

## CURRICULUM VITAE



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### Educational Qualifications

2006 - Ph.D in Environmental Sciences, Bharathiar University, Coimbatore, Tamilnadu, India.  
Title of the Ph.D. Thesis: Remediation of vertisol artificially contaminated with cadmium using organic amendments.

2003- Diploma in Industrial Pollution and Control, Directorate of Distance Education, Annamalai University, Chidambaram, Tamil nadu, India

1997 - M.Sc in Environmental Sciences, Bharathiar University, Coimbatore, Tamilnadu, India.  
Title of the dissertation: *Prosopis juliflora* – A green solution to decontaminate heavy metal contaminated soils.

1995 - B.Sc in Botany, Gobi Arts College, Affiliated to Bharathiar University, Coimbatore, Tamilnadu, India

### *Experience*

#### *Research, Teaching and Work Experience*

- August 2013- Till date – Assistant Professor in Department of Environmental Science, Periyar University, Salem, Tamil nadu, India

- June 2012 –July 2013 – Senior Researcher in Department of Environmental Engineering, Korea Maritime University, Busan, South Korea
- October 2011 – April 2012 – Scientist – VIMTA Labs Limited, Coimbatore Branch, Coimbatore, Tamil nadu
- September 2009 – March 2011 – Senior Executive in Environmental Impact Assessment, Eco-Designers, Gobiccetipalayam, India
- February 2007 to February 2009 – Post-doctoral Fellow, School of Environmental Science and Engineering, Sun Yat-Sen University, Guangzhou, P.R. China.
- August 2002 to July 2005 – Senior Research Fellow, Council of Scientific and Industrial Research, New Delhi, India
- November 1998 to January 2006- Doctoral Research Fellow in Bharathiar University.
- October 1997 to August 1998 – Consultant, Centre for Environment Education, Tirupur Field Office, Tirupur, India

**Subjects handled:** Environmental Chemistry, Air and water quality management, Soil Remediation, Bioremediation, Environmental microbiology and Biotechnology and Waste Management.

### *Scientific Visits Abroad*

1. Period: June 2012 to July 2013  
Country Visited: Korea (Republic of)  
Purpose: Post doctoral Researcher
2. Period : February 2007 to February 2009 (2 Years)  
Country Visited : P.R.China  
Purpose of Visit : Post-doctoral Researcher

### *Main Research Interest*

- Waste management
- Phytoremediation – Phytoextraction and phytotransformation (subcellular distribution)
- Microbial Fuel cell technology
- Coastal pollution management
- Bioremediation of heavy metals.

### ***Membership in National / International Association***

Member in Indian Network for Soil Contamination and Research (INSCR).

### ***Training Programme Attended***

Attended a training course on “Application of GIS &RS in Environmental Management” conducted by Department of Environmental Sciences, Bharathiar University, Coimbatore-641046, June 20 to July 3, 2006.

### ***Computer Knowledge***

Computer Operating Knowledge in Microsoft-Office (Word, Excel, Power Point), SPSS 11, Irristat Statistix version 1.1, Statpal and Photoshop.

### ***Instrumentation Skill***

Inductively Coupled Plasma – Optical Emission Spectrometry (ICP-OES) (Perkin-Elmer), Atomic Absorption Spectrophotometer (AAS), HPLC, UV-Visible Spectrophotometer, Fluorescence Spectrometer (Nikon), Microkjeldol Apparatus, Flame Photometry and Microtome.

### ***Publications***

#### ***International***

1. Young-Chae Song, B. Subha, J. H. Woo, H. J. Lim, **P. Senthilkumar**, 2014. Surface Modification of Sediment with Surfactant for Capping Material on Contaminated Coastal Sediment. *Water, Air Soil Pollut.*, 225:2067 (SCI, Impact factor: 1.685)
2. R.-L. Qiu, P. Thangavel, P.-J. Hu, **P. Senthilkumar**, R.-R. Ying, Y.-T. Tang, (2011). Interaction of cadmium and zinc on accumulation and sub-cellular distribution in leaves of hyperaccumulator *Potentilla griffithii*, *Journal of Hazardous Materials*, 186:1425-1430. (SCI, Impact Factor: 4.144)
3. Rajkumar K, S. Sivakumar, **P.Senthilkumar**, D.Prabha, C.V.Subbhuraam, Y. C. Song (2009). Effect of selected metals (Pb, Cu, Ni and Cd) in the aquatic medium on the restoration potential and accumulation in the stem cuttings of the terrestrial plant, *Talinum triangulare* Linn. *Ecotoxicology*, 18(7):952-60 (SCI, Impact Factor: 3.507)

4. Sivakumar S, H. Kasthuri, D.Prabha, **P. Senthilkumar**, C. V. Subbhuraam, Y. C. Song (2009). Efficiency of composting parthenium plant and neem leaves in the presence and absence of an oligochaete, *Eisenia fetida*. *Iran. J. Environ. Health. Sci. Eng.*, 6(3) 201-208.
5. Peng-Jie Hu, Rongliang Qiu, **Palaninaicker Senthilkumar**, Dan Jiang, Zhong-Wei Chen, Ye-Tao Tang, Feng-Jie Liu (2009). Tolerance, accumulation and distribution of zinc and cadmium in hyperaccumulator *Potentilla griffithii*. *Environmental and Experimental Botany*, 66, 317-325 (SCI, Impact Factor: 3.164)
6. Mohanapriya, S, **P.Senthilkumar**, S.Sivakumar, M.Dineshkumar and C.V.Subbhuraam (2006). Effects of copper sulfate and copper nitrate in the aquatic medium on the restoration potential and accumulation of copper in the stem cuttings of the terrestrial medicinal plant, *Portulaca oleracea* Linn. *Environmental Monitoring and Assessment* 121:233-244. (SCI, Impact Factor: 1.356)
7. Deepa, R., **P.Senthilkumar**, S.Sivakumar, P.Duraisamy and C.V.Subbhuraam (2006). Copper availability and accumulation by *Portulaca oleracea* Linn. stem cutting. *Environmental Monitoring and Assessment* 116: 185-195 (SCI, Impact Factor: 1.356)
8. **Senthilkumar, P.**, SPM. Prince W., S.Sivakumar and C.V.Subbhuraam (2005). *Prosopis juliflora* – A green solution to decontaminate heavy metals (Cu and Cd) contaminated soils. *Chemosphere*, 60 (10), 1493-1496 (SCI, Impact Factor: 3.253).
9. Kadirvelu, K., P.Kanmani, **P.Senthilkumar** and V.Subburam (2004). Separation of Mercury(II) from aqueous solution by adsorption onto activated carbon prepared from *Eichhornia crassipes*. *Adsorption, Science & Technology*, 22 (3) 207-222 (SCI, Impact Factor: 0.344)

10. Shekinah, P, K.Kadirvelu, P.Kanmani, **P.Senthilkumar** and V.Subburam (2002). Adsorption of lead (II) from aqueous solution by activated carbon prepared from Eichornia. *J.Chemical Tech. Biotech.* 77: 458-464 (SCI, Impact Factor: 2.045).
11. SPM.Prince,W., **P.Senthilkumar**, K.D.Doberschutz and V.Subburam (2002). Cadmium toxicity in mulberry (*Morus alba* L.) plants with special reference to the nutritional quality of leaves. *J. Plant Nutr.* 25(4), 689-700. (SCI, Impact Factor: 0.512).
12. Kadirvelu K., **P.Senthilkumar**, K.Thamaraiselvi and V.Subburam (2002). Activated carbon prepared from biomass as adsorbent: elimination of Ni (II) from aqueous solution. *Bioresource Technology* 81: 87-90. (SCI, Impact Factor: 4.253).
13. Rajeshwari Sivaraj, S.Sivakumar, **P.Senthilkumar** and V.Subburam (2001). Carbon from Cassava peel- an agricultural waste as an adsorbent in the removal of dyes and metal ions from aqueous solution. *Bioresource Technology* 80: 233-235 (SCI, Impact Factor: 4.253).
14. SPM.Prince, W., **P.Senthilkumar** and V.Subburam (2001). Mulberry- silkworm food chain- A templet to assess heavy metal mobility in terrestrial ecosystem. *Environmental Monitoring and Assessment* 3: 69-78. (SCI, Impact Factor: 1.356).

### ***National***

1. Jung-Hui Woo, Young-Chae Song,Palaninaicker Senthilkumar, 2014. Study on the elution of biostimulant for in-situ bioremediation of contaminated coastal sediment. *J . Navig. Port Res.* Vol. 38, No. 3 : 239-246.
2. ZOU Xiao-jin, QIU Rong-liang\*, HUANG Sui-hong, TIAN Tian, **P.Senthilkumar**. Immobilization and re-vegetation of heavy metal polluted soils in Dabao Mountain, Guangdong Province by amendments. *China Environmental Science*, 2008, 28(9)775-780. **(Chinese with English Abstract)**.
3. HUANG Sui-hong, TIAN Tian, ZOU Xiao-jin, ZHOU Xiao-young, **P.Senthilkumar**, QIU Rong-liang. Bioavailability assessment of heavy metals in the vicinity of Dabaashan

mine. Acta Scientiarum Naturalim Universitatis Sunyatseni, 2009, 48(4):125-129. **(Chinese with English Abstract).**

4. LI Qing-fei, QIU Rong-liang, SHI Ning, ZHOU Xiao-young, **P.Senthilkumar**, HUANG Sui-hong. Remediation of strongly acidic mine soils contaminated by multiple metals by plant reclamation with jatropha curcus L and addition of Limestone. Acta Scientiae Circumstantiae, (2009) 8: 1773-1739 **(Chinese with English Abstract).**
5. Li QingFei; Zhou XiaoYong; Qiu RongLiang; Shi Ning; **Senthilkumar, P.**; Huang SuiHong. Phytoremediation of acid mining wasteland with Jatropha curcas L. and factors affecting growth of the plant. Acta Pedologica Sinica, 2010, 47(1):172-176. **(Chinese with English Abstract).**

### **Conference, Seminars and workshops organized**

1. National Level Seminar on Frontiers in Environmental Research and Applications at Periyar University, Salem on 18.02.2014 –

### ***Conferences, Seminars, Symposium and Workshops attended/ abstracts published***

1. National workshop on Green Initiatives in Energy and Environment (GIEE-2014) held at Dept. of Environmental Science, Periyar University, Salem, dated 11-09-2014.
2. Prabha, D., S.Sivakumar, **P.Senthilkumar**, C.V.Subbhuraam, Accumulation of soil Cd by Portulaca oleracea L: A strategy for phytoremediation of contaminated soil. National seminar on Frontiers in Environmental Research and Applications (FERA-2014) held on 18-02.2014 in Periyar University, Salem
3. National Level seminar on Current trends in Biodiversity Conservation and Forest Management held at Department of Botany, Periyar University, Salem, dated 07.01.2014
4. National workshop on Scientific usage of Electron Microscopes:SEM and TEM held at Centre for Instrumentation and Maintenance Facility (CIMF), Periyar University, Salem, dated 06-01-2014.
5. Young Chae Song, **P.Senthilkumar**, Jung Hui Woo, Effect of biostimulation on growth of indigenous microorganisms in contaminated marine sediments. The Korean Association of Ocean Sciences and Technology studies meeting held on 23-25<sup>th</sup> May 2013, Jeju, south korea.
6. Young-Chae Song, Tae-Seon Choi, **P.Senthilkumar**, Jung-Hui Woo, Kyuseon Yoo, Jae-Woo Chung, Chae-Young Lee, Effect of hydrothermal assisted with microwave methods for

loading of oxygen reduction catalyst on the air breathable cathode for microbial fuel cell. 19<sup>th</sup> Thailand-Korea Conference on Environmental Engineering, held on 24-25<sup>th</sup> January 2013 in Bangkok, Thailand.

7. **Senthilkumar P**, Zou Xiaojin, Rongliang Qiu, Huang Suihong Effects of chemical amendments on growth, yield and metal uptake of rice grown on acidic soil. Fourth International Conference on Environmental Science and Technology (EST2008), held on July 28-31, 2008 in Houston, Texas, USA
8. Pengjie Hu, Rongliang Qiu, **P. Senthilkumar**, Fengjie Liu, Zhongwei Chen, Dan Jiang Tolerance, accumulation and distribution of Zn and Cd in hyperaccumulator *Potentilla griffithii* Fourth International Conference on Environmental Science and Technology (EST2008), held on July 28-31, 2008 in Houston, Texas, USA.
9. Hu, PJ, Qiu RL, **Senthilkumar P**, Jiang D, Liu FJ, Chen ZW. Tolerance, accumulation and distribution of Zn and Cd in hyperaccumulator *Potentilla griffithii*. The 3<sup>rd</sup> International Conference on Soil pollution and Remediation, held on October 18-21, 2008, Nanjing, China, pp.153.
10. Sivakumar S., H. Kasturi, **P. Senthilkumar** and C.V.Subbhuraam (2006). A study on the effects of Composting of Parthenium plant and neem leaves in the presence and absence of an Oligochaete, *Eisenia fetida*. 8<sup>th</sup> International Symposium on Earthworm Ecology” 4-9<sup>th</sup> September, 2006 held at Krakow, Poland.
11. Subbhuram, V., **P. Senthilkumar** and P.Thangavel (2003). Role of phytoextractors in revegetating contaminated soils”. ICAR sponsored Summer School on “Rehabilitation and reconstruction of polluted agricultural ecosystem” held on July 21-30, 2003 at Dept. of Soil Science and Agricultural Chemistry, Directorate of Soil and Crop Management Studies, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu.
12. **Senthilkumar, P.**, S.Sivakumar and V.Subburam (2001). Effect of cadmium on the below and above ground responses of rice plant (*Oryzae sativa*) in vertisol. 17<sup>th</sup> National Symposium on "Recent Trends in Life Sciences and Biotechnology" 20-22<sup>nd</sup> November, 2001. Dept. of Life Sciences & Biotechnolgy, University of Mumbai.
13. **Senthilkumar, P.**, P.Thangavel and V.Subburam (1999). Phyto-extraction of heavy metals from contaminated soils by Using *Prosopis juliflora*. “10<sup>th</sup> Bangladesh Botanical Conference”. 12-14<sup>th</sup> November, 1999. Dept. of Botany, University of Dhaka, Bangladesh.

14. National conference on Frontiers in Environmental Sciences and Engineering in India,” held at Department of Environmental Sciences, Bharathiar University, Coimbatore, dated Sept.15-17, 2005.
15. Workshop on Restoration of Noyyal river basin held at Department of Environmental Sciences, Bharathiar University, Coimbatore-46, Tamil Nadu, dated 28<sup>th</sup> March 2005.
16. Workshop on Environment and Pollution Awareness held at JSS College of Pharmacy, Ootacamund-1, Nilgris, Tamil Nadu, dated 11<sup>th</sup> July 2004.
17. National Seminar on Environmental Management held at Department of Environmental Sciences, Bharathiar University, Coimbatore, dated March 27, 2003.
18. National Seminar on Current Environmental Issues- Ecovision – 2003 held at Department of Environmental Sciences, Bharathiar University, Coimbatore, dated March 5, 2003.
19. Genetics, Health and Disease held at Department of Zoology, Bharathiar University, Coimbatore, dated 16<sup>th</sup> March 2000.
20. Environmental Awareness on Quality Management of Irrigation Water held at Bharathiar University, Coimbatore, dated Feb. 17-18, 2000.
21. Workshop on Rabbit Farming held at Department of Zoology, Bharathiar University, Coimbatore, dated 24<sup>th</sup> Sep. 1999.
22. Environmental Status of Rivers in Tamil Nadu held at Department of Environmental Sciences Bharathiar University, Coimbatore, dated March 26-27, 1999.
23. Insect pest and disease management conducted by Institute of Forest Genetics and Tree Breeding, Coimbatore, dated 1<sup>st</sup> Nov. 1996.