

NPC Consultant Professional Profile

I. Personal Information

Name: M Natarajan

Date of Birth: 06th October 1973

Current Position & Domain: Director, Technology Management & Energy Management

Office Location: AIP, NPC Chennai.

Languages: Tamil – proficient, English- proficient, Hindi-Know to speak & read.

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II. Professional Summary

Having 26 years of experience in Consultancy & Training, the undersigned has worked in areas like Technology Optimization, Management Consultancy, Energy Management, Safety Engineering, and Productivity Enhancement. The skill set spans across Operations Management, Financial Management, Risk Management, Maintenance Systems, Analytics, HAZOP/HAZAN, and Energy Efficiency, with a clear focus on cost reduction and productivity improvement through strategic initiatives, automation, and capacity building. Has effectively led multi-disciplinary teams across various projects, consistently achieving the critical success factors of time, quality, and cost with the objective of driving sustainable growth and operational excellence.

III. Areas of Expertise

Primary Domains: Operations Management, Maintenance Management, Safety Engineering, Predictive Analytics, Financial Management, General Management & Energy Management.

Specialized Skills: Process Optimization, Supply Chain Management, Inventory Management, Applications of Management Science, Maintenance System Improvement Studies, Lean Manufacturing, Condition Monitoring, Safety Audits, Financial Analysis, Debt Management & Data Analytics.

Industry Focus: Manufacturing, Engineering, Energy / Power Generation, Refinery, Fertilizer, Tyre, Transportation & Logistics, Food Processing, Personal Hygiene & MSMEs.

IV. Professional Experience

Current Position: Director **Organisation:** National Productivity Council, Chennai **Duration:** July 2019 – Feb 2025

Key Responsibilities:

- Strategic role in productivity enhancement: Managed multiple consultancy projects simultaneously involving multi-disciplinary project teams with three-dimensional focus on critical success factors viz. Time, Quality & Cost.
- Specific areas of consultation /expertise: The undersigned played a key role in executing a "Performance Assessment and Business Evaluation Study" of three Common Facility Centers (CFCs) in Tiruvallur, Kancheepuram, and Krishnagiri districts for AIP, NPC. This study focused on productivity, financial

health, machine utilization, service structuring, and annual report analysis. It also involved formulating a business plan to enhance the performance of the CFCs.

- Leadership and team management aspects: The sixth examination for identifying competent persons for boiler inspection and certification was held in February 2020 across five centers in India, managed by a team including the undersigned and an Assistant Director. The entire process, from designing the application form and advertising to conducting the exams, evaluating papers, and issuing certificates, was completed in just four and a half months. This included organizing two written papers, a viva voce, and finalizing results, all within a tight timeline.
- Made presentations on “Financing for Renewable Energy”, “Data Analytics Applications in Renewable Energy”, and on “ISO 50001” in various in the international ITEC Training Programmes on 1) “Exploitation of Renewable Energy Technologies for Industrial Applications”, 2) “Technical, Policy Instruments & Frameworks for Shifting to Renewable Energy” & 3 “Green Technologies & Policy Instruments & Framework to Mitigate Environmental Problems” for international participants from various countries. The programmes were conducted during the financial years 2021-22 to 2023- 24.
- Made presentations on Finance, Concepts of Takt Time and Cycle Time & Cycle Time Reduction Techniques in the ITEC program on “Productivity and Quality Practitioners” held during February 2024.

Previous Position: [Deputy Director] **Organisation:** National Productivity Council, Chennai **Duration:** April 2009- June 2019

Key Responsibilities:

- Role: Managed multiple consultancy projects simultaneously involving multi-disciplinary project teams with three-dimensional focus on critical success factors viz. Time, Quality & Cost.
- Specific areas of work/expertise: Operations Management, Safety Audits, Energy Audits, Production Norms Study, Lean Manufacturing, Operations Management, Consultancy for implementation of OHSAS 18001, Organization Restructuring, Framing of Promotion Policies and Pay scales, Preparation of HR Manual, Spare Parts Management, Maintenance System studies, Lube Oil Audits, & Energy efficiency studies.
- Leadership and team management aspects:
 - **Operational Excellence:** Expertise in overseeing operations management and implementing best practices across areas like lean manufacturing, energy audits, and safety, driving continuous improvement in efficiency and cost-effectiveness.
 - **Change Management and Organizational Development:** Guided organizational restructuring efforts and led the development and implementation of policies and systems (such as OHSAS 18001, HR manuals, and maintenance systems), ensuring smooth transitions and alignment with business objectives.
 - **Cross-Functional Expertise:** Led and contributed to a broad range of projects, including energy efficiency studies, spare parts management, and maintenance systems, showcasing a well-rounded leadership approach in driving diverse operational improvements.
- Key projects and initiatives led: Conducted numerous training programs on topics like Spare Parts Management, World Class Maintenance Management, Centrifugal pumps – Operations and Effective Maintenance, and Information Security & Ethical Hacking.

Previous Position: Deputy Director **Organisation:** National Productivity Council, Bangalore **Duration:** July 2006 – March 2009

Key Responsibilities:

- Role: As a team leader in Plant Engineering studies and as a team member in Industrial Engineering studies.
- Specific areas of work/expertise: Production Norms Studies, Organization restructuring studies, Safety Audits, and conduct of training programs on Lean, Six Sigma, and Total Productive Maintenance
- Carried studies on fixing production norms, organisation restructuring, safety audits

Previous Position: Assistant Director **Organisation:** National Productivity Council, New Delhi **Duration:** Oct 1998 – July 2006

Key Responsibilities:

- Role: Was a team member in executing consultancy assignments and conducting training programs.
- Specific areas of work/expertise: Condition Monitoring – (Vibration Analysis, Shock Pulse Monitoring, Infrared Thermal Imaging), Safety Audits, HAZOP & HAZAN studies, Fire Drills, Energy Audits and Maintenance Audits.
- Was a team member in the implementation of Total productive Maintenance at NTPC Badarpur.
- Conducted various training programs on topics like Spare Parts Management, Modern Maintenance Management, Tribology, Condition Monitoring, and Computerised Maintenance Management.

V. Major Project Experience in NPC

Project Title: 1) Lube Oil Audit

Client Name: GMR Warora Energy Limited, Warora **Type:** Private Organization **Sector:** Thermal Power Plant

Role: Team Leader

Duration: Three weeks

Problem Definition: The Terms of Reference (ToR) for the lubrication audit aimed to assess and improve the lubrication management system across the plant and its utilities. The audit focused on key areas such as lubricant storage and handling, current management practices, lubricant surveys, consumption tracking, inventory control, and standardization. The goal was to document existing practices and provide recommendations for system improvements to enhance lubrication efficiency and effectiveness.

Recommendations Made: Rationalize the codification of lube oil and grease to prevent mismatches and unnecessary inventory, implement a new storage plan to support FIFO, avoiding mixing of oil grades, group equivalent lubricant grades under one code for efficiency, reduce lube oil inventory by 17.38 lakhs, segregate and properly utilize project leftover lubricants to lower inventory costs, group equivalent brands of oil for the same application, create a centralized condition-monitoring cell to optimize lubrication practices.

Impact Created:

- Quantifiable results achieved: The overall cost of lubrication was reduced by 10%.
- Process improvements achieved:
 - ✓ **Optimized Inventory Management:** Rationalized codification and reduced lubricant inventory by 17.38 lakhs, minimizing mismatches and excess stock.
 - ✓ **Improved Lubricant Storage:** Implemented a new storage plan that ensures FIFO adherence and prevents mixing of different oil grades.
 - ✓ **Enhanced Oil Monitoring:** Established a condition-monitoring cell to focus on lubrication optimization and introduced oil condition monitoring techniques.

- ✓ **Operational Efficiency: Reduced lubricant consumption by addressing issues like hose protection in CHP and calculating optimal grease application intervals.**

Project Title: 2) Performance Study of the three CFCs in Tamilnadu

Client Name: TANSIDCO, Chennai. **Type:** Government Organization **Sector:** MSME

Role: Team Leader

Duration: Three Months

Problem Definition: The prime objective of this study was to evaluate the performance of the CFCs, in terms of its ability to achieve its operational and strategic goals and to give recommendations to the CFC's administration to enhance smooth functioning and effectiveness of the CFC.

Recommendations Made:

Recommended the establishment of formal internal audits for stocks, goods, and consumption to improve financial control, suggested the implementation of cost accounting to track direct, indirect, and overhead costs for accurate service cost determination, recommended the preparation of HR reports and formal inspections at regular intervals, proposed increased marketing efforts to boost the utilization of extruders and machinery, enhancing service capacity, suggested efforts to improve the Debt Service Coverage Ratio (DSCR) and forecast higher revenue to support future debt obligations, and recommended focusing on optimizing machinery capacity and reducing conversion costs to enhance profitability and long-term sustainability.

Impact Created:

- The reasons for one of the CFCs becoming a NPA and the interventions required to make it operational were suggested.
- Measures to improve productivity, revenue growth through customer acquisitions, ways to improve operational efficiency and revenue growth were suggested.

VI. Educational Background

S. No	Degree	University	Year	
1	B. E - Electrical & Electronics Engineering	Bharathidasan University	1994	Full Time
2	PG Diploma in Plant Engineering	National Productivity Council of India	1998	Full Time
3	MBA	Indian Institute of Management, Trichy	2018	Part Time

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Additional Professional Qualifications:

- Lead Auditor OHSAS 18001.
- Lead Auditor ISO 50001.

- Successfully completed course on Predictive Analytics offered by IIM Bangalore in Swayam.
- Operating Systems worked with: MS Windows 11, Conversant with working of Ms Office 2016.

VII. Research and Publications

Speaking Engagements:

- Made a presentation on “Productivity” in the conference on “Productivity and Sustainability-Knowledge and Skill Paradigms for Educators and Young Engineers” held at Dr MGR University in December 2023.
- Made a presentation on “Marketing of Defence Products” for the executives and employees of Ordnance Factories, Avadi, at Ordnance Factory Institute of Learning, Avadi in February 2021.

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: 10th February 2025

Place: Chennai

M Natarajan