Curriculum Vitae

Dr. R. JYOTHU NAIK,
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Career Objective:

Seeking a challenging and rewarding opportunities in research & teaching with organization of repute that recognizes my true potential and nurtures my dream of using technology to make learning interesting & interactive technologies.

Academic Identity:

Orcid Id : 0000-0002-4277-8852
Web of Science Researcher Id : ADR-9781-2022
Scopus Id : 57211453880
Google scholar: https://scholar.google.com/citations?user=QdHcabUAAAAJ&hl=en
Research Gate: https://www.researchgate.net/profile/Jyothu-Naik

Academic Profile:

Qualification	Branch / Specialisation	College / University	Year of Passing
Ph.D. (Full-Time)	Internal Combustion Engines (Research domain: HCCI Engine)	JNTUA, Ananthapuramu.	2022
M.Tech	Mechanical (Thermal Engineering)	VRSEC, Vijayawada	2012
B.Tech	Mechanical Engineering	Narasaraopet Egg College Narasaraopeta	2009
Inter	MPC	Sai Krishna jr. college, Karempudi, A.P	2005
S.S.C	S.S.C	Kranthi res. School karempudi, A.P	2003

Ph.D Thesis:

Experimental investigations on combustion performance and emission characteristics on the Homogeneous Charge Compression Ignition combustion engine.

Duration: 3.5 Years Team size: 1. Supervisor: Prof. K. Thirupathi Reddy

M.Tech Thesis:

Exergy analysis of 4.5 MW biomass-based steam power plant

Duration: 1 Years Team size: 1. Supervisor: Prof. B.L.V.S Gupta

Experience Details:

1. **Industrial Experience:** 01 Years

Sl.No	Name of the Institute	Designation	Period
1	Matrix power plant	Engineer	14.08.2009 To 15.08.2010
2	Apex Innovation pvt Ltd	Engine testing	01.10.2018 To 10.10.2018

2. **Research Experience:** 3 Years

Sl.No	Name of the Institute	Designation	Period
1.	Jawaharlal Nehru Technological University, Anantapur	Full Time, Research Scholar	01.07.2017 To 01.07.2020

3. **Teaching Experience:** 9+ Years in all

Sl.No	Name of the Institute	Designation	Period
1.	Narasaraopet Engineering College, Naraasaraopeta, Guntur Dist	Assistant Professor	25.09.2011 To 29.05.2017
2.	Newtons Institute of Science &Technology ,Macherla, Guntur Dist	Assistant Professor	01.05.2020 To 03.07.2021
3.	Rayalaseema University Kurnool,	Assistant Professor Ad hoc	05.07.2021 To 25.07.2024
4.	Sandip Institute of Technology and Research Centre (SITRC), XM89+87J, Mahiravani, Trimbak Road, Nashik, Maharashtra 422213	Assistant Professor	26.07.2024 To Till Date
Courses taught at Under Graduate Level		Engineering Drawing, Basic Mechanical Engineering, Thermodynamics, Fluid Mechanics and Hydraulic Machines, Advanced Thermodynamics, Heat Transfer, Power Plant Engineering and Refrigeration & Air Conditioning	

Total Experience: 13+ Years in all

Additional Responsibility :

1. Department Club Co-ordinate
2. Department Research Co-ordinate

3. Thermal Engineering Lab In- charge

Guest Lecture Conducted

1. Advanced in Internal combustion engine
2. Maintenance Principles of Mechanical Systems

Workshop Programs Attended

Sl.No	Workshops Programs	Organized	Date of Program
1.	2-Days Workshop on Research Writing: Theory & Praxis	RGMCET, Nandyal.	15.09.2017 To 16.09.2017
2.	One week workshop on Computational Mathematics in Engineering	RGMCET, Nandyal.	24.10.2017 To 30.10.2017
3.	Two days guest lecture on Internal combustion engine and alternative fuels	RGMCET, Nandyal.	25.09.2017
4.	One day workshop on Dealing with Millennial Learners	RGMCET, Nandyal.	08.12.2017 To 09.12.2017
5.	One Week Workshop on (Induction/Refresher Program sponsored by ISTE/AICTE) Advances in Mechanical Engineering	RGMCET, Nandyal.	23.08.2018 To 28.08.2018
6.	Two week Orientation Program n Research Methodology & Intellectual Property Rights	JNTUA, Ananthapuramu	28.05.2018 To 09.06.2018
7.	One week Workshop on (Induction/Refresher Program sponsored by ISTE/AICTE)	RVR&JC Guntur	12.11.2018 To 17.11.2018
8.	One week workshop on MATLAB programming for Beginners	RGMCET NANDYAL	22.07.2019 To 26.07.2019
9.	Two-week FDP on sponsored by (AICTE) Advanced in materials and manufacturing technology [AMMT]	RGMCET NANDYAL	11-11-2019 To 23-11-2019
10.	National Conference on IC Engines and Combustion (NCICEC-2019)	NIT kurukshetra	01.11.2019 To 04.11.2019
11.	National Conference on IC Engines and Combustion (NCICEC-2019)	Dr. B R AMBEDKAR NIT,JALANDHAR	20.08.2021 To 23.08.2021
12.	Five faculty Development program on Recent trends in thermal engineering	Seshadri Rao GEC, GUDLAVALLERU	06.09.2021 To 10.09.2021
13.	A Five Day National Level Online Faculty Development Program on “Emerging trends in Automotive and Energy Systems”	Sree Vidyanikethan Engineering College (Autonomous), Tirupati.	23.08.2021 To 27.08.2021
14.	National Conference on Emerging trends in Mechanical Engg and industrial automation Combustion (NCETMEIA-2021)	Narasaraopet Engg college Narasaraopeta	30.07.2021 To 31.07.2021
15	One week Workshop on Research Methodology, patent and Publications	SCSMCOE, Amed,nagar,Maharashtra	23.12.2024 To 28.12.2024
16	One week Workshop on Research Methodology, patent and Publications	Vishwabharati academys college of engg Ahilyanagar MH	10.02.2025 To 14.02.2025

ESCI/ Scopus Research Papers Published:

1. Jyothu Naik.R, Sachin Ghalme, Thermodynamic Analysis of a Vapor Compression Refrigeration System Using Ag_2O-R134a Nanofluid as a Refrigerant. International journal of ambient energy, (2025), **Accepted journal of polymer and composite.**
2. Jyothu Naik.R, and Sachin Ghalme. Enhance the energy storage capacity of nitrate molten salt with magnesium oxide nanoparticles. **International journal of ambient energy, Under Review 2025.**
3. Jyothu Naik.R, and Sachin Ghalme. Combustion Characteristics and Performance of Waste Plastic Pyrolysis Oil Fuel in an Pilot Injection HCCI Engine. **Journal of Thermal Analysis and Calorimetry. Under Review 2025.**
4. Jyothu Naik.R, and Sachin Ghalme. Impact of Pre-heated air temperature and Diethyl Ether Additive in Waste Plastic Oil-Fueled HCCI Engine Using Fuel Vaporizer Technique. **Journal of Thermal Analysis and Calorimetry**. **Under Review 2025.**
5. Jyothu Naik.R, and Sachin Ghalme. An Integrated Machine Learning and Optimization Framework for Improving Double-Pipe Heat Exchanger Performance, **Journal of The Institution of Engineers (India): Series C. Under Review 2025.**
6. Jyothu Naik.R, and Sachin Ghalme Jyothu Naik.R et al Thermodynamic performance evaluation of low-GWP working fluids combined with polymeric material in advanced organic rankine cycle configurations. Journal of Physics: Conference Series 3045 (1), 012011. **(Scopus).**
7. Jyothu Naik.R et al Performance and emission profiles of CI engine with aluminium oxide-reinforced polymer composite in biodiesel blends. Journal of Physics: Conference Series 3045 (1), 012012. **(Scopus).**
8. Ramavathu, Jyothu Naik, Thirupathi Reddy Kota and Vishal Narayanrao Sulakhe. Effect of exhaust gas recirculation and constant pre-heated air temperature on the homogeneous charge compression ignition combustion engine with diesel and wppo 20 blend. **Journal of Computational and Applied Research in Mechanical Engineering (JCARME),** (2024):Vol.13.2, PP. 157-167. **https://doi.org/10.22061/jcarme.2023.8413.2135 (Scopus) Q3.**
9. Ramavathu, JyothuNaik, and Thirupathi Reddy Kota. "Combustion performance and emission characteristics on HCCI engine of waste plastic pyrolysis oil biodiesel blends with external PFI and vaporiser." International Journal of Sustainable Engineering (2019):1-14. DOI: 10.1080/19397038.2019.1674942. **(ESCI) (Taylor & Francis) Q1.**
10. Ramavathu, JyothuNaik, and Thirupathi Reddy Kota. Influences of pilot injection, main injection and EGR on performance combustion and emissions in a HCCI-DI combustion engine using with Diesel and WPPO biodiesel blends. International journal of ambient energy, Vol.43 issue 1, https://doi.org/10.1080/01430750.2020.1736153, 2020. **(ESCI) (Taylor & Francis) Q1.**
11. Ramavathu, JyothuNaik, and Thirupathi Reddy Kota (2019): Experimental Study on the Effect of Inlet Air Temperature on Waste Plastic Pyrolysis Oil with Diesel Fuelled HCCI Combustion Engine, International Journal of Recent Technology and Engineering (IJRTE), ISSN: 2277-3878, Volume-7, Issue-ICETESM, March 2019. **(SCOPUS).** 158-164 vol.7
12. R.JyothuNaik, and Thirupathi Reddy Kota(2020): Prediction of the WPPO Biodiesel-Fuelled HCCI Engine Using Artificial Neural Networks." SMART INNOVATION, SYSTEMS AND TECHNOLOGIES,. Springer, Singapore, Vol. 169, 623–631 https://doi.org/10.1007/978-981-15-1616-0_60, 623-631. **(SCOPUS) SPRINGER.** 2190-3018
13. Ramavathu, Jyothunaik, and Thirupathi Reddy Kota. A review on diesel homogeneous charge compression ignition engine Academia Journal of Scientific Research 6(8): 321-328, August 2018, DOI: 10.15413/ajsr.2018.0142, ISSN 2315-7712. (UGC APPROVED) Indexed by CABI.

14. Ramavathu, JyothuNaik, and Thirupathi Reddy Kota. Low Temperature Combustion: A Review, journal of advancement in engineering and technology, DOI: 10.5281/zenodo.1467458, 2018.(UGC APPROVED).
15. Ramavathu, JyothuNaik, and Thirupathi Reddy Kota. Performance and emission characteristics and optimal factors determination with Taguchi technique for homogeneous charge compression ignition (HCCI) fuelled with waste plastic pyrolysis oil with diesel. Acad. J. Sci. Res. 7(10): 559-566, 2019 (UGC APPROVED) Indexed by CABI.
16. Naik, R. Jyothu, B. L. V. S. Gupta, and G. S. Sharma. "Exergy analysis of 4.5 MW biomass-based steam power plant." *J. Human Soc. Sci* 1 (2012): 1-4. (UGC APPROVED) ISSN 2581-8791 **cited by 9.**
17. Naik, R. Jyothu, et al. Exergy analysis of 120 MW coal based thermal power plant. International Journal of Engineering Research & Technology. (UGC APPROVED) **cited by 2.**
18. Naik, R. Jyothu, et al. Optimization of casting parameters for casting of Al/RHA/RM hybrid composites using Taguchi method. International Journal of Engineering Trends and Technology (IJETT)-Volume4 Issue8. (**SCOPUS**) **cited by 8.**

Papers Presented in International Conferences:

1. Port fuel injection with fuel vaporizer and early pilot injection techniques in HCCI combustion engine. First international conference on Advanced in Energy and Environment Engineering -2024-December 17-18, Dr. Vithalrao Vikhe Ratil college of Engineering, pune, Maharashtra.
2. A Comparative study of PCM Based Thermal Storage system arranged in in-lined and staggered tube bundle arrangement. First international conference on Advanced in Energy and Environment Engineering -2024-December 17-18, Dr. Vithalrao Vikhe Ratil college of Engineering, pune, Maharashtra.
3. Experimental Study on the Effect of Inlet Air Temperature on Waste Plastic Pyrolysis Oil with Diesel Fuelled HCCI Combustion Engine, 2nd international conference on emerging trends in engineering, science & Management- 2018, ISBN: 978-81-938463-2-2.
4. Comparison of port fuel injection with fuel vaporizer and early pilot injection techniques in HCCI combustion engine. National conference on internal combustion engines and combustion. NCICEC-2019, NIT Kuruskhetra, November, 1-4, 2019.
5. Prediction of the WPPO Biodiesel Fuelled HCCI Engine Using Artificial Neural Networks. International Conference on Intelligent Manufacturing and Energy Sustainability (ICIMES-2019), ISSN: 2190-3018.
6. Function of fuzzy logic in homogeneous charge compression ignition (HCCI) Engine to predict the engine exhaust emission No_x. 2nd international conference on emerging trends in engineering, science & Management- 2018, ISBN: 978-81-938463-2-2.
7. An experimental investigation on the performance and emission characteristics of CRDI diesel engine fuelled with Ethanol, AOME Biodiesel and Diesel blends, 2nd international conference on emerging trends in engineering, science & Management- 2018, ISBN: 978-81-938463-2-2.
8. Effect of EGR and constant Pre-heated air temperature (PHAT) on PFI-HCCI combustion engine with Diesel and WPPO 20 blend". 2nd International Conference on "CHEMICAL, BIO & ENVIRONMENTAL ENGINEERING (CHEMBIOEN-2021)" Dr B R Ambedkar National Institute of Technology, Jalandhar, August, 20-23,2021.
9. Experimental Analysis On 4–Stroke Single Cylinder Diesel Engine Blended With Neem Oil And Nano Powder. Proceedings of International Conference on Recent Trends in Mechanical Engineering-2K15 (NECICRTME-2K15).

10. Experimental Investigation On 4–Stroke Single Cylinder Diesel Engine Blended With Tyre Oil. Proceedings of International Conference on Recent Trends in Mechanical Engineering-2K15 (NECICRTME-2K15).
11. Analysis of rivets by using finite element analysis. Proceedings of International Conference on Recent Trends in Mechanical Engineering-2K15 (NECICRTME-2K15).
12. Finite element analysis of gasoline engine piston using reinforced aluminum metal matrix composites. Proceedings of International Conference on Recent Trends in Mechanical Engineering-2K15 (NECICRTME-2K15).
13. Analysis of Flow in a De Laval Nozzle Using Computational Fluid Dynamics. Proceedings of International Conference on Recent Trends in Mechanical Engineering-2K15 (NECICRTME-2K15).
14. Performance And Emission Characteristics Of Diesel Engine With Linseed Oil-Diesel Blends As Fuel with VCR. International Conference on Emerging Trends in Mechanical Engineering and industrial automation-2K21 (ICETMEIA-2K21).30-31 JULY 2021.
15. Experimental Investigation In Single Cylinder Vcr Multifuel Engine Using Bio-Diesel As Linseed Oil. International Conference on Emerging Trends in Mechanical Engineering and industrial automation-2K21 (ICETMEIA-2K21).30-31 JULY 2021.

Patent:

1. Motorized rotary tiller with Adjustable digger assembly. Appl. No 442811-001

FDP Organized:

1. Five Days FDP organized on Advanced Manufacturing Process.

Research Proposal:

1. Development and Investigation of combustion performance and emission characteristics of Homogenous charge compression ignition HCCI engine with External Mixture Preparation and Internal Mixture Preparation by using diesel-hydrogen fueled. **AICTE Research Promotion Scheme (RPS) Proposal Submission Application** No. RPS-1-2942871-2025-4597, **Total Budget- 2005340 Lakhs**

Research Interests:

Internal combustion engine
Low Temperature Combustion, HCCI, RCCI and Alternative Fuels
Diesel RK Software
Exergy and Energy Analysis

Computer Skills:

Operating Systems	:	Windows 10
Tools	:	MS-Office.
Engine Software Package	:	Labview based Engine Performance Analysis software package Engine soft.

Achievements/Awards:

- Holder of National Fellowship Schedule Tribal (NFST) during Ph.D.
- Has been selected for National Fellowship Schedule Tribal (NFST).

Personal Profile:

Name	:	RAMAVATHU JYOTHU NAIK
Date of Birth	:	09-06-1988.
Gender	:	Male.
Marital status	:	Married.
Address :	:	S/o R. Babu Naik, Petasannigandla Thanda post karempudi mdl Palanadu dist. pin-code: 522614.
Languages Known	:	English, Hindi and Telugu.
Hobbies	:	Playing Cricket and Shuttle, Listening Music, Reading Books.

Declaration:

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

Place: karempudi
Date: 27.11.2025 **(Dr. R JYOTHU NAIK)**