

Rodic InfraAI Innovation Challenge 2026

In Partnership with
Rodic Consultants and Startup India

August to November 2026

An Overview

Nasscom AI has partnered with Rodic Consultants, one of India's leading infrastructure and engineering consultancies, to launch the Rodic InfraAI Innovation Challenge 2026—a national platform to discover, validate and scale frontier AI innovations for India's infrastructure and strategic sectors.

Applicants will submit their applications under four themes and their relevant use cases. Each theme is drawn from live Rodic infrastructure projects and national Digital Public Infrastructure priorities. Participants are free to define any use case within these themes that delivers measurable impact for infrastructure, government and citizens.

Unlike traditional innovation challenges, Rodic offers innovators the opportunity to validate AI solutions across 16+ infrastructure sectors — including roads, bridges, railways, water, power and urban infrastructure. Founded in 2000, with 38 offices, 2,000+ professionals and 170+ successfully delivered projects, and with deep relationships across central ministries, state governments and public sector enterprises, Rodic provides a pathway for AI solutions to move from concept to real-world deployment at scale.

THEME 01

AI for India Energy Stack (IES)

India's power sector now generates data at unprecedented scale — smart meters, DISCOM billing systems, grid telemetry and renewable generation feeds — but the intelligence layer that converts this data into operational decisions is still being built. The India Energy Stack, as a national Digital Public Infrastructure initiative, creates the open, interoperable foundation for exactly that layer.

This theme invites AI applications for DISCOM analytics, AT&C loss reduction, renewable generation forecasting, smart meter intelligence and grid congestion management. Solutions that improve utility financial health while strengthening grid reliability sit at the centre of India's energy transition.

WHY RODIC

Rodic's Power & Energy practice has electrified over 2 million households and manages 300+ power sub-stations across 21 projects nationally, with a project capex base exceeding USD 3 billion. The firm works directly inside India's flagship distribution reform programmes — RDSS, IPDS and DDUGJY — advising DISCOMs including PGVCL, WBSEDCL, MePDCL, NDMC, NBPDC, PuVVNL and PVVN on AT&C loss reduction, smart metering rollout and MIS reporting to the Ministry of Power. Solutions built under this theme gain exposure to the utilities and reform mandates where they would ultimately be deployed.

INDICATIVE USE CASES

- DISCOM performance analytics and AT&C loss attribution
- Smart meter data intelligence, theft and anomaly detection
- Renewable generation forecasting and grid balancing
- Grid congestion prediction and load management
- Consumer-level billing intelligence and revenue protection

THEME 02

AI for Roads, Bridges & Tunnels

Inspection and monitoring of India's transport assets remain largely manual, periodic and reactive — a constraint that becomes critical as the national network expands under PM Gati Shakti. Computer vision, drones and edge AI now make it possible to shift from scheduled inspection to continuous, evidence-based asset intelligence.

This theme calls for AI solutions in pavement distress detection, structural health monitoring, construction progress monitoring and tunnel intelligence. The objective is to replace reactive maintenance with proactive, data-driven asset management at network scale.

WHY RODIC

Rodic monitors 13,000 km of road digitally and has designed or supervised 2,000 lane km of highways, 200+ lane km of bridges and viaducts, and 120+ lane km of tunnels. Live deployments include AI/ML defect analytics across Bihar's 13,000 km OPRMC network — where defect resolution rose from 70% to 91% — and a LiDAR-based digital twin of Mumbai's 2,400 km road network under BMC. Landmark tunnel and bridge programmes including Silkyara–Barkot, Ramban–Banihal on NH-44 and the Brahmaputra extradosed bridge give applicants access to real assets rather than synthetic datasets.

INDICATIVE USE CASES

- Pavement distress detection from vehicle-mounted or mobile imagery
- Structural health monitoring for bridges and viaducts
- Automated construction progress monitoring and quantity verification
- Tunnel inspection, lining assessment and ventilation intelligence
- Asset inventory extraction — signage, markings, drainage, furniture

THEME 03

AI for Climate-Resilient Infrastructure

Infrastructure built to historical climate assumptions is increasingly exposed to conditions those assumptions never anticipated, and the cost of that exposure is borne through disrupted service, emergency repair and shortened asset life. Deciding where to strengthen first requires risk quantified asset by asset, not estimated region by region.

This theme seeks AI-powered climate risk scoring solutions that identify flood, landslide and heat-stress vulnerability across infrastructure portfolios. The objective is decision-grade intelligence that helps planners and agencies prioritise resilience investment with confidence.

WHY RODIC

Rodic engineers in precisely these conditions. Its portfolio spans landslide-prone Himalayan corridors on NH-44 and the Sinthan Pass bypass in Jammu & Kashmir, flood-prone urban drainage across 945 km of concrete-lined networks in Imphal, and 145+ urban water and resilience projects with GUDC under AMRUT 2.0 and SJMMSVY. With 4,000 km of water supply network, 600+ MW of designed hydropower capacity and sustainability practice aligned to SDGs 3, 6, 7, 9 and 11 and Viksit Bharat 2047, the firm offers direct access to the terrain, asset data and planning decisions that climate intelligence must inform.

INDICATIVE USE CASES

- Asset-level flood, landslide and heat-stress risk scoring
- Climate-adjusted design parameters for new infrastructure
- Early warning and predictive failure modelling for critical assets
- Resilience investment prioritisation across large asset portfolios
- Post-event damage assessment from satellite or drone imagery

THEME 04

AI for Public Works & Citizen Benefit Delivery

Public services and welfare entitlements reach citizens through processes that assume literacy, language familiarity and procedural knowledge that many applicants do not have. Generative AI can close that gap by meeting citizens in their own language and translating administrative complexity into a plain conversation.

This theme invites multilingual GenAI assistants that simplify citizen access to public services, government schemes, grievance redressal and health-benefit programmes. Solutions should be designed for real deployment conditions — low bandwidth, mixed literacy and diverse linguistic contexts across India.

WHY RODIC

Rodic operates BHAVYA, one of India's largest digital health ecosystems, serving 12 crore people across 13,000+ facilities in all 38 districts of Bihar, with over 4.3 crore OPD registrations, 53 lakh+ diagnostic reports and 1.4 lakh healthcare professionals on platform. The firm has also built citizen grievance platforms within the OPRMC road maintenance programme and delivers digital governance for MSIDC, NMDC and the Gujarat Housing Board. These are live environments of low bandwidth, mixed literacy and genuine linguistic diversity — the conditions in which citizen-facing AI must work.

INDICATIVE USE CASES

- Multilingual voice and chat assistants for scheme eligibility and enrolment
- Automated grievance intake, classification and routing
- Simplification of public works documentation for citizen understanding
- Health-benefit navigation and appointment support at facility level
- Accessibility-first interfaces for low-literacy and low-bandwidth users