Curriculum Vitae

Dr. Prabhash Mishra

Assistant Professor
Centre for Nanoscience and Nanotechnology
Jamia Millia Islamia(Central University)
Jamia Nagar,New Delhi 110025.
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Scopus Author ID: 55628574187
Web of Science Researcher ID: O-2126-2019.

Research Ambition

- Development of Micro-Nano based technology for industrial applications and consumer goods.

Educational Degrees

- **Doctor of Philosophy**
  Thesis title: Fabrication and characterization of carbon nanotubes based NH_3gas sensor.
  Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi-110025.
- **Master in Electronics**
  Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi-110025.

Research &Teaching Experience:

- **Senior Researcher (HQS)** (November, 2019 – till date)
  Center for Photonics and 2D Materials
  Moscow Institute of Physics and Technology(MIPT)
  9, Institutskii per., Dolgoprudnyi 141700 Russia.

- **Assistant Professor**(June, 2016 – till date)
  Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia(Central University), Jamia Nagar,New Delhi 110025.
  Job Descriptions: - Teaching and supervising of M. Tech(Nanotechnology) and Ph.D. students. Assisting with various departmental duties and providing academic support to professors and other staff. Writing proposals to secure funding for research.

- **Investigator (Researcher) (**November, 2015 - May, 2016)
  IMDEA Nanoscience Institute. Faraday, 9 Ciudad Universitaria de Cantoblanco, 28049, Madrid, Spain.
  Job Descriptions: - Experimental research in the field of selective sensors and microsystems development using MEMS-based technology.
  The technological aim of work was to construct portable and inexpensive H_2S gas detectors based on MINTs (Mechanically Interlocked Single Wall Carbon Nanotubes).
  I was also involving in the clean room facilities at IMDEA Nanoscience (class 1000 and 100), which constitute the Spanish National Centre for Nanofabrication. Consist of many

sophisticated equipment's, such as e-beam lithography, mask less optical lithography, FIB, CVD, ALD, SEM, Probe station, etc.

- **Senior Scientist** (November, 2014 – October, 2015)
  The Interdepartmental Science and Research Laboratory of Radio electronics, Samara State Aerospace University, 443086, Samara, Moskovskoye Shosse, 34 Russia.
  Job Descriptions: - The application area of my work was development of tools for diagnostics of Aircraft (ONIL-16). Apart from the research work, I was also involved in providing research training and experience to masters and Ph. D. students.

- **Research Fellow (**March, 2010- October, 2014)
  Nano-sensor Research Laboratory, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi-110025.
  Job Descriptions: Member of a research project entitled: Nanotechnology based project entitled "Development of carbon nanotube based Gas sensor" funded by Ministry of Communication and Information Technology (MIT), Govt. of India along with Ph. D. work.

Teaching Experience:

- Taught "Foundation in MEMS and NEMS" and "Nanosensor Technology" to masters' students at the Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, India, 110024 (2016-Present)

- Taught "Carbon materials for nanoelectronics" to masters' students in the Department of Nanoengineering, Samara State Aerospace University, 443086, Samara, Moskovskoye Shosse, 34. Russia (2014-2015).

- Guest faculty in Dept. of Applied Science & Humm., Faculty of Engineering & Technology, Jamia Millia Islamia (A Central University), New Delhi (2009-2011).

Industrial Experience

- Application specialist (Material science), ICON ANALYTICAL EQUIPMENT PVT. LTD. (Service provider of FEI Electron Microscope) 501, Pragati Deep Building, 5th Floor, Plot No. 8, Laxmi Nagar District Centre, Vikas Marg, Delhi 110092 (2011-2014).

Research Projects/Grant

- R & D Project on "Development of Highly Sensitive Photo-detector based on Dielectrophoretic Assembly of TiS3 Nanoribbons" sponsored by Science and Engineering Research Board (SERB), Govt. of India (Rs. 41.646 Lakh)
- R & D Project on "High-performance Single wall carbon nanotube Based field-effect transistor for gas sensing Application" sponsored by University Grants Commission (UGC), Govt. of India (Rs. 10.00 Lakh)

- R & D Project on "Room Temperature Carbon nanotube based gas sensor for Monitoring of Environmental/ Industrial pollutants" sponsored by Department of Science and Technology(DST), Govt. of India.(Rs. 25.30 Lakh)
- GIAN-MHRD Scheme Project on "Diffractive Microoptics of IR and THz ranges" sponsored by MHRD, Govt. of India.(Rs. 5.44 Lakh)
- R & D project on "Development of sensors based on carbon nanotubes for monitoring waste gases in industry" inner project sponsored by Samara State Aerospace University, Russian Federation.(Rubl- 10,00,000)

Professional recognition, awards, fellowships received

- Academic editor, IntechOpen , London, United Kingdom.
- Awarded Post-Doctoral Fellowship for research at IMDEA Nanoscience, Madrid, Spain. Supported by European Research Council (ERC) in 2015.
- **Young Scientist award, 2014** and a project under startup grant Scheme of Science andEngineering Research Board, Department of Science and Technology, Govt. of India.
- Awarded startup research grant by Samara State Aerospace University, Russia, to Design and Development of tools for diagnostics of Aircraft (ONIL-16) in 2014.
- Junior Research Fellow (JRF) in the project entitled: Nanotechnology project entitled "Development of carbon nanotube based Gas sensor" funded by Ministry of Communication and Information Technology (MIT), Govt. of India (August, 2010 to August, 2011).
- Invited as a Research Fellow on the study of CNT-based sensor device by Prof. Nyan-Hwa Tai, Deputy Dean of Academic Affairs, National Tsing-Hua University, Hsinchu, Taiwan, R.O.C (May 2010 to July 2010).

Technology Transferred: 01(One)

- Technology on "thermal reactor for rapid growth of carbon nanotube" (**Pat. Appl. No.3457/DEL/2013**) Invited Expression of Interest for Technology (EOI) published onJamia Millia Islamia Website (www.jmi.ac.in).

List of patents: 06(Six)

US Patent (Patent): 02(Two)

- Patent entitled "A Process for Making Ammonia Gas Indicator Using Single Wall Carbon Nanotubes/Alumina Composite Thick Film".
  Inventors: Prabhash Mishra, S.S. Islam, K. Sengupta
  U.S. Patent Publication No. 20140131201 A1
- Patent entitled "A compact thermal reactor for rapid growth of high quality carbon nanotubes (CNTs) produced by chemical process with low power consumption". Inventors: Prabhash Mishra, S.S. Islam
  U.S. Patent Application No. 14/721,284

Indian Patent(Filed): 04(Four)

- Patent entitled "Design and Development of thermal reactor for rapid growth of carbon". Inventors: Prabhash Mishra, S.S. Islam
  Granted on dated 04/03/2020, Patent Grant No. 333832.
- Patent entitled "A process of making ammonia gas indicator using single wall carbon nanotubes (SWCNTs)/alumina (Al2O3) composite thick film".
  Inventors: Prabhash Mishra, S.S. Islam, K. Sengupta
  Granted on dated 05/06/2018, Patent Grant No. 297418.
- Patent entitled "A process for making MWCNTs based NH3/NO2 gas sensor".
  Inventors: Prabhash Mishra, S.S. Islam
  Granted on dated 28/03/2018, Patent Grant No. 295135.
- Patent entitled "Process for the growth of Carbon nanotubes without Metal catalyst''
  Inventors: Prabhash Mishra, S.S. Islam (Patents Submitted to Deity)

Invited Talk

- As an invited speaker in 2nd International Conference on Emerging Technologies: Micro to Nano (ETMN 2015) during 24-25 October, 2015 at Manipal University, Jaipur, India Topic: - Towards selective carbon nanotube-based sensors.

Research Guidance (Supervised/Ongoing)

Ph. D. Degree awarded Under Supervision: 01

1) Mohammed Talib : Study of optical and electronic properties of Titanium Trisulfide (TiS_3) 2D layered material.

Currently Under Supervision for Ph. D. Degree: 03

1) Samrah Manzoor : Room temperature nanomaterials based gas sensor for monitoring of industrial/environmental pollutants
2) Pooja Rajput : Performance analysis of SAW for sensor applications
3) Priyanka Gulia : 2D materials and van der Waals heterostructures

Total no. of publications: 94 (Ninety-Four)

Journal Papers Published: 61 (Sixty-one)

2021

1. M. Talib, N. Tripathi, P. Sharma, PMZ Hasan, A. A. Melaibari, R. Darwesh, A. V Arsenin, V. S Volkov, ., P. Mishra, Development of ultra-sensitive broadband photodetector: a detailed study on hidden photodetection-properties of TiS2 nanosheets, **Journal of Materials Research and Technology 14, 1243-1254, 2021.**
2. N Tripathi, V Pavelyev, P Sharma, S Kumar, A Rymzhina, P Mishra, Review of titanium trisulfide (TiS3): A novel material for next generation electronic and optical devices,**Materials Science in Semiconductor Processing 127, 105699, 2021.**

3. R Ahmad, M Khan, P Mishra, N Jahan, MA Ahsan, I Ahmad, MR Khan,..,Engineered hierarchical CuO nanoleaves based electrochemical nonenzymatic biosensor for glucose detection **Journal of the Electrochemical Society 168 (1), 017501, 2021.**
4. R. Patel, F. A. Wani, F. Mahfooz, P. Mishra, M. A. Siddiquee, Interaction of human serum albumin with diclofenac incorporated in catanionic vesicles, **Materials today: Proceedings**, **36, 736-742, 2021**.

2020

5. S. Kumar, V. Pavelyev, P. Mishra, N. Tripathi, P. Sharma, F.Calle, A review on 2D transition metal di-chalcogenides and metal oxide nanostructures based NO_2 gas sensors.***Materials Science in Semiconductor Processing, 107, 104865, 2020.***
6. S. Kumar, V.Pavelyev, N.Tripathi, V. Platonov, P. Sharma, R. Ahmad, A. Khosla, P. Mishra, Review-recent advances in the development of carbon nanotubes based flexible sensors, **Journal of the Electrochemical Society, 167(4), 047506, 2020.**
7. S. Kumar, V. Pavelyev, , P. Mishra, N. Tripathi, Thin film chemiresistive gas sensor on single-walled carbon nanotubes-functionalized with polyethylenimine (PEI) for NO_2 gas sensing, ***Bulletin of Materials Science, 43 (1), 61, 2020.***
8. Z. Ahmad,Naseem, S. Manzoor, M.Talib, S.S.Islam, P. Mishra, Self-standing MWCNTs based gas sensor for detection of environmental limit of CO2, ***Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 255, 114528,2020***.
9. P. Gulati,P. Mishra,M. Khanuja,J. Narang, S.S. Islam, Nano-moles detection of tumor specific biomarker DNA for colorectal cancer detection using vertically aligned multi-wall carbon nanotubes based flexible electrodes. ***Process Biochemistry, 90, 184-192, 2020.***
10. P.Sharma, V.Pavelyev, S. Kumar, P. Mishra, S.S.Islam, N. Tripathi, Analysis on the synthesis of vertically aligned carbon nanotubes: growth mechanism and techniques. ***Journal of Materials Science: Materials in Electronics, 31 (6), 4399-4443, 2020.***
11. R.Ahmad, M.Khan, M.R.Khan, N. Tripathy, M.I.R.Khan, P. Mishra, M.A.Syed, A.Khosla, Nano-donuts shaped nickel oxide nanostructures for sensitive non-enzymatic electrochemical detection of glucose. ***Microsystem Technologies, https://doi.org/10.1007/s00542-020-04754-4.***
12. R.Ahmad, N. Tripathy, A.Khosla, M. Khan, P. Mishra, W.A. Ansari, M.A.Syed, Y.-B. Hahn, Review - Recent Advances in Nanostructured Graphitic Carbon Nitride as a Sensing Material for Heavy Metal Ions. ***Journal of the Electrochemical Society, 167 (3), 037519, 2020.***

2019

13. P. Gulati, P.Kaur, M.V. Rajam, T.Srivastava, P.Mishra, S.S.Islam, Vertically aligned multi-walled carbon nanotubes based flexible immunosensor for extreme low level detection of multidrug resistant leukemia cells. ***Sensors and Actuators, B: Chemical, 301, 127047,2019.***
14. M. Talib, Abid, S.S.Islam, , P.Mishra, Improvements in the Performance of a Visible-NIR Photodetector Using Horizontally Aligned TiS_3 Nanoribbons, ***ACS Omega, 4 (4), 6180-6191, 2019.***
15. M.Talib, S.S.Islam, P.Mishra, Influence of growth temperature on titanium sulphide nanostructures: from trisulphide nanosheets and nanoribbons to disulphide nanodiscs, ***RSC Advances, 9 (2), 645-657, 2019.***
16. M.Khan, R.Ahmad, N.Tripathy, A.Khosla, M.I.R.Khan, P.Mishra, M.A. Syed, W.A. Ansari, Fabrication of an ultra-sensitive hydrazine sensor based on nano-chips shaped nickel hydroxide modified electrodes, ***Microsystem Technologies, Article in Press, 2019.***

2018

17. Abid, Poonam Sehrawat, S. S. Islam, Prabhash Mishra, Shahab Ahmad, Reduced graphene oxide (rGO) based wideband optical sensor and the role of Temperature, Defect States and Quantum Efficiency,***Scientific Reports 8,3537, (2018).***
18. S. Kumar, V.Pavelyev, P. Mishra, N.Tripathi, A review on chemiresistive gas sensors based on carbon nanotubes: Device and technology transformation, ***Sensors and Actuators, A: Physical, 283, 174-186, 2018.***
19. P. Gulati, P.Kaur, M.V.Rajam, T. Srivastava,M.A.Ali, P. Mishra,S.S. Islam, Leukemia biomarker detection by using photoconductive response of CNT electrode: Analysis of sensing mechanism based on charge transfer induced Fermi level fluctuation, ***Sensors and Actuators, B: Chemical, Volume 270, 45-55, 2018.***
20. P. Gulati, P. Kaur, M.V. Rajam, T. Srivastava,P. Mishra, S.S. Islam, Single-wall carbon nanotube based electrochemical immunoassay for leukemia detection,***Analytical Biochemistry, 557, 111-119, 2018.***
21. S.Majee, D. Barshilia, S.Kumar, P. Mishra, J.Akhtar, Signature of growth deposition technique on the properties of PECVD and thermal SiO2. ***AIP Conference Proceedings, 1989, 23, 2018***.
22. Subimal Majee, Devesh Barshilia, Debashree Banerjee, Sanjeev Kumar, Prabhash Mishra, Jamil Akhtar, Modification of electrical properties of silicon dioxide through intrinsic nano-patterns. ***Materials Research Express5, 056403, 2018***
23. P Sehrawat, SS Islam, Prabhash Mishra, Reduced graphene oxide based temperature sensor: Extraordinary performance governed by lattice dynamics assisted carrier transport. ***Sensors and Actuators B: Chemical 258, 424-435, 2018***
24. P Sehrawat, SS Islam, Prabhash Mishra, M Khanuja, A multi-prong approach towards the development of high performance Temperature sensor using MWCNTs/Al2O3 composite film. ***Materials Research Bulletin 99, 1-9, 2018***
25. Abid, P Sehrawat, SS Islam, P Gulati, M Talib, Prabhash Mishra, M Khanuja, Development of highly sensitive optical sensor from carbon nanotube-alumina nanocomposite free-standing films: CNTs loading dependence sensor performance Analysis. ***Sensors and Actuators A: Physical 269, 62-69, 2018***
26. R Tabassum, VS Pavelyev, AS Moskalenko, KN Tukmakov, SS Islam, Prabhash Mishra, A Highly sensitive nitrogen dioxide gas sensor using horizontally aligned SWCNTs employing MEMS and dielectrophoresis methods. ***IEEE Sensors Letters, 2(1), 1-4, 2018***

2017

27. Hassan MM, Khan W, Mishra P, Islam SS, Naqvi AH, Enhancement in alcohol vapor sensitivity of Cr doped ZnO gas sensor. ***Materials Research Bulletin, Vol. 93, 391-400, 2017***
28. R. Frisenda, E. Giovanelli, Prabhash Mishra, P. Gant, E. Flores, C. Sanchez, J. R. Ares, D. Perez de Lara, I. J. Ferrer, E. M. Perez, A Castellanos-Gomez, Dielectrophoretic assembly of liquid-phase-exfoliated TiS3 nanoribbons for photodetecting applications. ***Chemical Communications, Issue 45, 2017***

2016

29. P Mishra, DV Grachyova, AS Moskalenko, MA Shcherbak, VS Pavelyev, Importance of network density of nanotube: Effect on nitrogen dioxide gas sensing by solid state resistive sensor. ***AIP Conference Proceedings 1724 (1), 020026, 2016***
30. Pankaj B. Agarwal, Shuvam Pawara, Suman M. Reddya, Prabhash Mishra, Ajay Agarwal, Reusable silicon shadow mask with sub-5 μm gap for low cost patterning. ***Sensors and ActuatorsA: Physical 242 (2016) 67–72.***
31. Prabhash Mishra, Rajan Patel, S.S. Islam. Resistive sensing of gaseous nitrogen dioxide using a dispersion of single-walled carbon nanotubes in an ionic liquid. ***Materials Research Bulletin 78(2016) 53–57.***

2015

32. Prabhash Mishra, S.S. Islam. Highly efficient Ceramic-SWCNT based free standing films for gas sensing application. ***Materials Science in Semiconductor Processing. 35 (2015) 207-215***
33. Nishant Tripathi, Prabhash Mishra, Bipin joshi, S.S. Islam. Precise control over physical characteristics of carbon nanotubes by differential variation of argon flow rate during chemical vapor deposition processing: A systematic study on growth kinetics. **Materials Science in Semiconductor Processing. 35 (2015) 207-215.**
34. Mohsin Talib Mohammed, Zahid A Khan, M Geetha, Arshad N Siddiquee, Prabhash Mishra. Influence of thermo-mechanical processing on microstructure, mechanical properties andcorrosion behavior of a new metastable β-titanium biomedical alloy. ***Bulletin of MaterialsScience* 38 (2015) 247-258.**
35. Manju Pandey, Prabhash Mishra, MP Singh, SS Islam. Role of Annealing Temperature onMorphology of Alumina Thin Film Prepared by Wet-Chemical Method. ***Sensors & Transducers 186 (2015) 1726-5479.***
36. Poonam Sehrawat, Prabhash Mishra, S. S. Islam, Spectroscopic analysis of multi-walled carbon nanotube–alumina composite films: Optimization of temperature coefficient of resistance and thermal hysteresis for thermal sensor applications. ***Materials Science in SemiconductorProcessing* 31 (2015) 116–123.**
37. Soumen Mandal, Ravi Kumar, Arun Nagahanumaiah, Nripen Chanda, Surajit Das, Pankaj Agarwal, Jamil Akhtar and Prabhash Mishra. Silver Nanoparticles in Comparison with Ionic Liquid and rGOas Gate Dopant for Paper–Pencil-Based Flexible Field-Effect Transistors.***Journal of Electronic Materials* 44 (2015) 6-12.**
38. Nishant Tripathi**,**Prabhash Mishra, Harsh, S.S. Islam. Fine tuning control on CNT diameter distribution, length and density by using thermal CVD growth at atmospheric pressure: An in depth Analysis on the Role of flow rate and flow duration of acetylene (C_2H_2) gas. ***Appl Nanosci.5 (2015) 19–28*.**

2014

39. Prabhash Mishra, Harsh, S.S. Islam. Development of MWCNTs based wide band photodetector in the visible range : Wavelength and power dependent response studies. ***Appl. Phys. A*117(2014) 1119–1123.**
40. Prabhash Mishra, Poonam Sehrawat, Nishant Tripathi, S. S. Islam. Purification and dispersion of chemically functionalized SWNTs by using dimethylformamide solution. ***Adv. Sci. Lett.*20(2014) 1545-1547.**
41. M Mehedi Hassan, Wasi Khan, A.H. Naqvi, Prabhash Mishra, S. S. Islam, Fe dopants enhancing ethanol sensitivity of ZnO thin film deposited by RF magnetron sputtering. ***Journal of MaterialsScience* 49 (2014) 6248–6256.**

42. Nishant Tripathi**,**Prabhash Mishra, Bipin joshi, Harsh, S.S. Islam, Catalyst free, excellent quality and narrow diameter of CNT growth on Al_2O_3 by thermal CVD technique. ***Physica E*62 (2014)43–47**.
43. NishantTripathi, Prabhash Mishra, Bipin Joshi, S.S. Islam. A systematic study on growth of CNTs with liquid chemical salts as catalysts: Afine control on orientation of CNTs. ***Adv. Sci.Lett.* 20 (2014) 1612-1615.**
44. Gunjan Aggarwal, Prabhash Mishra, Bipin Joshi and S. S. Islam. Thermal carbonization of nano-porous silicon: Formation of Carbon Nanofiber without metal catalyst. ***Pramana - J. Phys*83(2014) 427-434.**
45. Manju Pandey, Prabhash Mishra, Dedulal Saha, K. Sengupta, S.S. Islam. Development of Trace Moisture Sensor by Sol-Gel Technique: A Detailed Comparative Study on Microstructural and Impedance Measurements in Two Phases of Alumina. ***Electron. Mater. Lett.*10 (2014) 357-362**.
46. Gunjan Aggarwal, Prabhash Mishra, Bipin Joshi, Harsh, S. S. Islam. Porous silicon surface stability: a comparative study of thermal oxidation techniques. ***Journal of Porous Materials*21(2014) 23-29.**
47. Vinita Kumari, Payal Gulati, Prabhash Mishra, S.S. Islam. Porous Silicon Myoglobin Immunosensor. ***Adv. Sci. Lett.*20(2014) 1574-1577.**
48. Tanu Bhardwaj, Prabhash Mishra**,** S. S. Islam and Vinita kumara, Reagentless Porous Silica Based Electrochemical Urea Biosensor. ***International Journal of Engineering Research &Technology.* 3 (2014) 3241.**
49. Nishant Tripathi, Prabhash Mishra, Harsh, S. S. Islam, Effect of Growth Temperature on the Diameter Distribution and Yield of Carbon Nanotubes,***Environmental Science andEngineering*, 2014. Springer. DOI 10.1007/978-3-319-03002-9_164.**
50. Prabhash Mishra, Prabhash Mishra, Neha Tabassum, Choksh Bhola, Vaibhav Sharma, Kamran Zaidi, Manish Gupta, Harsh, S. S. Islam. Fabrication of SWCNTsbased flexible, trace level NO_2gas sensor using spray coating technique, ***Environmental Science and Engineering*, 2014. Springer. DOI 10.1007/978-3-319-03002-9_171.**

2013

51. Prabhash Mishra, Nyan-Hwa Tai, Harsh, S.S. Islam "Transfer of microstructure patterned of CNTs onto flexible substrate using hot press technique for sensing applications, ***MaterialsResearch Bulletin* 48 (2013) 2804–2808.(Published on the Cover Page of the Journal)**
52. Prabhash Mishra, Harsh and S. S. Islam, Surface modification of MWCNTs by O_2 plasma treatment and its exposure time dependent analysis by SEM, TEM and vibrational spectroscopy,***Superlattices and Microstructures* 64 (2013) 399–407.**
53. Prabhash Mishra , Prerna Balyan, Harsh, S.S. Islam. Role of electric field on sensing mechanism of carbon nanotube based chemical sensor. ***Sensors Lett.*11(2013) 1460–1464.**
54. Prabhash Mishra, Harsh and S S Islam, Trace level ammonia sensing by SWCNTs (network/film) based resistive sensor using a simple approach in sensor development and design. ***InternationalNano Letters* 3 (2013) 46.**
55. Tanu Bhardwaj, Vinita Kumari, Prabhash Mishra**,** S. S. Islam, Cracksfree Silica Sol-gel based Biosensor, ***International Journal of Systems , Algorithms & Applications.*3 (2013) 35.**
56. Tanu Bhardwaj, Prabhash Mishra**,** S. S. Islam & Vinita Kumari, Highly Porous Sol-gel Based Urea Biosensor. ***International Journal on Advanced Computer Theory and Engineering.*2(2013) 2319.**
57. Manju Pandey, Prabhash Mishra, Debdulal Saha, S.S. Islam. Polymer Optimization for the Development of Low Cost Moisture Sensor Based on Nanoporous Alumina Thin film. ***Journal ofAdvanced Ceramics* 2(4) (2013) 341-346.**

58. Manju Pandey, Prabhash Mishra, Dedulal Saha, K. Sengupta, Kiran Jain, S.S. Islam. Nanoporous Alumina (γ- and α-phase) Gel Cast Thick Film for the Development of Trace Moisture Sensor. ***JSol-Gel Sci Technol* 68 (2013) 317–323.**

2012

59. T.S. Santra, T.K. Bhattacharyya, Prabhash Mishra, F. G. Tseng, & T.K. Barik , Biomedical applications of diamond-like nanocomposite thin films. ***Science of Advance Material*4 (2012)110-113.**
60. Manju Pandey, Kriti Tyagi, Prabhash Mishra, Debdulal Saha, K. Sengupta, S. S. Islam, Nanoporous morphology of alumina films prepared by sol–gel dip coating method on alumina substrate, ***J Sol-Gel Sci Techno*64 (2012) 282–288.**
61. Vinita Kumari, Prabhash Mishra**,** S. S. Islam, Development and standardization of porous silicon for application as a working electrode in electrochemical immunosensor, ***Proceedings of SPIE* Vol. 8549 85491I-1, 2012**

Conferences/Workshops paper: 33 (Thirty- Three)

62. N. Tripathi, V.S.Pavelyev, V.S. But,S.A.Lebedev, S.Kumar, P.Sharma, P. Mishra, M.A.Sovetkina, S.A. Fomchenkov, V.V.Podlipnov, V.Platonov, Analysis and optimization of photonics devices manufacturing technologies based on Carbon Nanotubes, Journal of Physics: Conference Series, 1368 (2), art. no. 022034, 2019.
63. P. Rajput, U. Mittal, P. Mishra, A.T. Nimal, J.S. Rawat, Effect of tuning on SAW device characteristics, Proceedings of the International Conference on Trends in Electronics and Informatics, ICOEI 2019, art. no. 8862772, pp. 1322-1326, 2019
64. Mohammad Talib, Abid, Rana Tabassum, , S.S. Islam, Prabhash Mishra, A high performance optical detector using TiS3 nanoribbons,IV International Conference on Information Technology and Nanotechnology (ITNT-2018)
65. Sunil Kumar, Vladimir Pavelyev, Prabhash Mishra, Nishant Tripathi, Sensitive detection of Nitrogen dioxide using gold nanoparticles decorated Single Walled Carbon Nanotubes. 3rd International Conference "Information Technology and Nanotechnology 2017.
66. Mohammad Talib, Abid, Rana Tabassum, Samrah Manzoor, Zohauddin Ahmad,Naseem, S.S. Islam, Prabhash Mishra, Synthesis and Characterization of TiS3 ribbons via CVT Technique, International Workshop on Physics of Semiconductor Devices: (IWPSD 2017)
67. Payal Gulati, Prabhash Mishra, S.S. Islam,Fabrication of Cardiac biomarker Immunosensor based on three different electrode surfaces & contrasting their efficiencies, International conference on Computer, Communication, Chemical, Material & Electronic Engineering- 2016, Rajshahi University, Bangladesh.
68. Payal Gulati, Nishant Tripathi, Prabhash Mishra, S.S. Islam,Fabrication of Electrochemical Immunosensor for the early Detection of cardiac biomarker Myoglobin on Indium tin oxide electrode. National Conference on Interdisciplinary Approaches in Chemical Sciences-2015; JMI, India.
69. Prabhash Mishra, D.V.Grachyova, A.S. Moskalenko, M. A. Shcherbak, V. S. Pavelyev, "Importance of networks density of nanotube: Effect on nitrogen dioxide gas sensing by solid state resistive sensor" International Conference on Emerging Technologies: Micro to Nano (ETMN 2015) during 24-25 October, 2015 at Manipal University, Jaipur, India.
70. Prabhash Mishra, V. S. Pavelyev, K.N. Tukmakov, S.S. Islam, "Fabrication and testing of MEMS and nanotechnology based chemical sensor for space application" Abstracts of International conference on recent advances in nanoscience and nanotechnology-2014 ICRANN-2014, 16 december, New Delhi.

71. Prabhash Mishra, Poonam Sehrawat, Nishant Tripathi, S. S. Islam, “Effect of Purification and Dispersion of chemically functionalized SWNTs by using dimethylformamide solution” NCNRE 14-2014, Jamia Millia Islamia, New Delhi, India.
72. Sneha Khatri, Madiha Mumtaz, Vijay Kumar, Kusum Sharma, Nishant Tripathi, PrabhashMishra, S. S. Islam “multi walled carbon nanotubes based photodetector” NCNRE 14-2014, Jamia Millia Islamia, New Delhi, India.

73. Prabhash Mishra, Nishant Tripathi, Poonam Sehrawat, Rajan Patel, S. S. Islam. “Dispersion of single-walled carbon nanotubes by Room-temperature ionic liquid (1 Hexyl-3-methylimidazolium hexafluorophosphate)” NCNRE 14-2014, Jamia Millia Islamia, New Delhi, India
74. Nishant Tripathi, Kausar Ali, Abrar Ahmad, Abid, Prabhash Mishra, S. S. Islam, “Effect of temperature increasing rate(temperature ramp) on growth of Carbon Nanotubes” NCNRE 14-2014, Jamia Millia Islamia, New Delhi, India
75. Nishant Tripathi, Noor Alam, Md. Shabir Ansari, Prabhash Mishra, S.S. Islam, “A systematic study on growth of CNTs with liquid chemical salts as catalysts” NCNRE 14-2014, Jamia Millia Islamia, New Delhi, India
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93. Saakshi Dhanekar, Prabhash Mishra, S.S.Islam, T.Islam, Harsh. Optical detection of organic vapours by Photo-Electrochemically etched porous silicon based sensors. PSST-2010. 7th International Conference Valencia, Spain.
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Details of professional training

S.No.	*Professional Training*	*Organization*	*Year*	*Duration*
1.	Scanning Electron Microscope(NNS 450)	FEI Nanoport in Eindhoven, The Netherlands	2013	One Week
2.	Atomic Force Microscope	NT-MDT, Russia	2012	One week
3.	FTIR with IR Microscope	Bruker Optik GmbH	2011	One Week
4.	Raman Spectrometer	Laser-Spectra Services India Pvt. Ltd.	2012	One week