Abstract Submitted
for the FWS16 Meeting of
The American Physical Society

Analytical study to Micromagnetic Model of the structure of Nanocompositre Magnets[1] WIDASTRA HIDAJATULLAH,SSI[2], Prodi of Physics UI [ILUNI], Depok 16415- West Java — In tis study discussed the basic principles of the theory of Stoner-Wohlfarth assuming that bound and its implications on the calculations of magnetization as a function of field of external magnetic H known that for nanostructures as a consequence of refining the grain size to the nanometre scale, the results of magneization measurements on the contrary to the theory of Stoner-Wohlfarth. The calculation result magnetization based models shows nanostructures micromagnetic implications increased remanent value exceeds the value allowed by the Stoner-Wohlfarh theory.It was concluded that it needed a new model to explain magnetization of ferromagnet materials with nanostructures. It is necessary to anticipate the new class of electronics taking into account the charge carrier spin/spintronics.Also recommended the models given its proximity to the fact relates to crystal structures that are built by atoms.

[1]Heartfelt Gratitudes to HE. Mr. Prof. Ir. HANDOJO/PT. PINDAD[persero], Bandung 40284
[2]Analytical studies have been carried out a comparison between the magnetization based theory Stoner-Wohlfarth that ignore inter-domain interaction factor calculation micromagnetic magnetic nanocomposite using cube models of Fukunaga

Widastra Hidajatullah,SSi
Prodi of Physics UI [ILUNI], Depok 16415- West Java

Date submitted: 17 Oct 2016 Electronic form version 1.4