



Dr.K. Latha
Assistant Professor

Contact information

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Educational Qualification: M.Sc.,M/Sc (CFD, University of Leeds, UK)
Ph.D(Ministry of New and Renewable Energy, Govt of India funded fellow-Full time at Anna University ,Chennai).

Total no. of Teaching Experience: 10 years

Anna University-Chennai Supervision details:

S.NO	REF.NO	SUPERVISOR NAME	DEPARTMENT	COLLRGE/ORGANIZATION	RESEARCH AREA
620	3970034	Dr. Latha K	Department of Mathematics	Easwari Engineering College Ramapuram, Chennai-600089	Numerical Analysis, Computational Fluid Dynamics, Anaerobic Digestion, Methane production

Area of research: Computational fluid Dynamics, Numerical methods, BioHydrogen and BioMethane oriduction from Solid waste management)

PhD topic : ‘Cfd Analysis And Experimental Investigation On Mixing Strategies Of High Solids Anaerobic Co-Digestion Using Food Waste With Sewage Sludge For Enhanced Biogas Production”

Supervisor: Dr. S, Sivanesan

(Professor, Department of Applied Science and Technology, AC Tech Campus, Chennai-25)

Joint Supervisor: Dr. R, Velraj

(Professor, Institute for Energy Studies, Anna University-CEG, Chennai-25)

Consutancy research work Completed :



Figure - MOU signed with ENSYSCON ENVIRONMENTAL LAB on 09.06.2022

1 Title of the work "Prototype Static liquid air mixture technology"

Principial Investigator : Dr.K.Latha

Company Name : ENSYSCON ENVIRONMENTAL LAB is a leading firm engaged in Environmental protection testing.

Total amount sanctioned : one lakh Rupees

Status : Completed

Teaching Experience

- Handled Engineering Mathematics –II for ECE , Second Semester Students
- Handled Numerical method for EEE B.E 4th semester students.
- Handling Transformation and Partial Differential Equation for E&I ,and Automobile 3rd semester B.E students
- Conducted two week online workshop on Computational Fluid Dynamics, one among the staff –course in charge,
- Handled Theory & Practical Lab sessions on CFD (EY 8212 – Simulation Laboratory) for M.E. – Energy Engineering students, IES, Anna University
- Handled more than 15 short-term courses on CFD – Ansys FLUENT at AUFRGICC, Anna University for B.E. – Mechanical Engineering students from June 2012 to October 2014.
- Had an opportunity to give CFD-Ansys FLUENT software course as one among the lecturers for ISRO scientist of Satish Dhawan Space Centre, Sriharikota (SHAR), Andhra Pradesh, India

Consultancy Project Experience:

- Name of the post: Project Engineer – CFD, Period: 3 year from 2012 to 2019
- Nature of Jobs: Research and Innovations on the domain of CAE using Computational Fluid Dynamics (CFD) through consultancy and research projects.

Research Experience;

i. Presently working as Assistant Professor in Department of Mathematics, at

Easwari Engineering College Ramapuram, Chennai-89, since July 1st 2021

ii. Worked as a project Associate (2012-2014) in AU-FRG ICC Anna University Chennai. Involving various research project including Integrated Thermal Hydraulics studies of PFPR- **IGCAR, Kallpakam.**

iii. Worked as project Officer in the National level project Ganga River Basin Management Plan- Department of Civil Engineering, Environmental and water Resources institute, **Indian Institute of Technology –Madras**, Chennai-36, TamilNadu, India (from 5.01.11-31-12.11).

iv. Four months experience in **CFD centre**, Mechanical engineering department, **Indian Institute of Technology –Madras**, Chennai-36, TamilNadu, India (**1.7.2010 to 31.11.2010**)

INVITED LECTURES

1. 1. Delivered Faculty Development program as one among the lecture on 13.09.2023, titled 'Fluid Mechanics, Heat transfer and Multiphase flow through ANSYS FLUENT' organized by Department of Mathematics, Easwari Engineering College, Chennai-89
2. Invited as *Chairperson* for the numerical simulation section for the international Conference held at **NIT Kurushathra**, December 2019.
3. Demo lecture on "Fundamentals of CFD analysis through Numerical solution and software" held at Ac tech campus, Anna University, Chennai-25 on 13.3.2019, PETROVISION 19.
4. Invited as speaker at the WATMAN International Conference '19 held on 22 & 23 February 2019 at Chennai Trade Centre, Nandambakkam, Chennai.
5. Demo lecture on "Understanding Heat and mass transfer using CFD analysis software" held at Raman Auditorium, Ac Tech Campus, Anna University, Chennai-25 on March 2016, CHEMCON' 16.

Research papers presented in International Conferences and seminars.

1. Paper presented for the 37th National & 4th International Conference on Fluid Mechanics and Fluid Power, December 16-18, 2010, IIT Madras, Chennai, India. Entitled 'ATMOSPHERIC GAUSSIAN DISPERSION MODELLING FOR AIR POLLUTION MAPPING IN THE URBAN CITY OF AHMEDABAD'
2. Invited Lecture on Air Quality modelling on present scenarios using G sharp modeling tools, at Department of Civil and Environmental engineering conference, SRM University, Chennai.

3. I have given Guest Lecture on Air Pollution Dispersion Modeling Using CFD, in 106th SCIENCE CLUB MEET, Chennai (6.2.2010)
4. I have been invited to deliver a seminar on Mixing it up-Can CFD improve gas production in an anaerobic digester?, in School of Civil engineering, University of Leeds (8.10.09)
5. Paper presented on 14th European Bio solids and Organic Resources Conference and Exhibition, November 9 – 12, 2009, Leeds, **UK**.
6. Participated in the 13th European Bio solids and Organic Resources Conference and Exhibition, November 9 – 12, 2008, Manchester **UK**

LIST OF PUBLICATIONS

International Journals

1. G. Velvizhi¹, P. Jennita Jacqueline, Nagaraj P. Shetti, **K. Latha**, Tejraj M. Aminabhavi”Conversion of lignocellulosic biomass to biofuels: Recent trends and advances “ Journal of Environmental Management (Accepted for publication),JEMA-D-23-05441R1
2. Energy Conservation Studies in an Air-Conditioning System of a Battery-Operated Electric Bus using CFD Authors : C. Hariharan, S. Arun Prakash, S. Prasanna Raj Yadav, K. Latha, V. Antony Aroul Raj Journal Name : International Journal of Vehicle Structures and Systems DOI : <http://dx.doi.org/10.4273/ijvss.14.4.06>
3. Hariharan.C, Gunadevan D, Arun Prakash.S, Latha.K, Antony AroulRaj. V, Velraj R, 2022, “SIMULATION OF BATTERY ENERGY CONSUMPTION IN AN ELECTRIC CAR WITH TRACTION AND HVAC MODEL FOR A GIVEN SOURCE AND DESTINATION FOR REDUCING THE RANGE ANXIETY OF THE DRIVER”
Journal of Energy 249, 123657, Pages1-18.(IM 7.2)
4. Sasidhar KB, SHANMUGAM PALANIYANDI, Yogeswari S, Umaiyakunjaram R, **Latha K**, “Correlation Between Empirical Formula Based Stoichiometric and Biochemical Methane Potential of Sectorial Wastewater from Common Tannery Effluent Treatment Plant “, Bio resource Technology Reports, 20 Oct 2021, ISSN: 2589-014X
5. Latha, K, Velraj, R, Shanmugam, P & Sivanesan S 2018, ‘Mixing Strategies of High Solids Anaerobic Co-Digestion using Food Waste with Sewage Sludge for Enhanced Biogas Production’, Journal of Cleaner Production, 2018 (Impact Factor : 5.651)
6. Latha, K, Velraj, R, Shanmugam, P & Sivanesan S 2018, ' Comparison of Different Mixing Phenomena in Anaerobic Digestion using Food Waste and Sewage Treatment Plant for

Green Biofuel through Simulations of Velocity Contours Journal of Energy Sources, Part A: Recovery, Utilization, and Environmental Effects

7. Samyuktha, S, Latha, K & Sivanesan, S 2015, 'Ratio Optimization for Biogas Production from Agricultural Waste Co-Digested with Sewage Sludge', International Journal of Innovative Research in Engineering & Management (IJIREM), ISSN: 2350-0557, (3) 2015.
8. Latha K, D. Nilavunesan, S. Padmavathi, P. Baskaralingam, S. Sivanesan*, Biogas production from food waste codigested with sewage treatment plant sludge using biochemical methane potential method, Int. J. Environment and Sustainable Development, Vol. X, No. Y, 2016