

## Curriculum Vitae

Name Dr. ADITYA ABHA SINGH  
Designation ASSISTANT PROFESSOR  
DEPARTMENT OF BOTANY  
UNIVERSITY OF LUCKNOW  
LUCKNOW-226007, LUCKNOW, UTTAR PRADESH, INDIA  
Gender FEMALE  
Email I.D. singh\_aa@lkouniv.ac.in  
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Research interest: Abiotic stress physiology and molecular biology, Environmental pollution and Climate Change, Air pollution modelling  
Google Scholar profile: <https://scholar.google.com/citations?user=n77Z6CEAAAJ&hl=en>  
Research gate profile: <https://www.researchgate.net/profile/Aditya-Singh>

### Academic qualifications

Year	Degree	Institution/School	Division
2016	Ph.D. in BOTANY	Banaras Hindu University	-
2011	M.SC. BOTANY	Banaras Hindu University	First with distinction
2009	B.SC.(HONS) BOTANY	Banaras Hindu University	First
2005	CLASS XII	Delhi Public School	First
2003	CLASS X	Mount Carmel School	First

### MSc. Dissertation

Topic “**Response of potato cultivar Kufri Chandramukhi to elevated levels of Carbon dioxide**” under the supervision of Prof. Madhoolika Agrawal, Department of Botany, Institute of Science, Banaras Hindu University, Varanasi, India.

### Doctorate Degree

Ph.D. thesis awarded in the year 2016 on research topic “**Assessment of the responses of maize cultivars under elevated levels of ozone, singly and in combination with elevated carbon dioxide**” under the supervision of Prof. S.B. Agrawal, Department of Botany, Institute of Science, Banaras Hindu University, Varanasi, India.

## Employment details

1. Assistant Professor, Department of Botany, University of Lucknow, Lucknow, Uttar Pradesh (June 13, 2022-till present).
2. Assistant Professor, University Department of Botany, Babasaheb Bhimrao Ambedkar Bihar University, Muzaffarpur, Bihar, India selected through Bihar Public Service Commission (BPSC), state rank 14 and University rank 1 (August 21, 2019-June 12, 2022).

## Post-Doctoral Research Experience

1. National Post-Doctoral Fellowship (NPDF) from SERB-DST (Principal Investigator) for the project entitled “Physiological and molecular analysis of Arabidopsis and rice plants for expression of ClpB/Hsp100 proteins”.

Mentor-Prof. Anil Grover

Place of work-Department of Plant Molecular Biology, University of Delhi South Campus, New Delhi, Delhi, India

Period of work-May 12, 2017-May 11, 2019

2. DBT project JRF fellowship for project entitled ‘Whole Genome and transcriptome changes as a consequence of allo and auto-polyploidy in Vigna L: phase II’.

Project head Prof. Anil Grover and Dr. Surekha Katiyar-Agrawal

Place of work- Dept. of Plant Molecular Biology, University of Delhi South Campus, New Delhi, Delhi, India

Period of work-May 14, 2019-August 19, 2019

3. Science and Engineering Research Board (SERB), Department of Science and Technology (DST) project fellow in the project entitled ‘Response of Indian wheat cultivars to tropospheric ozone: an insight into metabolism and yield’

Project head-Prof. S.B. Agrawal

Place of work- Department of Botany, Banaras Hindu University, Varanasi

Period of work-May 14, 2016 to May 11, 2017

## Projects handling

S. No.	Funding agency	From date	Duration	Total approved cost	Role	Current status of Project
1.	SERB	12.05.2017	Two years	19,20,000	PI	Completed
2.	UGC-start up grant	29.08.2023	Two years	10,00,000	PI	Ongoing

## Selection for award of Scholarship/Fellowship

1. CSIR project JRF and SRF fellowship for project entitled “Assessing the response of Maize plants under elevated levels of Ozone: Screening the cultivar performance at physiological, biochemical, genomic and proteomic levels and quantification of their effect on plant’s productivity. Project head Prof. S.B. Agrawal, Dept. of Botany, BHU.
2. UGC/BHU CRET fellowship for Ph.D. Program (Rank 1).
3. Science and Engineering Research Board (SERB), Department of Science and Technology (DST) funded project JRF for the project entitled “Response of Indian wheat cultivars to tropospheric ozone: an insight into metabolism and yield. Project head Prof. S.B. Agrawal, Dept. of Botany, BHU.
4. National Post-Doctoral Fellowship (NPDF) from SERB-DST (Principal Investigator) for the project entitled “Physiological and molecular analysis of Arabidopsis and rice plants for expression of ClpB/Hsp100 proteins”. Mentor Prof. Anil Grover, Dept. of Plant Molecular Biology, University of Delhi, South Campus.
5. DBT project JRF fellowship for project entitled ‘Whole Genome and transcriptome changes as a consequence of allo and auto-polyploidy in Vigna L: phase II’. Project head Prof. Anil Grover and Dr. Surekha Katiyar-Agrawal, Dept. of Plant Molecular Biology, University of Delhi South Campus.
6. Travel grant fellowship from SERB, Department of Science and Technology (DST, India) and DST PURSE-BHU to travel to Maastricht, The Netherlands to attend the 17<sup>th</sup> International Congress on Photosynthesis Research held from 7<sup>th</sup> of August 2016 to 12<sup>th</sup> of August 2016.

## NET/GATE

Qualified CSIR-UGC NET, DECEMBER 2010 with rank 69 in Life Science.

Qualified GATE 2011 with gate score 460 and percentile 96.54 in Life Science.

## Publications

### Research/review article

1. **Singh A.A.**, Agrawal S.B., Shahi J.P., Agrawal M. (2014) Assessment of growth and yield losses in two *Zea mays* L. Cultivars (Quality protein maize and non-quality protein maize) under projected levels of ozone. Environmental Science and Pollution research 21: 2628–2641 (**impact factor–5.19**).
2. **Singh A.A.**, Agrawal S.B., Shahi J.P., Agrawal M. (2014) Investigating the response of tropical maize (*Zea mays* L.) cultivars against elevated levels of O<sub>3</sub> at two developmental stages. Ecotoxicology 23: 1447–1463 (**impact factor–2.93**).
3. **Singh A.A.**, Singh S., Agrawal M, Agrawal S.B. (2015) Assessment of Ethylene Diurea-Induced Protection in Plants Against Ozone Phytotoxicity. Reviews of Environmental Contamination and Toxicology 233: 129–184 (**impact factor–7.56**).
4. Sarkar A., **Singh A.A.**, Agrawal S.B., Ahmad A., Pandey S.P. (2015) Cultivar specific variations in antioxidative defense system, genome and proteome of two tropical rice cultivars against

ambient and elevated ozone. *Ecotoxicology and Environmental Safety* 115: 101–111 (**impact factor–7.12**).

5. **Singh A.A.**, Agrawal S.B. (2017) Tropospheric ozone pollution in India: effects on crop yield and product quality. 21: 2628–2641 (**impact factor–5.19**).

6. **Singh A.A.**, Fatima A., Mishra A.K., Chaudhary N., Mukherjee A., Agrawal M., Agrawal S.B. (2018) Assessment of ozone toxicity among 14 Indian wheat cultivars under field conditions: growth and productivity. *Environmental Monitoring Assessment* 190:190 (**impact factor–3.30**).

7. **Singh A.A.**, Chaurasia M., Gupta V., Agrawal M., Agrawal S.B. (2018) Responses of *Zea mays* L. cultivars ‘Buland’ and ‘Prakash’ to an antiozonant ethylene diurea grown under ambient and elevated levels of ozone. *Acta Physiologiae Plantarum* 40:92 (**impact factor–2.73**).

8. Fatima A., **Singh A.A.**, Mukherjee A., Agrawal M., Agrawal S.B. (2018) Variability in defence mechanism operating in three wheat cultivars having different levels of sensitivity against elevated ozone. *Environmental and Experimental Botany* 155: 66–78 (**impact factor–6.02**).

9. Fatima A., **Singh A.A.**, Agrawal M., Agrawal S.B. (2018) Effect of elevated O<sub>3</sub> on rhizospheric enzymatic activities of ozone sensitive and tolerant wheat cultivars. *Archives of Agronomy and Soil Science* 64: 1768–1776 (**impact factor–3.09**).

10. **Singh A.A.**, Agrawal S.B., Shahi J.P., Agrawal M. (2019) Yield and kernel nutritional quality in normal maize and quality protein maize cultivars exposed to ozone. *Journal of the Science of Food and Agriculture*, 99: 2205–2214 (**impact factor–4.12**).

11. Fatima A., **Singh A.A.**, Mukherjee A., Agrawal M., Agrawal S.B. (2019) Ascorbic acid and thiols as potential biomarkers of ozone tolerance in tropical wheat cultivars. *Ecotoxicology and environmental safety*, 171:701-708 (**impact factor–7.12**).

12. Fatima A., **Singh A.A.**, Mukherjee A., Dolker T., Agrawal M., Agrawal S.B. (2019) Assessment of Ozone Sensitivity in Three Wheat Cultivars Using Ethylenediurea. *Plants*, 8: 80 (**impact factor–4.65**).

13. **Singh A.A.**, Eram R., Agrawal M., Agrawal S.B. (2022) Air Pollution: Sources and its Effects on Humans and Plants. *International Journal of Plant and Environment*, 8: 1.

14. Babbar R., Tiwari L.D., Mishra R.C., Shimpfr-ui R., **Singh A.A.**, Goyal I., Rana S., Kumar R., Sharma V., Tripathi G., Khungar L., Sharma J., Agrawal C., Singh G., Biswas T., Biswal A.K., Sahi C., Sarkar N.K., Grover A. (2023) *Arabidopsis* plants overexpressing additional copies of heat shock protein Hsp101 showed high heat tolerance and endo-gene silencing. *Plant Science*, 330:111639 (**impact factor–5.36**).

15. **Singh A.A.**, Ghosh A., Pandey B., Agrawal M., Agrawal S.B. (2023) Unravelling the ozone toxicity in *Zea mays* L. under the elevated level of CO<sub>2</sub> fertilization. *Tropical Ecology*, 1-17 (**impact factor–1.33**).
16. **Singh A.A.**, Ghosh A, Agrawal M, Agrawal S.B (2023) Secondary metabolite responses of plants exposed to ozone: an update. *Environmental Science and Pollution Research* 30: 88281-312 (**Impact Factor–5.19**).
17. Singh V.K., Singh V.K., Mishra A., Varsha, **Singh A.A.**, Prasad G., Singh A.K. (2023) Recent advancements in coordination compounds and their potential clinical application in the management of diseases: An up-to-date review. *Polyhedron* 116485 (**impact factor–2.97**).
18. Eram R and **Singh A.A.** (2023) Air Pollution Tolerance Index in Selected Plant Species at Different Sites of Muzaffarpur City. *Journal of Applied Bioscience* 49 (1&2).
19. Eram R, **Singh A.A.**, Bharti N, Tanuja (2023) Phytoremediation technology for heavy metal removal from the environment. *International Journal of Plant and Environment* 9: 93-101.
20. Kumar R, **Singh A.A.**, Kumar U, Jain P, Sharma A K, Kant C, Faizi MSH (2023) Recent advances in synthesis of heterocyclic Schiff base transition metal complexes and their antimicrobial activities especially antibacterial and antifungal, *Journal of Molecular Structure* 1294: 136346 (**impact factor–3.84**).

#### **Book (publisher-Elsevier-Academic press, USA)**

“**Policy Issues in Genetically Modified Crops: A Global Perspective**”, Editors: Pardeep Singh, Anwasha Borthakur, **Aditya Abha Singh**, Ajay Kumar, Kshitiz K Singh, publisher-Elsevier-Academic press (USA). Link: <https://www.elsevier.com/books/policy-issues-in-genetically-modified-crops/singh/978-0-12-820780-2>.

#### **Book chapter**

1. Book chapter ‘Tropospheric O<sub>3</sub>: A Cause of Concern for Terrestrial Plants’ authors: Rai R, **Singh A.A.**, Agrawal S.B., Agrawal M. (2016) in Umesh Kulshrestha and Pallavi Saxena (Eds): *Plant Responses to Air Pollution*, publisher-Springer Nature, Springer Science+Business Media Singapore.
2. Book chapter ‘Ozone toxicity and remediation in crop plants’ authors: Ghosh A, **Singh A.A.**, Agrawal M, Agrawal S.B. (2018) in Eric Lichtfouse (Ed): *Sustainable Agriculture Reviews*, publisher-Springer Nature, Springer science+Business Media.
3. Book chapter ‘Regulatory Framework for GMOs-Interplay Between Regulatory Policies and Socio-Ethical Concern’ Jha S, Thakur ND, **Singh A.A.** (2020) in Pardeep Singh, Anwasha Borthakur, **Aditya Abha Singh**, Ajay Kumar, Kshitiz K Singh (Eds) *Policy Issues in Genetically Modified Crops: A Global Perspective*, Elsevier-Academic press (USA).

4. Book chapter 'Climatic controls on water resources and its management: Challenges and prospects of sustainable development in Indian perspective' authors: **Singh A.A.**, Singh A.K. (2021) in Binota Thokchom, Pengpeng Qui, Pardeep Singh, P.K. Iyer (Eds): Water Conservation in the Era of Global Climate Change', publisher-Elsevier Publication group.
5. Book chapter 'Transcriptome, proteome and metabolome approaches to overview the ozone responses in plants: An update' **Singh A.A.**, Agrawal S.B. (2021) in S.B. Agrawal, Madhoolika Agrawal, Anita Singh (Eds): Tropospheric Ozone: A Hazard for Vegetation and Human Health', publisher-Cambridge Scholars Publishing U.K.
6. Book chapter 'Role of exopolysaccharides and biofilms in microorganisms for alleviating salt stress' authors: Jha S, **Singh A.A.**, Thakur ND (2022) in Gustavo Santoyo, Ajay Kumar, Mohd Aamir, Siva Kumar Uthandi (Eds): Mitigation of plant abiotic stress by microorganisms, publisher- Elsevier-Academic press.
7. Book chapter 'Biomonitoring potential of tropospheric ozone in plants utilizing visible injury and biomarkers' authors: **Singh A.A.** (2022) in Supriya Tiwari, S.B. Agrawal (Eds): New Paradigms in Environmental Monitoring Using Plants, publisher-Elsevier.
8. Book chapter 'Clearing the Air: Technologies for Monitoring and Control of Air Pollution' authors: Das K, **Singh A.A.**, Eram R (2022) in Pardeep Singh, Joao Paulo Bassin, Sanchayita Rajkhowa, Chaudhery Mustansar Hussain, Ramesh Oraon (Eds): Environmental Sustainability and Industries, publisher-Elsevier.
9. Book chapter 'Water Quality Characterization of Industrial and Municipal Wastewater, Issues, Challenges, Health Effects, and Control Techniques' authors: Khanam N, **Singh A.A.**, Singh A.K., Hamidi M. K. (2022) in Sughosh Madhav, Pardeep Singh, Vandana Mishra, Sirajuddin Ahmed, Pradeep Kumar Mishra (Eds): in Recent Trends in Wastewater Treatment, publisher-Springer Nature Switzerland.

### **Popular article**

1. Hindi article 'Vayu pradushan avam manav swasthaya pe iska prabhav' authors: **Singh A.A.**, Agrawal S.B. (2013) in Vigyan Ganga, Hindi publication cell, Banaras Hindu University.
2. **Singh A.A.**, Agrawal S.B. (2018) 'An introduction to phosphoproteomics: techniques for detection and identification of phosphoproteins', in Prajna, vol. 64, part I, year 2018-2019, Banaras Hindu University.
3. Eram R., **Singh A.A.** (2022) 'Phytoremediation of Air Pollution' in Newsletter 'Environews, vol. 28, No. 3, July 2022, publisher International Society of Environmental Botanists, NBRI.

## Awards

- Certificate of **Best Poster Prize** by Science and Engineering Research Board (SERB), Gov. of India and American Chemical Society (ACS) in Research Poster Competition 2021 for the National Post-Doctoral Fellow (NPDF) work in Life Sciences section.
- Awarded **Young Scientist medal 2020** from **International Society of Environmental Botanists (ISEB)**, CSIR-National Botanical Research Institute (NBRI), Lucknow-226001, Uttar Pradesh, India.
- '**Gyatri Prakash Dulari gold medal**' of securing highest percentage of marks among girls student in M.Sc. Botany examination.
- Award for **best poster** presentation in 'INTERNATIONAL CONFERENCE ON ANTHROPOGENIC IMPACT ON ENVIRONMENT AND CONSERVATION STRATEGY' by National Environmentalists Association organized by Department of Biosciences, St. Xavier College, Ranchi, November, 2–4, 2012.
- Award of **best paper in poster presentation** in 'International Conference on FRONTIERS OF PLANT SCIENCES & DEVELOPING TECHNOLOGIES' organized by Mahima Research Foundation held at Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, November 7–8, 2015.
- Award for the **best poster presentation (first position)** and a cash prize of 5000 INR in 103<sup>rd</sup> INDIAN SCIENCE CONGRESS, 2016 in plant sciences section organized by INDIAN SCIENCE CONGRESS ASSOCIATION at University of Mysore, Mysore, January 3–7, 2016.
- Award for the **best oral presentation** in NATIONAL CONFERENCE ON ORGANIC FARMING & NATIONAL FOOD SECURITY organized by ITM University Gwalior, February 19–20, 2016.
- Award for the **best poster presentation (first position)** in NATIONAL CONFERENCE ON CLIMATE CHANGE: CHALLENGES TO PLANTS BIOLOGIST organized by Udai Pratap Autonomous College, Varanasi, March 27, 2016.
- Award for the **best oral presentation** in INTERNATIONAL CONFERENCE ON SUSTAINABLE NATURAL RESOURCE MANAGEMENT: FROM SCIENCE TO PRACTICE organized by Department of Farm Engineering, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, January 12–13, 2017.
- Award for **oral prize presentation (third position)** in E-SYMPOSIUM on 'INNOVATIONS AND RECENT ADVANCEMENTS IN BIOLOGICAL SCIENCES FOR RURAL DEVELOPMENT' organized by Daudnagar College, Daudnagar, Magadh University, July 23–24, 2020.
- **Best paper award in oral presentation** in NATIONAL CONFERENCE ON RECENT TRENDS IN BIODIVERSITY AND ENVIRONMENTAL SCIENCE organized by Department of Environmental Science, Indira Gandhi National Tribal University, Amarkantak, March 28–29 2022.
- **Best oral presentation** in NATIONAL SEMINAR ON BREAKING GENDER BIASES: A STEP TOWARDS SUSTAINABLE DEVELOPMENT organized by Navyug Kanya Mahavidyala, Lucknow, February 21, 2022.

### **Administrative Responsibilities undertaken**

- Member team Dean students' welfare (DSW) as Assistant DSW, University of Lucknow, Lucknow (September, 2023-till present)
- Assistant Provost, Tilak Hall Girls Hostel, University of Lucknow, Lucknow (November, 2022-till present)
- Served as member Anti-ragging Committee, Babasaheb Bhimrao Ambedkar University, Muzaffarpur, Bihar (2020-2021)

### **Other responsibilities undertaken**

- PhD course work coordinator for the academic year 2020-2021 (September 2020-February 2021), Department of Botany, Babasaheb Bhimrao Ambedkar University, Muzaffarpur, Bihar
- Served as Organizing secretary, Weekly Students' seminar, Department of Botany, Babasaheb Bhimrao Ambedkar University, Muzaffarpur, Bihar
- Teacher-in-charge, Departmental Library, Department of Botany, Babasaheb Bhimrao Ambedkar University, Muzaffarpur, Bihar

### **Other academic activities**

- **Committee member**  
Nominated environmentalist member of the District Ganga Committee of Namami Gange Project, District planning office, Muzaffarpur, Bihar State Government.

### **Invited lecture**

1. 'Identification of abusive relationships and prevention of domestic violence' a seminar jointly organized by National Commission for Women and Bahera College, Lalit Narayan Mithila University, Darbhanga, February 27, 2022.
2. 'Air Pollution effects on humans and plants, and the pollution curtailment via phytoremediation technique' in National Seminar on Understanding the Chemical Aspects of Climate Change and Curtailment of Air pollution via Phytoremediation Technique organized by MSKV College, constituent college of B.R.A. Bihar University, May 31, 2022.
3. 'Genetic Engineering of Crops for Food Security Solution and Socio-Ethical Concern' in International Conference on Recent Trends and Future Prospects in Food and Health Security' organized by Department of Botany, L.N. Mithila University, Darbhanga, May 26-27, 2023.

### **Resource person**

- Topic: 'An overview of some important medicinal plants: their products and the linked therapeutic uses' in National Webinar on "PROPHYLACTIC ROLE OF MEDICINAL PLANTS FOR HUMAN HEALTH PERSPECTIVE IN CURRENT SCENARIO" organized by Marwari College, Darbhanga, Magadh University, July 30, 2020.
- Delivered lectures as resource person in pre-PhD course work in University Department of Botany, Patliputra University, Patna.



## Chaired a session

Chairperson in a session in the 30<sup>th</sup> DPMB Annual Symposium organized by Department of Plant Molecular Biology, University of South Campus, New Delhi, Delhi.

## Short training programme/Faculty Development Programme

- Two week online Faculty Development Programme on ‘ICT BASED NEW PARADIGMS OF E-TEACHING AND E-LEARNING: DIGITAL PEDAGOGY’ from September 15, 2020-September 30, 2020, organized by Mata Sundri College for Women in association with Ramanujan College, University of Delhi, Delhi.
- Training Programme on “Applied Statistical Methods for Biological Sciences” held on April 4–10, 2014 at Centre for Interdisciplinary Mathematical Sciences, Banaras Hindu University, Varanasi.
- Hands on training programme on “C and MATLAB” from November 16–21, 2015 organized by DST-Centre for Interdisciplinary Mathematical Sciences (CIMS), Banaras Hindu University, Varanasi.

## Presentations in Conferences/ Symposia/Seminars (India)

- Oral presentation: ‘Indian Agriculture: Present Perspective and Sustainable Development’ in INTERNATIONAL SEMINAR ON TECHNOLOGY, ENERGY AND SUSTAINABLE RURAL ENVIRONMENT organized by Department of Geography, Faculty of Science, Banaras Hindu University, Varanasi, February, 23–25, 2011.
- Poster presentation: ‘Effect of elevated ozone on maize (*Zea mays* L.) a C4 crop plant’ in INTERNATIONAL CONFERENCE ON ANTHROPOGENIC IMPACT ON ENVIRONMENT AND CONSERVATION STRATEGY organized by National Environmentalists Association and Department of Biosciences, St. Xavier college, Ranchi, November, 2–4, 2012.
- Poster presentation: ‘Investigating the response of two high yielding Indian maize cultivars against elevated levels of ozone: a secondary air pollutant’ in INTERNATIONAL CONFERENCE ON HEALTH, ENVIRONMENT & INDUSTRIAL BIOTECHNOLOGY organized by Motilal Nehru National Institute of Technology, Allahabad, November 21–23, 2013.
- Poster presentation: ‘Effect of ethylene diurea (EDU) treatment on *Zea mays* L. plants grown under ambient and elevated levels of ozone’ in 102<sup>nd</sup> INDIAN SCIENCE CONGRESS 2015 held at University of Mumbai, Mumbai, January 3–7, 2015.
- Poster presentation: ‘Effect of ethylene diurea treatment on *Zea Mays* L. plants grown under ambient and elevated levels of ozone’ at a suburban site of eastern Indo-Gangetic plains in FIFTH INTERNATIONAL CONFERENCE ON PLANTS & ENVIRONMENTAL POLLUTION (ICPEP 5) organized by International Society of Environmental Botanists (ISEB) & CSIR-NBRI, Lucknow, February 24–27, 2015.
- Poster presentation: ‘Protective effects of ethylene diurea application from ozone injury under two different levels of ozone’ in International Conference on FRONTIERS OF PLANT SCIENCES & DEVELOPING TECHNOLOGIES organized by Mahima Research Foundation

and Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, November 7–8, 2015.

- Poster presentation: ‘Interactive effects of elevated carbon dioxide and ozone on maize plants in relation to growth, antioxidant status, physiology and yield’ in 103<sup>rd</sup> INDIAN SCIENCE CONGRESS, 2016 held at University of Mysore, Mysore, January 3–7, 2016.
- Poster presentation: ‘Effects of ambient and elevated carbon dioxide and ozone on morphology, physiology, antioxidative defense system and yield of maize’ in NATIONAL CONFERENCE ON CLIMATE CHANGE: CHALLENGES TO PLANTS BIOLOGIST organized by Uday Pratap Autonomous College, Varanasi, March 27, 2016.
- Oral presentation: ‘Screening of maize cultivars under current and futuristic levels of ozone pollution for sustainable agriculture’ in INTERNATIONAL CONFERENCE ON SUSTAINABLE NATURAL RESOURCE MANAGEMENT: FROM SCIENCE TO PRACTICE organized by Department of Farm Engineering, Institute of Agricultural Sciences, Banaras Hindu University, January 12–13, 2017.
- Oral presentation: ‘Evaluating the responses of tropical maize cultivars to variable levels of ozone using open top chambers’ in NATIONAL SYMPOSIUM ON ISSUES AND CHALLENGES IN ECOLOGICAL SCIENCES organized by Department of Botany, Institute of Sciences, Banaras Hindu University, February 23–25, 2017.
- Poster presentation: ‘Physiological and molecular analysis of Arabidopsis thaliana f expression of plastidial ClpB/Hsp100 protein’ in INTERNATIONAL PLANT PHYSIOLOGY CONGRESS organized by Indian Society for Plant Physiology and National Botanical Research Institute, Lucknow, December 2-5, 2018.
- Poster presentation: ‘Effects of chronic levels of ozone on physiological variables, DNA stability, productivity and nutritional quality of maize’ in THE 5<sup>TH</sup> ASIAN AIR POLLUTION WORKSHOP’ organized by Department of Botany, Institute of Science, Banaras Hindu University, Varanasi, November 5-7, 2019.
- Oral presentation: ‘An overview of light interception and photosynthesis in plants and physiological strategies to minimize light stress conditions’ in NATIONAL CONFERENCE ON RECENT ADVANCES AND CURRENT TRENDS IN BIOLOGICAL SCIENCES organized by M.S. College, Motihari, B.R.A. Bihar University, November 11-12, 2019.
- Oral presentation: ‘Ozone and corn: Effects on Physiological, yield and grain quality parameters under future O<sub>3</sub> environment’ in ‘NATIONAL CONFERENCE ON CLIMATE CHANGE: AGRICULTURE, BIODIVERSITY AND HUMAN HEALTH’ organized by Clean and Green Environmental Society Botanists (CGES) & CSIR-NBRI, Lucknow, February 22–23, 2020.
- Oral presentation: ‘Genetic engineering of crops for food security solution and sustainable agriculture production’ in E-SYMPOSIUM on ‘INNOVATIONS AND RECENT ADVANCEMENTS IN BIOLOGICAL SCIENCES FOR RURAL DEVELOPMENT’ organized by Daudnagar College, Daudnagar, Magadh University, July 23-24, 2020.

#### **Presentations in Conferences/Symposia/ Seminars (Abroad)**

- Poster presentation: ‘Effects of elevated ozone exposure on physiology, antioxidant capacity and yield in maize: an insight to a C<sub>4</sub> plant response under oxidative stress’ in 17<sup>th</sup> INTERNATIONAL CONGRESS ON PHOTOSYNTHESIS RESEARCH organized by International Society for Photosynthesis Research (Powels Congress Organizers), Maastricht, The Netherlands, August 7–12, 2016.

### **Workshops/Seminars attended (India)**

- Workshop on “Technical communication for Research Scholars” held on 5–11 May, 2012 at Institute of Agricultural Sciences, Banaras Hindu University, Varanasi.
- Workshop on “Basics, Maintenance & troubleshooting of HPLC” held on 12–13 July 2012 at Interdisciplinary School of Life Sciences, Banaras Hindu University, Varanasi.
- “1<sup>st</sup> Plant Proteomics Workshop/Training Programme” held on 26–30 December, 2013 at Department of Botany, University of Delhi, New Delhi.
- “Author Workshop jointly organized by Springer and BHU” held on 11 February, 2014 at Institute of Agricultural Sciences, Banaras Hindu University, Varanasi.
- “National Symposium on Expanding Horizons in Molecular Biotechnology” held on 3 March, 2014 at Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad.
- National seminar on “Enhancing Water Productivity in Agriculture through Weed Management” held on March 10–11, 2014 at Institute of Agriculture Sciences, Banaras Hindu University, Varanasi.
- Sensitization workshop on “Administrative Responsibilities for the Implementation of Societal Research Fellowship (SoRF)-DST, New Delhi” held on March 21, 2014 at National Academy of Sciences, Allahabad.
- Workshop on Proteomics at Interdisciplinary School of Life Sciences, Banaras Hindu University, Varanasi from May 16–18, 2016.
- Online Workshop on “Statistical Computing using R” organized by DST-Centre for Interdisciplinary Mathematical Sciences, Institute of Science, Banaras Hindu University, Varanasi from October 25–30, 2021

### **Workshops/Seminars attended (Abroad)**

- “2019 CiBreed Workshop on Breeding Challenges and Opportunities in the Realm of Biotic Stress” from 9-10 September, 2019 at the Center for Integrated Breeding Research, University of Gottingen, Gottingen, Germany.

### **Reviewer of the journals**

- Environmental Pollution
- Fields Crop Research
- Journal of Environmental Management
- Plant Physiology and Biochemistry
- Atmospheric Pollution Research
- Proceedings of the National Academy of Sciences, India Section B: Biological Sciences

### **Membership of Society**

- Life member Indian Science Congress Association
- Life member Indian Botanical Society
- Life member International Society of Environmental Botanists

**Aditya Abha Singh**