

Dr. Doraj Kamal Jamuwa

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Badliya Chouraha, Ajmer, Rajasthan, India.

Educational Qualification

- ❖ Doctorate of Philosophy from Malaviya National Institute of Technology, Jaipur in 2016 in the field of Alternate fuels.
- ❖ M. E. (Industrial Pollution Abatement) from University of Roorkee, Roorkee (Presently, Indian Institute of Technology, Roorkee) in 2000.
- ❖ B.E. (Mechanical Engineering) from Engineering College, Kota (Presently, University College of Engineering, Kota) affiliated to University of Rajasthan, Jaipur in 1997.
- ❖ School Education from Maheshwari Public School, Jaipur and Birla Senior Secondary School, Pilani.

Teaching Experience

Served as Lecturer and Reader in Jaipur Engineering College, Kukas, Jaipur from Oct 2000 to Dec 2005. After serving as Assistant Professor in Poornima College of Engineering from Dec 2005 to March 2006, presently employed as Assistant Professor in Govt Engineering College, Ajmer since March 2006.

Publications in International Journals/Conferences:

- ❖ D.K. Jamuwa, S. L. Soni, Dilip Sharma. *Performance, emission and combustion analysis of ethanol fuelled stationary CI Engine*. Biofuels (Taylor and Francis). 2016. Pg 1-14. DOI:10.1080/17597269.2016.1163213, Impact Factor 1.16
- ❖ D.K. Jamuwa, S. L. Soni, Dilip Sharma. *Experimental investigation of performance, exhaust emission and combustion parameters of stationary compression ignition engine using ethanol fumigation in dual fuel mode*. Energy Conversion and Management 115 (2016) 221–23, Impact factor 5.59
- ❖ D.K. Jamuwa, S. L. Soni, Dilip Sharma. *Experimental investigation of performance, exhaust emission and combustion parameters of Compression Ignition Engine with varying ethanol energy fractions*. Energy 127 (2017) 544-557, Impact factor 4.5
- ❖ R. Misra, T.K. Aseri, D.K. Jamuwa and V. Bansal. *Assessment of CO₂ emission reduction and identification of CDM potential in a township*. Energy Efficiency, Vol. 5 (4), (2012), 471-481.

- ❖ R. Misra, Abhishek Agarwal, V. Bansal, D.K. Jamuwa. *CFD Simulation of Earth Air Tunnel Heat Exchanger System In Continuous And Intermittent Operation Modes During Winter Season*. International Journal of Engineering Technology, Management and Applied Sciences www.ijetmas.com ISSN 2349 – 4476, Volume 5, Issue 3, March 2017
- ❖ R. Misra, Abhishek Agarwal, V. Bansal, D.K. Jamuwa. *Numerical Investigation of Dynamic Interaction of Earth Air Tunnel Heat Exchanger with surrounding soil during Continuous and Intermittent Operation Modes During Winter Season*. International Journal of Engineering Technology Science and Research (IJETSR) www.ijetsr.com ISSN 2394 – 3386, Volume 4, Issue 3, March 2017
- ❖ D.K. Jamuwa, S. L. Soni, Dilip Sharma. *Influence Of Ethanol Fumigation Rate And Injection Timing On The Performance Of A Constant Speed Stationary CI Engine Using Fumigated Ethanol*. International Conference on Alternate Fuels for I.C. Engines. 286-290. ISSN. No. 9788192402987
- ❖ D.K. Jamuwa, D Sharma, S.L. Soni. *Influence of Intake Air Pre-Heat on a Diesel Engine Operating on Ethanol in Dual Fuel Mode*. Biofuels and Bioenergy (BICE2016), Springer Proceedings in Energy, 271-278. e-book ISBN:978-3-319-47257-7
- ❖ D.K. Jamuwa, D Sharma, S.L. Soni, A Sharma. *Experimental Investigation of the Performance and Emission Parameters of Stationary CI Engine Using Methyl Esters of Karanja and Fumigated Ethanol*. Biofuels and Bioenergy (BICE2016), Springer Proceedings in Energy, 279-286. e-book ISBN:978-3-319-47257-7

Paper presented in International conference/workshop

- ❖ D.K. Jamuwa, S. L. Soni, Dilip Sharma. *Influence Of Ethanol Fumigation Rate And Injection Timing On The Performance Of A Constant Speed Stationary CI Engine Using Fumigated Ethanol*. International Conference on Alternate Fuels for I.C. Engines. (6-8 Feb 2013) at MNIT Jaipur
- ❖ D.K. Jamuwa, D Sharma, S.L. Soni. *Influence of Intake Air Pre-Heat on a Diesel Engine Operating on Ethanol in Dual Fuel Mode*. Biofuels and Bioenergy (BICE2016) 23-25 Feb 2016, MANIT, Bhopal.
- ❖ D.K. Jamuwa, D Sharma, S.L. Soni, A Sharma. *Experimental Investigation of the Performance and Emission Parameters of Stationary CI Engine Using Methyl Esters of Karanja and Fumigated Ethanol*. Biofuels and Bioenergy (BICE2016) 23-25 Feb 2016, MANIT, Bhopal.
- ❖ Renewable fuels and Sustainable Development, International Conference on New and Renewable Energy Resources for Sustainable Future (ICONRER-2017), Organized by Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT), Jaipur (India) on Feb 03, 2017

Research Projects

- ❖ Worked as a Principal Investigator (PI) on a research project funded by All India Council of Technical Education (AICTE), New Delhi, Government of India, under Research Promotional Scheme (RPS). Project Title: Performance and Exhaust Emission Analysis of CI Engine with Dual Injection of Diesel and Alcohol. Project Fund Received: INR 12.0 Lacs.

- Project Duration: April 2012 to March 2015 (2 Years+1 year extended). [Completed]
- ❖ Working as a Principal Investigator (PI) on a research project funded by Department of Science & Technology, Rajasthan. Project Title: Performance Analysis And Exhaust-Emission Analysis Of Alcohol-Fuelled C.I. Engine
- Project Fund Received: INR 4.12 Lacs.
Project Duration: April 2013 to March 2014 and Nov 2016 to Oct 2017 [Ongoing].

M. Tech Dissertation Supervised

Karanja Oil Methyl-Ester: A better option for an alternative fuel In Compression Ignition Engine. Name of Student: **Amit Sharma.**

B. Tech. Projects supervised:

2005-06:	1	Improving Efficiency of Solar Still
2006-07:	1	Experimental study of Heat Transfer Enhancement due to artificial roughness in annular flow
2007-08:	1	Air Heater
	2	Earth Tunnel Heat Exchanger
	3	Box Type Solar Cooker
	4	Fabrication and Performance Analysis of Induced Draft Cooling Tower
2008-09:	1	Design and fabrication of Gasifier system
2009-10:	1	Earth Tube Heat Exchanger
2010-11:	1	Experimental Analysis of Effect of Ethanol Fumigation on CI engine performance
	2	(Combined Micro-Non Conventional Power Plant)
2011-12:	1	Effect of Injection pressure on Engine performance of CI engine operated on alternate fuel
	2	Experimental investigation of the effect of variation in fumigated ethanol-diesel ratio on the performance of CI engine
	3	Experimental investigation of the Exhaust Gas Recirculation (EGR) on Exhaust Temperature and brake specific fuel consumption of single cylinder water cooled CI engine
2012-13	1	Analysis And Testing Of Neem oil Biodiesel On Engine Performance
	2	Analysis And Testing Of Karanja oil Biodiesel On Engine Performance
2013-14:	1	Preparation of Bio-diesel
	2	Identification of the Thermodynamic Exergy Analysis of Coal Thermal Power Plant
	3	Power Generation by Solar-Wind Hybrid systems
2014-15:	1	Waste Heat Recovery from Single cylinder stationary water cooled C.I. engine
	2	Exergy and Energy Analysis of Solar Applications
	3	CFD Modelling of tubes
	4	CFD Modelling of IC Engines
2015-16	1	Performance of VCR Engines

Short Term Course/Training programme/ Workshop/Summer School/FDP attended

- ❖ Workshop on *Planning, Implementation of Environmental Management System as per ISO 14000* organised by CAPV, International, New Delhi from 8 June to 10 June 2000.
- ❖ Faculty Development Programme on *Entrepreneurship* organised by Entrepreneurship & Management Development Institute, Jaipur and sponsored by Department of Science & Technology, Government of India from 10 March to 20 March 2004.
- ❖ QIP-Short Term Course on *Innovative Tribo Design* organised by Department Of Mechanical Engineering, IIT Bombay from 15 Nov to 19 Nov 2004.
- ❖ Training Programme on *Chemical Analysis of Ores, Minerals & Environmental Samples* organised by Regional Ore Dressing Laboratory & Pilot Plant, Indian Bureau of Mines, Ajmer and sponsored by Ministry of Mines, Government of India from 27 Feb to 29 Feb 2008.
- ❖ One day Workshop on World Environment Day on *CO₂ kick the habit towards low carbon Economy* organised by Government Engineering College Ajmer on 5 June 2008.
- ❖ Summer School on *Alternative Automobile Fuels* organised by Malaviya National Institute of Technology Jaipur and sponsored by MHRD/AICTE from 30 June 2008 to 12 July 2008.
- ❖ Short Term Course on *Diesel Particulate and NO_x Emissions: Formation and Control* organised by Departments of Mechanical and Civil Engineering, Indian Institute of Technology Kanpur and sponsored by Quality Improvement Program MHRD, Government of India from 10 Sept. to 14 Sept, 2010.
- ❖ Short Term Course on *Transport Phenomena in Phase-change and Reacting Systems* organised by Departments of Mechanical Engineering, Indian Institute of Technology Kanpur and sponsored by Quality Improvement Program, Center for Continuing Education, Indian Institute of Technology Kanpur from 10 Jan. to 14 Jan, 2011.
- ❖ Workshop under National Mission on Education through ICT (MHRD) on *Thermodynamics in Mechanical Engineering* organised by Indian Institute of Technology Bombay at Jaipur Engineering College, Kukas, Jaipur centre and sponsored by ISTE from 14 June to 24 June, 2011.
- ❖ Workshop on *Intellectual Property Rights* organised by Malaviya National Institute of Technology Jaipur and sponsored by PFC-TIFAC, DST, Govt of India, New Delhi on 19 August 2011.
- ❖ National Conference on *Recent Advances in Mathematics with Applications in Engineering* organised by Govt Engineering College, Ajmer and sponsored by AICTE from 12 March to 13 March, 2012.
- ❖ Training Programme on *Use of Technical Vocabulary in Science and Engineering* organised by Govt Engineering College, Ajmer and sponsored by Scientific and Technical Vocabulary Commission, MHRD, Govt. of India from 6 June to 7 June, 2012.
- ❖ International Conference on *Radiation Hazards* organised by Govt Engineering College, Ajmer and sponsored by TEQIP from 28 Jan to 29 Jan, 2013.

- ❖ Induction training programme through ICT for teachers of Engineering and Polytechnics organised by Govt Engineering College, Ajmer and sponsored by NITTR Chandigarh from 11 Feb to 15 Feb, 2013.
- ❖ National Workshop on *Promoting Excellence in Research* organised by Govt Engineering College, Ajmer and sponsored by TEQIP-II from 4 Feb to 8 Feb, 2014.
- ❖ Short Term Course on *Science and Technology to save environment* organised by Govt Engineering College, Ajmer and sponsored by TEQIP-II from 23 Nov 23 to 27 Nov, 2015.
- ❖ National Seminar on *Human Values in Education* organised by Govt Engineering College, Ajmer and sponsored by TEQIP-II from 29 March to 30 March, 2016.
- ❖ National Workshop on *Earthquake Dynamics and Design of RC Building* organised by Govt Engineering College, Ajmer and sponsored by TEQIP-II from 25 Feb to 26 Feb, 2017.
- ❖ Short Term Course on *Disaster Management* organised by Govt Engineering College, Ajmer and sponsored by TEQIP-II from 25 to 30 March 2017.

Experience as Organizing member

- ❖ International Conference on *Alternate Fuels for I.C. Engines* organised by Malaviya National Institute of Technology Jaipur from 6 Feb to 8 Feb 2013.
- ❖ Short Term Course on *Disaster Management* organised by Govt Engineering College, Ajmer and sponsored by TEQIP-II from 25 to 30 March 2017.

Administrative Experience:

- ❖ As Centre Superintendent in AIEEE-2002, Head of the Deptt, Coordinator, Examinations and Coordinator, Time-table at Jaipur Engineering College, Kukas, Jaipur.
- ❖ As NO (Academics)-TEQIP, NO (IIC)-TEQIP, P.G. Coordinator and Coordinator (Exams) at Govt. Engineering College, Ajmer

Life Membership:

ISTE

Other Achievements

Recipient of MHRD, Govt. of India scholarship for Approved residential schools for five years from session 1987-88 to 1991-92.

Hobbies:

Reading Literary articles, Singing Classical and Semi-Classical Songs and Hindi Dramatics.