



P.E.S. College of Engineering, Mandya - 571401

(An Autonomous Institution, affiliated to VTU, Belagavi)

Faculty Profile

General

Name	Dr. RUPESH S
Designation,	<i>Assistant Professor</i>
Department & Affiliated Institution	<i>Department of Mechanical Engineering, P.E.S College of Engineering, Mandya – 571 401</i>
Research Area	<i>Biomass Gasification, Buoyancy driven flows</i>
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Academic Profile

Educational Qualifications

Degree	College	University	Year of Passing	CGPA	Class
<i>Ph. D</i>	<i>NIT Calicut</i>	<i>NIT Calicut</i>	<i>2017</i>	<i>-</i>	<i>-</i>
<i>M.Tech</i>	<i>College of Engineering Trivandrum</i>	<i>University of Kerala</i>	<i>2010</i>	<i>8.85</i>	<i>I -Class</i>
<i>B. Tech</i>	<i>P. A. Aziz College of Engineering and Technology</i>	<i>University of Kerala</i>	<i>2008</i>	<i>8.23</i>	<i>I -Class</i>

Professional Experience

Organization and Department	Designation	Period	Total Experience
<i>Mar Baselios College of Engineering and Technology, Thiruvananthapuram</i>	<i>Assistant Professor</i>	<i>02-12-2010 to 12-12-2012</i>	<i>2 years</i>
<i>National Institute of Technology Calicut</i>	<i>Research Scholar</i>	<i>13-12-2012 to 31-01-2017</i>	<i>4 years</i>
<i>Mar Baselios College of Engineering and Technology, Thiruvananthapuram</i>	<i>Assistant Professor</i>	<i>02-02-2017 to 15-06-2020</i>	<i>3 years 4months</i>
<i>P.E.S College of Engineering, Mandya</i>	<i>Assistant Professor</i>	<i>17-08-2020 to Till date</i>	

Reports on Academic and Research Activities

Academic Activities

Teaching Records (Details of courses taught)	<u>Undergraduate:</u> Introduction to Mechanical Engineering Sciences, Basic Thermodynamics, Applied Thermodynamics, Heat and Mass Transfer, Refrigeration and Airconditioning, Renewable Energy Technology, Propulsion Engineering
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Research Guidance (Candidates Awarded / Pursuing Ph.D / M.Sc., Engg./ M.Phil)

Degree	Ph. D.	M.Sc., Engg.	M.Phil
Awarded	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>
Pursuing	<i>Nil</i>	<i>Nil</i>	<i>Nil</i>

Sponsored Research Projects (List of Projects taken up /completed and funds receiver & funding sources)

Project Title	Project Funded by	Grants Sanctioned	Grants Received
<i>Sponsored Research</i>	<i>-</i>	<i>--</i>	<i>-</i>

Research Publications in Refereed Journals and Conferences/Symposia

Number of Publications in	National	International
Journals	<i>00</i>	<i>07</i>
Conferences/Symposia	<i>03</i>	<i>13</i>

Other Important Responsibilities Held in the College

<i>R & D in Biofuel Information & Demonstration Centre</i>
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LIST OF PUBLICATIONS

Journals

1. Adarsh R Nair, Raveesh G, Rupesh S (2020). Orifice enabled flow stabilization of natural circulation loop at lower inclinations, *Kerntechnik* 85 (3), 140-146. doi.org/10.3139/124.190088
2. S. Rupesh, C. Muraleedharan, P. Arun, (2016). ASPEN Plus Modelling of Air-Steam Gasification of Biomass with Sorbent Enabled CO₂ Capture, *Resource-Efficient Technologies*, 2 (2) 94-103. doi.org/10.1016/j.reffit.2016.07.002
3. S. Rupesh, C. Muraleedharan, and P. Arun, (2016). Energy and Exergy Analysis of Syngas Production from Different Biomasses Through Air-Steam Gasification, *Frontiers in Energy*, doi.org/10.1007/s11708-016-0439-1
4. P M Suhaile, S Rupesh, C Muraleedharan, P Arun, (2015). Numerical Analysis on the Dynamic Behaviour of Fluidized Bed Reactor, *Applied Mechanics and Materials* 813, 718-722. doi.org/10.4028/www.scientific.net/AMM.813-814.718
5. S. Rupesh, C. Muraleedharan, P. Arun, (2015). A Comparative Study on Gaseous Fuel Generation Capability of Biomass Materials by Thermo-chemical Gasification Using Stoichiometric Quasi-steady-state Model, *International Journal of Energy and Environmental Engineering*, Springer, 6, 375-384. doi.org/10.1007/s40095-015-0182-0
6. S. Rupesh, C. Muraleedharan, P. Arun, (2014). Analysis of Hydrogen Generation from Coconut Shell Using Thermodynamic Equilibrium Model Considering Char and Tar, *International Scholarly Research Notices*, 2014 1-9. doi.org/10.1155/2014/654946
7. I. Thankachan, S. Rupesh, C. Muraleedharan, (2014). CFD Modelling of Biomass Gasification in Fluidized-Bed Reactor using Eulerian-Eulerian Approach, *Applied Mechanics and Materials* 592 1903-1908. doi.org/10.4028/www.scientific.net/AMM.592-594.1903

Conferences

1. Gokul Krishnan S, Pranav Santhosh, Amaljith K Balan, Jibin Mathew, Rupesh S, (2020). Review on Experimental analysis and ASPEN Plus simulation of fluidized bed biomass gasification, *International Conference on Interdisciplinary Research*, Thiruvananthapuram, Paper ID 16, ISBN: 978-81-946255-6-8.
2. Adarsh R Nair, Rupesh S, Raveesh G, Abhijith Nair A S, (2019). Influence of Bidirectional Inclination on The Stability of Single-Phase Natural Circulation Loop, *AIP Conference Proceedings* 2134, 030006-13. doi.org/10.1063/1.5120204.
3. M G Reshma, Alen V, Rupesh S, (2019). A Comprehensive Review on Parametric Analysis of Single-Phase Natural Circulation Loop, *Proceedings of National Conference on Advances in Energy Efficient Technologies (NCAEET-2019)*, 15-19. ISBN: 978-81-940546-1-0
4. Akash K Agrawal, Rupesh S, Muraleedharan C, Arun P, (2016). Equilibrium Modelling of Biomass Air-Steam Gasification with Char Reaction Kinetics in ASPEN Plus, *Proceedings of 2nd International Conference on Thermal, Energy and Environment (INCOTEE 2016)*, Kalasalingam University, 1-5.

5. A.R. Ajith, S. Rupesh, C. Muraleedharan, P. Arun, (2016). CFD analysis on the effect of tar cracking in fluidised bed air-steam gasification of biomass, International Conference on Systems, Energy and Environment (ICSEE 2016), GEC Kannur, 119 -127.
6. Rupesh S, Ajith A. R, C. Muraleedharan, P. Arun, (2015). Modelling and simulation of bubbling fluidised bed reactor: effect of different drag models on bed pressure drop, Global Energy Technology Summit (NTPC), GETS 2015 ID # 300.
7. Rupesh S, C Muraleedharan, Arun P, (2015). Modeling and Simulation of Air-Steam Gasification of Biomass Using CO₂ Sorbent, Proceedings of 24th National Conference on I.C. Engines and Combustion, UPSE, Dehradun, 185-187.
8. Ojus Mohan, Rupesh S, C. Muraleedharan, P. Arun, (2015). Design of Fluidized Bed Reactor for Conversion of Biomass Energy in to Concentrated Gaseous Fuel, IEEE Xplore, 10.1109/SPICES.2015.7091422
9. Anoop P, Rupesh S, C. Muraleedharan, P. Arun, (2015). Energy and Exergy Analysis of Thermo-Chemical Gasification of Sawdust Using Thermodynamic Equilibrium Model, IEEE Xplore, 10.1109/SPICES.2015.7091505
10. Ojus Mohan, Rupesh S, C. Muraleedharan, P. Arun, (2015). Steady State Model for Fluidized Bed Biomass Gasification, International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE 2015), NIT Warangal, 1-4.
11. Arun K Mohandas, Rupesh S, C Muraleedharan, P. Arun, (2015). Modelling and simulation of air-steam gasification of rice husk using Aspen Plus, International Conference on Advances in Energy Research (ICAER 2015), IIT Bombay, 493-497.
12. Anil M, Rupesh S, Muraleedharan C, Arun P. (2015). Performance Evaluation of Fluidised Bed Biomass Gasifier Using CFD, International Conference on Advances in Energy Research, (ICAER 2015), IIT Bombay, 424-430.
13. S. Rupesh, C. Muraleedharan, P. Arun, (2014). Thermodynamic equilibrium model for biomass gasification with tar and char conversion, Int. Conference on Recycling and Reuse of Materials (ICRM 2014), International and Interuniversity Center for Nanoscience and Nanotechnology (IIUCNN), Mahatma Gandhi University,13-17.
14. Rupesh S, C Muraleedharan, Arun P, (2014). Thermodynamic Equilibrium Modeling of Air Gasification of Rice Husk in Fluidized Bed Gasifier, International Conference on Advances In Chemical Engineering & Technology (ICACE 2014), T K M College of Engineering, 1-4
15. U. K. Sajith, S. Rupesh, C. Muraleedharan, P. Arun, (2014). Characterisation of Biomass for Gasification, Proceedings of National conference on Latest Trends in Mechanical Engineering, (ICLTME 2014). GEC Palakkad, 273-275.
16. Rupesh S, K. Krishnakumar, (2010). Performance Evaluation of Minichannel Heat Exchangers for different cross-sectional geometries, Proceedings of International Conference on Technological Trends, (ICTT 2010), CET, 848-852.