



## Faculty Details proforma for DU Web-site

Title	Prof./Dr./Mr./Ms./Mrs.	First Name	Ashok Kumar	Last Name	Bakhshi	Photograph
Designation		<b>Professor</b>				
Address Office		<b>Head, Department of Chemistry University of Delhi Delhi – 110 007</b>				
Residence		<b>C – 139 Moti Nagar New Delhi – 110 015</b>				
Phone No Office		<b>011-27666646/ 27667794</b>				
Residence						
Mobile		<b>9818352820</b>				
Email		<b>akbakhshi2000@yahoo.com</b>				
Web-Page		<b>www.du.ac.in</b>				
Educational Qualifications						
Degree		Institution			Year	
Ph.D.		<b>Physical Chemistry, Department of Chemistry, D.U.</b>			<b>1982</b>	
M.Phil. / M.Tech.						
PG		<b>M. Sc. Chemistry, Department of Chemistry, D.U.</b>			<b>1973</b>	
UG		<b>B. Sc. (Hons) Chemistry, University of Delhi, D.U.</b>			<b>1971</b>	
Any other qualification						
Career Profile						
<b>POST - DOCTORAL RESEARCH</b>						
<ol style="list-style-type: none"> <li>1. "DAAD FELLOW " for two years (1984-86) at the <i>Institute for Theoretical Chemistry of the Friedrich-Alexander-University of Erlangen Nurnberg</i>, Germany.</li> <li>2. "VISITING SCIENTIST" at the <i>Tata Institute of Fundamental Research, Bombay, India</i> for the periods May - June, 1989 and July 1991.</li> <li>3. "VISITING SCIENTIST" at the <i>Indian Institute of Science, Bangalore</i>, India for the period May - June, 1987 and during February 1992.</li> <li>4. "VISITING SCIENTIST" at the <i>Institute for Fundamental Chemistry and at Kyoto University in Japan</i> for the period May – August 1995.</li> <li>5. "VISITING SCIENTIST" at the <i>Institute for Theoretical Chemistry of the Friedrich - Alexander - University of Erlangen - Nurnberg, West Germany</i> for the periods May - August, 1988; June - July, 1990; May-July, 1992; July 1993 and May - August, 1996.</li> </ol>						

Administrative Assignments
<ol style="list-style-type: none"> <li>1. <b>Head, Department of Chemistry</b>, University of Delhi, (May 2010 onwards)</li> <li>2. <b>Director, Institute of Lifelong Learning (ILLL)</b> , University of Delhi (January 2008 onwards)</li> <li>3. <b>Director, Centre for Professional Development in Higher Education (CPDHE)</b>, University of Delhi (January 2008 onwards)</li> <li>4. <b>Registrar</b>, University of Delhi during (Oct- Nov. 2009).</li> </ol>
Areas of Interest / Specialization
Theoretical polymer chemistry with special reference to electrically conducting polymers and biopolymers such as proteins and DNA.
Subjects Taught
Physical Chemistry
Research Guidance
<ol style="list-style-type: none"> <li>1. <i>Supervision of awarded Doctoral Thesis (2008 onwards)</i> <ol style="list-style-type: none"> <li>I. <i>Dr. Parul Singh</i> : Vibrational Spectroscopic Studies to Evaluate the Stability of Some Antiretroviral and Anticancer Drugs (2009)</li> <li>II. <i>Dr. Swati Aggarwal</i> : Theoretical Designing of Novel Conducting Diblock and Triblock Copolymers (2008)</li> </ol> </li> <li>2. <i>Supervision of Doctoral Thesis, under progress</i> <ol style="list-style-type: none"> <li>1. <i>Ms. Avaneet Kuar</i></li> <li>2. <i>Mr. Kuldeep Singh</i></li> <li>3. <i>Ms. Mohsineen Wazir</i></li> <li>4. <i>Ms. Aparna Garg</i></li> <li>5. <i>Ms. Vinita Arora</i></li> </ol> </li> </ol>
Publications Profile (since 2008 onwards)
<p><b>I. Research Publications:</b></p> <ol style="list-style-type: none"> <li>1. Dielectric and magnetic properties of conducting ferromagnetic composite of polyaniline with <math>\gamma</math>-Fe<sub>2</sub>O<sub>3</sub> nanoparticles. Kuldeep Singh, Anil Ohlan, R. K. Kotnala, A. K. Bakhshi and S. K. Dhawan. <b>Material Chemistry &amp; Physics</b>, 112, 651-658 (2008).</li> <li>2. Evaluation of Stability of Indinvir Sulphate using Diffuse Reflection Infrared Spectroscopy, Parul Singh, L. Premkumar, Ranjana Mehrotra, H. C. Kandpal and A. K. Bakhshi, <b>Journal of Pharmaceutical and Biomedical Analysis</b>, 47, 248-254 (2008).</li> </ol>

3. Tailoring electrically Conducting Copolymers using genetic algorithm Avneet Kaur and A. K. Bakhshi  
**Indian Journal of Chemistry**, 48A, 631-636 (2009).
4. Thermal Stability Studies of 5- Fluorouracil using Diffuse Reflectance Infrared Spectroscopy Parul Singh, Gunjan Tyagi Ranjana Mehrotra and A. K. Bakhshi,  
**Drug Testing and Analysis**, 1, 240-244 (2009).
5. Development and Validation of an infrared spectroscopy based method for the analysis of Moisture content in 5- Fluorouracil, Parul Singh, Deepak Jangir, Ranjana Mehrotra, and A. K. Bakhshi,  
**Drug Testing and Analysis**. 6, 275-278 (2009).
6. Conducting Polymer Embedded with Nanoferrite and Titanium Dioxide Nanoparticles for Microwave Absorption  
S.K.Dhawan, Kuldeep Singh, A.K.Bakhshi and Anil Ohlan  
**Synthetic Metals** 159, 2259-2262 (2009).
7. Designing model Protein chains using bioinspired Ant Algorithms.  
Mohsineen Wazir and A.K.Bakhshi  
**Indian J. Chem.** 48A , 1477-1483 (2009)
8. Designing of Type-I Polymeric Super-lattices using Genetic and Ant Algorithms: A Comparative study  
Avneet Kaur, Mohsineen Wazir, Aparna Gaeg & A.K.Bakhshi  
**Indian J. Chem.** 48A, 1652-1656 (2009)
9. Synthesis of conducting ferromagnetic nanocomposite with improved microwave absorption properties. Kuldeep Singh, Anil Ohlan, A. K. Bakhshi & S. K. Dhawan.  
**Material Chemistry & Physics**, 119, 201-207, (2010)
10. Investigation of Electronic Structures of model polypeptide chain using Genetic Algorithm.  
Vinita Arora & A.K. Bakhshi  
**Indian J. Chem.** 49A, 18-25 (2010).
11. Change in optimum genetic algorithm solution with changing band discontinuities and band widths of electrically conducting copolymers.  
Avneet Kaur & A.K. Bakhshi  
**Chemical Physics**, 369, 122-125 (2010)
12. Molecular designing of novel ternary copolymers of donor acceptor polymers using genetic algorithm.  
Vinita Arora & A.K. Bakhshi  
**Chemical Physics**: 373, 307-312 (2010).

13. Designing novel binary copolymers of donor-acceptor type based on furan and silole using genetic algorithm  
Vinita Arora & A K Bakhshi  
**Synthetic Metals** (communicated).
14. Effect of basis set, electron correlation and hydration on the designing of ternary polypeptides using ant algorithm  
Mohsineen Wazir & A.K.Bakhshi  
**THEOCHEM** (communicated).

## II. Other Publications

1. Beyond the chalk and talk  
A.K. Bakhshi  
**Education Times**, 1<sup>st</sup> June 2009.
2. Should Foreign Universities be allowed to operate in India  
A.K. Bakhshi  
**The Times of India**, page 14, 18<sup>th</sup> August 2009
3. Chemistry has the power to change the world  
A.K.Bakhshi  
**Hindustan Times (HT Horizons)**
4. Electrically Conducting Polymers: A Paradigm Shift in Electronics  
A.K.Bakhshi and Vinita Arora  
**Chemical World, Vol. 10 (2) June 2010, 47-49.**
5. Agent of Change  
A.K.Bakhshi  
**Education Times** (Times of India)  
7<sup>th</sup> June, 2010.
6. Where Matter is Supreme  
A.K.Bakhshi  
**Hindustan Times (HT Horizons)**  
14<sup>th</sup> July 2010.

## III. Books, Monographs etc.

1. A book on **ENERGY** published by the **National Book Trust** of India (1995).
2. A textbook on **CHEMISTRY** for Class XI published by the **NCERT** (2002).
3. A textbook on **CHEMISTRY** for Class XII published by the **NCERT** (2003).
4. Edited (as a co-guest editor) the special issue (June 1994) of the **Indian Journal of Chemistry** (Section A) on **Conducting Polymers**.

#### IV. Patent

1. **“A Sol-gel process for the preparation of Monoclinic CeTiO<sub>2</sub>O<sub>6</sub> Thin Film”** jointly developed by Amita Verma, S.A.Agnihotry and A.K.Bakhshi.

Conference Organization/ Presentations (since 2008 onwards)

#### I. ORGANISATION OF CONFERENCES/ SEMINARS/ COURSES

1. **Member, Local Organising Committee** of the **“Indo-US S&T Forum Workshop on Green Chemistry”** organized by the University of Delhi during January 7-19, 2008.
2. **Member, Executive Committee of Indo- Italian Seminar on Green Chemistry and Natural Products** held at Department of Chemistry, University of Delhi during December 5-6, 2008.
3. **Member, Executive Committee of 4<sup>th</sup> Indo- Italian Workshop on Chemistry and Biology of Antioxidants** held at Department of Chemistry, University of Delhi, on 7<sup>th</sup> December, 2008.
4. **Member, Organizing Committee of 13<sup>th</sup> ISCB International Conference on Interplay of Chemistry and Biological Sciences: Impact on Health and Environment** held at Department of Chemistry, University of Delhi during February 26<sup>th</sup> – March 1<sup>st</sup> 2009.
5. **Member, Executive Committee of 3<sup>rd</sup> Indo- Italian Seminar on Green Chemistry** held at Department of Chemistry, University of Delhi, on 9<sup>th</sup> December, 2009.
6. **Member, Executive Committee of 6<sup>th</sup> Indo- Italian Workshop on Chemistry and Biology of Antioxidants** held at Department of Chemistry, University of Delhi, on 10<sup>th</sup> – 11<sup>th</sup> December 2009.
7. **Member, Advisory Board of T3D-2010 International Symposium on Trends in Drug Discovery and Development** held at Department of Chemistry, University of Delhi during January 5<sup>th</sup> – 8, 2010.
8. **Indo-European Conference on Quality Assurance in Higher Education** organized by DU in collaboration with India-EU Study Centres Program and the Erasmus Mundus External Cooperation Window (EMECW) 13 – India Project during May 6<sup>th</sup>–7<sup>th</sup>, 2010.
9. **As Director CPDHE & ILLL**, organised a very large number of UGC sponsored **Orientation Programmes / Refresher Courses** for in-service- teachers of the colleges and Universities and many other **courses and training programmes** for the students and teachers of the University of Delhi.

#### II. INVITED LECTURES / PRESENTATIONS/ CHAIRING TECHNICAL SESSIONS AT SYMPOSIA / CONFERENCES / INSTITUTES

##### A. INTERNATIONAL

1. **Chaired a Technical Session** at the **“Indo-US S&T Forum Workshop on Green Chemistry”** organized by the University of Delhi during January 7-19, 2008.

2. **Delivered an Invited Talk and chaired a Technical Session** at the **International Conference on Advances in Polymer Science and Technology (Poly-2008)** organized by IIT, Delhi during January 28-31, 2008.
3. **Workshop on Supported Blended Learning** held at **Open University, Milton Keynes, UK** during **June 9-13, 2008** under **UKIERI** project.
4. **International Seminar on Management of Higher Education Institutions** at Galillee College, Nahalal, Israel during June 19-30, 2008 .
5. **Invited Talk** at **e-Asia 2008** conference in Kuala Lumpur, Malaysia during November 11-13, 2008.

#### **B. NATIONAL**

1. **Participated** on behalf of the **University of Delhi** at **“The Partnership Summit 2008”:** **Emerging Consensus : Inclusive and Sustainable Development**, organized by CII, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Govt. of India and Govt. of Haryana during January 16 – 18, 2008, at Gurgaon, Haryana.
2. **Keynote address** on **“Chemistry Education in the 21<sup>st</sup> Century** “at the Directorate of the Higher Education, Govt. of Haryana sponsored **Refresher Course for Chemistry Teachers** from various colleges of Haryana on 5<sup>th</sup> May, 2008.
3. **Invited Talk** on **“Chemistry Education in the 21<sup>st</sup> Century”** at the **Seminar on “Improving Teaching of Science and Mathematics in Schools “** organized by the Council of Boards of School Education in India (COBSE) and **Maharashtra State Board of Secondary and Higher Secondary Education** at Pune during May 8-9, 2008. Also **Conducted a Panel Discussion** on the theme of the Seminar.
4. **Attended a Seminar** on **“Addressing the Skills Imperative through the UK-India partnership”** at British Council Division, New Delhi. During May 27, 2008.
5. **Invited Talk** on **“Science Education in the 21<sup>st</sup> Century”** at the **National Conference on Science and Mathematics Education in Secondary Schools “** organized by the SRF Foundation and the Ministry of Human Resource Development (MHRD), Govt. of India at India Habitat Centre, New Delhi during June 30 – July 2, 2008.
6. **Invited Talk** at a Workshop on **“Web 2.0 in Education “**held at Jamia Millia Islamia on November 4, 2008.
7. **Attended Ideas India 2008** Conference on December 17-20, 2008 at Taj Palace Hotel, New Delhi.
8. **CII National Conference on Education** (Linking Education to Employability) held at Hotel Le Meridian, New Delhi on April 21, 2009.
9. **Workshop on Green Chemistry in Real World Practice** held at the University of Delhi on May 9, 2009.

10. **Invited Talk on “*Science Education in the 21<sup>st</sup> Century*”** at the **National Seminar on Recent renaissance in Teacher Education”** held at Sri Krishna Engineering College, Chennai on 18<sup>th</sup> May, 2009.
11. Cambridge ESOL seminar on **Enhancing Language Skills And Employability Through Technology Based Teaching** held at India habitat Centre, Lodhi Road, New Delhi on 22 June, 2009.
12. **Chaired** a Technical session on ***Professional Development with ICT*** at the **5<sup>th</sup> e-India 2009 Conference** at Hyderabad on 26<sup>th</sup> August, 2009.
13. **Delivered a Talk** at a Technical session of ***Conclave of University Leaders on ‘Best Practices to Next Practices’*** at the **5<sup>th</sup> e-India 2009 Conference** at Hyderabad on 27<sup>th</sup> August, 2009.
14. **Attended** a Conference on **‘Online Examinations: Demystifying the Future’** at India Habitat Centre, New Delhi on September 2, 2009.
15. Invited to a **Brainstorming Session** of the National Project on **‘Enrichment of Resource Material for Science Education’** of the Ministry of Science and Technology, Govt. of India, UNESCO and CIE, Delhi University on September 4, 2009 at UNDP Hall, New Delhi.
16. Attended a Conference on **Emerging Directions in Global Education (EDGE) 2010** held at India Habitat Centre, New Delhi during March 3–5, 2010.
17. Invited Talk on ***Chemistry Education in the 21<sup>st</sup> Century*** at the **Inspire Camp** of the DST held at Bhaskaracharya College of Applied Sciences, New Delhi on 8<sup>th</sup> July, 2010.

#### Research Projects (Major Grants/Research Collaboration)

1. **Principal Investigator** of the Pilot Project (2009) for **“Development of e-Learning Material”** of the ***National Mission on Education through Information and Communication Technology (ICT) (NMEICT)*** of the Ministry of the Human Rights Development(MHRD) of the Govt. of India. (Grant = Rs. 1cr).

#### Awards and Distinctions (2008 onwards) (since 2008 onwards)

1. **Member, Advisory Committee of *Developing Countries Research Centre (DCRC)*, University of Delhi for the period (2008-2011).**
2. **Member, *Distance Education Council (DEC)* of the MHRD, Govt. of India (2008). DEC is responsible for promotion, coordination and maintenance of standards of open and distance education system in the country.**
3. **Member of the *Programming Expert Committee* for designing the programme structures and course outlines of **M. Phil and Ph. D Programmes (Chemistry)** of IGNOU (2008).**
4. **Member of the *World Bank* Team from Delhi University to Visit Kabul University (2008).**

5. **Professor P. K. Bose Memorial Award, 2008** of the Indian Chemical Society.
6. **Member of the Delhi University Team to visit Open University , Milton Keynes , UK and attend there a *Workshop on Supported Blended Learning* during June 9-13, 2008.**
7. **Nominated by the University of Delhi to attend an International Seminar on Management of Higher Education Institutions at Galillee College, Nahalal, Israel during June 19-30, 2008.**
8. **Member, Advisory Committee** of the Workshop on “**Web 2.0 in Education**” held at Jamia Millia Islamia on November 4, 2008.
9. Attended on behalf of the Vice Chancellor of University of Delhi a **Meeting of the Executive Heads of the Association of Commonwealth University (ACU)** at Hyderabad during 27<sup>th</sup> to 29<sup>th</sup> November, 2008.
10. **Member, Advisory Committee of National Seminar on Polymer Science and Technology- Vision and Scenario**, held on Dec 3, 2008 at Jamia Milia Islamia, New Delhi.
11. **Coordinator for Training Programme for Kabul University Chemistry Teachers** during December 22, 2008 - February 27, 2009.
12. **Member of the Standing Committee of the *National Mission on Education through ICT (NMEICT)* of the Ministry of the Human Resource Development (MHRD) of the Government of India (2009).**
13. **Convener of the Committee of Courses in Chemistry** of the CBSE for the period 27.05.2009 – 26.5.2012.
14. **Felicited by the former President of India Dr. APJ Abdul Kalam** for making significant contributions in the e-transformation of the University of Delhi as Director, ILLL. (2009)
15. **Professor R.D. Desai 80<sup>th</sup> Birthday Commemoration Award, 2009** of the Indian Chemical Society.

#### Association With Professional Bodies (since 2008 onwards)

##### I. Membership of Professional Bodies

1. **National Representative of the "World Association of Theoretical Organic Chemists (WATOC)".**
2. **Life Member of the International Society for Theoretical Chemical Physics.**
3. **Member of the National Magnetic Resonance Society, Bangalore.**
4. **Life Member of the Chemical Research Society of India (CRSI).**

##### II. Committees and Advisory Boards

1. **Member, Faculty of Sciences, Jamia Millia Islamia (2005-2008).**



<p>2. <b>Member, CSIR Travel/Symposium Grants Committee</b> (2005-2008) &amp; (2008-2011).</p> <p>3. <b>Member, Board of Studies of School of Basic &amp; Applied Sciences</b>, Guru Gobind Singh Indraprastha University, Delhi (2006-2008).</p> <p>4. <b>Chairperson, Sub-Committee for Chemical Sciences</b> for Purchase of Equipments (2006-2008).</p> <p>5. <b>Member, University Purchase Committee for Purchase of Equipments for Upgradation of the Science Laboratories</b> of the University of Delhi (2006-2008).</p> <p>6. <b>Member, Board of Studies &amp; Research Degree Committee</b>, Kumaun University, Nainital (2006-2009).</p> <p>7. <b>Convener, CBSE Committee</b> (2007) for the <b>Revision of the Chemistry Syllabus of the All India Engineering/Architecture Entrance Examination (AIEEE) – 2008</b>.</p> <p>8. <b>Member, Governing Body of the following colleges of the University of Delhi</b>  (a) <b>Lady Irwin College</b> (2006-2008)  (b) <b>Hansraj College</b> (2009-10)  (c) <b>Keshav Mahavidyalaya</b>(2009-09)  (d) <b>Zakir Husain College</b> (2008-09)</p> <p>9. <b>Convener of the Committee of Courses in Chemistry</b> of the <b>CBSE</b> for the period (2009-2012).</p> <p>10. <b>Member, Academic Advisory Committee</b> of the UGC Academic Staff College of the Panjabi University, Patiala (2009 onwards).</p> <p>11. <b>Member, Academic Advisory Committee</b> of the UGC Academic Staff College of the Madras University, Chennai (2010 onwards).</p>
Other Activity

**Professor Ashok Kumar Bakhshi**  
**Signature of Faculty Member**

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.