



सत्यमेव जयते
Government of India

Ministry of Electronics and information Technology

National Informatics Centre, Himachal Pradesh, Shimla

Technical Presentations by NIC HP Officials: 05-April-2025

The NIC Technical Talk session held on **05 April 2025** followed its standard format insightful presentations. The session featured ten-minute technical presentations by three participants, either from the State Center or districts, followed by a five-minute highlighting the technical news. Today's session wrapped up with the voting for software demonstration.

The details of the presenters, are as follows:

Sr. No.	Name	Designation	Topic	Rating (5.0)
1.	Sh. Sanjay Thakur	Scientist-F	Apache Kafka	4.7
2.	Sh. Akshay Mehta	Scientist-E	Data Science	3.9
3.	Sh. Bhupinder Singh	Scientist-D	Technical News	4.1
4.	Sh. Ashish Sharma	Scientist-C	OWASP TOP 10	4.6

In addition to the presentations, a quiz competition was organized related to technical content delivered. A total of **30** officials participated in the quiz, which was conducted on the Hindi Bodh Mobile App, developed by NIC Himachal Pradesh. The quiz featured **12** multiple-choice questions, all based on the technical presentations delivered by NIC officials.

The result of the quiz competition are as follows:

Position	Participant Name	Designation	Location
1 st	Sh. Sandeep Kumar	Scientist-F	NIC Vidhan Sabha
2 nd	Sh. Prithvi Raj	Scientist-C	NIC HP State Centre
3 rd	Sh. Shailender Kaushal	Scientist F	NIC HP State Centre



NIC HP officials attending the technical session

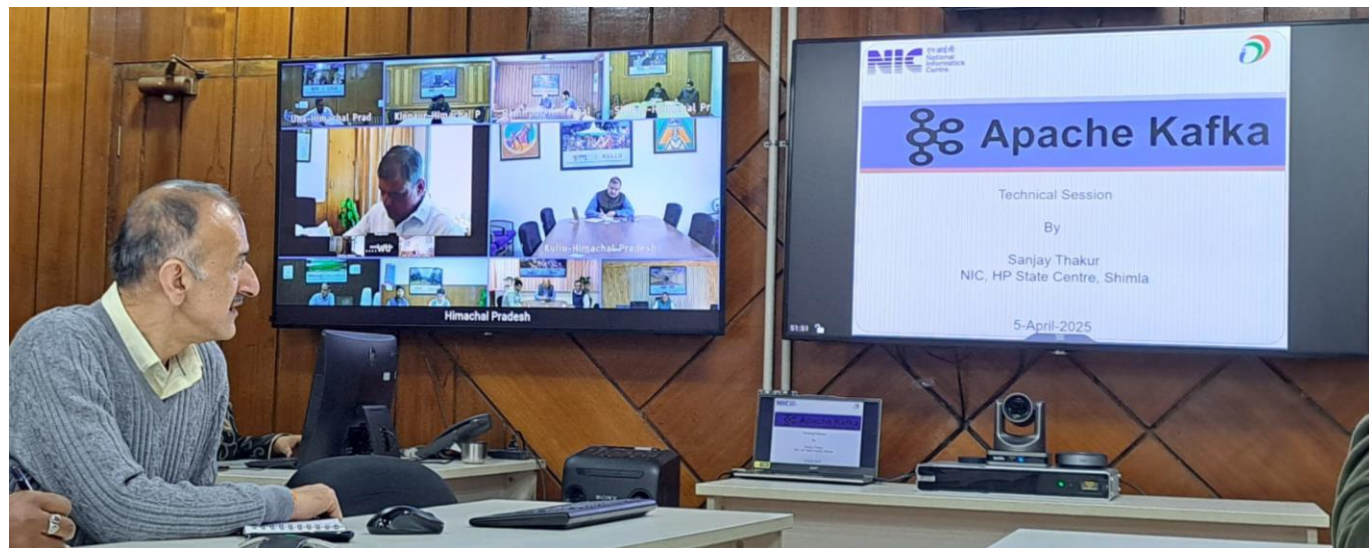
The following officials were present in the technical talk on 05-04-2025

Sr. No	Name of official	Designation	Centre (State/District)
1.	Sh. Ajay Singh Chahal	SIO-Cum-Scientist-G	NIC State Centre
2.	Sh. Lalit Kapoor	Scientist-F	NIC State Centre
3.	Sh. Bhupinder Pathak	Scientist-F	NIC State Centre
4.	Sh. Sandeep Sood	Scientist-F	NIC State Centre
5.	Sh. Sanjay Sharma	Scientist-F	NIC State Centre
6.	Sh. Pankaj Gupta	Scientist-F	NIC State Centre
7.	Sh. Vimal Kumar Sharma	Scientist-F	NIC State Centre
8.	Sh. Vijay Kumar Gupta	Scientist-F	NIC State Centre
9.	Sh. Shailender Kaushal	Scientist-F	NIC State Centre
10.	Sh Akhilesh Bharti	Scientist-F	NIC State Centre

11.	Sh Sanjay Thakur	Scientist-F	NIC State Centre
12.	Sh. Ashish Sharma	Scientist D	NIC State Centre
13.	Sh. Mukesh Kumar	Scientist D	NIC State Centre
14.	Sh Sarvjeet Kumar	Scientist C	NIC State Centre
15.	Sh. Prithvi Raj	Scientist C	NIC State Centre
16.	Smt. Vandana Sankhyan	Scientist C	NIC State Centre
17.	Sh. Himanshu Gupta	Steno Grade-III	NIC State Centre
18.	Sh Sanjay Kumar	Scientist-F	NIC HP CGO Complex
19.	Sh. Vinod Kumar Garg	Scientist-F	NIC HP CGO Complex
20.	Sh Mangal Singh	Scientist-D	NIC HP CGO Complex
21.	Sh. Cl Kashyap	Scientist-C	NIC High Court
22.	Sh Sandeep Kumar	Scientist-F	NIC Vidhan Sabha
23.	Sh. Rakesh Kumar	Scientist-D	NIC District Centre, Bilaspur
24.	Sh. Anurag Gupta	Scientist-E	NIC District Centre, Hamirpur
25.	Sh. Prashant Kumar	Scientific Officer/Engineer-SB	NIC District Centre, Hamirpur
26.	Sh Jagdeep	Scientific/Technical Assistant-A	NIC District Centre, Lahaul & Spiti.
27.	Sh. Akshay Mehta	Scientist-E	NIC District Centre, Kangra
28.	Sh. Brijender Dogra	Scientist-E	NIC District Centre, Kullu
29.	Sh. Balwan Singh	Scientist-D	NIC District Centre, Kinnaur
30.	Sh. Deepak Kumar	Scientist-C	NIC District Centre, Shimla
31.	Sh. Sanjeev Kumar	Scientist-C	NIC District Centre, Solan
32.	Sh Swetansh Shatak	Scientific/Technical Assistant-B	NIC District Centre, Solan
33.	Sh. Mohan Rakesh Aggarwal	Scientist-D	NIC District Centre, Sirmaur
34.	Sh Bhupinder Singh	Scientist-D	NIC District Centre, Una

Overview of Technical Presentations

Apache Kafka:



Sh. Sanjay Thakur presenting on the Apache Kafka.

Sh Sanjay Thakur delivered the presentation on Apache Kafka. The presentation offers a comprehensive overview of Apache Kafka, focusing on its architecture, core components, and key functionalities. It explains Kafka's role as a distributed event streaming platform designed for high throughput, scalability, and real-time data processing. Key concepts such as producers, consumers, brokers, topics, partitions, and replication are covered, along with Kafka's internal mechanisms like message retention, offset management, and delivery semantics (at-most-once, at-least-once, and exactly-once). Additionally, the presentation highlights Kafka's ecosystem, including Kafka Connect for data integration and Kafka Streams for real-time processing, positioning Kafka as a robust solution for modern data pipelines.

Data Science:



Data Science

- What is Data Science
- The 3 Pillars of Data Science
- Data Science Life Cycle & Stages
- Uses of Data Science
- Challenges
- Basics to Machine Learning



Presented by
Akshay Mehta

Sh Akshay Mehta presenting on Data Science.

Sh Akshay Mehta delivered a presentation on Data Science. The presentation offers a detailed introduction to Data Science, covering its definition, significance, and the core pillars—Statistics, Computer Science, and Machine

learning. It emphasizes the importance of the Data Science life cycle in driving structured, efficient, and high-quality analysis. Key stages such as data acquisition, preprocessing, manipulation, and pattern evaluation are discussed in depth, alongside common machine learning techniques like classification, regression, and clustering. The presentation also explores the application of Data Science across industries—from healthcare and e-commerce to manufacturing and transportation—highlighting real-world examples like recommendation systems, autonomous vehicles, and virtual assistants. Finally, it outlines challenges such as data quality, privacy, and the evolving role of data scientists, stressing the need for interdisciplinary skills and impact-driven outcomes.

Open Web Application Security Project (OWASP):



Sh. Ashish Sharma presenting on OWASP

Sh. Ashish Sharma delivered a presentation OWASP. The presentation highlights the OWASP Top 10 security vulnerabilities in web applications, emphasizing the most critical risks developers and organizations must address. These include Broken Access Control, Cryptographic Failures, Injection, Insecure Design, Security Misconfiguration, Vulnerable and Outdated Components, Identification and Authentication Failures, Software and Data Integrity Failures, Security Logging and Monitoring Failures, and Server-Side Request Forgery (SSRF). Each category is explained with real-world implications and best practices, such as enforcing secure development lifecycles, using strong encryption standards like AES-256, applying input validation, managing access controls, and ensuring proper logging and monitoring.

Technical News:*Sh. Bhupinder Singh, presenting the Technical News*

Sh. Bhupinder Singh presented the technical news. Here's topics of the main news covered in the presentation: -

- Adobe Launches New AI Features.
- Leadership Change at Google Gemini.
- AI Chatbots Exploited by Zero-Knowledge Hackers
- ChatGPT Usage Surges Due to Ghibli-Style Art Tool
- Gartner Forecasts IT Spending Surge
- NIC Highlights

Results of the poll conducted for software performance from the upcoming session: -

During the session, a poll was conducted on the Hindibodh mobile app developed by Himachal Pradesh State Centre to ask for everyone's opinion on who would want a demo of a software to be shown during technical presentations. The following officials answered yes to this poll: -

Sr. No	Name of official	Designation	Centre (State/District)
1.	Vandana Dhiman	Scientist C	NIC State Centre
2.	Shailender Kaushal	Scientist F	NIC State Centre
3.	Brijender Dogra	Scientist-E	NIC District Centre, Kullu
4.	Bhupinder Singh	Scientist-D	NIC District Centre, Una
5.	Ashish Sharma	Scientist-D	NIC State Center
6.	Swetansh Shatak	Scientific/Technical Assistant-B	NIC District Centre, Solan
7.	Pankaj Gupta	Scientist F	NIC State Center
8.	Jagdeep	Scientific/Technical Assistant-A	NIC District Centre, Lahual & Spiti