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**Dr. Atma Sahu\*** (asahu@coppin.edu), 7704 Mystic River Terrace, Glenn Dale, MD 20769.

*Using linguistic variables in approximating Fuzzy-logic smart-reasoning to extend the binary sense.*

This presentation will walk the fuzzy logic users from its' inception story by Lotfi Zadeh, a professor at the University of California at Berkley to today's fuzzy logic approaches as applied to control nonlinear systems that would be difficult or impossible to model mathematically. Additionally, this fuzzy logic methodology discourse will show conference attendees, some engineering applications, such as fuzzy logic thermostats system 's usage to control the heating and cooling, fuzzy logic methodology use in industrial automation; and later illustrate it's usage in decision making process and in data mining that uses, to some extent, many machine learning methods. (Received January 20, 2014)