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Dr. Devendra Deshmukh received the Ph.D. degree in Mechanical Engineering from IISc Bangalore in 2012. He has carried out his doctoral research in the area of biofuel spray characterization at high pressures. He has previously worked as a research engineer in GM-TCI Bangalore and TVS Motor Company. His current research interests are in the areas of biofuels, spray and combustion diagnostics, and modelling of IC engine processes.

Education

- Ph.D. (Mechanical Engineering), IISc. Bangalore
- M. Sc. (Mechanical Engineering), IISc. Bangalore
- B.E. (Mechanical Engineering) Nagpur University

Work Experience

- Research Assistant in Mechanical Department IISc Bangalore (September 2011 to April 2012).
- Engineer CAE in GM-Technical Centre India, Bangalore (March 2005 to March 2007).
- Member R & D, TVS Motor Company Hosur (June 2002 to March 2005).

Research Interests

- Internal combustion engines
- Biofuels
- Spray and combustion diagnostics
- Modelling I.C. Engine processes.

- Computational Fluid Dynamics

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Publications

Journals:

1. *Deshmukh D., Ravikrishna R. V. (2011) Experimental studies on high pressure spray structure of biofuels*, Atomization and Sprays, 21 (6): 467–481 (2011)
2. *Deshmukh D., Ravikrishna R. V. (2012) Studies on Microscopic structure of diesel sprays under atmospheric and high gas pressures*, Fuel, Volume 97, July 2012, Pages 879–883.
3. Bakshi S., *Deshmukh D., Ravikrishna R.V., Multidimensional modeling of flow through piston-controlled ports using multi-block, moving mesh algorithm*, Proc. Instn. Mech. Engrs, Part C: J. Mechanical Engineering Science, vol.218, no.2, pp. 207-222, 2004.
4. Anand T.N.C., *Deshmukh D., Madan Mohan A. and Ravikrishna R. V., Laser-based Spatio-temporal Characterisation of Port Fuel Injection (PFI) Sprays*, International Journal of Spray and Combustion Dynamics, vol. 2, 125-149, 2010.

International Conferences:

1. *Deshmukh D., Rajesh K, Nayeem J., Optimisation of Gas Exchange Process on a Single Cylinder Small 4-Stroke Engine by Intake and Exhaust Tuning: Experimentation and Simulation*, 2004-32-000,7 SAE Small Engine Technology Conference 2004 at Graz Austria.
2. *Deshmukh D., Joshi C., CAE - PT , GM Tech Center-India, Bangalore, India , Jason Jiang, GMPT, Pontiac, U.S., Sensitivity Analysis of Engine Crankcase Bay*

- to Bay Breathing*, 2005 GM Global CAE Conference, September 12-15, 2005.
3. *Deshmukh D.*, A. Madan Mohan, T. N. C. Anand and R. V. Ravikrishna, ***High Pressure Spray Characterization of Vegetable Oils*** ILASS – Europe 2010, 23rd Annual Conference on Liquid Atomization and Spray Systems, Brno, Czech Republic, September 2010.
 4. Madan Mohan A., *Deshmukh D.*, Anand T.N.C., and Ravikrishna R. V., ***Effervescent Spray Characterization of Jatropha Pure Plant Oil***, ILASS-EUROPE 2010, 23rd Annual Conference on Liquid Atomization and Spray Systems, Brno, Czech Republic.
 5. Anand T.N.C., Madan Mohan A., *Deshmukh D.*, and Ravikrishna R.V., ***Optical characterization of PFI gasoline sprays: Effect of Injection Pressure***, Small Engine Technology Conference & Exposition, September 2010.
 6. *Deshmukh D.*, A. Madan Mohan and R. V. Ravikrishna, ***Spray Characterization of Pongamia Pure Plant Oil in a High Pressure Chamber***, ILASS – Europe 2011, 24th Annual Conference on Liquid Atomization and Spray Systems, Estoril, Portugal, September 2011.
 7. A. Madan Mohan , *Deshmukh D.*, T.N.C. Anand, and R.V. Ravikrishna, ***Air-assisted Impinging Jet Spray Characterization of Pongamia Pure Plant Oil***, ILASS – Europe 2011, 24th Annual Conference on Liquid Atomization and Spray Systems, Estoril, Portugal, September 2011.