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People

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VISITORS
FACULTY CLOUD

Curriculum Vitae

Education:

Ph.D., Massachusetts Institute of Technology, Cambridge, Massachusetts, Aeronautics and Astronautics, 1978
S.M, Massachusetts Institute of Technology, Cambridge, Massachusetts, Aeronautics and Astronautics - 1975
S.B., California Institute of Technology, Pasadena, California, Engineering and Applied Science, 1974

Other Work Experience:

1978 - 1980 Senior Research Scientist, Aerodyne Research Inc., Bedford, Massachusetts
1974 - 1978 Graduate Research Assistant, Gas Turbine Lab., MIT;
1973 - 1974 Engineer, Advanced Projects Group, Jet Propulsion Lab., Pasadena, California

Consulting and Patents

Aerodyne Research, Inc.
Aurora Flight Sciences
Exxon Mobil Research and Engineering
Ferrari S.p.A.
Saudi Aramco
Swedish Energy Agency

Principal Publications (last 10):

1. C. Wildman, R.J. Scaringe, W. Cheng, " On the Maximum Pressure Rise Rate in Boosted HCCI Operation," SAE Paper 2009-01-2727, 2009.
2. K. Kar, W. Cheng, " Speciated Engine-Out Organic Gas Emissions from a PFI-SI Engine Operating on Ethanol/Gasoline Mixtures," SAE Int. J. Fuels Lubr. 2, pp 91-101, 2010.
3. C. B. Wildman and W. K. Cheng, " The Effects of Charge Motion and Laminar Flame Speed on Late Robust Combustion in a Spark-Ignition Engine," SAE Int. J. Engines, 3, pp 202-213, 2010.
4. R. J. Scaringe, C. B. Wildman, W.K. Cheng, " On the High Load Limit of Boosted

- Gasoline HCCI Engine Operating in NVO mode," SAE Int. J. Engines, 3, pp 35-45, 2010.
5. K. Kar, R. Tharp, M. Radovanovic, I. Dimou, W.K. Cheng, " Organic Gas Emissions from a Stoichiometric Direct Injection Spark Ignition Engine Operating on Ethanol/Gasoline Blends," Int. J. of Engine Research, 11, 6, pp. 499-514, 2010.
 6. K. Kar, W.K. Cheng, " Using Mass Spectrometry to Detect Ethanol and Acetaldehyde Emissions from a Direct Injection Spark Ignition Engine Operating on Ethanol/Gasoline Blends," SAE Paper 2011-01-1159, 2011.
 7. I. Dimou, K. Kar, W.K. Cheng, " Particulate Matter Emissions from a Direct Injection Spark Ignition Engine under Cold Fast Idle Conditions for Ethanol-Gasoline Blends," , " SAE Int. J. Engines, 4, 44, pp 1738-1746, 2011.
 8. K. Cedrone, W.K. Cheng, S. Chahine, J. Williams, B. VanDerWege, " Fuel Effects on HCCI Operation in a Spark Assisted Direct Injection Gasoline Engine," SAE Paper 2011-01-1763, 2011.
 9. B. Hoepke, S. Jannsen, E. Kasseris, E. and W. Cheng, "EGR Effects on Boosted SI Engine Operation and Knock Integral Correlation," SAE Int. J. Engines 5 (2), pp 547-559, 2012.
 10. B. Yang, S. Li, Z. Zheng, M.Yao, W. Cheng, " A Comparative Study on Different Dual-Fuel Combustion Modes Fuelled with Gasoline and Diesel," SAE Paper 2012-01-0694, 2012

Scientific and Professional Societies

Society of Automotive Engineers

Honors and Awards:

Carl Richard Solderberg Assistant Professor in Power Engineering, 1982-1984

Society of Automotive Engineering Teetor Award, 1984

Recipient, 2002 Society of Automotive Engineers Oral Presentation Award, 2002

Fellow, Society of Automotive Engineers, 2003

Recipient, 2004 Society of Automotive Engineers Oral Presentation Award, 2004

Professional Services (last five years):

2003 – present Editorial board, International Journal of Engine Research.

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