## Department of Electronics and Computer Engineering K L University Guest Lecture on "RECENT TRENDS IN VLSI DESIGN"

## MR. Prajwal Prabhat

Dept of ECM has conducted a guest lecture on "Recent Trends in VLSI Design" on 18th February 2016 for the students of B-Tech 3<sup>rd</sup> and 4<sup>th</sup>year of ECM and M-Tech students of Embedded Systems and VLSI. The resource person MR. Prajwal Prabhat Senior Design Verification Engineer, SASIC Technologies Pvt Ltd, Bangalore told that VLSI is a Design and Development Process of Protocol and is based on the protocols from physical layer, data link layer and network layer and where application layer is used in C, C++ and java. He further focussed on different areas such as Chip development, GPS(google maps), Battery, Aero dynamics control(RISC, Cortex core), Fuel calibration, Radar jammers, Remote sensing, MRI imaging, Super smart phones, Virtual reality(gaming) and Internet of things where students can have carrier opportunities.

He further elaborated the following stages in VLSI design.

- ➤ Architect –Boss
- ➤ Design engineer-RTL design
- > RTL synthesis engineer- Logic systhesis
- > Test engineer Testing
- ➤ Verification engineer RTL verification
- ➤ Static time analysis engineer timing analysis
- ➤ DRC design rule check
- Litho engineers Always at fabrication
- Physical design(PD) place and route engineer
- Formal verification engineer

He also focussed on the following prominent research areas in the VLSI design.

- ➤ Low power multi-core processors
- > Faster memory architecture(cache)
- ➤ Better EDA-electronic design
- ➤ Automation –development

He finally advised the students to acquire good technical knowledge in the following areas in order to be selected for a carrier in VLSI design

- Frontend design: Digital logic, linux, vim, HDL(Verilog/VHDL),scripting(perl/python& TCL),programming language(c).
- ➤ Back end design: Linux, vim, vlsi CAD, scripting, manual physical design(vlsi layout)
- ➤ EDA: Linux, data structures, vlsi CAD, c, c++, concurrent programming







