

THE HISTORY OF SUCCESS AND EXPERIENCE AT MARET

Crowder College, a public community college in southwest Missouri with an enrollment of nearly 4,000 students, is well known for its strong alternative/renewable energy programs. In 1992 the Missouri Legislature recognized Crowder's years of accomplishments in alternative energy and designated the College as the state center for renewable energy education RSMo.178.981. The resulting **Missouri Alternative and Renewable Energy Technology (MARET)** Center is acknowledged internationally for its contributions to the energy field. The MARET Center has shown regional leadership in offering instructional programs, applied research and business support in solar, wind, bio-fuels, geothermal, green build, conservation and other technologies.

Some of Crowder College's past hallmark accomplishments follow:



- ☀️ **1978** Initial Solar Design and practicum courses offered
- ☀️ **1980** First Passive Solar Home built by Crowder students for private individual
- ☀️ **1982** Water/Wastewater Treatment Program initiated
- ☀️ **1984** *Trans-American Solar Auto Run*, built first Solar Car (TSAR) first solar-powered vehicle to cross the continental U.S. from coast to coast, now displayed in the Henry Ford Museum in Dearborn, MI
- ☀️ **1987** *World Solar Challenge*, Australia, Finished Second of U.S. teams behind General Motors
- ☀️ **1990** *Second World Solar Challenge*, Australia, Finished Eighth out of 32 international teams.
- ☀️ **1990** *GM Sun Rayce* sponsored by General Motors, Star II solar car, 1 of 32 teams selected to participate out of 1,200 applicants—*only community college in the race*—placed 5th overall and 1st in innovative design (*Ahead of both MIT and Stanford!*)
- ☀️ **1992** RSMo.178.981 designated CC as Missouri Alternative and Renewable Energy Technology Center (MARET)
- ☀️ **1992** *Grand Solar Rally* in Kanazawa, Japan, STAR II placed First-In-Class
- ☀️ **1995-2009** Annual sponsor and organizer of international vehicle solar competitions including *Solar Bike Rayce USA*, *North American Solar Challenge*, and the *Formula Sun Grand Prix*
- ☀️ **1994-95** *Solar Electric 500*, Phoenix, AZ

- ☀ **1996-97** *World Solar Rally* in Ogata Mura, Japan Solar Bike Team placed First-In-Class
- ☀ **1997** *Ethanol Vehicle Challenge* Detroit, Michigan—competed with Chevy Malibu
- ☀ **1998** *Ethanol Vehicle Challenge* Detroit, Michigan—competed with Chevy Silverado
- ☀ **1999** *World Solar Cycle Challenge*, Australia
- ☀ **2002** *Solar Decathlon Competition, Solar Decathlon Village*, National Mall, Washington, D.C.—Won “People’s Choice Award” (Voted by public attendees as best house in show); 1st place Energy Balance, 6th Place Overall, Competed with 13 universities (e.g. Cornell, University of Maryland, University of Virginia)
- ☀ **2005** *Solar Decathlon Competition, Solar Decathlon Village*, National Mall, Washington, D.C.—1st place Energy Balance, 12th Place Overall, Competed with 17 universities
- ☀ **2006 – 09 and beyond**, *E-Conference*—Annual host and co-organizer
- ☀ **2008** 65 KW, 125 foot wind turbine generating electricity on the Neosho campus
- ☀ **2008** *North American Solar Challenge*, Dallas, TX to Calgary, Canada—sponsored and organized
- ☀ **2009** *MARET Center*—will break ground on new LEED Platinum certified facility
- ☀ **2009** *Formula Sun Grand Prix*, Dallas, TX
- ☀ **2009** Additional alternative/renewable energy degrees and certificates offered

The mission of the MARET Center is to expand renewable energy throughout the region with education, applied research, and economic development. Educational programs include certification and transfer degrees encompassing green construction, solar thermal energy, solar electricity, wind and bio-fuels. The MARET Center also assists in product development and other business support services in renewable energy.