

Pemanfaatan Teknik Lissajous untuk Mengetahui Korelasi antara Kandungan Air terhadap Sifat Dielektrik Tanah (Studi Kasus: Sampel Tanah Permukaan di Sekitar Kota Purwokerto)

<b>Title</b>	Pemanfaatan Teknik Lissajous untuk Mengetahui Korelasi antara Kandungan Air terhadap Sifat Dielektrik Tanah (Studi Kasus: Sampel Tanah Permukaan di Sekitar Kota Purwokerto)
<b>Author Order</b>	1 of 3
<b>Accreditation</b>	
<b>Abstract</b>	The equipment has been designed to measure the dielectric properties of soil samples with lissajous technique in Basic Physics Laboratory, Study Program of Physics, Faculty of Science and Engineering, University of Jenderal Sudirman, Purwokerto. The equipment has been used to measure the dielectric constant of 19 soil samples taken from several locations in area of Purwokerto city and its surrounding, at a frequency of 100 kHz. The measurement has been conducted on soil samples with the variation of soil mass water content. The results obtained indicate, the existence of a correlation between the dielectric constant of soil samples to the soil water mass content (h) which can be expressed with two equations; dielectric permittivity $\epsilon = 0.3176 h - 2.5555$ with a correlation coefficient $R^2 = 0.9538$ , and dielectric loss equation $\epsilon'' = 0.00003 h - 5.3336$ with a correlation coefficient $R^2 = 0.9513$ .
<b>Publisher Name</b>	BERKALA FISIKA
<b>Publish Date</b>	2012-03-29
<b>Publish Year</b>	2009
<b>Doi</b>	
<b>Citation</b>	
<b>Source</b>	BERKALA FISIKA
<b>Source Issue</b>	Vol 12, No 3 (2009): Berkala Fisika
<b>Source Page</b>	77-84
<b>Url</b>	<a href="https://ejournal.undip.ac.id/index.php/berkala_fisika/article/view/2864/2550">https://ejournal.undip.ac.id/index.php/berkala_fisika/article/view/2864/2550</a>
<b>Author</b>	SEHAH, S.Si, M.Si