

Greetings from IoT club!!

The prestigious PSIT IOT club going to organized webinar on “ Semiconductors: Academic to Industry” by Govind Krishna Pal, on May 16, 2024 (5:15 to 6: 15 PM) .

Interested candidates can do the registration with the given link:

<https://forms.gle/1kdHzRjEPwzp1VbQ6>

Join Zoom Meeting on May 16, 2024 (5:15 to 6: 15

PM):<https://us06web.zoom.us/j/85427296831?pwd=llunW9uWvGDiYbpl6U3xSRcryxokC1.1>

Meeting ID: 854 2729 6831

Passcode: 1234

In case of any query, kindly feel free to contact:

Dr. Shailendra Singh, IoT club coordinator

9855366768

Respected Sir,

I am writing to provide a recap of the recent webinar organized by the PSIT IOT club. The webinar, titled "Semiconductors: Academic to Industry," was presented by Govind Krishna Pal, Senior Staff Engineer at STMicroelectronics Pvt Ltd.

During the insightful session, participants had the opportunity to delve into the intricate world of semiconductors, exploring the transition from academic knowledge to real-world industry applications. Mr. Govind Krishna Pal shared valuable insights into the evolution of semiconductor technologies and their significance across various industries.

Date: May 16, 2024

Time: 5:15 PM to 6:15 PM

Total Number of students participated through Zoom meeting: - 55

Some important insights are attached below:

Zoom Meeting

Recording... 11

View

ayushman awas... ayushman awasthi	 PSIT Kanpur	Tanya Porwal Tanya Porwal	Shagun Vishwa... Shagun Vishwakarma
shivanshu_71 shivanshu_71	Shriyansi Singh Shriyansi Singh	 Uday Mishra	Adarsh Tiwari Adarsh Tiwari
 Ram Tripathi	 Rahul Gupta	Nitya Nitya	Vidushi Pandey Vidushi Pandey
Govind Govind	 Ajeet Singh Sengar	 (31328)_SAGAR...	 Abhay Singh
 Gaurav sharma	Ashumendra Si... Ashumendra Singh	 Dipanshu Shukla	

Unmute Start Video Security Participants Share Screen Summary AI Companion Reactions App Whiteboards Notes More End

Participants (19)

Find a participant

Joined (19)

- PSIT Kanpur (Host, me)
- Govind (Co-host)
- (31328)_SAGAR...
- Adarsh Tiwari
- Ajeet Singh Sengar
- Ashumendra Singh
- ayushman awasthi
- Dipanshu Shukla
- Gaurav sharma
- Nitya
- Rahul Gupta
- Shagun Vishwakarma
- shivanshu_71
- Tanya Porwal

Invite Mute All

4 people entered the waiting room View

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Zoom Meeting

Participants: ayushman awas..., Govind, Tanya Porwal, Shagun Vishwa..., shivanshu_

Recording... PSIT_PPT.pptx None (Unclassified) • Last Modified: 12m ago

PSIT Kanpur

DEPT. OF ELECTRONICS & COMMUNICATION ENGINEERING
PRANVEER SINGH INSTITUTE OF TECHNOLOGY, KANPUR
"SEMICONDUCTORS: ACADEMIC TO INDUSTRY"

Participants (17)

- Nikhil Singh
- Harshit Yadav
- VISHAL KUMAR
- UTKARSH YADAV
- PSIT Kanpur (Host, me)
- Govind (Co-host)
- (31328)_SAGAR
- Adarsh Tiwari
- Ajeet Singh Sengar
- ayushman awasthi
- Dipanshu Shukla
- Gaurav sharma
- Nitya
- Rahul Gupta
- Shagun Vishwakarma

5:20 PM 5/16/2024

Zoom Meeting

Participants: ayushman awas..., Govind, realme 5 Pro, Tanya Porwal, Shagun Vishwa...

Recording... PSIT_PPT.pptx DISPLAY SETTINGS END SLIDE SHOW

0:03:00 5:24 PM

DEPT. OF ELECTRONICS & COMMUNICATION ENGINEERING
PRANVEER SINGH INSTITUTE OF TECHNOLOGY, KANPUR
"SEMICONDUCTORS: ACADEMIC TO INDUSTRY"

OVERVIEW

No Notes.

Participants (25)

- Govind (Co-host)
- Saksham sengar
- Adarsh Tiwari
- Ajeet Singh Sengar
- ayushman awasthi
- Dipanshu Shukla
- Gaurav sharma
- Harshit Yadav
- Nikhil Singh
- Nitya
- Rahul Gupta
- Ram Tripathi
- realme 5 Pro
- Sagar singh
- Sakshi Singh
- Samsung SM-A336E

5:24 PM 5/16/2024

Zoom Meeting


Recording... PSIT Kanpur ayushman awas... Vidushi Pandey Govind realme 5 Pro Tanya Porwal

0:04:54 5:32 PM

OVERVIEW

- Specializations of Electronics and communications
- Very Large-Scale Integration (VLSI)
- Semiconductor: The brain within the Head
 - Y Chart
 - Semiconductor Industry
- Semiconductor Ecosystem
- Semiconductors in INDIA
- ASIC Design flow in VLSI Design
- Integrated VLSI and chip packages

Next slide



Electronics and communication Engineering

No Notes.

Slide 2 of 24

Participants (28)

Waiting Room (5) Message Admit All

- Dipanshu Shukla
- Sumit Gupta
- Prashasti Tripathi
- Abhay Singh
- Prateek Pratap Singh

Joined (28)

- PSIT Kanpur (Host, me)
- Govind (Co-host)
- Adarsh Tiwari
- Ajeet Singh Sengar
- Ayush Tripathi
- ayushman awasthi
- Gaurav sharma
- Harshit Yadav
- Nikhil Singh

106°F Haze 5:32 PM 5/16/2024

Participants (25)



Find a participant

- PSIT Kanpur (Host, me)
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- Adarsh Tiwari
- Ajeet Singh Sengar
- ayushman awasthi
- Dipanshu Shukla
- Gaurav sharma
- Harshit Yadav
- Nikhil Singh
- Nitya
- Rahul Gupta
- Ram Tripathi
- realme 5 Pro
- Sagar singh
- Saksham sengar
- Sakshi Singh

Invite

Thursday, May 16, 2024

Zoom Meeting

Recording... PSIT Kanpur ayushman awas... Govind realme 5 Pro Tanya Porwal Shagun Vishwa... 5:25 PM

0:03:54

DEPT. OF ELECTRONICS & COMMUNICATION ENGINEERING
PRANVEER SINGH INSTITUTE OF TECHNOLOGY, KANPUR
"SEMICONDUCTORS: ACADEMIC TO INDUSTRY"

Next slide
OVERVIEW

No Notes.

Participants (26)

Find a participant

- Rahul Gupta
- Ram Tripathi
- realme 5 Pro
- Sagar singh
- Saksham sengar
- Sakshi Singh
- Samsung SM-A336E
- Shagun Vishwakarma
- shivanshu_
- Tanya Porwal **Ask to Unmute**
- UdayMishra
- UTKARSH YADAV
- Vidushi Pandey
- VISHAL KUMAR
- Shriyansi Singh
- Yogesh Pandey

106°F Haze 5:25 PM 5/16/2024

Zoom Meeting

Recording... PSIT Kanpur ayushman awas... Govind realme 5 Pro Tanya Porwal Shagun Vishwa... 5:26 PM

0:05:08

OVERVIEW

- Specializations of Electronics and communications
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Next slide
Electronics and communication Engineering

No Notes.

Participants (29)

Find a participant

- PSIT Kanpur (Host, me)
- Govind (Co-host)
- Adarsh Tiwari
- Ajeet Singh Sengar
- ayushman awasthi
- Dipanshu Shukla
- Gaurav sharma
- Harshit Yadav
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- Nitya
- Rahul Gupta
- Ram Tripathi
- realme 5 Pro
- Sagar singh
- Saksham sengar
- Sakshi Singh

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Zoom Meeting

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0:08:21 5:36 PM

Electronics and communication Engineering

- Control and Systems
- Digital Communications
- Embedded Systems
- Integrated Circuits
- Nanotechnology
- Optical Electronics
- Microelectronics
- Microwave systems
- Power Electronics
- Robotics
- Instrumentation
- VLSI Design
- Wireless communications
- Remote sensing
- Bioelectronics

Next slide

VLSI (Very Large-scale Integration) Design

Very large-scale integration is a process of embedding or integrating hundreds of thousands of transistors onto a singular silicon SEMICONDUCTOR microchip.

VLSI technology's conception dates back to the late 1970s when advanced level processor (computer) microchips were also in their development stages.

The remarkable growth of the electronics industry is primarily due to the advances in large-scale integration technologies.

With the arrival of VLSI designs, the number of possibilities for ICs in control applications, telecommunications, high-performance computing, and consumer electronics as a whole continues to rise.

Participants (24)

Waiting Room (3) Message Admit All

Sumit Gupta Prateek Pratap Singh Rahul Gupta

Joined (24)

PSIT Kanpur (Host, me) Govind (Co-host) Adarsh Tiwari Ajeet Singh Sengar ayushman awasthi Dr. Shailendra Singh Gaurav sharma Harshit Yadav Nikhil Singh Nitya Ram Tripathi

Air: Poor Now

Zoom Meeting

You are viewing Govind's screen

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0:13:35 5:41 PM

VLSI (Very Large-scale Integration) Design

SEMICONDUCTOR Y Chart

The Double Data Y-chart is a useful visual system to compare or measure semiconductor devices.

The base layers of the Double Data Y-chart are an initial work flow of the design, up to a final set of instructions, using standard steps.

Creating a physical structure from a blueprint, on a silicon wafer, through the process of high-end lithography and liquid etching.

Creating a physical structure from a blueprint, on a silicon wafer, through the process of high-end lithography and liquid etching.

Participants (25)

PSIT Kanpur (Host, me) Govind (Co-host) Adarsh Tiwari Ajeet Singh Sengar ayushman awasthi Gaurav sharma Harshit Yadav Nikhil Singh Nitya Prateek Pratap Singh Ram Tripathi realme 5 Pro Sagar singh Shagun Vishwakarma shivanshu_ Sumit Gupta

Finance headline European Nation...

Zoom Meeting

Participants: PSIT Kanpur, ayushman awas..., Vidushi Pandey, Govind, Tanya Porwal, Shagun Vishwa...

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Fabrication Labs

- tsmc** Taiwan Semiconductor Manufacturing Co. Ltd.
- GF** Global Foundries Inc.
- UMC** United Microelectronics Corporation

Semiconductor Ecosystem

Design	Manufacturing
Fabless Chip Firms AMD, Qualcomm, Mediatek, Marvell, Broadcom, NVIDIA	Foundries TSMC, UMC, SMIC, Global Foundries
Fabless Non-Chip Firms Apple, Google, IBM, Amazon	Equipment KLA, ASML, TEL, Tokyo Electron, Applied Materials, Lam Research, Foxconn
IP & Design Software Synopsys, Siemens, Ansys, ARM, Cadence	Integrated Device Manufacturers Micron, Intel, Samsung, Analog Devices, Infineon, Hynix, SK, Texas Instruments

Slide 13 of 24

Participants (29)

Waiting Room (1)

Joined (29)

- PSIT Kanpur (Host, me)
- Govind (Co-host)
- #Sagar Singh
- Adarsh Tiwari
- Ajeet Singh Sengar
- ayushman awasthi
- Gaurav sharma
- Harshit Yadav
- Nikhil Singh
- Nitya
- Prateek Pratap Singh
- Ram Tripathi
- realme 5 Pro

Zoom Meeting

Participants: ayushman awas..., Vidushi Pandey, Govind, Tanya Porwal, Shagun Vishwa...

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Semiconductor Ecosystem

Design	Manufacturing
Fabless Chip Firms AMD, Qualcomm, Mediatek, Marvell, Broadcom, NVIDIA	Foundries TSMC, UMC, SMIC, Global Foundries
Fabless Non-Chip Firms Apple, Google, IBM, Amazon	Equipment KLA, ASML, TEL, Tokyo Electron, Applied Materials, Lam Research, Foxconn
IP & Design Software Synopsys, Siemens, Ansys, ARM, Cadence	Integrated Device Manufacturers Micron, Intel, Samsung, Analog Devices, Infineon, Hynix, SK, Texas Instruments

SEMICONDUCTORS in INDIA

The industry includes an \$1.1 billion semiconductor fab building the capacity to build 300mm wafers for the Indian and Chinese markets. The plant was proposed by the government of Gujarat. The plant was planned by the government of Gujarat. The plant was planned by the government of Gujarat. The plant was planned by the government of Gujarat.

Slide 14 of 24

Participants (29)

Waiting Room (1)

Joined (29)

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- ayushman awasthi
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- Harshit Yadav
- Nikhil Singh
- Nitya
- Prateek Pratap Singh
- Ram Tripathi
- realme 5 Pro

Zoom Meeting | You are viewing Govind's screen | View Options

Participants: PSIT Kanpur, Vidushi Pandey, Govind, Tanya Porwal, Shagun Vishwa..., shivanshu_

02:26:30 | 5:54 PM

**A S I C
D E S I G N
F L O W**

- 5 Placement**
Block placement, IP placement, I/O placements, cells placements
- 6 CTS**
Clock tree is created, to distribute the clock signals in sequential logic.
- 7 Routing**
logic cells to implement the digital logic.
- 8 Timing, IR and PV Checks**
Hold violations, Setup Violations, DRC Checks, LVS Checks

Next slide: FINAL STAGE: Layout (GDS) For fab labs. Schematic, GDS

Slide 20 of 24 | app.zoom.us is sharing your screen. Stop sharing

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Participants (35)



Find a participant

- PSIT Kanpur (Host, me)
- Govind (Co-host)
- #Sagar singh
- Adarsh Tiwari
- Ajeet Singh Sengar
- ayushman awasthi
- Gaurav sharma
- Harshit Yadav
- Nikhil Singh
- Nitya
- Prateek Pratap Singh
- Ram Tripathi
- Ritul Shukla [Ask to Unmute](#)
- Rohan Kumar
- Shagun Vishwakarma
- shivanshu_

Zoom Meeting | You are viewing Govind's screen | View Options

Participants: PSIT Kanpur, Vidushi Pandey, Govind, Tanya Porwal, Shagun Vishwa..., shivanshu_

0:31:54 | 5:59 PM

Integrated Chips & Packages

Next slide: THANK YOU

No Notes.

Slide 23 of 24 | Stop sharing

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Participants: Tanya Porwal, Shagun Vishwa..., shivanshu_, Shriyansi Singh, Govind, Nitya, Vidushi Pandey, Nikhil Singh, Harshit Yadav, Adarsh Tiwari, Varun, Prateek Pratap..., Sumit Gupta, Dipanshu Shukla, Shubhansh Shar..., Vaibhav Yadav, VISHAL KUMAR, ayushman awas..., Satvik Pal

ST-Microelectronics - Semicondu... | Gaurav sharma joined as a guest, Ashumendra Singh joined as a guest, Dipanshu Shukla joined as a guest, Abhay Singh left, Ashumendra Singh left

Due to the large number of participants in this meeting, system messages for those who joined or left have been disabled.

New messages

Ram Tripathi 6:02 PM: Sir how I can get placement in core ..I mean what are the steps .

You 6:04 PM: sir is expert to a domain, for placement we need to contact to HR cell.

Reply...








Who can see your messages? Recording On

To: Waiting Room | Participants

Message ST-Microelectronics - Semicond...

105°F Haze | 6:08 PM 5/16/2024

Zoom Meeting | Recording... | View









Shriyansi Singh Shriyansi Singh	 Uday Mishra	 Ram Tripathi	Nitya Nitya	 Ajeet Singh Sengar
 #Sagar singh	 Gaurav sharma	Nikhil Singh Nikhil Singh	Harshit Yadav Harshit Yadav	Adarsh Tiwari Adarsh Tiwari
Varun Varun	Prateek Pratap... Prateek Pratap Singh	 Sumit Gupta	 Dipanshu Shukla	Shubhansh Shar... Shubhansh Sharma
Vaibhav Yadav Vaibhav Yadav	VISHAL KUMAR VISHAL KUMAR	ayushman awas... ayushman awasthi	Yash_Paras_Singh Yash_Paras_Singh	Anjali Yadav Anjali Yadav
Akanksha Akanksha	Anurag Dubey Anurag Dubey	Tarun singh Tarun singh	Vaishnavi pandey Vaishnavi pandey	Aditi Gupta Aditi Gupta

Mute Start Video Security Participants 32 Chat Share Screen Summary AI Companion Pause/stop recording Show Captions Reactions Apps Whiteboards Notes End

105°F Haze Search 6:08 PM 5/16/2024

Zoom Meeting | Recording... | View

Govind is talking...

Vidushi Pandey Vidushi Pandey	 PSIT Kanpur	Govind Govind	Satvik Pal Satvik Pal	Tanya Porwal Tanya Porwal
Shagun Vishwa... Shagun Vishwakarma	shivanshu_ shivanshu_	Shriyansi Singh Shriyansi Singh	 Uday Mishra	 Ram Tripathi
Nitya Nitya	 Ajeet Singh Sengar	 #Sagar singh	 Gaurav sharma	Nikhil Singh Nikhil Singh
Harshit Yadav Harshit Yadav	Adarsh Tiwari Adarsh Tiwari	Varun Varun	Prateek Pratap... Prateek Pratap Singh	 Sumit Gupta
 Dipanshu Shukla	Shubhansh Shar... Shubhansh Sharma	Vaibhav Yadav Vaibhav Yadav	VISHAL KUMAR VISHAL KUMAR	ayushman awas... ayushman awasthi

Mute Start Video Security Participants 32 Chat Share Screen Summary AI Companion Pause/stop recording Show Captions Reactions Apps Whiteboards Notes End

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