

MSME - TOOL ROOM, HYDERABAD (CENTRAL INSTITUTE OF TOOL DESIGN)

(A Government of India Society, Ministry of MSME)
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Annexure 1

Project Engineer

1. Key Responsibility Areas / Duties:

- ◆ Lead the planning, coordination, and execution of "benchmarking study to assess technology gaps in a cluster" from concept to completion.
- ◆ Monitor project progress, ensuring adherence to project timelines, budgets, and quality standards in conducting the benchmarking study for technology gaps in the cluster.
- Provide technical expertise and support in evaluating current technologies, identifying gaps, and suggesting solutions for bridging those gaps within the cluster.
- Oversee data collection and analysis to ensure the accuracy, relevance, and integrity of the benchmarking process, ensuring compliance with industry standards and regulations.
- ◆ Prepare and deliver regular project reports, presenting findings from the benchmarking study, and offering actionable recommendations to stakeholders on how to address technology gaps.
- ◆ Identify potential risks related to the benchmarking study (such as data accuracy, timeline delays, or resource constraints) and implement mitigation strategies to ensure project success.
- ◆ Ensure compliance with relevant industry regulations, safety standards, and client specifications in the benchmarking study, ensuring that findings are reliable and aligned with technological needs.

2. Skill sets/competencies required:

- Should have 3 or more years of hands-on experience working on the shop floor, operating various machines, including CNC and Special Purpose Machines (SPM).
- The candidate should have Hands-on experience working with PLM (Product Life-cycle Management).
- Strong knowledge of manufacturing processes (e.g., CNC machining, additive manufacturing, injection molding) and emerging trends like Industry 4.0, automation, and robotics.
- Proficiency in both quantitative (statistical data analysis, performance metrics) and qualitative analysis (case studies, expert insights) to evaluate technology gaps.
- Expertise in assessing and recommending technology for enhancing production efficiency, reducing waste, and improving throughput.
- Proficient in benchmarking manufacturing processes against industry standards or best practices to evaluate technology adoption levels.
- Knowledge of international manufacturing standards such as ISO 9001, ISO 14001, or other relevant certifications.

- Understanding of how IoT, sensors, and AI can be integrated into manufacturing processes for predictive maintenance, process control, and performance optimization.
- Communicating effectively with senior management, engineers, and other stakeholders regarding findings, challenges, and recommendations for closing technology gaps.

3. Exposure to any particular Industry of area of work

- Experience in industries like automotive, aerospace, or heavy machinery manufacturing.
- Hands-on exposure to CNC machining, precision manufacturing, and Industry 4.0 technologies.
- Familiarity with ISO standards and advanced manufacturing processes such as 3D printing.