CURRICULUM VITAE: Dr. Anju Patel
E-mail: anju.patel@nbri.res.in

Academic Credentials:

- PhD: (8.2 CGPA: course work): Thesis Awarded on June 2016 from Jawaharlal Nehru University (New-Delhi). Research Work Done at: CSIR- Central Institute of Medicinal and Aromatic Plants.
  Ph.D. Thesis Title: *"Tolerance of selected aromatic crops to tannery waste sludge mediated heavy metal polluted soils: special reference to chromium vis-à-vis toxicological evaluation".*
- M. Sc. (2009) (71.55%): Environmental Science from Babasaheb Bhimrao Ambedkar University (Central University)
  Dissertation Thesis: "*Assessment of Aeronautic Industrial effluent by bioassay."*

Publications

- **Patel, Anju.,** Pandey, V., Patra, D. D. 2016. Metal absorption properties of *Mentha spicata* grown under tannery sludge amended soil- its effect on antioxidant system and oil quality. **Chemosphere**, 147: 67-73. Impact Factor: 3.854 doi:10.1016/j.chemosphere.2015.12.097.
- **Patel, Anju.,** Pandey, V., Patra, D. D. 2015. Influence of tannery sludge on oil yield, metal uptake and antioxidant activities of Ocimum basilicum L. grown in two different soils. **Ecological Engineering**, 83, 422-430. Impact Factor: 3.23 doi:10.1016/j.ecoleng.2015.06.046
- **Patel, Anju.,** Patra, D. D. 2015. Effect of tannery sludge amended soil on glutathione activity of four aromatic crops: *Tagetes minuta, Pelargonium graveolens, Ocimum basilicum and Mentha spicata*. **Ecological Engineering**, 81, 348-352. Impact Factor: 3.23 doi:10.1016/j.ecoleng.2015.04.070
- **Patel, Anju.,** Patra, D.D., 2014. Phytoextraction capacity of *Pelargonium graveolens* L'Hér. grown on soil amended with tannery sludge – Its effect on the antioxidant activity and oil yield. **Ecological Engineering** 74, 20-27. Impact Factor: 3.23 doi:10.1016/j.ecoleng.2014.10.013
- **Patel, Anju.,** Patra, D.D., 2014. Influence of heavy metal rich tannery sludge on soil enzymes vis-à-vis growth of *Tagetes minuta*, an essential oil bearing crop. **Chemosphere** 112, 323–332. Impact Factor: 3.854 doi:10.1016/j.chemosphere.2014.04.063
- Pandey, V., **Patel, Anju**, & Patra, D. D. (2016). Integrated nutrient regimes ameliorate crop productivity, nutritive value, antioxidant activity and volatiles in basil (Ocimum basilicum L.). **Industrial Crops and Products**, 87, 124-131. Impact Factor: 3.449 doi:10.1016/j.indcrop.2016.04.035
- Pandey, V., **Patel, Anju,** Patra, D. D. 2016. Biochar ameliorates crop productivity, soil fertility, essential oil yield and aroma profiling in basil (*Ocimum basilicum* L.). **Ecological Engineering** 90, 361–366. Impact Factor: 3.23 doi:10.1016/j.ecoleng.2016.01.020
- Pandey, V., **Patel, Anju,** Patra, D. D. 2015. Amelioration of mineral nutrition, productivity, antioxidant activity and aroma profile in marigold (Tagetes minuta L.) with organic and chemical fertilization. **Industrial Crops and Products**, 76, 378–385. Impact Factor: 3.449 doi:10.1016/j.indcrop.2015.07.023

Book Chapter: "A sustainable approach to clean contaminated land by using terrestrial grasses" - Author Anju Patel and D.D. Patra. Book title "Phytoremediation Potential of Bioenergy Plants" Springer (2017). ISBN 978-981-10-3084-0, Chapter 12, 305-331.

Book Chapter: "Biochar Mitigates Salinity Stress in Plants"- Author name Anju Patel, P khare and DD Patra. Book Title Plant Adaptation Strategies in Changing Environment, 153-182 Springer (2017) ISBN 978-981-10-6743-3

Presentations and Conference attended

- Oral Presentation on the topic "Uptake of chromium in Mentha Spicata & its effect on soil enzymes under tannery sludge amended soil" in National seminar on Forest, water and climate change, March 21 2018, organized by IGCHEEPS, University of Rajasthan, Jaipur.
- Oral Presentation on the topic "Metal absorption capacity of *Bacopa Monnieri* grown on tannery sludge contaminated soil" in International conference 3rd Envirotech Asia International exhibition and conference at Bombay exhibition center, Mumbai (22-24 Nov, 2017)
- Participated in International conference on Medicinal plants for affordable new generation healthcare (March 20-22, 2015) organized by CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow, India.
- Oral presentation in International conference on environmental technology and sustainable development: challenges and remedies (21-23 Feb, 2014) organized by Department of Environmental Science, Babasaheb Bhimrao Ambedkar University (Central University) Lucknow, India
- Oral presentation in National conference on Environmental constraints, conservation and resource development of medicinal plants for health and societal benefits (21-23 March 2014) organized by School of Environment and Natural Resource, Doon University, Dehradun.

Positions Held

Currently working as a Scientist in CSIR-NBRI, Lucknow. Also worked as an "Assistant Professor" (School of Earth Sciences) in Banasthali Vidyapith, Rajasthan (July 2016 to Oct. 2020). I also worked as a Junior Research Fellow (JRF) at CSIR-Central Institute of Medicinal and Aromatic Plants for two years (2011-2013) and as a Senior Research Fellow (SRF) at CSIR- Central Institute of Medicinal and Aromatic Plants for more than two years (2013-April 2016).

Scientific Focus Areas

- Solid waste management and Environmental legislation
- Worked on soil quality parameters and soil enzymes
- Worked on various antioxidant of plants and photosynthesis and other biochemical process and intermediate compounds
- Metals (Cr, Cd, Co, Ni and Pb) toxicity and its effect on plants and soil microorganism
- Worked on Phytoremediation of tannery sludge
- Worked on aromatic plant and oil analysis
- Worked in various instruments like ICP-OES, CHNS, Flame photometer, UV-VIS spectrophotometer etc.

Academic awards and honors

Qualified UGC-NET JRF in June 2010.
Best Paper award in CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP) 2014.

References:

Prof. D.D. Patra (Vice-Chancellor) Bidhan Chandra Krishi Viswa Vidyalaya, Nadia, West Bengal
(E-Mail id: ddpatra@rediffmail.com)
Dr. Puja Khare (Senior Scientist) Agronomy and Soil Science Division, CSIR-CIMAP, Lucknow
(E-Mail id: kharepuja@rediffmail.com)

Name Anju Patel ***Place: Lucknow, India***