

SATYAJIT RATH

Scientist – G

+91 9438115022 (M)

satya.immt@csir.res.in; satyajitrath@gmail.com

Distinguished technology leader and academician with over 28 years of experience in advancing research, digital infrastructure, and institutional growth within premier R&D environments. Brings an integrated perspective combining academic leadership with strategic business development, enabling alignment of research priorities with national missions and industry needs.

Extensive experience in guiding ICT strategy and co-leading business development initiatives, fostering innovation ecosystems and strengthening industry-academia collaboration. Demonstrated ability to design and implement high-impact programs in Artificial Intelligence/Machine Learning, Cyber Security, and e-Governance, with a focus on translational research, technology commercialization, and societal impact.

Proven track record in transforming IT functions into strategic enablers of research excellence, revenue generation, and institutional partnerships. Successfully led mission-critical implementations at CSIR-IMMT, supporting both fundamental research and applied technology development.

Research interests include Geomatics, Wireless Sensor Networks, and Data Analytics, with emphasis on building scalable, resilient, and secure infrastructures for advanced scientific applications.

Experienced in academic governance and institutional administration, with a strong commitment to transparency, ethics, and policy compliance. Adept at managing complex responsibilities while fostering a secure, inclusive, and research-driven academic environment.

Academic Profile

- MBA (Business Analytics) (2023), Birla Institute of Technologies & Science (BITS), Pilani.
- Ph. D. (Computer Science) (2015), Utkal University, Bhubaneswar.
- M.S. (Software Systems) (2002), Birla Institute of Technologies & Science (BITS), Pilani.
- B. Tech. (1997) College of Engineering & Technology, (O.U.A.T.), Bhubaneswar

Research Interest:

- Artificial Intelligence and Machine Learning
- Data Science and Analytics
- Digital Image Analysis
- Cyber Security and Quantum Computing
- Geomatics & Remote Sensing Analysis & Modelling
- Decision Support Expert system.
- E-Governance Applications

Awards & Recognition:

- **“Outstanding Achievement Award”** for distinguished contribution and meritorious achievement as Project Champion for the CSIR Transformation Initiatives and Enterprise Application for Automation of Operations on the occasion of 71st Foundation Day of CSIR, 26 September 2013, by Dept. of Scientific and Industrial Research, Ministry of Science & Technology, Govt. of India, New Delhi.
- **Jury Member** for the Evaluation Process of the **Smart India Hackathon 2025 – Software Edition** organized by Ministry of Education, Govt. of India and AICTE.

Professional Experience:

- Scientific positions at CSIR-Institute of Minerals & Materials Technology, Bhubaneswar since April 2008 (Currently as *Scientist - G & Head of Computer Networking & IT*)
- Scientific positions at *C-DAC, NOIDA* from September 1998 to April 2008
- Software Engineer at *Geo-Informatics, Bhubaneswar* from August 1997 to September 1998

Professional Assignments:

- **Head of Computer Networking & IT** - Management of ICT Infrastructure and implementation of Digital Transformation at IMMT.
- Chief Information Security Officer (**CISO**) - Network Security Management
- **Co-chairperson, Business Development** – Nodal point of contact and authorised officer for registration and participation in bidding process, negotiation and commercials for DRDL, HCL, Tata Steel, BHEL, NMDC, Grasim, MECON, NLCIL, and Vedanta etc.
- Member of various National Level Committee at CSIR-HQ
 - IT/ Digital Transformation Standing Committee extending guidance to other CSIR Laboratories towards ICT infrastructure and security architecture.
 - Committee for adherence to GoI guidelines and Policies for IT activities
 - Standing Committee and Task Force Team for Email Policy and implementation of Zoho-Cloud Based Email Solution in CSIR
- Mentored start-ups of InTEC and CRTDH at CSIR-IMMT and **10 Start-ups at KIIT-TBI** under the **Jal Jeevan Mission** innovation track of **Ministry of Jal Shakti of Government of India**; all achieved working prototypes, with notable successes including one DDWS-awarded solution deployed by Rajasthan Government and another delivering 300+ devices to the Indian Army and securing follow-on funding.
- External Expert Member for ICT infrastructure and Hospital Management Information System implementation at AIIMS Bhubaneswar, ICMR-RMRC, Bhubaneswar and Central University of Odisha, Koraput.
- Empanelled Evaluator & Advisor for *TEXMiN, IIT(ISM) Dhanbad*
- Member of Board of Studies of Faculty of Emerging Technologies, *Sri Sri University, Cuttack*
- Member of Project Review and Steering Group, projects funded by Ministry of Electronics & Information Technology (MeitY), Govt. of India
- Functioned as Central Public Information Officer (**CPIO**) under the RTI Act, 2005 (May 2016 to April 2024), successfully disposing of more than 600 RTI applications. Currently serving as **First Appellate Authority** under the RTI Act, 2005, ensuring timely resolution of appeals without escalation to the Second Appellate stage, thereby strengthening institutional governance and compliance.

Teaching Experience:

- Professor, AcSIR, PhD students (Research Methodology, Computational Methods and Numerical Analysis, Data Science & Data Analytics) at CSIR-IMMT.
- Approved Counsellor for PGDLAN and MLII-103 & MLLI-104 for MLIS in RC, IGNOU (21000) and KIIT (2100).
- PG Diploma in Geo-Informatics (Geomatics, Graphics Programming) at C-DAC, NOIDA

Patents / Copy Rights

- **“Software controlled and operated apparatus for real-time location based air pollution monitoring system in a moving node”**, India; Satyajit Rath, Sanjeev Kumar Pandey, Debi Prasad Sandha, Bimal Rath, Minakshi Mohapatra, Bikram Kumar Parida, Trupti Das, Debi Prasad Das, Santosh Kumar Behera, Santosh Kumar Mishra, Barada Kanta Mishra; (*Patent No. – 577763 granted on 08.01.2026, CSIR*)

An innovative approach to real-time monitoring of urban air pollution using IoT devices mounted on moving vehicles. This system enables spatial mapping of the city's air quality, providing location-specific projected pollutant levels through a web portal and a smart mobile application for efficient information dissemination.

- **“A method and apparatus for controlling the speed of pelletization disc using image processing based pellet-size-distribution trend to reduce recycling load”**, India; Santosh Kumar Behera, Debi Prasad Das, Srinibas Bhuyan, Satyajit Rath, Santosh Kumar Mishra, Surendra Kumar Biswal, Barada Kanta Mishra, A Srinivasa Prasad; (*Patent No – 430663 granted on 29.04.2023, CSIR*)

Online Image Processing system for palletisation plants for better control mechanism. The system can estimate the size of iron ore pellets at a pelletisation disc during its formation and provide size distribution data in real time, which is displayed, transmitted and stored. This helps for online control, parameter optimization and post analysis so that the pelletisation discs can be operated to achieve maximum productivity with reduced recycling.

- **“Landslide detection and alerting system using wireless sensor network”**, India; Swadesh Kumar Chaulya, Pankaj Kumar Mishra, Girendra Mohan Prasad, Satyajit Rath, Debi Prasad Sandha, Sanjeev Kumar Pandey, Pratap Chandra Sarmah, Khirrod Buragohan, Prabhat Kotoky (*Patent No – 380410 granted on 27.10.2021, CSIR*)

A system to help the local management for improving the safety of the people and assets from geo-hazardous disasters of landslide. The triggering factors get monitored using wireless sensor network to predict and provide a pre-disaster alarm with the use of Multi-criteria Decision Analysis, Geo-statistical models.

- Copyright - **“LandMaPS: Landslide Monitoring and Prediction Software”**, India, Satyajit Rath, Debi Prasad Sandha, Sanjeev Kumar Pandey, Santosh Kumar Mishra, Swades Kumar Chaulya, Pankaj Kumar Mishra, Girendra Mohan Prasad, Pratap Chandra Sarmah, Khirrod Buragohain and Prabha Kotoky. (*ROC No: L-54265/2013 ROC Date: 23 Sep 2013*)

An application software for prediction of probable landslide using Auto Regression (AR) and Artificial Neural Network (ANN) along with Multi Criteria Decision Analysis (MCDA) model based on the measured parameters from Rain gauge, Piezometer, inclinometer, extensometer and other weather parameters.

Technology Commercialized:

- EYE-ON-PELLETS System: Online pellet size monitoring system; Technology License transferred to SVNT Infotech pvt. Ltd. Hyderabad for production and marketing.

AI/ ML Model Development

- Geo AI based model for preparing pollution profile of the city from IoT based real-time city air pollution monitoring data.
- Geo-statistical Analysis of Ozone and its precursor trace gases under the project funded by ISRO GBP

- AI based model for pre-disaster alarm for saving life & economic losses due to landslide with integration of multi variety communication system with GSM based communication.

Software Product Development and Implementation

- **Online Recruitment portal** - Online recruitment, synopsis generation and shortlisting for Scientific and Technical staffs along with Administrative staffs with simultaneous multiple advertisements. The portal is in operation at CSIR – IMMT since 2019 and subsequently extended to CSIR-NAL, Bengaluru and CSIR-AMPRI Bhopal with processing more than 1.5 Lakhs online applications for around 80 posts through multiple Advertisements successfully.
- **CSIR Guesthouse Management System** – Online booking requests, room management and bill generation for CSIR Guesthouse. The portal is in operation at CSIR IMMT Guesthouse since 2018. Now extended to CSIR-HQ and 17 other CSIR Labs and running successfully.
- **SaralNote** - The e-Green Noting System to facilitate online movement of files and green notes with role based approval system.
- **Typing Kaushal**- The online typing test ecosystem enabled with AI and NLP based support for evaluation used by CSIR-IMMT, CSIR-NAL, and CSIR-4PI for conducting typing test for candidates in administrative staff recruitment.
- Bio-informatics Databases and its optimized retrieval
 - **DBCOPV**: A database of coronavirus virulent glycoproteins (published: Computers in Biology and Medicine, Volume 129, February 2021, (IF 7.0))
 - **dEMBF v2.0**: An Updated Database of Enzymes for Microalgal Biofuel Feedstock (published: Plant and Cell Physiology, Volume 61(5); 1019–1024, May 2020 (IF 4.0))

Research Guidance (Ph.D. Thesis Supervising/Co-Supervising):

- “A Study on Large Scale Application Using SAAS in Cloud Architecture”, Sh. Ashu Krishna, Joint Director, C-DAC, NOIDA (Computer Science & Engineering), Faculty of Engineering & Technology, Mewar University, Chittorgarh, Rajasthan (**2025-Completed**).
- Mr . Sujan Mohanty, Head-IT, Bagchi Sri Shankara Cancer Hospital, (Engineering Sciences) AcSIR - Academy of Scientific and Innovative Research, CSIR-HRDC Campus, Ghaziabad, Uttar Pradesh (2020- ongoing).
- Mr. B K Parida, Sr. Technical Officer, CSIR-IMMT, (Biological Sciences), AcSIR - Academy of Scientific and Innovative Research, CSIR-HRDC Campus, Ghaziabad, Uttar Pradesh (2020- ongoing).
- Mr. Bhoyar Harshvardhan Vitthalrao, Asst. Professor, Sri Sri University, Cuttack, (Engineering Sciences), AcSIR - Academy of Scientific and Innovative Research, CSIR-HRDC Campus, Ghaziabad, Uttar Pradesh (2020- ongoing).
- Mr. Pradipta Pal, Asst. Professor in Dept of Computer Application, DR B C Roy Engineering College, Durgapur, West Bengal, (Engineering Sciences), AcSIR - Academy of Scientific and Innovative Research, CSIR-HRDC Campus, Ghaziabad, Uttar Pradesh (2021- ongoing).

Supervision:

- Guided more than 60 M. Tech, MCA, B. Tech, MLIS & PGDLAN (IGNOU) students in the field of IT and Computer Science.

Memberships:

- Life Member of “Institute of Engineers”.
- Life Member of “Computer Society of India (CSI)”.
- Life Member of “Administrative Staff College of India (ASCI), Hyderabad”.

Book Chapters:

- Pal, P., Dey, P.K., Mondal, A.C., **Rath, S.** (2026). Guardians of the Road: Harnessing Internet of Vehicles and Machine Learning for Combating Vehicle Theft Through Anomaly Detection. In: Biswas, A., Samanta, D., Chakraborty, S., Dutta, J. (eds) Internet of Vehicles. Transactions on Computer Systems and Networks. Springer, Singapore. https://doi.org/10.1007/978-981-95-1979-8_8

Major Publications:

- Krishna, A., **Rath, S.**, Yadav, S. (2024). A Cloud-Based Student Life Cycle Management System: Addressing Security Challenges and Deployment Architecture, Proceedings of International Conference on Recent Innovations in Computing, ICRIC 2023. Lecture Notes in Electrical Engineering, vol 1196. Springer, Singapore. https://doi.org/10.1007/978-981-97-7862-1_20
- Susrita Sahoo, Soumya Ranjan Mahapatra, Bikram Kumar Parida, **Satyajit Rath**, Budheswar Dehury, Vishakha Raina, Nirmal Kumar Mohakud, Namrata Misra, Mrutyunjay Suar, "DBCOVP: A database of coronavirus virulent glycoproteins", Computers in Biology and Medicine, Volume 129, February 2021, (IF 7.0)
- Susrita Sahoo, Soumya R. Mahapatra, Nayanika Das, Bikram K. Parida, **Satyajit Rath**, Namrata Misra, Mrutyunjay Suar, "Functional elucidation of hypothetical proteins associated with lipid accumulation: Prioritizing genetic engineering targets for improved algal biofuel production", Algal Research, Volume 47, May 2020 (IF 4.008)
- Susrita Sahoo, Soumya Ranjan Mahapatra, Bikram Kumar Parida, Parminder Kaur Narang, **Satyajit Rath**, Namrata Misra, Mrutyunjay Suar, "dEMBF v2.0: An Updated Database of Enzymes for Microalgal Biofuel Feedstock", Plant and Cell Physiology, Volume 61, Issue 5, May 2020, Pages 1019–1024, 2020 (IF 4.799)
- Sahoo, S., Mahapatra, S. R., Parida, B. K., Rath, S., Dehury B, Raina V, Mohakud N K, Misra, N., & Suar, M., "DBCOVP: A database of coronavirus virulent glycoproteins", Computers in Biology and Medicine, Volume 129, February 2020 (IF: 3.434)
- Susrita Sahoo, Namrata Misra, Bikram Kumar Parida, **Satyajit Rath**, Mrutyunjay Suar, "Genome wide prediction and bioinformatics characterization of enzymes underpinning β -oxidation pathway as targets for developing engineered algal strains for biofuel production", Nextgen Genomics, Biology, Bioinformatics and Technologies Conference (NGBT 2018), October 2018
- Swain Satyabrata, Mishra Niharika, **Rath Satyajit**, Sahoo BPS, "Spectrum sharing for D2D communication in 5G cellular networks: An auction-based model", India Conference (INDICON), 2016 IEEE Annual, pp 1-6, 2016
- Panda Sipra, Sharma SK, Mahapatra Parth Sarathi, Panda Upasana, **Rath Satyajit**, Mahapatra Minakshi, Mandal TK, Das Trupti "Organic and elemental carbon variation in PM_{2.5} over megacity Delhi and Bhubaneswar, a semi-urban coastal site in India", Natural Hazards 80 (3), 1709-1728, October 2015 (IF 1.719)
- **Rath Satyajit**, Pandey S K, Sandha D. P., Mishra S K and Sahoo B. P. S.; "Earth monitoring using wireless sensor network: a case study of landslide monitoring", Journal of Engineering Geology (Special Publication), pp 120-126, October 2015
- Shukla S. K., Chaulya S. K., Mandal R., Kumar B., Ranjan P., Mishra P. K., Prasad G. M., Dutta S., Priya V., **Rath S.**, Buragohain K., Sarmah P. C., "Real-Time Monitoring System for Landslide Prediction Using Wireless Sensor Networks", International Journal of Modern Communication Technologies & Research, pp 14-19, Volume-2, Issue-12, December 2014 (IF 1.692)
- **Rath Satyajit**, Pandey, S. K., Sandha, D. P., Mohapatra M., Rath, B., Grahacharya, T., Sahoo, B.P.S, "Spatial and Temporal Analysis of VOC Concentration in Capital City of Odisha in Indian Sub-continent", Computational Intelligence in Data Mining (Volume-2), Smart Innovation, System and Technologies (Volume -32), Springer International Publishing, pp 617-625, December 2014.

- Sahoo B.P.S., Puthal Deepak , **Rath Satyajit**, "An Energy Efficient Optimal Routing Method for Wireless Sensor Networks", ARPN Journal of Science and Technology, pp 558-564, Volume 4, Issue 10, October 2014. (IF 0.343)
- Mahapatra, Parth S, Panda, Sipra, Das, Namrata, **Rath S**, Das, Trupti , "Variation in black carbon mass concentration over an urban site in the eastern coastal plains of the Indian sub-continent", Theoretical and Applied Climatology (Springer), pp 133-147, Volume 117, Issue 1-2, July 2014 (IF 1.742)
- **Rath Satyajit**, Pradhan Sateesh K., "Rural Educational Planning – An Analytical Hierarchy Process Approach (AHP)". Siddhant- A Journal of Decision Making, Volume 13, Issue 3, July- August 2013.
- **Rath Satyajit**, Pradhan Sateesh K., "Rural Electrification Planning – A Goal Programming Approach". International Journal of Applied Research on Information Technology and Computing (IJARITAC) , Volume 4, Issue 2, August 2013.
- **Rath, Satyajit**, Pradhan, S. K , Shukla, V. N. "Role of Decision Making Models in District Scenario Planning". (2012) International Journal of Computer Applications, 56(17), 12-17
- Sahoo, B. P. S., **Rath, Satyajit** and Puthal, D. "Energy Efficient Protocols for Wireless Sensor Networks: A Survey and Approach" (2012) International Journal of Computer Applications, 44(18), 42-48
- **Rath Satyajit**, et al. "Spatial Multi-Criteria Decision Analysis For Effective Waste Management", Proceedings of National Seminar on Eco-Friendly Waste Management for Sustainable Development, 2011
- **Rath Satyajit**, et al. "Implementation of Decision Support System at Districts.", Proceedings of Annual Seminar of CDAC Noida Technologies (ASCNT) 2008, NOIDA, India, 7-8 February 2008
- **Rath Satyajit**, "Land Management Information System: A Designer's Perspective", Proceedings of Annual Seminar of CDAC Noida Technologies (ASCNT) 2008, NOIDA, India, 7-8 February 2008
- **Rath Satyajit**, Mathur Poonam, "Land Management Information on Internet GIS ", Proceedings of ESRI User Conference-2004, NOIDA, India, 2-3 December 2004
- Shukla, V. N., **Rath Satyajit***, Saxena Sanjay, "Geographic Information System -An effective tool for Land Acquisition", Proceedings of Map Asia-2003, Kualalampur, Malaysia, 13-15 October 2003
- Shukla V N, **Rath Satyajit***, "GIS as front end for district administration & property management", Proceedings of Map India-2000, New Delhi, India, 10-11 April 2000

Major Projects worked on:

Sustainable Solutions for Removal of Fluoride from Groundwater in Mining Areas of Coal India Ltd in Jharkhand, Odisha and West Bengal for Safe Drinking Water (an R&D project funded by Coal India Ltd.): Development of an indigenous sustainable solution for removal of Fluoride from contaminated water in the mining areas. An IoT based solution for continuous monitoring of water before and after Fluoride removal treatment. Locations spreading in the state of Odisha and Jharkhand.

Battery-to-Battery, Recovery of Metal Values from Spent Lithium-Ion Batteries and Fabrication of New Lithium-Ion Batteries – A Circular Economy Approach (CSIR Mission Mode R&D Project): Development of an innovative process for recovering lithium and other critical minerals from spent lithium-ion batteries as a secondary resource. Additionally, creation of a Battery Informatics database enabling GPT-like information retrieval using LLaMA-based models and a Retrieval-Augmented Generation (RAG) framework.

Farm based S&T intervention for socio-economic development in the aspirational district of Nabrangpur, Odisha(Project under RKVY): Led a large, multi-agency R&D collaboration involving 12 national institutions across CSIR, ICAR, DBT, and ICMR to deliver science and technology-driven interventions in an aspirational district. Facilitated successful field-level demonstrations in fisheries, aromatic plants, floriculture, renewable energy, tuber crops, and integrated farming systems, ensuring

effective lab-to-land translation. Enabled the creation of local entrepreneurship and value-addition ecosystems through the establishment of hatcheries, distillation units, bio fertilizer plants, feed mills, and Common Facility Centres. Contributed to measurable socio-economic improvements – validated by NITI Aayog – including increased incomes, better resource efficiency, and adoption of sustainable agricultural and energy practices.

Online City Air Pollution Monitoring with Moving Node in GSM Network, (a R&D project funded by DeitY, Govt. of India): An innovative way of real-time monitoring city air pollution through wireless sensors mount on moving vehicle. Spatial profiling of city air quality with information dissemination through web portal and smart mobile application for location specific projected pollutant level.

Study of Ozone and its precursor trace gases at Bhubaneswar [ISRO-Geosphere Biosphere Programme] :The effect of urbanization on the atmosphere of Bhubaneswar is being studied and many significant observations related to the morphological characteristics of the fine particulate matter and their source have been traced by the use of advanced technologies like satellite observations, GIS based software and HYSPLIT models. The data generated at our station is a part of the national database of our country.

Development of online Image processing in Palletisation plant (a R&D project funded by DST, Govt. of India): Online Image Processing system for palletisation plants for better control mechanism. The system can estimate the size of iron ore pellets at a pelletisation disc during its formation and provide size distribution data in real time which is displayed, transmitted and stored. This helps for online control, parameter optimization and post analysis so that the pelletisation discs can be operated to achieve maximum productivity with reduced recycling.

Development of Landslide Monitoring System for North Eastern Regions of India Using Wireless Sensor Network, (a R&D project funded by DeitY, Govt. of India): A system to help the local management for improving the safety of the people and assets from geo-hazardous disasters of landslide. The triggering factors get monitored using wireless sensor network to predict and provide a pre-disaster alarm with the use of Multi-criteria Decision Analysis, Geo-statistical models.

Decision Support System for District Planning, (a R&D project funded by DeitY, Govt. of India): A tool to facilitate the District Administration in planning the developmental activity in the district. This has been designed considering the sectoral approach with an integrated solution of GIS based MIS using a comprehensive and composite decision model for planning of the utilities in Education & Health. The pilot the system has been implemented at ten districts in three states (Uttar Pradesh, Haryana & Himachal Pradesh).

Setting up Rural Tele-centres at Lao-People's Democratic Republic (A Project under the Lao PDR-India Bilateral Cooperation Programme on ICT): Under the Lao PDR-India Bilateral Cooperation Programme on ICT, e-Governance was to be implemented in the country and to adopt ICT tools across various tiers of administration at the Ministries, Departments, Provinces, Districts and Villages of Lao PDR to bring about SMART Government. The objective was to offer appropriate e-interfaces to the people (in cities as well as villages), through electronic delivery channels. Two application software viz. "Rural Bazar" (a web shop of Rural People) and "eNRICH" (Content Manager for people to disseminate information) has been implemented through 10 Rural Tele-Centres at Lao PDR.

Production Sharing Contract Monitoring System - PSCMS (Directorate General of Hydrocarbon, MoP&NG, New Delhi): PSCMS is designed to store, analyse & retrieve the details of contract awarded to different companies for Exploration & Production of Oil / Gas from the designated areas / block under the New Exploration Licensing Policies (NELP). The system also stores the details of various stages of exploration carried out by the project proponents, Calculation of estimated reserves and further decision making process. The system also caters the need of commercial evaluation, storage & analysis of Quarterly / Annual Expenditure for the purpose of calculation of Profit, Royalty etc.

Land Management Information System (Delhi Development Authority -DDA, New Delhi): The LMIS was designed and developed to facilitate the users to get the Land Information on fingertips, both spatial and non-spatial. This also takes care of processes for Land Acquisition from landowners based on zonal / layout plans. With the help of GIS technology the system generates the report of lands to be

acquired with its details. The Compensation along with enhanced compensation is also been incorporated within this system. The web-enabled module facilitates the users sitting at different location, to access the information and analyze the same on line through internet / Intranet.

A Cross Platform GIS Product (Dept. of IT, Ministry of Comm. & IT, Govt. of India.): This product is among one of the pioneer GIS Products that are platform independent. The features include database independence, Multi-Layered mapping, Multi levelled viewing, Thematic mapping (single colored, graduated colored & unique valued), non-spatial / spatial analysis (dynamic & complex querying along with single / multiple object select information browser), enhanced map model along with the entire basic map viewing operations. The core areas of implementation of this product are envisaged to be land records management system, Public Transport Management System and any system that requires 2D map analysis. The required libraries have been developed from the scratch with the map engine that incorporates algorithms developed and/or customized in-house.

Civil Engineering Management Information System (Northern Railways, New Delhi): This System analyse the data pertaining to the Civil Engineering (Tracks & Bridges) aspects of Northern Railways along with asset management. With integration of GIS, the system facilitates the user to browse the information with the graphic user interfaces (GUI) along with visualization. The results of various test made on tracks and bridges are computerised for analysis and for producing suitable reports/recommendations.

Bid Evaluation System for NELP & CBM (Directorate General of Hydrocarbon, MoP&NG, New Delhi): The system keeps information about the Oil & Gas Exploration Fields required for evaluation of Bids of Companies/ Consortiums. Each Bid is evaluated on the basis of Technical, Financial, Work Programme and Fiscal (Govt. Take) credibility and experience of the companies on the basis of points assigned based on the different types of Block viz. Onshore, Offshore and Deep Water. The system also generates user-defined reports along with the facility to export NPV calculation in Fiscal Analysis and other calculation base to the MS Excel format.