

- “Model Embedded Control: A Method to Rapidly Synthesize Controllers in a Modeling Environment”
E. Tate, M. Sasena, J. Gohl, M. Tiller, *Proceedings of the 6th International Modelica Conference*, University of Applied Sciences Bielefeld, Germany, March 2008. (Coauthored with General Motors).
- “Model Lifecycle Management”
M. Tiller, *Presented at the 2007 Frontiers in Design & Simulation Workshop*, Georgia Institute of Technology Campus, Atlanta, GA, May 2007.
- “Key Considerations in the Translation of Legacy Embedded Control Software to Model Based Executable Specifications”
M. Baloh, G. Raghav and S. Sivashankar, *Presented at the 2006 Conference on Control Applications*, Munich, October 2006.
- “An Integrated Software Environment for Powertrain Feasibility Assessment Using Optimization and Optimal Control”
I. Kolmanovsky, J. Sun, and N. Sivashankar, *Asian Journal of Control*, Vol. 8, No. 3, September, 2006. (Coauthored with Ford Motor Company)
- “UnitTesting: A Library for Modelica Unit Testing”
M. Tiller and B. Kittirungsi, *Proceedings of the 5th International Modelica Conference*, Vienna, 2006.
- “Development of an Automated Verification and Validation Platform Using Hardware-In-the-Loop Simulation for a Solid Oxide Fuel Cell Control System”
J. Absmeier, T. Das, S. Gopalswamy, R. Paik, *4th International ASME Conference on Fuel Cell Science, Engineering and Technology*, June 2006, Irvine, CA. (Coauthored with Delphi)
- “Modeling at the Enterprise Level”
M. Tiller, *Keynote Presentation at the 12th Annual Automotive Research Center Conference*, Ann Arbor, MI, May, 2006.
- “Converting Legacy Embedded Control Software to Executable Specifications”
K. Ueda, Y. Uematsu, and M. Baloh, *MathWorks’ International Automotive Conference*, 2006. (Coauthored with Toyota Motor Corporation and Denso Corporation)
- “ECU Testing and Verification Using Hardware-in-the-Loop”
A. Wanpal, M. Ganesh Babu, N. Kankariya, S. A. Sundaresan, K. Mundhra, A. Deshpande, *Proceedings of the SAE 2006 World Congress*, Detroit, MI, April 2006, SAE 2006-01-1444, 2006. (Coauthored with Tata Motors)
- “Architecture for Physical (Plant) Models”
S. Gopalswamy, J. Kinikar and K. Butts, *SAE AS-2C Avionics Architecture Description Language Subcommittee*, Detroit, MI - Monday, April 3 - Thursday, April 6, 2006, held in conjunction with the SAE 2006 World Congress. (Coauthored with Toyota Technical Center, USA)
- “Evaluation of the Simplorer Modeling Platform for Automotive Powertrain Applications”
T. Das, M. Tiller, S. Gopalswamy, *CONVERGE, An Application Workshop for High Performance Design*, Ansoft, November 2005, Detroit, MI.
- “Real-Time Simulation of Proton Exchange Membrane Fuel-Cell Hybrid Vehicle”
C. Dufour, T. Das, S. Akella, *Global Powertrain Congress*, September 2005, Ann Arbor, MI. (Coauthored with Opal-RT)

- “Speed Control for a Switched Reluctance Motor Drive Powered by a Fuel Cell”
X. Chen, M. Salem, T. Das, S. Gopalswamy, *Proceedings of the American Control Conference*, June 2005, Portland, OR. (Coauthored with the University of Windsor)
- “Optimal Control-Based Powertrain Feasibility Assessment: A Software Implementation Perspective”
I. V. Kolmanovsky, Shiva N. Sivashankar and J. Sun, *Proceedings of the American Control Conference*, pp. 4452-4457, 2005. (Coauthored with Ford Motor Company)
- “Real Time Simulation for Speed Control of Switched Reluctance Motor Drive Powered by a Fuel Cell System”
M. Salem, T. Das, X. Chen, S. Akella, S. Sivashankar, *ASME Power Congress*, April 2005, Chicago, IL. (Coauthored with the University of Windsor)
- “An Environment for Model-Based Development of Ground Vehicles”
R. Boggavarapu, R. Dixit, M. J. Sasena and S. Sivashankar, *Proceedings of the SAE 2005 World Congress*, Detroit, MI, April 2005, SAE 2005-01-0935, 2005. (Coauthored with General Dynamics Land Systems)
- “Hardware-In-the-Loop System Technology for Powertrain Controller Development”
S. Sivashankar, *Keynote Lecture at the International Workshop on Energy, Environment and Propulsion System Control*, Dalian Maritime University, March 30, 2005, Dalian, China.
- “Balancing the Speed and Fidelity of Automotive Powertrain Models Through Surrogation”
T. Kozaki, H. Mori, H. K. Fathy and S. Gopalswamy, *Proceedings of IMECE 2004 International Mechanical Engineering Congress and R&D Expo*, November 13-19, Anaheim, CA, USA, 2004. (Coauthored with Denso Corporation)
- “Managing Verification Activities Using SVM”
B. Aldrich, A. Fehnker, P. H. Feiler, Z. Han, B. H. Krogh, E Lim and S. Sivashankar, *Sixth International Conference on Formal Engineering Methods (ICFEM)*, Seattle, November 8-12, 2004. (Coauthored with Carnegie Mellon University, SEI and The MathWorks)
- “Practical Considerations for the Implementation of Model-Based Control System Development Processes”
S. Gopalswamy, J. Kinikar and S. Sivashankar, *Proceedings of the Conference on Control Applications*, 2004.
- “A Case Study in Hardware-In-The-Loop Testing: Development of an ECU for a Hybrid Electric Vehicle”
D. Ramaswamy, R. McGee, S. Sivashankar, A. Deshpande, J. Allen, K. Rzemien and W. Stuart, *Proceedings of the SAE 2004 World Congress*, Detroit, MI, March 2004, SAE 2004-01-0303, 2004. (Coauthored with Ford Motor Company, Visteon and dSPACE)
- “Model-Based Embedded Control System Development Using HIL”
S. Akella, S A Sundaresan, Rajneesh Kumar, *Proceedings of the SAE India First National Conference on Automotive Infotronics*, 2003.
- “Model-Based Systems Analysis of a Hybrid Fuel Cell Vehicle Configuration”
S. Akella, N. Sivashankar and S. Gopalswamy, *Proceedings of the 2001 American Control Conference*, 2001.
- “Air Distribution Method and Controller for a Fuel Cell System”
D. H. Keskula, B. J. Clingerman, S. Gopalswamy, S. Akella, US Patent No. 6,942,937, Filed December 2001, Awarded September 2005, Assigned to General Motors Corporation.

