

CALL FOR PAPERS

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Antioquia



Financial Chair:

Oscar Javier Suarez Sierra,
Universidad de Pamplona
María Camila Moreno,
Universidad de Pamplona

Contact:

oscar.suarez@unipamplona.edu.co
doriuela@ieee.org
www.2026.ieee-colicaci.org

IEEE Computational Intelligence Society Colombian Chapter and IEEE Colombia Section have chosen **Bucaramanga** city as the venue for the **IEEE Colombian Conference on Applications of Computational Intelligence - CoIACACI 2026**. Like the previous versions, the conference seeks to become the most important event in computational intelligence and related fields in Colombia, Andean and Latin American region, and other countries around, putting together academic, scientific, and industry.

During the past decade, CoIACACI has gained national and international recognition for its potential to receive contributions from important cities in Latin America. This **ninth edition** pretends to be a hub for the CI area, sharing knowledge and networks about the direct applications in our context.

We hope that local academy and industry will take active participation in CoIACACI 2026. Papers will be reviewed by an international technical committee under the IEEE standard procedure and accepted papers must be presented in oral session. This process is mandatory for the paper to be published in the conference proceedings (IEEE Xplore database, including ISBN).

TOPICS

We encourage the submission of original, unpublished research focused on (but not limited to) the following topics of interest:

NEURAL NETWORKS AND LEARNING MACHINES

Cognitive models
Neural control and planning
Self-organization
Deep learning
Neural networks theory
Bayesian networks
Bayesian learning and approximate inference
Kernel methods
Generative models
Information theoretic learning
Reinforcement learning
Feature extraction and manifold learning
Data mining
Pattern recognition and machine learning

FUZZY SETS AND SYSTEMS

Fuzzy control, robotics, sensors, hardware and architectures
Fuzzy data analysis and clustering
Classification and pattern recognition
Fuzzy systems with big data and cloud computing
Fuzzy systems design and optimization
Fuzzy decision analysis
Fuzzy logic and its application in Industrial engineering
Fuzzy modelling, identification and fault detection
Fuzzy information processing
Fuzzy web engineering
Fuzzy image, speech and signal processing
Fuzzy sets and soft computing in social sciences
Fuzzy logic applications in civil engineering, geographical information systems

EVOLUTIONARY AND SWARM ALGORITHMS

Memetic and collective intelligence
Artificial Immune Systems
Metaheuristics and hyper-heuristics
Ant colony for neural networks optimization
Hybrid intelligent systems for pattern recognition
Bio-inspired computing and Evolutionary algorithms
Chaos theory in genetic algorithms
Nature-inspired smart hybrid systems
Neuro-Fuzzy-Genetic approaches
Hybrid optimization techniques
Multi-objective optimization
Genetic fuzzy systems
Genetic neural systems
Neural Agents

OTHER APPLICATIONS OF CI

Generative Artificial Intelligence
Industry 4.0
Robotics
Internet of things
Bioinformatics
Image and signal processing
Natural language processing
Smart grid applications
Intelligent transportation
Smart traffic system operations
Big data and scalable algorithms/applications
Biomedical engineering applications
Brain computer interfaces
Neurosciences
Neural hardware Education

TINY ML AND EDGE AI (NEW SPECIAL TRACK)

TinyML: Algorithms, Architectures, and Applications
Enabling Technologies for Edge AI Deployment
Hardware-Software Co-Design for Edge Intelligence
Security, Privacy, and Trust in Edge AI Systems
Low-Power Machine Learning for Resource-Constrained Devices
Emerging Trends in On-Device AI and Federated Learning

IMPORTANT DATES

Submission: May 30th, 2026
Notification: June 30th, 2026
Camera-ready: July 30th, 2026
Conference: September 2nd - 4th, 2026

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Digital Library



PAPER SUBMISSION

We invite authors to submit high-quality full papers reporting original and novel research results on all above topics. Papers must be written in **Spanish, Portuguese or English**, unpublished and not submitted elsewhere. Full papers must be formatted as the standard IEEE double-column conference template and submitted exclusively using the link <https://2026.ieee-colicaci.org/information-for-authors/>. Maximum 6 pages are allowed for each paper, including all illustrations and references.

VENUE

Bucaramanga offers an ideal setting for international conferences, known for its safety, modern infrastructure, and vibrant academic atmosphere. Universidad Industrial de Santander (UIS) provides a prestigious venue with state-of-the-art facilities and a strong tradition in research and innovation. Together, they create an excellent environment for scientific exchange, collaboration, and impactful academic events in Colombia.