

**2009 IEEE Industrial & Commercial Power Systems Technical Conference
Calgary, May 3-7, 2009**

Tutorial 3

**Protection for Rotating Equipment (Generator & Motors) and the
Applications of Relevant Chapters of the Buff Book**

**Presenters: Mr. Chuck Mozina (Consultant to Beckwith)
Mr. Patrick Robinson (Altelec , Calgary)
Mr. Jakov Vico (GE Digital Energy- Multilin)
Dr. Bill Rosehart (University of Calgary)
Dr. Hamid Zareipour (University of Calgary)**

Date: May 7th, 2009.
Time: 8:00 AM to 4:30 PM (Lunch Provided)
Location: Calgary Hyatt Regency (Doll Room)

This tutorial will include two segments:

Generator Protection Segment:

- Generator Stator Protection
- Generator Ground fault protection
- Loss of field protection
- Other area of generator protection (inadvert energization, overexcitation, reverse power, abnormal frequency etc.)
- Buff Book observations and application notes (Generator Protection)

Motor Protection Segment:

- Theoretical Aspects of motors in Electrical Engineering (Refresher)
- Practical considerations in motor protection
 - Motor insulation systems , and temperature limits
 - Service factor
 - Thermal Modeling of Motor for protection purposes
 - Motor Starting Considerations
 - Unbalance, RTD applications, short circuit, Ground Fault, differential, mechanical jam under-current, under/over voltage protection
 - Large Induction and synchronous motor protection
 - Low voltage motor protection
- Buff Book observations and application notes (Motor Protection)