



D. Sakthivadivel

PERSONAL PROFILE

Date of Birth : 10th April 1987
Father's Name : Mr. R. Duraisamy
Mother's Name : Mrs. D. Sivagamy
Address : 3/217, Kandasampalayam,
Komarayivalasu (PO),
Modakurichi (Via),
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EDUCATION QUALIFICATION

PhD – Energy Engineering (Pursuing)
M.E – Energy Engineering (2011)
B.E – Electrical and Electronics Engineering (2009)

EXPERIENCE

Organization	Designation	Duration
Institute for Energy Studies (IES), Anna University, Chennai.	Teaching Fellow	September 2012 – Till date
The Energy and Resources Institute (TERI)	Research Associate	December 2010 - November 2011

AREA OF SPECIALIZATION

- Solar Energy Technology and Applications
- Biomass Improved Cook Stoves
- Energy Analysis, Conservation and Management
- Power Electronics and Drives
- Central Receiver Power Plant

COURSES TAUGHT

- EY9111 - Combustion Engineering
- EY9112 - Energy Conservation in Thermal Systems
- EY9159 - Direct Energy Conversion System
- EY9153 - Advanced Power Plant Engineering
- ME9401 – Power Plant Engineering
- PE9154 – Power Electronics for Renewable Energy Systems
- EY9121 - Electrical Drives and Control
- EY9113 - Energy Laboratory
- ME9255 - CAD Laboratory
- ME9358 - Microprocessor and Microcontroller Laboratory

ADDITIONAL POSITIONS HELD

- **Resident Counsellor** of **MARUTHAM (Block-V)** Hostel for Engineering College Hostels, Anna University, Chennai.
- **Class Adviser** for first year M.E Energy Engineering students.
- Participated as a **Certificate Verification Officer** at **TNEA 2013**.

PATENT

- Applied for patent to the work- "**Sun point solar thermal energy collection system**". The patent application number is 2376/CHE/2011 and international classification number is F24J2/00 [Principal Investigator: Prof. S.R. Rajabalayanan].

PUBLICATIONS

- Raman, P. Murali, J. **Sakthivadivel, D.** Vigneshwaran, V.S. "**Evaluation of Domestic Cook stove Technologies Implemented across the World to Identify Possible Options for Clean and Efficient Cooking Solutions**", *Journal of Energy and Chemical Engineering*, (2013) (Article in Press).
- Raman, P. Murali, J. **Sakthivadivel, D.** Vigneshwaran, V.S. "**Performance evaluation of three types of forced draft cooks stoves using fuel wood and coconut shell**", *Biomass and Bioenergy*, 49 (2013) 333-340.
- Velmurugan, V. Raja Balayanan, S.R. **Sakthivadivel, D.** Surendhra Babu, K "**Development and performance evaluation of 0.16m² solar point thermal energy collector compared with flat plate collector**", *International Journal of Renewable Energy Technology, InderScience* (2013) (Article in Press).
- Raman, P. Murali, J. **Sakthivadivel, D.** Vigneshwaran, V.S. "**Opportunities and Challenges in Settling up Solar Photo Voltaic based Micro grids for electrification in rural areas of India**", *Renewable and Sustainable Energy Reviews*, 16 (2012) 3320-3325.
- Velmurugan, V. Raja Balayanan, S.R. Surendhra Babu, K and **Sakthivadivel, D.** "**Investigation of a Novel Solar Powered Absorption Refrigeration System with Solar Point Collector**", *Res. J. Chemical Science*, 1(7), 51-56(2011).

AWARDS AND ACHIEVEMENTS

- Completed Master of Engineering "**First class with distinction**".
- Won "**Best achiever award**" during the academic year 2008 – 09.
- Secured second place in project expo event "**SENSONICS 09**" conducted by Kongu Engineering College, Perundurai.

CONFERENCES AND WORKSHOPS

- Velmurugan, V. Raja Balayanan, S.R. and **Sakthivadivel, D.** (2011). "**Development and Comparison of thermal Performance of 0.16m² Solar Point Thermal Energy Collection System with Solar Flat Plate Collector**" in a National conference (ENVIRONZ'11) conducted by Government College of Technology (GCT) and Anna University of Technology, Coimbatore.
- Velmurugan, V. Raja Balayanan, S.R. **Sakthivadivel, D.** and Surendhra Babu, K. (2011). "**Development and Comparison of thermal Performance of 0.16m² Solar Point Thermal Energy Collection System with Solar Flat Plate Collector**" in a National conference (AIMS'11) conducted by Kumaraguru College of Technology (KCT), Coimbatore.
- Velmurugan, V. Raja Balayanan, S.R. **Sakthivadivel, D.** and Surendhra Babu, K. (2010). "**Development and Evaluation of Performance of 0.16m² Sun Cube Solar Thermal Energy Collection System towards Cost and Energy Efficiency**" in an international conference (ICETRE'10) conducted by Anna University, Chennai.

- Velmurugan, V. Raja Balayanan, S.R. **Sakthivadivel, D.** and Surendhra Babu, K. (2010). "***Design and Development of Solar Vapour Absorption Refrigeration System***" in a national conference conducted by KSR College of technology, Erode.
- Velmurugan, V. Raja Balayanan, S.R. **Sakthivadivel, D.** and Surendhra Babu, K. (2010). "***An Investigation into the Adverse Effects of Renewable Energy Systems***" in a national conference conducted by SNS College of management, Coimbatore.
- Viswanathan, P. and **Sakthivadivel, D.** (2009). "***A Novel Mathematical Modeling of Sinusoidal PWM Inverters Using MATLAB***" in a national conference conducted by IFET, Vilupuram.
- Viswanathan, P. and **Sakthivadivel, D.** (2009). "***A Novel Mathematical Modeling of Sinusoidal PWM Inverters by Varying Firing Angle Using MATLAB***" in a national conference conducted by Paavai Engineering College, Rasipuram.
- Attended a workshop (2013) on "***Renewable Energy, Climate Change and Energy Management***" conducted by Anna University, Chennai-25.
- Attended a workshop (2010) on "***Wind Energy Conversion Systems***" conducted by Sri Krishna College, Coimbatore.
- Attended a workshop (2008) on "***Emerging trends in Renewable Energy Technologies***" conducted by TNEB, Tamil Nadu.

IN-PLANT TRAINING UNDERGONE

- Undergone in-plant training for three days in "***Sakthi Auto Component***", Erode.
- Undergone in-plant training for ten days in "***Seshasayee Paper and Boards Limited***", Pallipalayam, Namakkal.
- Undergone in-plant training for seven days in "***Bharat Sanchar Nigam Limited (A Govt of India Enterprise)***", Erode.

PROJECT GUIDED

M.E Projects:

- Design, Performance Enhancement of Solar Central Receiver Power Tower (CRPT) of 5kW Capacity
- Design And Performance Enhancement Study Of Sun Point Collector Using CFD
- Design of a novel MPPT system for SPV system using MATLAB
- Energy saving potential and improvement analysis in an assembly unit of a car manufacturing industry

B.E Projects:

- Novel Microcontroller based traffic signal for emergency vehicles and pedestrians
- Design and development of novel solar flat plate collector using sun point technology

MEMBERSHIPS IN PROFESSIONAL BODIES

- Member of Indian Society for Technical Education (MISTE)
- Life Member of Solar Energy Society of India (MSESI)
- Member of Indian Society of Electrical and Electronics Engineers (MISEEE)
- Member of Nature Club and Centre for Energy Studies, KCT.