

## **CHEKING OF THE FOREST'S TREES FROM THE POINT OF VIEW OF BENDING SOLICITATION UNDER THE ACTION OF THE WIND LOADING**

**MARIUS FETEA, GHIȚĂ C. CRAINIC, SORIN DOROG, GABRIEL CHEREGI**

Faculty of Environmental Protection, University of Oradea, Oradea, Romania

### **ABSTRACT**

This present paper shows the study for the felling of the trees caused by the wind and glazed frost in Dobresti area.

Because of this loading that actions on the trees, the tree will be exposed to one simple solicitation of bending which determines the breaking from the root.

In this present paper a calculus of the wind action in this geographic aria was done, after that, knowing the values of the distributed forces of the wind intensities a checking of the maximum requested section was done.

From the resistance condition for the banding solicitation in normal tension was obtained maximum value of the normal tension in the section considered bigger than the admissible tension of the material, which means that the tree does not check the resistance condition.

In order to do the calculus, a mathematical pattern was adopted by which the crown was presented in the shape of a cylinder and the trunk as a stiff beam.

**Keywords:** wind action, tree bunk resistance