



Government of India
Ministry of Electronics and information Technology
National Informatics Centre, Himachal Pradesh, Shimla
Technical Presentations by NIC HP Officials held on 07-August-2026

The fortnightly Technical Talk session was held on **07th August, 2026**. The session featured ten-minute technical presentations by individual Officers of NIC, followed by a five-minute session highlighting the Technical News during this time. The Technical Presentations of every individual were also evaluated by the NIC Staff on various parameters such as Content, Delivery Style, Usefulness of Topic, Time Constraint, Font & Style on the scale of 5 through the Hindi Bodh Mobile Application.

The details of the presenters & rating are as below:

Sr. No.	Name	Designation	Topic	Rating (5.0)
1.	Sh. Sanjay Thakur	Scientist-F	Large Language Models	4.6
2.	Sh. Vikas Poonia	Scientific/Technical Assistant-A	Introduction of Load Balancing	4.3
3.	Smt. Anju Devi	Scientific/Technical Assistant-A	Network Security Architecture Future Trends	4.2
4.	Sh. Jitender Sharma	Scientist-B	Technical News	4.5

In addition to the presentations, a quiz competition was organized related to technical content delivered. A total of **28** officials participated in the quiz, which was conducted on the Hindi Bodh Mobile App. The quiz featured **16** multiple-choice questions, all based on the technical presentations delivered by NIC officials.

The result of the quiz competition is as below:

Position	Participant Name	Designation	Location
1 st	Sh. Sandeep Kumar	Scientific Officer SB	NIC District Centre, Lahaul & Spiti
2 nd	Sh. Sanjay Thakur	Scientist-F	NIC State Centre
3 rd	Sh. Cl Kashyap	Scientist-D	NIC High Court



NIC HP officials attending the technical session

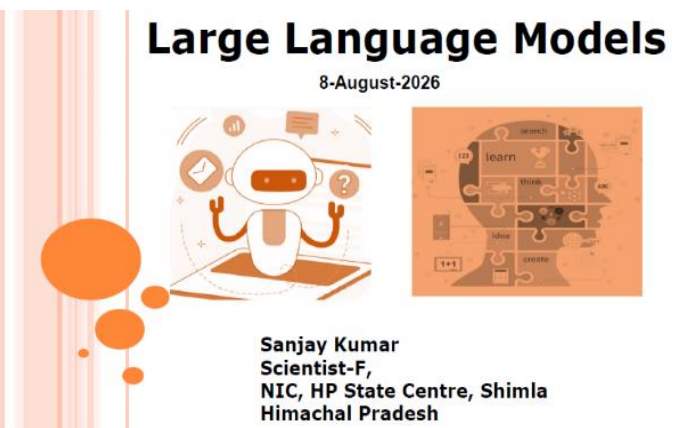
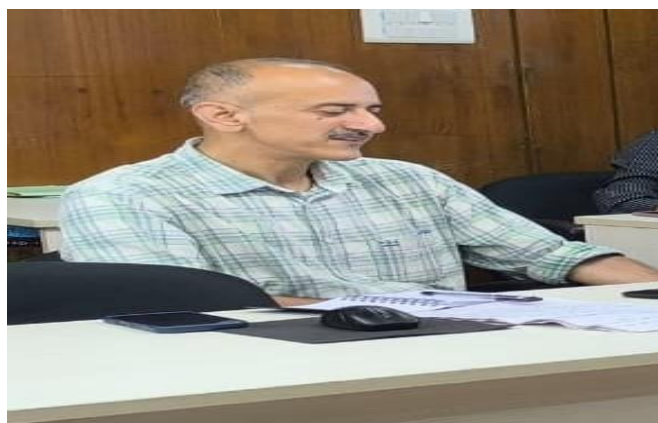
The following officials were present during the technical talk held on 07-08-2026

Sr. No	Name of official	Designation	Centre (State/District)
1.	Sh. Lalit Kapoor	Scientist-F	NIC State Centre
2.	Sh. Shailender Kaushal	Scientist-F	NIC State Centre
3.	Sh. Sanjay Thakur	Scientist-F	NIC State Centre
4.	Sh. P. S. Kannan	Scientist-E	NIC State Centre
5.	Sh. Ashish Sharma	Scientist D	NIC State Centre
6.	Sh. Mukesh Kumar	Scientist D	NIC State Centre
7.	Sh. Prithvi Raj	Scientist C	NIC State Centre
8.	Sh. Pankaj	Stenographer Grade-III	NIC State Centre
9.	Sh. Sanjay Kumar	Scientist-F	NIC HP CGO Complex
10.	Sh. Vinod Kumar Garg	Scientist-F	NIC HP CGO Complex
11.	Sh. Mangal Singh	Scientist-D	NIC HP CGO Complex

12.	Sh. Cl Kashyap	Scientist-D	NIC High Court
13.	Sh. Jitender Sharma	Scientist-B	NIC High Court
14.	Sh. Sandeep	Scientific/Technical Assistant-A	NIC District Centre, Chamba
15.	Sh. Prashant Kumar	Scientific Officer SB	NIC District Centre, Hamirpur
16.	Sh. Sandeep Kumar	Scientific Officer SB	NIC District Centre, Lahaul & Spiti
17.	Sh. Jagdeep	Scientific/Technical Assistant-A	NIC District Centre, Lahaul & Spiti
18.	Sh. Chetan Saini	Scientific Officer SB	NIC District Centre, Mandi
19.	Sh. Balwan Singh	Scientist-D	NIC District Centre, Kinnaur
20.	Smt. Priyanka Yadav	Scientific Technical Assistant-A	NIC District Centre, Kinnaur
21.	Sh. Akshay Mehta	Scientist F	NIC District Centre, Kangra
22.	Sh. Sarvjeet Kumar	Scientist- C	NIC District Centre, Kangra
23.	Sh. Vikas Poonia	Scientific/Technical Assistant-A	NIC District Centre, Kangra
24.	Sh. Anand Kumar Verma	Scientific Officer SB	NIC District Centre, Kullu
25.	Sh. Devwritt Arya	Scientific Officer SB	NIC District Centre, Solan
26.	Smt. Anju Devi	Scientific/Technical Assistant-A	NIC District Centre, Solan
27.	Sh. Deepak Kumar	Scientist- C	NIC District Centre, Shimla
28.	Sh. Manoj Kumar	Scientific/Technical Assistant-A	NIC District Centre, Sirmaur

Overview of Technical Presentations

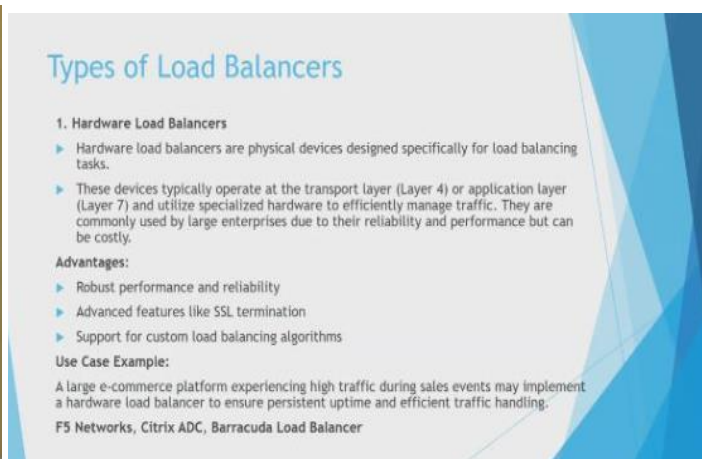
Large Language Models:



Sh. Sanjay Thakur presenting on Large Language Models.

Sh. Sanjay Thakur delivered the presentation on Large Language Models. The presentation explains that the Large Language Model (LLM) is an artificial intelligence system trained on extensive text data to interpret, summarize, translate, and generate human-like content. Driven by transformer neural networks, LLMs forecast subsequent words in sequences to manage intricate language and coding tasks. Popular examples include ChatGPT and Google Gemini. Core developmental steps involve massive data training, tokenization, transformer architectures, and fine-tuning. Key limitations consist of hallucinations, training data bias, high computational costs, and data privacy concerns. Models are generally categorized into base and instruction-based types.

Introduction of Load Balancing:



Sh. Vikas Poonia presents on Load Balancing.

Sh. Vikas Poonia delivered a presentation on Load Balancing. The presentation explains that Load balancing is a fundamental technique used to distribute incoming network traffic across multiple servers to improve application performance, reliability, and availability. The presentation covers different types of load balancers, including hardware and software load balancers, along with their advantages and use cases. It explains two primary approaches to load balancing: static and dynamic. Static algorithms discussed include Round Robin, Weighted Round Robin, and Source

IP Hash, while dynamic algorithms include Least Connection, Weighted Least Connection, Weighted Response Time, and Resource-Based load balancing.

The request lifecycle in a load-balanced system, covering how a client request reaches the load balancer, how the load balancer performs security checks and health checks, and how it selects a suitable backend server. The selected server processes the request and sends the response back through the load balancer to the client. Overall, load balancing helps distribute traffic efficiently, avoid server overload, and maintain high availability and reliable application performance, particularly in large-scale applications, cloud environments, and data centers.

Network Security Architecture:



Smt. Anju Devi presenting on Network Security Architecture.

Smt. Anju Devi delivered a presentation on Network Security Architecture. The presentation explains the Modern network security architecture necessitates a shift from perimeter-based defense to a Zero Trust framework. The core objective is to minimize the attack surface through rigorous micro-segmentation, isolating critical assets within defined VLAN zones to contain potential lateral movement. Every communication path, whether internal or external, must be secured with robust encryption standards such as TLS 1.3 and IPsec to maintain data integrity and confidentiality during transit. Real-time visibility is equally essential; leveraging AI-driven flow analytics integrated with inline Intrusion Prevention Systems (IPS) allows for the immediate identification and mitigation of anomalous traffic patterns. By removing reliance on flat network structures, organizations can drastically improve threat detection and response capabilities. This strategic approach ensures that security is baked into the infrastructure rather than applied as an afterthought. Ultimately, adopting these principles provides a resilient defense posture against evolving cyber threats, safeguarding organizational integrity in an increasingly complex digital landscape.

Technical News



Sh. Jitender Sharma, presenting the Technical News

International News

- 22 APR

Google Cloud launched its next-generation AI chips.

The company unveiled two new custom tensor processing units called the TPU v4 and v4e. Both have been sort of architected and designed-end-to-end for (what's) called the age of agents, and sort of the unique requirements of agent-based solutions and applications.
- 11 MAY

Google Brings Gemini AI Across Its Ecosystem

At Google I/O 2026, Google announced major upgrades to Gemini AI, introducing new AI features for Search, Gmail, Chrome, YouTube, and Google Docs.
- 27 MAY

Huawei Challenges Moore's Law with a New AI Chip Strategy

Huawei introduced its "Tai Scaling Law", a new AI chip design approach that prioritizes smarter architecture over smaller transistors. The concept is to make data travel faster inside the chip, improving AI performance without relying solely on transistor miniaturization.
- 07 JUN

Microsoft Introduces AI-Powered Computing at Build 2026

Microsoft unveiled autonomous AI agents, a new Surface RTX Spark Dev Box, and Project Solara AI conference. The announcement highlights Microsoft's vision of AI-driven computing, where intelligence completes complex tasks across Windows and the cloud.



Sh. Jitender Sharma presented the technical news. Here's topics of the main news covered in the presentation:

- **Global Technology Trends:** AI, AI chips, quantum computing and emerging computing technologies.
 - **India's Semiconductor Push:** Semicon 2.0 and major new semiconductor projects.
 - **Emerging Technologies in India:** Key initiatives supporting next-generation technology development.
 - **NIC Digital Initiatives:** e-Forensics 2.0, DRASHTI, PMMS and Samarth Panchayat.
 - **Digital Governance:** Technology-driven solutions for efficient, transparent and citizen-centric governance.
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