The Ascender
MIRROR OF NIC ODISHA
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NEWSLETTER

Hearty Welcome

Welcome by SIO to Shri Jitin Prasada, Hon'ble Minister of State, Ministry of Commerce & Industry and Electronics & Information Technology during his visit to Odisha.

Hon'ble chief Justice, Orissa High Court, inaugurated the Revamped Odisha Judicial Academy Website

Hon'ble Mr. Justice Harish Tandon, Chief Justice, High Court of Orissa and Patron-in-Chief, Odisha Judicial Academy, inaugurated the revamped official website of the Odisha Judicial Academy (https://oja.odisha.gov.in) during the valedictory ceremony of Civil Judges (Junior Division) of 2022-batch on 30th March, 2025. The event was graced by Hon'ble Dr. Justice Sanjeeb Kumar Panigrahi, Hon'ble Mr. Justice Radha Krishna Pattanaik, Hon'ble Mr. Justice Aditya Kumar Mohapatra, senior officials from Judicial Academy and NIC, Odisha.

The newly upgraded website features a role-based content management system with an intuitive CMS admin panel. Using PHP, MySQL, HTML, CSS, and JavaScript, this portal is built which ensures optimal performance and is accessible in both English and Odia language. A key highlight of the website is its self-assessment module, allowing administrators to upload legal questions while enabling users to register for quizzes. The platform also facilitates seamless user management, score tracking, and progress monitoring.

In his inaugural address, Hon'ble Mr. Justice Harish Tandon commended the self-assessment module, emphasizing its potential to enhance the judicial knowledge of the young officers. He also lauded the NIC team for their dedicated efforts in developing this efficient and user-friendly platform.

Ms. Itishree Nanda, Scientist-E and Sri Khirod Kumar Sahoo, Scientist-D, NIC Orissa High Court team, along with other senior officers.

Hon'ble CM, Odisha launched e-RUPI at Farm Mechanization Krushi Mela

Shri Mohan Charan Majhi, Hon'ble Chief Minister of Odisha launched the e-RUPI-powered DBT system for Farm Mechanization at Krushi Mela, Keonjhar, on 2nd March 2025. e-RUPI, developed by NPCI, enables direct subsidy delivery for various schemes in a targeted manner. It functions via QR code or SMS-based vouchers, ensuring seamless, cashless transactions. This platform is managed by NPCI with partner banks ICICI which redeems the vouchers through InstaBIZ app.

To ease farmers' financial burden under the Farm Mechanization Scheme, Odisha introduced an e-RUPI -powered DBT system for streamlined subsidies. Previously, farmers made full digital payments to dealer via the bank portal. Later Govt subsidy routes to farmer's account. Now, e-RUPI simplifies upfront payments, reducing financial strain of farmer while ensuring efficient, transparent subsidy distribution, fostering financial inclusion, and promoting digital transactions in rural areas.

The Agriculture Team, NIC Odisha led by Smt. Sarita Sahoo, Sr. Director (IT) played a key role in this success initiative. It marks a major step in empowering farmers, ensuring transparent subsidy distribution, and advancing digital financial inclusion in Odisha.

Hon'ble Governor of Odisha chaired the conference of Vice Chancellors at Raj Bhavan, Odisha

Governor's secretariat Bhubaneswar conducted a state-level Vice Chancellors' conference on 4th March, 2025 which was inaugurated by the Hon'ble Governor of Odisha, as Chancellor of Universities, bringing together representatives from forty State Public, Private, and Deemed-to-be Universities.

At the conference, SIO, Odisha presented the eOffice adoption, noting that 12 state universities are onboarded with more than 2,000 active users. Discussions on Aadhaar-Enabled Biometric Attendance System (AEBAS) showed four major universities have integrated with AEBAS system of NIC. SIO also outlined various NIC initiatives aimed at strengthening Higher Education Institutions, including an Examination ERP for UG/PG courses, Payroll Management, Recruitment Systems, Moodle ILMS, the Virtual Tutorial Project, E-Granthalaya, and dedicated university web portals. The conference further addressed key topics such as cybersecurity and awareness in educational institutions.

Empowering Excellence: A two-day eCourt Phase - III capacity-building drive

A two-day training session was successfully conducted for the technical staff of the High Court of Orissa as part of the eCourt Phase III capacity-building program, enhancing their technical proficiency and operational efficiency.

The training, designed by the Hon'ble eCommittee, Supreme Court of India, was held at the Odisha Judicial Academy on 22nd-23rd March, 2025. Ms. Itishree Nanda, Scientist-E, and Sri Khirod Kumar Sahoo, Scientist-D, served as resource persons, imparting training on various technical subjects. The program featured 12 technical sessions covering a wide range of topics, including:

- Case Information System (CIS) and OHC e-Services.
- Hardware and software maintenance.
- Data replication and VMware operations.
- Data monitoring and VC equipment management.
- Security protocols: server, network, and cybersecurity.
- Digitization of case records.
- Workflow processes in the High Court and subordinate courts.

About 45 participants, including System Officers, technical personnel, technical manpower, and ASOs, attended the training. At the end of the programme, the Director of Odisha Judicial Academy felicitated all participants with certificates of participation. The session concluded with a vote of thanks by the Deputy Director, Orissa Judicial Academy.

Training on 1:N Deduplication under IVFRT Project

A training-cum-live demonstration on 1:N Deduplication was held on 13th March 2025 for Immigration officials of Integrated Check Posts (ICPs) in Odisha under the IVFRT (Immigration, Visa, Foreigners Registration & Tracking) project. Officials and NFOs from Biju Patnaik International Airport (BPIA), ICP, Paradeep, ICP, Dhamra, and other states attended the session virtually. Shri M. Naresh Kumar, Deputy Director (IT), IVFRT ICS team, Hyderabad, and Shri Prabhat Saurav, Deputy Director (IT), IVFRT Biometric team, NIC HQ, conducted the session.

The training focused on the rollout of 1:N Deduplication for biometric-based passenger identification during immigration clearance. Initially launched at ten airports, it is now being extended to all, with a target completion date of 13th March, 2025. All Odisha ICPs have successfully implemented the system. Participants received a detailed overview of 1:N Deduplication, which detects duplicate entries by comparing one record (1) with multiple others (N), improving identification of individuals using altered biometric data to evade immigration rules. The training was coordinated by Shri Siba Prasad Dash, Sr. Director (IT) & State Coordinator (IVFRT), which was insightful, providing practical knowledge to enhance biometric identification and immigration security.

Technology Sabha Award - 2025
Odisha's WATCO wins the Award for Water Quality Monitoring

Water Corporation of Odisha (WATCO) has won the prestigious Technology Sabha Award, 2025 in the Enterprise Application category for its Water Quality Data Acquisition & Monitoring System. Developed with technical expertise from NIC, Odisha State Centre, Bhubaneswar, the system stood out among various e-Governance projects across India.

This innovative system integrates G2C & G2G services with real-time monitoring to enhance the water quality management. Covering urban areas of Odisha, it enables water sample collection, testing, data analysis, and real-time surveillance via web and mobile applications. The system ensures preventive maintenance, efficient incident management, consumer grievance redressal, and last-mile connectivity through Jalasathi and mobile apps.

The award was presented at a ceremony in Hyderabad during 21st to 23rd February, 2025, and was received by WATCO officials on behalf of the Housing & Urban Development Department, Govt. of Odisha. Smt. Usha Padhee, IAS, Principal Secretary to Govt. congratulated Sri Guru Charan Das, MD, WATCO, Sri Lalatendu Dash, Senior Director (IT), NIC, Sri Debabrata Mohanty, Project Director WATCO, Sri Sarada Prasanna Nayak, GM, WATCO, Sri Rajendra Nayak, GM, WATCO and other officials for their dedication in ensuring safe and hygienic drinking water for citizens of Odisha. This recognition marks a significant achievement in e-Governance and public service excellence of Odisha.

Special Drive for Updating Deceased Tenants in Odisha's Land Records

Odisha has launched a special drive to update the Record-of-Rights (RoRs) by replacing deceased tenants with their legal heirs. About 75% of original tenants in RoRs are deceased, yet the successor-in-interest remain unrecorded in RoR. These outdated records hinder key welfare schemes like PM Kisan, Pradhan Mantri Fasal Bima Yojana, and bank loan disbursements, and obstruct the rollout of AGRISTACK under Digital Public Infrastructure, which depends on accurate land ownership data.

To address this, a web-based application integrated with the Bhulekh portal ensures accurate data entry while reducing errors and fraud. For rural tenants with limited digital access, temporary village camps have been setup by Revenue Inspectors to collect data on deceased tenants and their legal heirs, enabling timely, automatic mutation cases in the Land Records Management System (LRMS) based on inheritance. A dedicated dashboard enables real-time monitoring, ensuring transparency, efficient tracking, and timely intervention by State Revenue officials. By leveraging technology & on-ground support, the drive aims to update land records, improve welfare program implementation, and support digital infrastructure initiatives.

Hindi Workshop on Rurality and e-Governance in Indian Context

National Informatics Centre, Bhubaneswar organized a Hindi workshop for the first quarter of the year 2025 on 21st March, 2025 in NIC NKN Hall under the chairmanship of Dr. Shri Ashok Kumar Hota, DDG & SIO. Dr. Harekrishna Mishra, Former Professor, Institute of Rural Management Anand graced the programme as Chief Guest.

The topic of the workshop was "Does rurality matter in e-Governnce services in the Indian context?". In his speech, Dr. Harekrishna Mishra elaborated the rural India concept and its importance in the context of holistic development India. He shared his views based on his long span of experience with the Institute of Rural Management Anand and emphasized on the importance of rural areas in India and its impact on socio-economic development. Through his presentation Dr. Mishra explained how e-Governnce services can be made citizen-centric with advanced technology. Further, he went on answering some questions related to the topic. During this occasion Hindi Version of The Ascender-March 2025 issue was released by the Guests.

Digital Literacy Talk at SSS Women's College

On the occasion of NSS Special Winter Camp, 2025 for the NSS volunteers, one workshop was conducted at Sri Satya Sai (Degree) College for Women, Bhubaneswar on 21st March, 2025. Smt. Sujata Das, Senior Directed (IT), was invited to address the students on the Topic "Digital Literacy for Youth". More than 150 NSS volunteers participated in the workshop and interacted enthusiastically on various digital awareness topics from Cyber hygiene to Personal Data Protection.

FAREWELL

Our sincere tribute and honour to
Shri Choudhury Bijoya Kumar Das, Scientist-G (Deputy Director General), on the eve of his Transfer to NIC, Jharkhand, **Shri Gyana Ranjan Misra, Scientist-E (Director(IT))**, on the eve of his Transfer to NIC, Delhi & **Shri Janmejoya Mohanty, Scientist-F (Senior Director(IT))**,on the eve of his attaining superannuation **for their years of dedicated & exemplary service at NIC, Odisha.**

Workshop on Digital Skill and Technology Literacy

The of Women & Child Development Department, Government of Odisha organized a series of competitions, events and workshops from project level to State and District Level for celebration of International Women's Day, 2025 on 8th March, 2025. A workshop on "Digital Skill and Technology literacy, Legal Rights and Awareness and Market Access" was organized on 1st march, 2025 at Mission Sakti Conference Hall, Khordha.

The DSWO, Khordha, ICDS Project chaired the workshop and ADSWO, Khordha, DPC, Mission Shakti, Khordha, CDPO Khordha were present. As a resource person Sri Shubhakanta Panda, Scientist-C & DIO NIC, Khordha explained the e-Governance services and safe internet uses to the Anganwadi workers and SHG women to create awareness among the people.

The awareness program also covered cyber fraud and data privacy while using digital technology. The printed copies of the list of important e-governance services implemented by National Informatics Centre (NIC) were also distributed among the participants. At the end of the workshop a Question & Answer session was also conducted and the participants actively engaged in the session. The participants also shared their experiences on use of Digital Technology at grassroots level.

Capacity Building on GIS

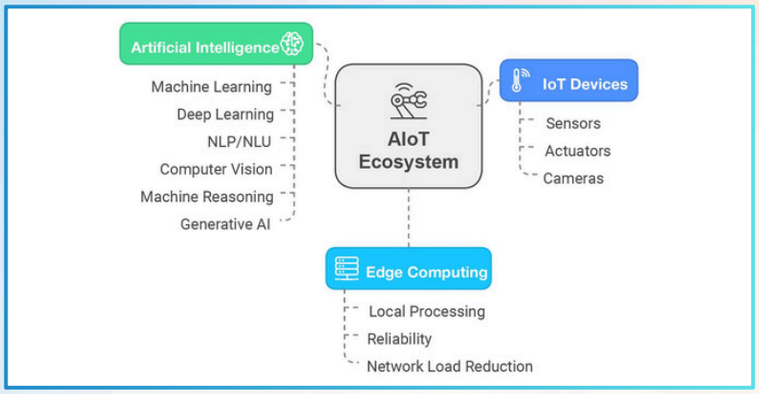
A four-day capacity building program on Geographic Information System (GIS) was conducted at NIC Odisha State Centre, Bhubaneswar from 17th to 20th March, 2025 to create a strong pool of GIS professionals at NIC, Odisha so that the technology may be integrated in all the citizen centric applications being developed by the state unit.

The training program covered many of the aspects of GIS like Fundamentals of GIS & Remote Sensing, Users/Uses of GIS, Maps and its components, Spatial and Non-spatial data development through Desktop GIS S/W, various Open Source GIS S/W available, Map Service Portal, Web-GIS Development techniques and processes with live demo of various Web-GIS applications developed by NIC. All the Officers of State HQ and District Units actively participated in the programme. Shri Jayanta Kumar Mishra, Scientist-F imparted the training with the support from Shri Dhrubajyoti Sarma, Scientist-E and Shri Prafulla Kailash Mendhe, Scientific / Technical Assistant-B from NIC, New Delhi.

Tech Talk

Integrating Edge AI and IoT (AIoT)

Edge AI by embedding a mini AI brain directly into devices enables them to make decisions independently without constant cloud reliance. For example, a security camera using Nvidia Jetson can detect an intruder without depending on the cloud. With its powerful GPU, Jetson can efficiently run complex AI models for tasks like object detection, facial recognition, and real-time video analysis. Powered by AI agents, these devices autonomously perform tasks and make decisions at the source, enabling faster and smarter responses.



Architecture

- Edge Devices: These are IoT endpoints (sensors, cameras) with embedded AI hardware, Accelerators like Google Coral, VPU like Intel Movidius and sometimes more complete edge solutions including CPU, GPU, memory, storage, and AI capabilities, all integrated into a single platform like Nvidia Jetson.
- AI Models: Models are compressed via techniques like quantization (a process of creating lesser precise weight, decreasing memory) or pruning (reducing number of neurons which doesn't have much impact on the overall output making the network sparse) to fit on edge hardware with limited memory (e.g., a few MBs).
- Hybrid Systems: Some setups blend edge and cloud i.e. edge handles urgent tasks, cloud does heavy lifting (e.g., retraining models).

Challenges

- The convergence of Edge AI and IoT faces challenges in terms of processing power.
- Data privacy and security are also major concerns, as sensitive information processed locally on edge devices may be vulnerable to attacks.
- Scalability becomes an issue when managing large numbers of IoT devices with varying hardware and AI capabilities, requiring efficient infrastructure and management strategies.

Contributed by: Shri Rajneesh Kant Pandey; DIO I/c - Malkangiri

NIC Panorama

NIC Odisha observed International Women's Day

The International Women's Day was celebrated with enthusiasm at NIC Odisha from 8th to 12th March, 2025. The event, themed "For All Women and Girls: Rights, Equality, and Empowerment," highlighted the importance of inclusivity and gender equality.

On 8th March at 5:30 AM, a Marathon was held, with enthusiastic women carrying banners advocating women's empowerment and cyber security awareness. Starting from NIC, Odisha State Centre, they went to Kalinga Stadium, Bhubaneswar, fostering unity, motivation, and joy along the way. On 10th and 11th March, 2025 Poster and Jhoti Competitions were conducted, showcasing women's creativity, talent, and artistic expression.

A vibrant fete featuring delicious delicacies was held at Dr. N. Seshagiri Memorial Hall, NIC OSC on 12th March. After the fete, Women's Day was celebrated at the Training Hall, NIC, OSC, BBSR, beautifully decorated to honor womanhood. Eminent guests, Dr. Mitali Chinara, Economist and award-winning Singer, and Ms. Sujata Mohapatra, renowned Odissi Dancer, inspired attendees with discussions on gender equality and work-life balance. Dr. Ashok Kumar Hota, DDG & SIO, NIC Odisha appreciated women officers' contributions at NIC. The celebration fostered unity, empowerment, and joy, leaving a lasting impact on all participants.

IT by Tea

Data privacy in AI model development

Myth:

AI model development using critical and sensitive data, such as healthcare data, is highly vulnerable and expensive because AI training requires centralized data storage, leading to significant bandwidth and storage costs for transferring large datasets from source to GPU cloud. Additionally, sensitive data that cannot be centralized for model training due to privacy concerns and regulatory restrictions, makes AI training methods impractical for such domains.

Truth:

Federated Learning (FL) offers a transformative alternative to traditional centralized machine learning, enabling hospitals, research centers, and public health agencies to collaborate on AI-driven healthcare models without compromising patient confidentiality or violating the Digital Personal Data Protection (DPDP) Act, 2023. FL empowers organizations to train AI models locally on patient data, ensuring that raw data remains securely within its source. Instead of sharing sensitive information, only the updated model parameters are transmitted securely to a central server for aggregation, forming a robust global AI model.