**Topics of IWS (15 hours)**

1. External and internal forces. Elasticity and plasticity. Friability and hardness - 1 hour.
2. Types of solids. Statically indeterminate system. Materials Testing - 1 hour.
3. Stress and strain state in tension-compression straight bars - 1 hour.
4. The potential energy of the longitudinal strain - 1 hour.
5. Geometric characteristics of the cross-sections - 1 hour.
6. Account for the action of its own weight when the longitudinal strain - 1 hour.
7. The mechanism of formation of deformation - 1 hour.
8. The differential equation of the bent axis of the beam and its integration - 1 hour.
9. Effect of temperature and time factor on the mechanical properties of the material - 1 hour.
10. The torsion rod with a circular cross-section - 1 hour.
11. Determination of displacements and strains using the reciprocity theorem works and movements - 1 hour.
12. Building diagrams internal force factors in the farm - 1 hour.
13. Using the symmetry properties of the disclosure of redundancy - 1 hour.
14. Examples of critical loads - 1 hour.
15. Discussion of the basic concepts of the subject - 1 hour.