

Curriculum Vitae

Professor Rana Pratap Singh



Professor

School for Environmental Sciences, Babasaheb
Bhimrao Ambedkar University, Lucknow

Dean, Academic Affairs

Babasaheb Bhimrao Ambedkar University,
Lucknow

Chairman

State Environmental Impact Assessment Authority,
Uttar Pradesh

Co-ordinator

Centre for Industry Institution Partnership Program
Babasaheb Bhimrao Ambedkar University, Lucknow

Director

Internal Quality Assurance Cell
Babasaheb Bhimrao Ambedkar University, Lucknow

Contact Details

Office

Room no. 011
Department of Environmental Science
School for Environmental Science
Babasaheb Bhimrao Ambedkar University,
Lucknow-226025, India
Email- cceseditor@gmail.com / dr.ranapratap59@gmail.com
Mob- +91-9889121823/+91-9935688836
www.ranapratap.in
<http://www.bbau.ac.in/new/dept/des/CV%20of%20Prof.%20Rana%20Pratap%20Singh.PDF>

Residence

House No. 247,
Eldeco-(Udyan)-II, Sector-II
Raebareli Road, Lucknow-226025

Vision and Mission

Considers education as most significant wealth for progress of the nation and a cutting edge tool for the development of contemporary knowledge based society. The education and research are known as most authentic tool to understand our problems and to resolved it.

Basic Information

Name	Dr. Rana Pratap Singh, M.Sc. Ph.D.
Designation	Professor
Father's name	Late Shri Vikram Singh
Date of Birth	01-02-1959
Grade Pay	Rs. 10,000 (+)
Basic pay	Rs. 1,93,800/ p.m. (Revised Basic pay)
Research Experience	37+ years
Teaching Experience	32+ years (Post-graduate Teaching)

Personal Details

Born on 1st Feb., 1959 in village Prithvipur (presently in Kushinagar District of Uttar Pradesh, India), initially educated in village schools and graduated from St. Andrews College under the Gorakhpur University, Gorakhpur. Obtained a Ph.D. in Life Sciences at Devi Ahilya Vishwavidyalaya, Indore and started a career as university teacher in 1986 at Maharshi Dayanand University, Rohtak (Haryana, India) as Lecturer and Reader in Department of Biosciences. Joined BBA University, Lucknow, as Professor of Environmental Science in 2005 and continuing the same with different additional responsibilities time to time.

Academics

Degree	Name of the University	Year of Passing	Subjects
B. Sc.	Gorakhpur Univ. Gorakhpur (UP)	1977	Zoology, Botany, Chemistry
M.Sc.	Gorakhpur Univ. Gorakhpur (UP)	1979	Botany
Ph.D.	Devi Ahilya University, Indore	1985	Life Science
Ph. D Topic		Assimilation of Inorganic Nitrogen and Primary Amination Reactions in Maize Seedlings	
Post-Doctoral	AIIMS, New Delhi	1992	INSA Visiting Fellow
	University of Guelph, Ontario, Canada	1994	UNESCO ST Biotech Fellow
	University of Guelph, Ontario, Canada	1996	NSERC, Biotech Visiting Fellow

Field of Specialization

- **Field of Specialization:** Stress Biology of Plants and Microbes, Ecological Engineering, Ecological Agriculture, Environmental Impact Assessment.

Research Interest

- Nitrogen and Plants, Ecological Agriculture, Climate Resilience Studies, Bioremediation, Designer Ecosystems

POSITIONS HELD

Administrative Responsibilities and Membership of the Statutory Bodies in the University:

- ▶ **Chairman**, State Environmental Impact Assessment Authority, U.P. (For Three Years w.e.f. November, 2017)
- ▶ **Vice-Chancellor**, Babasaheb Bhimrao Ambedkar University, Lucknow (7th December, 2018 to 10th December, 2018)
- ▶ **Vice-Chancellor**, Babasaheb Bhimrao Ambedkar University, Lucknow (28th December, 2018)
- ▶ **Dean Academic Affairs**, Babasaheb Bhimrao Ambedkar University, Lucknow, (2017.....contd.)
- ▶ **Professor-in-Charge Academic**, Babasaheb Bhimrao Ambedkar University, Lucknow, (2015-2017).
- ▶ **Director, IQAC**, Babasaheb Bhimrao Ambedkar University, Lucknow, (2017.....contd.)
- ▶ **Dean**, School for Environmental Science, BBAU, Lucknow (2009 to 2012)
- ▶ **Dean**, School for Management Studies, BBAU, Lucknow, (2013-2014).
- ▶ **Registrar**, Babasaheb Bhimrao Ambedkar University, Lucknow (26.02.2007 to 02.03.2007, 20.04.2007).
- ▶ **Registrar and Finance Officer**, Babasaheb Bhimrao Ambedkar University, Lucknow (19.10.2005).
- ▶ **Controller of Examination**, Babasaheb Bhimrao Ambedkar University, Lucknow (Sept. 2009 – Dec. 2010).
- ▶ **Proctor**, Babasaheb Bhimrao Ambedkar University, Lucknow (2005 – 2007)
- ▶ **Head**, Department of Environmental Science, BBAU, Lucknow Since August, 2006- August 2009

- **Coordinator**, Centre for Industry Institution Partnership Program BBAU, Lucknow (2013.....contd.)
- **Coordinator**, FIST Program-2005 Babasaheb Bhimrao Ambedkar University, Lucknow (2006-2011)
- Member, **Board of Management**, Babasaheb Bhimrao Ambedkar University (2008-2011)
- Member, **Board of Management**, Babasaheb Bhimrao Ambedkar University (, 2011 to 2014)
- Member, **Academic Council**, Babasaheb Bhimrao Ambedkar University, Lucknow. (2005 to till date)
- Member, **Academic Council**, Maharshi Dayanand University, Rohtak Haryana (India) (As Lecturer and Reader before 2005).
- Member, **Planning Board**, Babasaheb Bhimrao Ambedkar University, Lucknow. (2008-2011)
- **Chairman, School Board**, School for Environmental Science, Babasaheb Bhimrao Ambedkar University, Lucknow. (July, 2009-2012)
- Member, **School Board**, School for Environmental Science, Babasaheb Bhimrao Ambedkar University, Lucknow. (2005 till date)
- **Chairman**, Board of Studies, Department of Environmental Science, Babasaheb Bhimrao Ambedkar University, Lucknow. (2006-2009).
- Member, **Board of Studies**, Babasaheb Bhimrao Ambedkar University, Lucknow. (2005 to till date)
- Member, **Board of Studies**, Maharshi Dayanand University, Rohtak Haryana (1996 – 1999)
- Member, **Board of Studies**, Maharshi Dayanand University, Rohtak Haryana. (2002 – 2005)

- ▶ Member, **Research Degree Committee**, Department of Environmental Science, Babasaheb Bhimrao Ambedkar University, Lucknow (2005 – Till Date)
- ▶ Member, **Board of Studies**, Dr. Ram Manohar Lohiya Avadh University, Faizabad. (2016-2017)
- ▶ Member, **Board of Studies**, Department of Environmental Science, Jiwaji University, Gwalior (One Term)
- ▶ Member, **Board of Studies**, Department of Environmental Science, Central University of Jharkhand, Ranchi (One Term)
- ▶ Member, **Research Degree Committee**, Department of Life Science, Awadesh Pratap Singh University, Reeva (M.P.)

Other Positions Held

S. No.	Position held	Institution/ University	Duration
1	JRF and SRF CSIR, New Delhi	D A University, Indore and M. D. University, Rohtak, India	1981- 1986
2	Scientific Officer, Biochem	U. P. Council of Sugarcane Research, Shahjahanpur, India	1988*
3	INSA Visiting Fellow	AIIMS, New Delhi, India	1992**
4	UNESCO ST Biotech Fellow	University of Guelph, Ontario, Canada	1994**
5	NSERC, Biotech Visiting Fellow	University of Guelph, Ontario, Canada	1996**
6	University Faculty	M. D. University, Rohtak, India	1986-2005
7	University Faculty	B.B.A. University, Lucknow, India	2005- till date
* Lien from M.D. University, Rohtak			
** Duty/ Academic leave from M. D. University, Rohtak			

Expert in Different Committees

- ▶ Chairman, Teacher selection committee in Kendriya Vidyalaya, Gomti Nagar Lucknow.

- ▶ Member of the Library Advisory Committee, BBA University, Lucknow, February, 2012 to February, 2014
- ▶ Expert in the screening committee for **Lecturer, Department of Environmental Science**, BBAU, 2014
- ▶ Expert in the screening committee for **Technical Assistant, Lab Assistant, Lab Attendant and Library Assistant**, BBAU, 2014
- ▶ Expert in the screening committee for **Hindi Officer, Hindi Translator, Hindi Typist**, BBAU, 2014
- ▶ Expert in the screening committee for **Assistant Registrar, Senior Assistant and Lower Division Clerk**, BBAU, 2014
- ▶ Chairman, Departmental Promotion Committee, BBA University, Lucknow, 2013
- ▶ Evaluation of Ph.D. thesis & practical examination of post-graduate under graduate courses of various Universities

Awards and Honors

- ▶ **Panjab Singh Vishisth Krishi Vaigyanik Puraskar** Uttar Pradesh Academy of Agricultural Sciences, Lucknow, India (2016)
- ▶ **Scientist of Excellence Award** Society for Plant Research, Meerut, India (2008)
- ▶ **AEB Honour** Academy of Environmental Biology India, Lucknow, India (2012)
- ▶ **R. D. Asana Medal** Indian Society for Plant Physiology, New Delhi, India (1992)
- ▶ **JEB Young Scientist Award** Academy of Environmental Biology India, Lucknow, India (1992)
- ▶ **First prize award on Poetry Book** Haryana Sahitya Academy, Chandigarh, India (1988-89)

- ▶ **First prize award on Children's Book** Haryana Sahitya Academy, Chandigarh, India (1994-95)

Other Honours

- ▶ **UNESCO ST Biotech Fellowship** by UNESCO, Paris, France (1994)
- ▶ **NSERC Biotech Visiting Fellowship** - University of Guelph, Canada (1996)
- ▶ **INSA Visiting Fellowship** Indian National Science Academy, New Delhi, India (1992)

Fellow of Academic Societies

- ▶ **Indian Water Resources Fellowship** by Indian Water Resources Society (IWRS) (HQ: IIT, Roorkee)
- ▶ **Fellow of International Society for Environmental Botanists, (ISEB)**, CSIR-NBRI, Lucknow
- ▶ **Fellow of Indian Society for Plant Physiology, New Delhi** (HQ: ICAR - IARI, New Delhi)
- ▶ **Fellow of Academy of Environmental Biology of India** (HQ: CSIR - IITR, Lucknow).

In Leadership of Academic Societies

- ▶ President (Elected) The Society for Science of Climate Change and Sustainable Environment, New Delhi (www.ssceonline.wordpress.com) (2018 – contd.)
- ▶ President (Elected) of Society for Environmental Sustainability, Lucknow. (2018 – contd.)
- ▶ President UP, (Elected) Royal Association for Science Led Socio-cultural Advancement (RASSA), New (2017 – contd.)
- ▶ Vice-President (Elected) of the Academy of Environmental Biology (India), Lucknow. (2014 – contd.)
- ▶ General Secretary (Elected), Professor H.S. Srivastava Foundation for Science and Society, Lucknow. (2008 – contd.)
- ▶ Secretary (Elected), The society for Science of Climate Change and Sustainable Environment, New Delhi (2009 - 2017)
- ▶ Joint Secretary, Clean and Green Environmental Society, Lucknow. (2017 – contd.)
- ▶ Member Executive Committee International Society of Environmental Botanists, CSIR-National Botanical Research Institute, Lucknow. (2015 – contd.)

Science-led Social Contributions

- ▶ Worked as Volunteer Resource Person during 1981-1984 as Ph. D. Scholar at Devi Ahilya University, Indore in Innovative Science Education Programs of Eklavya in Rural Middle Schools of Madhya Pradesh.
- ▶ Worked as Science Communicator in Villages and Towns of Haryana during 1987-2005 for Development of Scientific Awareness, Awareness against Superstition and Use of STI in Socio-Economic Development of Rural Population as University Faculty of M.D. University, Rohtak.

- Working for a Program Rural Initiative for Inclusive Development in Eastern Uttar Pradesh to Organize and Support Small and Marginal Formers and Agricultural Labourers to Enhance their Income and Socio-Economic Conditions Using Emerging Technologies and Cooperative Efforts for Organic Food Production and Green & Clean Surroundings.

Life Membership of Academic Societies

- National Academy of Sciences, Allahabad India
- Indian Science Congress Association, Calcutta
- International Society for Environmental Botanist, Lucknow
- Asian PGPR Society for Sustainable Agriculture, Hyderabad
- Academy of Environmental Biology India, Lucknow
- Indian Society for Plant Physiology, New Delhi
- The Society for Plant Research, Meerut
- Society for Plant Physiology and Biochemistry, New Delhi
- Society for Plant Biochemistry and Biotechnology, New Delhi
- Professor H.S. Srivastava Foundation for Science and Society, Lucknow
- The Society for Science of Climate Change and Sustainable Environment, New Delhi
- Indian Botanical Society (IBS), Lucknow
- Clean and Green Environmental Society, Lucknow
- Uttar Pradesh Academy of Agricultural Science, Lucknow
- Uttar Pradesh Academy of Sciences, Lucknow
- Haryana Vigya Manch (HVM), Rohtak
- Association of Microbiologists of India (AMI), New Delhi
- Royal Association for Science-led Socio-cultural Advancement (RASSA), New Delhi
- UP Association for the Science and Technology Advancement

- The Society for Conservation of Wild Life , Lucknow
- Hindi Vigyan Sahitya Parishad, Mumbai
- The Society for Environmental Sustainability, Lucknow
- International Society for Noni Science, Chennai
- Indian Academy of Social Sciences, Allahabad
- International Union for Conservation of Nature, Gland, Switzerland -2016-2020

Editor/ Reviewer

- Editor-in-Chief of an International Journal “Physiology and Molecular Biology of Plants [PMBP (www.springer.com/journal/12298)] since 2002
- Editor of an International Research Journal “Climate Change and Environmental Sustainability”[CCES(www.indianjournals.com/ijor.aspx?target=ijor:cces&type=home)], since 2013
- Editor-in-Chief of an International Journal of Science, Technology and Society (IJSTS) since 2015 (http://www.bbau.ac.in/new/research_journal.aspx).
- Editor-in-Chief of a multilingual quaternary magazine "Kahaar " (www.kahaar.in), since 2014

Science Communication and Literature

During stay in Madhya Pradesh and Haryana, has been actively involved in the activities of literacy, science literacy and science communication through the NGOs like Eklavya, Bhopal and Haryana Vigyan Manch (HVM), Professor H. S. Srivastava Foundation for Science and Society, Lucknow (www.phssfoundation.org.in) and Prithvipur Abhyadaya Samiti, Lucknow (www.prithvipur.org). The HVM was honoured with best science popularizing agency to

children in early nineties when working as Secretary. Worked as member, Joint Secretary, Secretary and President for about 1½ decades with HVM and worked as Editor for its two Hindi monthly magazines namely Haryana Science Bulletin (From 1991 to 1996) and Parasmani, Children’s magazine (from 1997-2000). Wrote books for children “Ek Tha Suraj, Ek The Ped” and “Pahale Murgi Ayee Ya Anda” which witnessed many editions, awarded by Haryana Sahitya Academy (Ek Tha Suraj, Ek Tha Ped) , and was transcriated in Telegu and Malayalam. Wrote other books also for children and neo-literates and transcriated books of Prof. S. Sivadas from Malayalam through English. He wrote script for a Hindi serial “Sare Jahan Se Achha” broadcasted by DD-2 and anchored by Mr. Gauhar Raza. Presently, he is editing a multilingual magazine Kahaar (www.kahaar.in) for science communication to common masses and working with a rural library network for knowledge exposure of rural people.

Research Publications

	Google Citation		
Total Publications – 184	Cited By	All	Since 2013
Research article -124	Citation	3499	2187
Review Article – 18	h- index	32	25
Book Chapters -25	I ₁₀ index	75	60
Book- 17			
ISI Impact Factor – 192.127			
NAAS Impact Factor – 401.285			

Research Contributions

Has made significant contribution in understanding of ammonia assimilation and N- metabolism in plants (Singh and Srivastava, 1982, 1983, 1986; Srivastava and Singh, 1987; Kumar and Singh, 1993; Bharti and Singh, 1993; Singh et al., 1994; Murthy et al., 1996 a, b; Bharti et al., 1996; Tripathi et al., 2015; Minj and Singh., 2015; Kumar et al. 2015, a,b; Rai et al, 2017).

Research work of the group is well received by peers (Google Citation Indices; Total citation: 3499, H-index: 32 and i10: 75) and one of the papers (Srivastava and Singh 1987), which established role of GDH in ammonia assimilation in plants has received 277 citations. The findings reveal role of different aminating pathways of ammonia assimilation. To replace the toxic chemical fertilizers, which are impacting the soil fertility and human health, we have developed organic matrix based slow release formulations by immobilizing microbes and lower amount of synthetic fertilizers and demonstrated their efficacy in rice, wheat, mustard and moongbean (Kumar et al., 2013, 2014; Sharma et al., 2015; Minj and Singh., 2015; Kumar et al. 2015, a,b; Rai et al, 2017). Besides, we have contributed new knowledge on remediation of toxic metals from soil and water ecosystems and demonstrated that castor is a better value added phytoremediator than Indian mustard in semi arid Indian conditions. (Bauddh and Singh, 2011, 2012 a,b; Pandey et al., 2012, Singh et al., 2010, 2012, Sainger et al., 2011; Shah et al., 2015). Our work have provided new insights in understanding of ammonia assimilation and N-metabolism in plants (Singh and Srivastava, 1982, 1983, 1986; Srivastava and Singh, 1987; Kumar and Singh, 1993; Bharti and Singh, 1993; Singh et al., 1994; Murthy et al., 1996 a, b; Bharti et al., 1996; Tripathi et al., 2015). Most of the publications have been cited frequently. The novel findings reveal the knowledge and understanding of role of Ammonia assimilation pathways in non-stress and stressed agro-climatic conditions, role of nitrogenous molecules in *in-vitro* morphogenesis and development and application of low cost organic matrix based granular slow release fertilizers for rice, wheat, mustard and other crops (Singh et al., 2010, 2012, Sainger et al., 2012, Kumar et al., 2014 a, b; Ashok et al., 2014, Kumar et al., 2013 a, b; Sharma et al., 2013, Kumar et al., 2015, Minj and Singh, 2015, Kumar et al., 2015). Besides, we have contributed some new knowledge on toxicity and remediation of soil and water ecosystems (Singh et al., 2011, Bauddh and Singh, 2011, 2012 a,b; Pandey et al., 2012, Tripathi et al., 2013, Kumar et al., 2014, Singh et al., 2013, Pandey et al., 2014, Shah et al., 2015, a,b; Tripathi et al., 2015, Awasthi et al., 2016). More we are working on Plant Growth Promoting Microorganism in designed energy based Agro-ecosystems and Designed novel ecosystem (Baqir et al., 2017 a, b, 2018; Awasthi et al., 2017, 2016; Singh et al., 2017; Rai et al., 2017)

Have 32+ years of PG teaching and 37+ years of research experience as well as 14 years of administrative experiences in MD University, Rohtak and Babasaheb Bhimrao Ambedkar University, Lucknow and G. S. Sugarcane Breeding and Research Institute, U.P. I have guided 29 students for successful award of Ph.D. degree, 07 mentored Post-Doctoral Fellows and published more than 124 original research papers, 18 review articles and 25 book chapters

(Cumulative Impact factor of Research Publications (Thomas Reuters) about : 200) and 17 books published from CAB International Kluwer , Springer, IBH Oxford, Studium Press etc. Have guided about 120 M.Sc. and M. Phil students for their Dissertations.

Research Project

- Completed / Ongoing Research projects funded by Department of Science & Technology, Government of India, CSIR, New Delhi and University Grant Commission, New Delhi, etc.

S.No.	Title of Research Project	Name of The funding Agency	Year of Sanction	Amount Sanctioned (Rs./US\$)
1.	Assimilation of inorganic nitrogen and primary assimilation reactions in maize seedlings	CSIR, New Delhi, as JRF	1981-1983	Rs. 50,000/-
2.	Purification, characterization of glutamate synthase enzyme from root and leaves of maize seedlings temperature: Construction of stress tolerant mutants	CSIR, New Delhi, as SRF	1984-86	Rs. 75,000/-
3	Some biochemical studies on sugarcane infected with red rot and grossy shoot diseases	UP Council of Sugarcane Research, as Scientific Officer In charge	1988	
4	Isolation and immobilization of chloroplast from sugarcane leaves	UGC minor project, PI	1989-91	Rs. 10,000/-
5	Isolation and purification of Cu-Amine Oxidase from lentil seedlings	INSA Visiting Fellowship	1992	
6	PQQ-binding of Cu-Amine-oxidase isolated lentil/pea seedlings	CSIR, New Delhi, PI	1991-94	Rs. 4,80,163/-
7	Role of proline in TDZ-induced somatic embryogenesis in chickpea	UGC Major Project, PI	1998-2000	Rs. 4,66,012/-

8	Response of some nitrogen compounds on TDZ-induced somatic embryogenesis in peanut, geranium and chickpea	UNESCO sponsored Bio-Tech. Fellowship	May, 1994-September, 1994	US\$ 5,000
9	Role of proline in TDZ-induced in vitro regeneration of grain legumes; pea, bean, mung bean and pigeon pea	NSERC Canada sponsored research project, PI	May, 1996-September, 1996	US\$ 6,000/-
10	Transgenic of mung bean for yellow mosaic resistance	DBT, New Delhi, Co-PI	1998-2002	Rs. 35,000,00/-
11	Role of proline and ABA in regulation of ammonia assimilation and accumulation of nitrogenous metabolites in mung bean differing in salt tolerance	DST Major Project, PI	1999-2003	Rs. 16,39,792/-
12	Entrapment of biofertilizers in an organic matrix to enhance efficacy for wheat productivity	CST, UP Project, PI	2011-2013	Rs. 4,08,000/-
13	Nutrient use efficiency in wheat on application of conventional chemical fertilizers, bio-fertilizers and organic matrix entrapped granular fertilizers at different irrigation levels	UGC, New Delhi, PI	2016-2018	Rs. 15,50,000/-
14	Policy Development on inclusive growth in Agriculture, Water and Health	DST-PRC Project, DST, New Delhi, Co-PI		Rs. 5,00,000,00/-

National/International Scientific Exchange/Training, Collaboration

- Course in Protein Biochemistry organized by Department of Biotechnology Govt. of India, Govt. of India in 1991 at AMU, Aligarh (Three weeks).

- ▶ Indian National Science Academy, New Delhi visiting fellowship to work in Department of Biophysics, All India Institute of Medical Sciences, New Delhi in 1992 to work on a research project on enzyme Amine Oxidase (two months).
- ▶ UNESCO ST Biotechnology fellowship by UNESCO, Paris to work on a collaborative project on somatic embryogenesis in geranium, peanut and chickpea at University of Guelph, Ont, Canada in 1994(three months).
- ▶ NSERC Biotechnology fellowship to visit the same laboratory at University of Guelph, Ont, Canada in 1996 (four month).
- ▶ Visited Yunan Agricultural University Kunming, China for a International workshop cum training course on Molecular technique in Disease resistance of Crop Plants in 2002 (15 day).
- ▶ Hosted three Senegalese scientists from three different Research Institutes of Thies-Escale, Daker and Kolda of Senegal in own laboratory to develop collaborative research projects on Sesamum indicum in 2002(10 days)
- ▶ Visited Universiti Teknologi MARA Cawangan Sarawak, Malaysia for chaired session and delivering lecture in International Conference in 2017.

Invited Lectures and Chairmanships

Convener/Chairman: Seminar and symposium

- Chaired technical session on 20th Sept, 2012 in 32nd National Seminar on "Emerging Pollutants and Pathogenes: Challenges and Risk Reductions" held on 20-22 September, 2012 organized by The Academy of Environmental Biology, India at Indian Institute of Toxicology Research (IITR), Lucknow
- Chaired technical session in national conference organized by Department of Botany DDU Gorakhpur University Gorakhpur on 26-28 Nov.2012.

- Chaired technical session in international seminar held at National Academy of Agricultural Sciences New Delhi 26-27 Dec.2012 and organized by Society for Plant research as BTBS-2012
- Chaired technical session in regional workshop on Climate Change on June 16-17,2012, organized by Delhi Science forum, TISS Mumbai and BGVS UP and held at BBAU Lucknow
- Chaired technical session in International conference on Chemistry and Materials: Prospects and Perspectives-2012, organized by Department of Applied Chemistry, BBAU during 13-14 Sept.2012
- Chaired session in National Seminar organized by Department of Botany, DDU Gorakhpur University, Gorakhpur on 26-28 Nov., 2012.
- Chaired session in BTBS-2012 at National Academy of Agricultural Sciences, New Delhi 26-27 Dec., 2012.
- Chaired session in regional workshop on climate change on June, 16-17, 2011, Organized by Delhi Science Forum, Delhi, TISS Mumbai and BGVS, U.P.
- Chaired session in Symposia on “Emerging pollutants and pathogens: Challenges and Risk Reduction” organized by The Academy of Environmental Biology at Indian Institute of Toxicology Research Lucknow, 20-21 Sept, 2012.
- Chaired session in International Conference on Chemistry and Materials: Prospects and Perspectives-2012 organized by Department of Applied Chemistry, BBAU University during 13-14 Dec, 2012.
- Chaired session in XXXIV All India Conference organized by Indian Botanical Society and held at Lucknow University on Oct, 10-11, 2012.

- Chaired session in Ist Lucknow Science Congress, held at BBAU, Lucknow during 20-21, April, 2013.
- Chaired Session in International Symposium on Innovations in Horticulture for Nutritional, Conserving Biodiversity and Poverty Alleviation on October, 16-18, 2014 at BBA University, Lucknow.
- Chaired Session in BRIDGES, 2015, International workshop on Bridging Development Divide for Inclusive Growth to Science, Technology and Innovation on January, 16-17, 2015 at BBA University, Lucknow
- Chaired a special Session, Judge Poster Session on 5th International Conference on Plants and Environmental Pollution on February, 24-27, 2015 at CSIR, NBRI, Lucknow
- Chaired Session in National Conference on Challenges for Sustainability of Natural Resources and Environment with Emphasis on Aquatic Eco System for Livelihood Security, on October, 10-12, 2014 at G.B. Pant University of Agriculture and Technology, Pant Nagar.
- Chaired Session in National Conference on "Wetland and River Ecosystem" at Lucknow on 2nd May, 2017.
- Chaired Session and Delivered Talk in "104rd Indian Science Congress" S.V. University, Tirupati, on 3-7 January, 2017.
- Chaired and Co-chaired Session in 58th Annual conference of Association of microbiologists of India (AMI) in International symposium on Microbes for sustainable development: Scope & Application (MSDSA-2017) on November, 16-19, 2017 organized by Association of microbiologists of India.
- Chaired Session in National Conference on Impact of Climate Change on Indian Agriculture and Plant Productivity on March, 23-24, 2018 organized by JNU, New Delhi, in collaboration with SSCE, PHSS Foundation, SEARCH foundation and GRC India.

- Chaired Session in International Conference on Emerging trends in integrated pest and disease management for quality food production on July, 25-27, 2017 organized by Universiti Teknologi MARA Cawangan Sarawak, Malaysia.
- Presented invited lecture in National Conference on Sustainable Water Resources Management: Challenges and Opportunities, on January, 20-21, 2015 at Rani Durgawati University, Jabalpur.
- Delivered invited Talk in 102nd Indian Science Congress and Symposium Science and Technology for Human Development on January, 3-7, 2015 at University of Mumbai, Mumbai.
- Delivered lecture on Innovative Teaching Techniques on October, 14, 2014 at College of Biotechnology, Sardar VallabhBhai Patel University of Agricultural and Technology, Meerut.
- Participated as member organizing committee in International Symposium on Biodiversity: Status Utilization and Impact of Challenging Climatic Conditions on October, 30-31, 2014 at BBA University, Lucknow.
- Delivered a lecture on 5th International Conference on Plants and Environmental Pollution on February, 24-27, 2015 at CSIR, NBRI, Lucknow
- Delivered invited lecture on phytoremediation of degraded environment; emerging issues and challenges on 20th Sept, 2012 in 32nd National Seminar on "Emerging Pollutants and Pathogenes: Challenges and Risk Reductions" held on 20-22 September, 2012 organized by The Academy of Environmental Biology, India at Indian Institute of Toxicology Research (IITR), Lucknow
- Delivered invited lecture on Phytoremediation of degraded land in national conference organized by Department of Botany DDU Gorakhpur University Gorakhpur on 26-28 Nov. 2012.

- Delivered invited lecture on Organic matrix based slow release fertilizers for crop cultivation in international seminar held at National Academy of agricultural sciences New Delhi 26-27 Dec.2012 and organized by Society for Plant research as BTBS-2012
- Delivered invited lecture on Issues and challenges of climate change in context of Uttar Pradesh in regional workshop on Climate Change on June 16-17, 2012, organized by Delhi Science forum, TISS Mumbai and BGVS UP and held at BBAU Lucknow.
- Attended and chaired session in National Seminar organized by Department of Botany, DDU Gorakhpur University, Gorakhpur on 26-28 Nov., 2012.
- Attended and chaired session in BTBS-2012 at National Academy of Agricultural Sciences, New Delhi 26-27 Dec., 2012.
- Invited and delivered Lecture in regional workshop on climate change on June, 16-17, 2011, Organized by Delhi Science Forum, Delhi, TISS Mumbai and BGVS, U.P.
- Attended in Symposia on “Emerging pollutants and pathogens: Challenges and Risk Reduction” organized by The Academy of Environmental Biology at Indian Institute of Toxicology Research Lucknow, 20-21 Sept, 2012.
- Attended in International Conference on Chemistry and Materials: Prospects and Perspectives-2012 organized by Department of Applied Chemistry, BBAU University during 13-14 Dec, 2012.
- Attended in XXXIV All India Conference organized by Indian Botanical Society and held at Lucknow University on Oct, 10-11, 2012.
- Participated in one day workshop on Placement and Employment Prospects in Indian Patent Offices and Hands on Training for Patenting the Research Work organized by BBAU University during 18th March 2013.

- Participated in National Workshop on Crime Against Women: Legal Issues, organized by BBAU University during 7th March 2013.
- Attended in Ist Lucknow Science Congress, held at BBAU, Lucknow during 20-21, April, 2013.
- Delivered two lectures in Refresher course in Life Sciences on 12-9-2014 at DDU Gorakhpur University, Gorakhpur
- Delivered invited lecture in DBT Sponsored Short Term Training Course on Plant transgenic Technologies on October 3, 2014 at Centre for Biotechnology, MD University, Rohtak.
- Participated as a panelist in a Seminar Knowledge Creation, Extraction, Discovery and Delivery by Informatics Publishing Limited, Bangalore on September 16, 2014 at Hotel Golden Tulip, Lucknow.
- Nominated and Participated as external expert in Research Degree Committee of Awadhesh Pratap Singh University, Rewa and MJP Ruhelkhand University, Bareilly.
- Judged the exhibits in CBSE Regional Level Science Exhibition on 7-7-2014 at RLB Memorial School, Lucknow.
- Delivered Lecture in "Breakthrough Science Society" Lucknow, on 16 July, 2017
- Guest Speaker in "National Workshop on Scientific Paper Writing and Effective Communication" at DDU Gorakhpur University, Gorakhpur on 17-18 September, 2016.
- Chief Guest and Key Speaker in "Swatchhta ka manav jivan mein mahatva" at NBFGR, Lucknow on 16 May, 2016.
- Delivered Lecture in "Strategies for Combating Climate Change Impacts on Agriculture" at U.P. Council of Agricultural Research, Lucknow on 21 March, 2017.

- Delivered Talk in "Consultation on Strategies for Managing Droughts-Need for Aligning Science and Public Policy" at NISTAD-CSIR, New Delhi, on 3rd June, 2016.
- Participated National Seminar and National Science day celebration on Fostering Scientific temper for welfare of society and surroundings on February, 27-28, 2018 organized by BBA University, Lucknow.
- कार्यालय महानिदेशक, दीनदयाल उपाध्याय राज्य ग्राम्य विकास संस्थान में " **Climate Risk Management in Rainfed Eco-System**" में व्याख्यान दिनांक ६ जून , २०१७.
- Participated in Brainstorming on Safe Water and Sanitation, on September, 15-17, 2017 organized by NASI, Allahabad.
- Delivered lecture in National Symposium on Biodiversity and Natural Resources for Sustainable Development (NBRSD-2017) on November, 24-26, 2017 organized by CCS University, Meerut.
- Delivered lecture in National Conference on Plant Science Research in 21st Century: Challenges and Strategies on February, 2nd and 3rd 2018, organized by Saraswati Vidya Mandir Mahila P.G. College, Gorakhpur.
- Deliver lecture in the Department of Industrial Microbiology, DDU Gorakhpur University, Gorakhpur.
- Participated as Judge in Exhibition in Flower show on December, 9th 2017 organized by CSIR-NBRI, Lucknow.
- Delivered lecture in International Conference on Emerging trends in integrated pest and disease management for quality food production on July, 25-27, 2017 organized by Universiti Teknologi MARA Cawangan Sarawak, Malaysia.

- Organized a National conference on Climate Change and Sustainable Development: Emerging issues and mitigation strategies 23 to 24 Nov, 2015

Other Recognition

- Invited as Guest of Honour in the Annual Day Function of Pheroz Gandhi P.G. College, Raebareli 2010
- Invited as Chief Guest in a function organized by National Bureau of Fish Genetic Resources (ICAR), 2009
- Invited as Guest of Honour in the National Seminar organized by Bareilly P.G. College, Bareilly.
- Invited as Special Guest for “Jal Sammelan- Lokadesh 2014”, on 2nd March, 2014 organized by Rajendra Singh, ‘JalPurush’
- Key speaker in a workshop Organized by National Institute of Disaster Management, New Delhi (28 Jan., 2014)

List up to 10 best research publications

1. Sachdev, Swati, Singh, Anupriya and **Singh, Rana Pratap** (2018). Optimization of culture conditions for mass production and bio-formulation of *Trichoderma* using response surface methodology. *3Biotech*, <https://doi.org/10.1007/s13205-018-1360-6>
2. Sachdev, Swati and **Singh, Rana Pratap** (2018). Isolation, characterization and screening of Native Microbial Isolates for biocontrol of fungal pathogens of tomato. *Climate Change and Environmental Sustainability*, 6 (1), 46-58, DOI: 10.5958/2320-642X.2018.00006.6

3. Baqir, Mohd, Kothari, Richa and **Singh, Rana Pratap** (2018) Fuel wood consumption, and its influence on forest biomass carbon stock and emission of carbon dioxide. A case study of Kahinaur, district Mau, Uttar Pradesh, India. *Biofuels* Accepted <https://doi.org/10.1080/17597269.2018.1442666>
4. Baqir, Mohd, Kothari, Richa and **Singh, Rana Pratap** (2017) Characterization and ranking of subtropical trees in a rural plantation forest of Uttar Pradesh, India as fuel wood using fuel wood value index (FVI). *Environment, Development and Sustainability, Accepted*, <http://doi.org/10.1007/s10668-017-0057-z>
5. Baqir, Mohd, Mishra, Ashish K., Kothari, Richa and **Singh, Rana Pratap** (2017) Calorific value and fuel wood consumption patterns of a plantation forest at Kahinure (Distt Mau), Uttar Pradesh, India by villagers. *Climate Change and Environmental Sustainability*, 5(1), 35-41.
6. Kumar, Mahesh and **Singh, Rana Pratap** (2017). Enhancement in growth promotion and production of wheat (*Triticum aestivum* L.) by application of a native strain of *Trichoderma virens* (T2) in pot condition. *International Journal of Science, Technology and Society*, 3(2), 62-67.
7. Singh, Ashima., Singh, Kripal., Wasnik, Kundan., Singh, Rana Pratap. (2017). Vermicompost and Farmyard manure increase sodic soil fertility and productivity of green vegetable. *International Journal of Advanced Research (INT. J. ADV. RES.)* 5(2). 2623-2632 [Impact Factor: SJIF=6.118]
8. Rai, A., Kumar, S., Baudh, K., Singh, N., **Singh, Rana Pratap** (2017). Improvement in growth and alkaloid content of Rauwolfia serpentina on application of organic matrix entrapped biofertilizers (Azotobacterchroococcum, Azospirillumbrasilense and Pseudomonas putida). *Journal of Plant Nutrition*, 40 (16), 2237-2247 [Impact Factor: ISI=0.536]
9. Sachdev, Swati and **Singh, Rana Pratap** (2016). Studies on trends in use of pesticides and fertilizers for tomato cultivation in the vicinity of Lucknow India. *International Journal of Science, Technology and Society*, 2 (1&2), 49-54. DOI: 10.18091/ijsts.v2i1-2.7542.

10. Kuldeep Baudh, Amit Kumar, Sudhakar Srivastava, Rana P Singh, RD Tripathi (2016). A study on the effect of cadmium on the antioxidative defense system and alteration in different functional groups in castor bean and Indian mustard. *Archives of Agronomy and Soil Science*. 62(6), 877-891. [Impact Factor: ISI=1.118]

Books Published

1. *Biotechnological Approaches for Mitigation of Climate Change* (2015) **Jaiwal P.K., Singh, Rana Pratap** and Dhankher O.P. (Ed.) Springer
2. *Plant Membrane and Vacuolar Transporter* (2008). **Jaiwal P.K., Singh, Rana Pratap** and Dhankher O.P. CAB International (www.cabi.org), U.K.
3. *Nitrogen Nutrition and Plant Productivity*(2006). **Singh, Rana Pratap**, Shankar,N. and Jaiwal, P.K. Studium Press, LLC, Houston, USA.
4. *Molecular Strategies for Improving Nitrogen use efficiency in Plants*. (2006) **Singh, R.,P.**, Shankar,N.and Jaiwal, P.K Studium Press, LLC, Houston, USA.
5. *Plant Genetic Engineering Vol 8: Metabolic engineering and molecular farming*. (2006) **Jaiwal, P.K.and Singh, Rana Pratap** Studium Press, LLC, Houston, USA, 2006.
6. *Nitric Oxide Signaling in Higher Plants* (2005) Jose R. Magalhaes, **Rana Pratap Singh** and Leonidas P.Passos. Studium Press, LLC, Houston, USA
7. *Plant Genetic Engineering Vol 1: Applications and Limitations* (2003) **Singh, Rana Pratap** and Jaiwal, P.K. Sci-Tech. Pub. Co. Houston, USA.
8. *Plant Genetic Engineering Vol 2: Improvement of Food Crops* (2003) **Jaiwal, P.K. and Singh, Rana Pratap** Sci-Tech. Pub. Co. Houston, USA.

9. *Plant Genetic Engineering Vol 3: Improvement of Commercial Plants-1* (2003) **Singh, Rana Pratap** and Jaiwal, P.K. Sci-Tech. Pub. Co. Houston, USA.
10. *Plant Genetic Engineering Vol 4: Improvement of Commercial Plants-11.* (2003) Jaiwal, P.K. and **Singh, Rana Pratap** Sci-Tech. Pub. Co. Houston, USA.
11. *Plant Genetic Engineering Vol 5: Improvement of Vegetables* (2003) **Singh, Rana Pratap** and Jaiwal, P.K. Sci-Tech. Pub. Co. Houston, USA.
12. *Plant Genetic Engineering Vol 6: Improvement of Fruits.* (2003) Jaiwal, P.K. and **Singh, Rana Pratap** Sci-Tech. Pub. Co. Houston, USA.
13. *Focus on Biotechnology10A: Improvement Strategies for Leguminosae Biotechnology.* (2003) Jaiwal, P.K. and **Singh, Rana Pratap** Kluwer Academic publishers, The Netherlands.
14. *Focus on Biotechnology10B: Applied Genetics of Leguminosae Biotechnology.* (2003) Jaiwal, P.K. and **Singh, Rana Pratap** Kluwer Academic publishers, The Netherlands.
15. *Nitrogen Nutrition and Plant Growth* (1999) Srivastava, H.S. and **Singh, Rana Pratap** Science Publishers, Enfield, USA/ Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi (Dual Edition)
16. *Strategies for Improving Salt Tolerance in Higher Plants.* (1997) Jaiwal, P.K., **Singh, Rana Pratap** and Gulati, A Science Publishers, Enfield, USA/ Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi (Dual Edition)
17. *Nitrogen Nutrition in Higher Plants* (1995) Srivastava, H.S. and **Singh, Rana Pratap** Associated Publishing Co. New Delhi

Books Chapter

1. **Singh, Rana Pratap**., Kumar, Sanjeev., Sainger, Manish., Sainger, Poonam A., Barnawal, Deepti, (2017). Eco-friendly Nitrogen Fertilizers for Sustainable Agriculture., Amitava Rakshit et al. (eds.), *Adaptive Soil Management: From Theory to Practices*, Springer, Singapore DOI 10.1007/978-981-10-3638-5 Pp: 227-246.
2. Bauddh K., Sainger M., Kumar S., Sainger P.A., Jaiwal P.K. and **Singh, Rana Pratap**(2016). Biotechnological Approaches to Mitigate Adverse Effects of Extreme Climatic Factor on Plant Productivity, in P.K. Jaiwal et al. (eds.), *Genetic Manipulation in Plants for Mitigation of Climate Change*, Springer, DOI 10.1007/978-81-322-2662-8_9 in press.
3. **Singh, Rana Pratap**, Bauddh K., Sainger M., Sainger, P.A., Singh, J. and Jaiwal P.K. (2011). Nitrogen use efficiency in higher plants under drought, high temperature, salinity and heavy metal contaminations. Jain, V. and Kumar, P.A. (Eds). 2010. Nitrogen Use Efficiency in Higher Plants. New India Publishing Agency (India) Pvt. Ltd. Pp: 99-123.
4. **Singh, Rana Pratap**, Sainger M., Bauddh K., Senger R.S. and Jaiwal P.K. (2010). Sustained nutrient supply reduced nutrient loss and high plant productivity with slow release fertilizers. Senger R.S. and Sharma A.K. (Eds). 2010. Stable Food Production and Sustainable Agriculture. Studium Press (India) Pvt. Ltd. Pp: 62-79.
5. **Singh, Rana Pratap**, Sainger M., Singh D.P. & Jaiwal P.K. (2008). Nitrate and ammonium transporters in plants. *In: Plant Membrane and Vacuolar Transporters* (Eds Jaiwal P. K., **Singh, Rana Pratap** & Dhankhad O.P.) CAB International pp: 83-103.
6. Dahiya S. Choudhary, D. Jaiwal R., Dhankher, O.P., **Singh, Rana Pratap** and Jaiwal, P.K. (2008). Elemental biofortification of crop plants. *In: Plant Membrane and Vacuolar Transporters* (Eds Jaiwal P. K., **Singh, Rana Pratap** & Dhankhad O.P.) CAB International pp: 345-371.

7. **Singh, Rana Pratap**, Sainger M. & Sharma V. (2007). Genetic engineering of plants for environmental cleanup In: *Biotechnology in Plant Improvement*. (Ed Trivedi P.C.) Pointer publishers Jaipur, pp 316-337.
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9. **Singh, Rana Pratap**, Dhania G., Sharma A. & Jaiwal P.K.(2006). Biotechnological Approach to Improve Phytoremediation Efficiency for Environment Contaminants. *In: Environmental Bioremediation Technologies* (Eds Singh S.N. & Tripathi R.D.) Springer 223-258
10. Jaiwal, P.K. and **Singh, Rana Pratap** (2006) Genetic manipulations of nitrogen assimilation to improve nitrogen use efficiency and yield of plants. In *Biotechnological Approaches Improve Nitrogen Use Efficiency in Plants* (Eds. **Singh, Rana Pratap** . and Jaiwal, P.K.) Studuim Press, LLC, Houston, USA Pp 257-284
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12. **Singh, Rana Pratap**,Usha, Shankdhar,N. and Jaiwal, P.K.(2006) Nitrogen utilization in plants under salinity stress. In: *Nitrogen Nutrition and Plant Productivity*. (Eds. **Singh, Rana Pratap**, Shankar N. and Jaiwal, P.K.) Studium Press, LLC, Houston, USA. Pp 203-276.
13. Srivastava H.S., Shankar N., Yamaya T. and **Singh, Rana Pratap** (2006). Glutamatesynthese, ammonia assimilation and plant productivity. (Eds. **Singh, Rana Pratap** . and Jaiwal, P.K.) Studuim Press, LLC, Houston, USA. Pp 135-166.

14. **Singh, Rana Pratap**, Dahiya,S.,Usha, and Jaiwal, P.K.(2004) Slow release fertilizers for sustained nitrogen supply and high plant productivity. In: *Nitrogen Nutrition and Plant Productivity*. (Eds. **Singh, Rana Pratap**, Shankar N. and Jaiwal, P.K.). Studium Press, LLC, Houston, USA. Pp 329-349.
15. **Singh, Rana Pratap**, Usha, Rizvi, S.M.H., Sonia and Jaiwal, P.K. (2003) Biotechnological strategies for enhancing abiotic stress tolerance in legumes. In: *Focus on Biotechnology10A: Improvement Strategies for Leguminosae Biotechnology*. Kluwer Academic publishers, The Netherlands.pp223-243.
16. Sonia, **Singh, Rana Pratap**, Sharma, K.K, and Jaiwal, P.K (2003) *In vitro* regeneration and transformation of chickpea In: *Focus on Biotechnology10B: Applied Genetics of Leguminosae Biotechnology*. Kluwer Academic publishers, The Netherlands.pp 69-87
17. Sahoo L.,Sugla T.,Baloda A., **Singh, Rana Pratap**, and Jaiwal, P.K (2003) Engineering abiotic stress tolerance in crop plants. In: *Plant Genetic Engineering Vol.1 Applications and Limitations* (Singh RP and Jaiwal, PK eds) Sci-Tech Publishers, Houston, USA. pp 123-146.
18. Sahoo L.,Singh N.D., SuglaT., **Singh, Rana Pratap** and Jaiwal P.K. (2003) Genetic transformation of legumes In: *Plant Genetic Engineering Vol.2 Improvement of food crops* (Jaiwal, PK and Singh RP eds) Sci-Tech Publishers, Houston, USA.pp267-326.
19. **Singh, Rana Pratap**, Murch, S.J. and Saxena, P.K. (1999). The role of nitrogen in plant morphogenesis *in vitro*. In *Nitrogen Nutrition and Plant Growth* (Srivastava H.S. and **Singh, Rana Pratap** Eds.) Science Publishers Enfield USA/Oxford &IBH Publication Co. Pvt. Ltd. New Delhi pp 205-229.
20. Mishra, S.N., Jaiwal,P.K., **Singh, Rana Pratap**,Srivastava H.S. (1999). Rhizobium legume association. In: *Nitrogen Nutrition and Plant Growth* (Srivastava H.S. and

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21. **Singh, Rana Pratap**, Chaudhary A., Gulati, A., Dahiya H.C., Jaiwal, P.K. and Sengar, R.S. (1997). Response of plants to salinity in interaction with other abiotic and biotic factors. In *Strategies for Improving Salt Tolerance in Higher Plants* (Eds. Jaiwal, P.K., **Singh, Rana Pratap** and Gulati, A.) Science Publishers Enfield USA/Oxford &IBH Publication Co. Pvt. Ltd. New Delhi pp 25-41.
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23. Jaiwal, P.K. and **Singh, Rana Pratap** (1995). Regulation of nitrogen assimilation by plant Growth hormones. In *Nitrogen Nutrition in Higher Plants* (Eds. Srivastava H.S. and **Singh, Rana Pratap**) Associated Publishing Company, New Delhi, pp 401-416.
24. **Singh, Rana Pratap** (1995). Ammonia Assimilation. In *Nitrogen Nutrition in Higher Plants* (Eds. Srivastava H.S. and **Singh, Rana Pratap**) Associated Publishing Company, New Delhi, pp 189-203.
25. Singh J. **Singh, Rana Pratap**, Sinha O.K. and Aganihotri, V.P. (1994). Biochemical aspects of disease resistance with special reference to red rot disease of sugarcane. In *Current Trends In Sugarcane Pathology* (Prof. K.S. Bhargava Festschrift) (Eds. Rao, G.P., Gillaspie Jr. A.G., Upadhyaya, P.P., Bergamin, A., Aganihotri, V.P. and Chen, C.T.), Int. Books and Period. Sup. Serv. Delhi, pp 259-275.

Published Papers in Journals

REVIEW ARTICLES

1. Sachdev, Swati and **Singh, Rana Pratap** (2017), Sustainable management of soil borne pathogens of tomato. *International Journal of Science, Technology and Society*, **3(2)**, 36-40.
2. Awasthi, Ashutosh, Singh, Kripal, **Singh, Rana Pratap** (2017), A concept of diverse perennial cropping systems for integrated bioenergy production and ecological restoration of marginal lands in India. *Ecological Engineering* , **105**, 58-65, <http://dx.doi.org/10.1016/j.ecoleng.2017.04.049> [**Impact Factor: ISI=3.231**]
3. Awasthi, Ashutosh, Singh, Kripal, Grady, Audrey O, Courtney, Ronan, Kalra, Alok, **Singh, Rana Pratap**, Cerda, Artemi, Steinberger, Yosef and Patra, D.D (2016), Designer ecosystems: A solution for the conservation-exploitation dilemma, *Ecological Engineering* , **93**, 73-75 [**Impact Factor: ISI=3.231**]
4. Baudh, Kuldeep, Singh, Kripal, Singh Bhaskar, **Singh, Rana Pratap** (2015). *Ricinus communis*: A robust plant for bio-energy and phytoremediation of toxic metals from contaminated soil. *Ecological Engineering*, Vol 84:640-652. [dx.DOI.org/10.1016/j.ecoleng.2015.09.038](http://dx.doi.org/10.1016/j.ecoleng.2015.09.038)[**Impact Factor: ISI=3.231**]
5. Pandey, V.V., Singh, J.S., Singh, D.P., **Singh, Rana Pratap** (2014). Methanotrophs: promising bacteria for environmental remediation. *International Journal of Environmental Science and Technology*, **11**:241-250 DOI 10.1007/s13762-013-0387-9 [**Impact Factor: ISI=1.844**].
6. Pandey V.C., Singh, K., Singh J.S., Kumar A., Singh B. and **Singh, Rana Pratap**, (2012). *Jatropha curcas*: A potential biofuel plant for sustainable environmental development. *Renewable and Sustainable Energy Reviews*. **16**, 2870-2883 [**Impact Factor: ISI=7.896 (Five year); SJR = 3.120, 6.798**].
7. Pandey V.C., Singh J.S., **Singh, Rana Pratap**, Singh N. and Yunus M. (2011). Arsenic hazards in coal fly ash and its fate in Indian scenario. *Resources, Conservation and Recycling*, **55**, 819-835. [**Impact Factor: ISI=2.692**]

8. Singh, J. S. Abhilash, P.C, Singh H.B., **Singh, Rana Pratap** and Singh D.P. (2011). Genetically engineered bacteria: An emerging tool for environmental remediation and future research perspectives. *Gene* 480, 1–9 [**Impact Factor: ISI=2.268; NAAS=7.70**].
9. Sonia, Jaiwal, R., **Singh, Rana Pratap** and Jaiwal P.K., (2007) Genetic Engineering for Storage pest resistance in plants. *Physiol. Mol. Biol. Plants*. 13: 101-113 [**Impact Factor: ISI = 1.351; NAAS=5.2**]
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12. Bhupinder, P. Saharmila, **Singh, Rana Pratap** and Pardha Saradhi. (2002) Nitrogen-Sulfur interactions in Plants *Physiol. Mol. Biol. Plants* **8(2)**: 213-220. [**Impact Factor: ISI = 1.351; NAAS=5.2**]
13. Jaiwal, P.K., Sahoo, L., Singh, N.D and **Singh, Rana Pratap** (2002) Development of marker free transgenic plants-an environmental friendly approach. *Curr Sci*.**83(2)**: 128-136. [**Impact Factor: ISI=0.782; NAAS=7.20**].
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16. **Singh, Rana Pratap** Tripathi, R.D. Sinha, S. K., Maheshwari R. and Srivastva, H.S. (1997). Response of higher plants to lead contaminated environment. *Chemosphere* 34:2467-2493. [Impact Factor: ISI=3.155; NAAS=7.79].
17. Sengar, R.S., Pant.RC, **Singh, Rana Pratap** and Srivastava H.S. (1995). Role and regulation of GS-GOGAT enzymes in higher plants. *Plant Physiol. Biochem.*, 22:89-100. Presently renamed as Journal of Plant Biology, India [Impact Factor: NAAS=3.6].
18. Srivastava H.S.,and **Singh, Rana Pratap**, (1987).Role and regulation of L-glutamate dehydrogenase in higher plants. *Phytochemistry*.26:597-610 [Impact Factor: ISI=3.150; NAAS=7.9]

RESEARCH PAPERS

1. Sachdev, Swati and **Singh, Rana Pratap** (2018). Isolation, characterization and screening of Native Microbial Isolates for biocontrol of fungal pathogens of tomato. *Climate Change and Environmental Sustainability*, 6 (1), 46-58, DOI: 10.5958/2320-642X.2018.00006.6
2. Baqir, Mohd, Kothari, Richa and **Singh, Rana Pratap** (2018) Fuel wood consumption, and its influence on forest biomass carbon stock and emission of carbon dioxide. A case study of Kahinaur, district Mau, Uttar Pradesh, India. *Biofuels* Accepted <https://doi.org/10.1080/17597269.2018.1442666>
3. Baqir, Mohd, Kothari, Richa and **Singh, Rana Pratap** (2017) Characterization and ranking of subtropical trees in a rural plantation forest of Uttar Pradesh, India as fuel wood using fuel wood value index (FVI). *Environment, Development and Sustainability, Accepted*, <http://doi.org/10.1007/s10668-017-0057-z>
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Kahinure (Distt Mau), Uttar Pradesh, India by villagers. *Climate Change and Environmental Sustainability*, 5(1), 35-41.

5. Kumar, Mahesh and **Singh, Rana Pratap** (2017). Enhancement in growth promotion and production of wheat (*Triticum aestivum* L.) by application of a native strain of *Trichoderma virens* (T2) in pot condition. *International Journal of Science, Technology and Society*, 3(2), 62-67.
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8. Sachdev, Swati and **Singh, Rana Pratap** (2016). Studies on trends in use of pesticides and fertilizers for tomato cultivation in the vicinity of Lucknow India. *International Journal of Science, Technology and Society*, 2 (1&2), 49-54. DOI: 10.18091/ijsts.v2i1-2.7542.
9. Kuldeep Bauddh, Amit Kumar, Sudhakar Srivastava, Rana P Singh, RD Tripathi (2016). A study on the effect of cadmium on the antioxidative defense system and alteration in different functional groups in castor bean and Indian mustard. *Archives of Agronomy and Soil Science*. 62(6), 877-891. [Impact Factor: ISI=1.118]
10. Shah, Abdul Barey and **Singh, Rana Pratap** (2016). Monitoring of Hazardous Inorganic Pollutants and Heavy Metals in Potable Water at the Source of Supply and Consumers end of a Tropical Urban Municipality. *International Journal of Environmental Research* Volume 10 (1), 149-158 [Impact Factor: ISI=1.818]

11. Bauddh, K., Singh K., Singh B., **Singh, Rana Pratap** (2015). *Ricinus communis*: A robust plant for bio-energy and phytoremediation of toxic metals from contaminated soil. *Ecological Engineering*, 84, 640-652. [Impact Factor: ISI=3.223]
12. Tripathi, P., **Singh, Rana Pratap**, Sharma, Y.K., Tripathi, R.D. (2015). Arsenite stress variably stimulates prooxidant enzymes, anatomical deformities, photosynthetic pigment reduction and antioxidants in arsenic tolerant and sensitive rice seedlings. *Environmental Toxicology and Chemistry* 34, 1562-1571. [Impact Factor: ISI=2.763]
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Research Guidance

- Mentored Seven Post Doctoral Fellows.

S. No.	Student Name and Year	Title of Work	Type of Fellowship	University where work was carried out
1.	Dr. Vimal Chandra Pandey 2009-2012	An integrated organic/biotechnological approach using flyash for remediation of solic land and biomass production	UGC-Dr. D. S. Kothari Post-Doctoral Fellowship	BBA University, Lucknow
2.	Dr. Kripal Singh 2012-2013	Understanding Carbon Nitrogen Dynamics and Microbial Activities in Sodic Soils	UGC-Dr DS Kothari Post-Doctoral Fellow	BBA University, Lucknow
3.	Dr. Kamini Narayan 2012-2017	Sustainable Utilization of Distillery Effluent for Wasteland Reclamation and Biomass Production	UGC Post Doctorate Fellowship for Women Candidates	BBA University, Lucknow
4.	Dr. Ashima Singh 2014-2017	Climate mitigation and sustainable agriculture as carbon sequestration under organic farming in sodic soil: An Indian perspective.	UGC-Dr DS Kothari Post-Doctoral Fellow	BBA University, Lucknow
5.	Dr. Ashutosh Awasthi	Disentangling the ecological dynamics of biotic communities under anthropogenic	Dr. D.S. Kothari Postdoctoral	BBA University,

		influence	Fellowship	Lucknow
6.	Dr. Dipti Barnwal 2016-2018	Plant beneficial rhizobacteria mediated improvement in plant health and remodelling rhizospheric microbiome of the rice crop during pathogenic attack	National Post Doctorate fellowship (NPDF); SERB, DST	BBA University, Lucknow
7.	Dr. Ashish Kumar Mishra 2016-2018	Impact of Climate on Species Composition and Forest Carbon Allocation along Altitudinal Gradients in High Mountain Forests	National Post Doctorate fellowship (NPDF); SERB, DST	BBA University, Lucknow

- **Thirty Ph.D. Thesis supervised and awarded and eight under-supervisions.**

S. No.	Student Name and Year	Title of Work/Thesis	University where work was carried out
1.	Dr. Mohd. Baqir (2018)	Carbon Sequestration and Fuel wood Assessment of Kahinure Plantation Forest in Rural Area of District Mau, Uttar Pradesh, India	BBA University, Lucknow
2.	Dr. Rose Pratima Minj (2016)	Enhancing the Efficacy of Azotobacter chroococcum and Bacillus subtilis by Dose Optimization and Immobilization within Organic Carrier for High Wheat (Triticum aestivum L.) Productivity	BBA University, Lucknow
3.	Dr. Abdul Barey Shah (2015)	Phytoremediation Potential of Some Macrophytes for the Removal of Inorganic Pollutants from Municipal Water Sources	BBA University, Lucknow
4.	Dr. Vishalakchi Ashok (2014)	Studies on sustainable rice (Oryza sativa L.) cultivation with eco-friendly granular slow	BBA University, Lucknow

		release fertilizers	
5.	Dr. Amit Kumar (2014)	Responses of Amino acids and Thiol metabolism in rice (<i>Oryza sativa</i> L.) plant during Arsenic stresses and selenium supplementation	BBA University, Lucknow
6.	Dr. Sanjeev Kumar (2014)	Studies on organic matrix granular slow release fertilizers on sustainable wheat (<i>Triticum aestivum</i> L.) cultivation	BBA University, Lucknow
7.	Dr. Preeti Tripathi (2013)	Response of Thiol Metabolism and Antioxidive defence system in Rice (<i>Oryza sativa</i> L.) plant under Aresenic stress	BBA University, Lucknow
8.	Dr. Uma shanker Singh (2013)	Carbon sequestration in natural sal (<i>Shorea robusta</i>) forest of south kheri forest division, Lakhimpur	BBA University, Lucknow
9.	Dr. Ritu Singh (2013)	Remediation of soil contaminated with hexavalent chromium and gamma-hexachlorocyclohexane (Lindane) using zero- valent iron nanoparticles	BBA University, Lucknow
10.	Dr. Kuldeep Bauddh (2013)	Remediation of soil contaminated with hexavalent chromium and gamma-hexachlorocyclohexane (Lindane) using zero- valent iron nanoparticles	BBA University, Lucknow
11.	Dr. Surendra Vikram Ghavri (2011)	Studies on phytoremediation of wasteland contaminated with industrial effluent of Sandila Industrial area, District, Hardoi, Uttar Prades (India).	BBA University, Lucknow
12.	Dr. Pankaj Sharma (2011)	Effects of nutrient, Water and Tillage management on microbial activities and plant growth promoting rhizobacteria	BBA University, Lucknow

		(Pseudomonas, Bacillus, Azotobacter) in soil under rice-wheat cropping system	
13.	Dr. Satish Rawat (2011)	Management of nitrate pollution in water by phytoremediation	BBA University, Lucknow
14.	Dr. Shailendra Singh (2011)	Nesting Ecology and conservation of endangered Batagur (Kachuga) species in National Chambal (river), Sanctuary, Uttar Pradesh	BBA University, Lucknow
15.	Dr. Shobha Rawat (2010)	Studies on medicinally important Lichens on their conservation in some forest sites of Chamoli District, Uttarakhand India.	BBA University, Lucknow
16.	Dr. Manoj Kumar (2008)	Development and performance evaluation of organic slow (controlled) release fertilizers on wheat and rice under salinity stress	BBA University, Lucknow
17.	Dr. Vinod Kumar (2008)	Studies on eco-friendly organic matrix based slow release fertilizers for improved nutrient utilization and high yield in Indian mustard (Brassica juncea L.) under the salinity stress.	BBA University, Lucknow
18.	Dr. Geeta Dhania (2007)	Biotechnological Approach for improving Abiotic Stress Tolerance in Brassica Juncea	M.D. University, Rohtak
19.	Dr. Kavita Jain (2007)	Biotechnological Approach for improving Abiotic Stress Tolerance in Chickpea	M.D. University, Rohtak
20.	Dr. Saroj Dahiya (2007)	Development and performance evaluation of slow release fertilizers for rice and mung bean	M.D. University, Rohtak
21.	Dr. Neelam Arya (2007)	Development of sulphure rich slow release fertilizers for improved nutrient utilization and high yield of crop plants	M.D. University, Rohtak

22.	Dr. Amita Gupta (2005)	Proline Metabolism and Antioxidative Defense System in Mung bean Under Salt Stress.	M.D. University, Rohtak
23.	Dr. Usha Dhull (2004)	Ammonia Assimilation in Relation to Proline Accumulation in Salt Stressed Mungbean (<i>Vigna radiata</i> L. Wilzeck)	M.D. University, Rohtak
24.	Dr. Preeti Chaudhary (2002)	Developing low cost slow release fertilizer as eco-friendly efficient plant Nutrition	M.D. University, Rohtak
25.	Dr. Sonia (2002)	Development of transgenic mungbean seeds resistant to storage pest bruchid beetles.	M.D. University, Rohtak
26.	Dr. S.H.M. Rizvi (2001)	Molecular and Biochemical basis of in vitro somatic embryogenesis in Chick pea (<i>Cicer arietinum</i> L.)	M.D. University, Rohtak
27.	Dr. Asha Sharma (2000)	Phytoremediation of heavy metal contaminated soil using potential plant species for metal removal.	M.D. University, Rohtak
28.	Dr. Sridevi Prasad (1997)	Impact of heavy metal of industrial effluents on blue green algae and fish/zooplankton in a paddy field.	M.D. University, Rohtak
29.	Dr. Anil Chaudhary (1997)	Role and regulation of Cu amine oxidase in heavy metal stress of <i>Vigna radiata</i>	M.D. University, Rohtak
30.	Dr. Sushila Dabas (1994)	To study the effect of lead on efficiency of nitrogen fixation and nitrogen assimilation in <i>Vigna radiata</i> .	M.D. University, Rohtak
M. Phil Degree			

1.	Renu Kela	Differential response of growth and nitrate assimilation in roots and leaves of <i>Vigna radiate</i> to lead in presence of some nutritional factors.	M.D. University, Rohtak
2.	Nisha Bharti	Nitrate assimilation and biomass and accumulation in <i>Seasamum indicum</i> seedlings under non-saline and salt affected complex heavy metal environment.	M.D. University, Rohtak
3.	Gulshan Taneja	Growth, photosynthetic pigments and nitrate assimilation in <i>Seasamum indicum</i> in a lead enriched environment	M.D. University, Rohtak

All the information given herein is true to the best of my knowledge and belief.

(Rana Pratap Singh)