

Dr. Monalisa Mohanty

Designation: Assistant Professor

Qualification: M.Sc, Ph.D.

Date of Birth: 18.07.1980

Date of Joining: 21.06.2018

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ORCID: https://orcid.org/0000-0002-2183-1888 VIDWAN: https://vidwan.inflibnet.ac.in/profile/368805 Scopus Author ID: 56371320900

WOS: http://www.webofscience.com/wos/author/record/[AAV-3351-2020]

> Area of Interest

Environmental Engineering, Plant Physiology and Biochemistry, Phytopharmacology

Courses taught

Plant Physiology and Biochemistry, Environmental Biotechnology, Biostatistics, Plant diversity, Bioethics and intellectual property rights

> Career

- ✓ Assistant Professor in Biotechnology (June 2018-present): Rama Devi Women's University, BBSR
- ✓ Assistant Professor in Botany (Jan 2018- June 2018) DD (Auto) College, Keonjhar, DHE, Odisha
- ✓ Assistant Professor in Botany (June 2014- Jan 2018) Dhenkanal (Auto) College, DHE, Odisha
- ✓ Assistant Professor in Botany (Aug. 2013-Apr.2014), Regional Institute of Education (NCERT), BBSR.
- ✓ CSIR-RA, P.G. Dept. of Botany, (March 2013-June 2014))Utkal University, Bhubaneswar
- ✓ Research Associate-DST-PURSE Scheme, (April 2012-February 2013) P.G. Dept. of Botany, Utkal University,
- ✓ Lecturer in Botany (Oct 2010- March 2012) P.G. Dept. of Botany, Utkal University, Bhubaneswar
- ✓ Guest Lecturer (June 2009-June 2013) PG. Dept. of Env. Sc and P.G. Dept. of Microbiology, Utkal University.

> Teaching Experience

✓ 15 years

Research Experience

✓ 18 years

> Administrative/Executive Experience

- ✓ Member IQAC, (July 2019-till Date)
- ✓ Executive member, Alumni association, Rama Devi Women's University, Bhubaneswar (Dec, 2020 to till date)
- ✓ Programme Officer NSS(Unit-I), Rama Devi Women's University, BBSR, (Dec. 2018- Aug. 2023)
- ✓ Deputy Supt. Anindita Hostel, Rama Devi Women's University, BBSR (Aug 2021-23),
- ✓ External member, Board of Studies, Dept. of Biotech, BJB (Auto) College (Jan 2023-till date),
- External member, Board of Studies, Principal's Nominee, Dept. of Biotech, Dhenkanal(Auto) College (Jan 2023-till date)
- ✓ Internal Member, Board of Studies, Dept. of Biotech, RDWU, BBSR(June 2018- till date)

- ✓ External member, Board of Studies, Dept. of Biotech, Dhenkanal Autonomous college (June 2021-2023)
- ✓ Nodal Officer, AISHE Dhenkanal (Auto) College), (June 2014- Jan 2018)
- ✓ Executive member, RDWU Alumni Association (2022-2024)
- ✓ Joint Secretary, RDWU Alumni Association (2024-till date).

> Awards & Honors

- ✓ **B.K. Nanda Memorial award** by OBS, 2007.
- ✓ Award of UGC-RFSMS (Research Fellowship in Science for Meritorious students) under DRS-SAP, 2008.
- ✓ Award for best paper presentation entitled "Chelate assisted phytoextraction of chromium an *in vitro* study in rice" in the UGC (DRS-SAP-II) sponsored national seminar on "Environmental stress impacts on plants" held on 12th March, 2010 at P.G. Department of Botany, Utkal University, Bhubaneswar.
- Award for best paper presentation entitled "Phytoremediation potential of *Brachiaria mutica* (Forssk) Stapf – An *in situ* approach for combating chromium stress" in the UGC (DRS-SAP-II) sponsored national seminar on "Environmental stress impacts on plants" held on 16th March, 2011 at P.G. Department of Botany, Utkal University, Bhubaneswar.
- Awarded 'Junior Scientist of the Year Award-2011' Conferred by National Environmental Science Academy (NESA), New Delhi at 24th Annual Conference and International Conference on 'Bioremediation and Environmental Management' at Bangalore in 28-29th Dec' 2011.

> Membership in editorial board

- ✓ Advisory Board member of Journal of Toxicology Research, An International Journal Bioinfo Publications.
- Editorial board member of journal "Innovative techniques in agriculture" Scientia Ricerca. ISSN: 2575-5196

> Membership in Scientific Societies

- ✓ National Environmental Science Academy (NESA) on Dt. 16/08/2005 (LM No.-860)
- ✓ Orissa Botanical Society (OBS) on 26/0/2007
- ✓ Indian Science Congress Association (ISCA)-Life Member on 9/10/2013. (LM No.-L23054)

Research Guidance

- ✓ PhD thesis supervised : 01 (ONE)
- M Tech/M.Phil thesis supervised : 07 (SEVEN)
- ✓ M.Sc thesis supervised : 120 (ONE HUNDRED TWENTY)

Research Grants

Grant no. CRS/2023-24/1628- Sponsoring agency : UGC-DAE **Consortium for Scientific Research, Chosen Centre: Kolkata of Rs., 75000/- with in house facility at Kolkata**

Publications

Total Publication: 68 Total citation:1110; H-index: 18; i10 index-26

Journal publications

- M. Mohanty and S. Mohapatra (2023). Synergistic Effect of PGPR and PSB for alleviation of Chromium Toxicity in Vigna radiata (L.) R. Wilczek seedlings. International Journal of Phytoremediation, DOI: 10.1080/15226514.2023.2189479
- M. Mohanty^{*}, M.M. Pattanaik, A.K. Misra and H. K. Patra (2023). Phytoefficacy of *Eicchornia crassipes* (Mart.) Solms-Laub for aqua-remediation of hexavalent chromium in chromite mine effluent of South Kaliapani, Odisha, India. Environmental Science and Pollution Research. <u>30, 43927–43931 (2023)</u>. https://doi.org/10.1007/s11356-023-25294-0. published online 21st January 2023.
- **3. M. Mohanty** and S. Mohapatra (2023). Synergistic Effect of PGPR and PSB for alleviation of Chromium Toxicity in *Vigna radiata* (L.) R. Wilczek seedlings. International Journal of Phytoremediation. https://doi.org/10.1080/15226514.2023.2189479 Impact factor -4.1
- **4.** Monalisa Mahuri, **Monalisa Mohanty** & Hrudayanath Thatoi (20 Sep 2023): Optimization and purification of laccase activity from *Mammaliicoccus sciuri* isolated from the soils of Similipal, Odisha, India: a kinetics study of crystal violet dye decolorization, Preparative Biochemistry & Biotechnology, DOI: 10.1080/10826068.2023.2258181. Impact factor 2.9
- 5. P Acharya, S Mohanty and M Mohanty (2022). Immuno-Protective Role of Medicinal Herbs as Phytotherapeutic Drugs in Ayurveda – A Prospective Approach for Defending COVID19. Journal of Natural & Ayurvedic Medicine.6(2):1-6 Nat Ayurvedic Med 2022, 6(2): 000342. DOI: 10.23880/jonam-16000342. MEDWIN PUBLISHERS ISSN: 2578-4986
- 6. M. Mohanty* (2021). Proteomics and Bioinformatics as Novel Tools in Phytoremediation Technology-An Overview. Journal of Botanical Research. 3(3):49-54. DOI: <u>https://doi.org/10.30564/jbr.v3i3.3380</u>
- 7. M. Mohanty and H.K. Patra (2020). Phytoassessment of insitu weed diversity for their chromium distribution pattern and accumulation indices of abundant weeds at South Kaliapani chromite mining area with their phytoremediation perspective. Ecotoxicology and Environmental Safety. 194. https://doi.org/10.1016/j.ecoenv.2020.110399. Impact factor-6.291. ISSN NO- 0147-6513.
- Monalisa Mohanty, Samita Mohanty, Sanat Kumar Bhuyan, Ruchi Bhuyan (2020). Phytoperspective of Moringa oleifera for oral health care: An innovative ethnomedicinal approach. Phytotherapy Research. 35(3); 1345-1357. <u>https://doi.org/10.1002/ptr.6896</u>; DOI: 10.1002/ptr.6896 Impact factor-5.878 pub date-22 Oct.2020
- **9. M. Mohanty**^{*} and H.K. Patra (2016). Tolerance potential and physiological responses of *Helianthus annus* Journal of Material and Environmental Science. 7 (6) (2016) 2221-2228. ISSN:2028-2508.
- **10. M. Mohanty***. (2016). Post-Harvest Management of Phytoremediation Technology. Journal of Environmental and Analytcal Toxicology. 6: 398. doi: 10.4172/2161-0525.100039. ISSN: 2161-0525.
- S. Samantaray, S. Das, R.C. Mohanty, M. Mohanty, C. Pradhan (2015). Altered Germination Index and Chlorophyll Biosynthesis in Seedlings of Wild Rice Cultivars in Response to Hexavalent Chromium Stress. Discovery, 27(97): 27-35. ISSN 22785469
- S. Das, S. Samantaray, R.C. Mohanty, M. Mohanty, C. Pradhan (2015). Photosynthetic response and proline bioaccumulation in black gram induced by Nickel stress. Discovery, 27(97): 36-42. ISSN 2278 – 5469.
- **13.** S. Samantaray, S. Das, R.C. Mohanty, **M. Mohanty**, C. Pradhan (2015). Antioxidative Enzyme Response and Proline Biosynthesis in Two Cultivars of Indian Wild Rice under Hexavalent Chromium Stress. International Journal of Science and Research (IJSR) **4(1): 2754-2758. ISSN (Online): 23197064.**
- S. Das, S. Samantaray, R.C. Mohanty, M. Mohanty, C. Pradhan (2015). A Comparative *In Vitro* Study on Biochemical Alterations in Two Cultivars of Black Gram Exposed to Nickel Stress. International Journal of Science and Research (IJSR). 4(1): 2780-2783. ISSN (Online): 2319-7064.
- 15. M. Mohanty^{*}, C. Pradhan and H.K. Patra (2015). Chromium translocation, bioconcentration and its phytotoxic impacts in in vivo grown seedlings of *Sesbania sesban* L. Merrill. Biologia Futura (formerly Acta Biologica Hungarica). 66 (1): 80-92. Impact Factor: 1.069, ISSN: 02365383
- **16. Monalisa Mohanty and** Chinmay Pradhan^{*} (2015). A Review on Phytochemistry, Bio-Efficacy, Medicinal and Ethno-Pharmaceutical Importance of *Artocarpus altilis*. International Journal of Pharmacy and Pharmaceutical Research. (IJPPR). *3 (1): 219-231.* **ISSN:23497203**

- HK Patra, Deba Shankar Marndi and Monalisa Mohanty (2015). Chromium toxicity, physiological responses and tolerance potential of lemon grass (*Cymbopogon flexuosus* Nees ex steud. wats.). Annals of Plant Sciences. 4 (05), 1080-1084 ISSN: 2287688X
- 18. M. Mohanty^{*} and H.K. Patra (2015). An In vivo Study on Toxicological Alterations in *Sesamum indicum* L. Under Hexavalent Chromium Stress. International Journal of Science and Research (IJSR) 4(5): 1711-1715. ISSN (Online): 23197064. Print issn: 2277-8179
- 19. M. Mohanty^{*} (2015) Phytoremediation An Innovative Approach for Attenuation of Chromium Toxicity and Rice Cultivation in Mining Areas. Journal of Rice Research. 2015, 3:3. <u>http://dx.doi.org/10.4172/2375-4338.1000e116</u>. Volume 3 Issue 3 1000e116. ISSN:2375-4338 JRR, an open access journal.
- 20. M. Mohanty^{*} and H.K. Patra (2014). Phytoremediation potential and biochemical response of Sesbania sesban L. Merrill. under hexavalent chromium stress Toxicol Env Chem. Major revision submitted.
- 21. Monalisa Mohanty and Chinmay Pradhan^{*} (2014). Phytoconstituent Analysis and Comparative Bioefficacy Assessment of Breadfruit Leaf and Fruit Extracts for Antipathogenic Potentiality. American Journal of Phytomedicine and Clinical Therapeutics. 2(1): 077-087. Florida, USA, University of Houston, Impact Factor: 0.569, ISSN: 23212748, IC Value : 4.76 (2012), Science Central Score : 35.58.
- 22. J Nayak., J.Mathan, M. Mohanty and C Pradhan^{*} (2014). An *in vitro* hydroponic study on Physiological and Biochemical responses of Indian wild rice to varying doses of Hexavalent Chromium. Int Res. J Env Sc. 3(11): 20-28 ISSN: 23191414.
- 23. M. Mohanty* and H.K. Patra (2014). Hexavalent chromium induced toxicological, physiological and biochemical alterations in *Sesbania sesban* L. seedlings. Journal of Plant Physiology and Pathology 2(3):1-6 <u>http://dx.doi.org/10.4172/2329-955X.1000129</u>, ISSN: 2329955X.
- **24. Jyotirmaya Mathan, Monalisa Mohanty,** Chinmay Pradhan^{*}, and Hemanta Kumar Patra (2014). Toxicological changes in rice under nickel stress. Biolife. 2(1):363-369. E-ISSN (online): 23204257.
- **25.** Lipsa, **M. Mohanty**, H. K. Patra and C. Pradhan (2014). Cadmium and chromium induced physiological changes in sesban seedlings. Plant Science Research 36 (1&2) : 43-47. ISSN: 09728564
- 26. S. Mishra, M. Mohanty^{*}, C. Pradhan, H. K. Patra, R. Das and S. L. Sahoo (2013) Physico-chemical assessment of paper mill effluent and its heavy metal remediation using aquatic macrophytes a case study at JK paper mill, Rayagada, India. Environmental Monitoring and Assessment 185(5): 4347-4359. ISSN: 01676369, E-ISSN: 1573-2959, Springer, Netherland, Impact Factor: 2.513. DOI: 10.1007/s10661-012-2873-9.
- **27.** Chinmay Pradhan, **Monalisa Mohanty**^{*} and Abhijeeta Rout (2013). Assessment of the Antibacterial Potential of Breadfruit Leaf extracts against Pathogenic Bacteria. International Journal of Pharmacy. Pharma Scholars, United States of America. 3(2): 374-379, **Impact Factor: 0.854, ISSN 22491848**
- **28. M. Mohanty**^{*} and H.K. Patra (2013). Effect of ionic and chelate assisted hexavalent chromium on mung bean seedlings (*Vigna radiata* L. wilczek. var k-851) during seedling growth. Journal of Stress Physiology and Biochemistry. 9(2): 232-241. ISSN 1997-0838.
- **29.** H.K. Patra and **M. Mohanty**^{*} (2013). Phytomining: An Innovative Post Phytoremediation Management Technology: The Ecoscan. Special issue, Vol. III:15 20. ISSN: 09740376.
- 30. Chinmay Pradhan, Monalisa Mohanty^{*}, Abhijeeta Rout, Anath Bandhu Das, Kunja Bihari Satapathy and Hemanta Kumar Patra (2013). Phytoconstituent screening and comparative assessment of antimicrobial potentiality of *Artocarpus altilis* fruit extracts. International Journal of Pharmacy and Pharmaceutical Sciences. 5(3): 840-843. ISSN- 09751491, Academic Sciences, India, Impact- 1.1 (SCImago, SJR 2011). ICV (2011)- 5.00.
- **31.** Chinmay Pradhan^{*}, **Monalisa Mohanty** and Jayshree Rath (2013). Quorum sensing. Biohelica 3 (1&2): 17-22.ISSN; 09765204
- 32. M. Mohanty^{*}, M.M. Pattanaik, A.K. Misra and H. K. Patra (2012). Bioconcentration of Chromium An *insitu* Phytoremediation Study at South Kaliapani Chromite Mining Area of Orissa, India. Environmental Monitoring and Assessment. 184(2):1015-1024. DOI: 10.1007/s10661-011-2017-7. ISSN: 01676369, E-ISSN: 1573-2959. Springer, Netherland, , H Index: 39, Impact Factor: 2.513

- **33. M. Mohanty**^{*} and H.K. Patra (2012). Effect of chelate assisted hexavalent chromium on physiological changes, biochemical alterations and Cr Bioavailability in Crop Plants An *in vitro* Phytoremediation Approach. Bioremediation Journal. 16(3):147–155. DOI: 10.1080/10889868.2012.687414 Print ISSN: 10889868; E ISSN: 1547-6529. Taylor and Francis, United States, Impact Factor: 2.1
- 34. M. Mohanty, N.K. Dhal^{*}, P. Patra, B. Das and P.S.R. Reddy (2012) Phytostabilisation Potential of Lemon grass (*Cymbopogon flexuosus*. (Nees ex Steud.) Wats.) on Iron Ore Tailings. Journal of Environmental Science and Engineering. 54(1): 147-152. ISSN 0367827 X. (H Index: 15)
- **35.** N. Pattnaik, **M. Mohanty**^{*} and H.K. Patra (2012) Effect of chelating agents and metal ions on nickel bioavailability and chlorophyll fluorescence response in wheat- An approach for attenuation of Ni stress. Journal of Stress Physiology and Biochemistry. 8(3):99-112. ISSN 19970838. Siberian Institute of Plant Physiology & Biochemistry, Russia.
- **36.** Chinmay Pradhan, **Monalisa Mohanty**^{*} and Abhijeeta Rout (2012). Phytochemical screening and comparative bioefficacy assessment of *Artocarpus altilis* leaf extracts for antimicrobial activity. Frontiers in Life Science, 6(3–4): 71–76. DOI:10.1080/21553769.2013.765811. ISSN: 21553769 (Print), 2155-3777 (Online). Taylor and Francis, United Kingdom, Impact Factor: 1.622.
- 37. M. Mohanty* and H.K. Patra (2011). Attenuation of Chromium Toxicity by Bioremediation Technology. *Rev.* Environ. Contam Toxicol, Springer 210:1-34. DOI 10.1007/978-1-4419-7615-4_1. ISSN: 0179-5953, Springer, USA, Impact Factor: 7.563.
- M. Mohanty^{*}, M. M. Pattanaik, A.K. Misra and H. K. Patra (2011). Chromium Bioaccumulation in Rice grown in Contaminated Soil and Irrigated Mine Waste Water - A Case Study At South Kaliapani Chromite Mine Area, Orissa, India. International Journal of Phytoremediation, 13(5):397-409. DOI: 10.1080/15226511003753979. ISSN: 15226514, E-ISSN 1549-7879. Taylor and Francis, United States, Impact Factor: 4.10.
- 39. M. Mohanty^{*} and H.K. Patra (2011). Effect of Cr⁺⁶ and Chelating Agents on Growth, Pigment Status, Proline Content and. Chromium Bioavailability in Rice Seedlings. International Journal of Biotechnology Applications. 3(3): 91-96. ISSN: 09752943 & E-ISSN: 0975–91 23. Bioinfo Publications, UK.
- **40. M. Mohanty**^{*} and H.K. Patra (2011) Attenuation of Chromium toxicity in mine waste water using water hyacinth. Journal of Stress Physiology and Biochemistry. 7(4):335-346. ISSN 19970838. **Siberian Institute of Plant Physiology & Biochemistry, Russia.**
- **41.** M. Mohanty^{*}, N K Dhal, P. Patra, B. Das and P.S.R Reddy (2010). Phytoremediation: A Novel Approach for Utilization of Iron-Ore Wastes. Reviews of Environmental contamination and Toxicology, 206;29-47. DOI 10.1007/978-1-4419-6260-7_2. ISSN: 01795953. Springer, USA, , Impact Factor: **7.563**.
- **42. M. Mohanty**^{*}, M.M. Pattanaik, A.K. Misra and H. K. Patra (2009). Chromium detoxification from mine waste water by rice A case study at South Kaliapani chromite mine area, Sukinda, Orissa. *e-Planet* 7(1): 26-31. ISSN: 0974-4398/2008. **(NAAS Score:3.0; H-Index: 7)**
- **43. M. Mohanty**^{*}, A.K. Jena and H.K. Patra. (2008). Application of chromium and chelating agents on growth and chromium bioaccumulation in Wheat (*Triticum aestivum*) seedlings. Journal of Advanced Plant Science. 4(1&2):21-26. ISSN : 09719350.
- **44. M. Mohanty**^{*}, A.K. Jena and H.K. Patra. (2005). Effect of chelated Chromium compounds on chlorophyll content and activities of catalase and peroxidase in wheat seedlings. Indian Journal of Agricultural Biochemistry. 18 (1), pp: 25-29 ISSN: 09706399. (NAAS Score:4.2; H-Index: 3).
- 45. M.M. Pattnaik, M. Mohanty, H.K. Patra and A.K. Misra. (2005). Study on vegetational pattern and environmental quality of Sukinda chromite mines area. Plant Science Research, 27(1&2):24-32. ISSN: 09728564.
- **46. M. Mohanty**^{*}, M.M. Pattnaik, A.K. Misra and H.K. Patra. (2005). Assessment of soil and water quality of chromite mine area of south Kaliapani, (Sukinda, Orissa). International Journal on Environmental Science (ISSN: 09764534) formerly *Bull. Env. Sci.* Vol. XXIII (IInd Issue) pp.109-113.ISSN: 0971-1732
- **47.** M.M. Pattnaik, **M. Mohanty**, H.K. Patra and A.K. Misra. (2005). Study on microbial activity and chemical properties of Sukinda chromite mine area for an assessment of environmental quality. International Journal on Biological Science (ISSN: 09764518) formerly Bulletin of Biological Science. Vol. III (IInd Issue). pp. 85-89.ISSN: 0973 8126

- **48.** H.K. Patra, Arun Ku. Jena, Swagatika Lenka and **Monalisa Mohanty** (2005). Effect of ionic and chelated chromium complexes on mung bean seedlings during early phases of plant growth. Plant Science Research 27(1&2):66-70. ISSN: 0972-8564.
- **49.** A.K. Jena, **M. Mohanty** and H.K. Patra. (2004). Phyto-remediation of environmental chromium –A Review. e-Planet 2(2):100-103. ISSN: 09744398/2008. (NAAS Score:3.0; H-Index: 7)

Book/book chapter Publications

- Mohanty, M. (2023). Remediation of Heavy Metals by Different Aquatic Macrophytes. In: Kumar, S., Bauddh, K., Singh, R., Kumar, N., Kumar, R. (eds) Aquatic Macrophytes: Ecology, Functions and Services. Springer, Singapore. <u>https://doi.org/10.1007/978-981-99-3822-3_10</u>.207-219. ISBN 978-981-99-3821-6. Published: 23 November 2023
- Mohanty, M., Patra, H.K. (2023). Phytoremediation of Chromium from Soil and Water. In: Kumar, N., Walther, C., Gupta, D.K. (eds) Chromium in Plants and Environment. Environmental Science and Engineering. Springer, Cham. <u>https://doi.org/10.1007/978-3-031-44029-8_11</u>. pp 253–291 . eBook ISBN978-3-031-44029-8. Published: 20 December, 2023
- **3.** M. Mohanty (2020). A laboratory Handbook on plant Biochemistry. First Edition. M. Mohanty (Ed.). 134 pp. ISBN: 978-93-89339-60-4. <u>https://www.mahipublication.com/bookdetails/a-laboratory-hand-book-on-plant-biochemistry/OTA=/</u>, Mahi Publishers.Ahmedabad-007, India.
- **4. M. Mohanty** (2016). Phytomining- An innovative biotechnological approach for combating mining pollution. In: Biotechnological interventions for abatement of industrial and mining pollution (J Padhy, D Rana, A Khillar, D. Parida and M. Mohanty eds). Lenka Prakashan, Odisha, ISBN : 81-8237000-26.
- 5. S. P. Biswasi, M. Mohanty, C. Pradhan and K.B. Satapathy (2014) Phytoremediation of Aqueous Solutions Contaminated with Nickel (Ni) By Exploitation of *Azolla microphylla* Kaulf & Salvinia molesta Mitchell: A Novel Bio-separation Process for Waste Water Treatment. In: Industrial and Environmental Biotechnology. K. Pramanik and J.K. Patra (Eds). Chapter-18. pp 289-298. ISBN: 9789380012674. Studium Press India Pvt Ltd, pp-561. Book Author: Krishna Pramanik and Jayant Kumar Patra
- M. Mohanty (2014). A review on plant mechanisms for uptake, transport and bio-concentration of toxic heavy metals. In: Heavy Metal Remediation: Transport and Accumulation in Plants. (D.K. Gupta and S. Chaterjee Eds). Nova Science Publishers, Inc. 400 Oser Avenue, Suite 1600 Hauppauge, NY 11788 USA. Chapter 6, pp.107-125. ISBN: 9781633215689. © Nova Science Publisher INC.
- Chinmay Pradhan and Monalisa Mohanty (2013) Submergence stress tolerance in crop plants. In: Molecular Stress Physiology of Plants, Rout, Gyana Ranjan; Das, Anath Bandhu (Eds.). 430 pp. ISBN 9788132208068. DOI 10.1007/978-81-322-0807-5_14. pp. 331-357. Springer publishers.
- 8. H.K. Patra and M. Mohanty (2011). Phytoremediation an *in situ* approach for combating chromium stress. In: Climate Change- Perspectives and Projections: A System Approach, K. Janardhan Reddy, Sashidhar Rao Beedu and R. Pavanaguru (Eds) pp.297-313. Mac Millan Publishers India Ltd. ISBN: 13: 978-0230-32343-8.
- **9. M. Mohanty and H.K. Patra** (2007). Water hyacinth- A tool for Green remediation. Sabujima. 15:41-43. ISSN: 09728562.
- **10.** M. Mohanty and H.K. Patra (2009). Bioremediation technology: a waste to well approach. Emerging Science. 1(1):13-23. ISSN: 09764100
- **11. M. Mohanty and H.K. Patra** (2010). Fly ash for Environmental Management. Sabujima 18:24-26. ISSN: 0972-8562.

> Participation in Conferences & Seminars (as invited/plenary/chair)

 M. Mohanty (2018). Invited Talk on "Phytoremediation and its post-harvest management- a novel biotechnological approach for environmental cleanup and sustainability" at National conference on "plants for sustainable development and clean environment" and 43rd annual conference of OBS. On 23rd and 24th December 2018 at Dept. of Botany, School of Applied Sciences, Centurion University of Technology and Management.

- M. Mohanty (2019) an invited talk on "Phytomanagement of chromium toxicity stress for sustainable mining environment through bio-assessment of *in situ* weed diversity - A phytoremediation perspective at South Kaliapani chromite mining area" in state level seminar on "Recent advances in Biological Science for sustainable environment" at Dept of Botany, Pattamundai college, Kendrapada. On 23RD Nov 2019
- 3. **M. Mohanty** (2020). for an invited talk on "Phytomiming and phytoremediation" in a seminar at P.G. Department of Botany, Dhenkanal Autonomous college, Dhenkanal. 07/1/2020.
- 4. Presented a paper on "Screening the Phytoremediation potential of in situ grown native abundant weeds of South Kalapani Chromite mining area of Orissa India" on 44th Annual Conference of OBS and National Seminar on "Green Technology for Environment management. At Dept. of Botany, North Orissa University from 22nd to 23rd January, 2020.
- M. Mohanty (2022). Presented paper on "Harnessing essential oil from Cymbopogon flexuosus with an approach to environmental sustainability" in 3 days International conference on "Emerging technologies of Biotechnology" by 5th BioSangam, "BioSangam 2022 by Motilal Nehru National Institute of Technology (MNNIT) Allahabad, Prayagraj from March 10-12, 2022
- M. Mohanty (2022). for an invited talk on "Phyto-perspectives of macrophytes for aqua-remediation of wastewater- An innovative approach of phytoremediation technology" INTERNATIONAL CONFERENCE ON "Bioresources of our Environment: Utilization and Conservation ICBEUC –2022 from 28th–30th March 2022
- M. Mohanty (2023). Presented paper on "Co-application of biofertilizers for attenuation of hexavalent chromium induced toxicological changes in orange cosmos" in International conference on "Biotechnology and biological sciences" by Biospectrum- 2023 from 16-18th Nov 2023.

Patents

> Other information(s)

- Scientific Expert in Labome.ORG, and Reviewers of reputed International Journals: International Journal of Phytoremediation, Turkish Journal of Botany, Proceedings of the National Academy of Sciences (Biological Sciences), Ecotoxicology and Environmental Safety.(Elsevier Publications), International Journal of Environmental Science and Technology(Springer).
- Editorial board member of journal "Innovative techniques in agriculture" Scientia Ricerca. ISSN: 2575-5196.
- ✓ Preparation of Teaching Aids / Educational innovation
 - Deputed as a resource person by Regional Institute of Education, NCERT, Bhubaneswar on a two-day workshop on "Professional Development of Teachers from SC/ST dominated areas through e-learning resource material in Biology at Higher Secondary level" on 16th and 17th August 2014.
 - Deputed as a resource person by Regional Institute of Education, NCERT, Bhubaneswar on a five-day workshop on "Professional Development of Teachers from SC/ST dominated areas through e-learning resource material in Biology at Higher Secondary level" from 1st Nov 2014 to 5th Nov 2014 and developed a e – learning material on 'Enzymes'.
 - 3. Deputed as a resource person by Regional Institute of Education, NCERT, Bhubaneswar on a five-day teachers training programme of Higher secondary level of Jharkhand for "Development e-learning resource material in Biology at Higher Secondary level" from 4th Feb 2015 to 8th Feb 2015 and delivered on topic 'Respiration in Plants'.