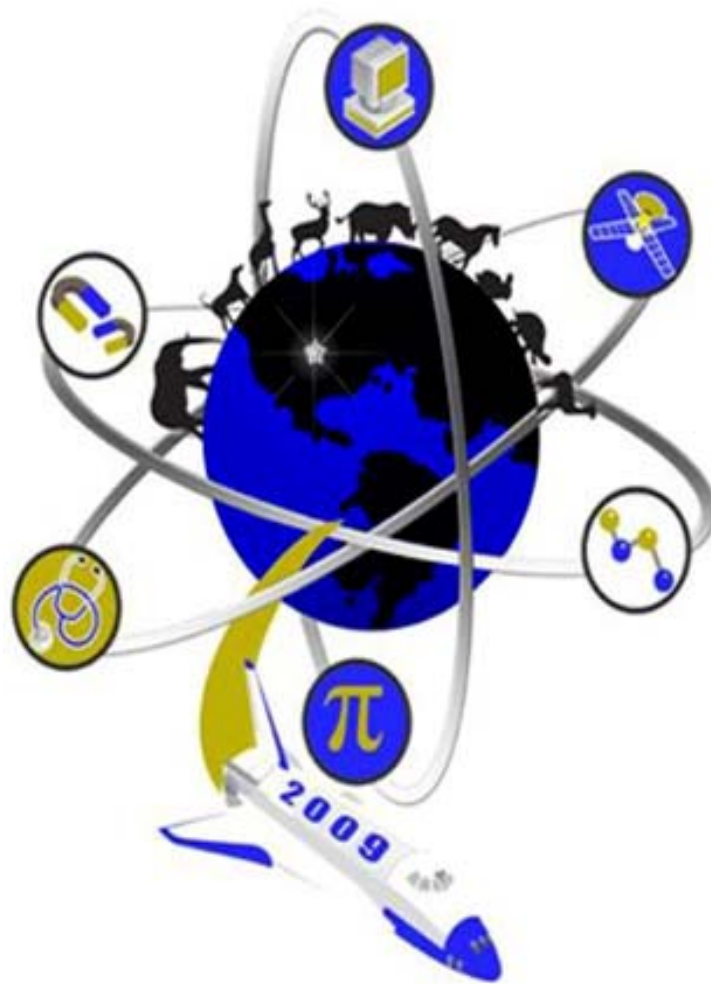


**THE 50<sup>th</sup>**  
**SCIENCE ENGINEERING FAIR**  
**OF HOUSTON**



**SPONSORED BY**  
**The Greater Houston Partnership**  
**The University of Houston-Downtown**  
**The Houston Museum of Natural Sciences**  
**The Engineering, Science & Technology Council of Houston**

# PROGRAM

Welcome	Larry Spears, Ph.D. Executive Director
Guest Speaker	Gene Norman Chief Meteorologist KHOU-TV
Presentation of Poster Design Awards	Larry Spears, Ph.D. Executive Director
Presentation of Science Writing Awards	Aimee Roundtree, Ph.D. Writing Contest
Presentation of Special Awards	Melinda Mills, Chair Scientific Review Committee Art Schroeder, P.E., Chair Development & Finance Susan Caffery, Ed.D., Chair Information Committee Earnest Powell, Chair Special Awarding Committee Peggy Levy, Co-Chair Judging Jay Levy, Co-Chair Judging
Presentation of SEFH Place Awards	Peggy Levy Jay Levy Larry Spears
Presentation of the Jesse A. Dorrington/SEFH Teacher of the Year Awards	Sunny C. Tang, Ph.D., President
Presentation of the University of Houston- Downtown Awards for Excellence	Larry Spears
Presentation of the ECH Awards for Excellence	Bradley Hoge, Ph.D., President The Engineering, Science, & Technology Council of Houston
Presentation of SEFH Grand Awards	Larry Spears Sunny C. Tang,

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**NOTE: All place award and special award winners should be available on the SEFH website by Monday, March 23. Marc Nathan Photographers (281-313-8934) is in charge of the photography for this ceremony. They will furnish each student and Special Awarding Agency with a business card to order copies of desired prints. Orders can be placed at [www.partypics.com](http://www.partypics.com) (password "science09") after Monday, March 16. Please do not interfere with his activities since the Award Ceremony must proceed in a timely manner.**

## IMPORTANT UPCOMING DATES FOR 2009

**March 20 (noon)**, On-line registration deadline for the State Fair. You must use the PIN NUMBER that we give you tonight to register. Website address is <http://emtsef.org>; for questions and other information call (210) 458-6733.

**March 28-30**, 23<sup>rd</sup> Annual Texas State Science Engineering Fair, San Antonio, Texas

**May 10-16**, 60<sup>th</sup> International Science & Engineering Fair, Atlanta, GA

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**Cover Art by Li Boynton, First Place Contest Winner, Bellaire High School, Houston ISD.**

**2008 - 2009 FINANCIAL CONTRIBUTORS**  
**to the**  
**SCIENCE AND ENGINEERING FAIR OF HOUSTON**

**CATEGORY SPONSORS (\$5,000 or more)**  
*and sponsored category*

American Institute of Chemical Engineers	Computer Science
American Petroleum Institute-Houston Section	Earth/Space Science
Brown Foundation	Behavioral/Social Science
Chevron	Environmental Science
ConocoPhillips	Junior Division Teams (2)
Devon Energy	Ninth Grade Teams (2)
El Paso Corporation	Junior Division Teams (2)
ExxonMobil	Engineering
Houston Endowment	Animal Science
Houston Intellectual Property Law Association	Medicine & Health
Independent Petroleum Association of America	Mathematics
Marathon Oil Corporation	Senior Division Teams
Rockwell Foundation	Plant Science
Shell Oil Company	Energy & Transportation
Society of Petroleum Engineers	Physics & Astronomy

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Flour Foundation	Texas Assoc. of Environmental Professionals
Houston Acad. of Med./Harris Co. Medical Society	United Space Alliance
Houston Geological Society	University of Houston-Downtown
Inst. of Electrical & Electronics Engin., Houston Sect.	University of Texas Health Science Center
	Water Env. Assoc. of Tx.-Houston/Galveston Sec

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American Society Materials Inter.-Houston Chapter	International Sustainable World Project Olympiad
Greater Houston Dental Society	Krishen Foundation for Arts & Sciences
Greater Houston Pest Control Association	Society of American Military Engineers

**FRIENDS (\$100-\$499)**

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American Soc. for Nondestructive Testing	Houston Soc. of Telecommunications Eng.
Fred & Ruth Stoerkel	MIT Club of South Texas
George R. Brown School of Eng,Rice University	Rice Engineering Alumni, Rice University
	Society of Women Engineers

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**Engineering, Science and Technology Council of Houston**

# 2009 SCIENCE ENGINEERING FAIR OF HOUSTON DIRECTORS

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Vice President	Brad Hoge, Ph.D., University of Houston-Downtown
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Registration Rules/Safety Scientific Review Security Special Awards Writing Contest	Tisha Sinnette, Houston ISD Robert Gussman, Baker Hughes Drilling Fluids Melinda Mills, Clear Creek ISD Terri Berry, Clear Creek ISD Earnest Powell, Galveston ISD Aimee Roundtree, Ph.D., University of Houston - Downtown

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Associate Director: Brad Hoge, Ph.D., University of Houston-Downtown

Office Manager: Heather Davis, University of Houston-Downtown

Website Coordinator: Mallika Reuben, University of Houston-Downtown  
Science Engineering Fair of Houston; c/o University of Houston-Downtown  
One Main Street, Suite N813, Houston, Texas 77002

(713) 221-8015; FAX (713) 221-8528; e-mail [sefh@dt.uh.edu](mailto:sefh@dt.uh.edu); [www.sefhouston.org](http://www.sefhouston.org)

### PROJECTS ELIGIBLE TO ENTER THE 2009 STATE SCI. & ENG. FAIR, March 28-30, in San Antonio, TX.

**JUNIOR DIVISION:** First, second & third place winners for each of the thirteen individual project categories plus up to 12 honorable mentions, with no more than one in each category.

First place winners in each of the four team categories plus second place winners in the two life categories for even years and second place winners in the two engineering and physical science team categories for odd years.

**NINTH GRADE DIVISION:** First place winners in each of the 13 individual project categories.

First and second place winners in the two team categories.

**SENIOR DIVISION:** First and second place winners in the 13 individual project categories and third place winners in all individual project categories **except for Computers and Mathematics**. In even years the third place winner in Computers will be eligible and in odd years the third place winner in Mathematics will be eligible. First and second place winners in the single team category.

Registration for the state fair is to be done on-line at <http://emtsef.org>. You will need a **PIN number to register**; it is taped to the bottom of your place award trophy. Teams eligible for the state SEF, will also have the name of their team captain (chosen by SEFH) indicated on the card attached to the base of your trophy. Your SEFH project forms are copies of the ISEF project forms mentioned on the state fair registration website. Bring your original project forms and the one that was stamped by the SRC on Thursday night with you to the state fair. **On-line registration deadline for SEFH entrants to the state fair is March 20** at 12 Noon. For additional information, call 210-458-6733.

## SPECIAL AWARDING AGENCIES

Alpha Kappa Alpha Sorority, Inc.- Mu Kappa Omega Chapter  
American Chemical Society - Greater Houston Section  
American Industrial Hygiene Association – Gulf Coast Section  
American Institute of Chemical Engineers - South Texas Section  
American Meteorological Society  
American Physical Society - Texas Section  
American Society for Materials International – Houston Chapter  
American Society for Quality - Greater Houston Section  
American Society of Indian Engineers  
American Society of Mechanical Engineers - South Texas Section  
American Society of Safety Engineers  
American Statistical Association - Houston Area Chapter  
Am. Water Works Assoc. - Texas Section/Water Env Assoc. of Tx  
Cosmos Foundation  
Eastman Kodak  
Engineering Science and Technology Council of Houston  
Entomological Society – Southwestern Branch  
Geophysical Society of Houston  
Greater Houston Dental Society  
Greater Houston Pest Control Association  
Gulf Coast Environmental Affairs Group  
Gulf Coast Safety and Training Group  
Houston Academy of Medicine and Harris County Medical Society  
Harris County Veterinary Medical Society  
Health Physics Society  
Houston Area Dietetic Association (HADA)  
Houston Astronomical Society  
Houston Geological Society  
Houston Intellectual Property Law Association  
Houston Museum of Natural Science  
Intel  
International Sustainable World Project Olympiad  
Jacobs Technology  
KBR (Kellogg Brown & Root)  
Krishen Foundation for Arts & Sciences  
M.I.T. Alumni Club of South Texas  
Marine Technology Society - Houston Section  
Mars Society of Houston  
Mothers for Clean Air  
National Space and Technology Association  
NASA - Johnson Space Center  
Offshore Energy Center  
Rain Drop Foundation  
Research Partnership to Secure Energy for America  
Rice University - Engineering Alumni  
Rice University - George R. Brown School of Engineering  
Schlumberger Sugarland Technology Center  
Sigma Xi The Research Society – Rice University, Tx Med Cntr Chp.  
Society of Hispanic Professional Engineers (SHPE)  
Society of Petroleum Engineers - Gulf Coast Section  
Society of Plastics Engineers - South Texas Section  
Society of Women Engineers - Houston Area Section  
Society for Technical Communication - Houston Chapter  
Swaralayam Arts Forum  
Texas A&M University at Galveston  
Texas Association of Environmental Professionals  
Texas Center for Superconductivity and the Center for Materials Chemistry  
Texas Chiropractic College  
Texas Society of Professional Engineers - Greater Houston Section  
Texas Tech University - Plant & Soil Science Department  
United Space Alliance  
United States Air Force  
United States Army  
United States Environmental Protection Agency  
U.S. Navy/U.S. Marine Corps  
United States Stockholm Junior Water Prize  
University of Houston, Clear Lake  
University of Houston, Downtown  
University of Houston, Downtown Professional Writing and Communication Program  
University of Texas Health Science Center Graduate School of Biomedical Sciences  
Weather Research Center – John C. Freeman Weather Museum

## SPECIAL ACKNOWLEDGEMENTS

SEFH would like to acknowledge the **Bellaire High School**, Houston I.S.D., National Honor Society students who assisted with the registration activities on Thursday and also members of the **American Society of Safety Engineers** who served as members of the Rules and Safety Committee on Thursday and Friday. We also acknowledge the students from the **UHD Scholars Academy** who assisted with on-site preparation and setup, data entry and the awards ceremony. Special acknowledgement also goes to the **Houston Museum of Natural Sciences** for providing free passes to all participants. We also want to acknowledge the many years of excellent service and support that we have received from **Freeman Decorating** and to **KBR (Kellogg Brown & Root)** for providing and staffing the Exhibitor Assistance Center.

## PROJECTS ELIGIBLE TO ENTER THE NATIONAL DISCOVERY YOUNG SCIENTIST CHALLENGE

**Junior Division only:** First, Second & Third Place Individual Project Category Winners (39)

First Place Winners in each Team Category (4 teams)

This competition is no longer associated with ISEF. Online registration deadline is **May 20, 2009**. Register at [www.discoveryeducation.com/youngscientist](http://www.discoveryeducation.com/youngscientist).