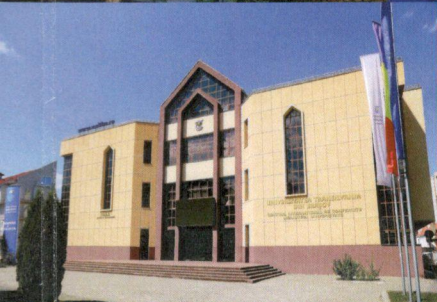


FORMEC 2017

50th ANNIVERSARY OF THE INTERNATIONAL SYMPOSIUM
ON FORESTRY MECHANIZATION



PROCEEDINGS

Braşov, Romania,

25th - 29th September, 2017



**Transilvania
University
of Brasov**

Content

1. Mika Aalto, Olli-Jussi Korpinen and Tapio Ranta DYNAMIC SIMULATION OF BIOENERGY FACILITY LOCATIONS IN GIS ENVIRONMENT	1
2. Mauricio Acuna and Glen Murphy IN-FOREST DEBARKING OF RADIATA PINE TO IMPROVE SUPPLY CHAIN EFFICIENCY IN AUSTRALIA AND NEW ZEALAND: EFFECT OF HARVESTING SEASON, SYSTEM AND EQUIPMENT	2
3. Mauricio Acuna, Elena Canga and Sandra Sánchez-García DESIGN AND IMPLEMENTATION OF AN INTEGRATED TRANSPORT FRAMEWORK SYSTEM TO OPTIMIZE TIMBER AND BIOMASS SUPPLY LOGISTICS: A CASE STUDY IN ASTURIAS, SPAIN	3
4. Mauricio Acuna AUTOMATED VOLUMETRIC MEASUREMENT OF TRUCKLOADS THROUGH MULTI-VIEW PHOTOGRAMMETRY AND 3D IMAGE PROCESSING SOFTWARE	4
5. Abdullah E. Akay and Ebru Bilici MODELING A SKIDDING OPERATION CONSIDERING RUT DEPTH CAUSED BY A RUBBER-TIRED SKIDDER	5
6. Abdullah E. Akay and İnanç Taş DEVELOPING PRIMER TRANSPORTATION PLAN FOR FORESTED AREAS UNDER THE RISK OF WINTER STORM DAMAGE	6
7. Abdullah E. Akay CAPABILITIES OF USING DRONES IN MONITORING AND ASSESSMENT OF MECHANIZED HARVESTING OPERATIONS	7
8. Serdar Akburak, Mustafa Akgül, Hüseyin Yurtseven, Murat Demir, H. Kerem Cıgızoğlu, Tolga Öztürk and Mert Eksi SEASONAL VARIATION OF FOREST ROAD PAVEMENT COMPACTION	8
9. Mustafa Akgul, Huseyin Yurtseven, Sercan Gulci, Abdullah E. Akay, Murat Demir and Tolga Ozturk EVALUATION OF UTILIZING UNMANNED AERIAL VEHICLE ON FOREST ROAD PLANNING AND DESIGN	9
10. Hasan Alkan, Mehmet Eker and Mehmet Korkmaz SOCIAL ASSESSMENT OF THE AVAILABILITY OF LOGGING RESIDUES IN TURKISH PINE FORESTS	10
11. Michal Allman, Martin Jankovský, Zuzana Allmanová, Michal Ferenčík and Valéria Messingerová DAMAGE OF THE REMAINING STANDS CAUSED BY LOGGING TECHNOLOGY WITH VARIOUS TYPES OF CHASSIS	11

* 107. Tolga Ozturk and Ebru Bilici PLANNING OF SKID ROADS AFTER FOREST FIRE IN TURKEY (A CASE STUDY OF ADRASAN FOREST ENTERPRISE)	213
* 108. Tolga Ozturk and Necmettin Senturk INVESTIGATION OF TIMBER SKIDDING WITH MULES IN MEDITERRANEAN REGION OF TURKEY	214
* 109. Tolga Ozturk, Mustafa Akgul and Hakan Topatan THE USE OF GIS FOR CREATION OF REPAIR PLANNING AT FOREST ROADS	215
110. Davut Özer and Mehmet Eker REVIEW ON TIME STUDY RESEARCHES FOR HARVESTING IN MOUNTAINOUS FORESTS	216
111. Teijo Palander, Joonas Mutanen, Kalle Kärhä, Juha-Antti Sorsa and Tapio Räsänen MULTIPLE-OBJECTIVE STEM BUCKING IN LOG CUTTING OF NORWAY SPRUCE (PICEA ABIES) STEMS FOR MAXIMIZING MONETARY VALUE OF TIMBER TRADE IN FINLAND	217
112. Aidin Parsakhoo STUDY OF THE CLEARING LIMIT OF ROAD CONSIDERING FEATURES OF DIFFERENT ENVIRONMENTAL UNITS IN A DECIDUOUS FOREST	227
113. József Péterfalvi, Péter Primusz and Balázs Kisfaludi DESIGN AND CONSTRUCTION EXPERIENCES WITH SIMPLE SOIL STABILIZATION BASED PAVEMENTS	228
114. Sebastian Pilz and Jörn Erler MACHINE COST CALCULATION TO DETERMINE THE FOREST OPERATIONS COSTS	229
115. Bogdan Popa and Aureliu Florin Hălălişan ASSESSING FOREST SECTOR PUBLIC INSTITUTIONAL CAPACITY: A SURVEY OF ROMANIAN FOREST INSPECTORATES	230
116. Robert Prinz, Juha Laitila, Lars Eliasson, Johanna Routa and Antti Asikainen HYBRID SOLUTIONS AS MEASURE TO INCREASE ENERGY EFFICIENCY -A PROTOTYPE OF HYBRID TECHNOLOGY CHIPPER	231
117. Andrea R. Proto, Giuseppe Zimbalatti and Diego Russo OXYGEN EXPENDITURE DURING MOTOR-MANUAL HARVESTING IN THE MEDITERRANEAN FORESTS	232
118. Martyna Rosińska, Mariusz Bembenek, Zbigniew Karaszewski, Agnieszka Łacka and Piotr S. Mederski TRUNK UTILISATION AS A FACTOR AFFECTING HARVESTER PRODUCTIVITY	233

PLANNING OF SKID ROADS AFTER FOREST FIRE IN TURKEY (A CASE STUDY OF ADRASAN FOREST ENTERPRISE)

Tolga Ozturk¹, Ebru Bilici²

¹Faculty of Forestry, Department of Forest Construction and Transportation, Istanbul, University, I.U. Faculty of Forestry, 34413, Bahcekoy, Istanbul, Turkey

²Forest Engineering Department, Faculty of Forestry, Bursa Technical University, BTU Faculty of Forestry 16330 Bursa, Turkey

Email (corresponding author): tozturk@istanbul.edu.tr

Abstract: *Forest fires are very important for our country's forests. Especially, forest fires have inflicted great losses on the Mediterranean and Aegean areas. Until the last five years, the forest area loss is too much during forest fires. For our country, forest fires gives great harm to the natural life and besides, forest fires cause economic losses. Adrasan region is located in Antalya province and this region is a touristic attraction. Adrasan forest fire has occurred in June, 2014. In this fire were burned 140 hectares area and 14810 m³ trees. Burned area is completely Pinus brutia forest. After the fire, the burned area should be planted in a year. Therefore, trees inside burned area should be completely emptied. Products are in the form timber and industrial wood. Within the Adrasan region, firstly, skid road is opened. Average slope of region is between 10% and 80%. The slope of skid road is changed between 10% and 18%. The different type farm tractors are used to burn area. Tractors are done skidding and transporting. The slopes of some skid roads are very high and this situation is very dangerous for workers and tractors in this area. In this study, skid roads planning are investigated in burn area. The skid roads are done planning after forest fires in these very important areas. The skid roads constructions are very difficult and dangerous when skid road planning isn't done then. Also, the forest area is divided into sections unnecessarily. The skid road planning should be finish before forest fire. Especially, skid road planning should be in fire sensitive areas. So, after the forest fires, the extraction operations will be fast, economical and safety.*

Keywords: forest fire, skid road, skid road planning, extraction