Santhosh K

Contact

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Skill Highlights

- IC Engine perfomrance & combustion analysis
- Heat tarnsfer analysis
- Ability to work well with a range of people
- Innovative

Software skill: Python

Languages

English, Kannada, Hindi

Areas of Interest

Engineering Thermodynamics, Internal Combustion Engine, Energy Engineering, Alternative Fuels, Heat and Mass Transfer

Objective

I wish to expose myself to the rapid changing situation in my field. I am confident that I shall be in a position to excel in my endeavors, meet my objectives, work hard and be innovative at my work for the development of the organization and the society.

Education

Doctorate

Experimental investigation of effect of hydrogen and higher alcohol blends on engine characteristics of CRDI diesel engine

Year of Completion:	**Submitted (2022)**
College/University:	**National Institute of Technology Karnataka, India.**

Post graduation

Master of Technology in Thermal Power Engineering

Year of Completion:	**2013**
College:	**Bapuji Institute of Engineering and Technology, Karnataka, India.**
University:	**Visvesvaraya Technological University, Belgaum, India**

Graduation

Bachelor of Engineering in Mechanical

Year of Completion:	**2011**
College:	**Sri Jagadguru Murugharajendra Institute of Technology Karnataka, India.**
University:	**Visvesvaraya Technological University, Belgaum, India**

Experience

1	Institution Name:	**Srinivas School of Engineering, Karnataka, India**
	Designation:	**Assistant Professor**
	Duration:	**3 Year 11 Months (August 2013 – July 2017)**
2	Institution Name:	**National Institute of Technology Karnataka, India**
	Designation:	**Research Scholar**
	Duration:	**4.5 years (2017-2022)**

Publication

International Journal

- *Santhosh K* and Kumar G. N. 'Enhancement of combustion quality of 1-Hexanol/diesel fuel with the addition of 2-Ethylhexyl nitrate in CRDI CI engine' ***Energy Conversion and Management*** (Under Review), *Elsevier*.
- *Santhosh K*, Kumar G. N. and Saikumar Shahapur, 'Effect of tri-fuel blends on Engine characteristics of direct injection diesel engine with Exhaust gas' ***Energy Sources, Part A: Recovery, Utilization and Environmental Effects***, *Taylor and Francis,* 1 March 2022, Doi: https://doi.org/10.1080/15567036.2022.2052382.
- Parusharam Bedar, *Santhosh K* and Kumar G N, 'Combustion analysis of cylinder pressure, NHRR, MGT and CHRR of twin cylinder CRDI engine' **AIP Conference Proceedings** 2316, 030033, 16 February 2021, https://doi.org/10.1063/5.0036796.
- *Santhosh K*, Kumar G N, 'Effect of injection time on combustion, performance and emission characteristics of direct injection CI engine fuelled with equi-volume of 1-Hexanol/diesel blends' ***Energy***, *Elsevier*, Volume-214, 1 January 2021, 118984, https://doi.org/10.1016/j.energy.2020.118984.
- *Santhosh K*, Kumar G N, 'Effect of hydrogen and 1-Hexanol on combustion, performance and emission characteristics of CRDI CI engine' ***Fuel***, *Elsevier,* Volume-285, 1 February 2021, 119100, Doi: https://doi.org/10.1016/j.fuel.2020.119100.
- *Santhosh K*, Kumar G N, 'Impact of 1-Hexanol/diesel blends on combustion, performance and emission characteristics of CRDI CI mini truck engine under the influence of EGR' ***Energy Conversion and Management***, *Elsevier*, Volume 217, 1 August 2020, Doi: https://doi.org/10.1016/j.enconman.2020.113003.
- *Santhosh K*, Kumar G N, 'Experimental analysis of a mini truck CRDI diesel engine fuelled with n-Amyl alcohol/diesel blends with selective catalytic reduction (SCR) as a $DeNO_x$ technique under the influence of EGR' ***Energy Sources, Part A: Recovery, Utilization and Environmental Effects***, *Taylor and Francis,* 26 February 2020, Doi: https://doi.org/10.1080/15567036.2020.1728441.
- *Santhosh K*, Kumar G. N, Radheshyam, Sanjay P V, 'Experimental analysis of performance and emission characteristics of CRDI diesel engine fueled with 1-pentanol/diesel blends with EGR technique' ***Fuel***, *Elsevier*, Volume 267, 1 May 2020, Doi: https://doi.org/10.1016/j.fuel.2020.117187.
- Radheshyam, *Santhosh K*, G.N. Kumar, 'Effect of 1-pentanol addition and EGR on the combustion, performance and emission characteristic of a CRDI diesel engine' ***Renewable Energy***, *Elsevier*, Volume: 145, 12 June 2019, Page 925-936, Doi: https://doi.org/10.1016/j.renene.2019.06.043.

- Parashuram Bedar, *Santhosh K*, Kumar G N, 'Experimental Investigation of CRDI Engine fuelled with Jatropha curcas biodiesel for various EGR rates' ***International Journal of Applied Engineering Research***, 68-71, Volume 13, Number 1, 2018 (Special Issue), ISSN 0973-4562.

International Conference

- Saikumar Shahapur, *Santhosh K*, Kumar G N 'Effect of hexanol/diesel/madhuca indica blend and exhaust gas recirculation (EGR) on performance and emission characteristics of a CRDI diesel engine' International conference on advanced trends in mechanical & aerospace engineering (ATMA-2019), 7-9 November 2019. Department of Mechanical & Aerospace Engineering, Dayananda Sagar University, Bangalore-560068, Karnataka, India.
- Parusharam Bedar, *Santhosh K*, Kumar G N 'Combustion analysis of cylinder pressure, NHRR, MGT and CHRR of twin cylinder CRDI Engine' International conference on advanced trends in mechanical & aerospace engineering (ATMA-2019), 7-9 November 2019. Department of Mechanical & Aerospace Engineering, Dayananda Sagar University, Bangalore-560068, Karnataka, India.

National Conference

- Parusharm Bedar, *Santhosh K*, Kumar G N 'Experimental Investigation of CRDI Engine fulled with Jatropha curcas biodiesel for various EGR Rates' 1st National Conference on Green Energy, Environment and Sustainable Development-NCGEESD' March 2018 at Presidency University, Bangalore.
- *Santhosh K*, Kumar G N 'Effect of 1-Butanol/Diesel Blends on Engine Characteristics of CRDI CI Engine with Various EGR rate. 25th National Conference on IC Engine and Combustion Under the auspices of Combustion Institute-Indian Section (CIIS), December 15-17, 2017 at National Institute of Technology Karnataka, India, December 2017.

Academic Activities

Workshop attended

- Attended a workshop on 'Document Typesetting Preparation Using LaTeX' at National Institute of Technology Karnataka, India, on October 2018
- Attended a workshop on 'Combustion Engineering Simulation Using CHEMKIN' 2018 at Dhio Center for excellence, Banglore, on March 2018.
- Attended a workshop on 'Tribology Frontiers in design & Manufacturing' at National Institute of Technology Karnataka, India, on October 2016.
- Attended a workshop on 'Computational dynamics' at National Institute of Technology Karnataka, India, on September 2016.

- Attended a workshop on ‘Advanced Materials’ at Srinivas Institute of Technology, Mangaluru on July 2016.
- Attended a workshop on ‘Recent Advances in Renewable Energy’ at M S Ramaiah Institute of Technology, Bengaluru on July 2016.
- Attended a ‘Subject Based Pedagogy Workshop on Applied Thermodynamics’ at VTU Regional Center, Mysuru on February 2016.

Reviewer For

- Energy Conversion and Management, *Elsevier*.
- Fuel, *Elsevier*.
- Fluid Dynamics & Materials Processing.
- Environmental Engineering Science.

References

1. Dr. Kumar G N. Associate Professor, Dept of Mechanical Engg, National Institute of Technology Karnataka, Surthkal. Email: gnkumar33@gmail.com, gnkumar33@nitk.edu.in, Mob: +91-9481848572.
2. Dr. Ajay Kumar Yadav, Assistant Professor, Dept of Mechanical Engg, National Institute of Technology Karnataka, Surthkal. Email: ajaykyadav@nitk.edu.in, Mob: +91-9035552339.
3. Dr. Vasudeva M, Assistant Professor, Dept of Mechanical Engg, National Institute of Technology Karnataka, Surthkal. Email: vasu@nitk.edu.in, Mob: +91-9008889796.

Publication details

SANTHOSH K

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Sl.No	Title of the paper	Name of the journal	Index	Impact factor
1	Experimental Investigation of CRDI Engine fuelled with Jatropha curcas biodiesel for various EGR rates	*International Journal of Applied Engineering Research*	Web of Science (Scopus 2017)	-
2	Effect of 1-pentanol addition and EGR on the combustion, performance and emission characteristic of a CRDI diesel engine	*Renewable Energy*	SCI	8.001
3	Experimental analysis of performance and emission characteristics of CRDI diesel engine fueled with 1-pentanol/diesel blends with EGR technique	*Fuel*	SCI	6.609
4	Experimental analysis of a mini truck CRDI diesel engine fuelled with n-Amyl alcohol/diesel blends with selective catalytic reduction (SCR) as a $DeNO_x$ technique under the influence of EGR	*Energy Sources, Part A: Recovery, Utilization and Environmental Effects*	SCI	3.44
5	Impact of 1-Hexanol/diesel belnds on combustion, performance and emission characteristics of CRDI CI mini truck engine under the influence of EGR	*Energy Conversion and Management*	SCI	9.709
6	Effect of injection time on combustion, performance and emission characteristics of direct injection CI engine fuelled with equi-volume of 1-Hexanol/diesel blends	*Energy*	SCI	7.147
7	Effect of hydrogen and 1-Hexanol on combustion, performance and emission characteristics of CRDI CI engine	*Fuel*	SCI	6.609
8	Combustion analysis of cylinder pressure, NHRR, MGT and CHRR of twin cylinder CRDI engine	AIP Conference Proceedings	Scopus	-
9	Effect of tri-fuel blends on Engine characteristics of direct injection diesel engine with Exhaust gas recirculation	*Energy Sources, Part A: Recovery, Utilization and Environmental Effects*	SCI	3.44
10	Enhancement of combustion quality of 1-Hexanol/diesel fuel with the addition of 2-Ethylhexyl nitrate in CRDI CI engine	*Energy Conversion and Management (Under review)*	SCI	9.709