COURSE OBJECTIVE
Low power has emerged as a principal theme in today’s electronics industry. With the remarkable success and growth of the class of personal computing devices (portable desktops, audio- and video-based multimedia products) and wireless communications systems (personal digital assistants and personal communicators), demand of high-speed computation and complex functionality with low power consumption has increased. In the past, the major concerns of the VLSI designer were area, performance, cost and reliability; power consideration was mostly of only secondary importance. In recent years, however, this has begun to change and power is being given comparable weight along with area and speed considerations. Thus, the need for low power has caused a major paradigm shift where power dissipation has become as important a consideration as performance and area. Many issues are faced by designers at architectural, logic, circuit and device levels which are required to be overcome by efficient techniques. This course will address the latest trends and future challenges that must be met to design low power, high performance systems.

COURSE CONTENTS
- VLSI Design cycle
- Challenges at various design levels
- Power Estimation Methods
- Power reduction techniques at each design level
- Effects of scaling
- CMOS Analog design
- Digital circuit design
- CAD Techniques
- Nanoscale Semiconductor Devices
- Hands-on session on tools like Cadence and TCAD.
- Future Challenges

IMPORTANT DATES
Submission of Registration form by 27.11.2017
Acceptance Notification by 30.11.2017

DATE & VENUE FOR REGISTRATION
4.12.2017 (9AM) at TCC Seminar Hall, GNDEC, Ludhiana

CONTACT DETAILS
Dr. Sandeep Singh Gill
Professor & Head,
Department of Electronics & Communication Engineering,
Guru Nanak Dev Engineering College,
Gill Road, Gill Park, Ludhiana,
Punjab – 141006
E-mail: gndec.ece.fdp@gmail.com
Phone: 0161-5064576(O)

PATRON
Principal,
Guru Nanak Dev Engineering College, Ludhiana

COORDINATOR
Dr. Sandeep Singh Gill

ORGANISING COMMITTEE
- Pf. Narwant Singh
- Pf. Jasmeet Kaur
- Dr. Balwinder Singh
- Pf. Daljit Singh
- Dr. Munish Rattan
- Pf. Sapanjit Kaur
- Dr. Baljeet Kaur
- Pf. Simranjit Kaur
- Pf. Harminder Kaur
- Pf. Naazia Makkar
- Pf. Gurjot Kaur
- Pf. Nishu Kansal
- Pf. Navneet Kaur
- Pf. Palwinder Kaur
- Pf. Gurbirneet Kaur
- Pf. Tarandeep Singh
- Pf. Chahat Jain
- Pf. Kuldeepak Singh
- Pf. Harminder Kaur Aulakh


Coordinator
Dr. Sandeep Singh Gill
Organized by Department of Electronics and Communication Engineering
Guru Nanak Dev Engineering College
Ludhiana
Gill Road, Gill Park, Ludhiana, Punjab – 141006
E-mail: gndec.ece.fdp@gmail.com
Phone: 0161-5064576(O)
Guru Nanak Dev Engineering College (An Autonomous College under UGC Act), established in 1956, has been striving persistently in the field of education by comprehending the need for upliftment of rural youth in highly competitive, technologically-elevated society, in particular, and understanding the thirst for knowledge of students and quenching it in general. The College has been declared an Autonomous College by UGC, New Delhi on 17.8.2012. This college has the privilege of starting Ph.D degree under Quality Improvement Programme (QIP) by AICTE, New Delhi. Apart from offering various accredited graduate level B.Tech courses, the institute also imparts thirteen Postgraduate courses both on regular and part time basis. An excellent platform is provided to the researchers leading to Ph.D degree program.

The Department of Electronics and Communication Engineering, established in 1981, is one of the most dynamic departments of Guru Nanak Dev Engineering College. It was the first most diversification initiative by the college, 25 years after its establishment. The department is currently running NBA Accredited UG and PG courses in Electronics and Communication Engineering and has around 15 scholars enrolled for doctorate in areas like Antenna Design, VLSI, Optical communication etc. Ever since its inception, the department has been the hub of academic excellence through some great teachers who have spread their wings all over the globe. The alumni of the department are not only excelling in India but also in the Silicon Valley and other hubs of Electronics Technology. They are at the forefront of the Telecom revolution of the last 20 years and manning pivotal positions in Telecom operators in India, South East Asia, Pacific region and Africa. In the last two years, as a part of an academically autonomous system, the department has been taken numerous quality initiative including revamping of syllabi so that it is in tune with the outcome based system as proposed in the Washington Accord. The department is having very good pass percentage usually above 95% for UG/PG students. ECE Department is continuously maintaining strong International collaboration with outside world in form of joint research publications, editorial board memberships of reputed International journals.

REGISTRATION

There is no registration fee for participants from academic institutes. All short-listed candidates are required to confirm their participation by sending the scanned copy of duly filled Registration form by Email to gndec.ece.fdp@gmail.com.

Shortlisting and confirmation of eligible candidates will be on a first come first served basis. Incomplete application forms will not be entertained. Registration forms should reach the coordinator by 27.11.2017.

ELIGIBILITY

Faculty members of degree level engineering colleges recognized by AICTE are eligible to attend the course. Applications from various fields like ECE/EE/CSE/IT and other related disciplines are invited.

Course Completion Certificate will be given if the attendance criterion is satisfied.

TRANSPORT, BOARDING & LODGING

Participants are entitled for II class (Sleeper Class) or AC railway fare to and fro by the shortest route from college to GNDEC, Ludhiana. Accommodation will be provided in the students Hostels or Guest House on sharing basis.

TWO WEEK AICTE SPONSORED FACULTY DEVELOPMENT PROGRAMME ON

“Design Challenges in Low Power VLSI Design”

Registration Form

Name (in block letters):
Gender:
Qualification:
Designation/Department:
Organization:
Address:
Mobile:
Email:
Accommodation in Campus: YES / NO

Sponsorship & Signature of Head of the College / Institute (with date & seal).

(Important: By signing above, head of the College/Institute certifies that applicant is a faculty member of degree level engineering college recognized by AICTE)