



**SARVAJANIK UNIVERSITY**  
**Sarvajanik College of Engineering and Technology**  
**Electronics and Communication Engineering**



**REPORT**  
**ON**

**High Speed Board Design**

**Organized by**

Electronics and Communication Engineering Department

In association with



सह वीर्यं करवावहै

IETE Surat sub center

and

eInfochips, Ahmedabad

**Faculty Coordinator:** Prof Pritesh Saxena

**Event Date:** 17 April 2023

**Time:** 11:30 AM Onwards

**Venue:** A/V Room, ECC Department, SCET

**Participants:** BE III, B.Tech II year students, EC Department and B.Tech II year Mechanical Department



**Sarvajani College of Engineering  
and Technology**

**Electronics and Communication Engineering Department**  
(Re-Accredited by NBA, New Delhi for 3 yrs, w.e.f 1 July 2019)  
in association with  
**IETE**  
Organizes  
Technical talk  
on  
**"High Speed Board Design"**



**Priyesh Pandya**  
**SPEAKER**  
TECHNICAL  
MANAGER  
AT  
EINFOCHIPS

17+ years of experience in High Speed/Mixed signal  
Hardware design & development, H/W  
Engineers/Leads, Developed multiple products' H/W  
for industries & domains like IoT, Security &  
Surveillance, Consumer, Medical, Automotive, EV  
Charging

Co Ordinator: Prof. Pritesh Saxena  
HoD: Prof. (Dr) Nehal Shah.

**REGISTER NOW**



**EC AV ROOM,  
SCET**

**17 April 2023  
11.30 AM**



सह वीर्य करवावेहे

## **Goal of the Expert Talk**

Expert talk on High Speed Board Design was organized in association with IETE SCET Sub Center and eInfochips, Ahmedabad under RnD Cell, SCET with an objective to motivate and encourage the student towards the domain of embedded system and hardware development. With this talk, students will gain an insight knowledge related to hardware cycle development and thereby understand high speed board designs.

## **About the Industrial Experts**

1. **Mr. Priyesh Pandya:** He is currently working as Technical Manager at Infochips (An Arrow Company) with an experience of 17+ years. His expertise includes designing and implementing processor-based products incorporating multi-core ARM and DSP, Signal/Power integrity and Thermal Analysis to decrease number of design re-spins. He has developed and maintained cross-functional design reviews. His experience also includes working with a wide variety of lab instrumentation including Oscilloscopes, Spectrum, Network & Impedance analyzer, Power/Volt meter, Function/Signal generator, Electronic Loads and Injection/Monitor probes.
2. **Mr. Mihir Patel:** He is currently working Technical Lead (Level 1) - Hardware Design and Testing at Infochips (An Arrow Company) with an experience of 12+ years. He has an expertise in Schematic design, board placement and layout review, system level mechanical design review. He provides technical support for EMI / EMC / Environmental qualification tests according to industry standards. His skills also include Hardware Fault Debugging of high speed hardware design, testing and validation, functional testing, board bring-up, environmental testing and debugging.

## **About the Expert Session**

The session started at 11:30 AM with the welcome address and introduction of the experts by the student Volunteer Ms. ChahiTejani. Mr. Priyesh started the session with an in depth view on various kind of embedded systems. He engaged the participating students by taking their views in the various applications of embedded system. He clearly explained the difference between various firmware's used in an embedded system. While discussing some applications of embedded system involving camera, he handled the query of student's related to 108 Mega Pixels camera.

He discussed how selections of various components while designing a project plays a crucial role in calculating the performance of the projects. He added that the reactance of the components needs the maximum attention. Adding his views, he made the concepts clear by discussing a project on Virtual Distance calculation that always requires high accuracy. He made the environment live and interactive by asking several questions before the audience and motivated the practical dimension of Electronics, studied in the class room sessions. He also discussed important concepts of cross talk, noise margin, set up and hold time as well as transmission line. He listed down various simulation tools used for PCB designing.

The next session was taken care by Mr. Mihir Patel. He started the session while discussing 3D PCB layout. He narrated how multi-layered PCBs are designed as well as care to be taken for designing such PCBs. He added that cross talk, component placement, rise time, fall time are important parameters to be calculated for validating PCB design. Students were show cased with the development cycle of hardware design from PCB making till final product development.

The participants were overwhelmed with the practical approach shown for high speed board design. They even gained the knowledge regarding the various skills required for hardware development as well as software development. The gesture shown by the experts is highly appreciable. Mr. Sarthak Bosamiya presented vote of thanks and the experts were felicitated with Memento.



Few glimpse of the talk







