



## CURRICULUM VITAE

### ROBERT JUTRAS, P.ENG.

Armand Patenaude, cofounder of Patenaude-Trempe inc., hired Robert Jutras in November 1985 as a Trainee engineer, a graduate out of the mechanical engineering program of the École Polytechnique de Montreal (UdeM). Today, 30 years later, Robert manages CLEB's laboratory which specializes in assessing the performance of fenestration products. Over the years, Robert has been involved in the evolution of the fenestration industry, particularly by sharing his knowledge through direct involvement in multiple Canadian associations and committees. From 1994 to 2008, Robert Jutras returned to the École Polytechnique de Montreal (UdeM), but this time, as a lecturer for the Building Technology certificate.

## EDUCATION

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Bachelor's Degree in Mechanical Engineering (1983)

École Polytechnique de Montréal (UdeM), Montreal, Quebec

College Degree in Applied Sciences (1979)

Marguerite-Bourgeois College, Montreal, Quebec

## PROFESSIONAL AFFILIATIONS

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Quebec Order of Engineers (OIQ)

## EXPERIENCE

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1985 - PRESENT      CLEB BUILDING SCIENCE

Director, Codes and Standards / Chairman of the Board

- Responsible for project and equipment improvement development;
- Research on various components of the building envelope;
- Development and management of laboratory testing services;
- Proposals preparation;
- Supervision of tests and simulations;
- Approval of technical reports;
- Writing and preparing training courses;
- Expertise in NC3 containment laboratory in accordance with PHAC requirements;
- Inspection and field testing.



- 1994 - 2008      ÉCOLE POLYTECHNIQUE DE MONTRÉAL (UDEM)  
Lecturer for courses leading to the Building Technology certificate.
- SB210 Materials;
  - SB220 Building Envelope.
- 1984 - 1985      DIESELRAMA INC.
- Responsible for a quality control program development;
  - Management of contracts granted by Procurement and Services Canada;
  - Development of health and safety program; member representing the employer on the health committee;
  - Responsible for the study and assessment of warranty cases;
  - Technical support to sales representatives in the preparation of submissions;
  - Establishment of a refresher course for teachers in diesel mechanics;
  - Equipment design.
- 1984              SCHOOL COMMISSION OF SAULT LACHINE  
Teacher in refrigeration
- Taught the basics of refrigeration as part of a vocational training course for adults;
  - Prepare the contents (bilingual) of the course;
  - Supervise the practical work sessions;
  - Responsible for the training of two groups.

#### ADDITIONNAL TECHNICAL EDUCATION

- 1995              CANMET/EMR SEMINAR  
Frame 4 and Vision 4 training seminar
- 1991              ENERMODAL ENGINEERING LTD. SEMINAR  
Frame and Vision training seminar
- 1989              ÉCOLE DE TECHNOLOGIE SUPÉRIEURE (UQAM) COURSES  
Quality control in construction courses



## SPECIFIC IMPLICATIONS

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Member of the American Society for Heating Refrigerating and Air-Conditioning Engineers (ASHRAE)

Member of Board of Directors of the Canadian Window and Door Manufacturers Association (CWDMA) Fenestration Canada since 2008 and Technical Committee co-president

Member of the Board of Directors of «Association des industries des produits verriers et de fenestration du Québec (AIPVFQ)» (free translation: Glazing Products and Fenestration Industry of Québec) since 1999 and vice-president since 2007 («Association de vitrerie et de fenestration du Québec (AVFQ)» (free translation: Glass and Fenestration Association of Québec) since 2013)

Member of the Board of Directors of «Association de vitrerie et de fenestration du Québec (AVFQ)»

Member of the technical committee for the Canadian window standard (CAN/CSA-A440) (Canadian Standards Association) since 1990 and member of JDMG (Committee for the harmonization of NAFS standard)

Member of the technical committee for the Canadian sliding door standard (CAN/CGSB-82.1) (Canadian General Standards Board) since 1990

Member of the technical committee for the Canadian steel door standard (CAN/CGSB-82.5) (Canadian General Standards Board) since 1990

Member of the E06 committee for the ASTM since 2007

Member of various technical committees of standards AAMA and co-president of the committee of accredited laboratories

Member of the IGMAC technical committee for the permeability gass-filled units and member of the Board of Directors since 2014

Member of the technical committee of ABAA

Member of the committee of the part 5 of the National Code of Canada since 2009

Former member of the technical committee for the energy efficiency evaluation of windows and sliding glass doors (CAN / CSA A440.2) of the Canadian Standards Association (CSA)

Former member of the technical committee for the energy efficiency evaluation of swing doors (CAN / CSA A453) of the Canadian Standards Association (CSA)

Former member of the advisory committee for the Frame Program (FAP) of CANMET/CANADA EMR

Research project on the air permeability of building materials in collaboration with the Canada Mortgage and Housing Corporation (CMHC)



## PRESENTATIONS

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- 2014                      Webinars on NAFS-08
- AVFQ, Fenestration Canada NAFS Calculator and Labeling Guidelines, November 2014
  - AVFQ, Status on the adoption and the implementation of the National Building Code - Canada 2010 (NBCC) and the forthcoming effective Quebec Construction Code, November 2014
  - AVFQ, Understand and comply, in practice, with the requirements of the 2010 National Building Code of Canada (NBCC) and the forthcoming effective Quebec Construction Code, November 2014
- 2012                      Seminar - Harmonized Standard and the NBC 2010
- AVFQ, Drummondville, Quebec, February to May 2012
- 2010                      Several conferences
- Contech Events, Montreal and Quebec, Quebec, 2010
- 2007 to 2015            Training Workshop on Fenestration
- Contech, Montreal, Quebec
- 1996                      Seminar - «Infiltration d'air par les fenêtres soumises à un différentiel de pression et de température» (Free translation: «Air Infiltration via Windows Subjected to Pressures and Temperature Differentials»)
- CODEL Conference
- 1996                      Seminar - Energy Efficient Glazing System
- Seminar of the Insulating Glass Manufacturers Alliance (IGMAC) Trois-Rivières, Quebec, October 1996
- 1994 to 2008            Courses - SB-2010 Materials and SB-220 Envelope
- Lecturer for the Building Technology certificate program, École Polytechnique de Montréal (UdeM)
- 1995                      Course - «Comment promouvoir les qualités d'une fenêtre» (Free translation: «How to Promote the Qualities of Windows»)
- Air-Ins Inc., Montreal, Quebec, 1995
- 1994                      Seminar - «La fenestration» (Free translation: «Windows»)
- Quebec Building Envelope Council (QBEC), Montreal, Quebec, 1994
- 1991                      Window Workshop on Energy Performance of Windows
- CANMET/EMR, Ottawa, Ontario, 1991
- 2016



- 1990 Course - «Conception des portes et fenêtres pour résister à l'entrée par effraction» (Free translation: «Designing Doors and Windows to Resist Force Entry»)  
– Air-Ins Inc., Montreal, Quebec, 1990
- 1990 Course - «Condensation : Causes et remèdes» (Free translation: «Condensation : Causes and Remedies»)  
– Air-Ins Inc., Montreal, Quebec, 1990
- 1990 Conference - «Le choix des niveaux de performance des fenêtres canadiennes» (Free translation: «Selecting the Level of Performance of Canadian Windows»)  
– Conference «Idée 90», Montreal, Quebec, 1990
- 1990 Conference - «Les normes et tests pour les fenêtres et les portes» (Free translation: «Standards and Tests for Windows and Doors»)  
– Conference «Idée 90», Montreal, Quebec, 1990
- 1990 Course - «Comment promouvoir les qualités d'une fenêtre» (Free translation: «Promoting Window Quality»)  
– Air-Ins Inc., Montreal, Quebec, 1990
- 1988 Research project - «La perméabilité à l'air des matériaux de construction» (Free translation: 'The Air Permeance of Building Materials')  
– SCHL, Montreal, Quebec, 1990

## PUBLICATIONS

Gonçalves, M.D., Jutras, R., Velji, M. «Evaluating the Field Performance of Windows and Curtain Walls of Large Buildings», 2007 Building Envelope Symposium, Institute of Roofing, Waterproofing and Building Envelope Professionals, Boston, Massachusetts, November 2007.

McGowan, A. and R. Jutras., « Testing of Air Leakage and Heat Loss Characteristics of Commercial Door Assemblies», Magazine ASHRAE Transactions, Vol 113, page 2, July 2007.

Hallé, S., Bernier, M. E., Patenaude, A., Jutras, R., «The combined effect of air leakage and conductive heat transfer in window frames and its impact on the Canadian energy rating procedure», Magazine ASHRAE Transactions, Vol 104, Pt1, 1998

Bumbaru, D., Jutras, R., and Patenaude, A., «Air Permeance of Building Materials», Summary report prepared by AIR-INS Inc. for Canada Mortgage and Housing Corporation, Ottawa, 1988