

## **Sandeep Sirohi (Biotechnology)**

**Soft Skills:** Carrier counselling, Motivational Talk

### **Specialization**

**M.Tech:** Applied Botany (Recent Changes in Environment)

**Ph.D:** Nano-Biotechnology

### **Area of Interest**

**Research** Environmental Biotechnology and Nano-Biotechnology

**Other:** • National Eligibility Test- Junior Research Fellowship (NET-JRF) was awarded by CSIR-UGC New Delhi, India. • Awarded GATE Scholarship for pursuing M.Tech in Applied Botany from. IIT, Kharagpur, W.B. India • Appreciation Letter & Best Teacher Award was conferred upon me by MIET Group of Institutions on March 15, 2011.

### **Participated - In Specialized Training / Certified Courses:**

- Participated in Management Development Program (MDP) on "Design Thinking for Strategy and Innovation for the Faculty Members of AKTU associated Engineering colleges" organized by Indian Institute of Management, Lucknow on March 13 to 15, 2020 at IIM, Lucknow, India.
- Participated in India International Education Conclave on " Counselling skills for student recruitment Professionals- MDP for Head admission and Outreach" organized by ICTRC on February 22, 2019 at India International Centre, New Delhi.
- Participated in India International Education Conclave on " Counselling skills for student recruitment Professionals- MDP for Head admission and Outreach" organized by ICTRC on February 22, 2019 at India International Centre, New Delhi.
- Participated in AICTE recognized Short Term Course (one week) on Coaching of Teachers in Life Skills through ICT conducted by Information Management Department, National Institute of Technical Teachers Training and Research Chandigarh (NITTTTR) at MIET From 16.01.2017 to 20.01.2017.
- Attended the Short Term Course (Two weeks) on "Research Methodology through ICT" held at Meerut Institute of Technology Meerut UP sponsored by National Institute of Technical Teachers Training and Research Chandigarh (NITTTTR) from 28 th December 2015 to 08 th January, 2016.
- Attended the Short Term Course (05 days) on "Total Quality Management, ISO 9000 and Basics of NBA Accreditation in Technical Institutions" held at Meerut Institute of Technology Meerut UP sponsored by National Institute of Technical Teachers Training and Research Chandigarh (NITTTTR) from 5th May to 29th May, 2014.
- Attended Staff Development Programme (14 days) on "New Frontiers in Molecular Biology" organized by Department of Biotechnology, Meerut Institute of Engineering and Technology, Meerut sponsored by All India Counseling of Technical Education (AICTE) on 16-29 December, 2011.
- Attended the national seminar on "One Day Interactive seminar on Role of CST UP in Promotion Science and Technology and Facilitation of IPR Protection" at Ch. Charan Singh University, Meerut (U.P) India, organized by Council of Science and Technology U.P (India) on 18th March, 2015.
- Attended the National seminar on "Recent advances in forensic Biotechnology" organized by Department of Biotechnology, M.I.E.T, Meerut on 23rd April 2014.
- Participated in International workshop on Biohydrogen Production Technology (IWBT- 2008) held from feb. 7th to 9th, 2008 at Department of Biotechnology, Indian Institute of technology Kharagpur, India.
- Attended Seminar cum workshop on Biodiversity Conservation and Utilization held at Department of Botany C.C.S University campus Meerut from 27-29 March, 2009.
- Attended National workshop on "Advances in Biotechnology and its application in conservation Biology"

held on 16 and 17 October, 2014 at Dolphin (P.G) Institute of Biomedical and Natural Sciences, Dehradun with Wildlife Institute of India and Zoological Survey of India, Dehradun

- Attended the national seminar on “One Day Interactive seminar on Role of CST UP in Promotion Science and Technology and Facilitation of IPR Protection” at Ch. Charan Singh University, Meerut (U.P) India, organized by Council of Science and Technology U.P (India) on 18th March, 2015.
- Participated in the national seminar on “Clean and Green Technologies”-Environmental Perspectives at Meerut Institute of Engineering and Technology Meerut, organized by Department of Biotechnology, M.I.E.T Meerut on 13th October, 2015.
- Attended national seminar on “Biotech start-ups and Entrepreneurship” at Meerut Institute of Engineering and Technology Meerut, organized by Department of Biotechnology, M.I.E.T Meerut on 12 November, 2016.
- Attended national seminar on “Interdisciplinary Approaches in Science and Technology” at Mewar University, Gangrar, Chittorgarh, Rajasthan on 29th – 30th May, 2017.

### **Publication - Books / Chapters / Papers / Articles / Blogs:** 1.1 Paper Published in International Journals

- Sandeep Sirohi, Chitra Yadav, and Debjyoti Banerjee "Biofuel from Bryophyta as an Alternative Fuel for Future" Nature Environment and Pollution Technology, Vol.18(3), 2019
- Sandeep Sirohi and Pankaj K. Tyagi “Synthesis and Synergistic Effects of Ciprofloxacin Conjugated Zinc Oxide Nanoparticles” Journal of Nanoscience, Nanoengineering and applications, 9 (1), 2019. (UGC Approved Journal)
- Sandeep Sirohi, Sakshi Chauhan, Sanoni Singhal, Avantika Srivastava (2018) “Effect of Air Pollution on the Carotenoids and Ascorbic acid Content in Different Medicinal and Non-medicinal plants”, Journal of Energy Environment and Carbon Credits. Vol. 8 (2) pp 07- 11. (UGC Approved Journal)
- Sakshi Chauhan, Saloni Singhal, Sandeep Sirohi (2018) “Evaluation of biologically synthesized and Characterized zinc oxide nanoparticles on Propionibacterium acnes”, International Journal of Creative Research Thoughts vol. 6(2) pp 333-341. (UGC Approved Journal)
- Sandeep Sirohi, Pankaj Tyagi (2018) “Antibacterial activity and synergistic antibacterial potential of chemically synthesized zinc nanoparticles on pathogenic bacteria species” International Journal of Research in Pharmacy and Pharmaceutical Sciences. Vol. 3 (2) 111- 118.(UGC Approved Journal)
- Sakshi Chauhan, Saloni Singhal, Sandeep Sirohi (2018) "Estimation of antimicrobial activity and nano-toxicity with optimized ZnO nanoparticles" International Journal of Advanced Research and Development. Vol 3(3) 1-6. ISSN:2455-4030, (UGC Approved Journal) Impact Factor: RJIF- 2.24
- Sandeep Sirohi, Pankaj Kumar Tyagi, Gyan Datta Tripathi and Suman Pal Singh Sirohi (2017) “Enrichment Of Soil Quality Through Heterogeneous Mixture Of Wastes By Eisenia Fetida” International Journal of Current Microbiology and Applied Sciences ISSN: 2319-7706 Volume 6 Number- 2, pp. 133-139.
- Pankaj K. Tyagi, Mansi Mishra, Nida Khan, Shruti Tyagi and Sandeep Sirohi (2016) Toxicological study of silver nanoparticles on gut microbial community probiotic. Environmental Nanotechnology, Monitoring & Management, (Elsevier Journal) ISSN: 2215-1532, 5, 36–43
- Pankaj K. Tyagi, Mansi Mishra, Nida Khan, Shruti Tyagi, Harish Sharma and Sandeep Sirohi (2015) Antibacterial activity and toxicological evaluation of silver nanoparticles through toxtrak toxicity test. International Journal of Current Microbiology and Applied Sciences. 4 (3): pp. 1043-1055 (ISSN: 2319-7706) 2015 IF=2.015
- S. Sirohi, N. Mallick, S.P.S Sirohi, P.K.Tyagi G.D.Tripathi (2015) “A Novel Approach to Enhancement of poly-β-hydroxybutyrate Accumulation in Aulosira fertilissima by Mixotrophy and Chemoheterotrophy” Research Journal of Pharmaceutical, Biological and Chemical Sciences 6(2): 1266-1270: ISSN 0975-

8585 Impact Factor:0.35

- Sirohi, S., Sirohi, S. P. S., & Tyagi, P. K. (2014). Impact of industrial effluents on water quality of Kali river in different locations of Meerut, India. *Journal of Engineering and Technology Research*, 6(4), 43-47. ISSN 2006-9790 Impact Factor: 1.76
- Gyan Datta Tripathi, Zoya Javed, Sandeep Sirohi, Pankaj Kumar Tyagi (2014) A Biotechnological Approach for Treatment of Sugar Industry Effluents: A Review. *Asian Journal of Biochemical and Pharmaceutical Research* 4(3), 293-297 ISSN: 2231-2560; Impact Factor: 0.820 (UGC Approved Journal)
- S. Sirohi, V. Srivastava, R. Dutta and N. Mallick (2012) "Optimization of cultural and nutritional conditions for accumulation of poly- $\beta$ -hydroxybutyrate in *Aulosira fertilissima*" *Journal of Eco-friendly Agriculture* 7(1): 12-16: ISSN 2229-628X Impact Factor:3.6 NAAS Rating 5.3.

## 1.2 Paper Published in national Journals

- Sanajy Malik, S.P.S.Sirohi, Ramasrya Yadav and Sandeep (2006) Genetic Divergence in Indian mustard (*Brassica juncea* L.) *Czern and coss Plant Archives*. , 381-382. ISSN 0972-5210 Impact Factor: 1.2
- R.Yadav, R.P.S. Dhaka , S.P.S. Sirohi and Sandeep. (2006) Induced Genetic Variability in Urdbean (*Vigna mungo* L.) *Journal Plant Archives*. ,145-149. ISSN 0972-5210.
- S.P.S. Sirohi, Sanjai Malik, R.S.Yadav, Sandeep and Meenakshi (2006). Genetic Divergence in Pea (*Pisum sativum* L.) *Journal Plant Archives*. , 799- 801. ISSN 0972-5210.
- S.P.S.Sirohi, S.S.Gaurav, Sandeep Sirohi and Meenakshi. (2008) Correlation and Path Analysis of Indian mustard (*Brassica Juncea* [L.] Czern and Coss) *progressive Agriculture*, 8(1): 89-92. ISSN 0972-6152 Impact Factor:
- S.P.S. Sirohi, Gaurav, S.S.,Yadav R., and Sirohi S.(2008) "Stability analysis and its parameters for cane yield and quality in sugar (*Saccharum officinarum* L.)". *Plant Achieve*, 8(1).
- Gaurav, S.S., S.P.S. Sirohi, Singh B., and Sirohi S. (2008). "Effect of Effect of Mycorrhiza on growth, yield and tuber deformities grown under water stress conditions in Potato (*Solanum tuberosum* L.)" *progressive Agriculture*, 8(1) NAAS Rated.
- S.P.S. Sirohi, R..Yadav, S.S.Gaurac, Vikas Tomer and Sandeep Sirohi (2009) "In-vitro studies on compatibility of *Trichoderma harzianum* with chemical and neem pesticides". *Progressive Agriculture*, 9(1): 134-136. ISSN 0972-6152 NAAS Rated.
- Mansi Mishra, Nida Khan , Sandeep Sirohi (2016) "Chemical synthesis and characterization of zinc nanoparticles and its antibacterial effect against pathogenic bacteria" *Biological Insights* 1:13-20.
- Meenakshi Tyagi, Sandeep Sirohi, SPS Sirohi (2017) "Genetic diversity for yield and its Component traits in Mungbean *Vigna radiata* (L.) Wilczek]" *Biological Insights*, Vol. 2(3), 1-6.

## 1.3 Book Published

- Sandeep Sirohi and Avantika Srivastav (2018) "Assessment of Air Pollution on Plants Exposed to Vehicular Pollution" Lambert Publishing House, Riga Latvia, European Union, Germany. ISBN : 978-613-9-81480-0
- Sandeep Sirohi and Sugandha Agarwal (2018) "Extraction and Optimization of Poly- $\beta$ -hydroxybutyrate in *Pseudomonas*" Scholars Press, SIA Omni Scriptum Publishing, Latvia, European Union, Germany. ISBN : 978-620-2-31406-0

## 1.4 Chapters Published in Books

- Pankaj K. Tyagi, Mansi Mishra, Nida Khan, Sandeep Sirohi and Shruti Tyagi (2015) Beware! Pathogenic bacteria share human habitat. *The Battle Against Microbial Pathogens: Basic Science, Technological Advances and Educational Programs* (A. Méndez-Vilas, Ed.) FORMATEX Microbiology Series VOL. 2, pp

619-630 (ISBN:978-84-942134-7-2)

#### 1.5 Papers Presented in Seminar

- Presented a paper Title on “Recent Biotechnological advancement in effluent treatment” in national seminar on Recent Advances in Pollution and Abatement Sponsored by All India Council of Technical Education(AICTE) New Delhi organized by Department of Chemical Engineering at MIET, Meerut on 14-15 Feb. 2014
- Presented a Poster Title “Impact of Zn-Oxide nanoparticles on Human Welfare” in national seminar on Sustainable Agriculture Development Through Biotechnological Techniques and its impact on Food Security, Human Welfare and Climate organized by Department of Agricultural Science at Monad University, Hapur held on 28 Feb. to 01 March 2015.
- Presented a paper in National Symposium on Achieving Millennium Development Goals: Problems and Prospects, at Bundelkhand University, Jhansi (U.P.) on 26 October 2009.

#### 1.6 Papers Published In Proceedings

##### 1.6.1 International

- S.P.S.Sirohi, V.P.Yadav, Anil Sirohi, S.S.Gaurav and Sandeep Sirohi (2016). “Heterosis and combining ability effects on yield and its contributing characters in pea (*Pisum sativum* L.)” International conference on Innovative approaches in Applied Sciences and Technologies. 01- 05 February, Kasetsart University, Bangkok, Thailand
- Meenakshi Tyagi Sandeep Sirohi and Suman Pal Singh Sirohi (2018) “Stability Analysis for Yield and Its Contributing Characters in Green Gram *Vigna Radiata* (L.) Wilczek” proceeding of International Conference On Engineering Science & Advance Research (ESAR-18) Rama University, Kanpur on 23 and 24 February, (ID- ES-180111)
- Sandeep Sirohi and Pankaj Tyagi (2018) “Bioplastic Revolution Introduction to Bioplastics Market in India” proceeding of International Conference On Engineering Science & Advance Research (ESAR-18) Rama University, Kanpur on 23 and 24 February, (ID- ES-180112)

##### 1.6.2 National

- Ajay Kumar Sharma, Ajay Singh, Nitin Garg, Sandeep Sirohi and Vaibhav Sharma (2012) “Intellectual property rights: perspectives in HIV/AIDS management” IPR Workshop under TEQIP-II on March 30-31.
- S. Sirohi, V. Srivastava, N. Garg , A.K.Sharma and S.P.S.Sirohi (2011) “A Review on Polyhydroxyalkanoates: Production and degradation in waste Environment through nanobiotechnology” Proceedings of National Conference (LSFI\_MIET\_NANO\_2011) ISBN : 978- 81-922112-1-3
- N. Garg, S. Sirohi, A. Singh, A.K.Sharma, S.P.S.Sirohi and S.S.Gaurav ” (2011) Intellectual Property Rights in Nanobiotechnology” Proceedings of National Conference (LSFI\_MIET\_NANO\_2011) ISBN : 978-81-922112-1-3
- S.P.S.Sirohi, S.S.Gaurav and S. Sirohi. (2008) Genetic Diveristy Analysis of Pea (*Pisum sativum* L,) accessions using RAPD Markers. 4th National symposium of Agriculture in changing climatic conditions. 18-19, October, 2008 pp 192-193.

**Funded Projects Undertaken:** • One Major Research Project entitled “Study of toxic potential and metabolic defects of synthesized nanoparticles: An in vivo approach on *Drosophila melanogaster*” sponsored by Council of Science and Technology, U.P. Lucknow. Amount= 10.94 Lac (Ongoing from 03/08/2017) As Co- Principal Investigator and from 01/07/2019 working as Principal Investigator.

**Any Other Information:** • Life time Membership of International Society for Research and Development (ISRDR),

London-Press, 8a Kapteinsvigein, London, United Kingdom.

• Life time membership of Agricultural Engineering Society, Indian Institute of Technology, Kharagpur, W.B., India.

• Life time membership of International Association of Engineers (IAENG), IAENG Secretariat, International Association of Engineers, Unit 1, 1/F, 37-39 Hung To Road, Hong Kong.