



**STUDENTS' INTERNATIONAL
CONFERENCE CERC 2018
June 20-22, 2018**



AWARDED PAPERS

1. COMMUNICATIONS & SIGNAL PROCESSING

1st Prize: **Rotariu Nicu-Florin***, *Wi-fi Communication Jamming System*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: **Despina-Stoian Cristina-Ioana**, *Implementation of AES Algorithm Using FPGA Platforms*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: **Ardeleanu Mihai-Adrian***, *Implementation of FPGA Modules for Real-Time Network Connection*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: **Liška David**, *Increasing the Range of Ground Communication*, University of Defence, Brno, Czech Republic

3rd Prize: **Petrucean Raul**, *The Target Architecture Design for a Regional Communications Center*, Military Technical Academy "Ferdinand I" of Bucharest

2. ROBOTICS AND AUTOMATION

1st Prize: **Vlad Florin-Toma**, *Multifunctional EOD Robot*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: **Groza Marius**, *Embedded Automotive System Using Can Interface and Remote Data Transmission*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: **Szmolnik Laura**, *The Possibilities of Modernizing Robotics through Nanotechnology*, National University of Public Service of Budapest, Hungary

3. ELECTRICAL ENGINEERING AND ELECTRONIC SYSTEMS

1st Prize: **Bucur Madalina**, *Three-Axis Search Coil Magnetometer*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: **Kaszyński Mateusz**, *Laboratory Stand for Generation and Processing of Echo Signals Imitating Objects Located in Acoustic Space*, Military University of Technology in Warsaw



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4. COMPUTER SCIENCE, MODELLING AND SIMULATION

- 1st Prize:** Pleșa Mihail, *Quantum Public Key Infrastructure*, Military Technical Academy "Ferdinand I" of Bucharest
- 2nd Prize:** Loțan Andrei, *Implementation of a Data Diode Using Raspberry PI Equipments*, Military Technical Academy "Ferdinand I" of Bucharest
- 3rd Prize:** Vasile Mihai, *Secure VoIP System Using TLS and SRTP*, Military Technical Academy "Ferdinand I" of Bucharest

5. ARMAMENT SYSTEMS

- 1st Prize:** Molcuț Paul-Narcis, *Study of the Influence of the Initial Propellant Charge Temperature on Ballistic Parameters of a 9x19 mm NATO Ammunition*, Military Technical Academy "Ferdinand I" of Bucharest
- 2nd Prize:** Munteanu Mihail, *Design of a Thermobaric Unguided Fin-Stabilised Reactive Projectile*, Military Technical Academy "Ferdinand I" of Bucharest
- 3rd Prize:** Dimitrov Miroslav, *Extending the Capabilities of Current Artillery Shells and Mines via the Creation of a Special Smart Fuse*, "Vasil Levski" National Military University, Bulgaria
- Special Prize:** Broscatan Alexandru, Malina Vlad, *The Emergence, Development and Utility of the Stinger Grenade*, "Nicolae Balcescu" Land Force Academy of Sibiu
- Special Prize:** Serban Ana-Maria, *The Influence of Small Arms Barrel Temperature on Fire Dispersion*, Military Technical Academy "Ferdinand I" of Bucharest

6. AEROSPACE AND MECHANICAL ENGINEERING

- 1st Prize:** Sava Cristina, *Software Interface for Analyzing Flight Parameters*, Military Technical Academy "Ferdinand I" of Bucharest
- 2nd Prize:** Bezubik Bartłomiej, *Spline Based Trajectory Planning for Aerial Targets*, Military University of Technology in Warsaw
- 3rd Prize:** Lupoiu Teodor, Visan Andrei, *Angle Estimation for Controlled Aircraft Landing-Fuzzy Type Simulations and Developments*, Politehnica University of Bucharest
- Special Prize:** Tăban Ovidiu-Gheorghe, *Designing a Tridimensional Autopilot System that Controls a Quadcopter*, Military Technical Academy "Ferdinand I" of Bucharest
- Special Prize:** Schiopu Madalin, *Determinarea modurilor proprii de vibrații a unei structuri de tip cadru prin Metoda Elementelor Finite*, Politehnica University of Bucharest



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**7. AUTOMOTIVE ENGINEERING AND MATERIALS
TECHNOLOGY**

1st Prize: Cioflan Radu-Cristian, Budurovici Stefan, *Structuri metalografice superficiale specifice tratamentelor termice cu laser*, Military Technical Academy "Ferdinand I"

2nd Prize: Coropetchi Iulian Constantin, *Parameters Analysis of Internal Combustion Engines with Electronic Control Conducted on Specialized Stands*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: Vasile Alexandru, *Analysis on the Performance Parameters of the Engine that Equippes the TR-85 M1 Tank if Change Are Made to the Air Intake System Elements*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: Noja Gabriel, Cionoiu Robert, *The Influence of Splintering Regimes Upon the Quality of Carved Surfaces*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: Negoita Stefan Leonard, *Materiale compozite in industria constructoare de automobile*, Military Technical Academy "Ferdinand I" of Bucharest

8. MILITARY ENGINEERING AND GEOMATICS

1st Prize: Voinea Eliza, *The Applicability of Geographic Information Systems in the Conduct of Military Operations in Urban Environments Using ArcGIS*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: Radinoiu Damian, *How Inverse Distance Weighted Interpolation Works*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: Meixnerová Karla, *Multitemporal Analysis of Lake Aral from 1994 to 2018*, University of Defence, Brno, Czech Republic

3rd Prize: Avram Alexandru Gabriel, *Explosively Driven Water Charge System*, Military Technical Academy "Ferdinand I" of Bucharest

Special Prize: Marocico Flavius, *Usage of EFP and JFC Against UXO*, Military Technical Academy "Ferdinand I" of Bucharest

9. CONSTRUCTIONS AND FORTIFICATIONS

1st Prize: Olariu Vlad-Gabriel, *Gaiesti Justice Prison*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: Ulea Alexandra Elena, *Designing a Block of Service Dwellings for 40 Apartments with Canteen and Underground Parking, in Iasi*, Military Technical Academy "Ferdinand I"

3rd Prize: Harbu Garofita, *Projection of an Office Building Located in Brasov*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: Popescu Alex-Georgel, *BIO Military Building*, Military Technical Academy "Ferdinand I" of Bucharest



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10. MILITARY SCIENCE

1st Prize: Mateescu Constantin*, *Bătălia de la Predeal (Octombrie 1916)*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: Nişulescu Alexandru, *Weather Conditions and Relief, Decisive Factors in the Conduct of Armed Conflicts*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: Bica Ruxandra-Maria, *Using Military-Related Disciplines in the Training of Future Police Officers*, "Alexandru Ioan Cuza" Police Academy of Bucharest

3rd Prize: Ionescu Rebeca-Elena, Poenaru Adelin-Florin. *The Influence of Climate Changes in Military Actions*, "Henri Coandă" Air Force Academy, Braşov

Special Prize: Chudobinski Tomasz, Krupska Karolina, *Progress of Techniques of Waging Conflict Over the Past 100 Years and Predictions in View of Closest Future*, Military University of Technology in Warsaw, Poland

11. ENGLISH

1st Prize: Botiş Horia-Răzvan, *Seeking Mastery. Awaken the Dimensional Mind*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: Munteanu Alexandru Constantin, *English as a Lingua Franca*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: Alexandru Victor-Costin, *Artificial Intelligence and its Moral Implications*, Military Technical Academy "Ferdinand I" of Bucharest

Special Prize: Dumitras Diana, *The Religious Dimension of Existence*, Military Technical Academy "Ferdinand I" of Bucharest

12. FRENCH

3rd Prize: Pokharel Alexandru, *L'intelligence artificielle qui ose nous provoquer*, Military Technical Academy "Ferdinand I" of Bucharest

13. MANAGEMENT

1st Prize: Botiş Horia-Răzvan, Feraru Dorin-Mădălin, *Fenomenul migraţionist. Studiu de caz: organizaţii militare*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: Chindriş Cristian, Dobrescu Ana-Maria, *Management - Conflictul organizational*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: Popovici Cristina, Costea Mihai, *Leadership*, Military Technical Academy "Ferdinand I" of Bucharest

Special Prize: Moraru Andrei-Cristian, Filimon Claudia-Elena, *Shadow within Us, "Mihai Viteazul"* National Intelligence Academy of Bucharest



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14. INTERCULTURAL COMMUNICATION

1st Prize: **Ilie Mihai Alexandru**, *Mikhail Kalashnikov: The Man Who Changed the Face of War*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: **Stanciu Maria Angelica**, *Body Language: Universal Language*, Military Technical Academy "Ferdinand I" of Bucharest

2nd Prize: **Cătinean Alexandra, Ursu Roxana**, *Me or the Society that Defines Me?*, Military Technical Academy "Ferdinand I" of Bucharest

3rd Prize: **Halca Ana**, *"All That Is Gold Does Not Glitter" – Silence: Perspectives on Non-Verbal Communication*, Military Technical Academy "Ferdinand I" of Bucharest

Special Prize: **Niculescu-Caranfil Ioana, Tifui Georgiana**, *The Traveler's Mindset and the Maps to the Future*, Military Technical Academy "Ferdinand I" of Bucharest

**15. PROFESSIONAL AND INTERCULTURAL DEVELOPMENT
THROUGH ERASMUS+ MOBILITIES**

1st Prize: **Busson Louis**, *Interior ballistic Phenomena Modelling through Zero-Dimensional*, ENSTA Bretagne of Brest, France

2nd Prize: **Cambria Antonino**, *The Importance of the Erasmus+ Mobility in the Study Path*, University of Torino, Italy

2nd Prize: **Jacquelin Nicolas**, *Study on Airfoil Optimization*, IUT "Paul Sabatier" of Toulouse, France

3rd Prize: **Morris Jonathan**, *Flow Analysis Over an Engine Nozzle Using CFD*, IUT "Paul Sabatier" of Toulouse, France

3rd Prize: **Scripcaru Răzvan, Nastasiu Dragoș**, *Exceeding Our Limits with AqEasy*, Military Technical Academy "Ferdinand I" of Bucharest

Special Prize: **Olar-Pop Alexandra-Mihaela**, *Application of Life-Cycle Assessment to a Military Ammunition*, Military Technical Academy "Ferdinand I" of Bucharest

**Military Technical Academy "Ferdinand I" of Bucharest
Vice-Rector for Interuniversity Relations
Chairman of Student's International Conference CERC 2018
Capt.cdr.Assoc.Prof.Eng. PhD
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