

# **PENGUATAN KOMPETENSI GURU SMK BIDANG PENGELASAN PADA ERA INDUSTRI 4.0 MELALUI BIMBINGAN TEKNIS ROBOTIC WELDING**

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## **ABSTRACT**

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The VHS (Vocational High School) Center of Excellence must be the center of the VHS community ecosystem that continues to get better together with other VHSs. One of the joint efforts that must be made is to build a link and match because the industry's need for the ability of the vocational school graduate workforce continues to change following the rapid development of technology which is currently entering the Industry 4.0 era which is marked by the application of automation and robotic technology. Even now the industry has applied many robots for welding. This service aims to: (1) provide understanding and knowledge to vocational school teachers about robotization in the manufacturing industry in the 4.0 era; (2) Provide understanding and skills to vocational school teachers about robotic welding; (3) Provide skills to vocational school teachers in the field of welding in operating robotic welding; (4) Providing skills to vocational school teachers in the field of welding in programming robotic welding; (5) Motivating teachers to improve the quality of learning-oriented to the industrial era 4.0. The method of this service activity is technical guidance (training). This activity is intended for welding vocational school teachers in Yogyakarta as many as 20 people from 2 vocational schools who have welding engineering expertise competence. One of the 2 VHSs is a Center of Excellence, namely VHS Muhammadiyah 2 Wates where the main task of CoE is to form an ecosystem of VHS communities to develop themselves together. The success of the process is measured by observing several aspects: a) attendance, b) commitment attitude and c) responses/feedback of training participants. Result assessment is measured from the aspects of a) knowledge (post-test assessment score), and 2) skills (practical exam). Technical guidance participants are expected to be able to transmit and disseminate this PPM (community dedication) material, both to other teachers and to insert knowledge about robotic welding in welding learning for students.

Kata Kunci: *robotic, welding, training, industry*