



April 2012

[www.ndia-tvc.org/wid-tvc](http://www.ndia-tvc.org/wid-tvc)

Spring 2012 Newsletter

## WID TVC President's Corner

Patty Popour, President WID-TVC



I want to thank each of you for your membership in the TVC chapter and for supporting past chapter events and programs. I'd also like to provide you with an update of our activities so far this year, share with you our plans for the rest of this year, and offer you the opportunity to get involved.

So far this year, your TVC Chapter has:

- Teamed with AFCEA, AFA, NDIA and Cyber Huntsville on an 8 Mar luncheon with keynote speaker LTG (R) Robert Elder. Our participation will support WID TVC scholarships.
- Participated as a Bronze sponsor at the "Empowering Veterans: Employment and Entrepreneurship" event sponsored by the Women's Business Center of North Alabama (WBCNA).

We have several major initiatives and events planned for this year to include:

- WID TVC Relay for Life Team (18 May) – **join our team at [www.main.acsevents.org/goto/WIDTVC](http://www.main.acsevents.org/goto/WIDTVC)**;
- Overhaul of WID TVC website. Work will begin soon;
- Development of a chapter scholarship plan for 2012;
- Program luncheon (late summer/early fall);
- Mentorship luncheon (date to be announced soon);
- Member Receptions (May and Dec);
- Participation in Veterans Day Parade;
- Support of Materiel Enterprise Small Business Conference (supporting NDIA TVC);
- STEMi activities;
- Space & Missile Defense Conference – WID Booth.

Are you a TVC member looking to get involved in chapter activities? The following committees are looking for volunteers:

- **Programs:** Planning and execution of upcoming events.  
Point of contact: Jeanne Weaver, [jweaver882@aol.com](mailto:jweaver882@aol.com)
- **Membership:** Member reception planning and execution.  
Point of contact: Donna Burrell, [donna.burrell@noeticstrategies.com](mailto:donna.burrell@noeticstrategies.com)
- **Communications:** Newsletter planning and production and Website maintenance.  
Point of contact: Kim Lewis, [kim.lewis@projectxyz.com](mailto:kim.lewis@projectxyz.com)
- **Mentorship:** Planning and execution of mentorship program and events.  
Point of contact: Leigh Christian, [lchristian@amtec-corp.com](mailto:lchristian@amtec-corp.com)
- **Awards and Scholarships:** Development of scholarship committee to review scholarship options and for recommendation to the Chapter Board of Directors.  
Point of contact: Stephanie Sellers, [stephanie.sellers@wbcna.org](mailto:stephanie.sellers@wbcna.org)
- **Science, Technology, Engineering & Math initiative (STEMi):** Experienced engineers to assist with planning and execution of our active program.  
Point of contact: Debbie Fraley, [dfraley@quantum-intl.com](mailto:dfraley@quantum-intl.com)

**2012 is shaping up to be a busy year for our Chapter and I'm hoping for strong involvement from you. I'm available to discuss any ideas you have for our chapter and look forward to seeing you at upcoming chapter events!**

## 2012 WID Officers & Board of Directors



### Officers:

**President:** Patty Popour, Liberty Learning Foundation

**Vice President:** Kathy Broad, QTEC

**Secretary:** Edwina Musante, Irving Burton Associates

**Treasurer:** Cindy Kurt, COLSA Corporation

### Board of Directors

**Communications:** Kimberly Lewis, PROJECTXYZ, Inc.

**Programs:** Jeanne Weaver, Fox Army Health Center

**Mentorship/Education:** Leigh Christian, AMTEC

**Awards/Scholarships:** Stephanie Sellers, WBCNA

**External Relations:** Corby Dellarocco

**Membership:** Donna Burrell, Noetic Strategies, Inc.

**STEMi:** Debbie Fraley, Quantum Research

**Director-at-Large:** LTC Chris Hackett, HQ, Expeditionary Contracting Command

### Past Presidents

2009-2011: Cristina Hinkle

2008-2009: Gina Best

2007-2008: Tina Nicholson

2006-2007: Frankie Stewart

2004-2006: Lisa Gilbert

2003-2004: Tara Ragan

### Mark Your Calendar

See website for detail [www.ndia-tvc.org/wid-tvc](http://www.ndia-tvc.org/wid-tvc)

Women in Defense – Tennessee Valley Chapter presents the 2012 Mentorship Luncheon Series

#### “Finding Your Voice”

Judy Hardin

Manager, Small Business Partnering  
**Raytheon Company**

Monday, 21 May 2012

**11:30 – 1:00**

Raytheon Building  
401 Jan Davis Drive  
Huntsville, AL 35806 US

RSVP to [lchristian@amtec-corp.com](mailto:lchristian@amtec-corp.com) or call 256-319-6281



The UAH engineering student design team, Debbie Fraley – WID TVC STEMi Director, and Patty Popour – WID TVC President, who were present for the presentation of the completed project to the Sci-Quest management team.



WID members enjoying themselves at My Spirited Art



December Membership Appreciation

# WID-TVC STEMi Update

By Debbie Fraley, WID TVC STEMi Director

**STEMi MISSION** The Tennessee Valley Chapter (TVC) of Women in Defense (WID) is taking an active role in supporting educational needs for the Science, Technology, Engineering, and Mathematics Initiative (STEMi) that encourages young people to pursue careers in national defense and national security to eventually replace our aging workforce. WID TVC support is focused on securing financial backing from similar professional organizations, defense contractors, and local community organizations that will fund the creation of STEM educational tools for use in middle school and high school classrooms in the Tennessee Valley area.

**STEMi PROJECTS FOR SCI-QUEST** The WID TVC undertook a STEMi project upgrade for the Huntsville Sci-Quest Hands-On Science Center during Spring Semester 2012 at their request. Sci-Quest is a non-profit organization that provides more than 100 interactive exhibits dedicated to motivating children to explore science, math and technology. Sci-Quest management requested an upgrade to the previously delivered Solar City to add a more complex feature that would demonstrate solar power in a form that would allow the student to be more interactive with the exhibit. Since this was an upgrade to a previously delivered project, it required only one semester to design, build, test, and deliver the upgraded project. We worked with Dr Christina Carmen's senior Mechanical/Aerospace Engineering design class at UAH to design a Solar Racer as the upgrade. It was delivered to Sci-Quest on 23 April 2012 and immediately became popular with children on the floor of the museum. The child can turn a hand crank and have their own race car compete against a race car that is solar powered. Either car is capable of winning a race, depending on the child's ability to turn the crank fast enough to translate "kid-power" into car speed and make their car run faster than the solar powered car.

The WID TVC has also undertaken a new project for Sci-Quest during Spring Semester 2012 that will require the standard two semester completion cycle with Dr Carmen's senior engineering design class at UAH. This project is an alternate energy project that will simulate automobile hybrid technology. It resembles a car setup with wheels and axles to encourage the connection of the hybrid drive concept to a real world application. The initial requirements review, preliminary design review, and critical design review have been completed. Fall Semester 2012 will provide the timeframe to actually build, test, and deliver the completed project.

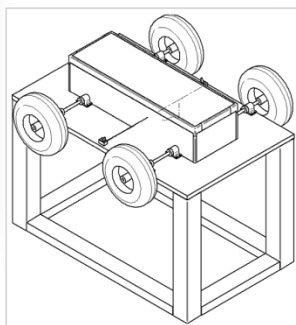
**WIMSHURST MACHINE PROJECT FOR DISCOVERY MIDDLE SCHOOL** The WID TVC began a new project during Fall Semester 2011 that will be completed during Spring Semester 2012 for the science classes at Discovery Middle School in Madison AL. This device is an electrostatic generator with two large counter-rotating disks mounted in a vertical plane with metal carriers on which charges are produced by induction and discharged across a gap between electrodes. (See photo.) We are again working with Dr Christina Carmen's senior Mechanical/Aerospace Engineering design class at UAH to design and build the project. All reviews have been completed, the unit has been built and tested, and final working details are being completed prior to delivery to Discovery before the end of the school year in May.

**TABLETOP CATAPULT PROJECT FOR WILLIAMS MIDDLE SCHOOL** WID TVC has delivered four STEMi projects to Williams Middle School in Huntsville in previous years. The science classes have enjoyed these tools so much that the principal at Williams, Dr Avis Williams, has requested another project be designed and built for them. Accordingly, the selected UAH student design team met with the science teachers there and composed a list of tools that would be beneficial to the required science curriculum. The chosen project is a tabletop catapult that can be used inside the classroom in a safe manner. (Student safety is the top requirement in all STEMi projects that WID undertakes). During Spring Semester 2012, the design team has conducted four reviews, from initial requirements through critical design. Fall Semester 2012 will see the actual build, test, and delivery of the unit.



Dr. Carmen viewing the finished Solar Racer project from eye level

Concept drawing of alternate energy project for Sci-Quest, which will simulate automobile hybrid technology



Wimhurst Machine Project for Discovery Middle School