SnT 2025 8 SEPTEMBER ONLINE DAY 9 TO 12 SEPTEMBER AT HOFBURG PALACE, VIENNA & ONLINE
CTBT: SCIENCE AND TECHNOLOGY CONFERENCE

Enhancing Seismic Monitoring Capabilities of Bogazici University Kandilli Observatory and Earthquake Research Institute Through Integrated AI Modules

LIGHTNING TALK

MERAL OZEL,Nurcan (1); DINER, Cagrı (1); ATA, Erdem (1); TURHAN, Fatih (1); GUNES, Yavuz (1); AKSARI, Dogan (1); YILMAZER, Mehmet (1); AKCA, Mehmet Efe (4); SAHIN, Alperen (3); AYIS, Ebru Naz (4); DUZYOL, Gokce; CAR, Yusuf Sezer (2)

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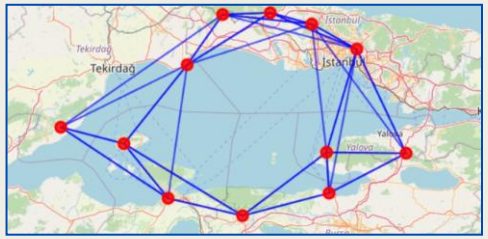
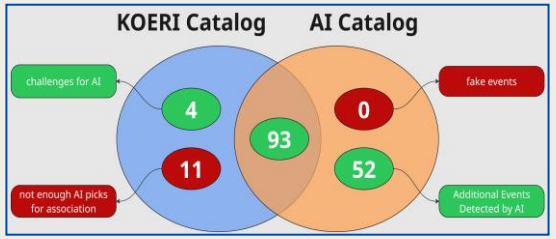
P4.1-064

- Our poster presents the enhancement of the earthquake monitoring and parameter estimation capabilities of Kandilli Observatory (KOERI), a 157-year-old institution, by leveraging artificial intelligence technologies to achieve fast, accurate, and comprehensive performance in line with modern standards.
- We developed a neural network models pipeline for phase picking, event association, and location-magnitude estimation, and tested them on two real earthquake sequences.
- The results show that our AI pipeline detects many more real events missed by traditional methods, although not without challenges, improving catalog reliability, marking a promising first step toward AI-enhanced earthquake monitoring.
- If you want to find out more, come over for a chat in front of our poster





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