NOTIFICATION

APTRANSCO INTERNSHIP PROGRAMME

Summer Internship Programme 2026

Research, Innovation and Grid Modernisation

AP TRANSCO invites applications from motivated students and young researchers for a **problem-led summer internship programme** designed around live utility challenges. Interns will work on clearly defined problem statements under named mentors, producing implementation-ready outputs such as dashboards, analytical models, software tools, design frameworks, and technical reports. This is not a routine attachment programme **--- it is a mission-oriented research and innovation track.**

44 Problem Statements	**10** Functional Wings	**15+** Disciplines	**8–12** Week Duration

Wing-Wise Problem Statement Overview

Wing	#	Focus Areas
Planning Wing	3	Grid modelling (PyPSA), dynamic line rating, AI-driven expansion planning
SLDC	6	RE forecasting, digital twin, demand prediction, frequency analysis, scheduling optimiser
APPCC-SLDC-Exchange	5	Agentic power purchase, energy settlement, loss analytics, open access portal
Protection & Telecom	5	IEC 61850 toolkit, relay coordination, OT cybersecurity, fibre monetisation, fault classification
O&M — Substations	5	Asset health indexing, transformer DGA prediction, IoT monitoring, earthing assessment, VR training
Lines Wing	5	Drone/CV inspection, tower SHM, LiDAR survey, foundation optimisation, vegetation detection
Projects & Construction	4	Digital project management, BIM for substations, drone photogrammetry, automated BOQ
Civil Wing	4	Seismic assessment, green building design, coastal corrosion, stormwater drainage
IT Wing	4	Enterprise data lake, AI chatbot, field staff mobile app, blockchain compliance
Finance & Regulatory	3	Automated tariff filing, capex dashboard, performance benchmarking

Disciplines Sought

Electrical Engineering (Power Systems, Protection, High Voltage) • **Civil & Structural Engineering** (Foundations, Seismic, Materials, Hydrology) • **Computer Science** (Full-Stack, Mobile, Cybersecurity, Blockchain) • **AI/ML & Data Science** (Forecasting, Computer Vision, NLP, Predictive Analytics) • **Telecommunications** (Fibre, SCADA, IEC 61850) • **Geospatial & Remote Sensing** (GIS, LiDAR, Satellite) • **Finance, Economics & Regulatory Affairs** • **Electronics & Embedded Systems** (IoT, Sensors)

Selected Problem Statement Highlights

Discipline	Problem Statement	Description
AI/ML	**Renewable Energy Forecasting Using AI/ML**	Build machine-learning models tuned to AP conditions for solar and wind forecast improvement, integrating weather data, plant-level patterns, and continuous re-training.
Electrical	**IEC 61850 Interoperability and SAS Integration Toolkit**	Create a multi-vendor interoperability toolkit for substation automation, enabling AP TRANSCO engineers to validate and integrate SAS systems without OEM dependence.
AI + Electrical	**AI-Based Fault Classification and Protection Event Analysis**	ML system analysing disturbance recorder waveforms to auto-classify faults (LG, LL, LLG, LLLG), estimate fault location, and assess relay performance.
Civil + IoT	**Transmission Tower Structural Health Monitoring**	Design an SHM framework for towers in cyclone-prone coastal zones using vibration sensors, tilt measurements, corrosion gauges, and structural FEM analysis.
Computer Vision	**Drone Inspection and Computer Vision for Field Assets**	Use drones and deep learning (YOLO/Faster-RCNN) for automated conductor/insulator defect detection, tower checks, and thermal-anomaly screening.
CS + NLP	**AI-Powered Chatbot for Internal Knowledge Management**	RAG-based chatbot trained on AP TRANSCO circulars, regulations, and operating procedures for natural language institutional knowledge retrieval.
Civil	**BIM for Substation Design**	Implement 3D Building Information Modelling for 220/400 kV substation design with clash detection, material take-off, and construction sequencing.
Data Science	**Agentic Decision-Support for Power Purchases**	Human-in-the-loop decision system monitoring demand, RE forecast errors, market prices and corridor constraints to recommend real-time power purchase actions.

Programme Structure

Duration	8 to 12 weeks (extendable for high-performing interns on mutual agreement)
Mentoring	Each intern is assigned a named host officer from the relevant wing with regular milestone reviews
Deliverables	Inception note (Week 1), milestone plan, working outputs per problem statement, final presentation to AP TRANSCO leadership
Eligibility	B.Tech/B.E., M.Tech/M.E., MBA, and PhD students from relevant disciplines at recognised institutions
Collaboration	Cross-wing and cross-discipline collaboration is encouraged; joint deliverables are welcome
Tools & Access	Access to AP TRANSCO data (under NDA), field visits, software tools, and computational resources as needed

What Makes This Different

This is not a routine industrial visit or desk observation programme. **Every intern works on a live utility problem** with real data, field exposure, and engineering context. Outputs are designed to be **usable by AP TRANSCO** --- dashboards, models, tools, frameworks, and datasets that create lasting value. The programme builds a pathway for **longer-term collaborations** through pilots, capstone projects, publications, and centres of excellence.

Eligibility Criteria

A. Academic Eligibility:

- Bonafide students of recognised Universities / Institutions who are citizens of India.
- Undergraduate students (Engineering / Technology / Law) who have completed at least the 3rd Year / 4th Semester.
- Postgraduate students (Engineering / IT / Management / Law) who have completed at least the 1st Year / 2nd Semester.
- Final year students or recent graduates within six months of completion of their course who are not employed full-time.
- Age: Between 20 and 30 years at the time of application (relaxable at Management's discretion).

B. Academic Performance:

- Minimum 70% marks or equivalent CGPA in the qualifying examination.
- Preference may be given to candidates from IITs, IIMs, ISBs, NALSARs, National Law Schools and other premier institutions.

C. Institutional Requirement:

- Submission of No Objection Certificate (NOC) / Recommendation Letter from the institution, on college letterhead, signed by the HOD / Principal confirming that the student has no academic attendance obligation during the internship period.

Duration of Internship

- Minimum: Six (6) weeks
- Maximum: Six (6) months

Internships are available throughout the year, subject to availability of projects and supervision.

Stipend / Honorarium Structure (Monetary Category Only)

The monthly honorarium for eligible Monetary (Paid) category interns shall be as follows:

S. No	Institution Category	Monthly Honorarium
1	Candidates from IITs	Rs. 25,000/-
2	Candidates from Top 100 NIRF Institutions (other than IITs)	Rs. 20,000/-
3	Candidates from Universities & Autonomous Bodies	Rs. 15,000/-
4	Candidates from AICTE-approved Affiliated Colleges	Rs. 10,000/-

Apply

Documents Required

- Updated Curriculum Vitae (CV)
- Statement of Purpose (SOP)
- Institutional Recommendation / NOC Letter (on college letterhead, signed by HOD / Principal)
- Latest Mark Sheets / Transcripts (minimum 70% or equivalent CGPA)
- Valid Government-issued Photo Identity Proof
- Signed Intern Undertaking Form (format available on portal)

Interested institutions and students may write to:

Joint Managing Director, AP TRANSCO
Vidyut Soudha, Gunadala, Vijayawada – 520004, Andhra Pradesh

The detailed problem statement compendium with full descriptions is available on request.

The future grid will belong to utilities that combine engineering depth with data intelligence.