Sreenath B. Gupta
(630) 252 6089 sgupta@anl.gov

Education

Jan 1993-Dec 1996	**Ph. D.** in Mechanical Engineering, The Pennsylvania State University.
Aug 1990-Dec 1992	**M.S.** in Mechanical Engineering, The Pennsylvania State University.
Jun 1986-Jun 1990	**B.S.** in Mechanical Engineering, Indian Institute of Technology – Chennai.

Work Experience

Dec 2000 - Current **Principal Research Engr.,** Energy systems, Distributed Energy Research Center, Argonne National Laboratory

Currently support a group of 4 researchers in conducting research related to natural gas reciprocating engines. Develop an advanced laser based ignition system for use with natural gas reciprocating engines. Also develop NOx emission reduction strategies in gas engines by varying the intake air composition.

Experimentally evaluated locomotive engine diesel sprays. Developed novel in-cylinder techniques for simultaneous particulate and NO_x reduction. Characterized particulate emission from diesel, gasoline and GDI passenger car engines. Developed a portable instrument for transient particulate emission measurement in engine exhausts.

Apr 98 – Nov 2000 **Post-Doctoral Scholar,** Center for Transportation Research, Argonne National Laboratory

Designed and developed test facilities for performance evaluation of high-pressure diesel spray equipment from Robert Bosch Corp. Besides design and assembly, this work involved measurements using high-speed imaging, advanced laser diagnostics and non-intrusive X-ray diagnostics. Also, assisted in research efforts concerning particulate emissions from gasoline and diesel engines.

Jun 97 – Jan 98	**Sr. Engr.,** Ipsen International, Inc.
Oct 96 – Jun 97	**Post-Doctoral Scholar,** Propulsion Engr. Res. Center – PSU

Patents

"Portable LII Based Instrument and Method for Particulate Characterization in Combustion Exhaust," US Patent 6,700,662 B2.

"Laser Based Ignition System for Natural Gas Reciprocating Engines, Laser Based Ignition System Having Capability to Detect Successful Ignition Event, And Distributor System for use with High-Powered Pulsed Lasers," US Patent 7114858.

"Nitrogen Enriched Combustion of a Natural gas Internal Combustion Engine to Reduce NOx Emissions," Patent Pending.

Awards

"Pace Setter" award at Argonne National Laboratory, August 2000.
Director's award at Argonne National Laboratory, July 2001.

Relevant Publications

30+ technical publications.