**CURRICULUM VITAE**



**Dr. Anshul Agarwal**

15-Deep Enclave, Dayalbagh,

Agra – 282 005, U.P., India.

Mobile No.: +91-8791741825, 91-9319117596

E-mail: anshul\_chem@yahoo.com

**EDUCATIONAL QUALIFICATION**

* **NET Qualified (LS),** all India rank **42** (June 2012).
* Ph.D- (CHEMISTRY) – “STUDIES ON SOME SEMICONDUCTOR BASED PHOTO-ELECTROCHEMICAL CELLS” submitted 2003, Awarded 2004, Dayalbagh Educational Institute, Agra, Deemed University, NAAC Grade ‘A’, Under 100 College of India Rank 72).
* M. Sc.- ORGANIC CHEMISTRY, (1997-1999, Agra College, Agra, Affiliated to Dr. B. R. Ambedkar University, Agra 61.5%, NAAC Grade‘A’ ).
* B. Sc. – Chemistry, Zoology & Botany, (1993-1996, R. B. S. College, Agra, Agra University with 57%).
* 12th – Hindi, English, Biology, Physics, Chemistry, (1993, R. B. S. Inter College U. P. Board with 62.0%).
* 10th – Hindi, English, Biology, Science, Social Science, Math, (1991, R. B. S. Inter College U. P. Board with 67.0%).

**TEACHING EXPERIENCE**

* Teaching for B. Sc. & M. Sc. Classes in R. B. Degree College, Agra (2004-2005).
* Teaching for B.Sc. Classes in Agra College, Agra (2005-2010).
* Presently working as Assistant Professor (CHEMISTRY) in FET (Faculty of Engineering & Technology), at Agra College. Agra (22 Oct. 2007-till date).

**RESEARCH EXPERIENCE**

Working on the preparation of semiconductors for photoassisted splitting of water to produce hydrogen. In this connection gained expertise by working at various research centers of repute viz., **Bhabha Atomic Research Centre (BARC), Bombay** and **Solid State Physics Laboratory (SSPL, DRDO), New Delhi**.

**PUBLICATIONS (PRE Ph.D)**

1. A new route of titanium doped photosensitive hematite, **Anshul Agarwal**, Yatendra S. Chaudhary, Vibha R. Satsangi, Sahab Dass and Rohit Shrivastav, Published in *Current Science*, **10 August, 2003**, Vol. 85, No. 3, 371-374( 12 + citations).
2. A study on the photoelectrochemical properties of copper oxide thin films. Yatendra S. Chaudhary, **Anshul Agarwal**, Vibha R. Satsangi, Rohit Shrivastava and Sahab Dass Published in *Int. J. Hydrogen Energy*, **2004**, 29, 131-134. ( 91+ citations)

**PUBLICATIONS (POST Ph.D)**

1. Sol-gel synthesis and photoelectrochemical behaviour of Si-doped  – Fe2O3”, **Anshul Agarwal**, Diwakar Chauhan,, Chanakya Tripatti, Saroj Kumari, Vibha R. Satsangi, Sahab Dass and Rohit Shrivastava, *Acta Ciencia Indica*, XXXIC(4), **2005**, pp. 373-380.
2. Preparation characterization and photoelectrochecical behaviour of titanium and Zirconium doped hematite. **Anshul Agarwal**, Diwakar Chauhan,, Chanakya Tripatti, Saroj Kumari, Vibha R. Satsangi, Sahab Dass and Rohit Shrivastava, *Procedings of the National Academy of Sciences, India*, 76(A),III,**2006**,189-195.
3. Published in IIST Journal of Applied Physics (IJAP) titled as “Deposition of Silver-Silica Nano Composite Thin Films by Spray Pyrolysis (Self-fabricated Indigenous System) and its Antibacterial Activity”. *Vol.* 2 *No.2 (July-December* **2011**) *issue of IJAP.* Authors: Dayal Saran\*, Saurabh Yadav, Reetu Yadav and **Anshul Agarwal**.
4. FORESIGHT (Humanities and Social Science Research Journal International), ISSN No.: 2278-8336, titled as―The Toxicology of Nanomaterials: Impacts on Health and Environment; Reetu Yadav , Dayal Saran, Saurabh Yadav, and **Anshul Agarwal**; Pg. 76- 79 (Vol. 1) (**2012**).
5. Journal Nanotechnology Progress International (JONPI), New York, ISSN 1941-3475 entitled ―TiO2 Nanoparticles, Its Antibacterial Activity, Anticancer and Nano toxicological Impacts; Yadav R., Saurabh Y., Saran D., Padam A., Sudhir S., Agarwal S.C., **Agarwal A**; Pg. 6 (Vol. 3) (**2012**).
6. Journal Nanotechnology Progress International (JONPI), New York, ISSN 1941-3475 entitled “Green Nanotechnology Photodynamic therapy: An Economic and Ecofriendly way for cancer treatment, Yadav R., Yadav P. , Yadav S. , Saran D. , **Agarwal A**. ; Pg. 14 volume 4, issue 2, (**2013**).
7. An Economical an Ecological industrial management for the development of our nation (A tentative plan - Agra industrial ecosystem ) published in international science congress , Res .J. Recent Science , 2 (1), 54-57. Tandon R, Tandon H, and **Agarwal A**\* (**2013**).
8. Nanorobotics : A hope for future; Engg. Research publication , Smriti Mathur and **Anshul Agarwal,** National Conference on Synergetic Trends in engineering and Technology (STET-2014) International Journal of Engineering and Technical Research ISSN: 2321-0869, Special Issue, pp 171-173, April(**2014**).
9. Review Article- Ecofriendly way: biological control by using insect natural enemies (prevention of cancer caused by pesticide) Pradeep Kumar Yadav, Reetu Yadav, and **Anshul Agarwal**. International Research Journal of Environment Sciences, Vol.6 (3), 66-67, March (**2017**).
10. “Synthesis of Silver nanopartiles by modified photochemical polyol process” (communicated To be very soon).
11. Current status of High Education in India: Problems and solutions (Communicated to be very soon).
12. Industrial ecosystem : To reduce Global Warming (Communicated to be very soon).
13. Ayurveda: A holistic way to cure Diseases, (Communicated to be very soon).

16. A Survey: Use of Nanotechnology for waste disposal (Communicated to be very soon).

17. Bio-info-sensor Approach: A tentative plan for disaster pre alarm for Earth quake

(Communicated to be very soon).

**PARTICIPATION IN CONFERENCES/SEMINARS/** **SYMPOSIUM**

**NATIONAL CONFERENCE**

1. Solar hydrogen production through photoelectrochemical splitting of water. Choice of semiconductor, National symposium on photochemical processes on solid surfaces, B.H.U.,Varanasi, 8-10 March, 2000.
2. Synthesis and photoelectrochemical properties of titanium doped nanostructured iron (III) oxide, National seminar on Advanced Materials and Processes for the New Millennium, Thiruvananthapuram, 22-23 February, 2001.
3. Zr-doped iron (III) oxide: Preparation by a novel sol-gel method (Glycerol route) for possible use in photoelectrochemical cell, National Conference on solar Energy Conversion Processes, Chennai, 1-2 March, 2001.
4. A study on photoelectronchemical splitting of water using doped Fe2O3 prepared by a novel wet chemical method involving the use of hexamethylenetetramine (HMTA). National Conference on Solar Energy Conversion Process, University of Madras, Chennai, 1-2 March, 2001.
5. Si-doped -Fe2O3: Preparation by wet-chemical method and photoelectrochemical study, 20th Conference of Indian Council of Chemists, Mysore, 22-24 December, 2001.
6. A study on nanostructured CuO for its use in PEC splitting of water. National Symposium on Nanostructured Material, I.I.T. Delhi, 5-6 December, 2002.
7. National conference on New Trends of Metal ions in Drugs design 9th and 10th Oct, 2010, Shri Varshney College, Aligarh, Dept. of Chemistry. Study of Different water quality parameters of river Yamuna at different sites in Agra.
8. Synyhesis of Silver Nanoparticles by polyol Process. XXIX Annual Conference of Indian Council of Chemistry, Dept. of Chemistry, Punjab University, Chandigarh, 19th -21th, December 2010.
9. Attended a National Seminar on "Research methodology (2010)" which was organized by Institute of Basic Science, Agra at Agra (25 Oct. 2009).
10. A Poster presentation (Synthesis of Ag nps by Polyol Process) as a co-author in 29th National conference which was organized by “Indian Council of Chemist (ICC)” in Punjab University, Chandigarh (19-21 December 2010).
11. A Poster (Preparation of Zinc Oxide Nano thin films by Spray Pyrolysis (Self-fabricated Indigenous System): Its Potential Application in Water Purification) in a National Conference on “RECENT ASPECTS OF RESEARCH IN APPLIED SCIENCES (RRAS-2011)" which was organized by Inderprastha Engineering College, Ghaziabad (U.P.). (12th February 2011).
12. A Paper (Oral Paper) “Deposition of Silver-Silica Nano Composite Thin Films by Spray Pyrolysis (Self-fabricated Indigenous System) and its Antibacterial Activity” in a National Conference on “Recent Advances in Physics & Technologies (NCRAPT)" which was organized by Agra College, Agra. (26th & 27th March 2011).
13. A Paper (Oral Paper) “Preparation of Urea Nanoarticles: Antibacterial Activity” as a co-author in a National Conference on “Recent Advances in Physics & Technologies (NCRAPT)" which was organized by Agra College, Agra at Agra. (26th & 27th March 2011).
14. A Paper (Oral Paper) “A New Facile Modified Polyol Photochemical Route For The Preparation of Ag-nps: Antibacterial Activity (Streptococcus Bacteria” as a co-author in a National Conference on “Recent Advances in Physics & Technologies (NCRAPT)" which was organized by Agra College, Agra at Agra. (26th & 27th March 2011).
15. A Paper (Oral Paper) “Synthesis and Characterization and Use of TiO2 Nanoparticles to Improve the Water Quality Parameters of Yamuna Water” as a co-author in a National Conference on “Recent Advances in Physics & Technologies (NCRAPT)" which was organized by Agra College, Agra at Agra. (26th & 27th March 2011).
16. A Poster (A new facile modified polyol photochemical route for the fabrication of Ag nps and its characterization by UV & FTIR) as a co-author in a National Conference on "Nano science and Nano biotechnology: Present and Future Prospective" which was jointly organized by Meerut Institute of Engineering & Technology (MIET), Meerut and Department of Nano biotechnology (LSFI- Karnataka) at Meerut. (26th November 2011).
17. A Poster “A Simple Sol-gel route (low pH) for the fabrication of TiO2 Nanoparticles and its anticancer (Breast Cancer) Activity” as a co-author in a National Conference on "Nano science and Nano biotechnology: Present and Future Prospective" which was jointly organized by Meerut Institute of Engineering & Technology (MIET), Meerut and Department of Nano biotechnology (LSFI- Karnataka) at Meerut. (26th November 2011).
18. A Poster “Chemical Spray Pyrolysis Technique (CSPT) System Fabrication and Synthesis, Characterizations of ZnO Nano Thin Films” in a National Conference on "RECENT ADVANCES IN MATERIAL SCIENCE” (NCRAMS 2012, ISBN: 81-8045-086-4) which was organized by Department of Physics, Dayal Singh College, Karnal at Haryana (25th - 26th February 2012).
19. A poster “Chemical Spray Pyrolysis Technique (CSPT) System Fabrication and Synthesis, Characterizations of ZnO Nano Thin Films” in 82nd Annual Session of The National Academy of Science” **(NCRAMS 2012, ISBN: 81-8045-086-4)** held at Banaras Hindu University (B.H.U.), Banaras (29th November to 1st December 2012).
20. Presented a review paper(students) on the topic “Nano- Approach in VSLI technology” in a National conference on Globalized leading edge technologies [G.L.E.T.E.-2013] held at Eshan College of Engineering Farah, Mathura , from Nov 15th -16th, 2013.
21. A poster on the topic “Poster on the topic “ Futuristic electronic technology based on carbon Nanotube” in National conference/ Workshop on Synthesis, Characterization and Application of Advanced Nanomaterial’s (N.C.S.C.A.A.N)- 2014” held at Hindustan College of Science and Technology, Farah, Mathura from Jan 17th -19th . **Best poster Award (third).**
22. National conference on Nano Devices : Modeling Simulation and fabrication . NCND -2015, April 18-19, 2015, Hindustan college of science and technology , Farah, Mathura **“**A theoretical Deign of a Nano mosquito Repellent**”. “**Abhinav Parashar, Shweta Singh, Anshul Agarwal. **Best poster Award (third).**

**International conference**

1. Preparation of TiO2 nano particles by emulsification technology and its potential application of reduction of water pollution. International conference on recent advance in environment protection Agra, 17-18 December 2009 (St. John’s College).
2. Syntheses of silicon nano crystal by micro-emulsion method. International conference on recent advance in environment protection Agra, 17-18 December 2009 (St. John’s College).
3. Attended & Presented a Poster (Preparation of Ag Nano Thin Films by Spray Pyrolysis (Self-fabricated Indigenous System): Its Potential Application in Water Purification) in an International Conference on “CHEMISTRY: FRONTIERS AND CHALLENGES" which was organized by Aligarh Muslim University (A.M.U.), Aligarh (5 & 6th March 2011).
4. Attended & Presented a Poster [A Facile Route (low pH) for the synthesis of TiO2 Nanoparticles and its Anticancer (Lung) Activity] as a co-author in an International Conference on “CHEMISTRY: FRONTIERS AND CHALLENGES" which was organized by Aligarh Muslim University (A.M.U.), Aligarh. (5 & 6th March 2011).
5. Attended & Presented a Poster (A New Facile modified Polyol Photochemical Route for the Fabrication and Optimization of Ag nps: Antibacterial Activity) as a co-author in an International Conference on “CHEMISTRY: FRONTIERS AND CHALLENGES" which was organized by Aligarh Muslim University (A.M.U.), Aligarh. (5 & 6th March 2011).
6. Attended & Presented a Poster (Preparation of Urea nps: An Efficient Farming Approach) as a co-author in an International Conference on “CHEMISTRY: FRONTIERS AND CHALLENGES" which was organized by Aligarh Muslim University (A.M.U.), Aligarh. (5 & 6th March 2011).
7. Work for an Oral Paper (by students) “Green Nanotechnology with PDT: An Economic and Ecofriendly way for Cancer Treatment” as a co-author in an international Conference on “Chemistry of Phytopotentials: Health, Energy and Environmental perspectives”, (CPHEE 2011), which was organized by Dayalbagh Educational Institute, Agra. (4th - 6th November 2011).
8. Attended & Presented(by students) a Poster “Preparation and Optimization of Fe2O3 Nano Thin Films By Spray Pyrolysis Technique” in an International Conference on "CURRENT DEVELOPMENTS IN ATOMIC, MOLECULAR, OPTICAL & NANO PHYSICS” (CDAMOP 2011) which was organized by Department of Physics and Astrophysics, University Of Delhi, and Co-sponsored by: Laser Science and Technology Centre (LASTEC), DRDO, Delhi at Delhi. (14th - 16th December 2011).
9. Attended & Presented(by students) a Poster “An Ecofriendly Way: To Prevent Cancer Caused by Pesticide (Control of Pest by Insect) ” as a co-author in 2nd International Science Congress, International Science Congress Association (ISC-2012) under the auspices of Bon Maharaj Engineering College, Vrindavan, Mathura, UP, INDIA. (8th – 9th December 2012).
10. Presented a poster( by students) on “carbon nanotubes: Enhanced VSLI Technology” in an international conference “ALIGARH NANO-IV INTERNATIONAL held at Aligarh Muslim University , Aligarh from March 8th – 10th, 2014.
11. A poster (by students) on characterization and fabrication of Micro/ Nano carbon tubes.

Chaudhary P.R. Singh, Kautilya Pachorie, Amit Agarwal, Anshul Agarwal. International

Conference “Aligarh Nano IV international 2014” held at Aligarh Muslim University,

Aligarh from March 8th -10th, 2014.

**WORKSHOPS / COURSES ATTENDED**

1. Attended a Short Course on Basic Electronic & Trouble shooting, DEI, Agra.(Jan17 to 20, 2000)
2. “Patent Awareness Workshop” organized by Council of Science & Technology, U. P. and Technology Information Forecasting and Assessment Council (DST), New Delhi, held at St. John’s College, Agra (20 Nov., 2001).
3. International work shop on nano materials, Dr. Bhim Rao Ambedkar University, Agra, 23 Dec 2009.
4. Attended a International conference on nano- science and technology in chemistry, environment and energy, Agra 7-9 January 2010(NATCHEE) D.E.I.
5. National Seminar on Research Methodology and Advancements in Chemical Science. Deptt. of Chemistry, Dr. B.R.A. University, Agra.25th Oct, 2010.
6. Participate in the Global Partnership Summit 2013, Agra organized by CII to know about the latest technical problems of various industries around the globe (30-1-2013).
7. Attended a workshop on “Method in biological and Agricultural Science” 16th -17th Dec 2013 at IRIS EDU Solution, Agra, India.
8. Analytical instrumentation Training Course (AITC 2011) Organized by School of Chemical science, Department of Chemistry, St. John’ College, Agra. (30th Jan to 3rd Feb 2012).
9. Workshop on Analytical Instrumentation (HPLC, FTIR UV-Vis. etc.) GLA University Mathura, 08 March 2014.
10. ICC conference, A Facile Fabrication of Amorphous Carbon Nano/Micro Structure by the Process of Charring, Ankush Gupta ,Amit K. Agarwal and Anshul Agarwal. Indian council of chemist(ICC) Indian institute of mines, Dhanbad, 15-17 Dec. 2014.
11. Production of efficient nano/micro lubricant from waste graphite (pencil, lead), abstract page-168, pp-49. Ashok K. Singh, Anshul Agarwal, Shivam Agarwal, Rahul solanki, Prachi Pachauri, Priya Singh. Dept. of Mechanical Engineering. and Dept. of Chemistry, FET, Agra College. 3rd international conference on nanostructed material and nanocomposites (ICNM 2015), 12thto14th December, 2015. Organised by Hindustan College of Science and Technology, Farah, Mathura, UP, India.

1. An economical & ecofriendly manufacturing approach for start-up by nanotechnology and industrial ecosystem. Presented by Anshul Agarwal, Dept. of chemistry, FET Agra College, Agra, India. Organized by Dau Dayal institute of vocational education, Dr .BRA University, Agra (22-24 january, 2016). International workshop on emerging opportunities and trends in basic and applied sciences (EMOTBAS 2016).
2. National conference role of science & technology in social-economic development organized by Dr.BR Ambedkar Government Degree College, Mainpuri(Feb28-29, 2016 ). **Invited talk** entitled science &technology cure or boom for Human Development.
3. Attended, Indo- spain workshop on electrolyzed water technology .An Eco-innovative solution for Agro, Food and water industries.(july-14,2016, dept of chemical engg, RBSETC, Bichpuri, Agra.( **As a Guest**)
4. National seminar on Role of Biotechnology in sustainable Agriculture and rural development,4-5 March 2017, sponsored by Department of Higher Education, U.P. Government, Lucknow (held at dept. of Botany, RBS College, Agra ) paper entitled, NPK Measurement of soil using Colorimetric based fiber optic sensor.
5. National seminar on Role of Biotechnology in sustainable Agriculture and rural development,4-5 March 2017, sponsored by Department of Higher Education, U.P. Government, Lucknow (held at dept. of Botany, RBS College, Agra ) paper entitled, D.K.M( Desh Ki Mitti): An App for Agriculture.
6. Abstract published in National seminar on Biotechnology: Resource management for sustainable Nature in 21st Century, 22-23 April 2017, by Indian Society of Genetics, Biotechnology Research and Development, Agra. paper entitled, Sustainable Nature: by solid waste management, Akanksha gupta, Meena Singh, Anshul Agarwal.
7. Abstract published in National seminar on Biotechnology: Resource management for sustainable Nature in 21st Century, 22-23 April 2017, by Indian Society of Genetics, Biotechnology Research and Development, Agra. paper entitled, Nanotechnology: A hope for Cancer treatment, Priti pratap, Meena Singh, Anshul Agarwal.

**Faculty Development Program (FDP)** - Eight-Day faculty development program, on ‘Human Values and Professional Ethics’ organized by Value Education Cell, AKTU at HCST, Mathura from 23-30 Dec. 2016 ( Reference no. 161211004) .

**CO-SUPERVISOR (DISSERTATION)**

Student: Reetu Yadav

Supervisor: Dr. S. C. Agarwal, Ex. H.O.D., Department of Chemistry, Agra College, Agra

Topic: “Fabrication, Characterization and Antibacterial Activity of TiO2  Nanoparticles”

**ANALYTICAL INSTRUMENTATION** **SKILLS**

Experience in operating of following sophisticated instruments:

* Potentiostat (During Ph.D.)
* UV – VIS spectrophotometer
* Atomic Spectrometer
* HPLC
* FTIR
* Flame Photometer

**ORGANIZING** / **ADMINESTRATIVE EXPERIENCE**

* Central Controller at Mathura for UPSEE 2014 to be held on 2014.
* Organizing Secretory- Workshop of Nano Robotics, 12 April 2014 in FET, Agra College,

Agra.

**COMPUTER PROFICIENCY**

* MS Office, Internet Browsing.

**Membership of professional/learned bodies**

* Indian Council of Chemist (ICC) – LF/1027.

**AWARDS AND HONOURS**

* Dr. K. B. Lal Memorial **Chemistry Contest (for M. Sc.)** held at St. John’s College, Agra & won **First Prize**( 1st March 1998)
* Environment Competition, PARYARAKSHA (An NGO for environment protection, Agra) held at St. John’s College, Agra & won **second Prize (**22nd Nov 1998**)**.
* National Children’s Science Congress work as **JUDGE;** M.D. Jain Inter College, Agra

(30/10/2014).

**Personal**

Father’s Name : Shri. Shanti Swaroop Agarwal

Father’s Occupation : Mechanical Engineer ( USA)

Date of Birth : 21st April 1976

Sex : Male

Marital Status : Unmarried

Religion : Hindu

Category : General

Nationality : Indian

**HOBBIES**

Playing Chess, Cricket, Gardening & Listening to Music

* Ist Pt. Shree Shyam Lal Gautam Memorial Chess Championship 1998-99 (27th June to Ist July 1998) IIIrd (J) Position.

**DECLARATION**

I hereby certify that the information furnished above is correct and to the best of my knowledge.

( **Dr. Anshul Agarwal** )

1. **Anshul Agarwal**, Yatendra S. Chaudhary, Vibha R. Satsangi, Sahab Dass and Rohit Shrivastav; “A new route of titanium doped photosensitive hematite”, *Current Science*, India, Vol. 85, No. 3, pp.371-374,**10 August, 2003.**

2. Yatendra S. Chaudhary, **Anshul Agarwal**, Vibha R. Satsangi, Rohit Shrivastava and Sahab Dass; “A study on the photoelectrochemical properties of copper oxide thin films”. *Int. J. Hydrogen Energy*, America, 29, 131-134, **2004.**

3. **Anshul Agarwal**, Diwakar Chauhan,, Chanakya Tripatti, Saroj Kumari, Vibha R. Satsangi, Sahab Dass and Rohit Shrivastava, “Sol-gel synthesis and photoelectrochemical behaviour of Si-doped  – Fe2O3”, *Acta Ciencia Indica*, XXXIC(4), India, pp. 373-380. **2005.**

4. **Anshul Agarwal**, Diwakar Chauhan,, Chanakya Tripatti, Saroj Kumari, Vibha R. Satsangi, Sahab Dass and Rohit Shrivastava; “Preparation characterization and photoelectrochecical behaviour of titanium and Zirconium doped hematite”. *Procedings of the National Academy of Sciences, India*, 76(A),III, 189-195, **2006.**

5. Dayal Saran, Saurabh Yadav, Reetu Yadav and **Anshul Agarwal**. “Deposition of Silver-Silica Nano Composite Thin Films by Spray Pyrolysis (Self-fabricated Indigenous System) and its Antibacterial Activity”, IIST Journal of Applied Physics (IJAP), India, *Vol.* 2 *No.2* **pp 31-35** ,*July-December* **2011.**

6. Reetu Yadav , Dayal Saran, Saurabh Yadav, and **Anshul Agarwal**; “The Toxicology of Nanomaterials: Impacts on Health and Environment”; FORESIGHT (Humanities and Social Science Research Journal International), India, Vol. 1, pp. 76- 79, **2012**.

7. Yadav R., Saurabh Y., Saran D., Padam A., Sudhir S., Agarwal S.C., **Agarwal A**; “TiO2 Nanoparticles, Its Antibacterial Activity, Anticancer and Nano toxicological Impacts”; Journal Nanotechnology Progress International (JONPI), America ,issue 2 Vol. 3,6, 1p-6-19, **2012**.

8. Yadav R., Yadav P. , Yadav S. , Saran D. , **Agarwal A;** “Green Nanotechnology Photodynamic therapy: An Economic and Ecofriendly way for cancer treatment”,. Journal Nanotechnology Progress International (JONPI), America, 14 volume 4, issue 2, pp 14-20, **2013**.

9. Tandon R, Tandon H, and **Agarwal A**; “An Economical an Ecological industrial management for the development of our nation (A tentative plan - Agra industrial ecosystem)” international science congress , Res .J. Recent Science, India, 2 (1),pp54-57, **2013**.

10. Smriti Mathur and **Anshul Agarwal, “**Nanorobotics : A hope for future”; National Conference on Synergetic Trends in engineering and Technology (STET-2014) International Journal of Engineering and Technical Research, India, pp.171-173, April **2014**.

**2015- 2016**

**Help in 2 ME project( Nano-graphite, Nano-iron from rust)**

* **Production of efficient nano/micro lubricant from waste graphite (pencil, lead), abstract page-168, pp-49**

**Ashok K. Singh, Anshul Agarwal, Shivam Agarwal, Rahul solanki, Prachi**

**Pachauri, Priya Singh.Dept. of Mechanical and Dept. of Chemistry,FET,**

**Agra College.3rd international conference on nanostructed material and**

**nanocomposites(ICNM 2015), 12thto14th December, 2015. Organised by**

**Hindustan college of science and technology, Farah, Mathura,UP,India.**

* **An economical & ecofriendly manufacturing approach for start-up by nanotechnology and industrial ecosystem.**

**Presented by Anshul Agarwal, Dept. of chemistry, FET Agra College, Agra, India. Organized by Dau Dayal institute of vocational education, Dr .BRA**

**University,Agra(22-24 january, 2016). International workshop onemerging**

**opportunities and trends in basic and applied sciences (EMOTBAS 2016).**

* **National conference role of science & technology in social-economic development organized by Dr.BR Ambedkar Government Degree College, Mainpuri.(Feb28-29, 2016 ) Invited talk entitled science &technology cure or boom for Human Development.**
* **Attended, Indo- spain workshop on electrolyzed water technology .An Eco-innovative solution for Agro, Food and water industries.(july-14,2016, dept of chemical engg, RBSETC, Bichpuri, Agra.( As a Guest)**
* **FDP(Eight-Day faculty development program) on ‘ Human Values and Professional Ethics’ organized by Value Education Cell, AKTU at HCST, Mathura from 23-30 Dec. 2016.( Reference no. 161211004)**
* **National seminar on Role of Biotechnology in sustainable Agriculture and rural development,4-5 March, sponsored by Department of Higher Education, U.P. Government, Lucknow (held at dept. of Botany, RBS College, Agra ) paper entitled, NPK Measurement of soil using Colorimetric based fiber optic sensor.**
* **National seminar on Role of Biotechnology in sustainable Agriculture and rural development,4-5 March, sponsored by Department of Higher Education, U.P. Government, Lucknow (held at dept. of Botany, RBS College, Agra ) paper entitled, D.K.M( Desh Ki Mitti): An App for Agriculture.**
* **Abstract published in National seminar on Biotechnology: Resource management for sustainable Nature in 21st Century, 22-23 April 2017, by Indian Society of Genetics, Biotechnology Research and Development, Agra. paper entitled, Sustainable Nature: by solid waste management, Akanksha gupta, Meena Singh, Anshul Agarwal.**
* **Abstract published in National seminar on Biotechnology: Resource management for sustainable Nature in 21st Century, 22-23 April 2017, by Indian Society of Genetics, Biotechnology Research and Development, Agra. paper entitled, Nanotechnology: A hope for Cancer treatment, Priti pratap, Meena Singh, Anshul Agarwal.**