

# Abhilasha Tripathi



## Contact

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**DOB:**

16 December 1990

## Languages

English

Hindi

French- C1

I have **5.5 years** of research experience. I foresee the agricultural residues as a highly potent material to solve few existing environmental issues. The capacity of agricultural residues needs to be explored further and recognize them as resource.

## Professional Summary

- Currently working as a **Research Scholar** at **IIT Kanpur** under the supervision of **Dr. Purnendu Bose** (Professor, CE). My research topic is about preparing a biochar-based fertilizer using rice straw biomass. The aim of research is to find a valuable substitute for open air burning. The final product will not only save open air burning but also help in retaining nutrient and recalcitrant carbon for a longer duration in soil.
- I am also working on the editing of **International Biochar Initiative (IBI) newsletter** (monthly issue) in supervision of Editor, **Robert Gillet** (Maryland, USA) (Dec, 2019- Present).

## Experience

**Research Intern:** 08/2015 to 12/2015

**TERI University**, New Delhi

- Worked on the write up of DST project proposal of "Co- digestion of OFMSW with sewage sludge for enhancement of methane content of biogas." under the guidance of **Dr. Vinay Tyagi**.

## Education

Pursuing Ph.D. in **Environmental Engg.** (Dec,2015 - present)

**IIT Kanpur**

**CPI: 8**

M.Tech. **Environmental Engineering and Management** (2013-15)

**Pondicherry Central University**, Pondicherry

**CPI: 9.06**

B. Tech **Agriculture Engineering** (2009-13)

**Sam Higginbottom Inst. Of Agri. Tech. and Sciences (formerly AAIDU)**, Allahabad

**CPI: 9.8**

CLASS XII (2008)

**Dr. Virendra Swarup Senior Secondary School**

**Percentage: 69**

Honours in Physics and Chemistry

CLASS X (2006)

**Dr. Virendra Swarup Platinum Jubilee School**

**Percentage: 74.1**

Honours in Math, Science, English, Social Science

## Scholarship

Qualified **UGC- NET JRF (Environmental Science)** December, 2015

## Research Experience

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- B.Tech Final Year Project: **Quality analysis of starch extracted from local cultivars of Corn of Allahabad Dist.**
- M.Tech Final Year Project: **Evaluation of treatability of wastewater by *Eichhornia crassipes* in a modified SHEFROL (Sheet Flow Root Level) reactor and its performance against the former design.**
  - The project involved the redesigning of the SHEFROL reactor for expected rise in inflow of waste water.
  - The assessment of functionality of reactor by utilizing *Eichhornia crassipes* and physico chemical analysis of wastewater at influent and effluent.
- Study of **Phosphate uptake capacity of Mg modified corn cob biochar.**
- Lab Instruments:
  - **SEM** (Scanning electron microscope) training in a workshop conducted at ACMS, IIT Kanpur (Dec, 2018).
  - **XRD** (X- Ray diffractometer) analyzer
  - **TOC** (Total Organic carbon) analyzer
  - **Spectrophotometer**

## Conference and Workshops

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- Attended national seminar on '**Application of sensory science to food product development and quality evaluation**' at **AAIDU**. (April, 2013)
- Presented in the special session of "**GREEN UPDATES, Pondicherry University**" on the occasion of "**Wetland day celebration**" (Feb, 2015)
- Presented on the topic "**Sustainable design and Biomimetic**" in the session of "**GREEN UPDATES, Pondicherry University**" (Feb, 2015)
- Presented the research work titled as "**Use of Corn-Cob biochar for soil quality Enhancement.**" at **SRC IIT Kanpur**. (Jan, 2018)
- Presented the research work titled as "**Development of MgO modified rice straw biochar-based beads for phosphorus retention and controlled release**" at **IBI Biochar world congress, Korea University, Seoul, South Korea** (Nov, 2019) (**Funded by IIT Kanpur**)
- Presented the research work titled as "**Magnesium modified rice straw biochar-based alginate beads for phosphate fertilization of *Cicer arietinum* plants**" at **Green Carbon Webinar** organized by **UK Biochar Research Centre, University of Edinburgh, Scotland** (April, 2020)

## Training

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- One-month **AutoCAD** training at **CADD centre, Kanpur** (June, 2011)
- 5 days **Mushroom plantation training** at **CSA, Kanpur** (Jan, 2011)
- One month training at **CFMT&TI (TTC), Tractor Nagar, Budni, M.P.** (June 2012)
- Summer Training at **Ganesha Polytex Ltd.** regarding the fibre manufacture from P.E.T. and Effluent treatment plants for wastewater treatment, near Rania, Kanpur. (May 2014)
- Summer Training at **Leayan Global pvt. Ltd.** regarding the manufacture of leather, Chrome recovery and Effluent treatment plant for wastewater treatment, Leather Technology Park, Banthr, Unnao. (June 2014)

## Membership

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- **International Biochar Initiative (IBI)** (<https://biochar-international.org/>) member (since Dec, 2019)

## Position of Responsibility

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- Member of organizing committee of **Amrutham- 14** (World water day celebration) at Pondicherry University. (March, 2014)
- Organized debates, quiz, extempore etc. during sessions (weekly sessions) of **Coffee Club** at **Pondicherry Central University** (2013-15)
- Coordinator at **Engineers day** and **Green updates (fortnightly organized)** as part of Industry Center Interface at Center for pollution control at **Pondicherry Central University** (2013-15)
- Member of organizing team at **International Yoga day** at **IIT Kanpur** organized on 21 June 2019.
- **Teaching Assistant** for UG and PG courses in **IIT Kanpur**.

## Extra- Curricular Activities

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- **'B' (2011)** and **'C' (2012)** certificate in **NCC** qualified with **'B' grade**.
- **2nd prize Basket Ball** competition at **BHU (SPARDHA' 11)**.
- Volunteered as a **Mathematics teacher** for **class X (2017)** and **XII (2019)** at **Prayas, IIT Kanpur** (<https://www.iitk.ac.in/dora/prayas>).