

Upcoming TIA Meeting for SATURDAY, November 15, 2008

**At 10 AM in the 2020 building in the Oak Ridge Industrial Park.
Visitors are always welcome.**

Upcoming TIA Meeting on November 15, 2008

Presented by **Tom Kulaga**, Recording Secretary

Ben Nibali of APTUS DesignWorks Inc. will speak on "Product Development and Sourcing." The topics of his presentation will include:

- Overview of the stages of Product Development
- Types of Design and Engineering Resources and how to choose
- The difference between Prototypes, Samples, and Product
- The importance of documentation
- Selecting and managing your supplier(s)

Elections! will also be held during the November meeting, which is our Annual Meeting. A ballot is included in this newsletter. Additional nominees can be named at the meeting before voting begins. Everyone is encouraged to either volunteer themselves for a position or nominate another for any position.

Everyone's attendance is requested to ensure that the TIA continues to meet the needs of our members.

The TIA officers will present their annual report to the members at the meeting.

Also, a short brainstorming session to generate ideas for recruiting a new generation of inventors will be conducted at the meeting.

Notes from the October 15, 2008, Meeting

Stephen Levy presented "10 Ideas for the Self-Sustaining Residence" to the members at the October meeting. Steve is a technical consultant and a member of the Advisory Board of Electronic Magnetic Power Solutions <emps.us.com>. He is writing a book based on three different lectures that he presents.

Solar power is the key to a self-sustaining residence. Steve's vision of the home of the future relies upon solar energy, its use and storage.

Idea 1 is to heat sink roof mounted solar panels. The efficiency of solar panels is increased by reducing the maximum temperature of the panels, particularly in the summer. The heat removed from the solar panels is extracted for other uses.

Idea 2 is a hydrogen and oxygen storage medium that absorbs the gases at low overpressures and that releases the gases at a controlled release rate. It is postulated that a three-day supply of gas would be sufficient to be self-sustaining. The storage container must be compact, safe, easily monitored, and easily maintained.

Idea 3 is a combined fuel cell and electrolyzer. In one mode, the device takes in hydrogen and oxygen to produce electricity and water. In the other mode, the device takes in water and power to produce hydrogen and oxygen, which is then stored.

Idea 4 is an intelligent system controller. The controller monitors the living environmental conditions and the outside environmental conditions to control temperatures, electrical generation and use, and to determine if power should be sent back to the utility.

Idea 5 is window shades that generate electric power. The shades are independent devices that plug into a wall electrical receptacle to feed a small amount of power into the home's electrical system.

Idea 6 is a power conservation monitor. The monitor is a portable device that plugs into a wall electrical receptacle and an appliance then plugs into the monitor. The monitor measures the power used when the appliance is off to provide indication of parasitic or vampire power usage.

Idea 7 is a smart power delivery from the home to the car. The batteries of an electric car are charged automatically based on the contents of the home energy storage, price of utility power, which varies during the day, and weather predictions.

Idea 8 is the advancement of lithium batteries.

Idea 9 is the use of lithium batteries for energy storage instead of hydrogen and oxygen.

Idea 10 is a home uninterruptible power system (UPS). A self-contained, self-regulated energy store of 25 lead-acid batteries is currently feasible. The UPS stores energy when there is an excess or when it is available at low rates, and provides electrical energy when it is needed or when it is only available at high rates.

Steve also mentioned several other ideas, including using the batteries in electric cars as a portable power supply. Vehicle to grid power sharing is not yet ready for prime time, but may be viable as technologies mature. Another idea discussed was solar powered electric car charging stations and plug-in parking lot stations for electric cars.

Steve answered questions from the members before the meeting adjourned.

A **Board Meeting** was held immediately after the regular meeting. One topic that was discussed was how to recruit youths for membership in the TIA. An outreach program was discussed. It was decided that a short discussion would be held at the November meeting to engage the members in brainstorming ideas to recruit a new generation of inventors.

The upcoming election was also discussed. The Vice-President and Recording Secretary positions are term limited and new persons must be nominated. Tom Kulaga was nominated for Vice-President and Steve Yoder was nominated for Recording Secretary. Also, the Corresponding Secretary position needs a permanent replacement. Ann Alexeff was nominated for that position.

Election Information

There are six officers of the TIA. These are a **President**, an **Immediate Past President**, a **Vice President**, a **Corresponding Secretary**, a **Recording Secretary**, and a **Treasurer**. All but the Immediate Past President are to be elected at the November TIA Meeting. The officers have the following duties:

The **President** presides over the meetings of the Board, the Annual Meeting, and any other meetings of the TIA. The President is limited to 2 one-year terms. The President shall report on the health of the TIA at the Annual Meeting.

In the absence of the President, the **Vice President** shall carry out the duties of the President. The Vice President is limited to 2 successive one-year terms.

The **Treasurer** shall be the chief financial officer responsible for the financial matters of the TIA, subject to the direction of the Board. The Treasurer is limited to 3 successive one-year terms. The Treasurer shall report on the financial status of the TIA at the Annual Meeting.

The **Recording Secretary** shall be responsible for the records of the TIA including, but not limited to, a roster of the members and minutes of all meetings. The Recording Secretary is limited to 3 successive one-year terms.

The **Corresponding Secretary** will distribute information concerning the TIA to outsiders, primarily to inform the public of TIA activities. The Corresponding Secretary is limited to 3 successive one-year terms.

The **Board of Directors** includes the 6 officers and 4 others who are elected for two-year terms. The members of the Board of Directors are not limited in term, but every year two of the four directors are to be elected.

The following ballot shows the incumbents and the newly nominated candidates for the various elected positions.

Ballot

Officers	Incumbent	New Nominee
President:	Joe Martin	
Vice-President:	Open	Tom Kulaga
Treasurer:	Igor Alexeff	
Recording Secretary:	Open	Steve Yoder
Corresponding Secretary:	Open	Ann Alexeff

Board of Directors	Arnold (AJ) Beal	
	Gordon Campbell	
	Martin Skinner	
	Rainer Riffert	