



21-23 May 2020, Iași - România

12th EUROPEAN EXHIBITION OF CREATIVITY AND INNOVATION

“EUROINVENT”

invention



Technical University of Moldova,
Department of Manufacturing Engineering

WHEEL - SATELLITE

Sergiu Mazuru, *dr. hab., conf. univ.*; Stanislav Lealin *drd*;
Maxim Vaculenco, *dr., conf. univ.*; Ion Bostan, *academician al AȘM, dr. hab., prof. univ.*

Goal:

Increased load capacity, increased operating life, noise and vibration reduction, simultaneously reducing the requirements to the precision of execution by ensuring the elastic flexibility of the gearing elements.

Solution:

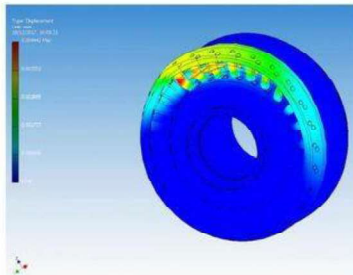
Precessional gear transmissions.

Advantages:

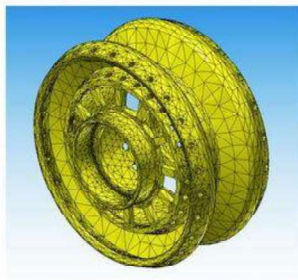
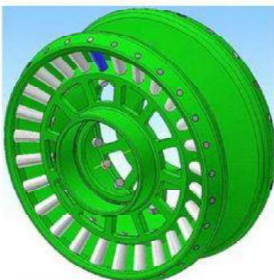
- ✓ High transmission ratio ($i=10...3600$);
- ✓ Increased load-bearing capacity due to the gearing multiplicity;
- ✓ Small dimensions and mass;
- ✓ Exceptional cinematic possibilities.

Stage:

Technical project, industrial prototype.



Computerized model of the initial satellite, FEM simulation



Computerized model of the optimized satellite, FEM simulation

