatii

Domeniul: Inginerie Electronică, Telecomunicații și Tehnologii Informaționale

## LISTA DE LUCRĂRI

### LUCRĂRI RELEVANTE

1. **Balan, T.**, Balan, A. and Sandu, F., 2019. SDR implementation of a D2D security cryptographic mechanism. *IEEE Access*, 7, pp.38847-38855. - **zona Q2**  
<https://ieeexplore.ieee.org/abstract/document/8667414>
2. Sârbu, A., Bechet, A., **Balan, T.**, Robu, D., Bechet, P. and Miclăuș, S., 2019. Using CCDF statistics for characterizing the radiated power dynamics in the near field of a mobile phone operating in 3G+ and 4G+ communication standards. *Measurement*, 134, pp.874-887- **zona Q1**, categoria SCIENCE, conform cu Lista revistelor încadrate pe subdomenii, ordonate descrescător în funcție de factorul nenul de impact (IF), conform editiei [JCR 2017](#) din iunie 2018.  
<https://www.sciencedirect.com/science/article/abs/pii/S0263224118311631>
3. Machaka, V. and **Balan, T.**, 2022. Investigating Proactive Digital Forensics Leveraging Adversary Emulation. *Applied Sciences*, 12(18), p.9077. - **zona Q2**  
<https://www.mdpi.com/2076-3417/12/18/9077>
4. **Balan, T.**, Dumitru, C., Dudnik, G., Alessi, E., Lesecq, S., Correvon, M., Passaniti, F. and Licciardello, A., 2020. Smart multi-sensor platform for analytics and social decision support in agriculture. *Sensors*, 20(15), p.4127. - **zona Q2**  
<https://www.mdpi.com/1424-8220/20/15/4127>
5. Ungureanu, D., Toma, S.A., Filip, I.D., Mocanu, B.C., Aciobăniței, I., Marghescu, B., **Balan, T.**, Dascalu, M., Bica, I. and Pop, F., 2023. ODIN112–AI-Assisted Emergency Services in Romania. *Applied Sciences*, 13(1), p.639. - **zona Q2**; <https://www.mdpi.com/2076-3417/13/1/639>
6. Radu, F., Cotfas, P.A., Alexandru, M., **Balan, T.C.**, Popescu, V. and Cotfas, D.T., 2023. Signals Intelligence System with Software-Defined Radio. *Applied Sciences*, 13(8), p.5199. - **zona Q2**  
<https://www.mdpi.com/2076-3417/13/8/5199>
7. Fernoaga, V., Sandu, V. and **Balan, T.**, 2020. Artificial intelligence for the prediction of exhaust back pressure effect on the performance of diesel engines. *Applied Sciences*, 10(20), p.7370. - **zona Q2**;  
<https://www.mdpi.com/2076-3417/10/20/7370>
8. **Balan, T.**, Robu, D. and Sandu, F., 2017. Multihoming for mobile internet of multimedia things. *Mobile Information Systems*, 2017;  
<https://www.hindawi.com/journals/misy/2017/6965028/>
9. **Balan, T.**, Robu, D. and Sandu, F., 2016. LISP Optimisation of Mobile Data Streaming in Connected Societies. *Mobile Information Systems*, 2016.  
<https://www.hindawi.com/journals/misy/2016/9597579/>
10. Balan, A., **Balan, T.**, Cirstea, M. and Sandu, F., 2020. A PUF-based cryptographic security solution for IoT systems on chip. *EURASIP Journal on Wireless Communications and Networking*, 2020(1), pp.1-22.  
<https://jwcn-urasipjournals.springeropen.com/articles/10.1186/s13638-020-01839-6>

### TEZA DE DOCTORAT

**Bălan T.C.**, conducător științific prof.dr.ing. Sandu F., Titlu: “Soluții pentru calcul mobil în rețele eterogene”, domeniul: Inginerie Electronică și Telecomunicații.

<http://193.254.231.112:8280/liberty/OpacLogin?mode=BASIC&openDetail=true&corporation=UNITBV&action=search&queryTerm=uuid%3D%2282b0761ec1fee770013ab3ba00ad0405%22&operator=OR&url=%2Fopac%2Fsearch.do>

## CĂRȚI / CAPITOLE DE CĂRȚI

1. **Bălan T. C.**, Sandu F., Cap. 18 - "LTE Mobility Solutions at Network Level for Global Convergence", pp. 405-423, in monography "Fourth-Generation Wireless Networks: Applications and Innovations", editura IGI Global – S.U.A., 2010 – ISBN: 978-1-61520-674-2.  
<https://www.igi-global.com/chapter/lte-mobility-solutions-network-level/40711>
2. Buratti, C., Ström, E., Feltrin, L., Clavier, L., Gardašević, G., Blazek, T., Berbakov, L., **Balan, T.C.**, Orozco-Barbosa, L., Anton-Haro, C. and Rajchowski, P., 2021. IoT protocols, architectures, and applications. In Inclusive Radio Communications for 5G and Beyond (pp. 187-220). Academic Press.  
<https://www.sciencedirect.com/science/article/pii/B9780128205815000134>
3. Alexandru M., **Balan T.**, Morariu G., "Comunicatii mobile celulare si calcul mobil. Evolutia de la 3G la 4G", Editura Universitatii Transilvania din Brasov, 2015 isbn:978-606-19-0567-6  
<https://www.worldcat.org/title/128869545>  
<http://193.254.231.112:8280/liberty/OpacLogin?mode=BASIC&openDetail=true&corporation=UNITBV&action=search&queryTerm=uuid%3D%2282dbb10bc1fee77001f8a89000cdf37f%22&operator=OR&url=%2Fopac%2Fsearch.do>
4. **Bălan, T.C.** – coautor la monografia – „Advanced Technologies for e-Learning” - Ediția 2-a, Vol.1 – „Models, methods, tools and services. Access technologies” - Editura Lux Libris (cod CNCIS 201), Brașov , 2009, 220 pag., ISBN: 978-973-131-020-6, Secțiunea: “Technologies for the Integration of e-Learning Resources” – “Service Orientation in Education - Intelligent Networks for e-Learning / m-Learning” (13 pag.)  
[Advanced Tehnologies for e-Learning dovada.pdf](#)  
[Advanced Tehnologies for e-Learning - Middleware. Integration.pdf](#)
5. **Bălan, T.C.** – coautor la monografia “Rețele Inteligente de Telecomunicații”, secțiuni (3 capitole):Contextul Rețelelor Inteligente de Telecomunicații,Modelul de Procesare a Apelurilor, WebRTC - Comunicații prin web în timp real, Editura Universitatii Transilvania din Brasov, 2017, ISBN 978-606-19-0820-2  
[http://193.254.231.112:8280/liberty/opac/search.do?action=topicSearch&topic=title&operator=AND&mode=TITLE&=COSTACHE%2C%20Cosmin&=TITLE&=KEYWORD&queryTerm=RETELE%20inteligente%20de%20telecomunicatii%20%20Resursa%20electronica%20=&BROWS E&searchTarget=THIS\\_LIBRARY&operator=AND&includeNonPhysicalItems=true&catalogAuthors=Balan%20Titus&timeScale=ANY\\_TIME&limit=Toate&gmd=All&branch=Toate&resourceCollection=Toate&activeMenuItem=false#](http://193.254.231.112:8280/liberty/opac/search.do?action=topicSearch&topic=title&operator=AND&mode=TITLE&=COSTACHE%2C%20Cosmin&=TITLE&=KEYWORD&queryTerm=RETELE%20inteligente%20de%20telecomunicatii%20%20Resursa%20electronica%20=&BROWS E&searchTarget=THIS_LIBRARY&operator=AND&includeNonPhysicalItems=true&catalogAuthors=Balan%20Titus&timeScale=ANY_TIME&limit=Toate&gmd=All&branch=Toate&resourceCollection=Toate&activeMenuItem=false#)
6. **Bălan, T.** „Network Security and Perimeter Defence”, Editura Universitatii Transilvania isbn:978-606-19-1602-3, 2023  
<http://193.254.231.112:8280/liberty/OpacLogin?mode=BASIC&openDetail=true&corporation=UNITBV&action=search&queryTerm=uuid%3D%2209ea348cc0a870fd137b9dc600b400d5%22&operator=OR&url=%2Fopac%2Fsearch.do>
7. **Bălan, T.**, Popescu V, Fernoaga V., „Integrarea Sistemelor de Calcul si Telecomunicații – Aplicatii”, Editura Universitatii Transilvania isbn:978-606-19-1601-6 AnAparitie:2023 NrAutori:3 TotalNrPagini:126  
<http://193.254.231.112:8280/liberty/OpacLogin?mode=BASIC&openDetail=true&corporation=UNITBV&action=search&queryTerm=uuid%3D%2209cf78bcc0a870fd137b9dc600b3a229%22&operator=OR&url=%2Fopac%2Fsearch.do>
8. **Bălan, T.** – coautor la monografia „Comunicatii Mobile - Aplicatii - Reteaua de Baza”, Editura Universitatii Transilvania, isbn:978-606-19-1543-9, 2022  
<https://drive.unitbv.ro/s/b9c97953HKZozwr>

## ARTICOLE ÎN REVISTE

1. **Balan, T.**, Balan, A. and Sandu, F., 2019. SDR implementation of a D2D security cryptographic mechanism. *IEEE Access*, 7, pp.38847-38855. - **zona Q2**  
<https://ieeexplore.ieee.org/abstract/document/8667414>
2. Sârbu, A., Bechet, A., **Balan, T.**, Robu, D., Bechet, P. and Miclăuș, S., 2019. Using CCDF statistics for characterizing the radiated power dynamics in the near field of a mobile phone operating in 3G+ and 4G+ communication standards. *Measurement*, 134, pp.874-887- **zona Q1**, categoria SCIENCE, conform cu Lista revistelor incadrate pe subdomenii, ordonate descrescator in functie de factorul nenul de impact (IF), conform editiei [JCR 2017](#) din iunie 2018.  
<https://www.sciencedirect.com/science/article/abs/pii/S0263224118311631>
3. Machaka, V. and **Balan, T.**, 2022. Investigating Proactive Digital Forensics Leveraging Adversary Emulation. *Applied Sciences*, 12(18), p.9077. - **zona Q2**  
<https://www.mdpi.com/2076-3417/12/18/9077>
4. **Balan, T.**, Dumitru, C., Dudnik, G., Alessi, E., Lesecq, S., Correvon, M., Passaniti, F. and Licciardello, A., 2020. Smart multi-sensor platform for analytics and social decision support in agriculture. *Sensors*, 20(15), p.4127. - **zona Q2**  
<https://www.mdpi.com/1424-8220/20/15/4127>
5. Mocanu, B.C., Filip, I.D., Ungureanu, R.D., Negru, C., Dascalu, M., Toma, S.A., **Balan, T.C.**, Bica, I. and Pop, F., 2022. ODIN IVR-interactive solution for emergency calls handling. *Applied Sciences*, 12(21), p.10844. - **zona Q2**  
<https://www.mdpi.com/2076-3417/12/21/10844>
6. Ungureanu, D., Toma, S.A., Filip, I.D., Mocanu, B.C., Aciobăniței, I., Marghescu, B., **Balan, T.**, Dascalu, M., Bica, I. and Pop, F., 2023. ODIN112–AI-Assisted Emergency Services in Romania. *Applied Sciences*, 13(1), p.639. - **zona Q2**; <https://www.mdpi.com/2076-3417/13/1/639>
7. Radu, F., Cotfas, P.A., Alexandru, M., **Balan, T.C.**, Popescu, V. and Cotfas, D.T., 2023. Signals Intelligence System with Software-Defined Radio. *Applied Sciences*, 13(8), p.5199. - **zona Q2**  
<https://www.mdpi.com/2076-3417/13/8/5199>
8. Fernoaga, V., Sandu, V. and **Balan, T.**, 2020. Artificial intelligence for the prediction of exhaust back pressure effect on the performance of diesel engines. *Applied Sciences*, 10(20), p.7370. - **zona Q2**;  
<https://www.mdpi.com/2076-3417/10/20/7370>
9. **Balan, T.**, Robu, D. and Sandu, F., 2017. Multihoming for mobile internet of multimedia things. *Mobile Information Systems*, 2017;  
<https://www.hindawi.com/journals/misy/2017/6965028/>
10. **Balan, T.**, Robu, D. and Sandu, F., 2016. LISP Optimisation of Mobile Data Streaming in Connected Societies. *Mobile Information Systems*, 2016.  
<https://www.hindawi.com/journals/misy/2016/9597579/>
11. Balan, A., **Balan, T.**, Cirstea, M. and Sandu, F., 2020. A PUF-based cryptographic security solution for IoT systems on chip. *EURASIP Journal on Wireless Communications and Networking*, 2020(1), pp.1-22.  
<https://jwcn-urasipjournals.springeropen.com/articles/10.1186/s13638-020-01839-6>

## ARTICOLE PUBLICATE IN VOLUME ALE CONFERINȚELOR INTERNAȚIONALE

## ARTICOLE INDEXATE ISI WEB OF SCIENCE

Lista articolelor indexate WOS cu link-uri active la ISI WOS: <https://drive.unitbv.ro/s/Jt8PrSDGoQt5ysM>

1. **Balan, T.**, Zamfir, S., Robu, D. and Sandu, F., 2016, June. Contributions to content-based software defined networks. In 2016 International Conference on Communications (COMM) (pp. 159-162). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/7528338>
2. Zamfir, S., **Balan, T.**, Sandu, F. and Costache, C., 2016, June. Solutions for deep packet inspection in industrial communications. In 2016 International Conference on Communications (COMM) (pp. 153-158). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/7528337>
3. Nica, A., **Balan, A.**, Zaharia, C. and Balan, T., 2022. Automated Testing of GUI Based Communication Elements. In Online Engineering and Society 4.0: Proceedings of the 18th International Conference on Remote Engineering and Virtual Instrumentation (pp. 380-390). Springer International Publishing.  
[https://link.springer.com/chapter/10.1007/978-3-030-82529-4\\_37](https://link.springer.com/chapter/10.1007/978-3-030-82529-4_37)
4. Curpen, R., **Balan, T.**, Sandu, F., Costache, C. and Cerchez, C., 2014, May. Demonstrator for voice communication over LTE. In 2014 10th International Conference on Communications (COMM) (pp. 1-4). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/6866763>
5. Robu, D., Curpen, R., Ilie, D., **Balan, T.** (2021). Open Source Online Conference System for Industry Experts Participation in Education. In: Auer, M.E., Tsiatsos, T. (eds) Internet of Things, Infrastructures and Mobile Applications. IMCL 2019. Advances in Intelligent Systems and Computing, vol 1192. Springer  
[https://link.springer.com/chapter/10.1007/978-3-030-49932-7\\_4](https://link.springer.com/chapter/10.1007/978-3-030-49932-7_4)
6. **Balan, T.C.**, Robu, D.N. and Sandu, F., 2015, October. Ad-hoc lab computer network configuration using remote resources. In 2015 IEEE 21st International Symposium for Design and Technology in Electronic Packaging (SIITME) (pp. 393-396). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/7342360>
7. Sandu, F., Costache, C. and **Balan, T.**, 2015, October. Semantic data aggregation in heterogeneous learning environments. In 2015 IEEE 21st International Symposium for Design and Technology in Electronic Packaging (SIITME) (pp. 409-412). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/7342363>
8. Zamfir, S., **Balan, T.**, Sandu, F., Costache, C. (2016). Mobile Communication Solutions for the Services in the Internet of Things. In: Exploring Services Science. IESS 2016. Lecture Notes in Business Information Processing, vol 247. Springer  
[https://link.springer.com/chapter/10.1007/978-3-319-32689-4\\_47](https://link.springer.com/chapter/10.1007/978-3-319-32689-4_47)
9. Stanciu A, **Balan T.**, Sandu F. and Gerigan C., "Reconfigurable platform for embedded systems teaching," 2017 IEEE 23rd International Symposium for Design and Technology in Electronic Packaging (SIITME), Constanta, Romania, 2017  
<https://ieeexplore.ieee.org/abstract/document/8259946>
10. Costache C., Sandu F., **Balan T.**, Nedelcu A., Covei A."Business Integration of Industrial Communications with Cloud Computing", 10th International Conference on Communications, Bucharest, May 29-31, 2014  
<https://ieeexplore.ieee.org/abstract/document/6866764>
11. Timofte, A.G., Florin, R.A.D.U., Balan, A. and Balan, T.C., 2020, June. SDR-Based Platform for Processing the Images Transmitted Through the WLAN 802.11 a Protocol. In 2020 13th International Conference on Communications (COMM) (pp. 387-392). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/9141960>

12. Robu D., **Balan T.**, Stanciu A. and Sandu F., "SDR-assisted device-to-device communication in radio-congested environments," 2017 IEEE International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB), Cagliari, Italy, 2017, pp. 1-7  
<https://ieeexplore.ieee.org/abstract/document/7986145>
13. **Balan, T.**, Robu, D., Sandu, F., Balan, A. (2021). Building a Virtualized Cybersecurity Lab. In: Auer, M.E., Tsiatsos, T. (eds) Internet of Things, Infrastructures and Mobile Applications. IMCL 2019. Advances in Intelligent Systems and Computing, vol 1192. Springer  
[https://link.springer.com/chapter/10.1007/978-3-030-49932-7\\_95](https://link.springer.com/chapter/10.1007/978-3-030-49932-7_95)
14. Ilca, L.F., **Balan, T.** (2022). Purple Team Security Assessment of Firmware Vulnerabilities. In: Auer, M.E., Bhimavaram, K.R., Yue, XG. (eds) Online Engineering and Society 4.0. REV 2021. Lecture Notes in Networks and Systems, vol 298. Springer  
[https://link.springer.com/chapter/10.1007/978-3-030-82529-4\\_36](https://link.springer.com/chapter/10.1007/978-3-030-82529-4_36)
15. Ilca L. and **Balan T.**, "Windows Communication Foundation Penetration Testing Methodology," 2021 16th International Conference on Engineering of Modern Electric Systems (EMES), Oradea, Romania, 2021  
<https://ieeexplore.ieee.org/abstract/document/9484145>
16. Zamfir S., **Balan T.**, Iliescu I. and Sandu F., "A security analysis on standard IoT protocols," 2016 International Conference on Applied and Theoretical Electricity (ICATE), Craiova, Romania, 2016  
<https://ieeexplore.ieee.org/abstract/document/7754665>
17. Stanciu A, **Balan T.**, Gerigan C. and Zamfir S., "Securing the IoT gateway based on the hardware implementation of a multi pattern search algorithm," 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Brasov, Romania, 2017  
<https://ieeexplore.ieee.org/abstract/document/7975101>
18. Lesecq, S., Gougis, M., Gouze, E., Di Matteo, A., Alessi, E., Di Palma, V., Di Salvo, S., O'Riordan, A., Shao, H., Mouzakitis, G., **Balan T.** and Ponsardin, G., 2020, November. SARMENTI: in-situ real-time soil nutrients and gaseous emission measurement. In 2020 7th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE) (pp. 1-4). IEEE.  
<https://ieeexplore.ieee.org/document/9278984>
19. Anghel, D., **Balan, T.C.** (2022). Automation of IoT Based Services Using Digital Twin. In: Auer, M.E., Bhimavaram, K.R., Yue, XG. (eds) Online Engineering and Society 4.0. REV 2021. Lecture Notes in Networks and Systems, vol 298. Springer, Cham. [https://doi.org/10.1007/978-3-030-82529-4\\_35](https://doi.org/10.1007/978-3-030-82529-4_35)  
[https://link.springer.com/chapter/10.1007/978-3-030-82529-4\\_35](https://link.springer.com/chapter/10.1007/978-3-030-82529-4_35)
20. I. C. Parvan, G. Danciu and **T. Balan**, "Noise pollution monitoring using mobile crowd sensing and SAP analytics," 2021 16th International Conference on Engineering of Modern Electric Systems (EMES), Oradea, Romania, 2021, pp. 1-4, doi: 10.1109/EMES52337.2021.9484144.  
<https://ieeexplore.ieee.org/abstract/document/9484144>
21. Robu, D., Curpen, R., Ilie, D., **Balan, T.** (2021). Open Source Online Conference System for Industry Experts Participation in Education. In: Auer, M.E., Tsiatsos, T. (eds) Internet of Things, Infrastructures and Mobile Applications. IMCL 2019. Advances in Intelligent Systems and Computing, vol 1192. Springer, Cham. [https://doi.org/10.1007/978-3-030-49932-7\\_4](https://doi.org/10.1007/978-3-030-49932-7_4)  
[https://link.springer.com/chapter/10.1007/978-3-030-49932-7\\_4](https://link.springer.com/chapter/10.1007/978-3-030-49932-7_4)
22. I. L. Florin and **T. Bălan**, "Vulnerability Remediation in ICS Infrastructure Based on Source Code Analysis," 2020 19th RoEduNet Conference: Networking in Education and Research (RoEduNet), Bucharest, Romania, 2020, pp. 1-6, doi: 10.1109/RoEduNet51892.2020.9324845.  
<https://ieeexplore.ieee.org/document/9324845>
23. Curpen, R., **Bălan, T.**, Micloș, I.A. and Comănici, I., 2018, June. Assessment of signal jamming efficiency against LTE UAVs. In 2018 International Conference on Communications (COMM) (pp. 367-370). IEEE.

<https://ieeexplore.ieee.org/abstract/document/8484746>

24. Chitic, M., Machidon, O., Sandu, F., **Balan, T.** and Machedon-Pisu, M., 2014, September. Pattern encryption with cellular automata-A LabVIEW implementation on FPGA. In 2014 RoEduNet Conference 13th Edition: Networking in Education and Research Joint Event RENAM 8th Conference (pp. 1-6). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/6955296>
25. Sandu, F., Cserey, S., Szekely, I., Robu, D. and **Balan, T.**, 2008, May. Simulation of an advanced mobile communication network. In 2008 11th International Conference on Optimization of Electrical and Electronic Equipment (pp. 223-230). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/4602484>
26. Szekely, I., **Balan, T.**, Sandu, F., Robu, D. and Cserey, S., 2008, May. Optimization of GSM-UMTS core network for IP convergence in 4G through Mobile IPv6. In 2008 11th International Conference on Optimization of Electrical and Electronic Equipment (pp. 217-222). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/4602483>

#### ARTICOLE INDEXATE ÎN ALTE BAZE DE DATE INTERNAȚIONALE (BDI)

1. Ilca F. and **Balan T.**, "Phishing as a Service Campaign using IDN Homograph Attack" 2021 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2021 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM), Brasov, Romania, 2021  
<https://ieeexplore.ieee.org/document/9590028>
2. Acheampong, R., **Balan, T.C.**, Popovici, D.M. and Rekeraho, A., 2022, June. Security scenarios automation and deployment in virtual environment using ansible. In 2022 14th International Conference on Communications (COMM) (pp. 1-7). IEEE  
<https://ieeexplore.ieee.org/document/9817150>
3. Rekeraho A., **Balan T.**, Cotfas D., Cotfas P, R. Acheampong and C. Musuroi, "Sandbox Integrated Gateway for the Discovery of Cybersecurity Vulnerabilities," 2022 International Symposium on Electronics and Telecommunications (ISETC), Timisoara, Romania, 2022  
<https://ieeexplore.ieee.org/document/10010327>
4. Cazacu V., Sandu F., Iuga L., **Bălan T.C.**, "Distributed Real-Equipment Testing For The Mobile Communications Services", Proceedings of the 10th RoEduNet IEEE International Conference, Iași, Romania, 23-25 June, 2011, ISSN 2247-5443, pag. 30-36  
<https://ieeexplore.ieee.org/document/5993683>
5. Sandu F., Cserey S., **Bălan T. C.**, Romanca M., "Simulation-based UMTS e-Learning Software" - Workshop on Pervasive Technologies in e/m-Learning and Internetbased Experiments ("PTLIE") - Proceedings of "PETRA 2008" - the 1st International Conference on Pervasive Technologies Related To Assistive Environments – published by ACM (Association for Computer Machinery) - Athens, Greece, 15-19 May 2008 (organized by the University of Texas at Arlington, USA)  
[http://www.petrae.org/docs/Petra08\\_program.pdf](http://www.petrae.org/docs/Petra08_program.pdf)  
<https://dl.acm.org/doi/abs/10.1145/1389586.1389660>
6. Sandu F., Balbae S., Cserey S., **Bălan T. C.**, „Simulation of an Intelligent Network – Basic Call State Model Remote Laboratory”, Proceedings of the 2nd International Workshop on e-learning and Virtual and Remote Laboratories – Potsdam, Germany – February 2008, ISBN 978-3-940793-17-1, ISSN 1613-5652  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-84880278735&partnerID=MN8TOARS>
7. Sandu F., **Bălan T. C.**, Dovancescu S., Cserey S., „Service Orientation in Education – Intelligent Networks for eLearning / mLearning”, Proceedings of the 2nd International Workshop on e-learning and Virtual and Remote Laboratories – Potsdam, Germany – February 2008 BDI1: issn:16135652 isbn:978-3-940793-17-1  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-84880251955&partnerID=MN8TOARS>

8. P. Mihaila, **T. Balan**, R. Curpen, F.Sandu, "Network Automation and Abstraction using Python programming methods", 6th International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics, MACRO, Tg. Mures, Romania, 2017, De Gruyter BDI:DBLP issn:22470948 isbn:2247-0948  
<https://dblp.org/rec/conf/macro/MihailaBCS17>
9. R. Curpen, **T. Balan**, F. Socea, F. Sandu, "An analysis of the video capabilities of multiple antenna LTE networks", 6th International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics, MACRO, Tg. Mures, Romania, 2017, BDI:DBLP issn: isbn:978-973-1970-39-4  
<https://dblp.org/rec/conf/macro/CurpenBSS17>

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## ALTE LUCRĂRI / REALIZĂRI RELEVANTE

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### Alte lucrari

1. **Bălan.T.C.**, „Network Policy Function Virtualization via SDN and Packet Processing”- Review of the Air Force Academy – Brasov, Romania Vol XII, No 3(27)/2014, pag.73-78
2. O.M. Machidon, **T.C. Bălan**, R.Curpen, „Cloud Perspective on Reconfigurable Hardware”, Review of the Air Force Academy – Brasov, Romania Vol XII, No 2/2013, pag.23-28
3. Zamfir, S, **Balan, T.**; Sandu,F., “Automating Telecom Equipment fo Cloud Integration”, Review of the Air Force Academy, 2015, Vol XIII, No 3(30)/2015 BDI1: issn:20694733
4. I Ilescu, **T Bălan**, O Garoiu, S Zamfir, THIN CLIENT FOR REAL-TIME MONITORING OF COMMUNICATION INFRASTRUCTURE revista:Scientific Research and Education in the Air Force - AFASES issn:22473173 isbn:10.19062/2247
5. G Panga, S Zamfir, **T Balan**, IOT DIAGNOSTICS FOR CONNECTED CARS, revista:Scientific Research and Education in the Air Force - AFASES BDI1: issn:22473173, isbn:10.19062/2247
6. Curpen, R; Zamfir, S; Ilescu, I; **Balan, T.**; “PERFORMANCE ANALYSIS OF VoIP SERVICES IN LTE NETWORKS”, Bulletin of the Transilvania University of Brasov. Engineering Sciences. Series I, 2016
7. **Bălan T.C.**, Sandu F., Cazacu V., "Automated Remote Testing of Timing-over-Packet Synchronization for WCDMA and LTE Base Stations", Proceedings of the 8th International Conference on Remote Engineering and Virtual Instrumentation - REV 2011, Braşov, Romania, 29June-02July, 2011, ISBN 978-3-89958-555-1, pag 198-202
8. **T Bălan**, P Bîrlă, C Marcu, I Onceru, IoT WEB-SHARED VARIABLES–PUBLISH, COLLECT AND ANALYSIS IN THE CLOUD, Review of the Air Force Academy, pg. 65-70, 2017, issn:20694733 isbn:1842-9238
9. A.Draghici, **T.Balan**, REMOTE DETECTION AND TRACKING OF ALCOHOL CONCENTRATION FOR CAR DRIVERS, Scientific Research and Education in the Air Force - AFASES 2017, issn:22473173 isbn:2247-3173
10. **Bălan T. C.**, Sandu F., Cserey S., Cazacu V., “LTE eNodeB Demonstrator with Real and Simulated Interfaces” – Proceedings of the International Conference on Development and Application Systems (DAS 2010), 27-29 May 2010, Suceava, Romania, ISSN 1844-5039
11. **Bălan.T.C.**, Sandu F., Cazacu V., "Ontology Based Resource Management of Real and Emulated Telecom Systems”, Bulletin Of The Transilvania University of Brasov, SERIES I - Engineering Sciences, 2011, ISSN 2065-2119
12. Cazacu V., Szekely I., Sandu F., **Bălan.T.C.**, " Performance Metrics For The IT Services Portfolio”, Bulletin Of The Transilvania University Of Brasov, SERIES I - Engineering Sciences, 2011, ISSN 2065-2119

### Responsabil partener / director în un proiect național și patru internaționale:

- Responsabil partener și coordonator de proiect în ODIN 112 UEFISCDI PNIII Soluții - Contract 37SOL/2021, acronim ODIN112
- Responsabil partener și coordonator de proiect în proiectul Orizont 2020 SARMENTI- "Smart multisensor embedded and secure system for soil nutrient and gaseous emission monitoring", ID acord de grant: 825325

- Partener responsabil pentru proiectul "Implementation of a Voice Over IP Capability for NATO Wide Secure Voice Services: VOSIP", NATO Communication and Information Agency – N CIA, număr contract RFQ-C0-14137-VOSIP,
- Partener responsabil pentru proiectul "EGSE for Small Sat - A Baseline Verification and Validation", 2018-2019; Grant acordat de: ESA - Agenția Spațială Europeană, Apel: Romanian Incentive Scheme – Activity Type b) – Activități de cercetare-dezvoltare
- Responsabil partener și coordonator: Proiect Comisia Fulbright CS07 - Ofertă minigrant pentru dezvoltarea programelor orientate spre securitate cibernetică perioada:2022-2023
- Membru în echipele de cercetare în 6 proiecte internaționale
  - Management Committee member (substitute) in COST Action CA15104 – “Inclusive Radio Communication Networks for 5G and beyond (IRACON), 2016 – 2020, EU H2020
  - Management Committee member (substitute) in COST Action CA19121 - Network on Privacy-Aware Audio- and Video-Based Applications for Active and Assisted Living – GOOD BROTHER, 2020-2024
  - Member in COST Action CA20120 - Intelligence-Enabling Radio Communications for Seamless Inclusive Interactions (INTERACT) 2021-2025
  - EU FP7 Project 4WARD - Architecture and Design for the Future Internet (2008-2010), contract number: 216041
  - Leonardo da Vinci project: “Valorisation of an Experiment-based Training System through a Transnational Network Development – VET-TREND”, RO/06 / B / F / NT175014 – under the supervision of „Transilvania” University of Brasov (2006-2008)
  - European Union Program – eSTART “Program multi-regional de studii masterale in domeniul e-Activitati eSTART” POSDRU /86/1.2/S/54956
  - Reprezentant al Universității Transilvania cu rol de observator/consultant pentru proiectul QTSTRAT - Elaborarea strategiei pentru dezvoltarea capacităților naționale în domeniul comunicațiilor cuantice, Contract: 2 PS / 11.11.2021, Universitatea Babeș-Bolyai din Cluj-Napoca (UBB)

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