

SCIENCE CLINIC IN THE INTRODUCTION AND EXPERIENCE OF NANOSCIENCE AND NANOTECHNOLOGY PHYSICS MATERIAL FOR HIGH SCHOOL TEACHERS IN GUNUNG KIDUL REGION OF YOGYAKARTA

by Wipsar Sunu Brams Dwandaru, Suparno, Denny Darmawan

ABSTRACT

Nanoscience and nanotechnology are growing rapidly. Studies related to nanotechnology are intensively conducted by scientists in every corner of the world. Researchers or scientists are racing to find new findings in the nanoscale world. Nanotechnology is engineered in the creation of materials, functional structures, and devices on a nanometer scale. One of the interesting things and is becoming the latest research trend in the world of nanotechnology is the creation of advanced materials that are in nanometer scales. These advanced materials have better quality than existing materials or have been found previously. On the other hand, universities that should be the center of change and the advancement of science of a nation have an obligation to disseminate the results of their research to wider community. This is necessary so that the science generated from various studies in universities will be applied in everyday life. In this case, it is expected that universities can become water towers that fertilize the area around the water flow. For that reason, it takes an activity by universities, especially the Department of Physics Education, FMIPA, UNY to participate in disseminating the results of research in the field of nanoscience and nanotechnology to the general public, in this case to high school teachers. This activity is a community service activities (PPM) in the form of science clinics in the dissemination of science and technology advances in the field of nanotechnology. This activity will be filled with the introduction of the concept of nanoscience and nanotechnology along with the simple practice of utilizing nanotechnology in the form of making simple dye-sensitized solar cells (DSSC). With this activity the knowledge of the teachers increases and can then integrate the various concepts of nanoscience and nanotechnology into the subject matter of physics.

Kata Kunci: *science clinic, nanoscience and nanotechnology, high school teachers, Gunung Kidul Region*