

## **BIO-DATA**

- 1. Name :** **PROF. AJAY TANEJA**
- 2. Present official address with Designation :** Professor and Head, Chemistry Department,  
Dean Science,  
Pro Vice Chancellor  
Dr. Bhimrao Ambedkar University, Agra
- 3. Permanent Address :** 22, Allora Enclave,  
Dayalbagh, AGRA-282005.  
Phone No- (0562)-4101069, 009897476288 (Mob)  
E-mail - ataneja5@hotmail.com
- 4. Date of Birth :** 8<sup>th</sup> September, 1967
- 5. Nationality :** Indian
- 6. Employment Details and Experience :**
- ❖ **Teaching** More than 28 years
  - ❖ **Research** More than 31 years
  - ❖ **Administrative**
    - 07 years as Head, Department of chemistry
    - 2.5 year as Director/ Member secretary, IQAC
    - 1.5 year as Dean Research
    - 01 year as Associate Dean Student Welfare
    - 01 year as Associate Dean Academics
    - 01 year as Head Incharge, Department of Pharmacy
- 7. Present Duties :**
- ❖ Teaching, Postgraduate, M.Phil, Ph.D students
  - ❖ Counselor for Chemistry courses in Indira Gandhi National Open University at Agra study centre.
  - ❖ Carrying out Research.
- Administrative responsibilities with period**
- a) Head, Department of Chemistry (2008-2011, 2014-2017, 2020-)
  - b) Dean Research (31/01/2020 to 07/01/2022)
  - c) Director IQAC (24/01/2019 to 23/01/2021, 23/01/2021 to)
  - d) Director CDC (05/03/2021 to 07/01/2022)
  - e) Dean Science (21/10/2021 onwards)
- 8 Achievement and Fellowships :**

- a. J.R.F (Junior Research Fellowship) - 1989 UGC/CSIR, New Delhi.
- b. S.R.F (Senior Research Fellowship) - 1990 UGC, New Delhi.
- c. R.A (Research Associateship) - 1993 CSIR, New Delhi.
- d. Fellow of Indian Chemical Society (FICS).
- e. Fellow of Indian Council of Chemist (FICC).
- f. Life Member of Indian Association for Environmental Management NEERI.
- g. Life Member of Indian Association for Air Pollution control, New Delhi.
- h. Life Member of System Society of India.
- i. Joint Secretary, Indian Council of Chemist. (From 2006 onwards)
- j. Life Member of The Indian Science Congress Association.
- k. Life Member of Indian Aerosol Science and Technology Association.
- l. Life Member, National academy of Sciences, Allahabad (MNAsc)
- m. Life Member of Indian Association of Chemistry Teachers, Mumbai

## 9. Awards :

**Rev. Fr. T.A Mathias Award for Innovative College Teachers for the year 2001:** This prestigious national award is a mark of AIACHE's (All India association for Christian higher education) recognition of devotion to academic excellence, participation in the introduction of educational innovations, concern for the integrated development of students and commitment to high standards of professional ethics.

**LEAP**(Leadership for Academicians Programme) FELLOW(March 2020)[ Indian Component –Delhi University, Foreign component – Cambridge UK]

**Association of Chemistry Teachers** ( Homi Bhabha Centre of Science Education, TIFR, Mumbai)  
Prof Lallan Singh Award for Best PG Chemistry Teacher (State Universities) for 2021.

## 10. Major areas of Research :

- ❖ Atmospheric and Analytical Chemistry
- ❖ Environmental chemistry
- ❖ Outdoor Air Pollution and Indoor Air Pollution .

## 11. Research Projects

### Ongoing

- (1) Exposure assessment of inhalable bioaerosols : characterization, identification and toxicological profile by Science & Engineering Board(SERB) DST New Delhi (CRG/2019/004189) 2019-2022 as CoPI
- (2) Characterization of fine Particulate Matter and settled dust in schools of Agra and its health implications." Funded by U.P. Govt. Higher Education department(2021-22) as PI

### Completed as PI

- (1) Characterization of Fine Particulates in Indoor Micro Environments sponsored by UGC, New Delhi ( 2015-2018).

- (2) Distribution of particulate and vapour phase Polycyclic hydrocarbons in residential microenvironments and assessment of their related carcinogenic potencies sponsored by UGC New Delhi (2009-2012).
- (3) Size and Chemical distribution of particulate matter in Indoor microenvironment sponsored by DST, New Delhi (2007-2010)
- (4) Studies on Indoor/ outdoor relation of Air Quality in Residential Homes located in Different Environment sponsored by DST, New Delhi (2004 –2006).
- (5) Assessment of acrylamide in heat processed foods and evaluation of heavy metals and pesticides in some man consumed food products sponsored by Smt. Basanti Devi and Shri chakhanlal education trust, New Delhi (2002-2004).

#### Completed as Co PI

- ❖ 01 Fabrication of relative humidity sensor based on metal nano particle loaded SBA-15 mesoporous nano composite for Environmental monitoring applications by NPIU (MHRD, New Delhi) under TEQUIP Collaborative Research Scheme (2019-2021) as Co PI
- ❖ **Others as Mentor** (JRF/SRF (UGC/CSIR) 2009-10, 2011-12, 2014-2019)
- ❖ **Research Associate from CSIR: Dr Gur Sumiran Satsangi** Grant **Rs 7,69,050/-** (Measurements of NO<sub>2</sub>, O<sub>3</sub> and HNO<sub>3</sub> in Ambient air at Agra. Year 2000-2005)
- ❖ **Dr. D. S. Kothari Post-Doctoral Fellowship from UGC: Dr. Madhu Anand** Grant **Rs-15,02,800/-** (Organochlorines mediated altered redox status is responsible for Preterm delivery cases in Indian women) Year 2011-2014.
- ❖ **Women Scientist UGC: Dr. Renuka Saini**, Grant: **Rs. 13,83,000** (*Study of ground level ozone and its impact on vegetation*) Year 2012-2017.
- ❖ **DISHA DST: Ms. Laxmi Singh** Grant **Rs. 22,59,664** (*Correlation between placental peroxidation, antioxidant defence, toxic and essential metals with preterm deliveries in Indian Women*) Year 2016-2019.
- ❖ **Women Scientist UGC: Dr. Madhu Anand**; Grant **Rs. 31,51,240** (*Organochlorine pesticides residue and risk of preterm and low birth weight*) Year 2016-2021.
- ❖ UGC Postdoctoral Fellowship: **Dr. Atar Singh Pipal**; Grant **Rs. ~ 33,71,920** (*Physical, chemical and optical characteristics of atmospheric aerosols over Indo-Gangetic Plain region and its impact on regional climate*) year 2017-2022.
- ❖ **Dr. D. S. Kothari Post-Doctoral Fellowship (UGC): Dr. Avesh Kumar** Grant **Rs ~ 22,42,560** (Design, development and control of plasmonic nanostructures for high performance applications) Year 1/2/ 2018 to 1/1/2021.

#### 12. Publication and Presentations :

More than **140** publications (scopus hIndex of 27, Google scholar h Index of 31 more than 2800 citations) and 75 presentations

a. Web of science researcher ID

AAC-7044-2019

b. Scopus author ID

56962786000

c. Orchid ID

<https://orchid.org/0000-0002-5087-190X>

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13. No. of MPhil. Scholars guided : 29
14. No. of Ph.D. Scholars guided : 17
15. No. of Ph.D. Scholars working : 06

**16. Foreign Countries Visited :**

- (i) Department of Chemistry, Polymer Sciences and Environment Sciences at Polytechnic University, NEW YORK, USA from 24<sup>th</sup> May to 29<sup>th</sup> June 1999 for Summer Exchange Program to Participate in different research projects.
- (ii) DWI (German Wool Research Institute) Aachen, GERMANY from 30<sup>th</sup> June to 29<sup>th</sup> July 2000 as a Visiting Scientist to participate in different research projects of mutual interest.
- (iii) Tsinghua University, Beijing, China to participate in 10<sup>th</sup> International conference on Indoor air Quality and climate, Indoor Air 2005(September 3-10)
- (iv) Tribhuvan University, Kathmandu, Nepal to participate in South Asian Workshop on Indoor Air Pollution, Health and Household Energy organized by Practical Action (NGO, UK) and Indoor Air Pollution and Health Forum Nepal.2006 (February 26-29)
- (v) Peking University, Beijing China to participate in 12<sup>th</sup> International PBC Conference. 2007(October 26-29)
- (vi) Telethron health research institute to participate in 13<sup>th</sup> International PBC conference Nov.20-22, Perth, Australia,2009
- (vii) To organize 1<sup>st</sup> International Conference of ICC at Bangkok, Thailand 2011.
- (viii) To organize 2<sup>nd</sup> International Conference of ICC at Kuala Lumpur, Malaysia 2012.
- (ix) East West Center, Hawaii Univ. Honolulu USA to participate in 15<sup>th</sup> International PBC conference September 24-27 2013
- (x) To organize and participate in 3<sup>rd</sup> International Conference of ICC at Dubai, UAE June 2014
- (xi) To organize and participate in 4<sup>th</sup> International Conference of ICC at Tashkent,Uzbekistan,2015.
- (xii) University of Indonesia, Depok, Jakarta to participate in 16<sup>th</sup> International PBC conference August August 2015.
- (xiii) To organize and participate in 5<sup>th</sup> International Conference of ICC at Bali, Indonesia, June2017.
- (xiv) To organize and participate in 6<sup>th</sup> International conference of ICC at Paris/Brussels, June 2019.

**17. Invited talks /Task force/ Resource person :**

1. Resource person for IAQ workshops for The Associated chambers of commerce & Industry of India,
2. New Delhi and for Environment sciences in Academic Staff College of different University of science and technology (DST) Schools on Earth and Environment Sciences

3. Member of framing national draft monitoring guidelines for Indoor air pollution ,CPCB, Ministry of Environment & forest, Govt. of India.
4. Project evaluation expert of virtual labs(chemical sciences) under MHRD for Universities and Colleges
5. UGC Expert for committee on Swachta Ranking of Higher Education Institution (HEI)2018.
6. UGC Expert committee member for granting fresh autonomous status to colleges

#### **18. National Books Written :**

1. CSIR-UGC, NET, JRF, Chemical Sciences through Problems by Upkar Publishers, (Agra) 2002, revised editions 2004, 2007, 2008 (ISBN:978-81-7482-381-6).
2. Gate Chemistry by Upkar Publishers (Agra) 2007 (ISBN:978-81-7482-796-8)
3. Physical Chemistry Part III by Ram Prasad & Sons, (Agra) 2006, revised 2008 (ISBN:81-89352-88-1)
4. Modern Certificate Chemistry Part I by Mac Millan (New Delhi) 2009 (ISBN: 978-81-8409-460-2)
5. Modern Certificate Chemistry Part II by Mac Millan (New Delhi) 2009, revised 2010. (ISBN:978-81-8409-782-5)

#### **International Books:**

1. Soil Quality due to deposition of vehicle related contaminants, LAP Lambert Academic publishing (Germany) 2010 (ISBN:978-3-8383-5647-1)
2. Size and chemical Characterization of Indoor Particulate Matter., LAP Lambert Academic publishing (Germany) 2012 (ISBN:978-3-8484-0008-9)
3. Study of atmospheric particles over a world heritage site at Agra. , LAP Lambert Academic publishing (Germany) 2013 (ISBN:978-3-659-45503-2)
4. Physical and chemical characteristics of Indoor Particulate Matter. LAP Lambert Academic publishing (Germany) 2015 (ISBN:978-3-659-58529-6)

#### **International Book Chapters:**

1. "Deriving critical loads, where do we stand today" in Trends in Agricultural and Soil Pollution edited by JV Livingstone, Nova Science (New York, USA) 2005 (ISBN:1-59454-325-9)
2. "Particles in the Indoor Environment: Sources and Health effects in Developing Countries in *Particulate Matter: Sources, Emission Rates and Health Effects*, Edited Henrik Knudsen and Niels Rasmussen, ISBN:978-1-61470-948-0, Nova Science Publishers, Inc, New York USA (2011)
3. Emission and Formation of Fine Particles from Hardcopy Devices: the Cause of Indoor Air Pollution, in *Monitoring, Control and Effects of Air Pollution*, Andrzej G. Chmielewski (Ed.), ISBN: 978-953-307-526-6, InTech, 121-134 (2011)
4. Atar S. Pipal, Ajay Taneja, and Gautam Jaiswar " Risk Assessment and Toxic Effects of Exposure to Nanoparticles Associated with Natural and Anthropogenic Sources" in M. Gupta

Bhojwani et al. (eds.), Chemistry: The Key to our Sustainable Future, DOI 10.1007/978-94-007-7389-9\_6, © Springer Science+Business Media Dordrecht 93-103 (2014)

5. A.S. Pipal, H. Rohra, **A.Taneja** and P.G. Satsangi. Particulate Matter and its Consequences in Ambient Air: The Current Scenario in *Advances in Environmental Research Volume-50. Edited by Justin A.Daniels*. ISBN 978-1-63485-477-1, Nova Publishers, New York,1-27(2016)
6. Mahima Habil, David D. Massey and Ajay Taneja , Mass and Number and Its Chemical Composition Distribution of Particulate Matter in Different Micro environments in *Indoor Environment and Health* . IntechOpen Limited DOI: 10.5772/intechopen.82801 (2019),
7. Attar Singh Pipal, Stuti Dubey and **Ajay Taneja**. Health Risk Assessment and Management of Air Pollutants in *Air Pollution and Environmental Health* Edited by Pallavi Saxena and Anju Saxena in series Environmental Chemistry for a Sustainable World Volume 20, ISBN 978-981-15-3480-5, ISSN 2213-7114, Springer Nature Singapore Pte Ltd( 2020)
8. Mahima Habil, David D. Massey and **Ajay Taneja** . Influence of Microenvironments and Personal Activities on Personal PM<sub>2.5</sub> Exposures among Children and Adults in *Air Quality*, Edited by Prof. Syed Abdul Rehman Khan ,IntechOpen, DOI: 10.5772/intechopen.95116. , ISBN 978-1-83968-786-0(2020)
9. Pipal A.S., Rajouriya K., **Taneja A** Human-Associated Potential Risk of Metal-Bound Fine Particulate Matter. In: Tiwari S., Saxena P. (eds) Air Pollution and Its Complications. Springer Atmospheric Sciences. Springer,86-107, ISSN 2194-5217, <https://doi.org/10.1007/978-3-030-70509-1> (2021)

#### 19. Reviewer for International Journals :

- (1) Urban Climate (Elsevier)
- (2) Chemosphere (Elsevier)
- (3) Environment Pollution (Elsevier)
- (4) Ecotoxicology and Environmental Safety (Elsevier)
- (5) Science of the Total Environment (Elsevier)
- (6) Environment Research (Elsevier)
- (7) Building and environment (Elsevier)
- (8) International journal of Environmental Research (Springer)
- (9) MAPAN (Springer)
- (10) Human and Ecological Risk Assessment (*Taylor & Francis*)
- (11) Environmental Processes (Springer)
- (12) Aerosol and Air Quality Research (Taiwan Association for Aerosol Research)
- (13) Indoor Air(Wiley)
- (14) Atmospheric Environment(Elsevier)

#### 20. Academic and Professional Qualifications :

<b>Degree</b>	<b>University</b>	<b>Division</b>	<b>Year of Passing</b>
M.Sc. ( <i>Chemistry</i> )	St. Johns College, Agra University	1 <sup>st</sup>	1988
N.E.T. (National Eligibility Test- Chemical Science)	UGC (University Grant Commission)	CSIR (Council of Science & Industrial Research, New Delhi)	1989
Ph.D.	St. Johns College,		1991
Diploma in System Management	N.I.I.T, Agra		1996
Diploma in Management	Indira Gandhi National open Univ. (IGNOU) New Delhi		2000

- 21. Title of the Thesis :** Polarographic studies of some mixed ligand complexes of Cu(II), Cd(II) and Ni(II) with some substituted malonic and carboxylic acids  
(Analytical Chemistry)

**22. Courses Attended:**

- ❖ Orientation Program (OP-27) for University Teachers held at academic staff college, HPU, Shimla from March 7 to April 2, 1996 sponsored by UGC.
- ❖ Symposium cum Advance Refresher course in "Low cost instrumentation and use of personal computers in the field of chemistry" conducted by centre for Professional development in higher education (CPDHE), Delhi University in June 1996.
- ❖ Participated in Workshop organised by Tata Energy Research Institute (TERI) on "Acid Rains and emissions Reduction in Asia" on July 27&28 1998 and on 15 March 1999 at New Delhi.
- ❖ Attended Refresher Course in Environmental Sciences organised by Academic staff college Jawaharlal Nehru University (JNU) from 15<sup>th</sup> March to 9<sup>th</sup> April, 1999
- ❖ Attended refresher course in chemistry organized by Academic staff college, Aligarh Muslim University (AMU) October 2001.
- ❖ Attended ten day training course in "Use of statistical techniques in social science research" sponsored by ICSSR held in Dept. of Statistics, St. Johns College, and Agra from July 24 to August 04, 2004.
- ❖ Participated in Lecture workshop on Conservation and Use of Natural Resources for Sustainable
- ❖ Development under Science academies education programmes in DEI, Dayalbagh, Agra 17-18 November 2012.

**23. Student Services and Community Service Programs:**

- ❖ Chapters written on **MHRD programme E-pathshala** available on UGC website on topics related to Environmental chemistry
- ❖ Treasurer of the “CHEMICAL SOCIETY” of St. Johns College, Agra from 1994-2008 which is Engaged in different social activities and personality development activities of the student.
- ❖ Member of the Games committee of St. Johns College. (2000-2008)
- ❖ Member of the Library committee of St. Johns College. (2000-2005)
- ❖ Member of the Proctorial board of St. Johns College.(1999-2006)
- ❖ Member of Core team of Science Forum, Agra
- ❖ Associate Dean student welfare, Dr B R Ambedkar University Agra
- ❖ Associate coordinator, Residential wing Examinations, Dr B R Ambedkar University, Agra
- ❖ Member of NGO SPHEEHA

#### **24. Institutional Development :**

- (a) Member of Task Force of the University for implementing New Education Policy.
- (b) Member of Board of governors of RUSA project team of Dr B R Ambedkar University, Agra(from 20/06/2016)
- (c) Member of Executive Council(EC) of Dr B R Ambedkar University, Agra from Jan 2021
- (d) Member and Expert of Board of Studies in many Universities
- (e) Member Academic committee , Dr B R Ambedkar University, Agra
- (f) Member University maintenance committee and E tender committee
- (g) Chairman/Member University Inspection Committees for Self finance colleges including Science, Ayurvedic, Homeopathic and Nursing colleges
- (h) Member UFM committee of Dr B R Ambedkar University,Agra(2016,2017,2018)
- (i) Member Planning and Advisory body of Dr B R Ambedkar Univ.,Agra(from 16/04/2017)
- (j) Member Library committee of Dr B R Ambedkar University, Agra.(2014 onwards)
- (k) Scrutiny Incharge(2016-2018)
- (l) Member committee for University 12<sup>th</sup> Five year plan UGC to give Travel grant for attending conferences and grant for organizing workshops and conferences.(from 2016-)
- (m) Member UGC committee of 12<sup>th</sup> five year grant to university.
- (n) Member Governing body University Model School(from 10/7/2018)
- (o) Member Examination Body Dr Bhimrao Ambedkar University Agra (2019-2020, 21-22)
- (p) Was involved in initiating a Project “ Modernization of chemistry Department for research and Postgraduate studies in St. Johns college” worth over Rs 1 Crore during my visit to Germany in the Year 2000 by the trust formed by Dr. O.P Garg, which also led to the formation of School of Chemical sciences in the chemistry dept. St. Johns College, Agra that now have modern facilities Like GC, FTIR, AAS, UV-VISIBLE spectrometers etc.