FORMEC 2026

Monday 14 September 2026 - Friday 18 September 2026

CZU Prague, Czechia

Scientific Programme

Harvesting Systems

This topic focuses on contemporary forest harvesting systems, ranging from fully mechanized cut-to-length and whole-tree systems to cable-based and hybrid solutions in challenging terrain. Emphasis is placed on system selection, machine interactions, productivity, adaptability to stand conditions, and technological innovations that improve efficiency while meeting economic and environmental objectives.

Harvesting Forest Operations Planning Issues

Forest operations planning addresses the strategic, tactical, and operational decisions required to optimize harvesting activities. This topic explores planning methodologies, decision-support tools, spatial and temporal constraints, and the integration of silvicultural, environmental, and logistical factors to improve operational efficiency, cost control, and sustainability across forest landscapes.

Ergonomics and Worker Safety

This session examines the human dimension of forestry mechanisation, with a focus on operator health, safety, and well-being. Topics include ergonomic machine design, workload assessment, fatigue management, accident prevention, and the impact of automation on human–machine interaction, aiming to improve working conditions and long-term workforce sustainability.

Environmental Impacts

Environmental impacts of mechanized forest operations are a key concern in modern forestry. This topic addresses soil disturbance, compaction, residual stand damage, biodiversity effects, and water protection, as well as mitigation strategies and best practices that balance operational efficiency with ecological responsibility.

Digitalization and Automation

Digitalization and automation are transforming forest operations through smart machines, data-driven decision-making, and interconnected systems. This topic covers machine sensors, onboard computing, artificial intelligence, autonomous and semi-autonomous operations, and the integration of digital workflows to enhance productivity, precision, and safety.

Business, Workforce and Education

This topic explores the economic and social dimensions of forestry mechanisation, including business models, labor availability, skills development, and training systems. It highlights challenges related to workforce renewal, education pathways, technology adoption, and the competitiveness of forestry enterprises in a rapidly evolving sector.

Biomass and Bioenergy

Biomass and bioenergy focus on the role of forest resources in renewable energy systems and the bioeconomy. This topic addresses harvesting, processing, and logistics of forest biomass, quality requirements, energy efficiency, and sustainability considerations in supplying biomass for heat, power, and bio-based products.

Precision Technology and Remote Sensing

Precision technology and remote sensing enable more accurate, efficient, and adaptive forest operations. This session covers the use of GNSS, LiDAR, UAVs, satellite imagery, and machine data to support planning, monitoring, inventory, and real-time operational control, improving both productivity and environmental performance.

Supply Chain and Transportation Logistics

Efficient supply chain and transportation logistics are critical for cost-effective forest operations. This topic examines wood flow optimization, transport planning, vehicle technologies, infrastructure constraints, and digital logistics systems that link harvesting sites with processing facilities while reducing costs, emissions, and delays.

Wildfires and Forest Operations

This topic addresses the interaction between forest operations and wildfire risk management. It covers mechanized fuel treatments, salvage logging, operational challenges in fire-prone landscapes, post-fire recovery, and the role of technology and planning in enhancing forest resilience and supporting wildfire prevention and suppression strategies.