

# ABIN JAMES

## Mechanical Engineer

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### Professional Profile

Highly motivated with extensive project experience from concept to development. Strengths are in manufacturing and materials fields. Mechanical Engineer with strong communication skills and experience in manage multiple projects, as well as collaborating with other departments from manufacturing to product design and technician. Self-motivated, work independently, problem solving and detailed oriented with consistent experience in managing project scope concept to completion in multi-disciplinary and cross-functional teams to collect data for commissioning

### Education

**University of Texas Rio Grande Valley** - Master of Science Mechanical Engineering (MS) GPA : 3.35 **12/2017**

**Mahatma Gandhi University** - Bachelor of Science in Mechanical Engineering (BSME) GPA : 3.4 **05/2014**

**Capstone Project:** Designed Gasoline powered automotive with renewable biogas fuel produced from domestic waste

**Coursework:** Fracture Mechanics, Nanotechnology, Polymer Processing, Dynamics of Mechanical System, Modeling of Physical Systems, Advanced Materials Engineering, Viscous Flow, Ceramics, Orthopedic Biomechanics, Systems design

### Academia Experience

**Research Assistant – University of Texas Rio Grande Valley** **09/2016 – 12/2017**

Leadership skills: Energy Audit United State Department of Agriculture (USDA)

- Designed energy audit with American society of heating, refrigerating in energy modeling with ISO certification
- Leading 2 undergraduate students collaborate with safety protocol and conducted onsite evaluations equipment, installation changes which reimbursed the total cost of the company's energy within 10 years to be more cost efficient
- Qualified the operation of a new programmable custom automation vacuum furnace operating at 1400 degree Celsius
- Produced 25 Nano glass structures with quality standards, controlled material properties by varying process conditions such as temperature, time, environment and starting quality of waste glass powders by researching on publications
- Developed and directed ergonomic studies to determine safety and usability of product assembly
- Documented vacuum furnace operation manual and communicate effectively, training mechanical team faculties

**Teaching Assistant – University of Texas Rio Grande Valley**

- Approved engineering documents orders of hardware for 52 projects from reliable vendors on time and within budget
- Designed laminar flow in pipe using Computational Fluid Dynamics (CFD) software testing application
- Planned, work scheduled, and coordinated various phases of senior design projects with technical knowledge techniques
- Mentored safety protocols for 100 students in manufacturing lab, which resulted in safe operation environment
- Established procedures for weekly quality inspections on safety materials, inventory's with government regulations
- Facilitated weekly 50 in person discussions and exams on Heat Transfer, Electrical, Electro-mechanical system,FE
- Implemented key objective by developing and troubleshooting a flexible teaching tool for an advanced graduate course.

### Industry Experience

**Mechanical Project Engineer – Mini Raj Engineering Works** **05/2014 – 12/2015**

- Coordinated the manufacture of prototypes, perform product/process evaluations, present results using statistical techniques and implement optimized solutions with Lean Manufacturing operations interms of company standards
- Managed service department and processed warranty claims applicable with statutory and regulatory specification
- Negotiated with contractors, vendors for high quality raw materials RFQ,which reduced 10% of process development cost
- Implemented concepts such as DFM, six sigma to reduce manufacturing cost and increased product quality

**Maintenance Technician - JJ Crane Service**

**05/2009 – 5/2014**

- Supervised individuals inspected, finished products to ensure quality control fixing, plumbing, and general mechanical maintenance of equipment in a safe and quality improvement manner
- Continuous Improvement for production line, assembly design, documentation specifications, customer requirements
- Conducted independent research analyzing the stresses and displacements of a mobile crane frame using SolidWorks, CAD

### Skills

Matlab ,AutoCAD ,Simulink , Solidworks, C++, MS Power point, MS Office, Excel Spreadsheets,CFD,Oracle,Catia,Pro E Hands on experience on Scanning Electron microscope (SEM), CNC, Makerbot3D printer, Drilling, lathe, Blow molding, Extrusion molding, Excellent writing communication, Proficient in four languages including English, Technical skills ,Time Mangement,Project Management, Hydraulics systems,Creo,Plc programming, Microsoft Office, Customer Service, HVAC,Revit