

## Quantum Braitenberg Vehicles

**Presenter** : Indudhar N Devanath  
**Date** : Friday, 27<sup>th</sup> Feb, 2004  
**Location** : FAB 150  
**Time** : 4:00 pm to 6:00 pm Seminar Meeting

### **Abstract:**

*A brief discussion on what are Braitenberg Vehicles, and why are they so famous in the field of Robotics will be discussed in the presentation. Fundamentals of Quantum gate operations of Hadamard Gate, Pauli Gate, Feynman Gate, Swap Gate and Fredkin Gate would be explained. It is very interesting to note how such simple gates can be used to implement interesting behaviours of Quantum Braitenberg Vehicles. We will be discussing some specific behavior of the robot and its parallel implementation using quantum circuits. We will also be defining how we intend to build models of Quantum Gates using VHDL and implementing them on FPGA. Finally we will be concluding the talk on why we are doing this project and the use of such Quantum robots in real life situations.*