

**Dr. Neha Aggarwal**  
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**43, New Aggarsain Nagar**  
**Ambala Cant.-133001**  
**Haryana**

**Objective:**

I inspire to work in a challenging and responsible position where I can offer the best of my services and at the same time improve myself. Seeking a position to utilize my skills and abilities in your university that offers professional growth while being resourceful, innovative and flexible.

**Educational Profile:**

Degree	School/College	University/Board	Percentage/ C.G.P.A
CSIR-NET Qualified (2011)	CHEMISTRY		
Ph.D. in Physical Chemistry (2017)	Guru Nanak Dev University, Amritsar	G.N.D.U	
Pre-Ph.D. course work (2011)	Guru Nanak Dev University, Amritsar	G.N.D.U	10.00
MSc (Hons. School) Chemistry (2011)	Guru Nanak Dev University, Amritsar	G.N.D.U	83%
BSc (Hons. School) Chemistry (2009)	Guru Nanak Dev University, Amritsar	G.N.D.U	77%
12 <sup>th</sup> (2006)	Khalsa Collegiate Sen.Sec. School, Amritsar	C.B.S.E	83%
10 <sup>th</sup> (2004)	Manav Public school, Amritsar	C.B.S.E	93%

## Achievements :

1. CSIR-NET qualified in first attempt
2. Merit position in 10<sup>th</sup> C.B.S.E board exams.
3. Gold medalist in BSc (Hons. School) Chemistry.
4. Gold medalist in MSc (Hons. School) Chemistry
5. Awarded Shri Shyam Sunder Nayyar Memorial Trophy for standing first in university in MSc (Hons. School) Chemistry.
6. Eleven publications in international journals.
7. Best poster award in **8<sup>th</sup> National Conference on Thermodynamics of Chemical, Biological and Environmental Systems** at Babasaheb Bhimrao Ambedkar University, Lucknow, India, 25-26<sup>th</sup> Nov, 2013.
8. Best poster award in **One day National Seminar on Emerging Trends in Physical and Chemical Science in Modern Era** at Markanda National College, Shahabad Markanda on 3<sup>rd</sup> Nov, 2018.
9. Dr. Neha Aggarwal received certificate of appreciation for performing outstanding in National level chemistry quiz based on corona virus organized by M.N. College, Shahabad on 28<sup>th</sup> April, 2020.
10. Dr. Neha Aggarwal received certificate of appreciation for performing outstanding in Online National Awareness program on COVID-19 organized by Indian Association of Physics Teachers, Regional Council, Madhya Pradesh on 13<sup>th</sup> May, 2020.

## Papers Published:

1. N. Kaur, S. Arti, H. Kaur, **Neha Aggarwal**, T.S. Banipal, K. Kaur, Understanding interactions between amino acids and food additives via physicochemical and spectroscopic approaches, *J. Chem. Eng. Data* **2023**, **68**, 4-13. ISSN No. 0021-9568; **Impact Factor 2.694**.
2. **Neha Aggarwal**, Capitalism after corona and its scientific impact, 2021, *Gyan Vimarsh: An Inter-Disciplinary Research Journal*, **RNI No. HARMUL/2018/75879**, ISSN: 2581-6845.
3. **Neha Aggarwal**, Nano-Research and Nano-Technology Advancements in the Medical field” in the proceedings of DGHE approved one day National science webinar on New

Frontiers in Science and Technology on 19<sup>th</sup> March, 2021 on MN College, Shahabad,  
**ISBN No. 9789354574399**

4. **Neha Aggarwal**, Micellization Behaviour of Cationic Surfactants in the Presence of Food Additives: Conductance and Spectroscopic Investigations, Current Physical Chemistry, **UGC Care Journal** (2021) **ISSN No. 1877-9476**.
5. **Neha Aggarwal**, A review on shape memory polymers and its applications, 2020, *Gyan Vimarsh: An Inter-Disciplinary Research Journal*, **RNI No. HARMUL/2018/75879**, **ISSN: 2581-6845**.
6. H. Kaur, **Neha Aggarwal**, A. K. Sood, T. S. Banipal, Analysis of micellar, thermodynamic and structural parameters of gemini surfactants in aqueous solutions of vitamins, *Journal of molecular liquids* 310 (2020) 113237. **ISSN No. 0167-7322; Impact Factor 6.633**.
7. **Neha Aggarwal**, Interactions between Saccharides and Phosphate-based Salts: A Mini Review on their Physicochemical Properties, *JCSE*, 2(2) 102-104. **ISSN No. 2642-0406**.  
**a. A Mini-review in Journal of Chemical science and Engineering.**
8. N. Kaur, P. Sharma, T. S. Banipal, P. K. Banipal, **Neha Aggarwal**, Effect of Caffeine on the Physicochemical Properties of Neurotransmitter GABA: Thermodynamic and Theoretical Approach, *J. Chem. Eng. Data* **2019, 64, 3919-3932. ISSN No. 0021-9568; Impact Factor 2.694**.
9. **Neha Aggarwal**, Micellization Behaviour of Sodium Dodecylsulfate in Mixed Aqueous Solutions of Phosphate-based Inorganic Salts at Different Temperatures, 2017, *Gyan Vimarsh: An Inter-Disciplinary Research Journal*, **RNI No. HARMUL/2018/75879**, **ISSN: 2581-6845**.
10. **Neha Aggarwal**, M. Sharma, T. S. Banipal, P. K. Banipal, Influence of phosphate based salts on enthalpy of dilution and isentropic compressibility properties of saccharides and their derivatives in aqueous solutions, *J. Chem. Eng. Data* 2019, 64, 2, 517-528. **ISSN No. 0021-9568; Impact Factor 2.694**.
11. P. K. Banipal, M. Sharma, **Neha Aggarwal**, T. S. Banipal, Investigations to explore interactions in (polyhydroxy solute + L-ascorbic acid + H<sub>2</sub>O) solutions at different

- temperatures: Calorimetric and viscometric approach, *J. Chem. Thermodyn.* 102 (2016) 322-332. **ISSN No. 0021-9614; Impact Factor 3.178.**
12. P. K. Banipal, Neha Aggarwal, T. S. Banipal, Viscosities of Some Saccharides in Aqueous Solutions of Phosphate-Based Inorganic Salts, *J. Chem. Eng. Data* 61 (2016) 1992-2001. **ISSN No. 0021-9568; Impact Factor 2.694.**
  13. P. K. Banipal, Neha Aggarwal, T. S. Banipal, Calorimetric and isentropic compressibility studies on (saccharide/methyl glycoside/deoxy-derivative +  $\text{KH}_2\text{PO}_4$  +  $\text{H}_2\text{O}$ ) solutions at different temperatures, *J. Mol. Liq.* 215 (2016) 603-611. **ISSN No. 0167-7322; Impact Factor 6.633.**
  14. P. K. Banipal, Neha Aggarwal, T. S. Banipal, Effects of phosphate-based monobasic and tribasic inorganic salts on hydration characteristics of saccharides and their derivatives, *J. Mol. Liq.* 211 (2015) 78-89. **ISSN No. 0167-7322; Impact Factor 6.633.**
  15. P. K. Banipal, Neha Aggarwal, T. S. Banipal, Study on interactions of saccharides and their derivatives with potassium phosphate monobasic (1:1 electrolyte) in aqueous solutions at different temperatures, *J. Mol. Liq.* 196 (2014) 291-299. **ISSN No. 0167-7322; Impact Factor 6.633.**
  16. P. K. Banipal, V. Singh, Neha Aggarwal, T. S. Banipal, Hydration behaviour of some mono-, di-, tri- saccharides in aqueous sodium gluconate solutions at (288.15, 298.15, 308.15 and 318.15) K, *Food Chem.* 168 (2015) 142-150. **ISSN No. 0308-8146; Impact Factor 7.514.**
  17. P. K. Banipal, A. K. Hundal, Neha Aggarwal, T. S. Banipal, Studies on the interactions of Saccharides and Methyl Glycosides with Lithium Chloride in aqueous solutions at (288.15 to 318.15) K, *J. Chem. Eng. Data* 59 (2014) 2437-2455. **ISSN No. 0021-9568; Impact Factor 2.694.**

#### **Papers presented in conferences:**

1. Dr. Neha Aggarwal presented a research paper titled, "Conductance and Spectroscopic Measurements of Micellization behaviour of cationic surfactant in the presence of different food additives" in Multi disciplinary national conference on Emerging Trends in

Modern Science and Technology organized by SD (PG) College, Panipat on 29 Mar,2023.

2. Dr. Neha Aggarwal presented a research paper titled, "Aesthetics of language in chemical science" in One day seminar on bhartiya gyan parampara ka paribhashikikaran organized by GMN College, Ambala Cantt. on 21 Feb,2023.
3. Dr. Neha Aggarwal presented a research paper titled, "An overview of best practices in higher education institutions in light of revised Accreditation Framework and NEP-2020" in National seminar on Higher education institutions: Assessment and Accreditation in the light of NEP-2020 organised by GMN college, Ambala Cantt on 16 Feb,2023
4. Dr. Neha Aggarwal presented a research paper titled, "Role of Science and Technology in augmenting the skills of women through women empowerment" in National seminar on Women empowerment through gender Sensitization organised by Govt PG college, Ambala Cantt on 25 Jan,2023.
5. Dr. Neha Aggarwal presented a research paper titled, "A guide to plan, execute and write a research paper in the field of Chemical Sciences" in National seminar on research methodology and its applications organized by Govt PG college, Ambala Cantt on 24 Jan,2023.
6. Dr. Neha Aggarwal presented a research paper titled, "Hydration characteristics of saccharides in Biomedical Applications in International conference on Recent Advances in Chemical Sciences" in International conference on Recent Advances in Chemical Sciences organized by Khalsa College, Amritsar on 19 Jan,2023.
7. Dr. Neha Aggarwal presented a research paper titled," An Overview of Hydration Characteristics of the Saccharides in Aqueous Solutions of Inorganic salts" in International conference on Recent Advances in Applied Sciences in MM (Deemed to be university) Mullana on 23 Mar,2022.
8. Dr. Neha Aggarwal presented a research paper titled," Chemistry in Everyday's Life: A Brief Overview in Two day international conference on Advances in science and technology in 21st century organized by MN College, Shahabad on 26 Feb,2022.
9. Dr. Neha Aggarwal participated in National webinar on Relevance of Marxism in Contemporary Indian Society organised by GMN college, Ambala Cantt on 5<sup>th</sup> July, 2021.

10. Dr. Neha Aggarwal participated in International webinar on COVID-19 Vaccines and Variants: Time to get back to Normalcy organised by GMN college, Ambala Cantt on 2<sup>nd</sup> July, 2021.
11. Dr. Neha Aggarwal participated in National webinar on career opportunities for final year commerce and management students organised by GMN college, Ambala Cantt on 30<sup>th</sup> June, 2021.
12. Dr. Neha Aggarwal participated in National webinar on New Frontiers in Science and Technology organised by GMN college, Ambala Cantt on 30<sup>th</sup> June, 2021.
13. Dr. Neha Aggarwal participated in National webinar on academic integrity: A challenge in digital era organised by GMN college, Ambala Cantt on 30<sup>th</sup> June, 2021.
14. Dr. Neha Aggarwal participated in National webinar on positive youth development: way out to pandemic organised by GMN college, Ambala Cantt on 29<sup>th</sup> June, 2021
15. Dr. Neha Aggarwal participated in National webinar on digital technology in present scenario organised by GMN college, Ambala Cantt on 29<sup>th</sup> June, 2021
16. Dr. Neha Aggarwal participated in National webinar on literature and cinema: A dynamic relationship organised by GMN college, Ambala Cantt on 28<sup>th</sup> June, 2021.
17. Dr. Neha Aggarwal participated in National webinar on leadership in politics: The emerging trends in India organised by GMN college, Ambala Cantt on 25<sup>th</sup> June, 2021
18. Dr. Neha Aggarwal participated in National webinar on universal access to vaccine and medicines as a fight against COVID-19 organised by GMN college, Ambala Cantt on 23<sup>rd</sup> June, 2021.
19. Dr. Neha Aggarwal participated in National webinar on role of analytical techniques in research and development organized by Aggarwal college, Ballabgarh on 11<sup>th</sup> June, 2021.
20. Dr. Neha Aggarwal presented a paper titled, 'An overview of the hydration characteristics of the saccharides in aqueous solutions of inorganic salts' in Two day national webinar on Recent Advances in Chemical Sciences organized by Khalsa College, Amritsar on 08 Apr, 2021
21. Dr. Neha Aggarwal participated in National webinar on science of peace and development organized by GMN College, Ambala Cantt. on 25 Feb, 2021.

22. Dr. Neha Aggarwal participated in Online workshop on NAAC Assessment and Accreditation under UGC PARMARSH Scheme organized by IQAC cell, SD college, Ambala Cantt. on 12 Feb,2021.
23. Dr. Neha Aggarwal participated in UGC SPONSORED ONE DAY WEBINAR ON ARTIFICIAL INTELLIGENCE organized by HRDC, GURU NANAK DEV UNIVERSITY, AMRITSAR on 30 Dec,2020
24. Dr. Neha Aggarwal participated in DGHE sponsored National webinar on Role of E-learning: Academic Challenges organized by Babu Anant Ram Janta College, Kaul, Haryana on 29 Nov,2020
25. Dr. Neha Aggarwal participated in Webinar on fourth revolution: Preparing for impending change Amidst COVID times organized by North East Cell, Hansraj College on 21 Nov,2020
26. Dr. Neha Aggarwal participated in National webinar on Polymer: Structure, Property-Relations and Applications organized by Dayanand College, Hisar on 10 Nov,2020
27. Dr. Neha Aggarwal participated in National webinar on chemistry: an industry academia affair organised by Saifabad, osmania university, Telangana, Hyderabad on 8<sup>th</sup> Sept, 2020.
28. Dr. Neha Aggarwal participated in DGHE sponsored one day national webinar on new education policy 2020 organised by Babu Ram Anant Janta college, Kaul on 21 Aug,2020.
29. Dr. Neha Aggarwal participated in Webinar on NAAC A & A Process: Revised Accreditation Framework organized by Aggarwal College, Ballabgarh on 10<sup>th</sup> July, 2020.
30. Dr. Neha Aggarwal participated in National webinar on challenges and opportunities in higher education after COVID-19 organised by GMN College, Ambala Cantt. on 30<sup>th</sup> June, 2023.
31. Dr. Neha Aggarwal participated in one day international webinar on production of radionuclides and their applications in medical imaging & therapy organized by department of chemistry, Chaudhary Bansi Lal University, Bhiwani, Haryana on 10<sup>th</sup> june, 2020.

32. Dr. Neha Aggarwal participated in one day national webinar on Coronavirus: Myth exploded organized by alumni association of GMN College, Ambala Cantt. On 8<sup>th</sup> June, 2020.
33. Dr. Neha Aggarwal participated in webinar on climate change: International developments, National Actions and way forward organized by botanical association, DAV College, sector-10, Chandigarh on 5<sup>th</sup> June, 2020.
34. Dr. Neha Aggarwal presented a paper entitled "Impact of COVID-19 on science and technology" in International webinar on Psychosocial and political impact of COVID-19 on 29<sup>th</sup> May, 2020 organised by GMN College, Ambala Cantt.
35. Dr. Neha Aggarwal participated in one day webinar on Enhancing research effectiveness using Scopus, Science direct and Mendeley organized by Faculty development center, Kurukshetra University, Kurukshetra in collaboration with ELSEVIER on 1<sup>st</sup> May, 2020.
36. Presented a paper, "Contribution of Sir Chhotu Ram in scientific reforms in Agriculture" in Two day national seminar on Relevance of Sir Chhotu Ram's Philosophy in the 21<sup>st</sup> century on 28-29 February, 2020 at GMN College, Ambala Cantt. Sponsored by DGHE.
37. Presented a paper, "Relevance of assessment and accreditation in higher education: An overview" in one day national seminar on role of stakeholders in imparting quality higher education on 7<sup>th</sup> November, 2019 at GMN college, Ambala Cantt.
38. Presented a paper, "Scientific significance of sanskars in hinduism" in one day interdisciplinary national seminar and shankaracharya samman samaroh on importance of sanskar in modern era on 28<sup>th</sup> August, 2019 at GMN college, Ambala Cantt,
39. Presented a paper "Calorimetric and compressibility studies of saccharides and their derivatives in aqueous solutions of potassium phosphate monobasic at different temperatures" in 2<sup>nd</sup> International conference on innovations in chemical, biological and environmental sciences on 27-28 February, 2019 at Arya (P.G) College, Panipat, Haryana.
40. Presented a paper "Sacrificial role of women of India in 19<sup>th</sup> and 20<sup>th</sup> century" at one day national seminar on challenges in gender sensitisation, at GMN College, Ambala Cantt on 23<sup>rd</sup> February, 2019.



41. Presented a paper "Role of science and technology in Swachh Bharat" at one day interdisciplinary national seminar on relevance of Swachh Bharat Internship scheme: A cleanliness drive in Haryana, at GMN College, Ambala Cantt on 22<sup>nd</sup> February, 2019.
42. Dr Neha Aggarwal presented a paper "Road Safety Education: Need of the hour" at one day national seminar on issues and challenges in road safety at GMN College, Ambala Cantt on 16<sup>th</sup> February, 2019.
43. Dr. Neha Aggarwal presented a paper "Ethnomedical practices of tribal populations of India" at one day interdisciplinary national seminar on science of Ayurveda: Possibilities and Challenges, at GMN College, Ambala Cantt on 5<sup>th</sup> November, 2018.
44. Dr. Neha Aggarwal presented a paper "Physico-chemical and Micellization Behaviour of Sodium Dodecylsulfate in Mixed Aqueous Solutions of Phosphate Salts" at one day national seminar on emerging trends in physical and chemical science in modern era at Markanda National College, Shahabad Markanda on 3<sup>rd</sup> November, 2018. **Dr. Neha Aggarwal bagged best poster award in chemical sciences.**
45. Dr. Neha Aggarwal presented a paper "Sanskrit and Computational Linguistics" at national seminar on Computational Sanskrit and Machine Translation: Possibilities & Challenges on 12<sup>th</sup> April, 2018.
46. Dr. Neha Aggarwal presented a paper "Need for patenting in chemical sciences" at Two day national seminar on role of Intellectual property rights in present scenario at GMN College, Ambala Cantt 30-31<sup>st</sup> March, 2018.
47. Dr. Neha Aggarwal presented a paper "Scientific significance of music" at National seminar on Art and Culture: Tradition, Circumstance and Possibilities at GMN College, Ambala Cantt on 22<sup>nd</sup> March, 2018.
48. Dr Neha Aggarwal presented a paper "Understanding the mechanism of taste chemoreception and taste quality of saccharides/derivatives with phosphate salts via physicochemical studies at different temperatures" at National seminar on emerging trends and challenges in Biosciences at GMN College, Ambala Cantt on 10<sup>th</sup> March, 2018.
49. Dr. Neha Aggarwal presented a paper "Calorimetric studies of saccharides and their derivatives in aqueous solutions of different phosphate-based inorganic salts" at 16<sup>th</sup>

National conference on chemical and environmental sciences: Innovations and Advances-2018 at Punjabi University, Patiala on 15-16<sup>th</sup> Feb, 2018.

50. **Dr. Neha Aggarwal** participated in GIAN course (No. 161012B14) entitled “**Single Molecule Magnetism**” from 6-10<sup>th</sup> August, 2017 at Guru Nanak Dev University, Amritsar, Punjab, India.
51. Comparison of calorimetric studies of saccharides/derivatives in aqueous solutions of phosphate-based inorganic salts. **Neha Aggarwal**, P. K. Banipal, T. S. Banipal, at **3<sup>rd</sup> National Seminar on Recent Advances in Chemical Sciences** at Khalsa College, Amritsar, Punjab, India, 8<sup>th</sup> April, 2017.
52. Comparison of volumetric and viscometric studies of saccharides/derivatives in aqueous solutions of phosphate-based inorganic salts. **Neha Aggarwal**, P. K. Banipal, T. S. Banipal, at **VI<sup>th</sup> National Symposium on Advances in Chemical Sciences** at Guru Nanak Dev University, Amritsar, Punjab, India, 6-7<sup>th</sup> March, 2017.
53. Physicochemical behavior of saccharides and their derivatives in aqueous solutions of ammonium phosphate monobasic ( $\text{NH}_4\text{H}_2\text{PO}_4$ ) at different temperatures: Volumetric, Calorimetric and Acoustic approach. **Neha Aggarwal**, P. K. Banipal, T. S. Banipal, at **18<sup>th</sup> CRSI National Symposium in Chemistry** at Panjab University, Chandigarh, India, 5-7<sup>th</sup> Feb, 2016.
54. Physicochemical behavior of saccharides/derivatives in aqueous solutions of potassium phosphate tribasic ( $\text{K}_3\text{PO}_4$ ) at different temperatures: Volumetric, Calorimetric and Acoustic approach. P. K. Banipal, **Neha Aggarwal**, T. S. Banipal, at **V<sup>th</sup> National Symposium on Advances in Chemical Sciences** at Guru Nanak Dev University, Amritsar, Punjab, India, 2-3<sup>rd</sup> Feb, 2016.
55. Physicochemical behavior of saccharides and their derivatives in aqueous solutions of sodium phosphate monobasic ( $\text{NaH}_2\text{PO}_4$ ) at different temperatures: Volumetric, Calorimetric and Acoustic approach. P. K. Banipal, **Neha Aggarwal**, T. S. Banipal, at **International Conference on Nascent Developments in Chemical Sciences** at BITS, Pilani, Rajasthan, 16-18<sup>th</sup> Oct, 2015.
56. Hydration behavior of saccharides and their derivatives in phosphate-based monobasic and tribasic inorganic salts. P. K. Banipal, **Neha Aggarwal**, T. S. Banipal, at **10<sup>th</sup>**

**National Conference on Thermodynamics of Pharmaceutical, Chemical and Biological Systems** at Panjab University, Chandigarh, India, 20-21<sup>st</sup> Nov, 2015.

57. Effect of phosphate based salts on the volumetric properties of some saccharides in aqueous solutions over temperature range (288.15 to 318.15) K. P. K. Banipal, **Neha Aggarwal**, T. S. Banipal, at **4<sup>th</sup> National Symposium on Advances in Chemical Sciences** at Guru Nanak Dev University, Punjab, Amritsar, India 27-28<sup>th</sup> Feb, 2014.
58. **Best Poster Award** for presenting the paper “Interactions of some saccharides and their derivatives with potassium phosphate monobasic in aqueous solutions from (288.15 to 318.15) K: Volumetric and Viscometric Approach.” P. K. Banipal, **Neha Aggarwal**, T. S. Banipal, at **8<sup>th</sup> National Conference on Thermodynamics of Chemical, Biological and Environmental Systems** at Babasaheb Bhimrao Ambedkar University, Lucknow, India, 25-26<sup>th</sup> Nov, 2013.
59. Thermodynamic properties of some saccharides in aqueous solutions of potassium phosphate monobasic and their role in taste behavior. P. K. Banipal, **Neha Aggarwal**, T. S. Banipal, at **International Conference on Interdisciplinary Areas with Chemical Sciences** at Panjab University, Chandigarh, India, 30<sup>th</sup> Oct -1<sup>st</sup> Nov, 2013.
60. Volumetric properties of some monosaccharides and their derivatives in aqueous potassium phosphate monobasic solutions at (288.15-318.15) K and at atmospheric pressure. P. K. Banipal, **Neha Aggarwal**, T. S. Banipal, at **National Symposium on Recent Trends in Chemistry** at Guru Nanak Dev University, Amritsar, Punjab, India, 28 March, 2013.
61. Volumetric and transport properties of some saccharides in aqueous solutions of thiourea at 298.15 K. P. K. Banipal, **Neha Aggarwal**, Parul, Binaypal, Neetu, Sapna, T. S. Banipal, at **7<sup>th</sup> National Conference on Thermodynamics of Chemical, Biological and Environmental Processes** at S. V. University, Tirupati, Andhra Pradesh, 10-12<sup>th</sup> Dec. 2012.

#### **Participation in workshops**

- Dr Neha Aggarwal participated in a workshop on “Standardization & Calibration for realization of Make in India, Skill India and Startup India” in collaboration with HARTRON in GMN college, Ambala Cantt. On 3<sup>rd</sup> & 4<sup>th</sup> October, 2019.

- Dr Neha Aggarwal participated in a E-workshop on Role of communication, media & Technology in Youth Development organized by GMN College in MoU with OSCA on 10<sup>th</sup> July, 2021.
- Dr Neha Aggarwal participated in a Online workshop on NEP-2020 in the theme Research, Innovation and Ranking organized by HRDC center, KUK on 18<sup>th</sup> Feb, 2023.
- Dr Neha Aggarwal participated in a Online workshop on NEP-2020 in the theme global outreach in higher education organized by HRDC center, KUK on 6<sup>th</sup> March, 2023.

### **Book chapter**

- Published a book chapter entitled “**Sacrificial role of women of India in 19<sup>th</sup> and 20<sup>th</sup> century**” in the book entitled challenges in gender sensitization by Aryan Publication, New Delhi, **ISBN No. 978-93-86695-12-3** in 2019.
- Published a book chapter entitled “Examination stress and time management strategies” in the book entitled Positive Parenting: Joy of raising kids by Atharv Publications, New Delhi, **ISBN No. 978-81-941394-8-5 in January, 2020.**
- Published a book chapter entitled “**Relevance of assessment and accreditation in higher education: an overview**” in the book entitled Role of Stakeholders in Imparting Quality in Higher Education, by Aryan Publication, New Delhi, **ISBN No. 978-93-86695-29-1 in 2020.**
- Published a book chapter entitled, “**Linking Hydration Behaviour of Saccharides in Salt Solutions with Taste Effect**” in the book entitled Challenges to Biodiversity Conservation and Sustainable Development by Astral International Pvt. Ltd. New Delhi, **ISBN No. 978-93-90435-93-7 in April, 2021.**

### **Faculty Development Programme**

- Dr. Neha Aggarwal participated in One week online Faculty Development programme on MOODLE organized by GMN College, Ambala Cantt. From 27-04-2020 to 01-05-2020.
- Dr Neha Aggarwal participated in 5 days faculty development program on E-content development organized by GMN college, ambala Cantt. In association with International institute of organized research held from 30<sup>th</sup> May,2020 to 3<sup>rd</sup> june,2020.

- Dr. Neha Aggarwal participated in Introduction to computational drug design (Theory-Demo-Hands on) organised by schrodinger and pharmacy council of India from 21-09-2020 to 23-10-2020
- Dr. Neha Aggarwal participated in Online short term course on Future perspectives of research in chemical science and technology organised by NIT Jalandhar from 20-10-2020 to 24-10-2020.
- Dr. Neha Aggarwal participated in One week FDP on Academic Research writing organized by GMN College, Ambala Cantt. from 23-04-2022 to 29-04-2022.
- Dr. Neha Aggarwal participated in One week FDP on Implementation on National Education Policy-2020 organised by IGNOU from 18-11-2022 to 26-11-2022.

#### **Life Members**

- Life member of Indian Thermodynamic Society
- Life member of Indian Science Congress
- Life member of HCTA

#### **Orientation Programme**

Dr. Neha Aggarwal participated in general orientation programme from 13-11-2018 to 10-12-2018 at Guru Nanak Dev University HRDC, Amritsar and secured A grade.

#### **Refresher course**

- Dr. Neha Aggarwal participated in winter school (Interdisciplinary Refresher course) from 11-12-2019 to 24-12-2019 at Guru Nanak Dev University HRDC, Amritsar and secured A+ grade
- Dr. Neha Aggarwal participated in Online Two week FDP/ Refresher course in Chemical Sciences organized by Ramanujan College, New Delhi from 1-2-2022 to 15-2-2022 and secured A grade.

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#### **Acted as a REVIEWER**

- Reviewed a manuscript entitled,” Prediction of sand kinematic pressure and fluid-particle interaction coefficient as means of preventing sand-induced corrosion in crude oil pipelines” for Ain Shams Engineering Journal, Elsevier journal on 5<sup>th</sup> Nov,2017. Ref. No. ASEJ-D-17-00666.

- Reviewed a manuscript entitled, "Design, preparation and characterization of a novel room temperature amino acid ionic liquid and its application in the synthesis of xanthenediones in water" for Combinatorial chemistry & High Throughput Screening on 24<sup>th</sup> Nov, 2019. Ref. No. BMS-CCHTS-2019-153.

**Brief description of Ph.D. topic:**

Ph.D. TOPIC: Study on Interactions of Saccharides in Aqueous Phosphate-Based Inorganic Salt Solutions.

Saccharides being integral components of glycoproteins, glycolipids, nucleic acids and polysaccharides have great diversity of their biological functions such as signaling, cell-cell recognition etc. The hydration characteristics of saccharides in aqueous solutions are of direct relevance for understanding the role of glycoproteins and glycolipids in molecular recognition. These properties play a pivotal role in the study of the reaction conditions e.g. feasibility and optimization of currently employed industrial processes.

It has been realized from the literature that there is relatively little information available on the enthalpy, heat capacity and volumetric properties related to different anomeric forms of the saccharides and their derivatives. In the light of above facts, physicochemical properties for different classes of saccharides and their derivatives in aqueous solutions of various cosolutes have been studied as a function of temperature, pressure and concentration.

Therefore, precise and accurate new fundamental physicochemical properties data has been generated on the saccharides and their derivatives in aqueous solutions of cosolutes such as electrolytes; salts of alkali and alkaline earth metals (phosphates, tetraborates, acetates, citrates, etc.). The data will be useful in characterizing the hydration characteristics of saccharides, which are further useful in explaining the protective efficacy and protein stabilization of these compounds. These data are also needed in the optimization of the reaction conditions in the current industrial processes such as enzymatic conversion of biomass to useful chemicals and fuels.

Instruments like Vibrating-Tube Digital Densimeter, Multifrequency Ultrasonic Interferometer, Viscometer, Tensiometer, Differential Scanning Calorimeter, Isothermal Titration microcalorimeter, UV-absorption spectrophotometer, HPLC, NMR etc. have been operated and used by me during my Ph.D. work.

**Strengths:**

- Good communication skills
- Good planning & monitoring skills
- Able to work under pressure of deadline
- Willingness to work
- Problem solving and quick decision making skills.
- Time management and ability to prioritize.

**Medical Fitness:**

Medically fit and there is no existing disease and in past too.

**Personal Details:**

Father's Name: Mr. Naresh Aggarwal  
Mother's Name: Mrs. Sunita Aggarwal  
Husband's Name: Late Mr. Nitin Goel  
Date of Birth : 3<sup>rd</sup> April 1988  
Religion : Hindu  
Sex : Female  
Marital Status : Widow  
Language : English, Hindi, Punjabi

**Declaration:**

The information provided above is true to the best of my knowledge. Hope you will give me a chance to prove myself.

Thanking you,

Place: INDIA

Sincerely Yours  
Neha Aggarwal