



7th INTERNATIONAL SPACE RADIO MONITORING MEETING



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BUCHAREST
ROMANIA



Name & Organisation

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Presentation title

Real-Time Spectrum Analysis and IQ Capture for Monitoring LEO Satellite Signals

Abstract

Monitoring LEO satellite signals differs fundamentally from conventional geostationary monitoring: visibility is brief, Doppler varies continuously, and burst or adaptive transmissions may not repeat. The presentation explains how real-time spectrum analysis improves detection of short events, while wideband IQ capture preserves amplitude and phase for replay and post-processing. It covers probability of intercept, triggering, RF-chain linearity, time synchronisation and metadata, with complementary field and laboratory workflows illustrated by the Anritsu MS2090A and MS2850A.

Short bio

Cristian Mateescu is General Manager of MCL Consult Telecom, a Romanian company providing test, measurement and spectrum-monitoring solutions for telecommunications and RF applications. His work focuses on translating operational measurement requirements into practical instrumentation and workflows, including interference analysis, wideband signal capture and advanced spectrum-monitoring applications.