

Dr. B R Omkaresh

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Education

Sl.No.	Degree	Year	Institute	Specialization
1	B.E.	2007-11	Siddaganga Institute of Technology, Tumakuru	Mechanical Engineering
2	M.Tech.	2011-13	Siddaganga Institute of Technology, Tumakuru	Thermal Power Engineering
3	Ph.D.	2019	VTU, Belagavi	Alternative Fuels

Professional Experience

Sl. No.	Date (From - To)	Designation	Organization
1.	2014 -Till Date	Assistant Professor	Department of Mechanical Engineering, Siddaganga Institute of Technology, Tumakuru.
2.	2013 - 2014	Assistant Professor	Department of Mechanical Engineering, G.Madegowda Institute of Technology, Mandya.

Positions held

- Coordinator, Bioenergy Research, Information and Demonstration Centre (BRIDC), Karnataka State Bioenergy Development Board (KSBDDB), GoK.

Affiliations of Professional organizations

- International Association of Engineers (IAENG) – Member(Life Time): 159822

- The Institution of Engineers(India)- Associate Member(Life Time):
NO.AM1631945

Awards and Honors

- Received 'Best Project Award – 2022' by KSCST for the student project entitled "**Development of Heterogeneous Photocatalytic Method for Biodiesel Production**", during the Seminar and Exhibition held at Visevesavaraya Technological University (VTU), Belagavi on 12th and 13th August 2022 (Funded by KSCST).
- Received 'Certificate of Best Paper Presentation' for the project entitled '**Green Route to Synthesize CaTiO₃ Photocatalyst using Terminalia Catappa seeds extract and its Utilization in green fuel**' Paper ID: U163 in the International Conference on Recent Developments in Mechanical Engineering, ICRDME-2022 on 24th and 25th June 2022 at SIT, Tumakuru.
- Received 'Best Project Award – 2017' by KSCST for the student project entitled "**Design and Fabrication of Simarouba Glauca Seed Depulping Machine**" during the Seminar and Exhibition held at NITTE, UDUPI on 11-12th AUGUST 2017.

Courses Taught

Undergraduate Courses

- Introduction to Mechanical Engineering
- Turbo machinery
- Fluid Mechanics
- Engineering Thermodynamics
- Theory of IC Engines
- Industrial Hydraulics and Pneumatics
- Electric Vehicle Technology
- Solar Energy

Research Guidance

Sl. No.	Name of the Scholar	Title	Year of completion
01	ABHISHEK M S (1SI23PME02)	Development of Sustainable Bio Diesel Production technology and performance study of CI Engine using Biodiesel	Pursuing

Research Areas

- Alternative fuels for CI Engine
- Bioreactors
- Fuel Synthesis and characterization
- Catalyst synthesis

Sponsored Projects

Ongoing Projects:

1. **Title:** Bioenergy Research, Information and Demonstration Centre (BRIDC),
Funding Agency: Karnataka State Bioenergy Development Board (KSBDB), GOK
Amount: 4.00 lakhs per year
Duration: Continuation
Role: Coordinator

Completed Projects:

1. **Title:** Purification of Crude Glycerol Obtained from Bio-Diesel Synthesis and Production of Value-Added Products
Funding Agency: Vision group of Science and Technology (VGST)
Amount: 40 Lakhs
Duration: 2018 - 2024
Role: Co- Principal Investigator
2. **Title:** Automation of Mini Portable Biodiesel Production Unit
Funding Agency: Karnataka State Council for Science and Technology (KSCST)
Amount: 3 lakhs
Duration: One Year (2022)
Role: Principal Investigator

Publications

Journals

- Prashantha S.;Omkaresh B.R., “Influence of Welding Parameters on Weld Timings, Temperature Variation and Mechanical Strength of Friction Stir Welded AA6061 and AA6082 Alloy”,Journal of Mines, Metals and Fuels, Volume 72, Year 2024, Pages 347-355.
[DOI:10.18311/jmmf/2024/44426](https://doi.org/10.18311/jmmf/2024/44426)
- Yatish K.V.;Omkaresh B.R.;Kattimani V.R.;Lalithamba H.S.;Sakar M.;Balakrishna R.G. “Solar energy-assisted reactor for the sustainable biodiesel production from Butea monosperma oil: Optimization, kinetic,

thermodynamic and assessment studies”, Energy, Volume 263, Year 2023
[DOI:10.1016/j.energy.2022.125768](https://doi.org/10.1016/j.energy.2022.125768)

- Omkaresh B.R.;Suresh R.;Lalithamba H.S.;Shreyas T.S.;Ujval C.L.; Sudharshan B.K.; Srihari, “Purification of Glycerol Obtained during Biodiesel Synthesis and Production of Value-Added Product”Journal of Mines, Metals and Fuels, Volume 71, Year 2023, Pages 247-252. [DOI:10.18311/jmmf/2023/43588](https://doi.org/10.18311/jmmf/2023/43588)
- Omkaresh B.R.;Kattimani V.R.;Yatish K.V.;Veza I.;Pramoda K. “Optimization and kinetics analysis of biodiesel production from Annona reticulata seed oil using magnesium phosphate catalyst”, Brazilian Journal of Chemical Engineering, Year 2022. [DOI:10.1007/s43153-022-00278-8](https://doi.org/10.1007/s43153-022-00278-8)
- Kulkarni G.V.;Balasubramanya H.S.;Nagesh B.V.;Lakkegowda Y.; Omkaresh B.R. “Aerodynamics Study of The Formula SAE Car using Analytical Approach” Journal of Mines, Metals and Fuels, Volume 70, Year 2022, Pages 455-461. [DOI:10.18311/jmmf/2022/32024](https://doi.org/10.18311/jmmf/2022/32024)
- Raghavendra M.;Yatish K.V.;Lalithamba H.S.;Omkaresh B.R. “Effective utilization of green synthesized CuO nanoparticles for the preparation of keto-1,2,3-triazole analogues of protected amino acids/dipeptide acids and recyclable catalyst for the optimization and kinetic study of biodiesel production”, European Physical Journal Plus, Volume 136, Year 2021. [DOI:10.1140/epjp/s13360-021-02137-w](https://doi.org/10.1140/epjp/s13360-021-02137-w)
- Yatish K.V.;Lalithamba H.S.;Sakar M.;Balakrishna G.R.;Omkaresh B.R.;Arun S.B. “Parametric studies on the storage stability and aging effect of biodiesel treated with Eucalyptus oil as a cost-effective green-antioxidant additive” International Journal of Energy Research, Volume 44, Year 2020, Pages 11711-11724. [DOI:10.1002/er.5800](https://doi.org/10.1002/er.5800)
- Omkaresh B R “Terminalia bellirica: a new biodiesel for diesel engine: a comparative experimental investigation”, Environmental Science and Pollution Research, Year 2020. [DOI:10.1007/s11356-019-06940-y](https://doi.org/10.1007/s11356-019-06940-y)
- Yatish K.V; Lalithamba H.S; Suresh R.; Omkaresh B.R. “Synthesis of biodiesel from Garcinia gummi-gutta, Terminalia belerica and Aegle marmelos seed oil and investigation of fuel properties”, Biofuels, Volume 9, Year 2018, Pages 121-128. [DOI:10.1080/17597269.2016.1259524](https://doi.org/10.1080/17597269.2016.1259524)
- Omkaresh B.R ;Suresh R.;Yatish K.V “Optimization of Annona squamosa oil biodiesel production by using response methodology”, Biofuels, Volume 8, Year 2017, Pages 377-382. [DOI:10.1080/17597269.2016.1231957](https://doi.org/10.1080/17597269.2016.1231957)

Conference Proceedings

- Arun S.B.; Suresh R.; Yatish K.V.; Omkaresh B.R.; Channa Keshava Naik N. **“Use of CaO and Na₃PO₄ Catalysts in the Synthesis of Biodiesel and Investigation of Fuel Properties”**, Materials Today: Proceedings, Volume 4, Year 2017, Pages 11111-11117.
[DOI:10.1016/j.matpr.2017.08.074](https://doi.org/10.1016/j.matpr.2017.08.074)
- Omkaresh B.R.; Suresh R.; Shivashankar M.; Arun S.B.; Manoj kumar M.” **Production optimization of methyl esters from Terminalia Billerica material using RSM”**, Materials Today: Proceedings, Volume 4, Year 2017, Pages 10690-10695.
[DOI:10.1016/j.matpr.2017.08.015](https://doi.org/10.1016/j.matpr.2017.08.015)

Book Chapters

- **“Blending Strategies and Properties of Biodiesel”**, Omkaresh B.R.; Yatish K.V.; Prashanth G.K.; Pramoda K., RSC Green Chemistry Volume 84, Year 2024, Pages 273-296.
[DOI:10.1039/BK9781837672530-00273](https://doi.org/10.1039/BK9781837672530-00273)