2026 IEEE 36th International Telecommunication Networks and Applications Conference

"Intelligent Networks and Applications for a Digitally Connected World"

25-27 November 2026
Melbourne, Australia

CALL FOR PAPERS

Over the years, IEEE ITNAC has established itself as a leading international conference in information technology, networking, and telecommunications, attracting high-quality contributions from researchers from around the world. Under the theme "Intelligent Networks and Applications for a Digitally Connected World," ITNAC 2026 invites original research that addresses emerging challenges and advances the future of intelligent and connected digital systems. Research contributions are welcomed across a broad range of topics, including but not limited to:

Important dates

- **Paper submission: 1 August 2026**
- **Notification of acceptance: 1 October 2026**
- **Conference dates: 25-27 November 2026**

Key Highlights

- **10 student grants**
- **Selected papers will be invited for publication in high-quality journal special issues**
- **Featuring keynotes & tutorials by world-renowned researchers and industry leaders**
- **Best paper awards**

Next-Generation Wireless Networks

5G and Beyond Wireless Networks
6G Communication Systems and Architectures
Massive MIMO and Beamforming Technologies
Internet of Things (IoT) and Machine-to-Machine Communications
Ultra-Reliable Low-Latency Communications (URLLC)
Network Slicing and Virtualized Wireless Networks
Green and Sustainable Wireless Communications
Terahertz and Millimeter-Wave Communications
Satellite, UAV, and Non-Terrestrial Networks (NTN)
Reconfigurable Intelligent Surfaces (RIS)
Integrated Sensing and Communication (ISAC)

Next-Generation Optical Networks

Optical switching and routing
Optical Network on Chips (ONoCs)
OFDM and advanced modulation formats in photonics
Large capacity optical transmission (WDM and OTDM)
Optical Ethernet, EPON/GPON, and 100Gb/s+ Ethernet
WDM Access Networks and WDM-PON
Optical-wireless access networks and Radio-over-Fibre (RoF)
Wired/wireless and telecom/broadcast convergence (IPTV)
Visible Light Communication (VLC) / Li-Fi
Energy-efficient and green optical networks

Resilient Network Security

Quantum Key Distribution (QKD)
Post Quantum Cryptography (PQC)
AI and Machine Learning for Cyber Security
Autonomous and Self-Healing Network Security
Secure Cloud and Edge Computing
Key distribution and management
Zero Trust Networks (ZTN)
IoT and Smart Device Security
Cyber Threat Intelligence and Digital Forensics
Blockchain-Based Trust and Identity Management
Federated security and homomorphic encryption
Network security policy, theory, and administrative tools
Security in 5G/6G and Next Generation Networks
Cyber Resilience for Critical Digital Infrastructure

Optical Networking and Applications

High-performance network virtualisation
Software Defined networking (SDN)
Content Delivery Networking (CDN)
Intelligent Networks
QoS/QoE provisioning and resource management
Network digital twins
Peer-to-peer networks and overlays
Datacentre networks and cloud computing
IoT and cyber-physical systems
Smart Cities and Smart Grids
Sustainable networking
Networking standards, policies, and regulations
Quantum internet
Network Service Orchestration (NSO)

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