

Phillip B. Sharer

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Professional Experience

- **July 1999-Present.** Electrical Engineering Specialist in the Center for Transportation Research of the Energy Systems Division at Argonne National Laboratory
 - Developer and co-author of the Powertrain System Analysis Toolkit (PSAT)
 - Developed a series of innovative tools specifically oriented toward modeling and engineering advanced vehicles and their control strategies
 - Developed a unique set of tools to directly integrate test data from the Argonne Advanced Powertrain Research Facility (APRF) into Matlab for direct comparison with the simulated data
 - Developed unique techniques allowing PSAT to be one of the most flexible tools for vehicle modeling (more than 130 configurations are included, about 10 times more than any other tools)
 - Demonstrated the accuracy of PSAT by validating the software at the vehicle and component level within five percent for fuel economy on several driving cycles
 - Wrote and validated a PSAT vehicle model of the Japanese Toyota Prius using test data from the APRF
 - Performed well-to-wheel hybridization and dieselization studies
 - Developed new control strategies for several advanced vehicle configurations
 - Conducted a 42 Volt Study and a Class 2B Truck Study for the 21st Century Truck Partnership
- **1998-2000.** Guest Lecturer at Purdue University Calumet in Hammond, Indiana
 - Taught sophomore-level, first- and second- semester courses in linear circuit analysis
 - Taught laboratories for linear circuit analysis

Education

- MS, Engineering, Purdue University Calumet; Hammond, Indiana, 2002
- BS, Electrical Engineering, Purdue University Calumet; Hammond, Indiana, 1998

Awards

- R&D 100 award for the PSAT created by A. Rousseau, P. Sharer, and S. Pagerit (2004)

Professional Society Affiliations

- Member, Society of Automotive Engineers

Publications & Patents

- 5 peer-reviewed publications
- 8 other reports and documents
- 7 presentations
- 1 Argonne contractor report