Course: Machine building

1. **The name of innovation development:** Restoration of details of construction purpose powders received from industrial waste manufacturing
2. **Purpose and scope of application:** Recovery of products of mechanical engineering and instrumentation: knots, machine parts, mechanisms, namely:
   ✓ Improvement of physical-mechanical and technological properties of steel powders ШХ15 due to introduction of new technology.
   ✓ Increased wear resistance of parts for design purposes.
   ✓ Protection against corrosion in aggressive environments.
   Application of rational technology of applying protective coatings.
3. **Main characteristics, development essence:** Special attention is paid to the construction of new parts of structural design for composite ceramic, metalloceramic, biometallic and other synthetic compositions. Methods and technological processes of powder metallurgy allow us to widely use waste products: shavings, scrap metal, pruning, which after the melt are sprayed into a powder with given physico-chemical and technological properties.
4. **Comparison with the world analogues, main advantages of the development:** Analogues on the global recovery market are expensive and ineffective – 50…70%.
   The efficiency of using our technology is 120%.
5. **State of the protection of intellectual property:** We received 2 patents for utility model.
6. **Market demand:** In order to solve the problem of deterioration of parts, it is important to apply a combined protective coating, which will significantly increase the wear and corrosion resistance of the parts under reverse friction.
7. **Development readiness condition:** 100% - there is a recovery technology and a batch of prototypes manufactured.
8. **Color illustrations, photos of development:**

9. **Coordinators for communication:**
   Povstyanoy Oleksandr Yuriyovych, str. Potebni, 56, Lutsk, Ukraine, 43018,
   phone: (0332) 26-25-19, e-mail: povstjanoj@ukr.net