

**RAFFI ENGEIAN, B.A.Sc., MBA**  
Mechanical Engineering EIT

Mr. Raffi Engeian holds a Bachelor of Applied Science in Mechanical Engineering and a Masters in Business Administration. He is registered with the Professional Engineers of Ontario (PEO) as an Engineer in Training (EIT). Raffi has extensive automotive manufacturing experience and has been involved with SAE (Society of Automotive Engineers). Mr. Engeian obtained specialized training in Engineering Drawings, Failure Mode and Effect Analysis, took several specialized courses and participated in a number of conferences and seminars on Automotive Engineering, Interior and Seat Design. Raffi is a member of additional professional associations including the Ontario Society of Professional Engineers (OSPE), Automotive Industry Action Group (AIAG).

Mr. Engeian has been directly involved in several research and development projects. These projects involved the engineering and development of automotive seat lumbar systems and components while employed at an international automotive supplier. The projects also included the research of new technologies, materials, and methods to apply to lumbar system development, root cause analyses and testing on lumbar systems, failure mode analysis through DFMEA (Design Failure Mode and Effects Analysis) and testing of lumbar systems in addition to preparation of prototype samples involving fabrication, mockup and assembly.

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### **ACADEMIC BACKGROUND**

**Master of Business Administration:** University of Windsor, Windsor, Ontario, October 2004

**Bachelor of Applied Science (Mech. Engineering):** University of Windsor, Windsor, Ontario, October 2002

- Courses covered include Advanced Mathematics, Mechanics, Dynamics, Kinematics, Materials, Engineering Design, Measurements, and Manufacturing.

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### **ADDITIONAL COURSES AND SEMINARS**

- Ford Worldwide Engineering Release System (WERS) training, Ford Motor Company, Dearborn, Michigan, November 2006
- Tolerance Stack-Up course, Society of Automotive Engineers (SAE), Troy, Michigan, March 2006
- Injection Moulding Design Conference, DuPont, Mississauga, Ontario, November 2005
- Society of Automotive Engineers (SAE) International Congress and Exposition, Detroit, Michigan, 2005 - 2006
- Geometric Dimensioning and Tolerance (GD&T) course, St. Clair College, Windsor, Ontario, July 2005
- Six Sigma Green Belt Technical Training, Six Sigma Academy, Plymouth, Michigan, November 2004
- Failure Mode & Effects Analysis (FMEA) Certification, Global Quality Institute (GQI), Windsor, Ontario, October 2003

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### **PROFESSIONAL SOCIETIES**

- Ontario Society of Professional Engineers (OSPE)
- Professional Engineers of Ontario (PEO), EIT member
  - Completed academic requirements and Professional Practice Examination; Completing remaining 2 years of practical experience requirement
- Society of Automotive Engineers (SAE)
- Automotive Industry Action Group (AIAG)

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## SPECIALIZED PROFESSIONAL COMPETENCE

### Motor Vehicle Accident Reconstruction including

- Point of Impact Determination, Roadway Surveys, Visibility Analysis, Vehicle Examinations and Crush Measurements, Seat Belt Usage Assessments, AutoCAD Drawings.

### Design and Development of Automotive Sub-assemblies:

- Design failure mode and effects analysis (DFMEA)
- Timeline management and Team coordination
- Engineering drawing preparation and review
- Geometric Dimensioning and Tolerance (GD&T) and Six Sigma Statistical Analysis
- Lean Methodology

### Computer Skills:

- Proficient in Microsoft Office & Visual Basic
  - MINITAB statistical software, Spinfire Professional, AutoCAD, and other CAD software
  - University experience with C++, ANSYS, MathCAD, MATLAB + Simulink
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## EMPLOYMENT BACKGROUND

### Kodsi Engineering Incorporated (Mississauga, ON) 2006 to Present

- Junior Forensic Engineer specializing in motor vehicle collision reconstruction.

### Schukra of North America (Windsor, ON) 2003 to 2006

- Systems/Project engineer working to develop customized lumbar systems for Tier 1 automotive interiors suppliers
- MBA cooperative education student employee working directly under Directors of Program Management/Engineering and Director of North American Operations to learn and implement change in the Program Management Process / provided support to program managers

### Ford Motor Company of Canada (Windsor, ON) 2003

- MBA cooperative education student employee working in Material Logistics and Planning

### Nemak of Canada (Windsor, ON) 2001

- Engineering cooperative education student employee working in Quality Assurance

### Siemens Automotive (Tilbury, ON) 2001

- Engineering cooperative education student employee working in Research and Development focusing on Active Noise Control
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## PAPERS AND ARTICLES

- P. Consunji, K. Caron, and R. Engeian, "Design and Construction of a Remote Control Scale Vehicle Suitable for Experimental Evaluation of Vehicle Dynamics Controllers", University of Windsor, March 2002. (*Undergraduate Thesis*)
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## RESEARCH AND DEVELOPMENT

- Researched, developed, and engineered automotive seat lumbar systems and components while employed at Schukra of North America
  - Researched new technologies, materials, and methods to apply to lumbar system development
  - Conducted root cause analyses and testing on lumbar systems using Six Sigma methodology
  - Conducted failure mode analysis through DFMEA (Design Failure Mode and Effects Analysis) – determining the different failure modes that can occur in an assembly, causes of those failure modes, and actions to reduce failures
  - Conducted testing on lumbar systems including durability testing, abuse testing, car seat voltage measurements, ride and drive testing, optical microscopy, noise testing by means of oscilloscope and current trace measurements, and vibration testing
  - Prepared prototype samples involving basic fabrication, mockup and assembly
- Researched Active Noise Control (ANC) technology while employed at Siemens Automotive Powertrain – Air Induction - *Active noise control is a means of reducing or eliminating noise by measuring and analyzing a noise waveform, and producing the effective opposite waveform (destructive interference).*