

NEW HORIZON COLLEGE OF ENGINEERING,

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### **GUEST LECTURE REPORT**

The Department of **Electronics and Communication Engineering** of **New Horizon College of Engineering** had arranged a guest lecture on **24th August 2019** for the third semester students. The lecture on the topic "**Sequential Circuits**" was provided by **Mr.Galphade Prafulla**, Senior Principal Program Manager, Cadence Design Systems (India) Private Ltd.

The lecture gave us an insight on combinational and sequential circuits, their significance, working and industrial applications. The session started with him giving an introduction on combinational circuits wherein the response of the circuit depends solely on the current input. This was followed by an introduction to sequential circuits wherein the response of the circuit depends on the previous inputs. He further went on to elaborate about the concept of latches and flip flops, in which he covered the basic design, characteristics and working of the various primarily used latches and flip flops such as SR Latch, D-flip flop and JK flip flop. He also focused on the concepts of clock signals - synchronization and asynchronization, and where the respective concepts should be used. The places of practical usage of these circuits in today's technological developments were also stressed upon. All of

these above mentioned topics were clearly explained to the students with the help of presentations. The session was an interactive one wherein the students were asked questions by Mr. Galphade relevant to various topics that he covered. He also spoke about the industry expectations of upcoming engineers. We were also given a brief explanation about higher studies after engineering and the options involved in it.

After his presentation concluded, the students were given the chance to voice out their questions regarding the upcoming developments and requirements in modern technology. The session was indeed a beneficial one which helped the students understand the perspectives of the subject. The session concluded with a vote of thanks and presentation of a memento to Mr. Galphade for taking his time out to enlighten the students.

