BILAL MUSTAFA SIDDIQUI

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OBJECTIVE: Seeking a full-time employment to apply my engineering skills and industrial experience

EDUCATION

NEDUET, Karachi (CGPA: 3.23 / 7th Semester) **Dec 2014 – Nov 2018**

Bachelor of Engineering, Mechanical

- Awarded laptop under Prime Minister's Laptop Scheme, for good academic performance among large number of students.
- Expected publication of Research Paper of Final Year Project in journal; 'Energy and Buildings'

Relevant Courses: Mechanical Vibrations, Compressible Flows and Propulsion System, Stress Analysis, Fluid Mechanics, Solid Mechanics, Materials Science, Clean Energy Technology

RELEVANT SKILLS AND TRAININGS

- **Softwares:** CAESAR, ANSYS, Solid Works, MATLAB, Mini Tab, MS Word, MS PowerPoint, MS Excel
- **Skills:** Finite Element Analysis (with ANSYS), 3D Model Management, Pipe Designing, Plant data Analysis, CAD Drafting (2D and 3D), Structural Stress Analysis
- **Certifications and Trainings:** Continuing Professional Development short course on "Clean Coal Technologies for Power Generation", Six-Sigma (Green Belt), Mechatronics training, Self-Management workshop

INDUSTRIAL EXPERIENCE

Pakistan Petroleum Limited, Baluchistan, Sui Field **Jun 2017– Jul 2017**

Mechanical Engineering Intern

- Visited all three plants of the pioneer of natural gas industry which contributes around 20% of country's total natural gas
- Inspected well heads which included recording flow rates, pressures and temperature data, checking fluid levels, the electrical generators and produced reports from the data collected.
- Reported maintenance requirement on well which was highly appreciated by supervisor in Production plant
- Visited the Compression Department which supplied compressed raw gas to purification and dehydration plants
- Experienced the servicing of 3.2MW gas turbine which was a prime mover to compressors in Compression Department
- Received an Induction in Workshop about balancing of rotors which were unbalanced due to thermal stresses in turbines
- Introduced to real time Workover Rig and its parts including Rig, Christmas tree, Top drives, Mud pumps and BOPs
- Demonstrated about Respiratory protection in extreme H2s environments by "Rutledge H_2S Safety Company"

Ghandhara Industries Limited, Karachi, Site Area **MAY 2016 – Jun 2016**

Mechanical Engineering Intern

- Went to the plant which comprised of manufacturing, assembling and fabrication of ISUZU trucks, buses and load bodies
- Saw live demonstration in Machine shop about the shearing and bending presses by expert mechanics and further guided to the Body Shop, Inventory, Paint Shop, Tire Shop, Service, Quality Check department and Maintenance area
- Involved in Pre-Delivery Inspection of 52 troop carriers to ensure any lacking in fitting of components included jerry can, pintle hook, bow pipes, tail chain, tool box, fire extinguisher and longitudinal pipes
- Experienced the road test of vehicle comprised of engine, transmission, clutch, brakes, steering and cruise control tests
- Oversaw the modifications in dump truck which included shortening of propeller shaft, deletion of cross member, fuel capacity was doubled, additional fuel purifier was added, and exhaust tail was shortened
- Performed the static test of vehicles which included wheel base, ground clearance and overall lengths measurement

Feroze Mills 1888

Visiting Student

- Understood the maintenance strategy employed for industrial blowers and fans
- Studied the HVAC cycle employed for cotton dust removal from work space and maintaining temperature and humidity
- Studied the applications of fans and blowers

PROJECTS

Solar potential estimation for tilted roofs in an Urban Environment **Nov 2017 – Sep 2018**

- Studied the Literature of previous methodologies for Flat Roofs called as Digital Angle Elevation method (DAE)
- Worked with a group of 4 members to develop a new methodology for Tilted Roofs devised to generate a sky map which was helpful in calculating both the diffused and beam components of solar radiation

Fabrication of Reynolds apparatus used to visualize the different flow regimes

- Worked with a group of 10 members to fabricate the apparatus in a cost-effective manner
- Procured, assembled and tested the apparatus which helped our juniors to perform their practical in fluid mechanics lab

VOLUNTEERING EXPERIENCE

- Grader: Safdar's Coaching Centre **Jun 2014 – Apr 2015**
- Team lead: NED Formula Racing, Brakes Department