VHDL Coding and its Application in VLSI

Date: June 10th, 2022

Speaker: Dr. Praveen Kr. Sahu

From the 10th to the 12th of June 2022, an online workshop on "VHDL Coding and its Application in VLSI" was conducted, catering to students eager to explore the world of digital design and hardware description languages. The workshop featured the expertise of Dr. Praveen Kr. Sahu, an Assistant Professor in the Department of Electronics and Communication Engineering (ECE) at BIT Sindri.

VHDL (VHSIC Hardware Description Language), a potent language used in the hardware design process, was introduced at the beginning of the online workshop. The fundamentals of VHDL, such as data types, operators, concurrent and sequential statements, and the structural design methodology, were painstakingly explained by Dr. Praveen Kr. Sahu. Participants learned how to model digital circuits in VHDL and how this technology serves as the foundation for contemporary digital design techniques.

Practical uses of VHDL in VLSI design were emphasized throughout the programme. The implementation of logic circuits, finite state machines, and complex arithmetic units was demonstrated to students using a variety of VHDL coding examples. Participants developed practical skills in building and modeling digital circuits, which helped them better understand how VHDL and VLSI systems interact.

The assistant professor of the BIT Sindri's ECE department, Dr. Praveen Kr. Sahu turned out to be a fantastic resource for the online session. He was able to offer entertaining and educational lectures due to his extensive understanding of VHDL and its real-world uses in VLSI design. All attendees found the workshop to be engaging and approachable due to Dr. Sahu's enthusiasm for the topic and his capacity to lucidly explain complicated ideas.

The large number of students who participated in the online session was evidence of its success. The session was actively engaged in by an astonishing 80% of the overall student body, indicating their significant interest in learning about VHDL coding and its applications in VLSI design. The students' enthusiastic exploration of the exciting realm of digital design and their desire to advance their knowledge in this area were evident in the high level of involvement.