

TECHNICAL TALK -2018-19

1. Technical talk on Semiconductor Industry Overview

The department of ECE organized a technical talk on “Semiconductor Industry



Overview” for the students of sixth semester on 29th April 2019 by Mr. Syed Salman, Lead Engineer, Sankalp Semi-conductor Pvt. Ltd., Hubli.

Mr. Salman, completing the post-graduation in Digital Electronics started his career with Sankalp Semiconductor Pvt. Ltd. as a Design Engineer. He has extensively worked on IO circuit design & modelling and has designed circuits on 180nm, 130nm, 40nm, 28nm & 16nm technologies, which are silicon proven. Currently, he is holding the position of Lead Engineer in Sankalp Semiconductor.

The talk began with the introduction to design and fabrication of semiconductor devices and the development of products related to applications like networking,

Mobile computing, healthcare, space operation, automotive etc. He discussed on the basic categories of semiconductor companies like fab makers and fabless makers and also briefed on the types of semiconductor industry predominant in India. The talk elaborated on designing of memory devices, commodity IC and complex SOC. He added that, if



students wish to build career in semiconductor industry should have a strong foundation in the area of analog and digital circuitry which includes amplifiers, oscillators, PLL, voltage regulators, filters,

registers, FSM, flip-flops etc. His talk included concepts such as Verilog/ VHDL coding, verification and synthesis in front end design and physical design, place and route as a

part of backend design. At the end, he guided students to have an in-depth understanding of fundamentals to plan their career in VLSI industry and finally the talk concluded by presenting a memento as a token of gratitude.

2. Technical talk on “Network Protocol in Industry”

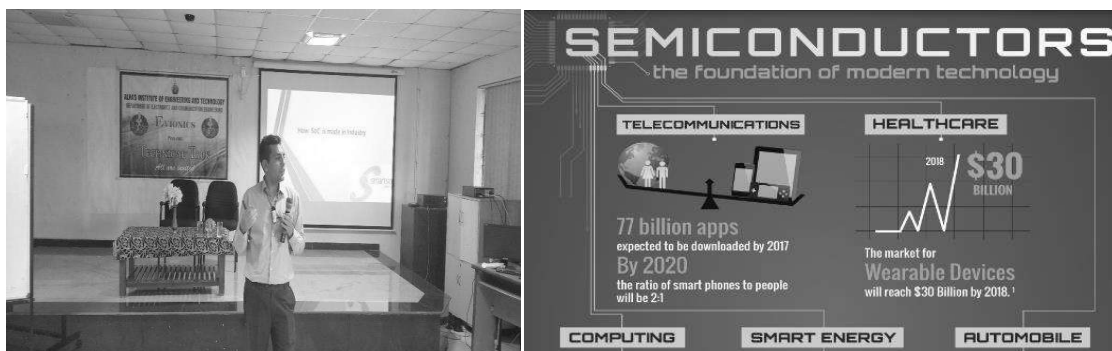
The department of ECE organized a technical talk on 23rd April 2019 which was delivered by Mr. Santhosh Kumar S B. The technical talk was inaugurated by Head of the department Mr. Jayant Kumar A Rathod, Forum coordinator Mr. Manjunath H.R and other faculties. He spoke on the topic of “Concept of Network Protocol in Industry”.



In this session, first he spoke about Internet Protocol Television (IPTV) and then explained Broadband network access.

3. Technical talk on “System on Chip”

The department of ECE organized a technical talk on the topic “System on Chip” for the final year students on 25th March 2019 by Mr. Asif Mohammed, Director, Smart SOC Bangalore. The formal inaugural function was graced by the presence of Dr. Richard Pinto. Mohammed has over 20 years experience working in Industry. Mr. Asif began the talk with the introduction to VLSI, where billions of transistors integrated to make a complex chip.



He discussed on the challenges of complex designs, time to market and huge investments involved in VLSI industry. He discussed on various components in SoC by considering a typical example of iphone chip which has modules like low power RAM, Qualcomm LTE Modem, Power amplifiers, Power Management IC, Bluetooth Module and transceivers. He also briefed about Front End Design process like Functional Simulation, Synthesis, Timing checks and the Back End Design process like floor planning, Place and route and fabrication. He also briefed about the facts and trends in VLSI industry. Finally he concluded the talk by highlighting the skills required by a student to join VLSI industry and the available opportunities to build career in chip design.

4. Technical talk on “ASIC and FPGA implementation in Semiconductor Industry”

The department of ECE organized a technical talk on “ASIC and FPGA implementation in Semiconductor Industry” for the students of fifth and seventh semester on 28th February 2019 by Mr. Arun J Mathias, Manager- Training CoreEL Technologies, Bangalore. Mr. Mathias, has experience working in Cypress Semiconductor Technology India Pvt. Ltd, Bangalore where he was involved in the design and verification of complex ASICs. Currently he is working as Manager – Training at CoreEL Technologies Bangalore. The talk began with briefing the introduction and need for Application Specific IC and Field Programmable Gate Array in semiconductor industry. The ASICs Refer to semiconductor solutions design for a particular



application, as opposed to other solutions like Field Programmable Gate Arrays (FPGAs) which can be programmed multiple times to perform a different functions. The talk majorly focussed on the journey of designing an ASIC which is a long winding road taking you from a concept to a working silicon. Finally he concluded the talk by explaining the opportunities available to build the career in this niche area and encouraged students to take up final year projects in the field of VLSI.

5. Technical talk on “Emerging trends in Electronics and Communication for better tomorrow”

Prof. C Murali delivered a technical talk on ‘Emerging trends in Electronics and Communication for better tomorrow’ after the inaugural ceremony of IETE student forum..



6. Technical talk on “Internet of Things(IoT) and Introduction to Deep Learning”

The department of ECE organized a technical talk on the topic “Internet of Things(IoT) and Introduction to Deep Learning” for the students of fourth and sixth semester on 9th Feb 2019 by Amogh Kashyap, R&D Engineer, Nokia, Bangalore. The formal inaugural function was graced by the presence of Dr. D V Manjunatha, Head, Dept. of ECE, AIET.



Mr. Kashyap is working at Nokia Networks as an R&D Engineer for Digital Automation team, focused on solutions for enterprises. He has an experience working in robotic systems where they develop customized indoor and outdoor autonomous bots for automating tasks and communication. He is currently working in developing drone solutions (Nokia Drone Networks) for Enterprises where our drones are capable of transporting materials, monitoring gas pipelines using video analytics involving deep learning techniques.

7. Technical talk on “Fabrication of Photovoltaic cell – A detailed approach”

The department of ECE organized a technical talk on “Fabrication of Photovoltaic cell – A detailed approach” for the students of fifth and seventh semester on 3rd November 2018 by Mr.Nizam Subhani, Technologist, IISc, Bangalore.



8. Technical talk on “A peep in the world of semiconductor fabrication”

The department of ECE organized a technical talk on “A peep in the world of semiconductor fabrication” for the students of fifth and seventh semester on 3rd November 2018 by Mr.Shreyas Bhat, Technologist, IISc , Bangalore.



9. Technical talk on “Recent Trends and Evolution in Mobile Communication”

The department of ECE organized a technical talk on “RECENT Trends and Evolution in Mobile Communication” for the students of fifth semester on 6th October 2018 by Mr.

Prasad Dandra, Associate Director, Samsung Semiconductor India R&D, Bangalore.



10. Technical talk on “Advanced Digital Communications –Techniques and Applications”

The department of ECE organized a technical talk on the topic “Advanced Digital Communications –Techniques and Applications” on Sep 22nd 2018 by Mr. T R Ramamohan, Additional General Manager(Retd.), Bharat Electronics Limited, Bangalore.



11. Technical talk on “Applied Electromagnetism and Modern Antenna Design”

The department of ECE organized a technical talk on 11th September 2018 which was delivered by Dr. Krishnamoorthy K, Asst Prof., Dept. of ECE, NITK Suratkal on the topic “Applied Electromagnetism and Modern Antenna Design”. The formal inaugural function was graced by the presence of Dr. Richard Pinto.



12. Technical talk on “Wireless Communication towards 5G”

The department of ECE organized a technical talk on 11th August 2018 by **Dr. Muralidhar Kulkarni, Professor, Dept. of ECE, NITK Suratkal** on the topic “**Wireless Communication towards 5G**” for the students of third and fifth semester. The formal inaugural function was graced by the presence of Head of the Dept. Dr. Richard Pinto, Professor, Dept. of ECE and Mr. Sudhakar H M, Technical Talk Coordinator, Dept. of ECE.

Dr. Kulkarni has served in various capacities in industry and teaching for the last 35 years. He has held the positions of Scientist in Instrumentation Division at the Central Power research Institute, Bangalore, Aeronautical Engineer in Avionics group of Design and Development team of Advanced Light Helicopter (ALH) project at Helicopter Design Bureau at Hindustan Aeronautics Limited (HAL), Bangalore, Assistant Professor at the Electrical Engineering Department of UVCE, Bangalore and as an Associate Professor in ECE Department at the Delhi College of Engineering (DCE), Delhi. He also established the IIIT, Dharwad to take forward IIIT as an institute of excellence in 2015 as its Officer On Special Duty.

The talk began with introducing the students with the basic fundamentals of wireless communication and discussed on the causes and effects of interference, fading & crosstalk which is major issue to address in wireless.