

## IARIA 2027 Events

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**The Triumvirate of Bespoke Diverse Hybridized Activation Functions, Adaptive Momentum, and Enhanced Entropic Wavelet Energy Spectrum Discernment for Higher Efficiency Detection of Artificial Intelligence-centric Attacks**

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**Keywords:** Artificial Intelligence Attack; Cyber; Smart Grid; Operational Technology; Adaptive Momentum; Second-Order Cone Programming Relaxations; Robust Convex Relaxations.

**Abstract:** Artificial Intelligence-centric Attacks (AIA) involving False Data Injection and False Command Injection have become increasingly sophisticated and have also involved Metamorphic Malware (MM), which leverages numerous transformation techniques to avoid detection. Accordingly, the use of AI defender systems requires continuous learning so as to decrease the advantage held by the high cycles of adaptation of attackers. This paper explored Exponential Linear Unit (ELU) Mish as a hybridized activation function that could avoid the cessation of learning when a substantive portion of the Neural Network (NN) neurons output zero and weights are no longer updated. The involved Robust Convex Relaxation (RCR)-based Convolutional NN capitalized upon its architecture by utilizing a Nonlinear Conjugate Gradient and Nesterov's Accelerated Gradient approach to Facilitate Momentum (AdM) so as to mitigate against oscillation, adaptive convergence, and achieve a more optimal global minimum. This more resilient foundational architecture could then better support a more accurate and expedient Entropic (Wavelet Energy Spectrum) Discernment (ED). Central to this was the use of Second-Order Cone Programming Relaxations to address certain nonconvex subproblems, which were inadvertently spawned via the utilized RCR framework. The described triumvirate approach constitutes the beginnings of a potential mitigation pathway, which exhibited some promise during the preliminary experimentation.

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### NextGen Congress

May 24, 2026 to May 26, 2026 - Venice, Italy

- **ICDS 2026**, The Twenty-First International Conference on Digital Society
- **ICSPH 2026**, The Eighteenth International Conference on Satellite and Space Communications
- **ICN 2026**, The Twenty-Fifth International Conference on Networks
- **ICONS 2026**, The Twenty-First International Conference on Systems
- **IMEDIA 2026**, The Eighteenth International Conference on Advances in Multimedia
- **IFSAO 2026**, The Nineteenth International Conference on Information Security and Robustness in Complex Systems and Applications
- **ICIR 2026**, The Nineteenth International Conference on Communications, Reliability, and Quality of Service
- **ALLDATA 2026**, The Twelfth International Conference on Big Data, Small Data, Linked Data, and Data Science
- **SOFTENG 2026**, The Twelfth International Conference on Software Engineering Advances and Trends in Software Engineering

### DigitalWorld 2026 Congress

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- **ICIR 2026**, The Nineteenth International Conference on Communications, Reliability, and Quality of Service
- **ALLDATA 2026**, The Twelfth International Conference on Big Data, Small Data, Linked Data, and Data Science
- **SOFTENG 2026**, The Twelfth International Conference on Software Engineering Advances and Trends in Software Engineering

### IARIA Congress 2026

July 05, 2026 to July 09, 2026 - Nice, France

- **DIGITAL 2026**, Advances on Digital Transformation
- **ISOTAI 2026**, The Third International Conference on AI-based Media Innovation
- **GPIMB 2026**, The Third International Conference on Generative Pre-trained Transformers Models and Beyond
- **AIMEDIA 2026**, The Second International Conference on AI-based Media Innovation

### NextTech 2026 Congress

September 01, 2026 to October 01, 2026 - Barcelona, Spain

- **UBICOMM 2026**, The Twenty-First International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies
- **ADVCOMP 2026**, The Twentieth International Conference on Advanced Computing and Applications in Sciences
- **SEMARP 2026**, The Twentieth International Conference on Emerging Security Information, Systems and Technologies
- **AMBIENT 2026**, The Sixteenth International Conference on Ambient Computing, Ambient Intelligence, and Technologies
- **PERFORMANCE 2026**, The Eighteenth International Conference on Performance, Safety and Robustness in Complex Systems and Applications
- **INNOV 2026**, The Sixteenth International Conference on Performance, Safety and Robustness in Complex Systems and Applications
- **AI&S 2026**, The Third International Conference on AI-based Systems and Services

### TechWorld 2026 Congress

September 27, 2026 to October 01, 2026 - Barcelona, Spain

- **EXPLAINABILITY 2026**, The Third International Conference on Explainability
- **SCALABILITY 2026**, The Third International Conference on Systems Scalability and Expandability
- **VEHICULAR ANALYTICS 2026**, The Twentieth International Conference on Vehicular Systems
- **WIRELESS ANALYTICS 2026**, The Third International Conference on Wireless and Telecommunications

### SecSys 2026 Congress

October 25, 2026 to October 29, 2026 - Lisbon, Portugal

- **PANDEMICS ANALYTICS 2026**, International Conference on Pandemics Analytics
- **PREDICTION SOLUTIONS 2026**, International Conference on Prediction Solutions for Technical and Social Systems
- **SOCIETY TRENDS 2026**, International Conference on Technical Advances and Human Consequences
- **MODERN SYSTEMS 2026**, International Conference on Modern Systems Engineering Solutions
- **AVIS 2026**, The Second International Conference on AI-based Intelligent Autonomous Vehicles and Internet of Things for Critical Services

### NetWars 2026 Congress

October 25, 2026 to October 29, 2026 - Lisbon, Portugal

- **SENSORCOMM 2026**, The Twentieth International Conference on Sensor Technologies and Applications
- **SENSORDEVICES 2026**, The Seventeenth International Conference on Sensor Device Technologies and Applications
- **SECURWARE 2026**, The Twentieth International Conference on Emerging Security Information, Systems and Technologies
- **AFIN 2026**, The Eighteenth International Conference on Advances in Future Internet
- **CENICS 2026**, The Nineteenth International Conference on Circuits, Electronics and Micro-electronics
- **QCOMM 2026**, The Twentieth International Conference on Quantum, Nano/Bio, and Micro Technologies
- **FASO 2026**, The Twelfth International Conference on Fundamentals and Advances in Software Systems Integration
- **GREEN 2026**, The Eleventh International Conference on Green Communications, Computing and Technologies
- **HEALTHINFO 2026**, The Twelfth International Conference on Informatics and Relative Technologies for Health-Care, Medical Support and Wellbeing

### SustainableDigitalization 2026 Congress

October 25, 2026 to October 29, 2026 - Lisbon, Portugal

- **COCE 2026**, The Third International Conference on Technologies for Marine and Coastal Ecosystems
- **CSRF 2026**, The Third International Conference on Sustainable and Regenerative Farming
- **CADAT 2026**, The Third International Conference on Accessible Digital Agriculture Technologies
- **CEEL 2026**, The Second International Conference on Global Environmental Ecosystem Equilibrium

### DataSys 2027 Congress

March 01, 2027 to March 11, 2027 - Barcelona, Spain

- **AICT 2027**, The Twenty-Third International Conference on Artificial Intelligence and Computing
- **ICIM 2027**, The Twenty-Second International Conference on Internet and Web Applications and Services
- **ICWIP 2027**, The Twenty-Second International Conference on Web Intelligence, Monitoring and Protection
- **SMARTHEALTH 2027**, The Twentieth International Conference on Smart Health, Telemedicine, and Social Medicine
- **IMINE 2027**, The Seventeenth International Conference on Advances in Information Mining and Management
- **INFOCOMP 2027**, The Twentieth International Conference on Advanced Computing and Applications in Sciences
- **MOBILITY 2027**, The Seventeenth International Conference on Mobile Services, Resources, and Users
- **SPWID 2027**, The Twentieth International Conference on Smart People, Wearable and Disability-Implantable and Assistive Technologies
- **ACCSE 2027**, The Twelfth International Conference on Advances in Computing, Communications and Services

### ComputationalIntelligence 2027 Congress

March 07, 2027 to March 11, 2027 - Barcelona, Spain

- **SECURE COMPUTATION 2027**, The Nineteenth International Conference on Advanced Secure Computing
- **CLOUD COMPUTING 2027**, The Twentieth International Conference on Cloud Computing, Tools, and Informatics for Cloud Computing
- **FUTURE COMPUTING 2027**, The Nineteenth International Conference on Future Computing, Computational Technologies and Applications
- **COGNITIVE 2027**, The Nineteenth International Conference on Advanced Cognitive Technologies and Applications
- **ADAPTIVE 2027**, The Twentieth International Conference on Adaptive and Self-Adaptive Systems and Applications
- **CONTENT 2027**, The Nineteenth International Conference on Creative Content Technologies
- **PATTERNS 2027**, The Nineteenth International Conference on Patterns and Machine Learning
- **COMBINATORIAL 2027**, The Eighteenth International Conference on Combinatorial Logics, Algebra, Programming, and Applications
- **BUSTECH 2027**, The Seventeenth International Conference on Business Intelligence and Technology
- **AVIA 2027**, The Fourth International Conference on Artificial Intelligence and Immersive Virtual Reality
- **CROSSSEC 2027**, The Second International Conference on Cross-Domain Security in Distributed, Intelligent and Critical Systems

### NextComm 2027 Congress

April 18, 2027 to April 22, 2027 - Lisbon, Portugal

- **ICDT 2027**, The Twenty-Second International Conference on Digital Telecommunications
- **SEACOMM 2027**, The Nineteenth International Conference on Advances in Satellite and Space Communications
- **ICL 2027**, The Twenty-Sixth International Conference on Networks
- **ICONS 2027**, The Twenty-Second International Conference on Systems
- **IMEDIA 2027**, The Nineteenth International Conference on Advances in Multimedia
- **PESARO 2027**, The Twentieth International Conference on Performance, Safety and Robustness in Complex Systems and Applications
- **CTRQ 2027**, The Twentieth International Conference on Communications, Reliability, and Quality of Service
- **ALLDATA 2027**, The Thirteenth International Conference on Big Data, Small Data, Linked Data, and Open Data
- **SOFTENG 2027**, The Thirteenth International Conference on Software Engineering Advances and Trends in Software Engineering

### DigitalWorld 2027 Congress

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