

EXPERIENCE**Dec 99- Present****Design Engineer**

Dana Canada, Parish Structural Solution

- Design light and medium duty truck frames for various automotive manufacturers
- Working as a team member involved in designing new products including hydroformed engine cradle
- Involved in static analysis of truck frames
- Provide engineering support to process/ production engineering, quality assurance and suppliers.
- Work with Process Engineers in designing of prototype parts, tooling and fixtures

Product Engineer

Dana Canada, Boston Weatherhead Division

- Design hydraulic fittings and connectors for various automotive and off highway applications.
- Design new products and supervise prototype manufacturing and testing during developmental phase.
- Design test fixtures, gauges and specialized tooling for new and existing products.
- Prepare testing and engineering specifications, design standards and engineering change/deviation notices.
- Contribute in SAE FCCTC committee to revise existing and create new surface vehicle standards.
- Administrator of Electronic Drawing CATalog (EDCAT) and responsible to maintain the latest drawing revision, engineering process and quality procedures.
- Working as a team member for scrap reduction and productivity teams.
- Provide engineering support to process/ production engineering, quality assurance departments, suppliers and customer.
- Prepare quotations for customer and Internet bidding.

Sep 97-Nov 99**Research and Teaching Assistant**

University of Toronto

- Designed load cells using strain gages and data acquisition system for screw testing using IDEAS
- Designed and wrote software using standard modules from NI to acquire data from load cell.
- Designed experiment and machines to study creep and stress relaxation in fiber reinforced composites
- Worked on different testing machines including tensile, flexural, impact, hardness and creep
- Conducted labs for Machine design I and Machine Design II

Jul 96-Apr 97**Site Engineer**

Engineer and Contractors Limited

Client

Foster Wheeler Energy Ltd. (Britain)

- Designed fabricated and machined components for pressure vessels and storage tanks
- Planned and monitored man-hours and resources for the installation of natural gas compression project
- Supervise a team of 10 workers involved in redesigning, fabrication and installation of steel structure due to onsite modifications
- Prepared method statements for the inspection and installation of equipment, hydro testing, and chemical cleaning of vessels and pipe-work according to industry and site standards

Nov 94-Jun 96 **Product Engineer** MACCIE Engineering Co.
 Clients Nissan, Honda, Toyota, Suzuki

- Supervised a team of three engineer involved in designing, fabrication, assembly and erection of overhead bridge cranes (1.5-5 ton capacity) and underground trolley for the assembly of truck axles
- Supervised a team of 3 engineers and 10 workers involved in manufacturing jigs & fixtures for Nissan Motors
- Designed metal and plastic parts for automotive applications
- Worked on manual and semi automatic lathe, milling, jig boring, grinder, injection, compression and rotational molding machines
- Implemented quality standards and procedures to ensure safe, low cost and efficient manufacturing.

CONFERENCES AND TECHNICAL COMMITTEE

- **May 25-26, 2000** **Paper presentation:** Viscoelastic Properties of wood fiber reinforced polyethylene: Creep, stress relaxation and threaded joints performance at **Progress in Wood Fiber Reinforced Plastic Composites Conference**.
- Member of Fluid Connectors and Conductor Technical Committee (Society of Automotive Engineer FCCTC).

TEACHING EXPERIENCE

1993- 95 Taught AutoCAD R12 in “Institute of Industrial Electronic Engineering”, as a visiting faculty during studies.

EDUCATION

Sep 1997 – Dec 1999 **Master of Applied Science (Mechanical)** University of Toronto, Canada
 Thesis: “*Viscoelastic properties of wood fiber reinforced polyethylene: Creep, stress relaxation and threaded joints performance*”
 Awarded *research assistance* and *U of T fellowship*

1991 - 1995 **Bachelor of Engineering (Mechanical)** NED University, Karachi, Pakistan
 Stood 1st out of 193 students

COMPUTER

Language: FORTRAN, C++, VB 5.0, and HTML
 Packages: PRO/E, SDRC I-DEAS, ANSYS, AutoCAD, MS Office, MS Project, and MS VISIO

TRAINING

Aug 20-24, 2001 Advance Part Modeling - **SDRC I-DEAS**
 July 16-19, 2001 3D Drafting and Master Notation - **SDRC I-DEAS**
 April 9-12, 2001 Assembly modeling and design – **SDRC IDEAS 8.0**
 March 26-30, 2001 Basic Part Modeling – **SDRC IDEAS 8.0**
 July 11-13, 2000 Career Engineer - **Project Management for Engineers**- Dana U Course
 Jan 17-21, 2000 Introduction to **PRO/Engineer** - Rand Technologies

PROFESSIONAL AFFILIATIONS

- Professional Engineer Pakistan Engineering Council (PEC)
- Associate member Society of Automotive Engineer (SAE)