**Smart Card Technology in Transit and Advanced Public Transportation Systems (APTS)**

The October 16, 2003 Technology Sharing Forum presented by the Vehicular Technology Society of the IEEE New York Section covered Smart Card Technology and Advanced Public Transportation Technology. The Forum was hosted by Cisco Systems, at their Penn Plaza offices in Manhattan.

John Swanson of LTK Engineering Services discussed smart card technology and the current movement in transit to development regional and standalone smart card systems and their integration of into other systems. David Tran of Siemens Transportation Systems discussed how GPS technology and data and voice communication networks allow for precise and automatic vehicle location, dispatching, routing and schedule management.

Mr. Swanson began by delivering a valuable smart card technology overview. The differences between smart cards and legacy ticketing and fare collection medium were discussed. As well as the differences between microprocessor and memory-logic smart cards systems. The growth of the application of smart cards in transit were discussed and examples of upcoming programs such as those in Houston and other new programs were pointed to as signs of greater acceptance and willingness to invest in the technology. Mr. Swanson also pointed out the benefits of accepted published technical standards such as ISO-14443. Standards significantly reduce the risk and costs for agencies implementing smart card systems. The standards allow agencies to specify interoperable standards based systems and equipment. Giving the agencies the flexibility in the management of expansion, upgrades and replacement of Smart Card systems they need to move forward. Mr. Swanson pointed out the absolute need for a broad information campaign to educate customers as a requirement for successful smart card system implementation. As technology drives the costs of smart cards standards reduce risks and as public and private connectivity increase the future looks bright for smart cards. For additional information on John and LTK Engineering please go to www.ltk.com.

Mr. Tran kicked off his presentation with a detailed overview of Siemens Integrated Local Government systems. The basic architecture of the Siemens APTS was reviewed for the dozen systems installed and the dozen in planning across the country. The architecture includes fixed base stations for Data and Voice Communications to and from vehicles, on-board GPS and communications controllers, connected agency operations and dispatching centers, back office report, storage and analysis work centers. The system provides dispatching and real time monitoring of fleet vehicle locations and route progress. The majority of the discussions centered on how the real time data and the collection of this data can be used to improve system performance. The system allows transit agencies to implement fully computer aided dispatching, active route updating for waiting passengers, passenger route transfer assistance. The two-way communications and real time mapping provided by the APTS allows operation agencies drive system improvements and

improve customer satisfaction. For additional details on this system please go to www.ilgsystems.com.

For their efforts in fostering Technology Sharing the NY Section of the VTS presented John Swanson of LTK Engineering and David Tran of Siemens with Technology Sharing awards.

John E. Swanson, LTK Eng., Center
Robert Pellegrino, Section Chair, Right
Brad Craig, VTS Chair, Left

David Tran, Siemens, Left
Dave Horn, VTS Vice-Chair, Right

By:
Christopher Pacher
LTK Engineering Services
Secretary NY-Section
Vehicular Technology Society

**Vehicular Technology Chapter Holds Annual Elections**

The officers for the VTS Chapter were selected on October 16, 2003 and are as follows:

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| Chairman: | Brad Craig |
| Vice-Chairman: | Dave Horn |
| Vice-Chair Programs: | Ramdane Benferhat |
| Secretary: | Joern Fellenberg |
| Treasurer: | Chris Pacher |

Left to right: Brad Craig, Dave Horn, Joern Fellenberg, Ramdane Benferhat, Chris Pacher.

**Congratulations Are in Order**! On behalf of the IEEE Executive Director, Dan Senese, it is a pleasure to inform the NY Section that the requirements of the IEEE Bylaws have been met, the Engineering Management Joint Society Chapter has been approved. The Joint Chapter has split into two units. The separate Chapters will now be: IEEE North Jersey Section – Engineering Management Society Chapter, Chaired by Mr. Wayne Owens and the IEEE New York Section – Engineering Management Society Chapter, Chaired by Mr. Stanley Karoly. The effective date of this Chapter change is 16 October 2003. We extend our best wishes for the successful operation of this Chapter. Sincerely, C. Jankowski