

NPC Consultant Professional Profile

I. Personal Information

Name : Dendukuri Rajanikant
Date of Birth : 30.08.1978
Current Position & Domain : Director, Energy Management Division
Office Location : Regional Directorate-Hyderabad
Languages : English (Read/write/speak),
Telugu (Read/Write/speak),
Hindi (Speak).
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Professional Summary

With over two decades of experience in energy efficiency, sustainability, and resource conservation within the building and industrial sectors. Executed energy audits, conducted sectoral energy mapping studies, PAT regulatory framework audits (like MEA and M&V) and performed water conservation assessments, enabling industries to optimize their energy and resource utilization. Contributed to the creation of industry-specific manuals for mitigating greenhouse gas (GHG) emissions and served on the Technical Steering Committee for prestigious state and international energy awards.

II. Areas of Expertise

Primary Domains: Energy and sustainability

Specialized Skills: Energy and water audits, resource conservation studies, ISO 50001, and M&V studies (IPMVP)

Industry Focus: Aluminium, Cement Plants, Chemicals, Engineering Industries, MSME cluster studies, Pharmaceuticals, Thermal Power Plants, Railways, Refinery, Steel plant. and Textile Plants. Buildings.

III. Professional Experience

Current Position: Director Organisation: National Productivity Council, Hyderabad Duration:
3rd July 2019 - Present

Key Responsibilities:

- Strategic role in productivity enhancement: Executed energy audits, conducted sectoral energy mapping studies, and performed water conservation assessments, enabling industries to optimize their energy and resource utilization and strategically enhance productivity.
- Specific areas of consultation /expertise: Energy and CO₂ footprint assessment, water footprint assessment
- Leadership and team management aspects: Team Lead

- **Key projects and initiatives led:**

- As a Team Leader for the prestigious project Emirates Energy Awards (EEA), Dubai Supreme Council of Energy. Dubai, UAE.
- As a Team Leader for Energy and resource mapping study for the Pharmaceutical cluster for the Bureau of Energy Efficiency (BEE), Ministry of Power, GoI.
- As team leader for detailed Energy audit and conservation study at M/s Ultra Tech cement works (for 7 plants).
- As a team leader for a detailed Energy audit and conservation study at Deepak Nitrate (3 units) for three units at Hyderabad.
- As a team leader for detailed Energy audit and conservation study and Measurement and verification study for (4 units) at M/s Aurobindo Pharma at Hyderabad.
- As a team leader for detailed Energy audit and conservation study for M/s Granules Pharma for their unit at Hyderabad.
- Demonstration and implementation of Energy Efficiency through the Internet of Things (IoT) in SME's for Andhra Pradesh State Energy Conservation Mission (APSECM).
- Preparation of Detailed Project Reports (DPR'S) for two Pumping stations in Hyderabad Metro Water Works and Sewerage Board (HMWSSB) for Telangana State Renewable Development Corporation (TSREDCO).

Previous Position: Dy. Director Organisation: National Productivity Council, Hyderabad

Duration: 1.02.2010 – 02.07.2019

Key Responsibilities:

- Role: Executed energy audits, conducted sectoral energy mapping studies, and performed water conservation assessments, enabling industries to optimize their energy and resource utilization and strategically enhance productivity
- Specific areas of work/expertise: Energy and CO₂ footprint assessment, water footprint assessment
- Leadership and team management aspects: Team Lead /Team member
- Key projects and initiatives led
 - As a team leader for an International Assignment for Emirates Energy Awards (EEA), Dubai Supreme Council of Energy (DSCE), Government of Dubai, UAE. [2015 and 2017]
 - As a team leader for The Mohammed bin Rashid Al Maktoum Global Water Award, Suqia, Dubai. (2016), UAE.
 - As a trainer for the Nepal Energy Efficiency Program (NEEP) for the Training of Trainers (ToT) program, in Katmandu, Nepal (2016).
 - As a team leader for the Mandatory Energy audit study at Kothagudem Thermal Power Station (KTPS)–Stage V & Stage VI for the PAT cycle.
 - Conducted 75 no's of walk-through Audits for MSME units for the Federation of Telangana Chambers of Commerce and Industry (FTCCI) and Yes bank as a part of corporate social responsibility (CSR).

Previous Position: Assistant Director **Organisation:** National Productivity Council, Hyderabad

Duration: 03.10.2005 to 31.01.2010.

Key Responsibilities:

- Role: Executed energy audits, conducted sectoral energy mapping studies, and performed water conservation assessments, enabling industries to optimize their energy and resource utilization and strategically enhance productivity
- Specific areas of work/expertise: Energy and CO₂ footprint assessment, water footprint assessment
- Leadership and team management aspects: Team Member

Key projects and initiatives led

- As a team member involved in the Firozabad glass industry cluster study to evaluate energy consumption and cost-saving options, cost-benefit analysis and implementation of waste heat recovery in furnaces.
- As a team member involved in capability assessment of State Designated Agencies (SDA) for implementation of EC Act 2001.
- As a team member involved in Detailed Energy Audit at Delhi International Airport
- As a team member involved in the preparation of manuals for the GERIAP (Greenhouse Emission Reduction from Industry in Asia & Pacific) Project.
- As a team member involved in Bureau of Energy Efficiency (BEE) PAT (Perform Achieve and Trade), Baseline Energy Audits for cement plants in Tamil Nadu, U.P, Punjab, Haryana, Bihar, Meghalaya, Jharkhand.
- As a team member, conducted Energy audits of Power plants for various sub-systems at power plants such as NTPC Ramagundam, Simhadri, Sipat, NSPCL Bhilai etc.

Previous Position: Consultant Organisation: Zenith Energy Private Limited Duration:

January 2003 to January 2005

Key Responsibilities:

- Role: Consultant
- Specific areas of work/expertise: Clean Development Mechanism project consultant (CDM)
- Leadership and team management aspects: Worked as a team Member
- Key projects and initiatives led
- Development Of PDD for Large Scale Biomass Based Grid Connected Power Plant In India

Previous Position: Consultant Organisation: Andhra Pradesh Productivity Council Duration:

February 2005 to September 2005

Key Responsibilities:

- Role: Executed energy audits, conducted sectoral energy mapping studies, and performed water conservation assessments, enabling industries to optimize their energy and resource utilization and strategically enhance productivity
- Specific areas of work/expertise: Energy and CO₂ footprint assessment, water footprint assessment
- Leadership and team management aspects: Team Member
- Key projects and initiatives led

IV. Major Project Experience in NPC [For each significant project, include:]

Project Title: Mandatory Energy Audit

Client Name: Ultratech Cements Limited (11 plants) and KCP Cements Ltd. (1 plant) **Type:** Private

Sector: Cement

Role: Team lead

Duration: 2 Months for each plant

Problem Definition: Mandatory Energy Audit in Integrated Cement Plant along with Thermal Power Plant

Project Title: Mandatory Energy Audit

Client Name: Hindalco Industries Limited & Hindalco Aditya Aluminium

Type: Private **Sector:** Aluminium

Role: Team Lead

Duration: Each plant project lasted 2 months, from start to completion.

Problem Definition: Mandatory Energy Audit in Integrated Aluminium Plant along with Thermal Power Plant

Project Title: Detailed Energy Audit

Client Name: Aurobindo Pharma Limited (4 plants), Hetero Labs Limited (1 plant) and Granules India Private **Sector:** Pharmaceutical

Role: Team Lead

Duration: Each plant project lasted 2 months, from start to completion.

Problem Definition: Detailed Energy Audit in Pharma Unit.

Project Title: Capacity Building Programs for the Officials of Hyderabad Metropolitan Water Supply and Sewerage Board (HMWSSB)

Client Name: Telangana Renewable Energy Development Corporation Limited (TGREDCO) **Type:** Government **Sector:** Public Utilities

Role: Team Lead

Duration: Each training program lasted 2 days

Project Title: Energy Audit Conservation Study

Client Name: Ordnance Factory Board Medak (OFMK) **Type:** Government **Sector:** Defence Tank Manufacturing

Role: Team Lead

Duration: The Project lasted 2 months, from start to completion.

Problem Definition: Energy Audit in Utility System

Project Title: Energy Audit Conservation Study

Client Name: Bharat Heavy Electricals Limited (BHEL) and Bharat Dynamics Limited (BDL) **Type:** Government **Sector:** Defence Manufacturing

Role: Team lead

Duration: Each plant project lasted 2 months, from start to completion.

Problem Definition: Energy Audit in Utility Systems

Project Title: Energy and Water Audit Conservation Study

Client Name: National Institute of Rural Development & Panchayati Raj (NIRD&PR) **Type:** Government **Sector:** Building

Role: Team lead

Duration: The Project lasted 2 months, from start to completion.

Problem Definition: Energy and Water Audit for the entire campus building

Project Title: Water Balance Study

Client Name: New Mangalore Port Trust (NMPT) **Type:** Government **Sector:** Port

Role: Team lead

Duration: The Project lasted 2 months, from start to completion.

Problem Definition: Water Balance Study at Port and Colony

Project Title: Energy Audit Conservation Study

Client Name: National Mineral Development Corporation (NMDC) and Nizam's Institute of Medical Sciences (NIMS) **Type:** Government **Sector:** Building

Role: Team lead

Duration: Each plant project lasted 1 month, from start to completion.

Problem Definition: Energy Audit Study at Building

Project Title: Water Balance Study

Client Name: National Thermal Power Corporation (NTPC) Plants – Korba, Mouda, Anta **Type:** Government **Sector:** Power Plant

Role: Team Lead

Duration: Each plant project lasted 1 month, from start to completion.

Problem Definition: Water Balance Study at Power Plant

Project Title: Compressed Air Study

Client Name: National Thermal Power Corporation (NTPC) Plant – Korba and NTPC Tamil Nadu Energy Company Limited (NTECL) **Type:** Government **Sector:** Power Plant

Role: Team Lead

Duration: Each plant project lasted 1 month, from start to completion.

Problem Definition: Compressed Air Study at Power Plant

Project Title: Energy Audit Study

Client Name: Himatsingka Linens, Karnataka **Type:** Private **Sector:** Power Plant

Role: Team Lead

Duration: Each plant project lasted 1 month, from start to completion.

Problem Definition: Energy Audit Study at Power Plant

Project Title: Energy Audit Study

Client Name: South Central Railway (SCR) **Type:** Government **Sector:** Railway

Role: Team Lead

Duration: Each plant project lasted 1 month, from start to completion.

Problem Definition: Energy Audit Study at Railway Carriage Workshop.

Project Title: Energy Audit Study

Client Name: Kothagudem Thermal Power Station (KTPS) and Chhatisgarh State Power Generation Corporation Ltd. (CSPGL) **Type:** Government **Sector:** Power Plant

Role: Team Lead

Duration: Each plant project lasted 1 month, from start to completion.

Problem Definition: Energy Audit Study at Power Plant.

Project Title: Energy Audit Study

Client Name: Deepak Nitrate (3 plants) **Type:** Private **Sector:** Chemical

Role: Team Lead

Duration: Each plant project lasted 1 month, from start to completion.

Problem Definition: Energy Audit Study at Utility Systems.

V. Educational Background

Highest Degree:

- Degree: PhD (Pursuing)
- Institution: National Institute of Technology, Tiruchirappalli (NITT) Type: Part-Time
- Year: -
- Specialization: Energy Studies

Master's Degree:

- Degree: Master of Technology (M. Tech)
- Institution: Jawaharlal Technological University (JNTU-H) Type: Part-Time
- Year: 2015
- Specialization: Energy Systems

Bachelor's Degree:

- Degree: Bachelor of Engineering (B.E)
- Institution: Madurai Kamaraj University Type: Full-Time
- Year: 2001
- Specialization: Chemical Engineering

Additional Professional Qualifications:

- Certified Energy Auditor (EA-0773) by the Bureau of Energy Efficiency (BEE), MoP, GoI.
- Accredited Energy Auditor (AEA-135) by the Bureau of Energy Efficiency (BEE), MoP, GoI.
- Certified Performance Measurement and Verification Analyst (PMVA) from the Efficiency Valuation Organization (EVO), USA, (valid until January 31, 2026).

Professional memberships

- Chartered Engineer for the Institute of Engineers
- Member of the Institute of Engineers (MIE).
- Member of the Indian Society of Technical Education-((MISTE)
- Member of the Solar Energy Society of India (MSESI)

Specialized training

- Attended training conducted by the Asian Productivity Organization (APO), Japan Training on “Green Productivity” in Taiwan in 2012.
- ISO 50001 Lead Auditor Training.
- Attended training on Leadership in Energy and Environmental Design (LEED) training program for Green Associate (GA) and accredited professional (AP) from United States Green Building Council (USGBC), USA.
- Attended training conducted by the Asian Productivity Organization (APO), Japan Training on “Energy Conservation and audit” in Japan 2017.

IT Tools & Proficiency Level

- MS Office working proficiency

VI. Research and Publications

Recent Publications:

- Experimental studies on the effect of moisture content and temperature on moisture effective diffusivity and activation energy of bagasse Rajanikant D^a, Anantharaman N^a, Premalatha M^{a*} and Virendra R^a, Department of Energy and Environment, National Institute of Technology Tiruchirappalli, Journal of Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Taylor & Francis [<https://doi.org/10.1080/15567036.2024.2370334>].
- Detailed Energy Audit In A Captive Cogeneration Plant D. Rajani Kant¹, Dr. B. Sudheer Prem Kumar², N.Ravi Kumar³, R.Virendra⁴ J.Suresh Babu⁵ International Research Journal of

Engineering and Technology (IRJET) Volume: 02 Issue: 01 | Apr-2015 Wwww.Irjet.Net P-E-ISSN: 2395-0056.

- Detailed Energy Audit And Conservation In A Cement Plant R.Virendra¹, Dr. B. Sudheer Prem Kumar², J.Suresh Babu³, D.Rajani Kant⁴ International Research Journal of Engineering and Technology (IRJET) Volume: 02 Issue: 01 | Apr-2015 www.irjet.net p-e-ISSN: 2395-0056.
- Detailed Energy Audit and Conservation in Pumps, Telangana State Renewable Energy Development Agency (TGREDCO).
- D. Rajani Kant¹, Energy Conservation Week Celebrations Special Issue Published by Institute of Engineers Dec-2016.
- Detailed Energy Audit Of A Captive Cogeneration Plant D. Rajani Kant¹, R. Virendra² Industrial Cogeneration India Volume: 48 Jan-2018.

Awards and Recognition

- Received Award from Telangana State Energy Conservation Awards 2017, Government of Telangana and Bureau of Energy Efficiency, Ministry of Power, GoI for the “Recognition of the Contribution Towards Promoting Energy Conservation Practices”.

Special achievements

- Receiving a Certificate of Appreciation as a recognition for his contributions to energy conservation by the Bureau of Energy Efficiency (BEE), Ministry of Power (MoP), Government of India. (one among 6 accredited energy auditors in India) in the year 2024.

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that I shall be responsible for any willful misstatement described herein.

Date: 10.02.2025

Place: Hyderabad


[Signature of Employee]
[D. Rajanikant]

Profile Update History

Last Updated: [10.02.2025]

Next Review Due: [10.08.2025]