### **Institution of Mechanical Engineers**

**Central Canada Branch** 



# 2012/13 PROGRAMME: TECHNICAL PRESENTATION

SPEAKER: Robert J. Gunn, PEng., CEng. MIMechE

**DATE:** Tuesday, September 25, 2012 (Food will be served at 6:30 pm; Lecture starts at 7:30 pm.)

WHERE: Kinectrics Facility, 800 Kipling Avenue, Toronto ON M8Z 6C4

**DIRECTIONS:** See map overleaf

**REGISTRATION:** Contact Tony Hamilton at <a href="mailton@kinectrics.com">tony.hamilton@kinectrics.com</a> or (647) 938-2431, by September 11, 2012

#### **OUR SPEAKER**



Robert (Bob) Gunn is a professional mechanical engineer living in Mississauga, Ontario

Bob has over 30 years of nuclear engineering design and service experience. He has worked and provided engineered solutions at nearly all CANDU sites worldwide. For many years he was Director of CANDU Field Services at Atomic Energy of Canada and he now provides consulting services to variety of nuclear clients in Canada and abroad.

## **Inspecting & Maintaining the CANDU Reactor**

In 1987, at the Centennial of Engineering in Canada, the CANDU reactor was named one of the top ten Canadian engineering achievements. For almost 50 years, and long before the popular "Green Movement" took hold, CANDU reactors have quietly produced safe clean electricity in Canada and abroad.

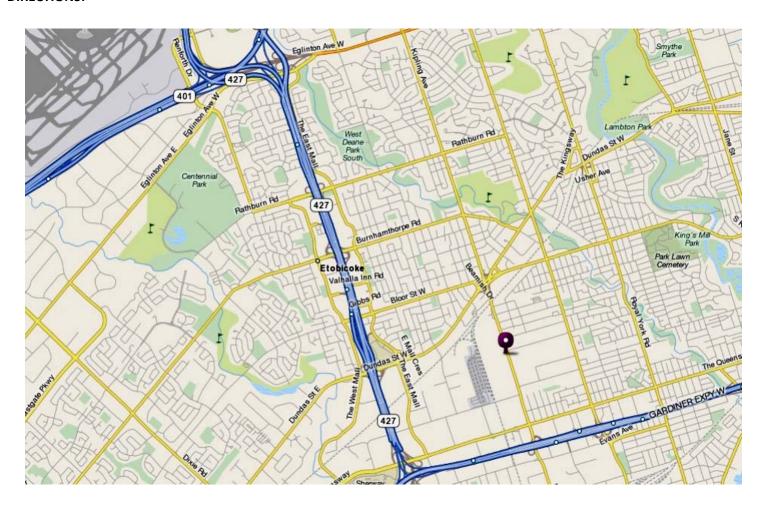
CANDU is an indigenous technology using heavy water and natural uranium fuel produced in Canada. The technology was developed in Canada and today the industry employs almost 4000 people and generates revenues of over \$300 million a year.



CANDU reactors have been built and successfully operated in Romania, South Korea, China, Argentina, India and Pakistan. Various spin-off nuclear technologies such as medical isotope production and uranium exports have made a major contribution to our economy and society over and above energy benefits.

An essential contributor to the success of CANDU is the inspection, maintenance and refurbishment of the reactor core. Unique methods have been developed to access and replace critical reactor core components. This presentation, together with a brief overview of CANDU history and technology, will focus on the methods used to inspect and maintain CANDU. The presentation will also include a review of methods used to perform major refurbishments that allow the reactors to continue operating for double their original reactor design life.

### **DIRECTIONS:**





The entrance to the Kinectrics facility is on the west side of Kipling Avenue and is not too far south from the Kipling subway station (about 10 min walk). There is free parking directly in front of the main entrance but it is limited to about 12 spaces. There is plenty of additional parking directly east and south of the guard station, located south of the main building entrance.