

Cover Letter

Date: 9.30.2025

Re: Application for entry-level technical position in Industrial Technology area

Greetings of the Day!

Dear [Hiring Manager/Recruiter],

I am currently pursuing a Master's degree in Industrial Technology at the Jordan College of Agricultural Sciences and Technology, California State University, Fresno, where I also serve as a Student Assistant. I earned my Bachelor's and Diploma degrees in Mechanical Engineering from Mallareddy Engineering College and Management Sciences (6/2019-5/2022), and Aurora Polytechnique College, India (6/2016-5/2019), and I have outlined my academic and professional experiences in my CV.

My academic training has provided me with strong interdisciplinary knowledge in Manufacturing, Automation and Control, Irrigation Systems, and Water Management. At Fresno State's Center for Irrigation Technology and Hydraulics Lab, I worked as a Student Assistant, testing valves (ISO 9644:2018) and sprinklers, conducting performance analyses, and optimizing systems under varying flow conditions. My undergraduate projects on (a) High-Efficiency Particulate Air (HEPA) filtration and (b) Run-time thermal analysis of hoverboard mechanisms and power sources further developed my skills in energy management, integrated system design, and efficiency optimization. In addition, I gained two years of industry experience operating CNC turning machines at Epiroc Mining Pvt. Ltd., India, which strengthened my practical expertise in manufacturing and industrial processes. Collectively, these experiences have equipped me with a strong blend of experimental, analytical, and applied engineering skills.

I am eager to apply my knowledge, hands-on experience, and problem-solving abilities to contribute to your company's mission. Passionate about innovation, new product development, and market trend analysis, I thrive in both independent and team-oriented environments. I would welcome the opportunity to discuss how my background aligns with your organization's goals.

Thank you for your time and consideration. I look forward to the possibility of contributing to your team.



Sincerely,
Karunakar Varaganti.

Karunakar Varaganti

Fresno, CA | 559-612-9061 | karunakarv1@mail.fresnostate.edu | <https://www.linkedin.com/in/-karunakar>

EDUCATION

California State University, Fresno (Fresno State), Fresno, CA

Masters in Industrial Technology, GPA: 3.75

Dec- 2025

Related Coursework: Management of New Technology, Robot Design Development, Research Methodology, Advanced Manufacturing, Production, Quality Management, Big Data, Automated Systems, Applied Sensor Technology

Malla Reddy Engineering College, Telangana, India

Bachelor of Technology in Mechanical Engineering

Oct- 2022

Related Coursework: Probability and statistics, Fluid mechanics, Thermodynamics, Manufacturing and Production, Industrial engineering, Robotics, Machine drawing, Metrology, Instrumentation Control Systems.

TECHNICAL SKILLS

- **Technical:** AutoCAD, CNC operation, Six Sigma, Quality control, Production planning, Hydraulics testing (Pressure/flow Analysis, Pump/valve Performance), Data Analysis.
- **Interests:** Innovation, Design, Supply Chain Management, Quality Control, Robotics, Precision Agriculture.
- **Other Skills:** Critical thinking, Time management, Problem-solving, Teamwork & Collaboration and Industrial communication, Adaptability.

WORK EXPERIENCE

(A)Centre for Irrigation Technology (CIT), Fresno, CA

Graduate Student Assistant

Sep 2024-Present

- Diagnosed mechanical issues and developed innovative solutions to address Mean Time Between Failure (MTBF).
- Contributed to the installation of hydraulic systems for research on water, energy, and technological innovations.
- Refined mechanical processes, optimizing performance outcomes in a team setting.

Project Experience:

Pressure Loss Testing in Irrigation Valves

Feb - May 2025

- Tested irrigation valves by measuring pressure loss to comply with ISO 9644:2018 standards for water flow optimization for farming systems.

Performance Analysis of Pressure-Regulating Valves in Irrigation Systems

Nov - Dec 2024

- Scalable system design of pressure-regulating valves and performance study following the mandatory standards.

EPA Specification Analysis of Water Sense® Spray Sprinkler System

Sep - Oct 2024

- Study of Water Sense® standards for water conservation.
- Efficiency and interoperability design considerations.

Epiroc Mining, PVT LTD, Telangana, India

Computer Numerical Control Machine Operator

Feb 2020-Mar 2022

- Proficiency in managing and operating 3-axis CNC machines and lathes.
- Certified expertise
 - Interpreting technical drawings for accurate machine operation.
 - Setting up the tools for variable production.
 - Handling of bore gauges, calipers, micrometers, and height/depth gauges.

ACADEMIC INTERNSHIP

NSIC Technical Services Centre, Telangana, India

Industrial Intern

Nov 2018-May 2019

- CNC Milling and Turning Machine Operations at the National Small Industrial Corporation Ltd. Technical Service Centre. (NSIC), Skill upgrade program in AUTOCAD.

CERTIFICATIONS

- Lean Six Sigma White Belt Certification [Educate 360] May 2025
- Student Success Mentor Training [Mentor Collective] Jul 2024