**Sus B.A.**

**Research work of students as a necessary condition for training future professionals**

We show that higher education is always in search of a new development that is possible due to  science. Therefore, in the process of training students as future professionals must be close to the science, take part in research. Interest in scientific research can be created by using traditional problem questions. The great mystery of physics is the problem of dualism, when electromagnetic waves and  light waves can be also the particles. But in explaining the nature of light wave approach obviously contradicts to the corpuscular approach. From the point of view of the light wave - is a  wave and in accordance with the principle of Huygens each point of the wave surface is a source of new waves. The light from the point can pass to the the point of observation. And from the point of view of corpuscular light is seen as a beam of particles - photons. Because the photon has momentum, it cannot pass to the point of observation . Hence, wave and corpuscular approaches are in contradiction and can not explain the problem for hundreds of years. This means a wrong approach. The wave is the wrong approach for wave propagation environment is required. Huygens believed this environment was a hypothetical "ether". We know that the "ether" does not exit. Consistent explanation is that there are in fact fundamentally different waves - waves without environment. This wave of particles that flywith internal oscillation motion. Similarly, as is the spread of light photons moving in space that are in the process of oscillatory type: Δm → ΔW → Δm → ΔW → ...