प्रशासनिक सुधार और लोक शिकायत विभाग
DEPARTMENT OF
ADMINISTRATIVE REFORMS &
PUBLIC GRIEVANCES

सत्यमेव जयते

Proceedings

National e-Governance Webinar Series 2025 - 2026

Innovation by Use of AI and Other New Age Technologies for Providing Citizen-Centric Services and Best e-Governance Practices/ Innovation in Cyber Security

December 19th, 2025

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1. Background

The Department of Administrative Reforms and Public Grievances institutionalised National e-Governance Webinar Series to showcase the award-winning initiatives that have received the prestigious National Award for Excellence in e-Governance, with the objective of greater learning, dissemination and replication.

These initiatives have leveraged technology to improve governance with a potential to enhance efficiency, transparency and inclusivity of government operations. By harnessing the power of digital tools and data analytics, governments can streamline administrative processes, expedite service delivery, and make informed policy decisions.

The National e-Governance Webinar Series focuses on the following themes:

- Government Process Re-engineering by use of technology for Digital Transformation
- Innovation by Use of AI and other new age technologies for Citizen- Centric Services
- Best e-Governance Practices/Innovation in Cyber Security
- Grassroots Level Initiatives for Deepening / Widening of Service Delivery
- Replication And Scaling Up of Successful National Awarded Projects like NAeG, Prime Minister Awards in Excellence, Awards conferred by other Central Ministries by State/UT/District
- Digital transformation by use of data analytics in digital platforms by Central Ministries / States/UTs

NeGW seeks to foster a culture of continuous learning, skill development, and knowledge exchange. Each webinar emphasises on a unique e-governance theme, featuring award-winning initiatives that have demonstrated outstanding contributions to their respective domains. NeGW aims to inspire and instill a new spirit of enthusiasm among administrators and stakeholders involved in government programs' implementation.

- The fifth webinar of the National e-Governance Webinar Series 2025–26 was convened on December 19, 2025, around two thematic areas, namely Innovation by Use of AI and Other New Age Technologies for Providing Citizen-Centric Services and Best e-Governance Practices and Innovation in Cyber Security, with one award-winning initiative presented under each theme.
- The category **Innovation by Use of AI and Other New Age Technologies for Providing Citizen-Centric Services** recognizes initiatives that apply artificial intelligence and emerging technologies to improve public service delivery. The focus is on enhancing efficiency, accessibility,

transparency, and user experience through innovative and technology-driven solutions that deliver measurable improvements in citizen-centric services.

- The category **Best e-Governance Practices and Innovation in Cyber Security** acknowledges initiatives that strengthen cybersecurity in government systems through advanced technologies and processes. It emphasizes improving the protection of digital infrastructure, networks, and data to enhance resilience, security, and trust in digital governance.

2. Theme

The theme of the fifth session of NeGW 2025-26 held on **November 21st, 2025** was **Innovation by Use of AI and Other New Age Technologies for Providing Citizen-Centric Services and Best e-Governance Practices / Innovation in Cyber Security**.

The award-winning initiatives under this theme highlight the transformative potential of digital innovation in strengthening public service delivery, enhancing sectoral resilience, and securing critical digital infrastructure. The initiatives showcased during the session demonstrated how advanced technologies such as artificial intelligence, machine learning, geospatial analytics, and post-quantum cryptography can be effectively leveraged to address complex governance challenges at scale.

The **National Animal Diseases Referral Expert System V2** (NADRES V2) exemplifies the use of AI-driven predictive analytics to transform conventional livestock disease surveillance into a proactive, data-driven national early warning system. By integrating multiple machine learning models with historical epidemiological data and geospatial analytics, NADRES V2 enables advance forecasting of major livestock diseases across most districts of the country. The platform supports timely preventive actions such as vaccination, quarantine, and awareness campaigns, thereby reducing livestock mortality and economic losses. Its wide outreach through multilingual SMS alerts, mobile-responsive dashboards, and institutional integration ensures last-mile connectivity, benefiting millions of farmers, veterinarians, and policymakers while strengthening veterinary public health preparedness and agricultural resilience.

Complementing this citizen-centric innovation, the **Quantum Safe VPN** initiative reflects a forward-looking approach to cybersecurity and protection of sensitive government communications. Developed to address emerging threats posed by quantum computing, the solution adopts post-quantum cryptographic algorithms aligned with global standards to ensure long-term confidentiality, integrity, and authenticity of data transmission. By seamlessly integrating quantum-resistant security protocols into existing VPN infrastructure, the initiative safeguards mission-critical communication networks and

significantly reduces future transition costs. It sets a strong benchmark for defence-grade, scalable, and interoperable cybersecurity solutions, reinforcing national cyber resilience in the evolving digital landscape.

Together, these initiatives underscore how the strategic application of AI and new age technologies can drive inclusive, secure, and future-ready governance. They reflect India's commitment to innovation-led public service delivery, robust digital infrastructure, and the broader vision of building a resilient, citizen-centric, and technologically empowered nation.

3. Proceedings

3.1. Welcome Address

Smt. Sarita Chauhan, Joint Secretary, Department of Administrative Reforms and Public Grievances, warmly welcomed all participants to the fifth session of the National e Governance Webinar Series for 2025-26. She extended greetings to Secretaries of Information Technology and Administrative Reforms Departments from State Governments, senior officials from Central Ministries, district level representatives, researchers from premier institutions, and public administrators who joined the session both physically and online.

She stated that the NeGW Series serves as an important knowledge sharing platform for public administrators and institutions, enabling dissemination of initiatives recognized under the National Awards for e Governance. She emphasized that the broader objective of the series is to promote learning, innovation, and replication of impactful best practices across the country.

While setting the context for the session, Smt. Chauhan highlighted that the webinar would showcase two award winning initiatives that have demonstrated significant impact in strengthening public service delivery through the use of advanced technologies. The first initiative focuses on prevention and early detection of animal diseases, supporting livestock farmers across the country by safeguarding animal health, livelihoods, and the rural economy. She underlined the relevance of disease surveillance systems, noting that many pandemics originate at the animal human interface, and emphasized that timely prediction and monitoring of livestock diseases plays a critical role in preventing their spread to humans.

She introduced the National Animal Diseases Referral Expert System V2 as an advanced artificial intelligence driven platform implemented by the Indian Council of Agricultural Research National Institute of Veterinary Epidemiology and Disease Informatics (ICAR-NIVEDI). The system leverages machine learning, geospatial analytics, and historical epidemiological data to forecast livestock disease

outbreaks across India and support early warning and informed decision making at the national and state levels.

Smt. Chauhan further highlighted the second initiative to be showcased during the session, which pertains to securing digital public infrastructure. She emphasized the growing importance of cyber security in protecting sensitive data, ensuring continuity of public services, and safeguarding government systems from evolving threats such as malware, phishing, ransomware, and identity theft. In this context, she introduced the Quantum Safe VPN developed by the Ministry of Defence for the Indian Navy, describing it as a pioneering initiative that addresses emerging cyber security risks posed by quantum computing through the adoption of post quantum cryptographic algorithms. She noted that beyond defence applications, the solution holds significant relevance for government digital platforms, research networks, and mission critical systems.

Introducing the first speaker, Smt. Chauhan welcomed Dr K P Suresh, Principal Scientist at the National Institute of Veterinary Epidemiology and Disease Informatics, and acknowledged his extensive experience of over three decades in biostatistics and epidemiology. She highlighted his key role in the development of NADRES V2 and its contribution to strengthening national level disease surveillance and early warning mechanisms.

She concluded her address by informing participants that short films on the two award winning initiatives would be screened, following which the detailed presentations by the speakers would commence.

3.2. Dr K P Suresh, Principal Scientist, ICAR NIVEDI

Following the Joint Secretary's opening remarks, Dr K P Suresh, Principal Scientist, ICAR National Institute of Veterinary Epidemiology and Disease Informatics, delivered an in depth presentation on the National Animal Diseases Referral Expert System Version Two, an advanced national platform for data driven livestock disease surveillance, prediction, and early warning.

Dr Suresh began by underscoring the importance of early warning systems in reducing disaster risks and enabling anticipatory action. He explained that monitoring, prediction, and risk forecasting, combined with timely dissemination of reliable information, are essential for protecting lives, livelihoods, and ecosystems. While such systems are well established for natural hazards such as cyclones, earthquakes, and floods, he highlighted that similar predictive applications for livestock diseases have been largely absent, despite the significant economic and public health risks associated with animal disease outbreaks and zoonotic transmission.

He explained that NADRES V2 was developed to address this critical gap by leveraging artificial intelligence and machine learning to forecast livestock disease risks in advance. The system integrates a wide range of datasets including disease incidence data received monthly from a nationwide network of reporting centres, livestock population data, remote sensing inputs, meteorological parameters, ecological and environmental indicators, and other relevant risk factors. These datasets are cleaned, annotated, and processed to generate predictive disease risk maps and hotspot analysis.

Dr Suresh elaborated on the analytical architecture of the platform, noting that multiple machine learning models are employed and evaluated using defined performance criteria. Only models that meet established accuracy thresholds are used for generating predictions, ensuring reliability of outputs. At present, the system forecasts risks for approximately sixteen major livestock diseases, with predictions generated up to two months in advance. Field level validation exercises have demonstrated prediction accuracies of around eighty percent and above for several diseases, with laboratory level accuracy exceeding ninety percent in many cases. He also noted continuous efforts to reduce false negative and false positive errors through model refinement and recalibration.

A key focus of the presentation was on risk communication and dissemination. Dr Suresh highlighted that NADRES has established multiple communication channels to ensure timely outreach to stakeholders. These include interactive dashboards, mobile applications, web portals, direct access for state veterinary officials, and large scale dissemination through short message services. He shared that the system supports nearly twenty Indian languages, enabling farmers and field functionaries to easily understand advisories in their local language. Millions of advisory messages are disseminated every month, directly reaching livestock owners and veterinarians across the country.

He further described recent enhancements to the system, including formal integration with meteorological data through institutional collaboration, enabling improved assessment of climate related risk factors. He also outlined ongoing development of mathematical models to complement data driven predictions by characterizing disease transmission dynamics, epidemic trajectories, peak intensity, and optimal timing of interventions such as vaccination, quarantine, and biosecurity measures.

Dr Suresh highlighted the role of NADRES in supporting national disease control programmes through structured surveillance and scientifically designed sampling plans. The platform supports active surveillance for economically significant and zoonotic diseases and facilitates large scale data capture and analysis to guide policy and operational decision making.

In conclusion, he emphasized that NADRES V2 represents a transformative application of artificial intelligence and analytics in animal health governance. By enabling early warning, informed preparedness, and targeted interventions, the platform significantly strengthens national capacity for disease prevention, safeguards livestock based livelihoods, and contributes to broader public health resilience.

3.3. Lieutenant Commander Keval Krishan, System Manager, Ministry of Defence

Following the first presentation, Lt Cdr Keval Krishan, System Manager at the Ministry of Defence and an officer of the Indian Navy, delivered a detailed presentation on the Quantum Safe VPN, a future ready cyber security solution developed to address emerging threats posed by quantum computing.

Lt Cdr Krishan began by introducing his role at the Weapons and Electronics Systems Engineering Establishment, the research and development organization of the Indian Navy, where his team develops high assurance cyber security solutions for the Armed Forces. He provided an overview of the growing dependence of government systems and the digital economy on classical cryptography over the past several decades, particularly algorithms such as RSA and elliptic curve cryptography, which form the backbone of secure digital communication today.

He explained that while classical cryptographic systems are considered secure against traditional computing attacks, advancements in quantum computing fundamentally alter the threat landscape. Quantum computers, by leveraging principles such as superposition and entanglement, are capable of solving certain mathematical problems in significantly reduced time. He highlighted that quantum algorithms such as Shor's algorithm can break widely used public key cryptographic schemes by solving factorization and discrete logarithm problems efficiently, while Grover's algorithm reduces the effective strength of symmetric encryption by accelerating brute force attacks.

Lt Cdr Krishan further highlighted the emerging risk of store now decrypt later attacks, wherein adversaries collect encrypted data today with the intent of decrypting it in the future once cryptographically relevant quantum computers become available. He emphasized that sensitive data requiring long term confidentiality is already at risk under this threat model, making early adoption of quantum resilient solutions essential.

Against this backdrop, he introduced the Quantum Safe VPN as a solution built using post quantum cryptographic algorithms that are resistant to both classical and quantum attacks. He noted that global efforts to standardize such algorithms culminated in recommendations issued by the National Institute

of Standards and Technology, which identified algorithms for secure key exchange and digital signatures. These standards formed the foundation of the cryptographic design adopted in the Quantum Safe VPN.

He explained that the solution employs a hybrid security architecture, combining classical cryptography with quantum safe layers. Secure key exchange and authentication are performed using post quantum algorithms, while data transmission continues to use strong symmetric encryption. This layered approach ensures both backward compatibility and future resilience. He also highlighted the incorporation of crypto agility, allowing the system to adapt to future advancements in cryptographic standards without redesigning the entire solution.

Lt Cdr Krishan elaborated on additional security features such as zero knowledge authentication protocols, which ensure that user credentials are neither stored on servers nor transmitted over the network, thereby enhancing protection against credential compromise.

He described the deployment architecture of the Quantum Safe VPN, which supports both client server models and browser based integration. Clients have been developed for multiple operating systems and can be embedded into mission critical applications. He also highlighted recent integration of the solution with a privacy focused Indian web browser, enabling secure access to protected applications through a browser extension while allowing simultaneous access to general internet resources through split tunneling.

In conclusion, Lt Cdr Krishan emphasized that the Quantum Safe VPN represents a significant step towards securing government digital infrastructure in the quantum era. The solution demonstrates how advanced cryptographic research can be translated into practical, scalable, and resilient security systems with relevance beyond defence applications, extending to government platforms, research networks, and other mission critical digital environments.

3.4. Questions and Answers Session

• Query on use of Quantum Safe VPN for e Office

Raised by Smt. Neha Jain, Information Technology Department, Uttar Pradesh

Question Smt. Jain enquired whether the Quantum Safe VPN solution presented could be used to secure access to the e Office application, noting that States currently rely on market driven VPN

solutions for accessing e Office through the National Informatics Centre infrastructure. She also suggested the possibility of conducting a pilot implementation.

Response The presenter explained that the solution had been designed in a modular and scalable manner, allowing it to integrate seamlessly with different IT environments beyond the Ministry of Defence. It was stated that the solution could technically support e Office access; however, a pilot would be required to assess network traffic, bandwidth availability, and computational resource requirements. Smt. Jain further suggested that a pilot at the Government of India level could provide a template for adoption by States.

Chair's observation The Chair noted that the department, being the nodal authority for e Office, along with NIC as the system integrator, regularly evaluates cyber security aspects of the platform. The proposal to explore Quantum Safe VPN as an additional security layer was acknowledged, and it was stated that NIC would need to technically examine the feasibility before any pilot could be initiated.

- **Query on infrastructure preparedness for States interested in pilots**

Raised by Shri Ambar Pandey, Madhya Pradesh

Question Shri Pandey asked whether indicative guidance on infrastructure readiness and preparedness requirements could be shared with States so that they could begin preparing in advance, even prior to pilot implementation.

Response The Chair indicated that such facilitation could be undertaken and invited the presenter to respond. The presenter agreed that information sharing and knowledge dissemination could be facilitated for interested States, including high level prerequisites for pilot participation and future readiness.

- **Query on cryptographic standards and security of Quantum Safe VPN**

Raised by Shri Vishal Shukla, MP CERT, Madhya Pradesh

Question Shri Shukla sought technical clarification on the digital signature scheme and FIPS standards used in the Quantum Safe VPN solution. He further enquired about the long term security of the encryption, particularly in scenarios where quantum computing capabilities evolve in the future.

Response The presenter explained that the solution uses Dilithium 3 for digital signatures, selected due to its relatively lower computational requirements compared to higher variants. The solution adheres to FIPS 204 standards. It was further clarified that the cryptographic design is based on lattice based cryptography, which is considered secure against quantum attacks. Additionally, the solution incorporates crypto agility, enabling future integration of new or indigenously developed post quantum cryptographic algorithms as they become available.

- **Query on validation and certification of the Quantum Safe VPN solution**

Raised by Shri Neeraj Sharma, CSIRT Power, Ministry of Power

Question Shri Sharma asked how the developers validated their claims regarding security and performance, and whether the solution had undergone independent evaluation. He also enquired whether the solution had been benchmarked against international standards and solutions.

Response The presenter explained that although national level processes for formal evaluation of post quantum cryptographic solutions are still evolving, the solution had been rigorously evaluated through collaboration with a consortium of leading cryptographers and academic institutions, including national institutes. Code, deployment scenarios, stress testing, and security testing were undertaken prior to deployment. It was also clarified that the algorithms implemented are internationally standardized and that performance comparisons had been conducted against leading global cyber security vendors, with results found to be comparable or better.

- **Query on disease mitigation in the animal disease risk prediction system**

Raised by Shri Ajay Reddy, Puducherry

Question Shri Reddy asked whether the application was limited to disease prediction or whether it also supported mitigation measures.

Response The presenter clarified that disease prediction outputs are intended to directly support mitigation actions. Once risks are identified, information is communicated to State authorities to enable timely actions such as awareness campaigns, vaccination drives where vaccines are available, and targeted field interventions by veterinarians.

- **Query on zoonotic disease models and State level collaboration**

Raised by Dr Sujatha Singh, PVNR Telangana Veterinary University

Question Dr Singh enquired whether the disease prediction models could be extended to priority zoonotic diseases identified at the national and State levels and whether collaboration with States was possible for early warning systems.

Response The presenter confirmed that zoonotic and One Health disease models are already under development. It was stated that if sufficient historical time series data is available at the State level, similar models can be customized, tested, and deployed. It was further explained that dissemination mechanisms include SMS alerts to veterinarians and farmers to enable early action and mitigation.

- **Clarification on nationwide scalability and future roadmap of Quantum Safe VPN**

Provided by Captain Manish Khanna, WESEE

Clarification Captain Khanna acknowledged the high level of interest shown by participants and clarified that, at present, WESEE does not have the capacity to support immediate nationwide deployment. However, he highlighted ongoing efforts to develop an enterprise grade solution through collaboration with industry partners. He further stated that once the enterprise grade platform is operational, it would be better positioned to meet large scale government requirements. Departments interested in pilot collaborations were encouraged to engage with the development team based on their specific needs.

• **Closing observations on future adoption by the Chair**

Observation The Chair summarized that both initiatives represent future ready technological models that will evolve through phased development, pilot implementations, and capacity enhancement. It was emphasized that adoption of advanced technologies must align with organizational readiness and service delivery objectives. The strong interest shown by States and institutions was appreciated, and participants were encouraged to continue engaging as these solutions mature.

3.5. Vote of Thanks

Smt. Sarita Taneja, Deputy Secretary, Department of Administrative Reforms and Public Grievances, delivered the Vote of Thanks for the session. She expressed her heartfelt gratitude to all participants for joining the fifth session of the NeGW Series and for contributing to a meaningful and enriching exchange of ideas.

She conveyed her sincere appreciation to Smt. Sarita Chauhan, Joint Secretary, DARPG, for her continued leadership and guidance in steering the NeGW Series and for effectively chairing the session. She acknowledged that the consistent direction and oversight provided by the leadership of the Department have played a key role in sustaining the quality and relevance of the series.

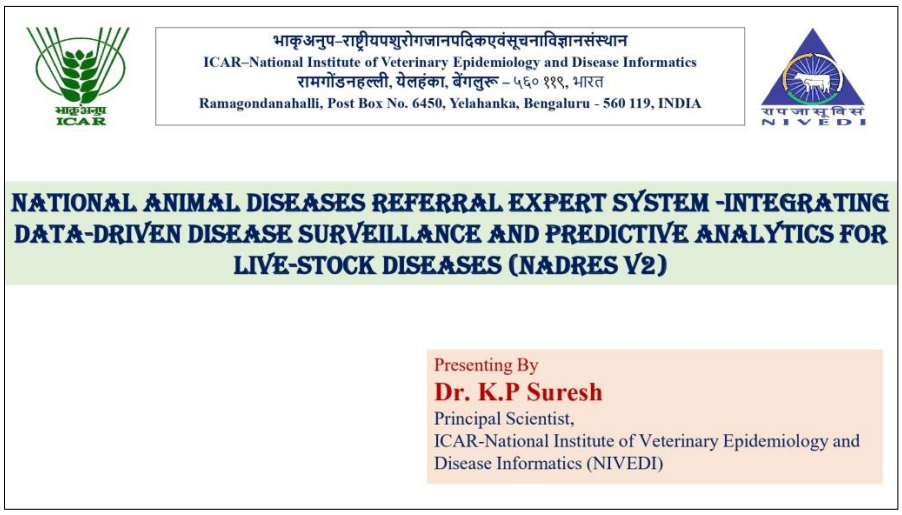
She extended special thanks to the distinguished speakers for their insightful presentations. She appreciated Dr K P Suresh, Principal Scientist, ICAR NIVEDI, for his comprehensive presentation on NADRES V2, which clearly demonstrated how data driven early warning systems are enabling proactive interventions, strengthening national disease surveillance and control efforts, and safeguarding livelihoods across the livestock sector. She also thanked Lt Cdr Keval Krishan, System Manager, Ministry of Defence, for his presentation on the Quantum Safe VPN, which offered valuable insights into the proactive adoption of post quantum cryptographic technologies for securing sensitive digital communications and critical information infrastructure.

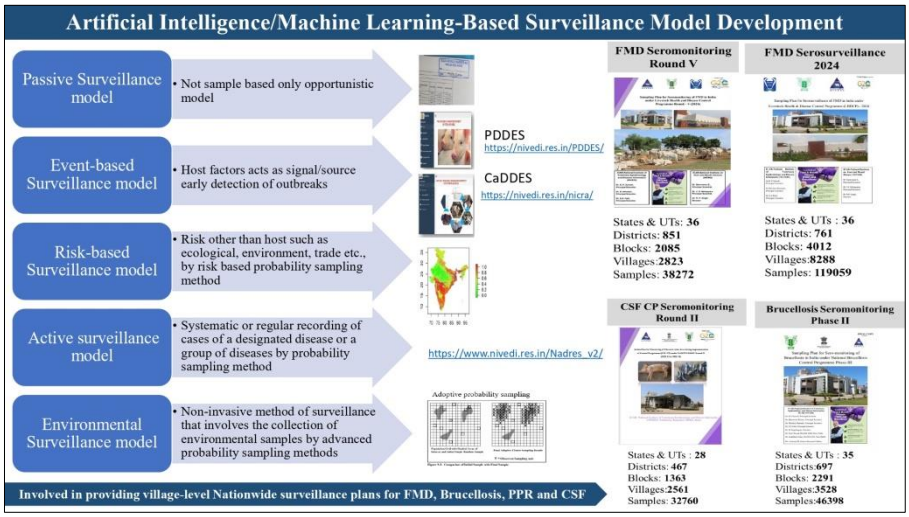
Smt. Taneja also expressed her appreciation to the Additional Secretaries, IT Secretaries, senior officers from central ministries, state and Union Territory governments, district administrations, and representatives from academic institutions including IITs and IIMs, for their active participation and engagement. She noted that their presence and contributions reflect a shared commitment to leveraging advanced technologies for resilient, secure, and citizen centric governance.

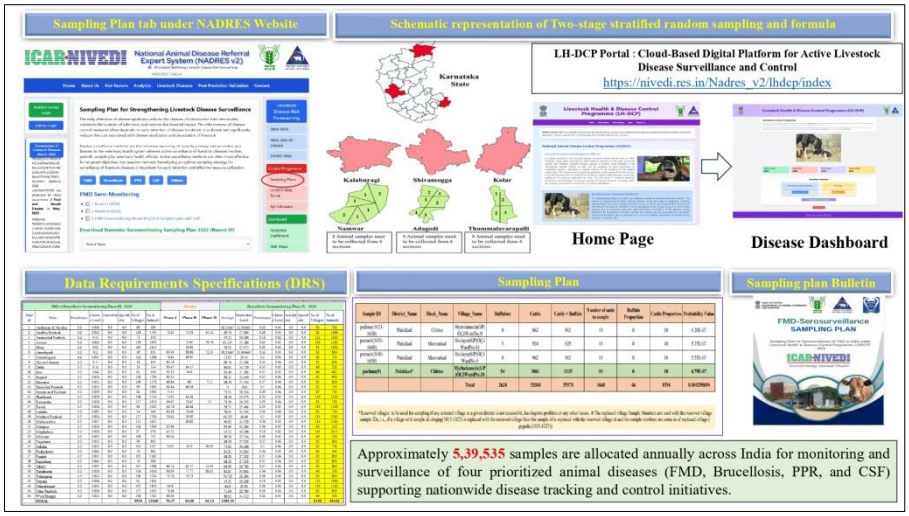
In concluding her remarks, she thanked all participants for their time and valuable contributions and expressed confidence that the insights shared during the session would support learning, adaptation, and replication of impactful digital governance practices. She looked forward to continued participation and support in the forthcoming sessions of the webinar series, as the Department continues its efforts towards realizing the vision of Viksit Bharat through digital governance.

4. Annexure

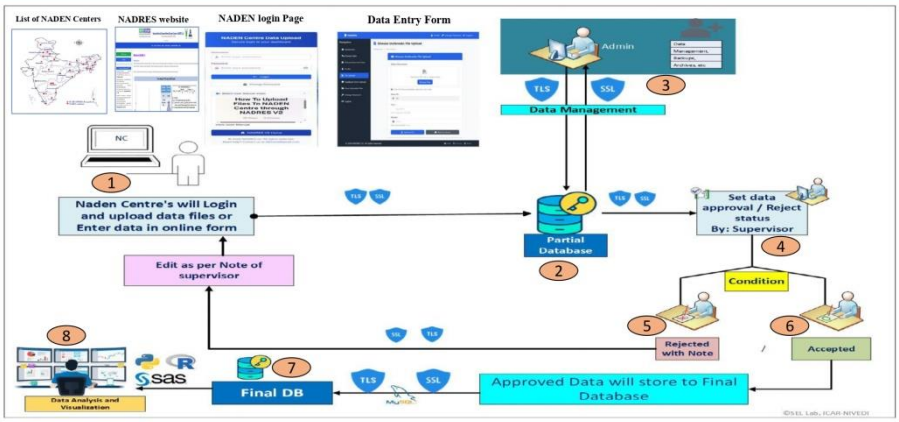
4.1. Presentation by Dr K P Suresh, Principal Scientist, ICAR - NIVEDI







Real time/Near Real time Data Capture and Storage Workflow: NADRES V2 Database Flow Diagram



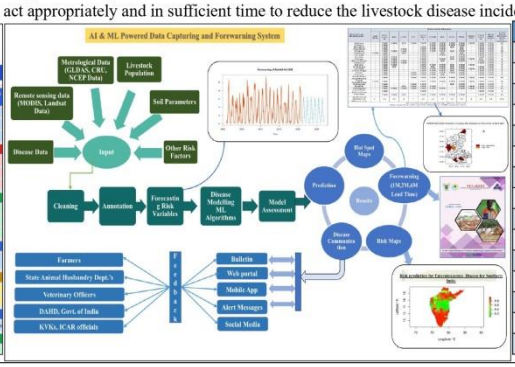
Epidemiological data were compiled at the state, district and village levels from multiple sources, and a subsample of cases was confirmed in the laboratory; the dataset includes information on susceptible populations, attack rates and outbreak-associated mortality

Livestock Disease Risk Forewarning Through AI & ML Based Disease Modelling

NADRES V2- NATIONAL ANIMAL DISEASE REFERRAL EXPERT SYSTEM

https://nivedi.res.in/Nadres_v2/index.php

NADRES v2 is an early warning system powered by Artificial Intelligence with set of capacities needed to generate and disseminate timely and meaningful warning information that enables at-risk livestock population, and guide the farmers and organizations to prepare and act appropriately and in sufficient time to reduce the livestock disease incidence.



Sl. No	List of Diseases
1	African Swine Fever
2	Anthrax
3	Babesiosis
4	Black Quarter
5	Bluetongue
6	Classical swine fever
7	Enterotoxaemia
8	Fasciolosis
9	Foot and mouth disease
10	Haemorrhagic septicaemia
11	Lumpy Skin Disease
12	Peste des petits ruminants
13	Sheep and Goat pox
14	Theileriosis
15	Trypanosomosis

Real Time Climatic Factors used for Forecasting, Forewarning and Developing Risk maps

Livestock Population

Livestock data (Numbers)	
Cattle	19,63,79,000
Buffalo	11,04,24,984
Sheep	15,01,13,442
Goat	7,32,94,702
Pig	92,94,830
Villages-664369	
Blocks-5564	
Source: 20Th Livestock census, DAHD, GoI	

Remote Sensing

Remote sensing	Units
LST	°C
NDVI & EVI	-1 to 1
PET	mm
LAI	m^2/m^2
LST Resolution: 1km	NDVI &EVI, PET, LAI Resolution:500 m.
Source: https://ladsweb.modaps.eosdis.nasa.gov/ https://search.earthdata.nasa.gov/	

Meteorological

Meteorological	Units
Air Temperature	k
Potential Evaporation Rate	w/m^2
Rainfall	$kg/m^2/s$
Soil Moisture	kg/m^2
Specific Humidity	kg/kg
Surface Pressure	Pa
Wind Speed	m/s
Source: https://disc.gsfc.nasa.gov/datasets/GLDAS_NOAH025_M_2.1/summary?keywords=GLDAS	
Resolution: 0.25 * 0.25 degree	

Meteorological	Units
Cloud Cover	%
Relative Humidity	%
Temperature	°C
Temperature Max	°C
Temperature Min	°C
Vapour Pressure	hPa
Wet dry Frequency	days
Source: https://crudata.uea.ac.uk/cru/data/hrg/cru_ts_4.05/cruts.2103051243.v4.05/	
Resolution: 0.5 degree	

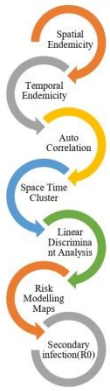
Delta Weather Parameters: Represents the difference between two corresponding values, typically between two time periods, to capture changes or trends.
Static Set: Long-term deltas (2001–2021) showing climatic trends affecting disease patterns.
Dynamic Set: Recent deltas (2018–2023 averages) capturing ongoing weather changes for short-term forecasting.

Remote Sensing Data

ladsweb.modaps.eosdis.nasa.gov → Select Product → Select Time period and area → Download HDF files → HDF to Geo TIFF Conversion → Extract Data from GeoTIFF using lat long → Data saved in CSV

Meteorological Data

GLDAS/CRU → Select Parameters → Select Time period → Download NC4 Files → Extract Data from NC4 files using lat long → Data saved in CSV



Seven step approach used for risk Prediction

Machine Learning Model Building and evaluation

Model Selection Criteria

- Akaike information criterion (AIC)
- Bayesian information criterion (BIC)
- Bridge criterion (BCCross-validation
- Deviance information criterion (DIC),
- Likelihood-ratio test
- Mallows's Cp
- Minimum description length
- Minimum message length (MML)
- PRESS statistics
- Stepwise regression

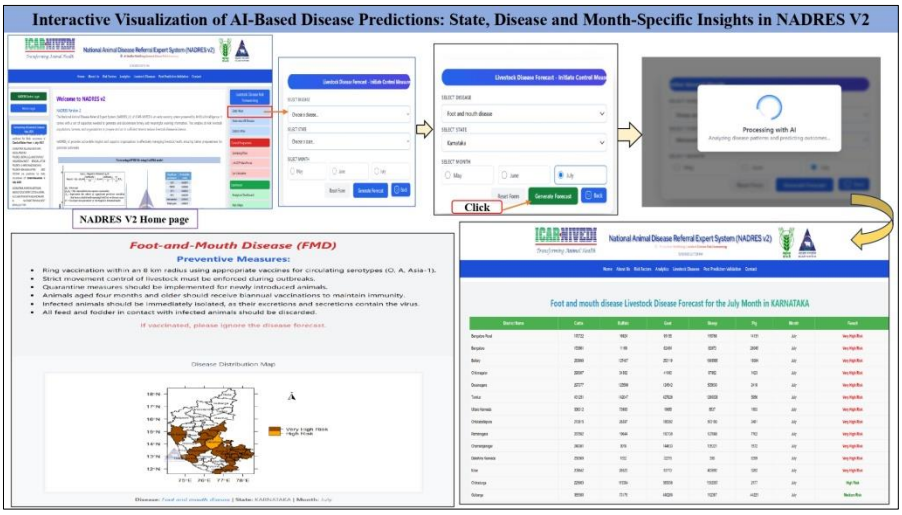
1. Generalized Linear Model(GLM)
2. Generalized Additive Model (GAM)
3. Random Forest (RF)
4. Kernal Support Vector Machine (KSVM)
5. Boosted Regression Tree (BRT)
6. Artificial Neural Networks (NN)
7. Multiple Adaptive Regression Splines (MARS)
8. Flexible Discriminant Analysis (FDA)
9. Classification Tree Analysis (CTA)
10. Support Vector Machine (SVM)
11. Decision Trees (Tree_prob)
12. Least Absolute Shrinkage and Selection Operator (Lasso)
13. Gaussian Process (GP)
14. Neural Network (NN)
15. Cubiset
16. Probit Regression
17. Elastic Net
18. Adaptive Boosting
19. Ridge Regression
20. Conditional Random Forest

Presently used Indices For Model Evaluation

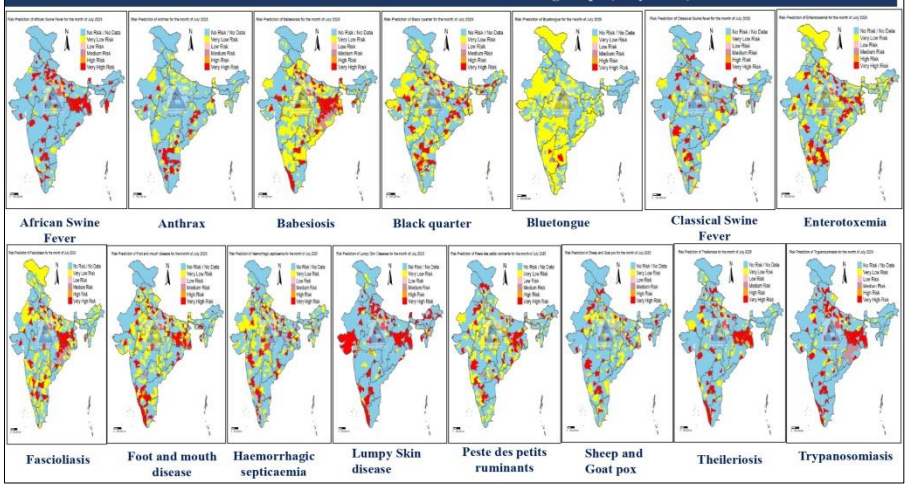
1. KAPPA
2. ROC
3. TSS
4. Accuracy
5. Error Rate
6. Precession
7. Sensitivity
8. Specificity
9. F1 Score
10. Log loss
11. Gini Coefficient
12. RMSE
13. MAE

NADRESv2 Monthly Bulletin Cover page

Interactive Visualization of AI-Based Disease Predictions: State, Disease and Month-Specific Insights in NADRES V2



Risk Prediction - Livestock Disease Forewarning Maps (May-2025)



End to End Risk Communications

Monthly Forecasting of 15 Livestock Diseases (Based on AI and ML models) Dissemination to all Stakeholders

Hard Copy (Vet-alert, Livestock Diseases Risk Forewarning Bulletin)
Dissemination by Post

DAHD and ICAR officials

Soft copy (Vet-alert, Livestock Diseases Risk Forewarning Bulletin)
Via emails

State Veterinary Officials(52), KVKS (731), NADEN centers (55 Including PI &Co-PI)

LDF & NER LDF Mobile application

Real time access by field users (100+ Users)

- ✓ Veterinary nodal officers use the system to create data-driven sampling plans for targeted surveillance.

NADRES Website

https://nivedi.res.in/Nadres_v2/index.php

Total Visitors: 26.7 Lakh Individuals (as of latest update)

Fruits SMS alerts to registered farmers

- ✓ **25.7 lakh** SMS alerts were sent to farmers in April 2025.
- ✓ **23.3 million** SMS alerts disseminated via FRUITS (Apr 2024–Mar 2025).

DLT SMS to Veterinary Doctors

- ✓ **17,954** SMS alerts sent to veterinarians in April 2025.
- ✓ **1.09 lakh** SMS alerts sent to vets from Sep 2024 to Mar 2025.

Social Media Platforms

X (Twitter)
https://x.com/dlnivedi/status/1888899265411645536

LinkedIn
https://www.linkedin.com/feed/update/urn:li:share:7294667371829436417/

Instagram
https://www.instagram.com/p/DF5Dhqqvmcw/?igsh=N2NvZXR5cHp3cXdj

YouTube:
https://www.youtube.com/@icar-nivedi

GitHub:
https://github.com/SKL-NIVEDI/

Facebook
https://www.facebook.com/icarnivedisdfficial/

Informed Farming Community & Veterinary Authorities
- Early Response
- Risk Mitigation
- Animal Health Protection

Operational Scale & Response Time Optimization in NADRES V2 via AI/ML Automation

Data Inputs for Monthly Livestock Disease Forecasting

- ✓ **Total Livestock Population & Animal Species Covered**: **540 million** animals (Cattle, Buffalo, Sheep, Goat, and Pig)
- ✓ **Disease Surveillance Network**: Data collected from 35 NADEN (National Animal Disease Epidemiology Network) Centers

WhatsApp NADEN Group

- ✓ **Number of States & Districts Covered: 36** States& UTs, **755** Districts
- ✓ **Number of Target Diseases**: **15** economically important livestock diseases
- ✓ **Climatic Parameters**: **18** key weather and climate variables considered
- ✓ **Remote Sensing Variables**: 5 variables derived from satellite and geospatial data
- ✓ **Delta Variables**: **23** variables capturing changes in climatic trends over time
- ✓ **Forecasting Models**: **20** predictive models used for analysis
- ✓ **Indices**: **13** indices to support decision-making and interpretation

Operational Scale

Sl. No.	AI & ML-Driven Operation	Volume of Operations for One year
1	**Data Capturing**	2,08,380 records
2	**Data Alignment**	7,61,046 records
3	**Disease Modelling**	27,18,000 simulations
4	**Risk Communication**	25 lakh SMS alerts to farmers in 1 year; 17 to 18 thousand DLT SMS alerts to veterinary officials every month

Optimized Response Time in NADRES Through AI/ML Automation for Each month

Process	Before Automation	After Automation	Improvement
Data Collection + Cleaning	10–14 days	< 48 hours	~90% time saved
Forecasting & Modeling	7–10 days	< 10 hours	~95% faster
Report Preparation	10 – 15 days	< 3 days	~90% time saved
Alert Generation	Manual dispatch	Instant multi-channel	Real-time communication
Total Response Cycle	18–24 days	< 6 days	faster response time

- ✓ Fully automated pipeline powered by **AI and ML,** Covers the entire workflow from data acquisition through to district-level risk alerts
- ✓ Over **2,346** lines of **R code** implemented across data capture, processing, and modeling stages to automate the NADRES V2 pipeline. (https://nivedi.res.in/Nadres_v2/)
- ✓ Nearly **250** CPU hours per month devoted to continuous model execution and risk forecasting.

NADRES V2: Future Scalability & Strategic Collaborations for Precision Livestock Disease Forecasting

Scalability Opportunities
- ✓ **Micro-Level Forecasting**: Expansion from district to **block and village levels**, enabling hyper-localized risk predictions tailored to specific livestock practices and microclimates.
- ✓ **Model and Disease Expansion:** The number of forecasted livestock diseases is projected to increase to 20–30, with a parallel rise in machine learning models to approximately 25–30, improving prediction specificity and robustness.
- ✓ **Offline Accessibility**: Deployment of AI/ML models on mobile devices with **offline capabilities** for remote areas with poor internet.
- ✓ **Multi-Language & Voice Support**: Integration of **AI-driven voice alerts**, SMS, IVR, and community radio in **regional languages** for inclusive communication.

Strategic Collaborations
- ✓ **NICRA (ICAR)**: Leveraging agro-climatic data to **enhance prediction accuracy** under climate variability (floods, droughts).
- ✓ **IMD Integration:** Real-time meteorological data and **farmer details** across India are integrated to enhance the prediction of climate-sensitive and vector-borne diseases and to enable timely dissemination of alerts to farmers
- ✓ **Government Platforms**: Seamless integration with **NDLM, BSNL, and Digital India** initiatives for unified data exchange and delivery.

AI & ML Adaptability: Dynamic model recalibration using real-time feedback and new climate-disease relationships.

Community-Centric Risk Communication
- ✓ **Global Inter** Engaging **village cooperatives** and **extension workers** as grassroots communication hubs.
- ✓ Dissemination through **SMS**, **IVR**, **local radio**, and **mobile-based tools** to reach digitally underserved areas.
- ✓ We will also **expand SMS alerts to farmers in their local or vernacular languages**, ensuring better understanding and adoption.

Global Interest
- ✓ FAO experts organized a workshop on community-based early disease detection and reporting systems, and invited the NADRES V2 team to explore expanding its implementation at the community level.

Officials were oriented on the NADRES V2 workflow during their visit to the SEL Lab

Spot Study Report: Index

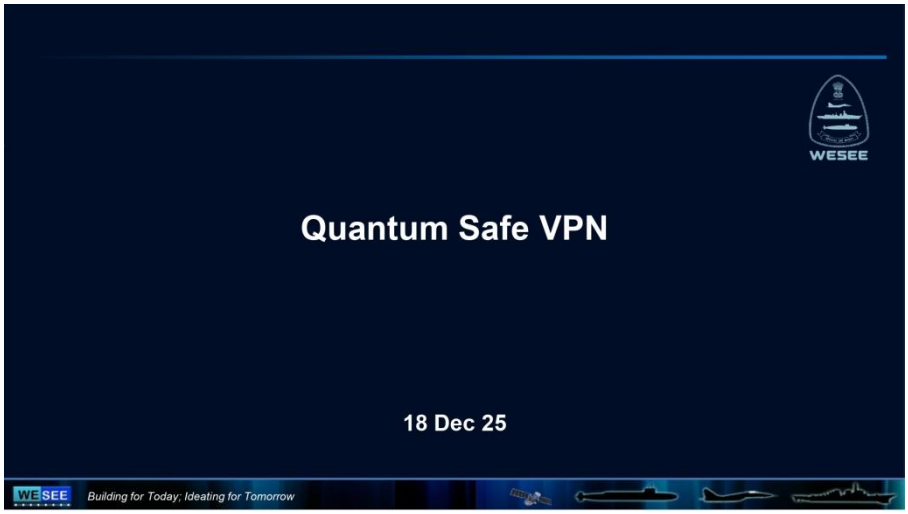
Sl. No.	Title	Annexure
1	Vet- Alert: Live stock Disease Forewarning Methodology	I
2	Vet- Alert : Livestock Disease Forewarning Bulletin	II
3	NADRES v2-Complete R Programming Codes For Livestock Disease Risk Prediction	III
4	Data Capture and Storage Workflow : NADRES V2 Database Flow Diagram	IV
5	NADRES V2 Bulletin/Report Flow Diagram	V
6	End to End Risk Communications	VI
7	Hardcopy (Vet-Alert: Livestock Disease Forewarning Bulletin) Dissemination by post to Department of Animal Husbandry and Dairying(DAHD) & ICAR officials	VII
8	Soft copies (Vet –Alerts: Livestock Disease Forewarning Bulletin) via Emails to State Veterinary Officials	VIII
9	Soft copies (Vet-Alerts : Livestock Disease Forewarning Bulletin) Via Emails to National Animal Disease Epidemiology Network (NADEN) Centers	IX
10	Soft copies (Vet-Alert: Livestock Disease Forewarning Bulletin) Via Emails to Krishi Vigyan Kendras (KVKs)Involvement	X
11	Livestock Disease Forewarning (LDF) & NER Livestock Disease Forewarning (LDF) Mobile Application : Real time access by field users	XI
12	NADRES V2 Website	Link
13	FRUITS SMS ALERTS to Registered farmers	XII
14	List of Farmers investigated for NADRES V2 Disease risk communication	XIII
15	Distributed Ledger Technology (DLT) SMS Vet Alert to Veterinary Doctors	XIV
16	Dissemination NADRES V2 vet alerts on Social media Platforms	XV
17	Stakeholder/ Client Feedback form NADRES V2	XVI
18	Post validation of NADRES V2 Disease predictions	XVII
19	Web Security Audit Certificate	XVIII
20	Invitation: Community Based Early Disease Detection and Reporting System Workshop organized by FAO New Delhi	XIX

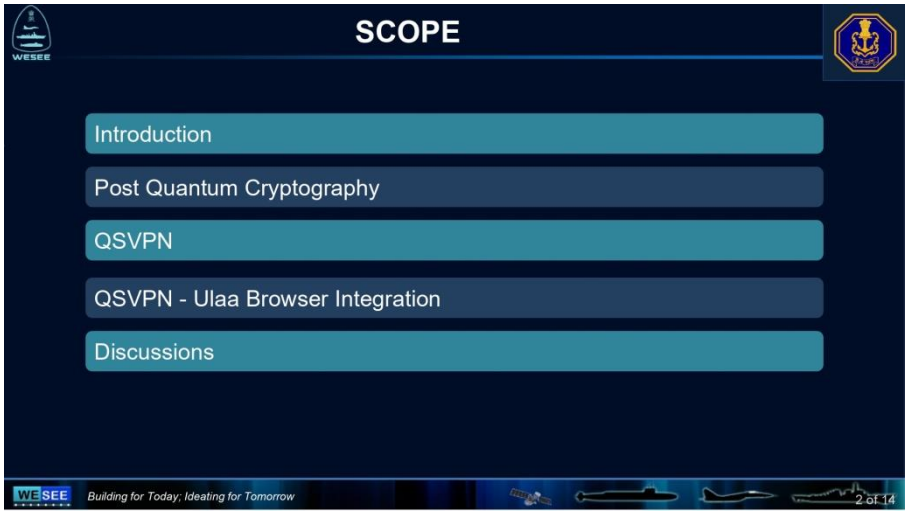
Spot Study Report

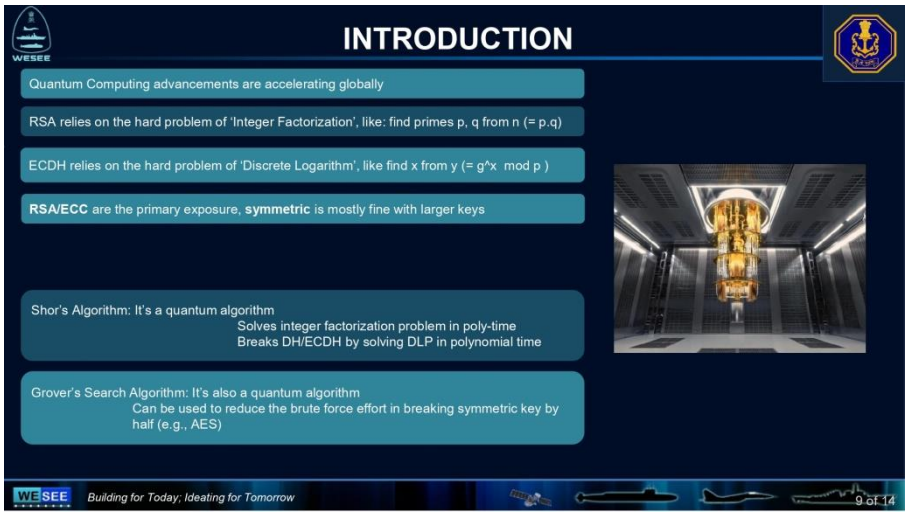
Findings of the Spot Study	Referred Annexures
1. How are artificial intelligence and machine learning applied in NADRES V2 to predict livestock disease outbreaks at the district level? (6 marks)	I, VII, VIII, IX, X, XI, XII, XIII, XIV, XV
2. Which processes in the NADRES workflow are fully automated from data ingestion to alert generation and how has this improved response time? (6 marks)	III, V, VI
3. What measurable improvements have been observed in early disease detection, farmer response, and livestock mortality prevention since the implementation of NADRES V2? (6 marks)	I, II, V, VI, VII, VIII, XI, XII, XIII, XIV, XV, XVI, XVII,
4. How has NADRES V2 been integrated with platforms? Also, explain how flexible is the NADRES architecture in enabling future integration with mobile apps, IVR, or AI-based voice assistants? (6 marks)	IV, II, III
5. What opportunities exist for enhancing the scalability of the system, particularly in regions with limited digital infrastructure or highly diverse climatic conditions? (6 marks)	XIX
6. Verification of Data as per application (20 Marks):	
a. Geographical Reach *(4 Marks)*	VI, XI, XII, XIV, XV
b. Demographical Reach *(4 Marks)*	XII, XIV, XI, XV
c. Compliance to GIGW (percentage of compliance to be verified) (4 Marks)	XVIII
d. Pen Picture of Initiative (4 Marks)	Diagram
e. Accessibility Parameters (4 Marks)	VII, VIII, IX, XI, XIV, XV

THANK YOU

4.2. Presentation by Lt Cdr Keval Krishan, System Manager, Ministry of Defence







POST QUANTUM CRYPTOGRAPHY

Post Quantum Cryptography (PQC): Future-proof encryption methods for a world with quantum computers

Use mathematical problems that are **hard for both classical and quantum computers**.

Quantum-Resistant Algorithms:
Lattice-based cryptography, **code-based cryptography**, **multivariate quadratic equations**, and **hash-based signatures**

Kyber (KEM):
Type: Lattice-based public-key encryption
Security: Resistant to quantum attacks
Use: Key exchange and encryption
NIST Standardization: NIST PQC competition (FIPS-203)

Dilithium (DAS):
Type: Lattice-based digital signature scheme
Security: Quantum-resistant
Use: Digital signatures for authentication
NIST Standardization: NIST PQC Standard (FIPS-204)

WESEE Building for Today; Ideating for Tomorrow 9 of 14

QSVPN

Quantum computers can break classical encryption (e.g., RSA, ECC)

Quantum Safe VPN Solution developed by WESEE

Aims to secure communication against quantum computing threats

Implements Post-Quantum Cryptography (PQC) as per NIST standards

Provides Quantum secure key exchange and authentication

Cryptographic Protocols	Existing	Modified
Key Exchange	DH / ECDH	Crystals Kyber
Digital Signature	RSA	Dilithium

WESEE Building for Today; Ideating for Tomorrow 9 of 14

SECURE AUTHENTICATION

Quantum Safe VPN (QSVPN) & Zero Knowledge Protocol (ZKP)-based Authentication

Employs Non-Interactive Zero Knowledge Protocol (ZKP) for user/ device authentication

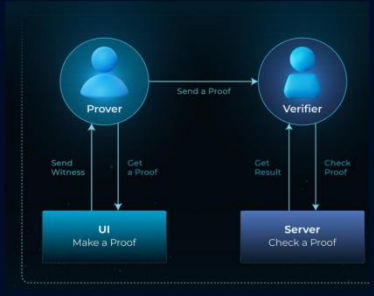
Both Client and Server authenticate each other

Adds a strong privacy-preserving layer to VPN security

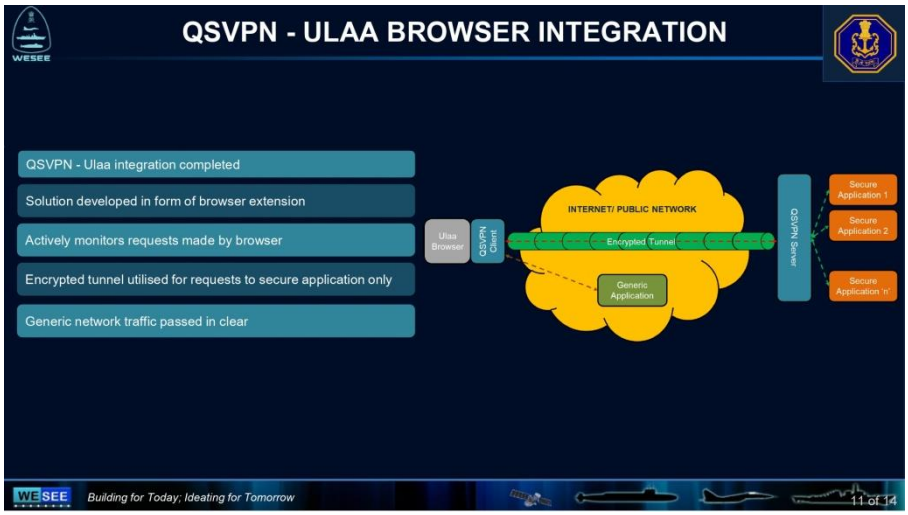
Based on knowledge held and mathematical computations

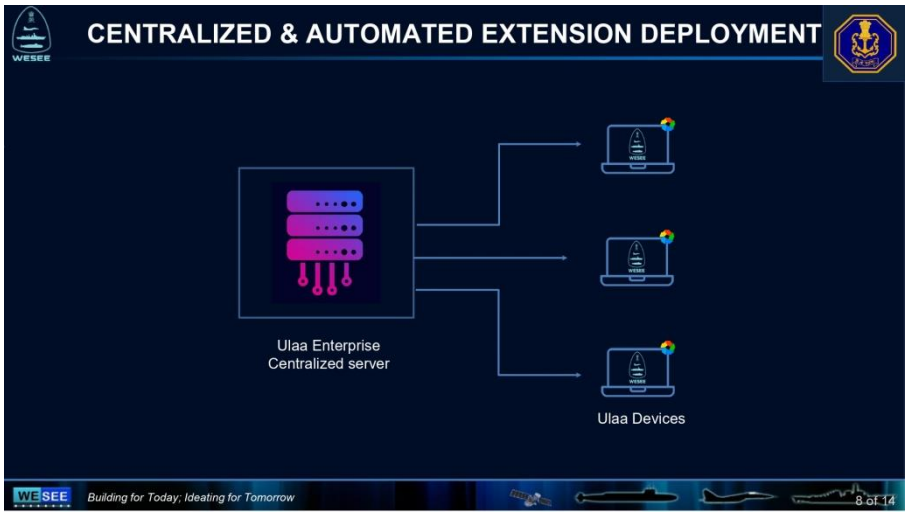
No Transmission of password over network

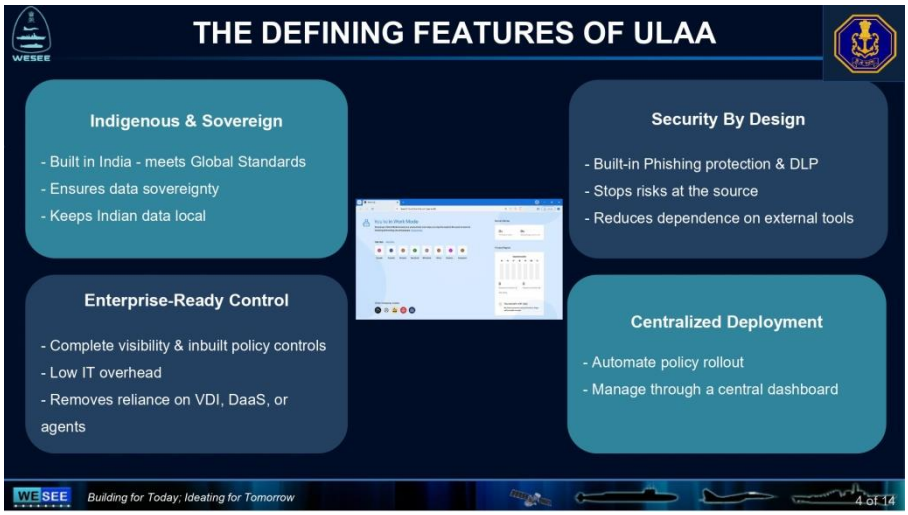
No Storage of password at server end

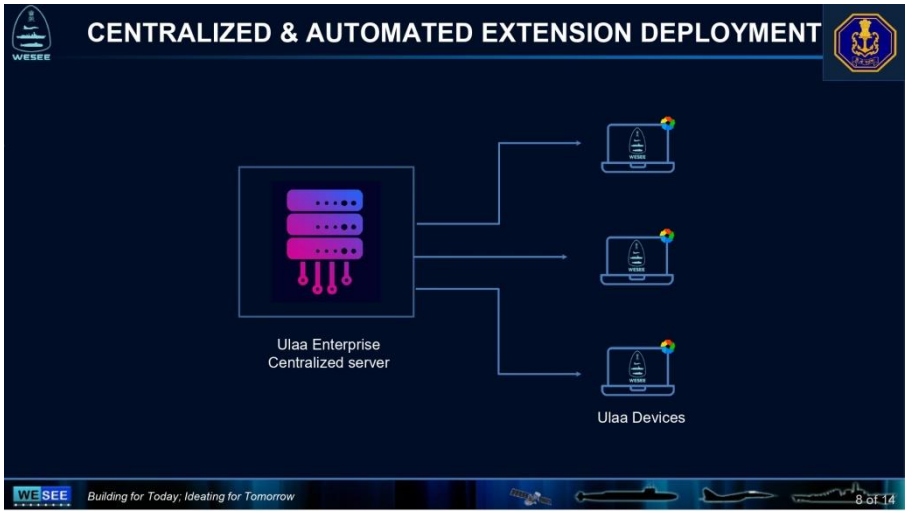


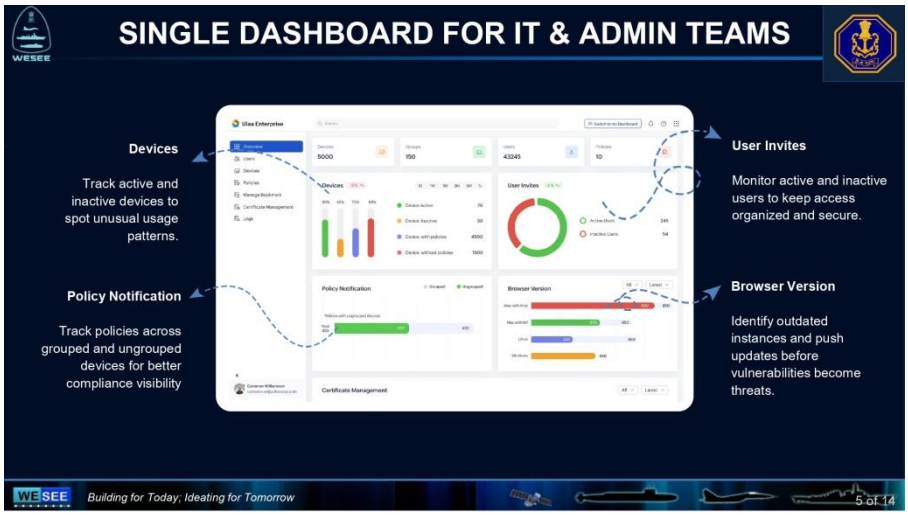
WESEE Building for Today; Ideating for Tomorrow 10 of 14

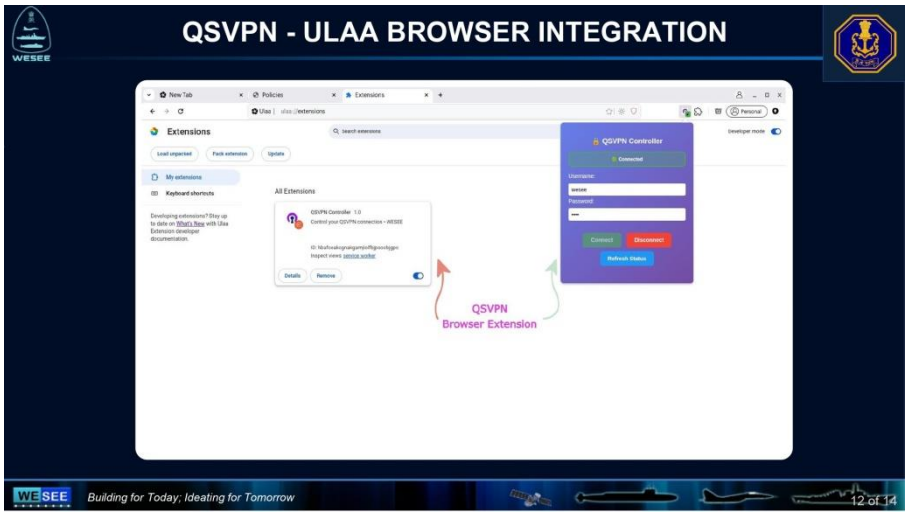

QSVPN - ULAA BROWSER INTEGRATION
QSVPN - Ulaa integration completed
Solution developed in form of browser extension
Actively monitors requests made by browser
Encrypted tunnel utilised for requests to secure application only
Generic network traffic passed in clear
Ulaa Browser
QSVPN Client
INTERNET/ PUBLIC NETWORK
Encrypted Tunnel
Generic Application
QSVPN Server
Secure Application 1
Secure Application 2
Secure Application 'n'
Building for Today; Ideating for Tomorrow
11 of 14

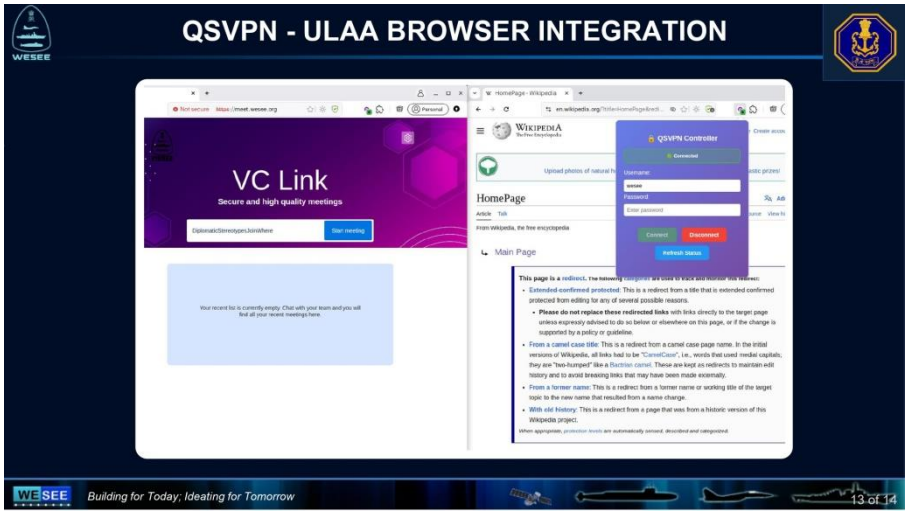

CENTRALIZED & AUTOMATED EXTENSION DEPLOYMENT
Ulaa Enterprise
Centralized server
Ulaa Devices
Building for Today; Ideating for Tomorrow
8 of 14

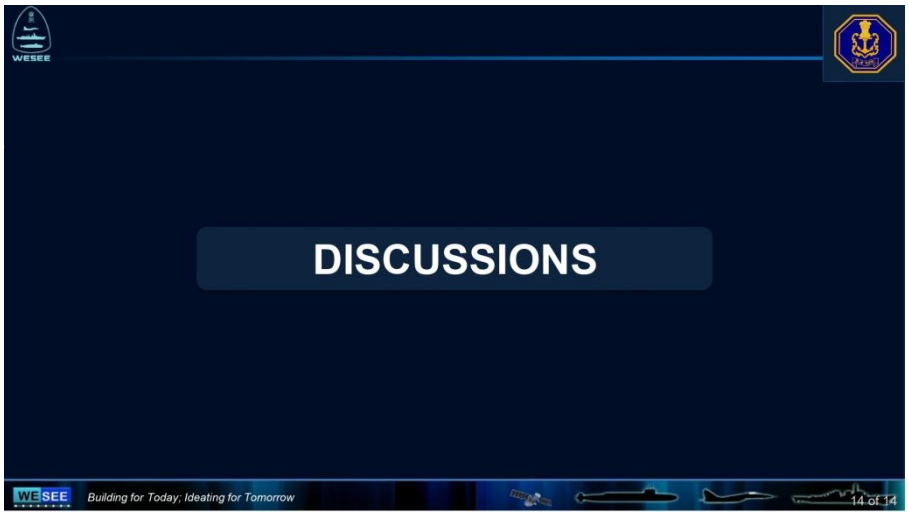

THE DEFINING FEATURES OF ULAA
Indigenous & Sovereign
- Built in India - meets Global Standards
- Ensures data sovereignty
- Keeps Indian data local
Security By Design
- Built-in Phishing protection & DLP
- Stops risks at the source
- Reduces dependence on external tools
Enterprise-Ready Control
- Complete visibility & inbuilt policy controls
- Low IT overhead
- Removes reliance on VDI, DaaS, or agents
Centralized Deployment
- Automate policy rollout
- Manage through a central dashboard
Building for Today; Ideating for Tomorrow
4 of 14


CENTRALIZED & AUTOMATED EXTENSION DEPLOYMENT
Ulaa Enterprise
Centralized server
Ulaa Devices
WESEE
Building for Today; Ideating for Tomorrow
8 of 14


SINGLE DASHBOARD FOR IT & ADMIN TEAMS
Devices
Track active and inactive devices to spot unusual usage patterns.
Policy Notification
Track policies across grouped and ungrouped devices for better compliance visibility
User Invites
Monitor active and inactive users to keep access organized and secure.
Browser Version
Identify outdated instances and push updates before vulnerabilities become threats.
WESEE
Building for Today; Ideating for Tomorrow
5 of 14


QSVPN - ULAA BROWSER INTEGRATION
QSVPN
Browser Extension
WESEE
Building for Today; Ideating for Tomorrow
12 of 14


QSVPN - ULAA BROWSER INTEGRATION
VC Link
Secure and high quality meetings
QSVPN Controller
HomePage
Main Page
Building for Today; Ideating for Tomorrow
13 of 14


DISCUSSIONS
Building for Today; Ideating for Tomorrow
14 of 14

4.3. List of Participants

Sr no.	Participants Name
1	AD POULTRY
2	ADC(G)
3	ADDC Srinagar
4	ADIO BOKARO
5	ADM West Tripura
6	ADM(Gen), BARGARH
7	ADM, JAJPUR
8	ADPS Office Bikaner
9	AHD-HR
10	APCOB
11	ARIS CELL
12	ARIS CELL, DUVASU, MATHURA
13	ARIS CELL, Duvasu
14	ASIO J&K, M Rouf Wani
15	AVNLCO-Chennai
16	Aashish Pareek
17	Abhijit Knp
18	Abhilash Sharma
19	Adarsh (EkStep)
20	Adarsh Pandey
21	Additional Director (SAD) , DAH& VS, Odisha,Cuttack
22	Additional Director, Odisha
23	Addl EO ,Khordha
24	Addl EO KHORDHA
25	Addl, karimnagar
26	Adesto gonda
27	Ajay Reddy (Puducherry)
28	Akrati
29	Akshatha Velankar
30	Ambar Pande
31	Anant Shankar, JS Planning, AP
32	Animal Husbandry Puducherry
33	Animal Husbandry, Haryana
34	Ankur
35	Anshuman
36	Anusha
37	Archana
38	Archana patil
39	Arun Kumar Gupta
40	Asif Siddiqie JK

41	Assistant Secretary (AR)
42	Associate Dean KNPCVS Shirwal
43	Avinash Kumar, DUVASU, Mathura
44	B. Lakshmi Durga
45	BALAMURUGAN ICAR-NIVEDI
46	Bageshwar
47	Baldev R Gulati, NIVEDI
48	Baramulla-JK
49	Barpeta
50	Bathinda
51	Bharati
52	Bhavneet Bhatia, Punjab
53	Bhoomika N
54	Bhopal
55	Bibekananda Sahoo
56	Bidisha Ghosh
57	Bongaigaon
58	Bull section FSB
59	CCST AP
60	CDM PVP MANYAM
61	CDM Peshi
62	CDO KANPUR NAGAR
63	CDO LALITPUR
64	CDVO Malkangiri
65	CDVO, Nabarangpur
66	CEO ZP
67	CEO ZP DHULE
68	CEO, OLRDS
69	CHINMAYA BHUSANA MISHRA
70	CHiPS CG
71	CHiPS Office
72	COLLECTOR & DM JAGATSINGHPUR
73	COLLECTOR NALGONDA
74	CPO Kurnool
75	CSIRT-Power (Neeraj S)
76	CSIRT-Power(Ashudeep Tyagi)
77	CVO Chamoli
78	CVO Muzaffar Nagar Jitendra Gupta
79	Call-in User_1
80	Chamoli
81	Cmde Manish Tripathi, IITGN
82	CoB Duvasu
83	Collector Kolhapur

84	Collector Office Buldhana
85	Collector Office Jalna
86	Collector Raipur
87	Collectorate
88	Collectorate Konaseema
89	Collectorate Navsari
90	Cyber PS HRPD
91	D K Beshra Joint Secy Fin Deptt
92	D.K.Tripathy
93	DAHD Chandigarh
94	DAHO VAISHALI
95	DARPG
96	DARPG-SPB-CR
97	DC Chandel
98	DC Doda
99	DC Ferozepur
100	DC Jiribam
101	DC NRLM
102	DC OFFICE CHAMBA
103	DC OFFICE PATIALA
104	DC OFFICE, UT Chandigarh
105	DC Office Chandel
106	DC Office Kakching, Manipur
107	DC PAKUR
108	DC SSD
109	DC WKH
110	DC office Kakching Manipur
111	DC, Bhadrak
112	DCF Odisha
113	DD AHVS UDUPI
114	DD DPMU Kalahandi
115	DD FARD
116	DD,POULTRY
117	DDC Nandurbae
118	DDC Patna
119	DDC RANCHI
120	DDF|Rupnagar, Punjab
121	DDICDP Sirsa
122	DDL I/C, Boudh
123	DDO Basti UP
124	DESTO ALIGARH (UP)
125	DHQ Chamoli
126	DIO Keonjhar

127	DIO Kurukshetra
128	DIO NIC Dhalai Tripura
129	DIO NIC Kinnaur HP
130	DIO, NIC POONCH, JK
131	DIO, NIC,DU RAJSAMAND
132	DIO-NIC-NABARANGPUR
133	DISTRICT IT MANAGER PALNADU AP
134	DIT
135	DITC Meghalaya
136	DM BUXAR
137	DM OFFICE PATNA
138	DM Office Dhalai
139	DM Office Jodhpur
140	DM UNAKOTI
141	DM UNNAO
142	DM West Tripura District
143	DMS TGVBRI HYDERABAD
144	DOAH-Gujarat
145	DPM - Yavatmal (Sanadeep)
146	DPM Buldhana
147	DPO Ramgarh
148	DPO UID Bokaro
149	DR ASHOK
150	DR ROHITHA
151	DRC
152	DRC
153	DSEO Doda
154	DVAHO GADWAL
155	DVAHO Hyd
156	DVAHO KAMAREDDY
157	DVAHO NAGARKURNOOL
158	DVAHO, KB ASIFABAD
159	DVO Pasighat
160	DVO, Shillong East Khasi Hills District
161	Daman deep Singh
162	Damanjeet Singh
163	Dantewada-Chhattisgarh
164	Dausa_Collectorate 204
165	DeGM
166	DeGM, NABARANGPUR
167	Debashis Parija
168	Deepak Iahp
169	Degm Harda

170	Department of IT, Chandigarh
171	Department of IT, GNCTD
172	Department of Information Technology Govt of Bihar
173	Deputy collector south (LA)
174	Desto Balrampur
175	Desto chandauli
176	Dev
177	Devesh QCI
178	Devika
179	Dhruvajyoti Saha IIT K
180	Dinesh Kumar, IPS
181	Director AHD UP Dr Mempal Singh
182	Director IAHP
183	Director Industries Jammu
184	Director, CoEDSML West Bengal
185	Director, KSITM
186	Dist. Malerkotla
187	District Moga
188	District Administration Pherzawl
189	District Collector Tonk
190	District Collector puducherry
191	District Sirohi
192	District _Bageshwar
193	Dit Bihar
194	DoIT Karauli
195	Dr A Dharma Naik,VAS
196	Dr A Sreeram
197	Dr A.Urmila
198	Dr Abdul Wase Siddiqui (Asst.director)
199	Dr Abhishek Gupta
200	Dr Ajay Pratap Singh
201	Dr Ankamaraju gunji
202	Dr Beesam Srinu
203	Dr Bismita
204	Dr Chaturvedi
205	Dr Debasis Sarangi
206	Dr Debasish Mohanty, FSB, Ctc
207	Dr Deepak Kumar. Mohanta
208	Dr Dixita
209	Dr G Karunakar Reddy
210	Dr GVK Reddy
211	Dr Harender Singh Distt HQ, Nuh
212	Dr Harender Singh Distt HQ, Nuh

213	Dr J NARENDRA NATH REDDY
214	Dr J S Rajpoot
215	Dr JYOTIRANJAN BISWAL
216	Dr Janagama Srinivas
217	Dr K. Roja Rani
218	Dr KC Samantaray
219	Dr KHV DurgaRao, NRSC
220	Dr Kamuni Nithin Kumar
221	Dr Kumar
222	Dr Neelam ,FSB
223	Dr Pawanjit Singh
224	Dr Prashant Mhase
225	Dr Radhika Gaddam
226	Dr Raj Kumar
227	Dr Raj Kumar
228	Dr Rajesh Kumar Kabi
229	Dr Ramchand
230	Dr Sagarika FSB
231	Dr Sai Kiran Jha
232	Dr Satish Kumar
233	Dr Soumyaranjan Pati
234	Dr Srinivas Soma
235	Dr Sujatha Masu
236	Dr Sunil Kumar Pradhan
237	Dr Sunil M
238	Dr Syed Muneeruddin
239	Dr Thota Mounika
240	Dr Umakanth
241	Dr V Vikram
242	Dr VARMA
243	Dr Vamshi Papani
244	Dr Vipin Khasa
245	Dr aparnathi
246	Dr jayant Tapase, State Lab Bhopal
247	Dr sudha Vallapureddy
248	Dr sunil singh cvo shrawasti
249	Dr swetha
250	Dr zii
251	Dr,M,KALYANI
252	Dr. A. Balakrishna
253	Dr. Alok Kumar Nayak, JD, FSB, Cuttack
254	Dr. Amos Vanlalhruaia
255	Dr. B. R. Kadam, MAFSU, KNPCVS

256	Dr. Balaji Ambore
257	Dr. Devendra Kumar, CoB, DUVASU
258	Dr. Gokul Sonawane
259	Dr. H.L. Sharma, Principal GC Nerwa
260	Dr. Jitendra Kumar Chaudhary
261	Dr. Lawmsanga
262	Dr. Mahesh Rangnekar
263	Dr. Malathi
264	Dr. Nisha Malik
265	Dr. Pradyota Kishore Mishra
266	Dr. Pranatee
267	Dr. Priyaranjan Das
268	Dr. R. R. Priyadarshani
269	Dr. RAJENDER YADAV
270	Dr. Rakshit Ojha, ICAR-NIVEDI
271	Dr. Sandigdha
272	Dr. Shanthi
273	Dr. Sujatha Singh
274	Dr. Sukhdev Rathee
275	Dr. V. Suresh Kumar
276	Dr. V.M.Sardar
277	Dr. shubham Kumar
278	Dr.AVReddy
279	Dr.B.C.Ghumare,KNPCVS
280	Dr.B.Nagamani
281	Dr.Bethi Vinay
282	Dr.G.kiran kumar
283	Dr.M.Ramu
284	Dr.Mohd Shahin Shaik
285	Dr.N.Yamini Sai
286	Dr.P.Ravinder Reddy
287	Dr.Pranatee Behera
288	Dr.Preeti Manjari Nayak
289	Dr.Rakesh Kumar Harpal
290	Dr.Sameer Jadhav
291	Dr.Sangeetha K, TNeGA
292	Dr.shyam
293	Durga Prasad G
294	EDCS
295	EDM Faukhabad
296	EDM Ghaziabad
297	East Garo Hills
298	Esther

299	Esther Lalzoliani
300	FEED & FODDER SECTION, FSB
301	Finance Department, Odisha
302	Food Supplies and consumer Welfare Department, Odisha
303	GAD,Bihar
304	GM/IT AVNLCO
305	Ganesh Ramakrishna
306	Gaurav Krishna (IPA)
307	Gauravdeep
308	Gauravdeep Singh
309	Gayathri Chandrachoodan -SeMTKerala
310	George
311	Gomati-Tripura
312	Goutam Kumar Gantait
313	Guest
314	Guest
315	HARIPRASAD
316	HDC SMPK
317	HPSDC
318	HR_AHD
319	Hamsadwaj D
320	Hamsadwaju D
321	Harish J
322	Hc pt Abhishek rana
323	Head SeMT GNCTD
324	Himanshu Agarwal DoIT Chandigarh
325	Hrishikesh Behera
326	Hrudaya Kamal jena,Addl Secretary ,Finance Department, Odisha
327	IC DDL Nayagarh
328	IT Cell. AH&D, Haryana
329	IT MANAGER,PALNADU DIST,AP
330	IT PTK
331	ITC Kottayam
332	ITCktm
333	Indra Bisen
334	Indra bisen
335	JAGATSINGHPUR
336	JAPIT, Jharkhand
337	JD E-gov - Telangana
338	JD, ADRI, Phulnakhara, Cuttack
339	JP Singh
340	Jammu Smart City
341	Janardhana Rao Kotagiri

342	Jap-IT
343	Jap-IT
344	Jatinder Pal Singh, I&C, Jammu
345	Jitendra Barada, OMFED
346	Joint Director
347	Julia Saha
348	Jyoti Ranjan Khuntia (omfed)
349	K
350	Kapil
351	Karan Thapar
352	Kathua
353	Keerthana G S
354	Kiran Kumar Mellacheruvu
355	Korea
356	LOHARDAGA
357	Lalnunpari
358	Lt Cdr Keval Krishan
359	M Nagalingam
360	M.vijayalakshmi
361	MDCELL SBPCL
362	MEPMA ANDHRA PRADESH
363	MadhulMK(SeMT-TN)
364	Mahadev
365	Mahendragarh Haryana
366	Mahesh
367	Mahima Kaul
368	Malavika
369	Mali Ralte
370	Mamta Chauhan, SRS NDRI
371	Manasa
372	Manash Pal
373	Mangala C D
374	Manish Tripathi, IITGN
375	Manuj Syal
376	Mayur Rana
377	Medchal Malkajgiri
378	Medchal NFE-1
379	Meenakshi S TNeGA
380	Megha Khajuria-J&K
381	Meraj Ahammed
382	Mrityunjai_Fellow_Godda
383	Mrunalini Budhe
384	Mukhtar Ali (Telangana)

385	Municipal Council Hanumangarh
386	Muzeeb
387	NABARD_DDMABI
388	NAVNATH, ICAR-NIVEDI
389	NAVSARI MUNICIPAL CORPORATION
390	NIC
391	NIC Bijnor
392	NIC JHAJJAR
393	NIC Lucknow
394	NIC Pathanamthitta
395	NIC Psg
396	NIC Pulwama J&K
397	NIC TONK
398	Nageswar Manyam
399	Narender Kumar, Programmer
400	Naveesh Y B
401	Navnath ICAR-NIVEDI
402	Neelam
403	Neha
404	Neha Jain UP
405	Nic Lucknow
406	Nic west-Singhbhum
407	Nikhitha Reddy
408	Nikhitha Reddy
409	Nithin - D IT Manager ,GNT
410	Nodal Officer- Kamrup(R)
411	North Tripura District
412	O/o the RDC, CD, Cuttack
413	OMFED
414	ORAM BHUMAIAH
415	PAWAN PATIALA
416	PHERZAWL DC
417	PK Sangwan CSIRT Power
418	POONCH-J&K
419	PVC Elkathurthy
420	PY-Karaikal NIC
421	Pankaj Kumar
422	Patna
423	Prabhakar Tembhurne
424	Pranav
425	Pranshuta
426	Prasoon
427	Prity Jyotshna

428	Project Manager (Keonjhar Digital Dispensary)
429	RAJESH CHANDRA PANDEY
430	RAJUVAS Bikaner
431	RICHA SHARMA
432	RK
433	Rahul Shukla
434	Raipur Municipal Corporation
435	Rajashekar
436	Rajat
437	Rajesh Chandra Pandey
438	Raju Shelar
439	Ramesh Konatam
440	Ranjeet Mourya
441	Rishi Pal Singh
442	Rochak Sharma, HAL
443	Rohit QCI
444	Rucha Mahale, Head SeMT MP
445	Rutvij NABARD
446	S Imam
447	S Nowaz, IT Exec, HDC
448	SAS Nagar_Meelu_Senior Fellow
449	SDM Mon
450	SHEELA PREMJI
451	SMPA KDS
452	SP,Hooghly Rural
453	SSEPD ,ODISHA
454	SSEPD DEPARTMENT, Govt. Of Odisha
455	SSPATIL_ICAR-NIVEDI_Bengaluru
456	SURESH kp
457	Samastipur
458	Sandhya M C
459	Sangeetha, SeMT, West Bengal
460	Satyabrata Dash
461	Saurav Kumar Sagar
462	Sayantan Shome
463	Sekhar Additional Commissioner , Andhra Pradesh
464	Sekhar, SeMT, AP
465	ShadowCipher
466	Shaik Mukthar
467	Shantanu
468	Shantanu Jha, IPS
469	Sharda Katare - SeMT Goa
470	Shivendra Kr

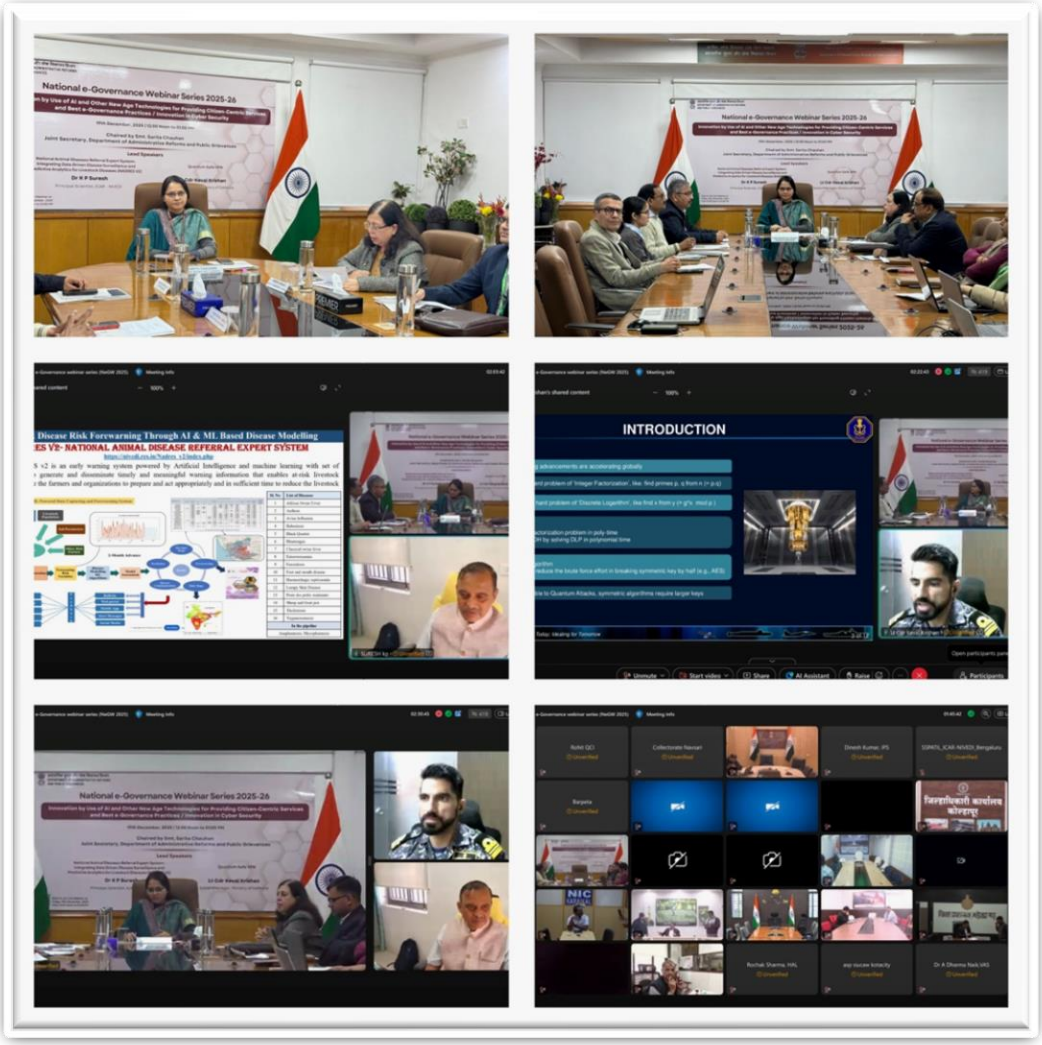
471	Shivpuri
472	Shopian
473	Siddharthan N
474	Sonali Gupta
475	Special Secretary, FE & CC Department Odisha
476	Sreedhar
477	Srinath Reddy
478	Stikanta DD, Kalahandi
479	Suman Kapila
480	Suminder kaur
481	Supdt H MM District
482	Suresh Tripathy, FD Odisha
483	Suseendar Shanmugasundaram
484	Sushma R
485	Swapnil Suman, GoUK
486	THQ Chamoli
487	TNeGA
488	TR-SouthTripura
489	TRS
490	Telangana
491	Tina
492	UDUPI Karnataka
493	UP Police Technical Services HQrs
494	Udupi
495	Umesh
496	Umesh Goel
497	VC Coordinator, DARPG
498	VOTI,BBSR
499	Vamshi H V (ICAR NIVEDI)
500	Varsha Ramesh
501	Veterinary Department, Jagtial District, TG
502	Vidya Nimbalkar
503	Vijay M
504	Virendra Gurav
505	Vishal
506	West kameng Arunachal Pradesh
507	West-Tripura
508	Yaminii
509	ZP SINDHUDURG
510	ZUNJAR DUBAL, NIVEDI
511	abhishek shroti
512	addc sgr
513	addl Karimnagar

514	adps udaipur
515	adpsajmer@gmail.com
516	adseto aligarh
517	ajay
518	ajay vijay khanvilkar
519	anoop keshari
520	anula mehta
521	asp siucaw kotacity
522	cdo Aligarh
523	ceo sindhudurg
524	chandresh
525	cpo barmer
526	cvo auraiya
527	ddahvs udupi
528	dev
529	dr geetha
530	drc
531	eShram
532	harish
533	himanshu Agarwal DoIT Chandigarh
534	jd, slbf, chiplima
535	jeevan
536	kancharla RamaRao
537	kapil
538	kmr
539	krupakar KR
540	kusum
541	lal Varghese
542	madan bist
543	mahesh shingade
544	mizoram
545	mp
546	muglikar
547	mui tama
548	navaneeth
549	nic chamoli
550	nic haridwar
551	nic medchal nfe2
552	patna
553	pg cell puri
554	pradeep kumar
555	priyanaka
556	puii

557	pushkar kumar , Department of IT , Bihar Govt
558	rajesh chandra pandey
559	ravichandra-HAL
560	rjdah cbe
561	roopa
562	samastipur
563	sandip
564	sandip
565	seuj dohutia
566	shravani
567	sree priya
568	srikanth
569	steve
570	tehri garhwal
571	udupi
572	uswan Chamoli
573	vas Vemanpally
574	vijay
575	vikas karande
576	vikas pathak
577	vinod janotkar
578	vinod janotkar kvk Buldana l
579	vipan
580	vitthal Dhaygude
581	wesee
582	zilla parishad angul
583	HAL
584	Kathua
585	2517 027 3662
586	2517 027 3662
587	2517 027 3662
588	934804
589	936278
590	936406
591	936412
592	ABF Masalpur
593	AC-G KAPURTHALA
594	ACS Urban Development MP
595	AD
596	AA

4.4. Gallery

प्रशासनिक सुधार और लोक शिकायत विभाग
DEPARTMENT OF ADMINISTRATIVE REFORMS
AND PUBLIC GRIEVANCES
National e-Governance Webinar Series 2025-26
Innovation by Use of AI and Other New Age Technologies for Providing Citizen-Centric Services and Best e-Governance Practices / Innovation in Cyber Security
19th December, 2025 | 12:00 Noon to 01:00 PM
Chaired by Smt. Sarita Chauhan
Joint Secretary, Department of Administrative Reforms and Public Grievances
Lead Speakers
National Animal Diseases Referral Expert System- Integrating Data Driven Disease Surveillance and Predictive Analytics for Livestock Diseases (NADRES V2)
Dr K P Suresh
Principal Scientist, ICAR - NIVEDI
Quantum Safe VPN
Lt Cdr Keval Krishan
SystemManager, Ministry of Defence
Scan to Join the Webinar on
Friday, 19th December, 2025
From 12:00 Noon to 01:00 PM


INTRODUCTION

सत्यमेव जयते

Department of Administrative Reforms & Public Grievances
Ministry of Personnel, Public Grievances & Pensions
Government of India