

Curriculum Vitae

I. PERSONNEL DETAILS

1. a) Name Anoop Verma
- b) D.O.B 23-05-1977
- 2.a) PRESENT POSTAL ADDRESS Department of Biotechnology & Environ. Sciences,
Thapar University, Patiala
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II. EDUCATION

- 2004 M.E.(Environmental), Thapar University, Patiala.
- 2000 B.E. (CHEMICAL), SLIET, Longowal.

III. FIELD OF SPECIALIZATION

: ENVIRONMENTAL ENGINEERING (Solar Detoxification of wastewater, specially Industrial Effluents)

IV RESEARCH / TEACHING EXPERIENCE

- From Oct. 2004 to till Date **Sr. Assitt. Prof.**, Department of Biotechnology & Environ. Sciences, Thapar University, Patiala
- From Mar.2003 to May 2004 : Research on Textile mill effluent (S.R.Inustries, Derra Bassi (Punjab [INDIA])
- From Aug 2001 to Feb 2003 : JRF, Department of Chemical Engg., Thapar University, Patiala.

- From June 2001 to Aug 2001 : Research Assistance, Department of Chemical Engg., Sant Longowal Institute of Engg. & Tech., Longowal (Punjab).
- From June 2000 to June 2001 Site Engineer, Indian Climate Control, Patiala [INDIA]

V. REFERENCES :

Dr. A.P. Toor

Prof.,
Department of Chemical Engineering,
Panjab University, Patiala.

Dr. N.Das

Assoc. Professor, Department of Biotechnology &
Environ. Sciences, Thapar University, Patiala

PUBLICATIONS IN:

JOURNALS:

1. Amrit Pal Toor, *Anoop Verma*, Vasundhara Singh C K Jotshi, P K Bajpai , “Photocatalytic degradation of Direct Yellow 12 dye using UV/TiO₂ in a shallow pond slurry reactor” **Dyes and Pigments**, **68 (2006), 53-60**.
2. Amrit Pal Toor, *Anoop Verma*, Vasundhara Singh, C.K. Jotshi, P.K. Bajpai, “Photocatalytic Degradation of 3,4 Dichlorophenol using TiO₂ in a shallow pond slurry reactor” **Indian Journal of Chemical Technology**, **12, 2005, 75-81**.
3. Amrit Pal Toor, *Anoop Verma*, Vasundhara Singh C K Jotshi, P.K. Bajpai, “Treatment of Bleaching effluent from pulp and paper Industry by Photocatalytic Oxidation”, ” **TAPPI**, **June, 2007**
4. S. K. Dubey, *Anoop Kumar*, Paritosh Srivastava , “Solar photo-catalytic Treatment of Textile Wastewater for Biodegradability Enhancement” **International Journal of Environmental Engineering**, **2009, 152-164**
5. *Anoop Verma*, Monika Sheorn and Amrit Pal Toor, “Titanium dioxide mediated photocatalytic degradation of malathion in aqueous phase”, Indian Journal of Chemical Technology. (Communicated)
6. *Anoop Verma*, Isha and Divya Dixit, Sonophotocatalytic treatment of Pharmaceutical Industry Wastewater over TiO₂ photocatalyst using immersion well

reactor, **Ultrasonics sonochemistry journal**, (Communicated).

7. **Anoop Verma**, Poonam and Divya Dixit, "Titanium dioxide mediated photocatalytic degradation of chlorpyrifos in aqueous phase", Int. Journal of Environ. Sciences, (Communicated).
8. Anoop Verma, Harmanpreet Kaur, Divya Dixit. "Photocatalytic, sonolytic and sonophotocatalytic degradation of 4-chloro-2-nitro phenol", Archives of Environ. protection (Communicated).

INTERNATIONAL CONFERENCES:

1. **Anoop Verma** and Dr. Vasundhara Singh, "Solar Photocatalytic Treatment of Actual Wastewater from Textile Industry: Enhancing biodegradability", **Paper** presented in Technologies and Strategic Management of Sustainable Biosystems held at **Perth, Westran Australia**, July 2008.
2. **Verma Anoop**, Sheorn Monika and A.P. Toor, "Advanced oxidation processes (AOPs) for the degradation of pesticides", **Paper** presented in International Congress of Environmental Research (ICER 08) held at **Goa (India)** on **December 18-20, 2008**.
3. **Verma Anoop**, Partibha, A.P.Toor and Isha, "Sonophotocatalytic treatment of Alizarin Reactive Red Dye", **Paper** presented in Environmental Science and Technology Conference (ESTEC2009), held at **Kuala Terengganu Malaysia** on **December 7-8, 2009**.
4. **Anoop Verma**, N. Tejo Prakash and Amrit Pal Toor, "Titanium dioxide mediated Photocatalytic Degradation of Isoproturon in Aqueous Suspensions", Poster presented in Adavnced Oxidation Processes (AOP 2012), held at Kottayam, **Kerala** on October 5-8, 2012.
5. **Anoop Verma**, Divya Dixit, Varun Agarwal, "Sonophotocatalytic Degradation of Carbendazim in Aqueous TiO₂ Suspensions", Poster presented in Adavnced Oxidation Processes (AOP 2012), held at Kottayam, **Kerala** on October 5-8, 2012.
6. **Anoop Verma**, Jayant Srivatava, "Fixed Bed photocatalysis for degradation of 2-Chloro-4-Nitrophenol using UV irradiations", Poster presented in Adavnced Oxidation Processes (AOP 2012), held at Kottayam, **Kerala** on October 5-8, 2012.
7. **Anoop Verma**, Seshant Srivastava, Varun Agarwal, "Decomposition of commercially available Monocrotophos in Aqueous Solution of TiO₂ by Sonophotocatalysis", Poster presented in Adavnced Oxidation Processes (AOP 2012), held at Kottayam, **Kerala** on October 5-8, 2012.
8. **Anoop Verma**, Amarpreet Kaur, Manisha Verma, "Degradation of Reactive Black 5 Using Sono Photo Fenton", Poster presented in Adavnced Oxidation Processes (AOP 2012), held at Kottayam, **Kerala** on October 5-8, 2012

NATIONAL CONFERENCES:

1. Amrit Pal Toor, Vasundhara Singh, C.K.Jotshi, P K Bajpai and **Anoop Kumar**, “Photocatalytic degradation of 3,4 dichlorophenol using TiO₂ catalyst in a shallow pond slurry reactor” Paper presented in **Chemcon 2003** held at **RRL, Bhubneshwar** from 19-22nd, Dec 2003.
2. **Anoop Kumar**, Vasundhara Singh and Amit Dhir, “Treatment of Industrial wastewater using Heterogeneous photocatalytic processes” Paper presented in ACET 2007 held at **SLIET, Longowal** from 26-27th, March 2007.
3. Amit Dhir, **Anoop Kumar** and Dr. Dhiraj Sud, “Prospective use of Advanced Bio-Technology in the Treatment of Domestic Waste Water” Paper presented in ACET 2007 held at **SLIET, Longowal** from 26-27th, March 2007.
4. **Anoop Kumar**, Vasundhara Singh and Amrit Pal Toor, “Integrated Photochemical and Biological Oxidation of Organic Pollutants present in Textile Industry Effluent” A poster presented at the **6th CRSI meeting** held at **IIT Kanpur**, 6-8 Feb 2004.
5. Amrit Pal Toor, Vasundhara Singh, C.K.Jotshi, P K Bajpai and **Anoop Kumar**, “Semiconductor-mediated oxidative degradation of anionic azo dye in aqueous suspension” A poster presented at the **6th CRSI meeting** held at **IIT Kanpur**, 6-8 Feb 2004.
6. Anoop Verma, attended Recent advances in Polymer science and Technology (RAPT-05), held at **SLIET, Longowal** from 10-11th, December 2005.
7. Monika Sheoran and **Anoop Verma**, “ Pesticide degradation by Advanced Oxidation Technologies” paper presented at the Recent advances in Chemical & Environmental Sciences (RACES-09) held at **M. M. Modi College, Patiala, 16-17 Jan 2009**.
9. Isha, **Anoop Verma** and Partibha, “Sonophotocatalytic treatment of Industrial wastewater” paper presented at the Recent advances in Chemical & Environmental Sciences (RACES-09) held at **M. M. Modi College, Patiala, 16-17 Jan 2009**.
10. **Anoop Verma**, Monika Sheorn and Amrit Pal Toor. “Titanium dioxide mediated photocatalytic degradation of malathion in aqueous phase”, paper presented at the 14th Punjab Science Congress held at SLIET, Longowal **from 7-9th, Feb. 2011**.
11. **Anoop Verma** and Jayant Srivastava, Fixed bed photocatalysis for the degradation of 2-chloro-4- nitro-phenol, poster presented at the Recent advances in Chemical & Environmental Sciences (RACES-12) held at M. M. Modi College, Patiala, 03, March 2012.
11. **Anoop Verma** and Varun Agarwal, Sonophotocatalytic Degradation Of Monocrotophos Pesticides Using Immersion Well Reactor, poster presented at the

Recent advances in Chemical & Environmental Sciences (RACES-12) held at M. M. Modi College, Patiala, 03, March 2012.

12. Anoop Verma and Amarpreet Kaur Hura, Degradation Of Reactive Black 5 Using Sono Photo Fenton, poster presented at the Recent advances in Chemical & Environmental Sciences (RACES-12) held at M. M. Modi College, Patiala, 03, March 2012.

BOOK CHAPTER:

1. Anoop Verma and Dr. Vasundhara Singh, “Solar Photocatalytic Treatment of Actual Wastewater from Textile Industry: Enhancing biodegradability”, Technologies and Management for Sustainable Biosystems, **Nova Science Publishers, pp 35-49 New York, 2009.**

VIII. RESEARCH PROJECTS

Sr No.	Project Title	Funding Rs. (Lakhs)	Agency	Date of start	Date of completion	Status	Major Equipment purchased
1.	Sonophotocatalytic treatment of wastewater From pharma Industry	One	UGC, New Delhi	Apr. 2008	May 2010	Completed	Ultrasonicator Bath
2.	Demineralization studies of pesticides using Advanced Oxidation Processes	10	AICTE, New Delhi	July 2009	Aug. 2011	Completed (Co-PI)	UV-Spectrophotometer
3.	Sonophotocatalytic treatment of pesticides over TiO ₂ photocatalyst using immersion well reactor	4	DRDO, New Delhi	May 2011	May 2012	Ongoing	Immersion well reactors

IX. THESIS SUPERVISION

S.No.	Class	Title of the Thesis	Supervisor(s)
1.	M.Tech [Environmental]	Solar Photocatalytic Treatment Biodegradability Enhancement (Heterogeneous)	Anoop Verma and Dr. Anita Rajor
2.	M.Tech	Study and Operation of Effluent Treatment	Anoop Verma

	[Environmental]	Plant: Rosin and Turpentine Oil industry BILASPUR (HIMACHAL PARDESH): A Case Study	
3.	M.Tech [Environmental]	Advanced Oxidation Processes (AOP's) For The Degradation Of Pesticides	Anoop Verma
4.	M.Tech [Environmental]	Performance Study of Sewage Treatment Plant Based on SAFF Technology	Anoop Verma
5.	M.Tech [Environmental]	Sonophotocatalytic Degradation of Alizarin Red: Reactive Dye over Slurry Titanium Di oxide	Anoop Verma
6.	M.Tech [Environmental]	Sonophotocatalytic oxidation process for the treatment of pharmaceutical wastewater	Anoop Verma
7.	M.Tech [Environmental]	Titanium dioxide mediated Photocatalytic degradation of Chlorpyrifos in aqueous phase	Anoop Verma
8.	M.Sc [BioTechnology]	Fermentative Production of Ethanol from Molasses using Fermenter	Anoop Verma
9.	B.Tech [BioTechnology]	Process Optimization for the Production of Lactic Acid	Anoop Verma
10.	M.Tech [Environmental]	Advanced Oxidation Processes (AOP's) For The Degradation Of Pesticides	Anoop Verma
11.	M.Tech [Environmental]	Advanced oxidative pretreatment process for enhance biodegradation of complex wastewater generated from pharmaceutical industry	Anoop Verma & Dr.R.A.Pandey (NEERI NAGPUR)
12.	M.Tech [Environmental]	Feasibility Studies on Recycling/Reuse of Wastewater from Automobile Industry	Anoop Verma & Mr. PravinManekar (NEERI NAGPUR)
13.	M.Tech [Environmental]	Titanium Dioxide mediated Sonophotocatalytic Degradation of pesticides using immersion well reactor	Anoop Verma
14.	M.Tech [Environmental]	Fixed bed Catalysis approach for the degradation of 2-Chloro-4-Nitrophenol (Supported TiO ₂)	Anoop Verma
15.	M.Tech [Environmental]	Sonophotocatalytic degradation of Monocrotophos using Immersion well reactor	Anoop Verma
16.	M.Tech [Environmental]	Degradation of Reactive black dye using Sonophoto-Fenton treatment	Anoop Verma
17.	M.Tech [Environmental]	Wastewater Treatment Using Membrane Filtration	Anoop Verma (Co- PI)
18.	M.Tech [Environmental]	Fluidized bed catalytic reactor for the Degradation of Pharmaceutical active compounds (PAH) using batch reactor	Anoop Verma (Ongoing)

19.	M.Tech [Environmental]	Value addition from the waste generated from RO plant	Anoop Verma (Ongoing)
20.	M.Tech [Environmental]	Use of fly ash for the treatment of wastewater	Anoop Verma (Ongoing)
21.	M.Tech [Environmental]	Fixed bed Catalysis approach for the treatment of wastewater/pollutants (Supported TiO ₂)	Anoop Verma (Ongoing)

X. AWARDS

- 1. Young Engineer award 2009 in the field of Environmental Engg presented by Institution of Engineers of India, Orissa state centre in Jan., 2010.**

XI. INVITED LECTURES

1. Delivered a one day talk on **Industrial Fermentation** at 2nd Workshop on Fermentation process” From petri plate to Bioreactor” S.D. College, Chandigarh on Dec 15, 2011.
2. Delivered a Lecture on **Design and Control of Industrial Fermenter** at **S.D. College, Chandigarh on Feb. 16, 2010.**
3. Delivered a Lecture on Fermentation Technology at **CORE, Thapar University, Nov. 2006.**

XII. INDUSTRIAL EXPERIENCE

1. Three months Vocational Training in National Fertilizers Ltd. Naya Nangal (Pb.)
2. Three months Vocational Training in Sangrur Vanaspati Mills Ltd. Sangrur (Pb.)
3. Six Weeks Vocational Training in Max.Gb Ltd. Ropar (Pb.)
4. Six Weeks Vocational Training in Patiala Distillers and Manufactures Ltd. Patiala

XIII. WORKSHOPS ORGANIZED

1. Coordinator of Two week Training Programme on Fermentation Technology, May 24, 2010 – June 4, 2010, at STEP, TU, Patiala.
2. Coordinator of Four weeks Training Programme on Microbial and Fermentation Technology, June 1, 2011 – June 30, 2011, at STEP, TU, Patiala.

XIV. WORKSHOPS ATTENDED/ OTHERS

S.No.	Name of the Course	Duration
1.	Energy Conversion Systems (ECS-2007), Department of Mechanical Engg., Thapar University, Patiala.	Two weeks (10-21 st December 2007)
2.	Basics and Applications of Computational Fluid Dynamics, Department of Mechanical Engg., Thapar University, Patiala.	Two weeks (10-23 rd July 2009)
3.	Waste Minimization in Industry, Department of Mechanical Engg., Thapar University, Patiala.	Two days (19-20 th Sept. 2003)
4.	Increasing Environmental Pollution- A Danger to Mankind, Department of Chemical Engg., C.R. State College of Engineering, Murthal, Sonapat (Haryana)	One day (26 th August 2004)
5.	Instrumental method of analysis, Department of Analytical services, Thapar centre for Industrial Research & Development, Patiala.	Three days (4 th to 6 th October, 2010)
6.	Recent Developments in Energy Conversion Technologies, Department of Mechanical Engg., Thapar University, Patiala.	Two days (22-23 th March. 2010)

XV. MEMBERSHIP PROFESSIONAL BODIES

1. Life Member of The Indian Society for Technical Education

I hereby declare that the above information provided by me is true to my knowledge.



(ANOOP VERMA)