den for the Lisp machine thereby increasing throughput to allow real-time operation.

The three vehicles we have briefly described here are, of course, simple test beds for algorithm and sensor development. They have been viewed as throw-away vehicles and as such have provided a fairly inexpensive means to gain a great deal of hands-on experience. The ultimate test will come in a real vehicle operating at reasonable speeds in an outdoor environment. Eventually, all of the processors must be carried by the vehicle to make a truly autonomous system.

CONCLUSION

An early autonomous system capability has been successfully demonstrated. Although the environment and vehicles have been very simple, a great deal has been learned about the required configuration for more capable autonomous systems. The goal of this first generation of system investigation was to retrack the steps of some of the previous projects that used problem-solver-based AI methods, but now to use knowledge-driven methods. This has been successfully accomplished and it has been shown that with even simple knowledge-driven control systems, many of the severe limitations of previous attempts can be avoided.

REFERENCES


D. Keirsey, photograph and biography not available at the time of publication.

J. Mitchell, photograph and biography not available at the time of publication.

B. Bullock, photograph and biography not available at the time of publication.

T. Nussmeier, photograph and biography not available at the time of publication.

David Y. Tseng, photograph and biography not available at the time of publication.

Call for Papers

THERE will be a special issue of the IEEE TRANSACTIONS ON SOFTWARE ENGINEERING on Advances in Software Engineering for Ada® Technology. High-quality research papers are solicited on topics in support of the Ada language and environments. More specifically, topics of interest include: front-end software life-cycle techniques and tools; language processors; reliability; models and metrics; testing and verification methods; database support; and project management.

Submit six copies of the full manuscript according to the guidelines in "Information for Authors" (see the back cover of the June 1985 issue) by March 1, 1986 to the Guest Editor:

Joseph E. Urban
Center for Advanced Computer Studies
University of Southwestern Louisiana
P.O. Box 44330
Lafayette, LA 70504

*Ada is a registered trademark of the U.S. Department of Defense (Ada Joint Program Office).