

Faculty Profile



1. Name of the faculty with Qualification : **S IYAHRAJA B.E., M.Tech.,**
2. Age & Date of birth : **41 Years & 19.01.1975**
3. Designation : **Associate Professor**
4. Experience in NEC as on 01.06.16 : **16 Years 09 Months**
(With joining Date in NEC) : **DOJ at NEC: 25.08.1999**
5. Area of Expertise : **Thermal Engineering**
6. Name of the Courses handled for the last 5 years (2011-12 to 2015-16) : **1. Engineering Thermodynamics
2. Fluid Mechanics and Machinery
3. Advanced I C Engines
4. Refrigeration and Air Conditioning
5. Gas Dynamics and Jet Propulsion**
7. Research Area : **Nanofluid Heat Transfer & Thermal Engg.**
8. Ph.D work and publications : **Title - Enhancement of Heat Transfer Using Nanofluid containing Silver Nanoparticles

02 Papers published in International Journals**
9. Progress after Ph.D : **Synopsis submitted in April 2016**
10. Details of Project guided (BE and ME) : **List with outcomes**

Academic Year 2015 -2016

1. One UG Project - Incarceration of Carbon-Dioxide Released from Exhaust of Gasoline Engine

Outcome of the Project:

- i. Awarded Best Project by NEC Alumni Association**
- ii. Nominated for INAE Award from the college**
- iii. Paper is being prepared for submission in referred International Journal.**

2. One PG Project - Microencapsulation and Characterization of Bio Based PCMs like Palm Oil & Soybean Oil Mixing Aluminium Oxide For Thermal Energy Storage Application

Outcome of the Project:

- i. One Paper published in National Conference**

Academic Year 2014 -2015

1. Two UG Projects – (a) Heat Transfer Enhancement Using Silver-Water Nanofluid in Forced Convection

(b) Heat Transfer Enhancement Using Silver-Water Nanofluid in Free Convection

Outcome of the Project:

- i. **One paper on project (a) has been communicated to Experimental Thermal and Fluid Science.**
- ii. **Another paper on (b) is being prepared.**

11. Research Publication details :
i. ***Iyahraja, S* and *Selwin Rajadurai, J* 2015, “Study of thermal conductivity enhancement of aqueous suspensions containing silver nanoparticles”, AIP Advances, vol.5, Article Id: 057103, DOI: 10.1063/1.4919808 (Impact factor: 1.59)**
ii. ***Iyahraja, S* and *Selwin Rajadurai, J* 2016, “Stability of Aqueous Nanofluids Containing PVP-Coated Silver Nanoparticles”, Arabian Journal for Science and Engineering, vol. 41, no. 2 , pp. 653-660 (Impact factor: 0.367)**
12. Details of R&D Projects : Completed / Ongoing Projects/ status and outcomes – **One RPS project proposal was submitted to AICTE in 2011- 2012.**
13. Details of Consultancy Projects : Completed / Ongoing Projects/ status and outcomes - **Nil**
14. Faculty interaction with outside world :
i. **Delivered expert lecture on “Turbocharger” in Technical Symposium organized by Department of Mechanical Engineering, Coimbatore Institute of Technology, Coimbatore on 26.08.2015.**
ii. **Delivered expert lecture on “Engineering thermodynamics” in Faculty Development Training Programme organized by Department of Mechanical Engineering, Sri Vidya College of Engineering & Technology, Virudhunagar on 07.6.2016 & 08.06.2016.**
15. Professional society activities, events, conferences organized : **Nil**
16. Professional society activities, events, conferences attended :
17th ISTE TN & P Section Annual Convention on “Empowering Indian Engineering Education for Global Expectations” held at National Engineering College, Kovilpatti during 7th and 8th November 2014.
17. FDP, Short term courses, workshops, seminar arranged : **Nil**
18. FDP, Short term courses, workshops, seminar attended :
1. SERC Winter School on “Automotive Combustion Control Systems: Sensors, Actuators and Real Time Embedded Controllers” organized by National Center for Combustion Research and Development, Indian Institute of Technology Madras & Indian Institute of Science, Bangalore from 28th January – 30th January, 2013.
2. AICTE sponsored Faculty Development Programme on “Advanced Concepts and Techniques in Engineering Design” organized by Government College of Engineering, Tirunelveli from 27th May to 8th June 2013.

3. TEQIP sponsored Two-Day Faculty Development Programme on “Nanofluids” organized by Thiagarajar College of Engineering, Madurai on 5th & 6th December 2013.

4. One day workshop on “Intellectual Property Rights and Innovations” organized by National Engineering College, Kovilpatti on 7th November 2015.

5. Three day National level workshop on “Formulation of Research and Development Grant Proposals by Scientists and Technologists” organized by National Engineering College, Kovilpatti from 18th to 20th November 2015.

19. List of course module developed :

Prepared Syllabus for Thermal Engineering and Advanced Internal Engines for B.E. Mechanical Engineering of NEC Autonomous Regulations 2015

20. Records of new program specific facility created by faculty : Nil

21. Faculty Intellectual Property Rights (FIPR) applied : Nil

22. Laboratories/research facilities established :

One Experimental Set up was fabricated to evaluate the convective heat transfer coefficient of nanofluid in horizontal circular pipe.

23. Any other informations/special achievements