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**APPLICATION OF HARDWARE DESCRIPTION LANGUAGE VERILOG IN TEACHING TECHNICAL STUDENTS**

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Intensive development of high-level hardware description languages is noticeable nowadays. One of such languages is Verilog. [1] In the majority of modern scientific papers, devoted to Verilog, any attention isn’t really paid to its application in the educational process, and the description of usability in real manufacturing process isn’t also given. It is worth considering these aspects because the main target of contemporary higher education system is preparing highly-qualified specialists who will be competitive at the labour market. They also should be ready to decide real problems they can face at their future or current jobs. So, there is a necessity to research how students get useful practical skills which they will be able to use in the future.

The report examines a sphere of this language application in the modern educational process as well as in the IC’s production on the example of the term paper devoted to the design of a system containing temperature sensors, programmable logic device (PLD). and a display. The sensors send data in the form of a binary notation to PLD via Inter-Integrated Circuit interface that converts them in a decimal one. A user sets time in hours and minutes at PLD by means of switches. Then, the time starts, the temperature converted and the time measured are sent to the display.

As a result, the following conclusions have been drawn:

1. Verilog is considered as a language to design ICs on PLD without taking its resources into account that are applied in testing the chips derived.
2. Verilog is used not only to design ICs on PLD during the real production process, but also to create scheme models and test them in order to manufacture application specific integrated circuits (ASIC). It is one of the best test writing languages for both measuring and checking the equivalence of the characteristics received for separate silicon wafer blocks to a customer’s requirements and testing these individual wafer-scale chips.
3. Only one quite narrow sphere of Verilog’s application istaught to technical students in the modern educational process. However, the most important aspects, which are being used in real manufacturing process, are ignored.

The recommendations, concerning some improvements in teaching the hardware description language Verilog to technical students on the basis of the results derived are given in the conclusion of the report.

**Literature:**

1. **Soloviev V. V.** The basics of the language design of Verilog digital hardware. Moscow: Hot line - Telecom, 2014. 206 p.