

STRUCTURAL SYNTHESIS ON SPEED MULTIPLIERS WITH FIXED AXLE GEAR USED IN WIND TURBINE

C.A. BOZAN¹ Gh. MOLDOVEAN¹ R. VELICU¹

Abstract: *Speed multipliers used in wind turbine may be considered as atypical constructive structural solutions, as compared to other gear transmissions, due to the following reasons: the load on the speed multiplier is variable and its value increases due to vibrations that will occur during operation; the torque has a high value and low speed at the entrance in the speed multiplier; the multipliers structure must be both small-sized and lightweight. With these requirements in view, this article presents several constructive solutions for speed multipliers with fixed axle gear.*

Key words: *structural schemes for speed multipliers, fixed axle gear, multiplier ratio.*

¹ Centre “Product Design for Sustainable Development”, Transilvania University of Braşov.