Mr. Ankur Tyagi,

Tech Lead,
Eigen Technologies Pvt. Ltd., Delhi
2nd floor, C-30, Community Centre,
Janakpuri, Block C 6A, Janakpuri,
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Topic of Speech: Autonomous UAV

Brief Profile:

Ankur Tyagi is B.Tech in Electronics and Communication Engineering with an experience of 10 years in Wireless Research and Development. His research areas include Wireless Sensor Networks, Routing Protocols, Wireless Network Security and Internet of Things. He has co-authored 2 research papers in the field of vehicular ad-hoc networks. He has worked on simulation, emulation, and hardware test beds and is also part of the team that develops Sensenuts IoT platform. I look forward to visiting your institute and have a good interaction with participants during the event.

Internet of Things (IoT):

The Internet of things (IoT) is the network of devices, vehicles, and home appliances that contain electronics, software, actuators, and connectivity which allows these things to connect, interact and exchange data. IoT involves extending Internet connectivity beyond standard devices, such as desktops, laptops, smartphones, and tablets, to any range of traditionally dumb or non-internet-enabled physical devices and everyday objects. Embedded with technology, these devices can communicate and interact over the Internet, and they can be remotely monitored and controlled. The concept of a network of smart devices was discussed as early as 1982, with a modified Coke vending machine at Carnegie Mellon University becoming the first Internet-connected appliance, able to report its inventory and whether newly loaded drinks were cold. Mark Weiser's 1991 paper on ubiquitous computing, "The Computer of the 21st Century", as well as academic venues such as UbiComp and PerCom produced the contemporary vision of IoT. In 1994, Reza Raji described the concept in IEEE Spectrum as "[moving] small packets of data to a large set of nodes, so as to integrate and automate everything from home appliances to entire factories". Between 1993 and 1997, several companies proposed solutions like Microsoft's at Work or Novell's NEST. The field gained momentum when Bill Joy envisioned Device to Device (D2D) communication as a part of his "Six Webs" framework, presented at the World Economic Forum at Davos in 1999.

Mr. Abhay Upadhyay,

Director and CEO
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(InnovateCraft.com)

Parmesh Corporate Tower, 309,
IIIrd Floor Plot No.13,
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Delhi-110092.

Topic of Speech: Autonomous UAV

Brief Profile:

A Business Consultant with 7 years of experience in Supply Chain management using SAP Advanced Planning and Optimization, SAP Integrated Business Planning and SAP HANA. His experience includes 4 years with Accenture while 3 years with Deloitte. Clients served are the world leaders of their respective industry which include Unilever, Hewlett Packard, Caterpillar, Reliance Petrochemicals, Dr. Reddy's, Sun Pharmaceuticals, Parle among others and worked on helping them with their business strategies in Logistics and Supply Chain. He is adept in analyzing various Industry business scenarios including FMCG, Pharmaceutical, Semiconductors, Heavy machinery & Automotive and Chemical and worked extensively on evaluating end-user requirements and custom designing solutions for complex business scenarios. The business scenarios covered all the aspects of supply chain planning as in demand forecasting to Procurement, Manufacturing and Distribution planning. He has significant experience working with steering committees and other project managers. He has completed his B. Tech in ECE from MIET Meerut in 2011.

Autonomous UAV:

An unmanned aerial vehicle (UAV), commonly known as a drone, is an aircraft without a human pilot aboard. UAVs are a component of an unmanned aircraft system (UAS); which include a UAV, a ground-based controller, and a system of communications between the two. The flight of UAVs may operate with various degrees of autonomy: either under remote control by a human operator or autonomously by onboard computers. Compared to manned aircraft, UAVs were originally used for missions too "dull, dirty or dangerous" for humans. While they originated mostly in military applications, their use is rapidly expanding to commercial, scientific, recreational, agricultural, and other applications, such as policing, peacekeeping, and surveillance, product deliveries, aerial photography, agriculture, smuggling, and drone racing. Civilian UAVs now vastly outnumber military UAVs, with estimates of over a million sold by 2015, so they can be seen as an early commercial application of autonomous things, to be followed by the autonomous car and home robots.

Suyash Jain

BTech, MTech VLSI,
PGDVLSI, CDAC, Pune
Sr.Design Engineer,
Truechip Solutions, Noida

Topic of Speech:- Universal VLSI Verification Methodology

Brief Profile:

Suyash is a VLSI professional with 5+ Years of experience in VLSI Domain with exposure to full ASIC design flow with primary focus on Functional Verification using SV and UVM, Suyash has Completed his Btech in Electronics from University Gwalior and Mtech (Hons) in VLSI from RGTU Bhopal. He has worked on SoC (System-on-Chip) Verification, IP Verification and Verification IP development of HBM, DDR, LPDDR, eMMC etc.

Universal VLSI Verification Methodology:

The Universal Verification Methodology (UVM) is a standardized methodology for verifying integrated circuit designs. UVM is derived mainly from the OVM (Open Verification Methodology) which was, to a large part, based on the eRM (e Reuse Methodology) for the e Verification Language developed by Verisity Design in 2001.UVM class library brings much automation to the system Verilog language such as sequences and data automation features and unlike the previous methodologies developed independently by the simulator vendors, is an Accellera standard with support from multiple vendors: Aldec, Cadence, Mentor Graphics . In December 2009 a technical subcommittee of Accellera- a standard organization in the Electronic design automation industry voted to establish the UVM and decided to base this new standard on Open Verification Methodology and On February 2011, Accellera approved the 1.0 version of UVM. UVM 1.0 includes a reference guide, a reference implementation in the form of system Verilog base class library and a user guide.

The Basic UVM (Universal Verification Methodology) course consists of 8 sessions with over an hour of instructional content. This course is primarily aimed at existing VHDL and Verilog engineers or managers who recognize they have a functional verification problem but have little or no experience with constrained random verification or object-oriented programming. The Verification Academy's goal for releasing the Basic UVM (Universal Verification Methodology) course is to raise the level of UVM (Universal Verification Methodology) knowledge to the point where users have sufficient confidence in their own technical understanding that it becomes less of a barrier to adoption.

Vaibhav Mishra

Application Engineer,
Pine Training Academy,
Training Division of Aujus Technology,
D - 557, Govindpuram, Ghaziabad,
Uttar Pradesh-201013

Topic of Speech: Semiconductor Technology

Brief Profile:

Vaibhav Mishra has over 12 years of technical and management experience in the semiconductor (FPGA) industry as Application Engineer. He has worked on Xilinx and Altera platforms. He holds B-Tech in electronics and communication from Northern India Engineering College, Lucknow. He has also done Advanced Post Graduation diploma in VLSI designs from VEDANT, Mohali (Chandigarh).

Semiconductor Technology:

Field Programmable Gate Arrays (FPGAs) are semiconductor devices that are based around a matrix of configurable logic blocks (CLBs) connected via programmable interconnects. FPGAs can be reprogrammed to the desired application or functionality requirements after manufacturing. This feature distinguishes FPGAs from Application Specific Integrated Circuits (ASICs), which are custom manufactured for specific design tasks. Although one-time programmable (OTP) FPGAs are available, the dominant types are SRAM based which can be reprogrammed as the design evolves. Due to their programmable nature, FPGAs are an ideal fit for many different markets. As the industry leader, Xilinx provides comprehensive solutions consisting of FPGA devices, advanced software, and configurable, ready-to-use IP cores for markets and applications such as:

Aerospace & Defense - Radiation-tolerant FPGAs along with intellectual property for image processing, waveform generation, and partial reconfiguration for SDRs.

ASIC Prototyping - ASIC prototyping with FPGAs enables fast and accurate SoC system modeling and verification of embedded software.

Audio - Xilinx FPGAs and targeted design platforms enable higher degrees of flexibility, faster time-to-market, and lower overall non-recurring engineering costs (NRE) for a wide range of audio, communications, and multimedia applications.

Automotive - Automotive silicon and IP solutions for gateway and driver assistance systems, comfort, convenience, and in-vehicle infotainment. - Learn how Xilinx FPGA's enable Automotive Systems.

Broadcast & Pro-AV - Adapt to changing requirements faster and lengthen product life cycles with Broadcast Targeted Design Platforms and solutions for high-end professional broadcast systems.