



אוניברסיטת בן-גוריון בנגב  
Ben-Gurion University  
of the Negev

The Faculty of Engineering Sciences

## בימת דיקן הפקולטה למדעי ההנדסה

פרופ' גבי בן-דור, דיקן הפקולטה למדעי ההנדסה  
מתכבד להזמין להרצאת אורח בימת-הדיקן



**Dr. Mark Verbrugge**

Director Chemical Sciences and Materials Systems Lab in General Motors – R&D

### ירצה בנושא:

## **Lithium Ion Batteries and Vehicle Electrification**

The first portion of the lecture will relate global energy challenges, trends in personal transportation, and electrochemical energy storage technologies. Primary concerns associated with lithium ion batteries and high-volume traction applications are associated with costs, life (cycle and calendar), and performance over a wide temperature range. Despite these concerns, it is well recognized that soon lithium ion batteries will be used in a variety of electrified vehicles, spanning from engine start/stop applications to hybrid electric vehicles to pure electric vehicles. Hence, it is critically important to understand phenomena governing the durability of lithium ion cells within the context of traction applications. We focus the technical part of this talk on the combined mechanical and chemical degradation of lithium ion cells, including both recent theoretical and experimental methods to clarify the governing phenomena.

**יום שני, י"ז בחשון תשע"א, 25 אוקטובר 2010**

**ההרצאה תחל בשעה 10:30**

**אודיטוריום בניין היי-טק (בניין 37 חדר 202) קומה 2**

**לפני ההרצאה יוגש כיבוד קל (10:00)**