

## **Vineet Veer Tyagi, *Ph.D.***

### **RESEARCH FIELD & ACTIVITIES**

Extensive multidisciplinary research in Clean Energy Technologies (Solar Thermal Energy Storage with Phase Change Materials (temperature range of 20°C - 80°C), Solar Energy based Wastewater Treatment Technology, Energy Policy, PV & PV/Thermal Systems and Applications

### **RESEARCH/ACADEMIC EXPERIENCE**

23 <sup>rd</sup> March 2015 to Present	Assistant Professor Department Energy Management (Faculty of Engineering), Shri Mata Vashini Devi University, (State University), (J&K) India
30 <sup>th</sup> October 2014 to 21 <sup>st</sup> March 2015	Research Scientist DST-Centre for Policy Research, B. B. A. University, Lucknow, U.P, India
22 <sup>nd</sup> August 2012 to 30 <sup>th</sup> October 2014	Associate Professor, Department of Physics, Manav Rachna College of Engineering, Faridabad, 121001, Haryana, India
1 <sup>st</sup> August 2011 to 31 <sup>st</sup> July 2012	Post Doctoral Research Fellow, University of Malaya Power Energy Dedicated Advance Centre (UMPEDAC), Faculty of Engineering, University of Malaya, 50603, Kuala Lumpur, Malaysia
20 <sup>th</sup> March 2009 to 31 <sup>st</sup> July 2011	Research Associate (CSIR), Centre for Energy Studies, IIT Delhi, New Delhi, India
3 <sup>rd</sup> April 2008 to 19 <sup>th</sup> March 2009	Research Associate, Solar Energy Center, Gwal Phari, Ministry of New and Renewable Energy, Government of India, New Delhi, India

1<sup>st</sup> June, 2007 to      Visiting Researcher  
30<sup>th</sup> November 2007    Department of Mechanical Engineering, Kun Shan  
University,  
Tainan Hsien, 71003,  
Taiwan, R.O.C.

April, 2003 to            Research Fellow  
May, 2007                School of energy & Environmental Studies, Devi Ahilya  
University, Indore,  
(MP) India

July, 2005 to            Research Fellow  
March, 2006             ACME Telepower Ltd.  
Gurgaon - 122 002, Haryana,  
India

## **EDUCATION**

Ph. D.    School of Energy & Environmental Studies, (***Faculty of Engineering Sciences***),  
Devi Ahilya University, Indore India, Title of Thesis “**Studies on the Solar Thermal  
Energy Storage System Having Phase Change Material for Space Heating and  
Cooling**” in November 2007.

M.Sc.     **Physics** (2001), with First Division, M.J.P. Rohilkhand University, Bareilly  
(UP) India.

B.Sc.     **Physics, Chemistry, Mathematics** (1998) with First Division, M.J.P. Rohilkhand  
University, Bareilly, (UP) India.

## **FELLOWSHIP/AWARD**

- University of Malaya Post Doctoral Research Fellowship (2011) at (UMPEDAC), Faculty of Engineering, University of Malaya, 50603, Kuala Lumpur, Malaysia
- Research Associate, Council of Scientific & Industrial Research (CSIR), 2009 at Centre for Energy Studies, Indian Institute of Technology Delhi, New Delhi, India
- Research Associate, 2008, Ministry of New and Renewable Energy (MNRE), Government of India, New Delhi, India
- Post Doctoral Research Fellowship at Bauhaus-University Weimar, Germany, (did not join)

- PDRF, 2012, University of Ulster, U.K., (did not join)
- Senior Research Fellowship (Extended), 2008, Council of Scientific & Industrial Research (CSIR) New Delhi at Centre for Energy Studies, Indian Institute of Technology Delhi, New Delhi, India

## **RESEARCH & TEACHING EXPERIENCE**

Post PhD Research Experience – 08 Years 10 Months,  
During Doctoral Degree - 4 years

### **Theoretical Skills**

Thermodynamics, Solar Energy, Thermal Energy Storage & Applications, Non-conventional Energy Sources, Renewable Energy, Energy Storage Systems and Applications

### **EXPOSURE Of INSTRUMENTS**

- Differential Scanning Calorimeter (DSC),
- HP 3852A Data Acquisition Unit, Pyranometer,
- UV Photometer

### **STUDENT SUPERVISION**

**Ph.D. Supervision: Supervisor 03 (Ongoing)**  
**Atin K. Pathak (Research Scholar)**

**Co-Supervisor 01 (Ongoing)**

Topic- Solar Energy Utilization for Wastewater Treatment and Its Application for Bioenergy Generation

**Kapil Chopra (Research Scholar)**

Topic – Performance, Energy and Exergy Analysis of Developed Solar Collector system for water/air heating applications

**Har Mohan Singh (Research Scholar)**

Topic- Studies on the Solar Energy based photo-bioreactor system to harvest Algal Biomass with the use of Bioflocculants

**Aditya Chauhan (Research Scholar)**

Topic- Thermodynamic and performance analysis of PV/Thermal Solar collector system

**Master of Technology (Energy Management/Energy & Environment): 11 (Completed)**

1. Title: Performance analysis and experimental study of box and parabolic type solar cookers, (Dec. 2008) Student(s): Kulbhushan Sharma and Pranav Mahajan  
Supervisor(s): S. K. Tyagi, and V. V. Tyagi
2. Title: Analysis and experimental study of solar water heating systems for a typical Indian climate, (Dec. 2008) Student(s): Sahil Kesar and Rahul Gupta

- Supervisor(s): S. K. Tyagi, and V. V. Tyagi
3. Title: Design and performance study of PV-Thermal collector with solar energy and indoor environment. (2012) Student: Nural A. A. Rahim, UMPEAC, University of Malaya, Kuala Lumpur, Malaysia  
Supervisors: N. A. Rahim and V. V. Tyagi
  4. Title: A Case Study of Clean Development Mechanism and its Effects on Renewable Energy Projects and Green House Gas Emission in India Student: Har Mohan Singh  
Supervisors: Richa Kothari and V.V. Tyagi
  5. Assessment of CDM Potential of Solar Energy Sector in India, Student: Amit Kumar Gautum  
Supervisors: Richa Kothari and V.V. Tyagi
  6. Designing of Solar Water Heating System of 30 Liter Capacity with Three side Reflectors For Efficiency Water Heating Student: Anurag Chandra Shekhar  
Supervisors: Richa Kothari and V.V. Tyagi
  7. Designing of a 30 Litre Capacity Solar Water Heater with 3 sides Reflecting Mirrors and Its comparative performance study with evacuated tube collectors Student: Manish Kumar  
Supervisors: Richa Kothari and V.V. Tyagi
  8. Performance evaluation and CDM Potential of solar photovoltaic plant at Government Polytechnic Jammu  
Students: Harmeet Kour Supervisors: Dr V V Tyagi
  9. Renewable energy options in his own organization and energy auditing of the plant,  
Students: Kapish Mattoo Supervisors: Dr V V Tyagi
  10. Planning and economical analysis of grid connected solar power plants  
Students: Navneet Mahajan Supervisors: Dr V V Tyagi
  11. Energy Auditing of a college campus  
Students Anuradha Khajuria Supervisors: Dr V V Tyagi

### Citation Index: (Google Scholar)

Citation indices	All	Since 2011
Citations	5700	2981
h-index	22	20
i10-index	32	21

<https://scholar.google.co.in/citations?user=OEmOhlgAAAAJ&hl=en>

### **LIST OF PUBLICATIONS** (Published in SCI Journals) Total Impact Factor (162.3)

1. **Vineet V. Tyagi** and D. Buddhi, PCM Thermal Storage in Buildings a State of Art, , Renewable and Sustainable Energy Reviews, volume 11 pp. 1146-1166, 2007. **(Impact Factor – 8.05)**, No of citation- 576

2. **V. V. Tyagi**, and D. Buddhi, Thermal Cycle Test of Calcium Chloride Hexahydrate as a PCM for Latent Heat Storage application In Buildings, Solar Energy Materials & Solar Cells, Volume 92, Issue 8, pp. 891-899, 2008. (Impact Factor – 4.89), No of citation- 63
3. Atul Sharma, **V.V. Tyagi**, C.R. Chen and D. Buddhi, Review on thermal energy storage with phase change materials and applications, Renewable and Sustainable Energy Reviews, volume 13, Issue 2, pp. 318-345, 2009. (**Impact Factor – 8.05**). No of citation- 1536
4. S. K. Tyagi, S. R. Park and **V. V. Tyagi** and S. Anand, Economic considerations and cost effectiveness among different possible options to control the visible plume from wet cooling tower in commercial buildings, Indian Journal of Pure and Applied Physics, Vol. 47, 2009. (**Impact Factor – 0.8**)
5. S. K. Tyagi, **V. V. Tyagi**, V. Chandra, R. K. Diwedi, First and second law analysis of a typical solar dryer: A case study, International Journal of Sustainable Energy, Vol. 29, No. 1, pp. 8–18, 2010. (ISI Journal)
6. S. K. Tyagi, S. R. Park, **V. V. Tyagi** and S. Anand, Second law based performance evaluation and parametric study of a sea water source cascade heat pump, International Journal of Exergy Vol. 7, No. 3, 2010. (**Impact Factor – 1.1**)
7. Richa Kothari, **V V Tyagi** and Ashish Pathak, Waste-to-Energy: A Way from Renewable Energy Sources to Sustainable Development, Renewable and Sustainable Energy Reviews, 14, 3164–3170, 2010. (**Impact Factor – 8.05**)
8. **V. V. Tyagi**, S C. Kaushik, S. K. Tyagi, and T. Akiyama, Development of Phase Change Materials based Microencapsulated Technology for Buildings: A Review, Renewable and Sustainable Energy Reviews, 15, Pages 1373-1391, 2011. (**Impact Factor – 8.05**)
9. **V. V. Tyagi**, S. C. Kaushik, A. K. Pandey and S. K. Tyagi, Experimental study of the supercooling and pH behavior of a typical phase change material for thermal energy storage, Indian Journal of Pure and Applied Physics, Vol. 49, 2011, pp. 117-125. (**Impact Factor – 0.8**)
10. **V. V Tyagi**, A. K. Pandey, G. Giridhar, B. Bandyopadhyay, S R Park and S. K. Tyagi, Comparative study based on exergy analysis of solar air heater collector using thermal energy storage, International Journal of Energy Research, Volume 36, pages 724–736, 2012, (**Impact Factor – 2.12**)
- 11 A. K. Pandey, **V. V Tyagi**, S R Park and S. K. Tyagi, Comparative experimental study of solar cookers using exergy analysis, Journal of Thermal Analysis and Calorimetry, 2012, Volume 109, pages 425-431. (**Impact Factor – 2.206**)

12. **V. V. Tyagi**, A. K. Pandey, S.C. Kaushik and S. K. Tyagi, Thermal performance evaluation of a solar air heater with and without thermal energy storage: An experimental study, International Journal of Thermal Analysis and Calorimetry, 2012, Volume 107, Issue 3, pages 1345-1352  
**(Impact Factor – 2.206)**
13. R. P. Singh, **V V Tyagi**, Tanu Allen, M. Hakimi Ibrahim and Richa Kothari, An Overview for Exploring the Possibilities of Potential Energy Generation from Municipal Solid Waste (MSW) in Indian Scenario, Renewable and Sustainable Energy Reviews, Volume 15, December 2011, 4797-4808. **(Impact Factor – 8.05)**
14. **V. V. Tyagi**, S C. Kaushik and S. K. Tyagi, Advancement in Photovoltaic/Thermal (PV/T) Hybrid Solar Collector Technology, Renewable and Sustainable Energy Reviews, Volume16, issue 3, 2012, 1383-1398. **(Impact Factor – 8.05)**
15. **V. V. Tyagi**, N. L. Panwar, N. A. Rahim and Richa Kothari, Review on Solar Air Heating System with and without Thermal Energy Storage System, Renewable and Sustainable Energy Reviews, 16 , 2012, pp. 2289– 2303, **(Impact Factor – 8.05)**
16. N. L. Panwar, Richa Kothari, **V. V. Tyagi**, Thermo chemical conversion of biomass – Eco friendly energy routes, Renewable and Sustainable Energy Reviews, volume 16, 2012, pp 1801– 1816, **(Impact Factor – 8.05)**
17. Richa Kothari, D. P. Singh, S. K. Tyagi and **V. V. Tyagi**, Fermentative Hydrogen Production – An Alternative Clean Energy Source, Renewable and Sustainable Energy Reviews, volume 16, 2012, pp 2337-2346, **(Impact Factor – 8.05)**
18. Kothari Richa, Kumar Virendra, & **Vineet Veer Tyagi**, Assesment of waste treatment and energy recovery from dairy industrial waste by anaerobic digestion. The Official Journal of Institute of Integerative Omics and Applied Biotechnology (IIOABJ), 2011; Vol. 2 (1): ISSN: 0976-3104.
19. S. K. Tyagi, A. K. Pandey, **V. V. Tyagi**, P. C. Pant, Formation, Potential and Abatement of Plume from Wet Cooling Towers in Commercial Building: A Review, Renewable and Sustainable Energy Reviews, volume 16, 5, 2012, Pages 3409-3429. **(Impact Factor – 8.05)**
20. Eneja Osterman, **V. V. Tyagi**, Uroš Stritih, N. A. Rahim, Vincenc Butala, Review of PCM based cooling technologies for buildings, International Journal of Energy and Buildings, volume 49, 2012, Pages 37-49. **(Impact Factor – 4.06)**

21. **V. V. Tyagi**, N. A. A. Rahim, N. A. Rahim, J. Selvaraj, Progress in Solar PV: Research and Achievement, Renewable and Sustainable Energy Reviews, 20, 2013, Pages 443-46. **(Impact Factor – 8.05)**
22. **V. V. Tyagi**, D. Buddhi, Richa Kothari and S. K. Tyagi, Phase change material (PCM) based thermal management system for cool energy storage application in building: An experimental study, International Journal of Energy and Buildings, Volume 51, 2012, Pages 248-254. **(Impact Factor – 4.06)**
23. A. K. Pandey, **V. V. Tyagi** and S. K. Tyagi, Exergetic analysis and parametric study of multi-crystalline solar photovoltaic system at a typical climatic zone, International Journal of Clean Technology and Environmental Policy, April 2013, Volume 15, Issue 2, pp 333-343, **(Impact Factor 1.71)**
24. **V. V. Tyagi** A. K. Pandey, D. Buddhi and S. K. Tyagi, Energetic and Exergetic analysis of two different types PCM based thermal management systems for space air conditioning applications, International Journal of Energy Conversion and Management, Volume 69, May 2013, Pages 1-8. **(Impact Factor – 5.58)**
25. Sam Koohi-Kamali, **V V Tyagi**, N.A. Rahim, N L Panwar, H. Mokhlish, Emergence of energy storage technologies as the solution for reliable operation of smart power systems: A review, Renewable and Sustainable Energy Reviews, Volume 25, September 2013, Pages 135-165. **(Impact Factor – 8.05)**
26. **V. V. Tyagi**, Adarsh K. Pandey, Richa Kothari and S. K. Tyagi, Thermodynamics and Performance Evaluation of Encapsulated PCM based Energy Storage Systems for Heating Application in Building, Journal of Thermal Analysis and Calorimetry. 2014, Volume 115, Issue 1, pp 915-924. **(Impact Factor – 4.06)**
27. S. R. Park, A. K. Pandey, **V. V. Tyagi** and S. K. Tyagi, Energy and exergy analysis of different renewable energy systems: A critical review, Renewable and Sustainable Energy Reviews 30, 2014, 105-123. **(Impact Factor – 8.05)**
28. Richa Kothari, A. K. Pandey, **V. V. Tyagi**, S. K. Tyagi, Different aspects of dry anaerobic digestion for Bioenergy: An overview, International Journal of Renewable and Sustainable Energy Reviews 39, 2014, 174-195. **(Impact Factor – 8.05)**
29. R.K. Sharma, P. Ganesan, **V. V. Tyagi**, H.S.C. Metselaar, S.C. Sandaran, Developments in organic solid-liquid PCM materials and their applications in thermal energy storage, Energy Conversion and Management, 95, 2015, 193–228. **(Impact Factor – 5.58)**

30. A. K. Pandey, **V. V. Tyagi**, N.A Rahim, S.C. Kaushik, S. K. Tyagi, Thermal Performance evaluation of direct flow solar water heating system using exergetic approach, International Journal of Thermal Analysis and Calorimetry, 121, 2015, 1365–1373. **(Impact Factor – 2.206)**
31. A. K. Pandey, **V. V. Tyagi**, N.A Rahim, S. K. Tyagi, Recent Advances in Solar Photovoltaic Systems for Emerging Trends and Advanced Applications, International Journal of Renewable and Sustainable Energy Reviews, 53, 2016, 859-884. **(Impact Factor – 8.05)**
32. S. Koochi-Kamali, NA Rahim, H Mokhlis, **V. V. Tyagi**, Photovoltaic electricity generator dynamic modeling methods for smart grid applications: A review, Renewable and Sustainable Energy Reviews 57, 2016, 131-172. **(Impact Factor – 8.05)**
33. R. K. Sharma, P Ganesan, **V. V. Tyagi**, Accelerated thermal cycle and chemical stability testing of polyethylene glycol (PEG) 6000 for solar thermal energy storage, Solar Energy Materials and Solar Cells 147, 2016, 235-239. **(Impact Factor – 4.8)**
34. R. K. Sharma, P Ganesan, **V. V. Tyagi**, Long term thermal and chemical reliability study of different organic phase change materials for thermal energy storage applications, Journal of Thermal Analysis and Calorimeter, 10973-016-5281-5, ( 2016), **(I.F.- 2.1)**
35. R. K. Sharma, P Ganesan, V. V. Tyagi, Thermal properties and heat storage analysis of palmitic acid-TiO<sub>2</sub> composite as nano-enhanced organic phase change material (NEOPCM), Applied Thermal Engineering, 99, 2016, 1254–1262 **(I.F.- 2.7)**
36. **V. V. Tyagi**, A.K. Pandey, D. Buddhi, Richa Kothari Thermal performance assessment of encapsulated PCM based thermal management system to reduce peak energy demand in buildings, Energy and Buildings 117 (2016) 44–52. **(Impact Factor –2.8)**
37. V. V. Pathak, S. Ahmad, A. Pandey, **V. V. Tyagi**, D. Buddhi, Richa Kothari, Deployment of Fermentative Biohydrogen Production for Sustainable Economy in Indian Scenario: Practical and Policy Barriers With Recent Progresses, Current Sustainable/Renewable Energy Reports, December 2016, Volume 3, Issue 3, pp 101–107. **(Scopus Journal)**
38. Ali Karaipekli, Alper Biçer, Ahmet Sarı, **V. V. Tyagi**, Thermal characteristics of expanded perlite/paraffin composite phase change material with enhanced thermal conductivity using carbon nanotubes, Energy Conversion and Management, Volume 134, 15 February 2017, Pages 373–381 **(Impact Factor – 5.58)**



39. Richa Kothari, V. V. Pathak, A .Pandey, S. Ahmad, **V.V. Tyagi**, A novel method to harvest *Chlorella* sp. via low cost bioflocculant: Influence of temperature with kinetic and thermodynamic functions, *Bioresource Technology*, Volume 225, February 2017, Pages 84–89. **(Impact Factor – 4.86)**
40. Richa Kothari, Virendra Kumar Vinayak V. Pathak, S. Ahmad, Ochieng, Aoyi, **V. V. Tyagi**, A critical review on factors influencing fermentative hydrogen production, *Frontiers in Bioscience, Landmark*, 22,1195-1220, March 2017. **(I.F. 2.48)**
41. R Kothari, A Pandey, S Ahmad, A Kumar, VV Pathak, VV Tyagi. Microalgal cultivation for value-added products: a critical enviro-economical assessment. *3 Biotech* 7 (4), 243 **(I.F.1.361)**
42. S Sikarwar, S Singh, R Srivastava, BC Yadav, VV Tyagi. Design and development of lab model of piezo-optic sensor for Structural Health Monitoring. *Smart Materials and Structures* 26 (10), 105047 **(I.F. - 2.769.)**
43. R Kothari, V Kumar, VV Pathak, VV Tyagi. Sequential hydrogen and methane production with simultaneous treatment of dairy industry wastewater: Bioenergy profit approach. *International Journal of Hydrogen Energy* 42 (8), 4870-4879 **(I.F.- 3.582)**
44. AK Pandey, MS Hossain, VV Tyagi, NA Rahim, A Jeyraj, L Selvaraj, A Sari. Novel approaches and recent developments on potential applications of phase change materials in solar energy. *Renewable and Sustainable Energy Reviews* 82, 281-323. **(I.F. – 8.05)**

### **Edited Book**

**Emerging Energy Alternatives for Sustainable Environment,**  
**D.P.Singh, Richa Kothari, V V Tyagi,**  
**Publisher: TERI Press, 2016, ISBN: 9788179934111**

### **Chapters in Edited Books**

1. Vinayak V Pathak, Richa Kothari, **V. V. Tyagi**, Balchandra Yadav, Policy Reforms in Indian Energy Sector to Achieve Energy Security and Sustainability, *Energy Security and Sustainability*, (2016), 351-362, ISBN: 978-1-4987-5443-9, CRC Press,

2. Richa Kothari, Arya Pandey, Virendra Kumar, **V. V. Tyagi**, Algae-Based Biohydrogen: Current Status of Bioprocess Routes, Economical Assessment, and Major Bottlenecks, Algae and Environmental Sustainability, 77-86, (2015), (ISBN 978-81-322-2641-3) (Springer)
3. Atin kumar Pathak, Richa Kothari, **V. V. Tyagi** and D.P. Singh, Microbes: A Viable Mean for Wastewater Treatment and Source of Bioenergy, Microbes in Sustainable Management of Soil, Water and Agriculture, Studium Press, ISBN: 978-93-80012-83-4.
4. R. K. Sharma, **V.V Tyagi**, A. K. Pandey, Advancement in the phase change materials for solar thermal energy storage, Emerging Energy Alternatives for Sustainable Environment, (2016) (TERI Press, New Delhi) ISBN:9788-1799-34111.
5. Atin kumar Pathak, **V. V. Tyagi**, Richa Kothari, Membrane-Less Microbial Fuel Cell: A Low-Cost Sustainable Approach for Clean Energy and Environment, Emerging Energy Alternatives for Sustainable Environment, (2016) (TERI Press, New Delhi) ISBN:9788-1799-34111.
- 6.. Vijay K. Jayswal, **V. V. Tyagi**, Richa Kothari, D. P. Singh and S. K. Samdarshi, Role and Initiatives of Indian Government Policies for Growth of Wind Energy Sector, Emerging Energy Alternatives for Sustainable Environment, (2016) (TERI Press, New Delhi) ISBN:9788-1799-34111.
7. Richa Kothari, Kumar Virendra, Panwar N.L., **V. V. Tyagi**, Municipal Solid Waste Management Strategies for Renewable Energy Options, Chapter-2.8, August 2013; Sustainable Bioenergy Production; Editor: L. Wang, CRC Press, Taylor & Francis Group; (ISBN: 1466505524)
8. Pathak Vinayak V., Chopra A.K., Richa Kothari, **V. V. Tyagi**, Growth Characteristics of *C. Pyrenoidosa* cultured in nutrient enriched Dairy wastewater for pollutant reduction and Lipid productivity, Recent Advances in Bioenergy Research, Volume II, Sardar Swaran Singh National Institute of Renewable Energy Kapurthala, India, December 2012 (ISBN 978-81-927097- 1-0).
9. Richa Kothari, Verma Sarita and **V. V. Tyagi**, Vermicomposting parameters play an effective role in green sustainable approach, Organic fertilizers: Type Production and Environmental Impact, Editor-Dr. Rajeev Pratap Singh 85-96 (2011); ISSN/ISBN No.: 978-1-62081-422-2

### **Paper in the International/National Conference**

1. Economic considerations and cost comparisons among different possible options to control the visible plume from wet cooling tower in commercial buildings, S. K. Tyagi, S. R. Park and **V. V. Tyagi**, International 3eGIBC Conference, Oct. 2007, Taiwan.

2. Comparative Performance Studies on Different Types of Solar Water Heating Systems, International conference on solar energy and mechanical Engineering, G. Giridhar, **V. V. Tyagi** and B. Bandyopadhyay, Valomal engineering college, March 2009, India.
3. A review of sustainable approach for bio-hydrogen production from industrial wastewater, Richa Kothari, D. P.Singh, V V Tyagi, 'ENERSTATE 2010' International Conferwence on "Clean Energy Technologies And Energy Efficiency For Sustainable Development", December 27-29, 2010, Dehradun, Uttarakhand.
4. Development in Solar PV/Thermal Hybrid Collector Systems and Applications, V. V. Tyagi and D. Buddhi, ENERSTATE 2012' National Conference on "Energy Conservation in Buildings", April 27-28, 2012, Dehradun, Uttarakhand.
5. Solar PV/T air system: An indoor experimental validation, N. A. Rahim, N. A. A. Rahim, V. V. Tyagi, J. Selvaraj, SUSTAINABLE FUTURE ENERGY 2012 and 10th SEE FORUM Innovations for Sustainable and Secure Energy, 21-23 November 2012, Brunei Darussalam.
6. Growth characteristics of Chlorella pyrenoidosa cultured in nutrient enriched dairy wastewater for pollutant reduction and lipid productivity, Vinayak V. Pathak, A.K. Chopra, Richa Kothari and V. V. Tyagi, National conference on Bioenergy, SSS NIRE, Kapurthala, Punjab India, December 2012.
7. Outdoor Performance Of Solar PV/T Air System, N.A Rahim, N.A.A Rahim, V.V Tyagi, J. Selvaraj, The 2013 IEEE Conference on Clean Energy and Technology (CEAT 2013), Nov. 2013, Malaysia
8. Outdoor Performance of Solar PV/T Air System, N.A Rahim, N.A.A Rahim, V.V Tyagi, J. Selvaraj, Power and Energy Conversion Symposium (PECS 2012), Dec. 2012, Malaysia
9. Year round performance and parametric study of thin film solar photovoltaic system, A. K. Pandey, V.V Tyagi, Jeyraj A/L Selvaraj, S. K. Tyagi, The 2013 IEEE Conference on Clean Energy and Technology (CEAT 2013), Nov. 2013, Malaysia

## **APPENDIX**

### **Editorial Board Member:**

International Journal of Energy Engineering  
 International Journal of Daylighting  
 International Journal of Thermal Engineering  
 International Journal of Energy (American Institute of Mathematical Sciences, AIIMS)

### **Reviewer of the following peer reviewed International Journals:**

1. International Journal of Applied Energy, (Elsevier)
2. Energy Conversion and Management (Elsevier)

3. International Journal of Sustainable Energy, (Taylor & Fransis)
4. International Journal of Thermal Sciences, (Elsevier)
5. International Journal of Renewable and Sustainable Energy Reviews (Elsevier)
6. International Journal of Energy Conversion and Management (Elsevier)
7. International Journal of Energy and Buildings (Elsevier)
8. International Journal of Renewable Energy (Elsevier)
9. Journal of Energy Storage Technology (Elsevier)
10. Journal of Thermal Analysis and Calorimetry (Springer)

I hereby declare that all statements above are true and complete to the best of my Knowledge.

**Place:** Jammu, India

**Name:** Dr. V. V. Tyagi