




### University Faculty Details Page on DU Web-site

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Title	Prof./Dr./Mr./Ms. DR.	First Name	Amarjeet	Last Name	Kaur	Photograph
Designation	PROFESSOR					
Department	Physics and Astrophysics					
Address (Campus)	North Campus Physics and Astrophysics					
	(Residence)	4A/64 Old Rajinder Nagar, New Delhi 110060				
Phone No (Campus)	27667793					
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Mobile	9818620240					
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Education			
Subject	Institution	Year	Details
Ph.D.(Physics)	National Physical Laboratory (NPL) New Delhi and Deptt. of Physics and Astrophysics Delhi University	1997	Thesis topic: Mechanism of charge transport in polypyrrole, poly(N-methyl pyrrole) and poly(N-methyl-pyrrole-pyrrole)
Post-Doc.	Center for Advanced Materials University of Massachusetts, USA	2000	Under BOYSCAST fellowship scheme, Govt. of India
M.Sc.	Deptt. Of Physics and Astrophysics, DU	1992	Subjects: specialization Electronics
B.Sc.(Hons)Physics	S.G.T.B. Khalsa College, DU	1990	Subjects:Physics

Career Profile			
Organisation / Institution	Designation	Duration	Role
Maitreyi College, DU	Lecturer (adhoc+permanent)	July 1993-1998	Teaching & Research
Maitreyi College DU	Sr. Lecturer	July 1998-2003	Teaching & Research
Deptt. of Physics and Astrophysics, DU	Reader	4 <sup>th</sup> July 2003- 3 <sup>rd</sup> July2006	Teaching & Research
Deptt. of Physics and Astrophysics, DU	Associate Professor	4 <sup>th</sup> July 2006- 3 <sup>rd</sup> July2010	Teaching & Research
Deptt. of Physics and Astrophysics, DU	Professor	4 <sup>th</sup> July2010 onwards	Teaching & Research

Administrative Assignments	
Member of various working committees of Department of Physics and Astrophysics ( from time to time) Deputy Superintendent of Exam. M.Sc., Ph.D. Admission Committee Time table,  Space Committee Executive Council, etc. Convenor, Committee of Courses for Hons	
Areas of Interest / Specialization	
Fabrication and characterization of of optoelectronics devices based on conducting polymers and to understand the fundamental principle of their working. Devices include Light emitting diodes (research work in collaboration with University of Massachusetts, Lowell USA), photovoltaic cells, Schottky diodes, transistors, etc. Modification of conducting polymers by ion beam irradiations ( in collaboration with IUAC, New Delhi). Gas sensing applications of conducting polymers and other materials like tin oxide, zinc oxide, grapheme oxide, etc Electrochemical devices for Smart Windows Applications	
Subjects/Courses Taught	
Various undergraduate Hons., subsidiary, General and lab.courses have been taught during teaching in Maitreyi college. The courses include Digital electronics, Computer Fundamentals, Microprocessors, and Numerical analysis, waves and optics, Electricity and Magnetism, etc.	
<u>Postgraduate courses at Deptt. of Physics :</u> Electronics I sem., Electronics (Final yr. IV Sem. special paper-devices ), Solid state Physics (II sem.), Experiemtnal Solid State Physics (Special Paper)(III sem) Electronics Lab. I and II Sem. Solid state Physics (Expt.) IV sem. Solis state Physics Lab., II-IV SEM. Molecular Electronics (M.Tech Nanoscience and Nanotechnology-- ) V Sem. Electronics Electronics (M.Tech Nanoscience and Nanotechnology-NSNT-) V Sem Solid State PhysicsLab. III and IV Sem. Physics Lab. I and II Sem M.Tch. NSNT	(OLD SYLLABUS)
Research Guidance	
<i>List against each head (If applicable)</i> 1. Ph.D. degrees Degree awarded :08 2. Under supervision :05  <i>Degrees awarded to following students under supervision of Dr. Amarjeet Kaur</i> i. Dr. Anju - Study on The Effect of Swift Heavy Ion Irradiation on Mechanism of Charge Transport in Conducting Polymers”  i. Dr. Ravikant Prasad - Study of Thickness Modified Magnetotansport of Doped Manganite Thin Films  i. Dr. Md. Taukeer Khan- Study on the Effect Of Quantum Dots on The Charge Transport Of Poly(3-alkyl thiophenes) and THEIR COPOLYMERS : Application in Polymer Solar Cell”  v. Dr. Ritu Saharan-Study of Charge Transport in the Copolymers of Polyaniline, Poly(O-methoxyaniline) and	

poly(o-ethoxyaniline) with m-aminobenzoic sulfonic Acid

v.Dr.. Ishpal Rawal - Study Of Conduction Mechanism In Nanostructures of Polypyrrole for Gas Sensing Applications

vi.Dr. Manoj K. Srivastav - Effect of Substrate Induced Strain on Magnetism and Magnetotransport in Low Bandwidth Manganite Films”

vii Dr. Beerandra Singh - Study Of Optical And Electrical Transport Properties of Poly (3-Hexylthiophene) and Its Nanocomposites

viii Dr. Vishal Chaudhary - Study of Polyaniline and its Nanocomposites for Gas Sensing Applications

Doctoral Thesis Under Supervision

Tentative titles

ix Study of Charge Transport Mechanism in Graphene oxide and Reduced Graphene Oxide for Gas Sensing and EMI Shielding Applications ( writing) (Ramesh)

x Study of conduction mechanism in conducting polymers for electrochromic applications (Monika)

xi Conduction Mechanism in Graphene Oxide Composites (Deepika Jain)

xii Study of Charge transport in electroluminescent polymers (Ankit Rao)

xiii Study of graphene oxide based materials for electrochromic applications (Amit Kumar)

xiv (Karsimran Singh )

*Supervision of awarded M.Phil dissertations ) : 0 1 (Mr. Vishal registered at Madurai Kamraj university)*

*3. Supervision of various project Dissertations and (Nanotechnology, Electronics and others ) : 17*

#### Publications (LAST FIVE YEARS)

##### **PATENTS**

**A CONDUCTING POLYMER MEMBRANE AND A PROCESS FOR THE PREPARATION OF THE SAID MEMBRANE,**

**R. Singh, S. Chandra, H. Singh, Amarjeet K. Narula and S. Broor,**

- 1. Pakistan Patent, No. 1,36,850, dated April 27, 2002.**
- 2. Bangladesh Patent No. BD10032/6 dated July 25, 2001.**
- 3. Malaysia Patent No. 116022 dated October 31, 2003.**
- 4. Romania patent No. : 120690 GRANTED September 28, 2007**

5. Germany Patent No. 19914200 GRANTED May18, 2006

6. \*CONDUCTING POLYMER MEMBRANE AND A PROCESS FOR THE PREPARATION OF THE SAME MEMBRANE,

R. Singh, S. Chandra, H. Singh, Amarjeet K. Narula, S. Broor

United States Patent, No. 6,156,202, dated Dec. 5, 2000.

7.\* A PROCESS FOR THE PREPARATION OF CONDUCTING POLYMERIC MEMBRANE AND A CONDUCTING POLYMERIC MEMBRANE PREPARED THEREBY USEFUL AS A FILTER FOR CAPTURING VIRUSES IN POTABLE LIQUIDS,

R. Singh, S. Chandra, H. Singh, Amarjeet K. Narula and S. Broor,

Indian Patent No. : 215049 granted on February 20, 2008

*Last five year Publications*

**1. Electrochromic Behavior of Highly Stable, Flexible Electrochromic Electrode Based on Covalently Bonded Polyaniline-Graphene Quantum Dot Composite**

M. Jamdegni & Amarjeet Kaur (2019) *J. The Electrochemical Society*, 166 (12) H502-H509 (2019) *Impact factor* 3.662

**2. Study of polyaniline and functionalized ZnO composite film linked through a binding agent for efficient and stable electrochromic applications**

M. Jamdegni, S.K. Ghumaan & Amarjeet Kaur (2017).. *Electrochimica Acta*, 252 578-889 (2017) DOI: 10.1016/j.electacta.2017.08.144. *Impact factor* 5.116

**3. Fabrication of chemiresistive gas sensors based on multistep reduced graphene oxide for low parts per million monitoring of sulfur dioxide at room temperature**

Ramesh Kumar, D.K. Avasthi, Amarjeet Kaur, *Sensors and Actuators B* 242 461–468 (2017) ISSN 0925-4005 *Impact Factor* 4.758

**3. Flexible Room Temperature Ammonia Sensor Based on Highly Transparent and Conducting Polyaniline**

Lalit Kumar, Ishpal, Amarjeet Kaur S. Annapoorni, *Sensors and Actuators B* 240 408–416(2017) ISSN 0925-4005, *Impact Factor* 4.758

**4. Surfactant assisted polyaniline nanofibres—Reduced graphene oxide (SPG) composite as electrode material for supercapacitors with high rate performance**

Deepika Jain, S.A Hashmi, Amarjeet Kaur, *Electrochim. Acta* 222 570–579 (2016) ISSN 0013-4686 *Impact Factor* 4.803

**5. Effect of charge carrier transport on sulfur dioxide monitoring performance of highly porous polyaniline nanofibres**

Vishal Chaudhary, HK Singh and Amarjeet Kaur, *Polym. Int. online* Dec2016 DOI 10.1002/pi.5311 ISSN 0959-8103, *Impact Factor* 2.414

**6. Surfactant directed polyaniline nanostructures for high performance sulphur dioxide chemiresistors: effect of morphologies, chemical structure and porosity**

Vishal Chaudhary, Amarjeet Kaur *RSC Advances* RSC Adv., 2016, 6, 95349 (2016) ISSN 2046-2069 *Impact Factor* 3.289

**7. Charge transport mechanism of thermally reduced graphene oxide and their fabrication for high performance shield against electromagnetic pollution**

Ramesh Kumar, S.K. Dhawan, H.K. Singh Amarjeet Kaur *Materials Chemistry and Physics* 180 (2016) 416-421, doi:10.1016/j.matchemphys.2016.06.025

**8. Enhanced and selective ammonia sensing of reduced graphene oxide based chemoresistive sensor at room temperature**

Ramesh Kumar and Amarjeet Kaur

*AIP Conference Proceedings* 1728, 020156:1-4 (2016); doi: 10.1063/1.494620770

**9. Highly Stable Surfactant Assisted Polyaniline Nanostructures With Enhanced Electroactivity**

Monika Jamdegni and Amarjeet Kaur *AIP Conference Proceedings* 1728, 020418:1-5 (2016); doi: 10.1063/1.4946469

**10. Sensing of Ammonia at Room Temperature by Polypyrrole-Tin Oxide Nanostructures: Investigation by Kelvin Probe Force Microscopy***Sensors and Actuators A* 245 (2016) 113–118

**11. Enhanced room temperature sulphur dioxide sensing behaviour of in-situ polymerized polyaniline-tungsten oxide nanocomposite possessing honeycomb morphology,**

Vishal Chaudhary, Amarjeet Kaur *RSC Advances* RSC Adv., 5, 73535- 73544 (2015)

**12. Solitary surfactant assisted morphology dependent chemiresistive polyaniline sensors for room temperature monitoring of low ppm sulphur dioxide,**

Vishal Chaudhary, Amarjeet Kaur *Polymer International*, 64, 1475–1481 (2015)

**13. Charge transport mechanism of hydrazine hydrate reduced grapheneoxide**

Ramesh Kumar, Amarjeet Kaur *Instt. Engg. Techn. Circuit Devices and Systems* IET Circuits, Devices & Systems, Doi: 10.1049/iet-cds.2015.0034.

**14. Enhanced and selective ammonia sensing behaviour of poly(aniline co-pyrrole) nanospheres chemically oxidative polymerized at low temperature**

Vishal Chaudhary, Amarjeet Kaur *J. Industrial and Engg. Chem.* 26, 143–148 (2015).

**15. Low Frequency and Temperature Dependent Spectroscopic Studies of Polypyrrole Nanoparticles**

Ishpal Rawal, Amarjeet Kaur *Phil. Mag. B* 95, 1399–1413 (2015 )  
2014

**16 Enhanced Photoelectrical Conductivity of Poly (3-Hexylthiophene) by Incorporation of ZnS Nanoparticles**

Beerandra Singh, Amarjeet Kaur *Synth. Met. (Elsevier)*195, 306-311 (2014)

**17. Photoelectrical, Optical and Transport properties of Poly (3-Hexylthiophene) (P3HT) – Zinc Sulfide (ZnS) hybrid nanocomposites**

Beerandra Singh, Amarjeet Kaur *J. Appl. Phys. (AIP)*- 116, 063709 (1-7)(2014)

**18. Effect of Anionic Surfactant Concentration on the Variable range Hopping Conduction in Polypyrrole Nanoparticles**

Ishpal Rawal, Amarjeet Kaur, *J. Appl. Phys. (AIP)*- 115, 043717 (1-6) (2014)

**19. Effect of Anionic Surfactant Concentration on the Variable range Hopping Conduction in Polypyrrole Nanoparticles**

Ishpal Rawal, Amarjeet Kaur, (*J. Appl. Phys.*)(AIP)- 115, 043717 (1-6)(2014)

**20. Microstructure, Magnetism And Magnetotransport of Epitaxial  $\text{Sm}_{0.45}\text{Nd}_{0.08}\text{Sr}_{0.47}\text{MnO}_3$  Thin Films**

M K Srivastava, Sandeep Singh, P K Siwach, K K Maurya, V P S Awana, Amarjeet Kaur and H K Singh *Mat. Res. Exp.* (IOP) 1, 016110 (1-17) (2014)

**21. Vibration Spectroscopy for the Investigation of Ammonia gas sensing Mechanism in polypyrrole nanostructures**

Ishpal Rawal, Kiran Sehwat and Amarjeet Kaur, *Vibrational Spectroscopy*(Elsevier) –74, 64–74, 2014

**22. Synthesis of mesoporous polypyrrole nanowires / nanoparticles for ammonia gas sensing application**

Ishpal Rawal , **Amarjeet Kaur**

**Sensors and Actuators A 203**, 92-102 (2013) (Elsevier) ISSN 0924-4247

23. **Investigation of charge transport properties in conducting polyaniline and its copolymer with 3-aminobenzenesulfonic acid for their application as antistatic encapsulation material blended with LDPE**

**Amarjeet Kaur**, Ritu Saharan, S.K.Dhawan

**Polymer International** (Wiley)DOI 10.1002/pi.4495 2013 ISSN 0959-8103

24. **Spectroscopic and electrical sensing mechanism in oxidant mediated polypyrrole nanofibers/nanoparticles for ammonia gas**

Ishpal and **Amarjeet Kaur**

**J. Nanoparticle Research** (Springer)**15**, 1637 :1-14 (2013) ISSN 1388-0764.

25. **Spectroscopic investigations of ammonia gas sensing mechanism in polypyrrole nanotubes/nanorods**

Ishpal and **Amarjeet Kaur**

**J. Appl. Phys.** **113**, 094504:1-11 (2013) ISSN 0021-8979.

26 **Comparitive Study of magnetic and magnetotransport properties of  $\text{Sm}_{0.55}\text{Sr}_{0.45}\text{MnO}_3$  thin films grown on different substrates**

M.K. Srivastava, Sandeep Singh, P.K. Siach, **Amarjeet Kaur**, V.P.S. Awana, K.K. Maurya and H.K. Singh,

**AIP Advances** **3**, 052118 :1-13 (2013) ISSN 2158-3226

27. **Low frequency alternating current conduction and dielectric relaxation in polypyrrole irradiated with 100 MeV swift heavy ions of silver ( $\text{Ag}^{8+}$ )**

**Amarjeet Kaur**, Anju Dhillon, and D.K. Avasthi

**Materials Chemistry and Physics** (Elsevier B.V.) **140**, 472-477 (2013) ISSN 0254-0584.

28. **Impact of strain on metamagnetic transitions in  $\text{Sm}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$  thin films**

M. K. Srivastava, **Amarjeet Kaur**, K. K. Maurya, V. P. S. Awana, and H. K. Singh

**Appl. Phys. Lett** (AIP) **102**, 032402 : 1-5 (2013) 52 ISSN 0003-6951.

#### Conference Presentations (Last three years)

a. List of invited as resources persons in(plase enclosed list) Workshops/Seminars/ Confrenences organized by external professional agencies

1. **Effect of Swift Heavy Ion Irradiation on Conducting Polymers and Other  $\text{sp}^2$  Hybridised Materials**  
'Accelerators in Materials and Medical Sciences' 2017"October 15-17, 2018, Amity University Dubai, UAE

2 **A Review of Photovoltaic Performance Of Organic Solar Cells**  
International Conference on Science and Technology: Trends and Challenges (ICSTTC-2018)"  
April, 16-17 2018 GGSN Khalsa College, Ludhiana.

3 **Organic Gas Sensors For Monitoring Toxic Pollutants In Air**  
NWSD 2018, June 7, 8 2018 Deshbandhu College, Delhi University

4 **Journey Of Organic Electronics: From Discovery To The Applications Of Conducting Polymers**  
April 2018, Deshbandhu College Delhi University

5 **Journey Of Conducting Polymers : From Discovery To Their Applications**  
August 4, 2017, Amity University, NOIDA, UP

6. **A brief review of Conducting Polymers and their Applications**  
January 29, 2016 Dayalbagh Ed. Institute, Agra, UP

**7 Conducting Polymers And Their Applications** August 4, 2017 Amity University, NOIDA

**8. Organic Semiconductors And Their Application In Solar Cells** , I *"Innovation Conclave on Innovations and its application in Science, Technology and Management [ INCON-2014 "* Lingaya University, Old Faridabad, Haryana, February 13, 2014

**3** List of participation in external Workshops/Seminars/Conferences recognized by national / interanational professional bodies?

**1. Role of Chalcogenide Quantum Dots in Enhancing Photovoltaic Performance Of Organic Solar Cells**

**National Conference on Chemistry of Chalcogens and its Nanotechnology (NC<sup>3</sup>-2017)** Department of Applied Chemistry, Defence Institute of Advanced Technology (DIAT), Pune , January 12- 13, 2017.

**2. Role of ZnX (X=S, Se, Te) for Enhancing Photoconductivity of Poly(3-hexyl thiophene) (P3HT) in Photovoltaic Devices.**

**The International Conference on Science and Technology of Synthetic Metals in 2016 (ICSM2016)** , Guangzhou Convention Center, Guangzhou , China , June 26 – July 1, 2016

**3. Conduction Mechanism In Poly(3-Hexyl Thiophene-Cadmium Telluride)-An Active Transport Layer in Bulk Heterojunction Organic Photovoltaic Devices** In *Advances in Polymer Science and Technology" (POLY-2016)* , JNU New Delhi during March 9-10, 2016.

**4 Harnessing Solar Energy From Materials Other Than Silicon : Current Status And Challenges To Achieve Ultimate Goal** *International Conference on Advance Material Challenges for Alternative Energy Solutions (AMAES2013) Park Hotel New Delhi , December 18-19, 2015*

**5. ORGANIC SOLAR CELLS FUTURE ENERGY DEVICES** in **National Seminar on Organic Solar Cells"** at Banasthali University, Rajasthan August 30,-31 2015.

**6 Quantum Dots Based Organic Solar Cells How Far And How Near From Reality** International Conference on Nanostructured materials and Nanocomposites (ICNM 2015) Hindustan College of Science and technology, Mathura, India December 12 -14, 2015

**7 CHARGE TRANSPORT AND APPLICATIONS OF POLYPYRROLE NANOSTRUCTURES** in **National Conference/Workshop on Synthesis, Characterization and Application of Advanced Nanomaterials (NCSCAAN-2014)** , held at Hindustan College of Science and technology, Mathura, India January 16-18 2014

**8 Transport Properties of Polypyrrole nanostructures prepared by surfactant directed approach**

*National Conference on In Low Dimensional Systems: Experiment and Simulation (TransLES-2014)*, IAST, Guwahati , December 11-13, 2014

**9 Organic Solar Cells How Near and How far from Reality**  
**Amarjeet Kaur**

*International Conference on Advance Material Challenges for Alternative Energy Solutions (AMAES2013) Panelist in Podium Discussion Material Challenges for Energy Solutions: Where are the low hanging fruits (AMAES2013), Park Hotel, September 15-17, 2013*

**10 Investigation of Gas Sensing Mechanism in Polypyrrole Nanostructures through Raman Spectroscopy**

**Amarjeet Kaur** and Ishpal

19<sup>th</sup> European Symposium on Polymer Spectroscopy (ESOPS), Institute of Macromolecular Chemistry, Prague, Czech Republic July 10-14, 2013.

**11 Gas sensing response of nanostructures of polypyrrole**

**Amarjeet Kaur**, *International Conference on Chemistry and Materials: Prospects and Perspectives-2012 (ICCMPP-2012)*, B.R. Ambedkar University (Central University) Lucknow, UP December 14-16, 2012

**12 Donor-Acceptor nanoparticles interactions in the organic solar cell devices**

### **In the Institutes Abroad**

1. **Charge Transport Properties In Organic/Inorganic Hybrid Systems In Organic Photovoltaic Devices Devices**  
**Amarjeet Kaur** *MaxPlanck Institute for Polymer Research, Mainz, Germany, May 24, 2012*
2. **Charge Transport In Organic/Inorganic Hybrid Systems In Organic Solar Cell Devices**  
**Amarjeet Kaur**, *Instituto Nazionale Fisica Nucleare (INFN)-National Institute for Nuclear Physics – Legnaro National laboratories, Padua, Italy, May 18, 2012*

Other presentations in conferences (O/P) by self/ groupmembers

- **Poly3-methyl thiophene as an Electrochromic material: Red to Green coloration.**  
Monika Jamdegni and AmarjeetKaur, International Conference on Science and Technology: Trends and Challenges (ICSTTC-2018), 16-17 April, 2018, Ludhiana, India.
- **Synthesis of chemically assisted reduced graphene oxide for application in supercapacitors.**  
Deepika Jain and AmarjeetKaur, International Conference on Science and Technology: Trends and Challenges (ICSTTC-2018), 16-17 April, 2018, Ludhiana, India.
- **Study of surface morphology of Polyaniline Thin Films.**  
AnkitRao and AmarjeetKaur, International Conference on Science and Technology: Trends and Challenges (ICSTTC-2018), 16-17 April, 2018, Ludhiana, India.
- **Dark green to transparent polyaniline-nickel oxide composite based electrochromic material.**  
Monika Jamdegni, AmbaDuttBhutt and AmarjeetKaur, International Conference on Electrochemical Science and Technology (ICONEST 2014), August 10-12, 2017, IISC Bangalore, Karnataka, India.
- **Polyaniline-Silver core-shell nanocomposite as an energy efficient rapid hydrazine chemiresistors**  
Vishal Chaudhary, **AmarjeetKaur**  
NPL-RSC symposium on advanced materials for energy held at NPL, Delhi on 7<sup>th</sup> October, 2016.
- **Performance of NiO-rGO based electrodes with proton conducting PVA based gel electrolyte for supercapacitor applications**  
Deepika Jain, **AmarjeetKaur**  
NPL-RSC symposium on advanced materials for energy held at NPL, Delhi on 7<sup>th</sup> October, 2016.
- **High contrast poly(aniline-co-anisidine) with higher stability and improved Electrochromic properties**  
Monika Jamdegni and **AmarjeetKaur**  
NPL-RSC symposium on advanced materials for energy held at NPL, Delhi on 7<sup>th</sup> October, 2016.
- **All Solid State Supercapacitors based on NiO-rGO Electrodes with PVA-H<sub>2</sub>SO<sub>4</sub> based Gel Polymer Electrolyte**  
Deepika Jain, **AmarjeetKaur**  
Materials and devices using soft matter: Current Status and Outlook, DAAD seminar held at University of Delhi, Delhi on 21st November, 2016.
- **Cost effective and room temperature chemiresistive sensor based on Poly(aniline-co-anisidine) for low ppm ammonia detection**  
Monika jamdegni and **Amarjeetkaur**  
Materials and devices using soft matter: Current Status and Outlook, DAAD seminar held at University of Delhi, Delhi on 21st November, 2016.
- **Charge transport study of poly (aniline co-pyrrole) nanospheres based high performance sulphur dioxide chemiresistor,**  
Vishal Chaudhary, **AmarjeetKaur**  
Materials and devices using soft matter: Current Status and Outlook, DAAD seminar held at University of Delhi,



Delhi on 21st November, 2016.

• **Smart sensors based on nanostructured conducting polymers for monitoring hazardous gases at AmarjeetKaur**, Vishal Chaudhary  
International science fair 2016 at NPL, Delhi on 9<sup>th</sup> – 10<sup>th</sup> December, 2016.

• **Smart sensors based on nanostructured polyaniline for monitoring sulphur dioxide**  
Vishal Chaudhary, **AmarjeetKaur**  
International science fair 2016 at NPL, Delhi on 9<sup>th</sup> – 10<sup>th</sup> December, 2016.

- **Redox potential assisted sensing behaviour of polyaniline nanofibres**  
**Vishal Chaudhary**, Amarjeet Kaur  
National seminar on advances in polymer sciences and technology 2016, JNU Delhi, March 9-10, 2016.
- **Variable Range Hopping Conduction in Multistep Reduced Graphene Oxide Samples**  
**Ramesh Kumar**, AmarjeetKaur  
National seminar on advances in polymer sciences and technology 2016, JNU Delhi, March 9-10, 2016.
- **Enhancement in pH dependent electrochemical stability of polyaniline by introducing hydrophobic effect**  
**Monika Jamdegni**, AmarjeetKaur  
National seminar on advances in polymer sciences and technology 2016, JNU Delhi, March 9-10, 2016.
- **Novel Cationic surfactant assisted graphene oxide polyaniline nanofibres(SGOP) composite for supercapacitor application**  
**Deepika Jain**, Amarjeet Kaur  
National seminar on advances in polymer sciences and technology 2016, JNU Delhi, March 9-10, 2016.
- **Synthesis of chemically assisted reduced graphene oxide nanosheets for ammonia gas sensing application**  
**Deepika Jain**, AmarjeetKaur  
3rd International Conference on Nanostructured Materials and Nanocomposites (ICNM 2015), Hindustan College of Science and Technology, farah (mathura) U.P. India, December 12-14, 2015.
- **Highly stable surfactant assisted polyaniline nanostructures with enhanced electroactivity**  
**Monika Jamdegni**, AmarjeetKaur  
International conference on condensed matter and applied physics 2015, Govt. Engineering College, Bikaner, Rajasthan, October 30-31, 2015.
- **Study of selective and enhanced sensing response at room temperature by reduced graphene oxide based chemoresistive sensor**  
**Ramesh Kumar**, AmarjeetKaur  
International conference on condensed matter and applied physics 2015, Govt. Engineering College, Bikaner, Rajasthan, October 30-31, 2015.
- **Experimental facilities at university of Delhi**  
**Vishal Chaudhary**, AmarjeetKaur  
INUP meet, 2015, IISc, Bangalore, India, January 27-30, 2015.
- **Study of Charge Transport Mechanism in Reduced Graphene Oxide**  
**Ramesh Kumar**, AmarjeetKaur  
Transport Properties in Low Dimensional Systems: Experiment and Simulation, 2014, Indian Institute of Advanced studies, Guwahati, Assam, India, December, 11-13, 2014.
- **Charge transport and selective ethanol sensing behavior of Polyaniline-Ag-AgCl nanocomposite**  
**Vishal Chaudhary**, **AmarjeetKaur**  
Transport Properties in Low Dimensional Systems: Experiment and Simulation, 2014, Indian Institute of Advanced studies, Guwahati, Assam, India, December, 11-13, 2014.
- **Recent trends in nanoscience**  
**Ramesh Kumar**, **AmarjeetKaur**  
Nanoscience and Nanotechnology, 2014, University of Delhi, Delhi, India, March 14, 2014.
- **Chemiresistors based on conducting polymer nanofibres for ammonia detection (Poster)**  
**Vishal Chaudhary**, IshpalRawal, **Amarjeetkaur**  
Nanoscience and Nanotechnology, 2014, University of Delhi, Delhi, India, March 14, 2014.
- **Synthesis and Characterization of nanocomposite of PPy-SnO<sub>2</sub> for gas sensing application(Oral)**  
**Ramesh Kumar**, **AmarjeetKaur**  
NCSCAAN, 2014, Hindustan College of Science and technology, Matura, U.P, India, January 17-19, 2014.
- **Study of Electrochromic characteristics of polyaniline thin film prepared by galvanostatic method**  
**Monika Jamdegni**, AmarjeetKaur  
NCSCAAN, 2014, Hindustan College of Science and technology, Matura, U.P, India, January 17-19, 2014.

- **Fabrication of chemiresistor based on polyaniline nanograins for detection of nitrogen dioxide at room temperature**  
**Vishal Chaudhary**, Amarjeet Kaur  
NCSCAAN, 2014, Hindustan College of Science and technology, Matura, U.P, India, January 17-19,2014.
- **PPy-SnO<sub>2</sub> for gas sensing application**  
Ramesh Kumar, **AmarjeetKaur**

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

Completed : Four  
Running : One : DST SERB sponsored “Low Cost Energy Saving Electrochromic Devices Based on Nanostructured Conducting Polymers for Energy Storing Smart Windows”

Small Annual Projects sponsored by University of Delhi –Finished :05;

#### Research Collaboration with various institutes (Past and Present):

- University of Massachusetts, Lowell, USA
- University of Kiel, Germany
- National Physical Laboratory, New Delhi, India
- Inter University Accelerator Center, New Delhi, India

#### Awards and Distinctions

- Invited by committee of Nobel Laureates to attend Meeting with Nobel Laureates, as a guest at Lindau, Germany July 8,2009
- Recipient of BOYSCAST fellowship of Department of Science and Technology, New Delhi(pursued research in University of Massachusetts, USA in field of polymeric LEDs , in the year 2000).
- Invited by committee of Nobel Laureates to attend Meeting with Nobel Laureates in Physics at Lindau, Germany, 2001
- Recipient of the award of “VISITING ASSOCIATE of CSIR” by Council of Scientific and Industrial Research, New Delhi, India in 1998.
- Qualified UGC-CSIR joint entrance test(NET), held in December 1991
- Award of Senior Research Fellowship (September 1994)
- Award of Junior Research Fellowship (September 1992)

#### Association With Professional Bodies

- Life Member, Material Research Society of India (MRSI)
- Life Member, National Environmental Science Academy (NESA)
- Life Member of Nano and Molecular Society

#### Other Activities

*Organised Workshop on Advanced Materials for Future Energy Requirements (WAMFER 2012) during Nov. 29-Dec.1, 2012 at University of Delhi in collaboration with Max Planck Institute for Polymer Research, Mainz, Germany*

Motivate young students of various schools in Delhi for inculcating Scientific Temperament and taking Science as a career option through interactive presentations (Program run under flagship of Lindau Alumni)

Co-ordinating Summer School for undergraduate students since 2014