The Image Quality Analysis of Neutron Digital Radiography Through The Variation of Multiple Image Capturing

Publons ID	34890067
Wos ID	WOS:000481574700140
Doi	10.1063/1.5054544
Title	The Image Quality Analysis of Neutron Digital Radiography Through The Variation of Multiple Image Capturing
First Author	Amalia, Ayu Fitri; Budhi, Widodo; Prabowo, Urip Nurwijayanto; Suparta, Gede Bayu;
Last Author	
Authors	Amalia, AF; Budhi, W; Prabowo, UN; Suparta, GB;
Publish Date	2018
Journal Name	INTERNATIONAL CONFERENCE ON SCIENCE AND APPLIED SCIENCE (ICSAS) 2018
Citation	1
Abstract	Neutron radiography is non-destructive imaging technique to probe the objects. It allows imaging of hydrogenous materials within components made of metals. The aim of the research was to observe the impact of multiple images capturing to the image quality of neutron digital radiography by utilizing the dynamic radiographic imaging software developed by Research Group of Image Physics UGM. The capturing of images from neutron digital radiography was performed by integrating the unit of neutron digital radiography to Kartini Reactor of BATAN Yogyakarta. Multiple images capturing of neutron digital radiography were 100, 200 and 300 images. The best images analyzed in general is the images that have a broad distribution of greyscale level. The variation of background and images of radiography intensity were represented by 4 to 71 (100 and 200 images) and 3 to 71 (300 images) of gray level range. The best image was obtained for 300 multiple images capturing which have large enough so that they looked brighter, though the differences were not noticeable. In order to get better image visualization, it can be done the histogram equalization. The results of the histogram equalization process were that the contrast of images corrected was better.
Publish Type	Book in series
Publish Year	2018
Page Begin	(not set)
Page End	(not set)
Issn	0094-243X
Eissn	
Url	https://www.webofscience.com/wos/woscc/full-record/WOS:000481574700140
Author	URIP NURWIJAYANTO PRABOWO, S.Pd, M. Sc