

Dr Arumugam Ramadhas PhD

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About

Dr Arumugam Sakunthalai Ramadhas is Marie Curie Research Fellow in the Vehicle Technology Group. He has 7 years of research experience with Indian Oil Corporation Limited R&D Centre, India.

He published about 25 technical papers in the international journals and conference related to fuels and emissions. He also contributed two chapters in the Hand Book of Plant Based Biofuels and edited a book on Alternative Fuels, CRC Press, USA.

Qualifications

- Ph.D. in Mechanical Engineering, National Institute of Technology Calicut, 2005
- M.E. in Thermal Power Engineering, Annamalai University, 1999
- B.E. in Mechanical Engineering, Madurai Kamaraj University, 1996

Biography

Dr Ramadhas completed his B.E. degree from Madurai Kamaraj University in 1996. He worked in Ennore Foundries Limited (Hinduja Group) for a year before joining his post-graduation in Thermal Power Engineering at Annamalai University, India.

After completion of his M.E. in the year 1999, he served as Lecturer in Mechanical Engineering in Engineering Colleges for 3 years before joining PhD Course at National Institute of Technology Calicut, India. He was awarded with the Govt. of India's National Renewable Energy Fellowship' for pursuing his PhD in Theoretical Modeling and Experimentation with Alternative fuels. After completion of PhD in 2005, he joined as Research Officer in Indian Oil Corporation Limited, R&D Centre, Faridabad, India and became Deputy Manager Research in 2013.

He joined as Marie Curie Research Fellow in the University of Birmingham from February 2013.

Research

- Cold start emissions in diesel engines
- Biofuels
- Emissions

Publications

Book

Ramadhas, A.S.,(Ed.), (2010), **Alternative fuels for transportation**, USA: CRC Press

Book Chapters

Ramadhas, A.S., (2008), "Biodiesel production technologies and substrates", In: Ashok Pandey (Ed), **Hand book on Plant based biofuels**. USA: CRC Press

Ramadhas, A.S., (2008), "Biodiesel production from high FFA vegetable oils", In: Ashok Pandey (Ed), **Hand book on Plant based biofuels**. USA: CRC Press

International Journals

1. Lakshmi narayana rao, G., Ramadhas,A.S., Nallusamy,N., and Saktivel,P. (2010), Relationships among the physical properties of biodiesel and engine fuel system design requirement, **Energy and Environment**, 1
2. Ramadhas,A.S., Jayaraj,S and Muraleedharan,C., (2010), Performance and emissions studies on biodiesel - LPG dual fuel engine with exhaust gas recirculation, **Renewable and Sustainable Energy**, 2
3. Ramadhas,A.S., Jayaraj,S and Muraleedharan,C., (2008), Reducing exhaust gas temperature of biodiesel fueled engine by exhaust gas recirculation, **Clean**, 36: 978-983
4. Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C.,(2008), Experimental investigation on diethyl ether fuel additive in biodiesel engines, **Global Energy Issues**, 29: 329-336
5. Ramadhas,A.S., Singh,V.P., Subramanian,M.,Acharya, G.K. and Koganti, R.B.,(2008), Clean Development Mechanism in Biofuel Sector: Opportunities and

- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C.,(2008). Dual mode operation in diesel engines using renewable fuels: Rubber seed oil and coir-pith producer gas, **Renewable Energy**,33
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C.,(2006), Simulation and experimental studies on biodiesel fueled engine, **Renewable Energy**, 31
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C.,(2006), Artificial neural networks used for the prediction of the cetane number of biodiesel, **Renewable energy**, 31: 2524-2533
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C.,(2006),Power generation using coir-pith and wood derived producer gas in diesel engines, **Fuel Processing Technology**, 87: 849-853
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C.,(2006), Performance and emission evaluation of a diesel engine fueled with methyl esters of rubber seed oil. **Renewable Energy**, 30: 1789-1800
- A Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C.,(2005), Biodiesel production from high FFA rubber seed oil. **Fuel**, 84: 335-340
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C.,(2005),Characterization and effect of using rubber seed oil as fuel in the compression ignition engines. **Renewable Energy**, 30: 795-803
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C.,(2004), Use of vegetable oils as I.C. engine fuels – A review, **Renewable Energy**, 29: 727-742

International Conferences

- Ramadhas, A.S., Singh,V.P., Subramanian, M., Acharya, G.K., Basu, B., R.K. Malhotra. Impact of fuel quality issues on intake system deposits and emissions, World Petroleum Congress 2011, Doha, Qatar, Dec 2011
- Ramadhas, A.S., Singh,V.P., Subramanian,M, Acharya, G.K., Experimental investigation on ethanol blended gasoline on MPFI engine for intake system cleanliness and emissions, IIT Bombay, India, Dec 2011
- Ramadhas, A.S., Singh,V.P., Subramanian,M.,Basu, B., R.K. Malhotra Impact of intake valve deposits, combustion chamber deposits on engine performance and emissions, JSAE 2011-9059, Kyoto, Japan, 31 Aug – 2 Sep 2011
- Ramadhas, A.S., Singh,V.P., Subramanian,M.,Basu, B., R.K. Malhotra, Effect of fuel composition on intake valve deposits, International conference on Petrotech 2009, New Delhi, January 2009
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C, Experimental investigation on LPG-Diesel dual fuel engine with EGR, Third International Conference on Energy and Environment, Kuwait, Nov 2005
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C., Experimental investigations with rubber seed oil as an alternative fuel for C. I. Engines, International Conference on Energy & Environmental Technologies for Sustainable Development, Jaipur, October 2003
- Ramadhas,A.S.,Jayaraj, S and Muraleedharan,C., Use of a non-edible oil as an alternative fuel in compression ignition engines, International Symposium on Renewable Energy, Environment & Energy Solutions for Sustainable Development, Malaysia, September 2003
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C., The vegetable oil – Need of the world, 28th International Conference on Coal Utilization and Fuel Systems, USA, March 2003

National Conferences / Seminars

- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C., Eco friendly captive power generation for small and medium scale industries, All India Conference on Energy conservation and Policy Options for Small and Medium Scale Industries, PSG College of Tech, Coimbatore, July 2004
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C., Biomass power in India: Technologies and challenges for sustainable development, National Seminar on Renewable Energy and Sustainable Development, Calicut University, Calicut, May 2004 (Best paper award)
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C., Prediction and validation of heat transfer in heavy duty turbocharged diesel engines, National Conference on Future Trends in Mechanical Engineering Research and Development, Bharat Institute of Science and Technology, Chennai, Dec 2002
- Ramadhas,A.S.,Jayaraj,S and Muraleedharan,C., Experimental investigation of non-edible vegetable oil operation in diesel engines for improved performance, National Conference on Advanced Trends in Mechanical Research and Development, JNTU College of Engineering, Andhra Pradesh, Dec 2002

Invited participation in Conferences/ Workshops

- Ramadhas, A.S., Alternative energy sources, Workshop on Green Revolution–Energy Applied Technology, Ultra college of engineering and technology, Madurai, March 4, 2011
- Ramadhas,A.S., Fuel quality and emissions, Faculty development programme on Alternative energy options for IC engines, National Institute of Technology Calicut, India, June 2010
- Ramadhas,A.S., Emission characterisation and measurement, Faculty development programme on Alternative energy options for IC engines, National Institute of Technology Calicut, India, June 2010
- Ramadhas,A.S., Second generation biofuels, Workshop on energy conservation, National Institute of Technology Calicut, May 15-30, 2009
- Ramadhas,A.S., Biodiesel engine testing as per international standards, National workshop on biodiesel 2009, Sri Venkateswara Engineering college, Chennai, Feb 17-18, 2009
- Ramadhas,A.S., Biodiesel production technology for high FFA vegetable oils, National workshop on biodiesel, Madurai Kamaraj University, Oct 17-18, 2008
- Ramadhas,A.S., Invited as country expert in the Expert Group Meeting on 'Technologies for exploitation of renewable feed stocks and waste valorisation', International Centre for Science and High Technology, United Nation Industrial Development Organization (ICS-UNIDO), Trieste, Italy, May 2006