



September 1999 Meeting Notice

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Honors & Awards
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**System 21[®] - "Monobeam"
Elevated Transit System in Charleston, SC**

Speaker: Jim Tuten, FUTREX, Inc.

Date: Thursday, September 23, 1999

Time: 6:30 pm – 8:30 pm

(Business meeting @ 6:45pm, Dinner @ 7:00pm,
presentation begins @ 7:30 pm)

**Place: Crown Plaza Hotel Greenville, SC
(Intersection of I-385 and Roper Mountain Rd.)**

Cost: \$16.00 for dinner (students: \$8.00)

Please specify dinner menu choice of Beef, Chicken or Vegetarian

Reservations: required by **9/21/99 at noon**

Contact Don Baldwin or Jim Batton (phone and e-mail
address at left) or call Section VoiceMail (864) 370-5119

The *System 21*[®] "monobeam" is an elevated transit technology under development by Charleston, S.C. based FUTREX[®] Inc., founded in 1986 by *System 21* inventor, Larry Edwards. With financial assistance from the U.S. Department of Commerce and a local utility, and engineering support from Battelle and Frederic R. Harris, Inc., a \$1.6 million one-quarter scale model of *System 21* was completed in 1996 and is operational in Charleston, South Carolina. (See Page 4 for more details.)



CHAIRMAN'S MESSAGE

Dear Fellow ASME Members,

Late last Spring, I reluctantly agreed to take on the chairmanship of the Greenville Chapter of the ASME in addition to my faculty duties. I knew it would not be easy to fill the shoes that Jim Batton wore for the past few years, but felt that some of us needed to come in and take on some of the work the executive committee always volunteers hours to. I am very indebted to Jim, to the other members of the executive committee, to you members, and especially to the students for your support and help during my years as ASME advisor at Clemson, then as technical affairs representative, and now as incoming chair.

During the past few years, I had the opportunity to visit many of the companies some of you members work in. These visits were always a pleasure and an educational experience. I also attended many presentations, and enjoyed meeting fellow engineers at all stages of their career, and especially after their career culminated.

So my message to you is the following: Please do become more active in your society and especially in the Greenville Section's activities. Make the monthly meetings an opportunity to learn, to unwind, and to meet colleagues who share some of your interests. Take advantage of the plant tours, and come help us on the executive committee to help mold the section to respond to your needs.

Finally, as Chair, I am to remind you of our duty to vote for National ASME officers. A significant vote signifies broad based support, and the ability to carry out initiatives that might not succeed if only a small member base shows interest in the candidates.

I do hope to see and meet many of you at our upcoming meetings.

Sincerely, Georges Fadel

**ASME Greenville Section Officers –
Leadership Needed**

The Executive Committee needs volunteers for several committee positions. The ASME provides many opportunities for leadership development and training. If you have nominations or interest in a particular office, please contact Georges Fadel or Don Baldwin for details. Section Positions include:

Committee Chairs:

-History and Heritage	-Newsletter Editor
-Industry Relations	-Public Information
-Professional Development	-Programs

Upcoming Events

Oct 19	Membership Awards and <i>Benefits of ASME</i>
Nov 9	ABS
Dec 7	Financial Planning
Jan 18	TBD
Feb 15	National Engineers Week
March 21	Old Guard Competition
April 18	TBD
May 16	TBD

Honors and Awards

by **Craig Brandon**, Honors & Awards Chair

The strength of our professional society rests on the dedication of its members. The Council of Member Affairs of ASME International has recognized **8 members** of our Section who have achieved **50 years** of membership. In addition **13 members** of our Section are being recognized for **25 years** of membership. Certificates and rockers for the membership pins will be presented to these distinguished engineers at the October meeting.

50 Years

David Cochran	Albert L. Gaines
H. Roland Geiger	Gordon P. Knippel
Richard J. Kuhl	John W. McNeas
Henry M. Rogers	James C. Wilson

25 Years

Terry D. Atkins	David A. Deese
Lewis E. Cadwallader	Robert I. Hirshburg
William D. Jordan	James L. Roberts

Robert M. Matthews
 Thomas J. Overcamp
 Floyd S. Simpson
 Terry D. Varner

Thomas K. Rogers
 Charles Roudane
 Keith W. Smeal

Nominate yourself or a Colleague for one of the ASME Greenville Section Awards

Nominations are currently being accepted for the Greenville Section of the ASME's Engineer of the Year Award, Young Engineer of the Year Award and Educator of the Year Award for the year 1999. If you feel that YOU or a colleague qualifies, take the time to submit a nomination to Craig Brandon, e-mail cbrandon@clemsun.campuscwix.net, or contact any of the Section officers.

Awards Descriptions

The Engineer of the Year Award recognizes an ASME member who has done an outstanding job as an engineer, and is actively involved in the profession, the community, and/or ASME International.

The Engineering Educator of the Year Award recognizes an ASME member who has done an outstanding job as an engineering educator and is actively involved in the community and/or in ASME International.

The Young Engineer of the Year Award recognizes an ASME member who has done an outstanding job as a young engineer and is actively involved in the profession, the community, and/or ASME International.

Eligibility

To qualify for either award, the nominee must be a Member or Associate Member of the ASME International at the time of the presentation of the Award.

For the Engineer of the Year Award, the nominee must have received the BS degree no less than six (6) years before the date of presentation of the Award.

For the Young Engineer of the Year Award, the nominee must have received the BS degree no more than six (6) years before the date of presentation of the Award.

Award

The winners will receive a certificate and a plaque during Engineers' Week in February. A letter from the Section will announce the Award to the engineer's supervisor and to the local press. Deadline: Nominations will be accepted at any time throughout the year. For the 1999 awards the nominations must be received by December 15, 1999. The nomination consists of a resume of the person, highlighting their accomplishments.

The Executive Committee of the Greenville Section of the ASME or its designees will select the winners. Their decision is final and not subject to appeal.

Nominations for Fellow Grade of Membership

Fellow is a membership grade of distinction. At the time of promotion to Fellow, a member shall have attained the grade of Member and have no less than 10 years of active practice and 10 years of continuous corporate membership in ASME. To be eligible, the member must have been responsible for significant engineering achievements. A proposal for promotion to Fellow must be initiated by a Fellow or Member of ASME and supported by at least four additional sponsors, two of whom must be Fellows or Members of ASME.

The Greenville Section undoubtedly has a number of distinguished Members who qualify for promotion to Fellow. You or a colleague are probably one of these distinguished Members. Please submit a nomination to the Section Chairman or to any member of the Executive Committee. Both the Honors Committee and the Membership Committee will be glad to assist in the preparation of the necessary packet of information for a proposal to the ASME International.

Government Relations

by **George Schneider** Government Relations

South Carolina is one of two states in the US that has not adopted the ASME Boiler and Pressure Vessel Code as part of legislation concerning the safety of boilers and pressure vessels. This fall the

ASME South Carolina State Government Coordinator, Bob Woodward, is actively seeking support for a pending bill, Pressure Equipment Safety Act (S.477).

For ASME South Carolina residents, included in this newsletter is a separate sheet that includes a "Legislative Alert Notice" and a "Digest of the Act" to help you in understanding the legislation and the issue.

A Petition Drive is also underway. If you are a SC resident and wish to show support for this bill, PLEASE

- phone or letter contact your own Senator or Legislator (see separate sheet for good contact points). Or
- contact Bob Woodward (803 782-2719, Scasme@aol.com) or George Schneider (864 627-8966) to support by petition or for more information.

System 21[®] - "Monobeam" Elevated Transit System

FUTREX next plans to build and test a full-scale 1.25 mile operational prototype to conclusively demonstrate ride quality, superior evacuation characteristics, low noise output, reliability, maintainability, ease of fabrication and installation and cost. The 36-month, \$35 million program is expected to get underway in 1998. \$1.5 million in prototype funding has been earmarked by the U.S. DOT, with the remainder to come from State of South Carolina, utility, strategic and private sources. The technology should be ready for the market in mid-year 2001, at an all-inclusive capital cost estimated at \$20-25 million per mile (plus supplier's margin). Operating cost should be equal to, or lower than, that of most other fixed guideway technologies carrying comparable numbers of passengers/hour.

The technology is unique in that two-way travel is possible using one slender,

triangular guideway, typically 16-feet in the air, with vehicles riding along both sides of the monobeam via a unique cantilevered suspension configuration. The compact, modular nature of the system will make *System 21* much easier to install in urban areas where space is at a premium. Because components of the compact guideway and ancillary equipment are fabricated off-site, and then delivered and quickly installed, disruption to the community is very limited during construction. Once installed, the *System 21* guideway is a visually pleasing, low intrusion structure. Stations can also be pre-fabricated off-site, or built in place to a client's specification. Because the pre-fabricated, compact *System 21* is "portable", and can be dismantled, refurbished and relocated for a secondary market, it may be the first fully "leasable" transit system, making it all the more attractive to communities that heretofore could not afford the up-front cost of traditional fixed guideway systems.

Capacity of more than 12,000 passengers/hour/direction is anticipated using 28-foot, 52-passenger vehicles in varying train lengths (1-10 cars), operating at as little as 60 second headways. Initial maximum speed is 70 mph, with later development leading to speeds of 100 mph or more.

Because FUTREX believes that the safest place for passengers during an emergency is on the ground, as opposed to an exposed, elevated emergency walkway, *System 21* vehicles will be equipped with stairs to quickly evacuate passengers from heights typically 16-feet above grade.

