

<i>Session Title</i>	<b>AI in Land Resources Utility and Management with High Efficiency</b>
<i>Session Description</i>	<p>AI technologies integrate satellite remote sensing with drone-based inspections and high-precision image recognition algorithms to enable real-time land cover monitoring, soil erosion warnings, and quantitative soil quality assessments. Machine learning synthesizes multidimensional data (soil fertility, climate, hydrology) to generate crop suitability maps for optimized agricultural planning. Reinforcement learning algorithms establish multi-objective optimization models that balance farmland preservation with development needs, while integrating urban-rural demographic and industrial data to forecast land demand trends. Geological and meteorological analytics enable early warnings for landslides/mudflows, paired with intelligent disaster damage assessments through semantic segmentation of drone imagery. In agriculture, smart irrigation and autonomous farming machinery boost efficiency, while AI satellite image analysis enhances illegal land-use monitoring. A blockchain-powered spatiotemporal big data platform serves as a decision-making hub for automated land management and ownership traceability.</p>