

FORMEC 2026

Thursday 17 September 2026

Paralel session 4: AI in the Cab: Decision Support, Slip Sensing, and Smart Assistance - DP 107 - DP107 (09:00 - 10:30)

time	[id] title	presenter
09:00	[148] Roadmap 2035 Vision for Forest Machine Data and Sensor Technologies from Finland	Prof. KÄRHÄ, Kalle
09:18	[97] Real-Time Wheel Slip Estimation for Forestry Machines based on a combined Wheel-Encoder and RADAR Approach	Mr DEDE, Xholjon
09:36	[117] Digital Support for Smart and Safe Motor-Manual Harvesting	Mr HEINZE, Frank
09:54	[110] Auto-Annotation Is All You Need? Toward Autonomous Label Generation in Cut-to-Length Forestry	HÖÖK, Christian
10:12	[79] Agentic AI as a Decision Support Tool for Resilient Small-Scale Forest Management	WINGARTZ, Moritz

Paralel session 4: Energy, Fuel, and Cost Performance of Harvesting Systems - DP 201 - DP201 (09:00 - 10:30)

time	[id] title	presenter
09:00	[158] Productivity and profitability of separate and integrated energy wood and pulpwood harvesting systems under varying stem size distributions in young stands	POHJALA, Johannes
09:20	[64] Powering Forestry in Winter: Establishing a Battery Test Lab for Electrified Forestry Machinery	HERDEGEN, Justin
09:40	[29] Impact of reduction in idling times on the GHG emissions of forest machinery: A scenario analysis using machine big data from Finland	Mr PESONEN, Jarkko
10:00	[183] Battery Electric Vs. Diesel in Forestry Transportation: A Performance Comparison of Timber and Wood Chip Trucks	Dr NORELAND, Daniel

Paralel session 4: From Residue to Resource: Biomass Supply and Feedstock Quality - L 201 - L201 (09:00 - 10:30)

time	[id] title	presenter
09:00	[70] Evaluation of a system for forecasting volume and location of logging residues at stand level and pathways toward system automation	FERNANDEZ-LACRUZ, Raul
09:18	[106] The filtering effect of unsealed pavements at storage yards for leachate from wood chip piles	BORCHERT, Herbert
09:36	[74] Estimating the Availability of Forest Biomass for energy considering the introduction of trailers into winding road networks in mountainous areas of Japan	Prof. ARUGA, Kazuhiro
09:54	[88] Managing moisture content in logging residues through better supply chain planning	WESTERBLOM, Siri
10:12	[11] Quality and Energy Characteristics of Softwood Harvest Residues from Plantation Operations in South East Queensland	GHAFFARIYAN, Mohammad Reza

Parallel session 4: From Sensing to Action: Operational Data, Risk, and Digital Twins - DP 106 - DP106 (09:00 - 10:30)

time	[id] title	presenter
09:00	[179] Dynamic Single-Tree-Based Digital Twins: Integrating Harvester Production Data and Remote Sensing for Precision Forest Operations	Prof. PURFÜRST, Thomas
09:18	[159] Hyperspectral imaging for forest seedling quality assessment: a review	VUGDELIJA, Karmen
09:36	[35] Scaling Drought-Induced Scots Pine Mortality for Operational Risk Assessment in Forest Value Chains	LESZCZYŃSKI, Krzysztof
09:54	[146] Real-time monitoring of thinning intensity using harvester data and remote sensing-based single-tree maps	Dr HOLMSTRÖM, Eero
10:12	[66] Visual Estimation vs. TLS-Based Centre of Gravity: Quantifying Directional Misjudgement in Tree Felling	SVAZEK, Philip

Parallel session 4: Moving Wood Efficiently: Trucking, Dispatch and Network Performance - L 301 - L301 (09:00 - 10:30)

time	[id] title	presenter
09:00	[149] A Hybrid Optimization–Machine Learning Framework for Real-Time Dispatching in Forest Transport Operations: A Case Study from Australia	ACUNA, Mauricio
09:18	[147] Balancing the Load: Operational Impacts of Truck Weight Limits on the Alabama Logging Industry	Dr POKHAREL, Mandira
09:36	[176] Operational decision-support for prioritizing wood transports using AI and digital twin data	Dr WESTLUND, Karin
09:54	[59] Management of Log Truck Weights in the US State of Georgia	Dr CONRAD, Joe
10:12	[155] Timber transport – national analysis of road-related delays and underlying causes	FJELD, Dag