

IMAGE GALLERY



A screenshot of a Zoom meeting grid. The participants are arranged in a grid with their names and video thumbnails. At the top center, there is a shared video of a presentation from the Pakistan Academy of Engineering. The participants listed are: Dr. Shahid Alam, Afzal Haque, MNA Khan, M. Imran Aslam, Dr. Sundus Ali, N..., Dr. Mushahid, Sohail P. Ahmed, Zahid Hussain, Naqi azam, and Jilani Yousuf. The bottom of the screen shows a Windows taskbar with the date 26-03-2022 and an HP logo.

A screenshot of a presentation slide titled "Strategic Importance of AI". The slide is displayed in a Zoom window with a toolbar at the top showing options like Mute, Stop Video, Security, Participants, Chat, New Share, Pause Share, Annotate, Remote Control, Apps, and More. A green banner at the top of the slide says "You are screen sharing" and "Stop Share". The slide content includes:

- AI will become increasingly critical in many strategic dimensions.
- National Security:** Warfighting and autonomous munitions; cyberwarfare; intelligence gathering; cybersecurity; predictive threat assessment.
- Infrastructure:** Energy (smart grid); smart structures; intelligent transportation networks; smart cities; telecommunications; banking/finance; IoT.
- Industry:** Automation; supply chain optimization; industrial espionage.
- Education:** Remote learning; on-demand training; automated instruction.
- Health:** Drug design and targeting, personalized medicine; automated diagnosis; robotic surgery; brain-machine interface/prosthetics; disease control.
- Law and Order:** Cybercrime prevention; intelligent surveillance; predictive policing.

A callout box at the bottom of the slide states: "Having a robust domestic AI sector is a strategic imperative for every country". The slide footer includes the University of Cincinnati logo, "College of Engineering & Applied Science", and the page number "13".



Zoom Meeting

Dr. Shahid Alam

Mustafa Sharief

Dr. Shahid Alam

Recording...

Pakistan Academy of Engineering

PAE Pakistan Academy of Engineering
 ADVANCING THE FRONTIERS OF EDUCATION AND TECHNOLOGICAL SCIENCES
 100th ANNIVERSARY
 Artificial Intelligence
 March 26, 2022

Participants (13)

Find a participant

- Pakistan Acade... (Host, me)
- M Masood Khan
- AH Afzal Haque
- A Aarsal
- A Azlaan

Invite Mute All

Chat

Dr. Mushahid to Everyone

DM Nice presentations so far by all presenters.

Afzal Haque to Everyone

AH Echoing going on

Who can see your messages? Recording On

To: Masood ... (Direct Message)

Type message here...

TENSORFLOW EXPLAINED

TENSOR DEFINITION

What are Tensors?

Tensor is a generalization of vectors and matrices of arbitrarily higher dimensions. Arrays of data with different dimensions and ranks that are fed as input to the neural network are called tensors.

Tensor Ranks

- Tensor of Rank 0: SCALAR
- Tensor of Rank 1: VECTOR
- Tensor of Rank 2: MATRIX
- Tensor of Rank 3: TENSOR

Data in the form of arrays is fed as input to the network

Input Layer Hidden Layers Output Layer

WHAT IS A TENSOR RANK?

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Zoom Meeting

Recording...

Participants (13)

Find a participant

- Pakistan Acade... (Host, me)
- Irfan Ahmed
- MNA Khan
- Afzal Haque
- Aرسال

Invite Mute All ...

Chat

AH Can I have slides of the presenters please

MNA Khan to Everyone

MK Thank you very much for your kind words - Dr

Who can see your messages? Recording On

To: Masood ... (Direct Message)

Type message here...

Recording...

Dr. Shahid Alam
Dr. Shahid Alam

Afzal Haque
Afzal Haque

Masood Khan

MNA Khan
MNA Khan

M. Imran Aslam
M. Imran Aslam

Dr. Mushahid
Dr. Mushahid

Zahid Hussain

Naqi azam
Naqi azam

Mustafa Sharief

Irfan Ahmed

Azlaan

Aرسال

Prof. Dr. Maaz A...
Prof. Dr. Maaz Akhtar

Jawwad Shamsi

Nowshad
Connecting to audio ...